Uranium and Thorium Occurrences in New Mexico: Distribution, Geology, Production, and Resources, with Selected Bibliography

by

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Abstract

Uranium and thorium in New Mexico are found in rocks of all ages and lithologies, from Precambrian granites to recent travertine deposits. They occur in sandstones, coals, limestones, shales, igneous and metamorphic rocks, pegmatites, veins, volcanic rocks, and breccia pipes. Over 1,300 uranium and thorium occurrences are found in over 100 formational units in all but two counties, in all 1- by 2-degree topographic quadrangles, and in all four geographic provences in New Mexico.

Uranium production in New Mexico has surpassed yearly production from all other states since 1956. Over 200 mines in 18 counties in New Mexico have produced 163,010 tons (147,830 metric tons) of U_3O_8 from 1948 to 1982, 40% of the total uranium production in the United States. More than 99% of this production has come from sedimentary rocks in the San Juan Basin area in northwestern New Mexico; 96% has come from the Morrison Formation alone.

All of the uranium reserves and the majority of the potential uranium resources in New Mexico are in the Grants uranium district. About 112,500 tons (102,058 metric tons) of \$30 per pound of U_3O_8 reserves are in the San Juan Basin, about 55% of the total \$30 reserves in the United States. Thorium reserves and resources in New Mexico have not been adequately evaluated and are unknown.

Over 1,300 uranium and thorium occurrences are described in this report, about 400 of these have been examined in the field by the author. The occurrence descriptions include information

on location, commodities, production, development, geology, and classification. Over 1,000 citations are included in the bibliography and referenced in the occurrence descriptions. Production statistics for uranium mines that operated from 1948 to 1970 are also included. Mines that operated after 1970 are classified into production categories.

This compilation and study of uranium and thorium occurrences is required in establishing a data base which can be used by health and safety personnel, government agencies in planning impact studies, uranium geologists, mineralogists, and the general public. The genesis and origin of uranium mineralization in the Grants uranium district in New Mexico may be better understood with such a data base.

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Introduction

Purpose and Scope

Uranium production in New Mexico has surpassed production from all other states in the U.S. since 1956. Over 200 mines in 18 counties in New Mexico have produced 163,010 tons (147,880 metric tons) of U_3O_8 from 1948 to 1982, 40% of the total uranium production in the U.S. However, much of the information concerning individual mine production statistics, geology, history of development, and occasionally actual location is widely scattered in published reports and state and federal government unpublished documents, many of which had been previously classified or otherwise unavailable to the general public. Many uranium and thorium occurrences are described only in these obscure reports.

The primary objectives of this report are (1) to present a summary of this information, (2) to compile all known uranium and thorium occurrences in New Mexico, and (3) to compile a selected bibliography of reports pertaining to uranium and thorium geology in New Mexico. The first part of this report summarizes the geology, types, and distribution of uranium and thorium in New Mexico according to classification of deposits. Production statistics for individual mines operating from 1948 to 1970 are tabulated in Appendix 3 (Table 3-1). Production statistics for individual mines operating after 1970 are confidential; these mines are grouped into production classes, and are also listed in Appendix 3 (Table 3-2). Production, reserves, and potential are briefly discussed in the first portion of this report.

A descriptive compilation of all known uranium and thorium occurrences, prospects, deposits, and mines in New Mexico is in Appendix 1 of this report. This compilation is the most comprehensive tabulation of naturally occurring uranium and thorium occurrences in New Mexico to date. For the purposes of this report, an occurrence is defined as (1) any locality where uranium or thorium mineralization is reported to occur or produced; (2) where uranium or thorium concentration exceeds 0.001%; or (3) where radioactivity is twice the background radioactivity. Any locality that has been developed, but not produced is considered a prospect. A deposit is any delineated ore body of economic or subeconomic size. A mine is any locality that has produced uranium or thorium. The occurrences are arranged in alphabetical order by county and indexed according to aliases, numerical order, mining districts, and 1- by 2-degree topographic quadrangles. In addition each occurrence or group of occurrences is plotted on a state map (Fig. 1) and county maps (Appendix 1; Figs. 1-5 to 1-33). The major emphasis is on geology, production, extent of development, and geographic location; less emphasis is placed on genesis of mineralization. Chemical analyses of samples collected during field reconnaissance are listed collectively in Appendix 2.

A selected bibliography of over 1,000 citations of reports pertaining to uranium and thorium geology that have been published since 1972 or have been declassified and released since 1972 comprises Appendix 4. Most pre-1972 publications pertaining to uranium geology of the Grants uranium district are included in an annotated bibliography by F. A. Schilling, Jr. (1975). The bibliography in this report is an attempt to add reports not cited in Schilling's (1975) annotated bibliography, although many reports are cited in both bibliographies. Maps, articles, and other reports not specifically pertaining to uranium geology may be included in this bibliography because they describe the general geology of an occurrence or group of occurrences in Appendix 1. All references cited in the text and appendices of this report are cited in the Bibliography in Appendix 4.

A compilation and study of uranium and thorium occurrences is required for establishing a data base which can be used by health and safety personnel, government agencies in planning impact studies, uranium geologists, mineralogists, and the general public. The genesis of uranium mineralization in the Grants uranium district in New Mexico can be addressed and perhaps better understood with such a data base. Exploration of new ore bodies can be achieved only with such a data base. This report has provided such a source of information.

Previous Work

Previous compilations of uranium and thorium occurrences in New Mexico are limited and generally incomplete. The earliest compilations consist of geologic reports of radium occurrences originally found in the early 1920's; some of these reports are by Fischer (1937, 1943), A. H. Coleman (1944), Harder and Wyant (1944), Harder and Stead (1945), Keith (1944, 1945a, b), and Stokes (1951). Later compilations by Hilpert and Corey (1955), E. C. Anderson (1955, 1957), and Chew (1956) list and locate major uranium occurrences and mines known by the mid-1950's. The first descriptive and fairly complete compilations of uranium occurrences in northwestern New Mexico were by Hilpert and Corey (1955) and Hilpert (1965, 1969); in these reports over 500 uranium occurrences were described. About 200 abandoned uranium mines and prospects in New Mexico were examined by O. J. Anderson (1980) of the New Mexico Bureau of Mines and Mineral Resources for the New Mexico Abandoned Mine Lands (AML) program. This project was the first compilation of abandoned uranium mines in the entire state.

Many regional studies of uranium and thorium occurrences were reported by numerous authors, including Chenoweth (1957a, 1957b, 1973a, 1974a, 1974b, 1976, 1977, 1979, 1980), Bachman and others (1953), Griggs (1953), Waltman (1954), Boyd (1955), Boyd and Wolfe (1953), Moench and Schlee (1967), Tschanz and others (1954, 1958), Finch (1972), McLemore (1982a, 1982c, 1983b, 1983c), and McLemore and Menzie (1983). Additional studies by the geologists with the U.S. Atomic Energy Commission (AEC) and the U.S. Geological Survey (USGS) were completed during the 1950's and 1960's and released as TM (Technical Memorandum), RME (Raw Materials Exploration), RMO (Raw Materials Operations), TEI (Trace Elements Investigations), TEM (Trace Elements Memorandum) reports, and other miscellaneous report series. Many of these reports have only recently been made available to the general public; these reports are cited in the Bibliography by author (Appendix 4).

Thorium occurrences in New Mexico have received minor attention in the published literature. Staatz (1965, 1974) and Staatz and others (1979) briefly describe thorium occurrences in New Mexico. The thorium-bearing beach-placer sandstone deposits in the stape are described by Chenoweth (1957a), Dow and Batty (1961), Overstreet (1967), and Houston and Murphy (1977).

As part of the NURE (National Uranium Resources Evaluation) program, uranium and thorium occurrences were compiled for 13 1- by 2-degree topographic quadrangles in the state (Table 1). The New Mexico Bureau of Mines and Minral Resources evaluated two of these quadrangles, Raton and Santa Fe (Reid and others, 1980a, 1980b). Some of the HSSR (Hydrogeochemical and Stream-Sediment Reconnaissance) and ARMS (Aerial-Radiometric and Magnetic Survey) reports also list uranium occurrences (Table 1). Various additional U.S. Department of Energy (DOE) reports listing uranium and thorium occurrences are cited in the Bibliography.

Table 1 - Available 1- by 2-degree quadrangle NURE reports

1- by 2-degree quadrangle	HSSR reports	ARMS reports	NURE reports	Geologic Map 1:125,000 scale
Albuquerque	Olsen, C. E. (1977), Maassen and Bolivar (1979), Purson and others, (1981), Texas Instruments, Inc. (1982)	Geometrics (1979a)	Green and others (1980c)	USGS open-file report
Aztec	Bolivar (1978), Union Carbide Corp. (1981e)	Geodata International, Inc. (1980a) U.S. Department of Energy (1982)	Green and others (1980a)	USDOE[1]
Brownfield	Nichols and others (1976), Union Carbide Corp. (1981c)	Geodata International, Inc. (1976c)	——	Texas Atlas Map[2]
Carlsbad	Union Carbide Corp. (1981k)	Carson Helicopters, Inc. (1981e)	——	USDOE[1]
Clifton	Sharp and others (1978), Union Carbide Corp. (1981h)	Texas Instruments, Inc. (1978), U.S. Department of Energy (1982)	White and Foster (1981)	USDOE[1]
Clovis	Zinkl and others (1982)	Geodata International, Inc. (1976b)	——	USDOE[1], Texas Atlas Map[2]
Dalhart	Morgan (1980)	Texas Instruments, Inc. (1980), U.S. Department of Energy (1982)	Consulting Professionals, Inc. (1980)	USDOE[1], Texas Atlas Map[2]
Douglas	Sharp and others (1978), Union Carbide Corp. (1981a)	Texas Instruments, Inc. (1978)	May and others (1981)	USDOE[1]
El Paso	——	Carson Helicopters, Inc. (1981b)	——	USDOE[1]
Ft. Sumner	Olsen, C. E. (1977), Union Carbide Corp. (1981j)	Carson Helicopters, Inc. (1981d)	——	USDOE[1], Texas Atlas Map[2], Kelley, V. C. (1972)
Gallup	Maassen and others (1980), Purson and others (1981)	Geometrics (1979a), U.S. Department of Energy (1982)	Green and others (1980b)	Hackman and Olson (1977)
Hobbs	Warren and Nunes (1978), Union Carbide Corp. (1981b)	Geodata International, Inc. (1980b)	——	Texas Atlas Map[2]
Las Cruces	LaDelfe (1981), Union Carbide Corp. (1981L)	Carson Helicopters, Inc. (1981c)	——	USDOE[1], Seager (1982)
Raton	Morgan and Broxton (1978), Union Carbide Corp. (1981g)	Geometrics, Inc. (1979a), U.S. Department of Energy (1982)	Reid and others (1980b)	USDOE[1]
Roswell	Union Carbide Corp. (1981i)	Carson Helicopters, Inc. (1981d)	——	USDOE[1]
Saint Johns	Sharp and others (1978), Maassen and others (1980), Morgan (1981)	Texas Instruments, Inc. (1979a)	May and others (1980)	USDOE[1]
Santa Fe	Olsen, C. E. (1977), Bolivar (1980)	Geometrics (1979b), U.S. Department of Energy (1982)	Reid and others (1980a)	USDOE[1]
Shiprock	Morgan and others (1980)	Geometrics (1979a), U.S. Department of Energy (1982)	Green and others (1980d)	O'Sullivan and Beikman (1963)
Silver City	Sharp and others (1978), Union Carbide Corp. (1981d)	Texas Instruments, Inc. (1978), U.S. Department of Energy (1982)	O'Neill and Thiede (1981)	USDOE[1]
Socorro	Olsen, C. E. (1977), Planner (1980), Morgan and others (1981)	Geodata International, Inc. (1979b), U.S. Department of Energy (1982)	Pierson and others (1981)	Machette (1978)
Tucumcari	Langfeldt and others (1981)	Geodata International, Inc. (1976a)	——	USDOE[1], Texas Atlas Map[2]
Tularosa	Broxton (1978), LaDelfe (1981), Union Carbide Corp. (1981f)	Geodata International, Inc. (1979a) U.S. Department of Energy (1982)	Berry and others (1980)	USDOE[1]

1 - Geologic map by USDOE (U.S. Department of Energy) is blackline print and available at New Mexico Bureau of Mines and Mineral Resources; also included in most ARMS reports

2 - Geologic Atlas Map of Texas series from Texas Bureau of Economic Geology

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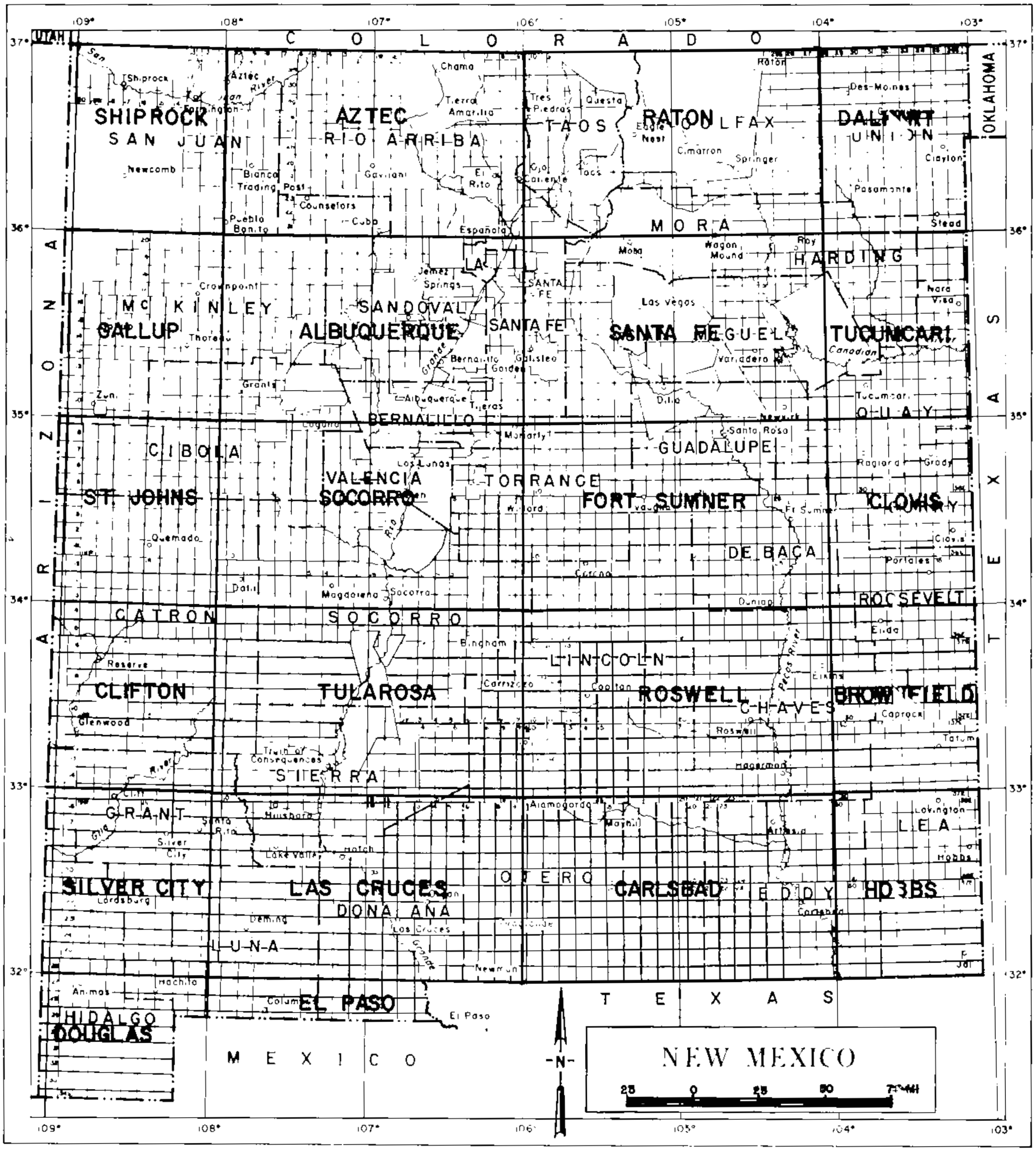

FIGURE 2- 1-BY 2-DEGREE TOPOGRAPHIC QUADRANGLES IN NEW MEXICO

Methods of Investigation and Sources of Information

Information presented in this report was obtained from a large number of sources, including (1) published and unpublished reports cited in appendix 4, (2) AEC Preliminary Reconnaissance Reports, (3) AEC uranium production records for New Mexico for the years 1948 to 1970, (4) CRIB (Computerized Resource Information Bank-USGS), (5) MILS (Mineral Industry Location Survey-U.S. Bureau of Mines), (6) DMEA (Defense Minerals Exploration Administration) reports of the U.S. Bureau of Mines (USBM), (7) U.S. Bureau of Land Management (BLM) reports, (8) New Mexico Abandoned Mine Lands (AML) files, (9) miscellaneous state and federal government files, and (10) field reconnaissance.

Much of the information on uranium and thorium occurrences in New Mexico was obtained through an extensive literature search. Most of these reports are cited in the descriptions of occurrences (Appendix 1); the complete citations are in Appendix 4. The citations were compiled from a large number of sources including bibliographies and mapping indexes listed in Appendix 6. "Publications available from New Mexico Bureau of Mines and Mineral Resources", "Publications of the U.S. Geological Survey", "Publications of the U.S. Bureau of Mines", DOE News Releases, and DOE lists of reports were invaluable aids in obtaining citations of reports issued by these organizations. Card catalog files at the libraries at New Mexico Institute of Mining and Technology (Socorro) and University of New Mexico (Albuquerque) enabled the author to obtain published and unpublished reports and M.S. and Ph.D. theses and dissertations. The citations of these reports are included in the Bibliography (Appendix 4).

A major source of information on uranium and thorium occurrences in New Mexico is the Preliminary Reconnaissance Reports (PRR's) of the AEC and USGS. These reports are one- to three-page reports of field investigations of reported uranium occurrences completed in the 1950's, and were originally intended for government use only. However, in 1966 the AEC open-filed all known PRR's as PB-172678 through PB-172702 (arranged by county-U.S. Atomic Energy Commission, 1966b-1966z). Additional PRR's for New Mexico were found in AEC field office files, and in 1970 these reports were released as RME-160 (U.S. Atomic Energy Commission, 1970). In October 1980 and June 1982, additional PRR's in the Grand Junction (Colorado) and Albuquerque (New Mexico--now closed) offices of DOE were located that had not been previously open-filed. Copies of all known PRR's are on file at New Mexico Bureau of Mines and Mineral Resources (Socorro). These PRR's are tabulated in Appendix 5. The PRR's are cited in the occurrence descriptions (Appendix 1) by report number prefixed with PRR (i.e. PRR DEB-465) followed by the year in parenthesis, or as U.S. Atomic Energy Commission (1970). Most of the uranium produced from 1948 to 1970 was sold to the federal government; these production records are now public information.

The CRIB (Computerized Resource Information Bank) and MILS (Mineral Industry Location Survey) were used as additional sources of information. CRIB provides a summary of geology, production, exploration, and reserves on major mines, including uranium mines, in New Mexico. MILS provides location and commodity information on most prospects and mines in the state. The New Mexico Bureau of Mines and Mineral Resources, under the supervision of Robert Eveleth, was involved with both of these programs; this information is on file at the New Mexico Bureau of Mines and Mineral Resources (Socorro).

As part of the CRIB and MILS program, the New Mexico Bureau of Mines and Mineral Resources was able to obtain copies of some USBM DMEA (Defense Minerals Exploration Administration) reports. DMEA reports were required on all properties whose owners or operators applied for government loans to be used for exploration of various defense-related minerals, including uranium and thorium. These reports vary in type of information and quality; however, they generally provide accurate information on location, development, and host rock. Unfortunately, these reports are company confidential and are for New Mexico Bureau of Mines and Mineral Resources use only. They are cited in the occurrence descriptions as USBM files followed by year in parentheses.

Various mineral files and unpublished reports from the BLM, AML, and New Mexico State Inspector of Mines occassionally include location lists and descriptions of uranium and thorium occurrences. The DOE (Grand Junction and Albuquerque offices) provided the author with information from some of their comprehensive files on uranium and thorium occurrences, mines, and deposits. Additional information was obtained from New Mexico Bureau of Mines and Mineral Resources files.

Field reconnaissance of nearly 400 occurrences by the author during 1980-1983 provided accurate information on the geology and development. Most of these field investigations were reconnaissance only. All of the major uranium mining districts and areas were examined during the course of the field work.

Classification of Uranium and Thorium Deposits

A classification scheme which involves most types of uranium deposits was established by the NURE program (Mathews and others, 1979; Mickle, 1978; Mickle and Mathews, 1978). Uranium deposits in this scheme are characterized as (1) deposits in sedimentary rocks, (2) deposits in intrusive igneous and metamorphic rocks, (3) deposits in volcanic rocks, and (4) deposits of uncertain origin; they are further classified as to type of deposit (Table 2). This classification as described by Mathews and others (1979), Mickle (1978), and Mickle and Mathews (1978) is used in this report with a few exceptions. Uranium deposits in igneous and metamorphic rocks are subdivided into five types for the purposes of this report instead of the eight types proposed by the NURE classification (Table 2). Magmatic-hydrothermal, Authigenic, and Allogenic deposits are termed Hydrothermal-vein deposits in this report, and Contact-metasomatic and Autometasomatic deposits are termed Contact-metasomatic (Table 2). Many hydrothermal-vein deposits in this report probably belong to another type of deposit; however, insufficient information is available to adequately classify them otherwise than as Hydrothermal-vein deposits. Deposits in volcanic rocks are not subdivided as to type in this report, but are termed Volcanogenic deposits. Two additional deposits are differentiated in this report as Deposits of Uncertain Origin;

Table 2 - Classification of uranium and thorium deposits used by the U.S. Department of Energy (NURE program) and in this report

CLASS	TYPE (NURE)	TYPE (This Report)
Deposit in Sedimentary rocks	Sandstone	Sandstone
	roll-type	roll-type
	tabular	tabular
	Beach (or river) Placer Sandstone	Beach (or river) Placer Sandstone
	Quartz-pebble conglomerate	Quartz-pebble conglomerate
	Marine black shale	Marine black shale
	Phosphorite	Phosphorite
	Lignite, coal, and nonmarine shale	Lignite, coal, and nonmarine shale
	Evaporative precipitates-calcretes	Evaporative precipitates-calcretes
	Limestone	Limestone
Deposits in igneous and metamorphic rocks	Orthomagmatic	Orthomagmatic
	Pematitic	Pematitic
	Magmatic-hydrothermal	Hydrothermal-vein
	Contact-metasomatic	Contact-metasomatic
	Autometasomatic	Anatectic
	Authigenic	
	Allogenic	
	Anatectic	
Deposits in volcanic rocks	Initial-magmatic	Volcanogenic deposits
	Pneumatogenic	
	Hydroauthigenic	
	Hydroallogenic	
Deposits of uncertain origin	Unconformity-related deposits	Unconformity deposits
	Vein-type in sedimentary rocks	Vein-type in sedimentary rocks
	Vein-type in metamorphic rocks	Vein-type in metamorphic rocks
		Deposits in diatremes
		Breccia-pipe deposits

they are Deposits in diatremes and Breccia-pipe deposits. Deposits in diatremes are described by Scarborough (1981), Shoemaker (1956a), and Green and others (1980b). Deposits in breccia-pipes are described by Gornitz and Kerr (1970), Scarborough (1981), and Wylie (1963). This same classification is used to classify thorium deposits.

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It is difficult to acknowledge all of the people who have assisted and contributed time and materials during the course of this work. Foremost, I would like to thank Frank Kottlowski (Director of the New Mexico Bureau of Mines and Mineral Resources) for his support and encourgement throughout the term of this project. William Chenoweth (U.S. Department of Energy) acted as Technical Monitor of this project and provided much of the background information, production statistics, field notes, and general data. Harlen Holen (U.S. Department of Energy) also provided a large amount of information and materials.

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Several mining companies allowed field examination of their properties and some of the companies sent a geologist to accompany me in the field. In particular, I would like to acknowledge the help of Timothy Tessendorf (Reserve Oil and Minerals Corp.), Bob Lynn and Bob George (Anaconda), Al Zimmerman and Art Geabue (Kerr McGee Corp.), Torreon Olson (Todilto

Exploration and Development, Corp.), Keith Rosvold and Robert Peets (Western Nuclear), Joseph Kolessar (Phelps Dodge Corp.), Embree H. Hale, Jr. (Marjory Mine), and H. N. LaRue and Sons (Smokey Mine). Discussions with Irving Rapaport (Four Corners Exploration Co.), Konnie Andrews (U.S. Bureau of Land Management), and William Hatchell (New Mexico Energy and Minerals Dept.) were particularly helpful. Members of the U.S. Geological Survey (Morris Green, William Albrey, Christine Turner-Peterson, Neil Fishman, Alan Kirk, Don Myers, Mortimer Staatz, and David Hedlund) kindly provided information and stimulating discussions in their areas of expertise; many of these individuals spent some time in the field examining the stratigraphy and mineralization in the Grants uranium district and Scholle area in Torrance County. Craig Goodknight and James Dexter (Bendix Field Engineering Corp.) spent time in the field examining the Tusas Mountains and Costilla Massif area in northern New Mexico. Craig Goodknight also provided the author with additional information on various uranium occurrences in northern New Mexico.

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Uranium and Thorium Production in New Mexico

Uranium production in New Mexico has surpassed yearly production from all other states since 1956 (U.S. Department of Energy, Statistical data of the uranium industry, 1969 to 1982). Over 200 mines (Appendix 3) in New Mexico have produced 162,010 tons (146,973 metric tons) of U_3O_8 from 1948 to 1982, 40% of the total United States uranium product (Table 3). Over 99% of this production has come from sedimentary deposits in the Grants uranium district in northwestern New Mexico. Uranium production also has come from sandstone, vein-type, hydrothermal-vein, and pegmatite deposits scattered throughout the state (Fig. 1).

From 1948 through 1970, the U.S. Atomic Energy Commission purchased most of the uranium ore produced in New Mexico, although minor amounts of ore may have been sold to chemical companies. Production statistics for individual mines from 1948 through 1970 have been released to the public; these production figures are tabulated in Appendix 3 (Table 3-1). Yearly production figures have been compiled by the U.S. Atomic Energy Commission (AEC) and succeeding agencies, the U.S. Energy Research and Development Administration (ERDA) and the U.S. Department of Energy (DOE); they are tabulated in Table 3. Production by area and host rock is given in Table 4.

Table 3 - Uranium ore production in New Mexico from 1948 to 1982 (U.S. Department of Energy, Statistical Data of the Uranium Energy, 1968-1982; U.S. Atomic Energy Commission ore and mill receipts tabulated by William Chenoweth and Elizabeth Learned, USDOE). 1) Includes only ore mined in New Mexico; does not include production from in-situ leach, mine water, or heap leach. Ore production from 1948 to 1970 includes only "pay" and "no-pay" ore received by the AEC. The AEC did not pay for shipments less than 0.10% U_3O_8; hence, these shipments were known as "no-pay" ores. 2) Includes production from in-situ leach, mine water, and heap leach. Also includes some concentrate production that was mined out of state. 3) Yearly average price of uranium not spot or market price. 4) Number of producing properties may vary in accordance with the definition of a particular property. For example, Anaconda's Jackpile-Paguate mine is considered one property. 5) New Mexico 1948 and 1949 production was entirely from Carrizo Mountains in San Juan County.

	ORE RECEIVED AT MILLS AND BUYING STATIONS[1]					CONCENTRATE PRODUCTION FROM MILLS OPERATING IN NEW MEXICO[2]					
Calendar year	Tons of U_3O_8 in New Mexico	Grade % U_3O_8	Tons of U_3O_8 in U.S.	Grade % U_3O_8	New Mexico as % U.S. total	Tons of U_3O_8 in New Mexico	Tons of U_3O_8 in U.S.	New Mexico as % U.S. total	Average price per pound U_3O_8 (dollars)[3]	Number of properties in New Mexico	Number of operators
1948	4[5]	0.29	80	0.26	5	—	102	—	7.50	8	1
1949	8[5]	0.17	500	0.29	2	—	177	—	8.77	12	1
1950	11	0.32	800	0.32	1	—	459	—	10.76	19	12
1951	11	0.24	1,100	0.32	1	—	766	—	10.30	19	17
1952	34	0.20	1,300	0.30	3	—	874	—	11.85	37	31
1953	215	0.25	2,300	0.31	9	9	1,163	1	12.27	50	36
1954	666	0.35	3,500	0.32	19	181	1,700	11	12.43	59	45
1955	618	0.23	4,400	0.29	14	847	2,784	30	11.94	68	58
1956	2,888	0.26	8,400	0.28	34	2,891	5,958	49	11.10	58	51
1957	2,585	0.22	9,800	0.27	26	2,534	8,482	30	9.82	55	49
1958	4,032	0.21	14,000	0.27	29	3,604	12,437	29	8.86	53	44
1959	6,982	0.21	17,400	0.25	40	6,772	16,239	42	8.64	60	41
1960	7,892	0.21	18,800	0.23	42	7,760	17,637	44	8.35	57	41
1961	7,848	0.22	18,500	0.23	42	7,750	17,348	45	7.88	57	34
1962	7,894	0.23	17,100	0.24	46	7,293	17,008	43	7.92	57	30
1963	5,132	0.22	14,700	0.25	35	5,512	14,217	39	8.00	46	33
1964	4,716	0.23	13,900	0.26	34	4,747	11,846	40	8.00	42	29
1965	4,709	0.23	10,500	0.24	44	4,591	10,442	44	8.00	36	20
1966	4,892	0.24	9,900	0.23	48	5,076	10,589	48	8.00	41	21
1967	5,816	0.21	10,900	0.21	53	5,933	11,253	53	8.00	33	13
1968	6,443	0.20	12,800	0.21	50	6,192	12,368	50	8.00	31	12
1969	6,210	0.20	12,600	0.20	49	5,943	11,609	51	5.86	29	11
1970	6,057	0.21	13,100	0.20	46	5,771	12,905	45	5.56	32	12
1971	5,594	0.23	13,100	0.21	43	5,305	12,273	43	—	29	9
1972	5,722	0.25	13,900	0.21	41	5,464	12,900	42	—	34	11
1973	4,984	0.23	13,800	0.20	36	4,634	13,235	35	7.10	26	6
1974	5,435	0.18	12,600	0.18	43	4,951	11,528	43	7.90	23	5
1975	5,484	0.18	12,300	0.16	45	5,191	11,600	45	10.50	25	8
1976	6,485	0.19	14,000	0.15	46	6,059	12,747	48	16.10	32	14
1977	7,586	0.18	16,700	0.15	45	6,779	14,940	45	19.75	36	12
1978	9,371	0.15	20,200	0.13	46	8,539	18,490	46	21.60	41	15
1979	8,198	0.12	20,700	0.11	40	7,423	18,730	40	23.85	43	13
1980	8,160	0.12	23,300	0.12	35	7,751	21,850	35	28.15	50	14
1981	6,573	0.12	19,600	0.11	34	6,206	19,240	32	28.70	39	13
1982	3,755	0.18	10,520	0.12	36	3,906	13,430	29	32.41	28	10
TOTAL	163,010		407,100		40	155,614	379,326	41			

Table 4 - Uranium production in New Mexico from 1948 to 1982 by area and host rock.

AREA	HOST FORMATION	PRODUCTION (Pounds of U_3O_8)	PERIOD
COLORADO PLATEAU			
Nacimiento, Farmington	Ojo Alamo, Fruitland, Dakota, Morrison, Todilto, Chinle, and Cutler Formations	2,298	1954-1959
Shiprock			
Carrizo Mountains and Sanostee	Salt Wash Member[1]	160,772	1948-1968
Sanostee	Recapture Member[1]	335,000[2]	1951-1982[5]
	Todilto Limestone	14	1954
Grants uranium district	Dakota Sandstone[3]	512,917	1951-1970
	Morrison Formation (Brushy Basin and Westwater Canyon, and Recapture Members, Jackpile sandstone, and Poison Canyon Sandstone)	313,690,000[2]	1951-1982
	Breccia Pipe[3]	134,014	1953-1956
	Todilto Limestone[4]	6,736,000[2]	1950-1982
	Mine Water	4,113,000[2]	1963-1982
Red Basin area, Catron County	Mesa Verde Group (Crevasse Canyon Formation)	1,194	1954-1957
	SUB TOTAL	325,685,289	1948-1982
BASIN AND RANGE[3]			
Santa Fe, Catron, and Lincoln Counties	Tertiary intrusives and volcanics (hydrothermal-vein)	27,485	1955-1966
Socorro and Sierra Counties	San Andres Limestone, Popotosa Formation, and Madera Formation (vein-type)	63,250	1953-1956
Grant, Dona Ana, and Hildago, Counties	Precambrian granites, Magdalena Group, and U-Bar Formation (hydrothermal-vein)	1,416	1953-1958
Socorro, Sierra, and Santa Fe Counties	Abo, Madera, Baca, San Jose, and Popotosa Formations (sandstone)	409	1955-1963
	SUB TOTAL	92,560	
GREAT PLAINS[3]			
Harding, Mora, Quay, and San Miguel Counties	Chinle, Sangre de Cristo, and Morrison Formations (sandstone)	183	1954-1958
SOUTHERN ROCKY MOUNTAINS[3]			
Rio Arriba and Taos Counties	Precambrian granite (hydrothermal-vein)	15	1954-1957
Rio Arriba and San Miguel Counties	Precambrian pegmatites	34	1954-1956
	SUB TOTAL	49	
	TOTAL	325,778,001	1948-1982

1 - member of the Morrison Formation

2 - approximate figures (rounded to the nearest 1,000 pounds)

3 - statistics in Appendix 3

4 - some ore mined from Entrada Sandstone

5 - intermittently during these years

Most of the uranium production in New Mexico has come from the Morrison Formation in the Grants uranium district in McKinley and Cibola (formerly Valencia) Counties (McLemore, 1983a), mainly from the Westwater Canyon Member. Annual production in New Mexico increased steadily from 1948 to 1956, from 1957 to 1960, from 1965 to 1968, and from 1973 to 1979. Peak production was attained in 1978, with a record yearly production of 9,371 tons (8,501 metric tons) of U_3O_8 shipped to mills and buying stations (Table 3).

Unfortunately, production statistics for radium and thorium are unavailable. Radium was produced from the Carrizo Mountains in San Juan County (U.S. Atomic Energy Commission files, 1942-1948); the White Signal district in Grant County (Gillerman, 1964); and the Scholle district in Torrance, Socorro, and Valencia Counties (U.S. Bureau of Mines unpublished files, 1949). Exact production figures are unknown. Thorium has never been commercially produced in New Mexico, except perhaps as a by-product of bastnaesite, samarskite, and monazite production from the Gallinas Mountains, Lincoln County (Griswold, 1959), and the Petaca district, Rio Arriba County (Jahns, 1946). Tonnages, if any, of thorium recovered from these shipments are unknown.

Uranium and Thorium Occurrences in New Mexico

Introduction

Uranium and thorium in New Mexico occurs in rocks of all ages, from Precambrian granites to Recent travertine deposits (Appendix 1). Radioactive occurrences are found in sandstones, coals, lignites, shales, limestones, intrusive igneous and metamorphic rocks, hydrothermal-veins, volcanic rocks, and breccia pipes. Uranium and thorium in New Mexico are associated with copper, selenium, molybdenum, iron, fluorite, barite, rare-earth elements, nickel, zinc, lead, and silver deposits. Radioactive occurrences are found in over 100 formational units and in all but two counties in New Mexico. Uranium and thorium occurrences are found in all 1- by 2-degree topographic quadrangles (Fig. 2) and all four geographic provinces (Fig. 3) in New Mexico.

The majority of uranium occurrences in the state are in sandstones of the Jurassic Morrison Formation in the Grants uranium district (Fig. 1). The Grants uranium district is located along the southern edge of the Colorado Plateau and is divided into six subdistricts or areas. These subdistricts or areas are Laguna, Marquez-Bernabe Montaño, Ambrosia Lake, Smith Lake, Church Rock, and Nose Rock (Fig. 4).

Thorium occurrences are found in beach-placer sandstone deposits, pegmatites, carbonatites, and hydrothermal-veins (Appendix 1). They occur in the Chico Hills area, Colfax County; Sangre de Cristo and Tusas Mountains, northern New Mexico; San

NEW MEXICO BUREAU OF MINES AND MINERAL RESOURCES

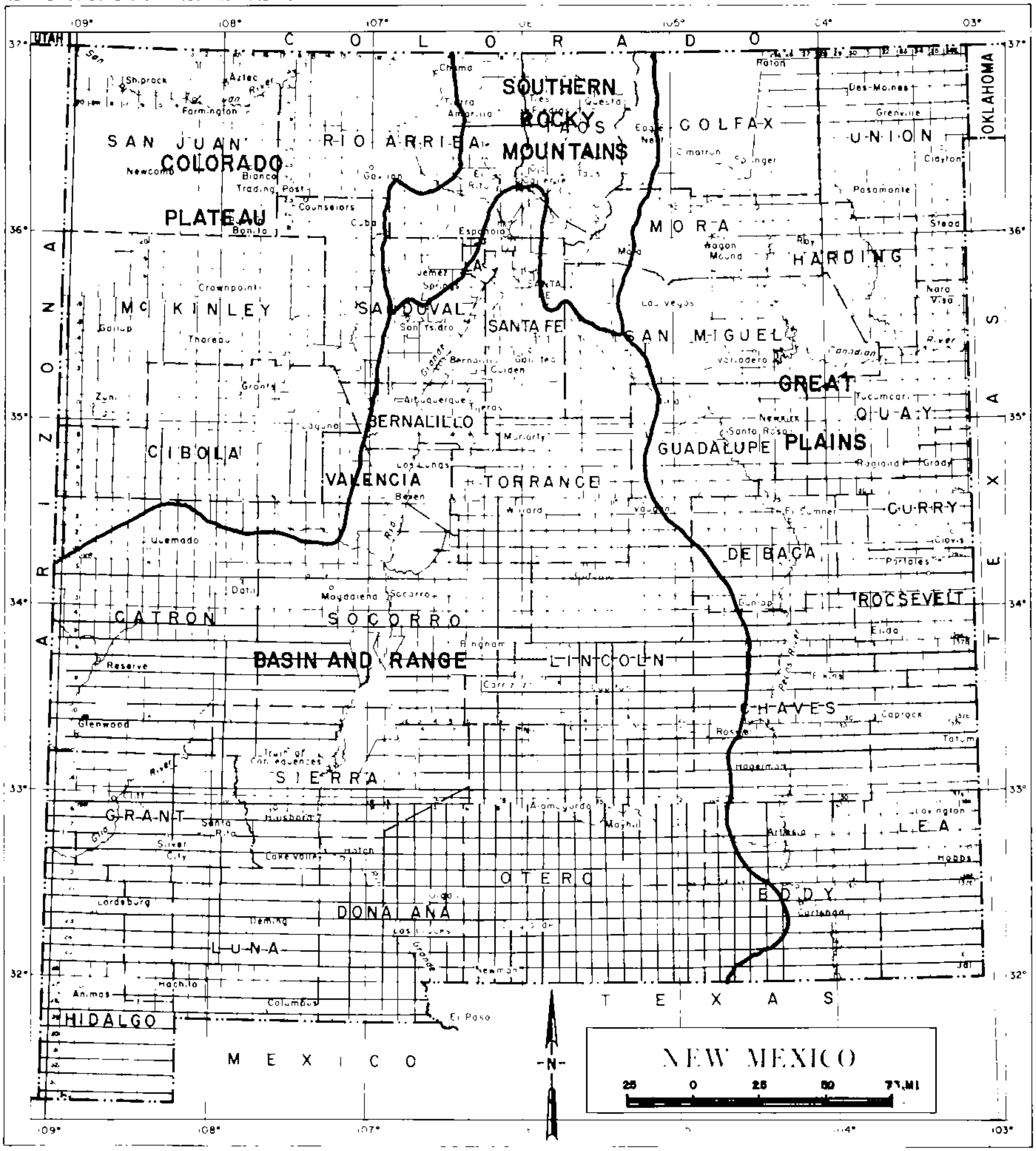
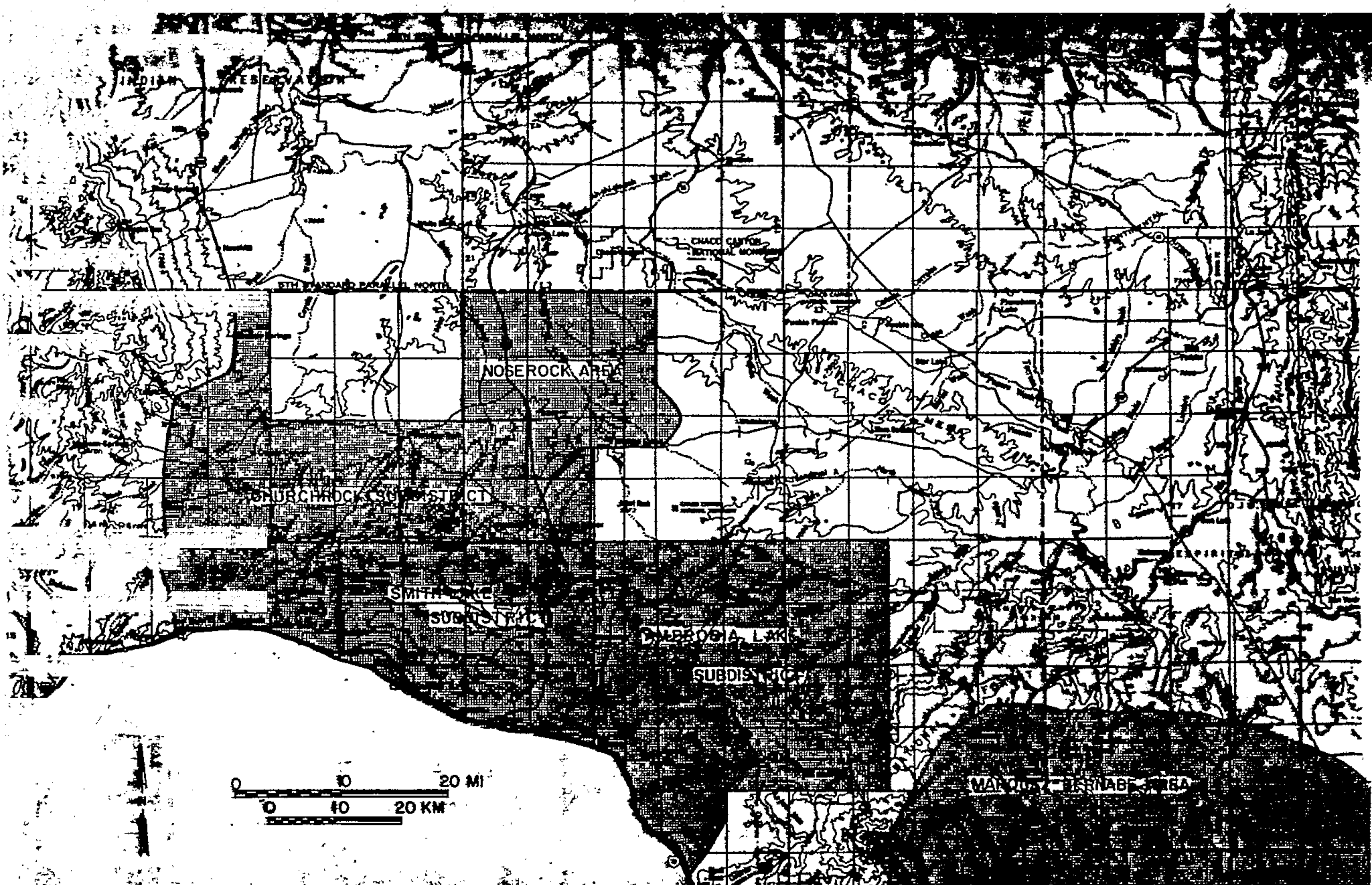


FIGURE 3–GEOGRAPHIC PROVINCES IN NEW MEXICO


NOSEROCK AREA
0 10 20 MI
0 10 20 KM

Juan Basin; Monte Largo Hills, Bernalillo County; Lincoln County; Burro Mountains, Grant County; Rio Grande area, Socorro and Sierra Counties; and Cornudas Mountains, Otero County (Fig. 5). No thorium has been produced in New Mexico except possibly as a by-product of production from pegmatites.

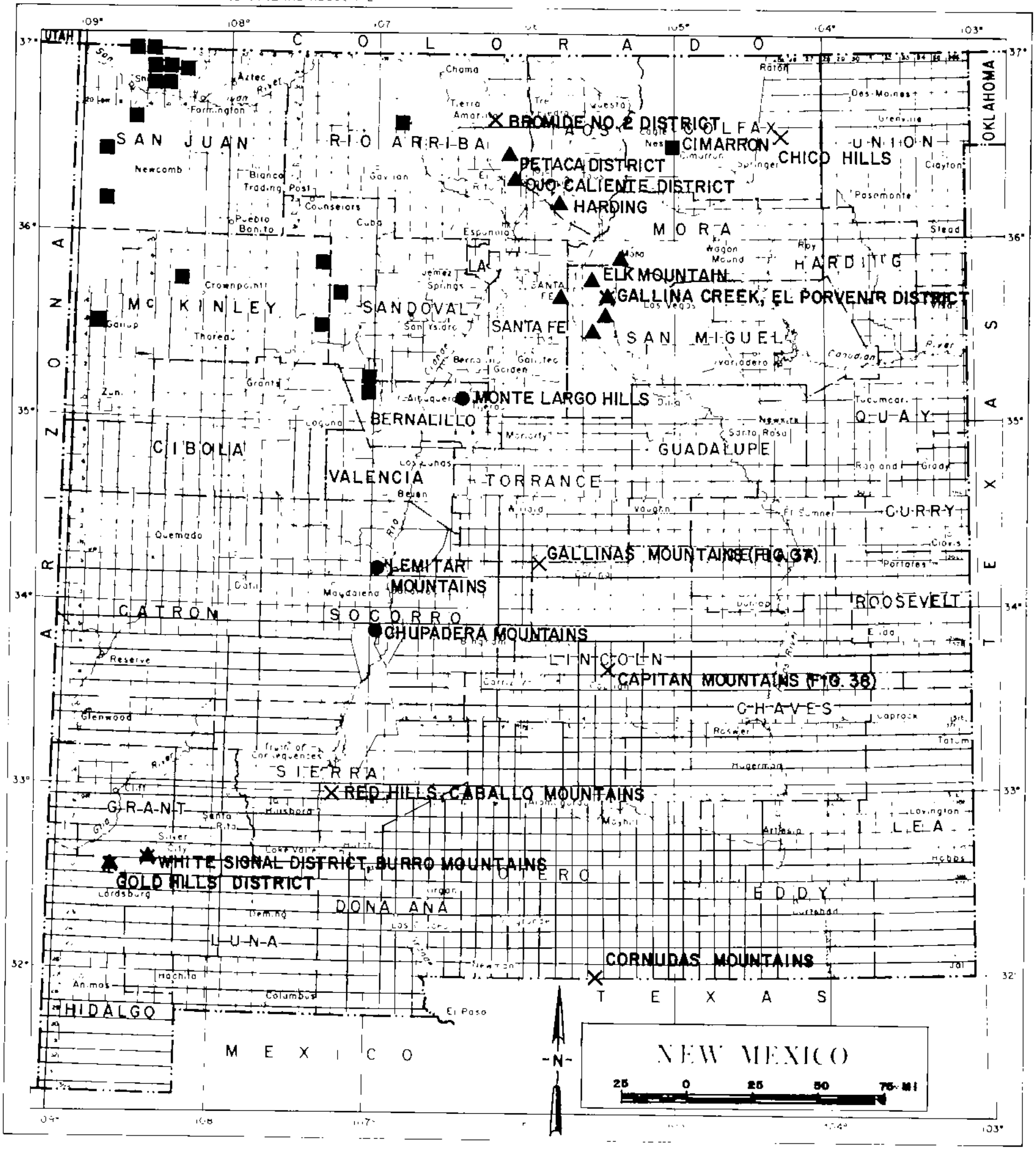
Over 1,300 uranium and thorium occurrences are individually described in Appendix 1 and located in Figure 1 and various county maps (Figs. 1-5 to 1-33). Uranium prospects, deposits, and mines in the Grants uranium district are located on 30- by 60-minute maps (Figs. 6-9) and additional district maps are included (Figs. 11-13). Uranium occurrences in areas outside of the Grants uranium district are plotted on additional maps as indicated.

Limestone Deposits in the Jurassic Todilto Limestone and Adjacent Units

Over 100 uranium occurrences are found in the Jurassic Todilto Limestone (Appendix 1), 42 of which have produced ore (Appendix 3). Over 6,736,000 pounds (3,055,000 kilograms) of uranium have been produced from the Todilto Limestone and adjacent units from 1950 to 1982, about 2% of the total uranium production in New Mexico (Table 4). The majority of these occurrences are in the Grants uranium district, although minor occurrences are found in the Chama Basin-Llaves area in Rio Arriba County, Nacimiento Mountains in Sandoval County, and the Sanostee subdistrict of the Shiprock district in San Juan County. Two occurrences, Reed Henderson #1 in the Sanostee subdistrict

FIGURE 5—THORIUM OCCURRENCES IN NEW MEXICO

NEW MEXICO BUREAU OF MINES AND MINERAL RESOURCES



× THORIUM VEINS

▲ PEGMATITES

● CARBONATITE

■ BEACH-PLACER S…

and Box Canyon in the Chama Basin (Appendix 3), have produced minor quantities of uranium ore in the 1950's. Although the bulk of this mineralization occurs in the Todilto Limestone, minor mineralization occurs also in the basal portion of the overlying Summerville Formation and at the top of the underlying Entrada Sandstone (Fig. 10).

The initial discovery of uranium mineralization in the Grants uranium district was in 1950 by Paddy Martinez in the Todilto Limestone. Uranium minerals were known to occur in the Todilto Limestone since the early 1920's (Melancon, 1963) and in 1948 (C. T. Smith, 1954), but their significance was not realized until Paddy Martinez's discovery. Paddy Martinez discovered tyuyamunite at what is now known as the Haystack-Section 19 mine.

The Todilto Limestone consists of two informal units, a basal limestone and an upper gypsum-anhydrite member. The basal limestone is 5-30 ft (1 to 9 m) thick and present everywhere in the Todilto depositional basin. This unit consists of three zones, a basal platy or laminated zone, a crinkly or crenulated zone, and an upper massive zone. The overlying gypsum-anhydrite member reaches a maximum thickness of 170 ft (32 m) and is present in the central portions of the Todilto basin. The gypsum-anhydrite member is locally mined and constitutes much of the gypsum and anhydrite resources in New Mexico (G. S. Austin and others, 1982). The gypsum-anhydrite member is present in the Laguna area, but is absent elsewhere in the Grants uranium district. However, this unit is penetrated by drill holes about 8 mi (13 km) north of the Poison Canyon area (Hilpert, 1969, p. 95).

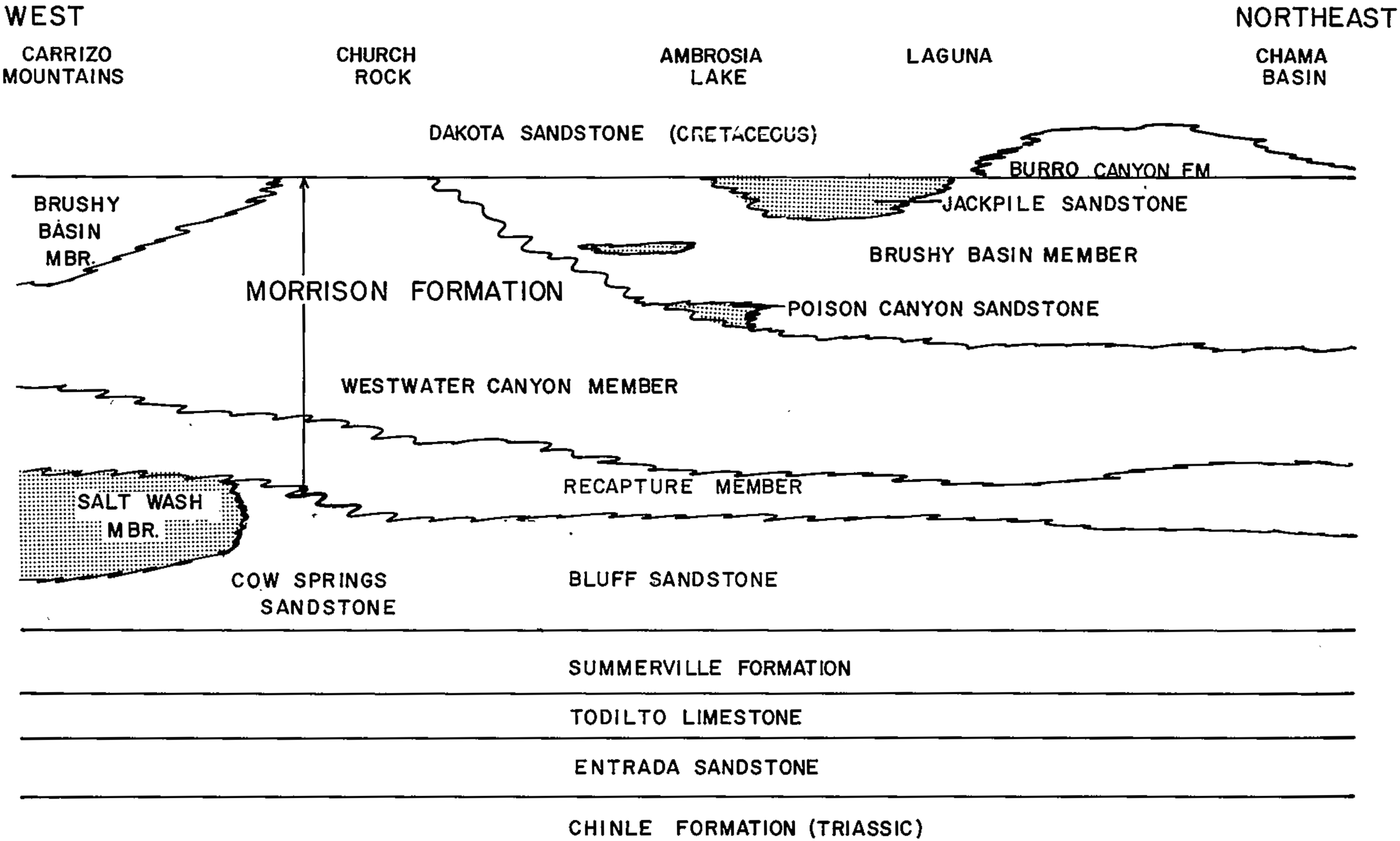


FIGURE 10-STRATIGRAPHIC CORRELATIONS IN THE SAN JUAN BASIN.

The Todilto Limestone is deposited in a basin which occupies an area of about 34,000 mi^2 (88,060 km^2) in the San Juan Basin It is equivalent in age with the Pony Express Limestone Member of the Wanakah Formation in Colorado and the Curtis Formation in Utah (Green, 1982).

The actual depositional environment of the Todilto Limestone is controversial. The Todilto Limestone overlies the Entrada Sandstone, which consists of eolian dune and inland interdune sequences; fluvial units are absent. The overlying Summerville Formation consists of eolian dune and fluvial sabkha sequences. It is uncertain whether the origin of the Todilto Limestone was marine or a nonmarine. The presence of the gypsum-anhydrite member and correlation with marine limestones of the Curtis Formation suggest a marine origin, an embayment or lagoon (Hines, 1976; B. L. Perry, 1963). However, the lack of confirmed marine fossils (Hines, 1976) and of dolomitic sequences (Green, 1982), the presence of varved sequences (R. Y. Anderson and Kirkland, 1960, 1966), and the coastal-continental environments of the Entrada Sandstone and Summerville Formations favor a lacustrine origin, a coastal sabkha environment (Rawson, 1980a, b), an enclosed saline lake, or a brackish-water lake connected to the sea (R. Y. Anderson and Kirkland, 1960). Recent isotopic evidence supports a marine origin (Ridgley and Goldhaber, 1983).

Uranium mineralization is found only where the gypsum member is absent (Hilpert, 1969), and the mineralization may extend into the overlying Summerville Formation or underlying Entrada Sandstone. The majority of the Todilto Limestone deposits are found along outcrops of the Todilto Limestone in the Poison Canyon and Thoreau areas, although mineralized drill holes in the Todilto Limestone also occur in the Ambrosia Lake area (Young, 1960, p. 270; Irving Rapaport, Four Corners Exploration Company, written commun., 11/11/82; Harlen Holen, U.S. DOE, written commun., 1983). Uranium deposits are tabular and irregular in shape, similar to sandstone deposits. They range in size from a few feet to 100's of feet wide and long and up to 20 ft (16 m) thick. Three types of mineralization are found; unoxidized primary deposits, oxidized primary deposits, and secondary deposits (Gabelman, 1970). Most of the limestone deposits occur along the flanks or axes of intraformational folds, unlike sandstone deposits. Locally, the limestone deposits appear to align in trends subparallel to the sandstone deposits (Fig. 11). Uranium mineralization occurs throughout the entire thickness of the Todilto Limestone. The largest ore bodies occur where the intraformational folds are clustered and have a similar trend (Hilpert, 1969). Pb/U apparent age dates suggest that primary mineralization occurred during or just after deposition of the Todilto Limestone (Berglof, 1969; D. S. Miller and Kulp, 1963).

The origin of the ore-controlling intraformational folds is controversial (Hines, 1976; Hilpert, 1969). These folds are restricted to the Todilto Limestone and to the basal portion of the Summerville Formation; overlying beds are flat-lying. The folds vary in size and shape. They tend to cluster in east-west or north-south trends. Open and closed anticlines (Fig. 14), recumbent folds, and chevron folds (Fig. 15) are common. Their axes show little, if any, relationship to regional structure.

Figure 14 - Intraformational fold in the Todilto Limestone at the Haystack open pit. This fold may have resulted from algal structures. Uranium mineralization is disseminated within the limestone and along the fractures and bedding planes.

Rapaport and others (1952a, b) and Hilpert and Moench (1960) attribute these folds to soft sediment slumping or creeping down a depositional slope or the flanks of anticlines. Gabelman (1956b) attributes the folds to volumetric changes due to dehydration and diagenesis. B. L. Perry (1963) suggests that the folds are a result of differential loading and compaction near subsiding reef or biohermal structures. Parasitic or drag folds on tectonic features may have produced the intraformational folds (Hines, 1976). However, none of these theories is consistent with all of the field observations (Hines, 1975; Green, 1982).

A theory proposed by Rawson (1980a, b) and Green (1982) and modified by the author is consistent with many of the field observations, but certainly is not the only viable theory possible. The Todilto Limestone was deposited in an arid climate, in an enclosed saline or brackish-water lake; the exact setting of the Todilto basin is not critical to this model. Periodic drying of the lake enabled deposition of the gypsum member. Simultaneously, Summerville dunes slowly migrated over Todilto limey muds and algal mats, compacting and warping the Todilto beds, thereby forming the intraformational folds. Continued migration of Summerville dunes locally continued to deform the underlying Todilto muds; forming convolute laminations, mounds, rolls, folds, and anticlines and synclines (Green, 1982). The presence of a depositional slope basinwards enhanced migration of the Summerville dunes and deformation of the underlying Todilto beds. Hydraulic and evaporative pumping of uraniferous groundwater in the underlying permeable Entrada

Figure 15 - Chevron fold in the Todilto Limestone at the Section 25 open pit. Height of pit wall is approximately 12 ft (3 m).

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Sandstone brought the uraniferous waters into the organic-rich layers of the Todilto mud. The intraformational folds acted as a structural trap for uranium-bearing waters. The Todilto mud would be permeable only until the muds dried, therefore this hydraulic pumping occurred in a relatively short period of time. However, as the deformed muds dried and turned into impermeable limestones, they fractured and faulted where folded. These fractures provided the permeability required for additional hydraulic and evaporative pumping to continue after diagenesis. The hydraulic and evaporative pumping could not occur where the gypsum member was deposited, since the gypsum acted as a cap. Subsequent oxidation and remobilization of primary uranium deposits occurred possibly during Tertiary times, as suggested by Saucier (1980).

Additional uranium deposits are likely to occur in the Todilto Limestone in the Grants uranium district (Green and others, 1980b, c; U.S. Department of Energy, 1980). These undiscovered deposits probably will be similar in size and shape to the known Todilto deposits. Numerous holes beyond 1,000 ft (305 m) depths have been drilled in the Ambrosia Lake area. A surprising number of these deep drill holes indicates mineralization in the Todilto Limestone. Additional work is needed to refine the model of Green (1982) and Rawson (1980a, b) and to adequately delineate the margins of the Todilto basin and the extent of the Summerville dunes.

Outside of the Grants uranium district, economic ore deposits in the Todilto Limestone are scarce (Appendix 1).

Production from a few of these deposits (Appendix 3) has been small and generally of low grade.

Sandstone Deposits in the Jurassic Morrison Formation

Grants uranium district

The majority of the uranium deposits in New Mexico occur in sandstones of the Morrison Formation. Over 313,690,000 lbs (142,287,391 kg) of U_3O_8 have been produced from this formation from 1948 through 1982, over 96% of the total uranium production in New Mexico (Table 4). In the Grants uranium district the Morrison Formation consists of three members, in ascending order: the Recapture, Westwater Canyon, and Brushy Basin. The ore-bearing Salt Wash Member of the Morrison Formation in the Carrizo Mountains, Shiprock district, is absent in the Grants uranium district (Fig. 10).

The Recapture Member unconformably overlies the Cow Springs and Bluff Sandstones in the Grants uranium district (Fig. 10). This member typically consists of 50 to over 200 ft (15 to 61 m) of alternating maroon and gray shales, siltstones, and fine-grained sandstones (Hilpert, 1963, 1969). Low- to medium- energy fluvial sandstones and interbedded overbank siltstones lie adjacent to dune sandstones and sabkha siltstones (Green, 1975). Near the top of the Recapture Member a disconformity separates the eolian-sabkha sequence from the overlying fluvial-lacustrine sequence. This disconformity is locally marked by a thin basal lag-conglomerate (Green, 1975, 1980). Many of the uranium occurrences in the Recapture Member are found at or above this disconformity.

The Westwater Canyon Member is the major uranium-bearing sequence in New Mexico (Fig. 10). This member is 50 to 300 ft (15 to 91 m) thick and consists of reddish-brown or gray arkosic sandstones and interbedded gray and green to greenish-gray shales (Hilpert, 1963, 1969). Sandstones exhibit features typical of braided stream environments, whereas siltstones and shales are typical of overbank and lacustrine deposits (Turner-Peterson and others, 1980).

Shales of the Brushy Basin Member locally intertongues with the underlying Westwater Canyon Member (Fig. 10). The Brushy Basin Member is 100 to over 500 ft (30 to 152 m) thick (Hilpert, 1963, 1969) and consists of light greenish-gray shales and mudstones and a few interbedded sandstones lenses. The basal sandstone present in the Ambrosia Lake-Poison Canyon area is the Poison Canyon sandstone (of economic usage) and is locally mineralized. The Poison Canyon sandstone exhibits features typical of a distal braided or low-energy braided stream with adjacent overbank and lacustrine sediments, and is locally similar to the upper Westwater Canyon sandstones. Correlations of the Poison Canyon sandstones away from the Ambrosia Lake-Poison Canyon area are difficult due to pinchouts and shale splits. It is unclear which sandstone lenses elsewhere in the Grants uranium district would correlate with the Poison Canyon sandstone in the Ambrosia Lake-Poison Canyon area. For this reason, the term Poison Canyon sandstone should be restricted to the basal sandstone in the Ambrosia Lake-Poison Canyon area, although some authors have extended this terminology elsewhere in the Grants uranium district.

The Jackpile sandstone (of economic usage) occurs at the top of the Brushy Basin Member and is present only in the Laguna area (Fig. 10). This sandstone is truncated by the Cretaceous unconformity and is overlain by the Cretaceous Dakota Sandstone. It consists of a thick arkosic sandstone with minor interbeds or lenses of shale. Features typical of a braided stream environment are common (Baird and others, 1980; Jacobsen, 1980; Moench and Schlee, 1967). This major uranium-bearing unit occurs in a northeast-trending zone as much as 13 mi (21 km) wide, 33 mi (53 km) long, and up to 200 ft (61 m) thick (Moench and Schlee, 1967). South of the Laguna area the Jackpile sandstone is truncated, whereas north of the Laguna area it is split into two or more sandstones. The Jackpile sandstone is the major uranium-bearing horizon in the Laguna area. Only a few drill holes have penetrated the Westwater Canyon Member to ascertain whether it contains any mineralization.

Two types of uranium ore occur in the Grants uranium district; they are primary tabular and redistributed ore (Granger and others, 1961; Squyres, 1972). Primary tabular ore bodies are also known as trend or prefault ore. Redistributed ore bodies are known as stack or post-fault ore. In addition, redistributed ore can be differentiated as (1) fracture-controlled (stack), or (2) geochemical cell-controlled (roll-type). A third type of mineralization may also be present as relict or remnant primary ore (D. A. Smith and Peterson, 1980).

Primary tabular ore bodies occur as (1) flat-lying pods, (2) lenses, and (3) blankets all of which may be locally subparallel to bedding structures or cut across them. Local distribution of ore may be influenced by sedimentary features such as minor disconformities, bedding planes, cross-stratification, channels, or sandstone-shale interfaces. The peneconcordant ore deposits typically align in regional trends (Fig. 11-13), but may be difficult to predict on a local scale. These ore bodies tend to be dark gray to black and are characterized by a sharp boundary with unmineralized sandstone. They are irregular in shape and consist of thin, high-grade (greater than 0.20% U_3O_8), multiple lenses or ore pods. They are offset by Laramide faulting (hence prefault) and are considered the first stage of mineralization. In the Ambrosia Lake area, ore bodies in the Westwater Canyon Member tend to rise stratigraphically in a basinward direction (Santos, 1963; Granger, 1968). Some of this primary ore may have been originally deposited by geochemical cell processes. Uranium is directly associated with organic material referred to as humates (Leventhal, 1980; Webster, 1983), and may be enriched in V, Mo, and Se (Spirakis and others, 1981). Petrographic relationships, chemistry, and uranium distribution imply that uranium was introduced into the sediments after the organic matter was emplaced, but before compaction (Webster, 1983). Halos of Mo and Se may surround uranium mineralization (Squyres, 1972). Vanadium is generally less than uranium in concentration, whereas Mo may occur in sufficient quantities to hamper milling operations. Kerr McGee Nuclear Corp. added a circuit to recover Mo as a by-product in order to reduce its amount in the milling circuit. Homestake recovers V at their mill.

Redistributed ore bodies occur as discordant, asymmetrical, and irregular bodies that have been mobilized and reconcentrated by geochemical processes along fractures and faults or along the oxidation boundary (roll-type). These ore bodies vary in color from brownish-gray to light gray and are characterized by a gradational boundary with unmineralized sandstones. These ore bodies cut across sedimentary structures and stratification. They occur at the interface between oxidized red and reduced gray sandstones, but are not always fracture controlled. Fracture-controlled ore bodies tend to occur in thick multiple horizons and may be low in organic material (humates) and Mo. Se may be enriched throughout the ore deposit, but more commonly occurs along the interface between mineralized and barren sandstone (Fishman and Reynolds, 1983; Spirakis and others, 1981). Roll-type deposits may be difficult to distinguish from primary tabular ore bodies that have been oxidized (S. S. Adams and Saucier, 1981) or otherwise partially redistributed early in the mineralization process. Recycling of uranium by geochemical solutions may be occurring presently.

Relict or remnant ore pods in reduced sandstones surrounded by oxidized sandstones occurs locally updip from roll-type deposits (D. A. Smith and Peterson, 1980; Ristorcelli, 1980; S. S. Adams and Saucier, 1981). Occasionally, relict ore bodies may be in part or almost completely destroyed by subsequent oxidizing fluids leaving ghost ore bodies (Holen, 1982b; S. S. Adams and Saucier, 1981).

The timing and sequence of mineralization events in the Grants district is important to understand these deposits.

Geochronologic studies provide a timing of events that is consistent with many field observations. The most common dating method employed is the Pb/U isotopic dating of uranium minerals (Berglof, 1969; Ludwig and others, 1977; 1982; Brookins, 1931b), although Rb/Sr isochron dating of clay minerals may be more reliable (Brookins, 1975, 1980). Fission-track dating methods have recently been employed on quartz grains from sandstones at the Mariano Lake ore bodies (Rosenberg and Hooper, 1982); however, the reliability of this dating method needs to be further demonstrated. K/Ar dating of clay minerals has proven to be unreliable in view of Rb/Sr isochron studies (Brookins, 1975; Brookins, Lee, and Shafiquallah, 1977). A summary of the various age dates obtained of uranium mineralization in the Grants uranium district is presented in Table 5; unreliable K/Ar dates are not included.

The Jurassic Todilto Limestone was deposited in Late Jurassic times prior to deposition of the Morrison Formation, at about 150-160 m.y. ago (Berglof, 1969). The Pb/U apparent age dates of Todilto uranium mineralization in the Ambrosia Lake subdistrict range from 78 to 164 m.y. (Berglof, 1969; Miller and Kulp, 1963). Most of the Pb/U apparent age dates are discordant (Table 5); however, a few age dates are nearly concordant and suggest that the age of mineralization is about 130-150 m.y. These age dates suggest that mineralization occurred during or immediately after deposition of the Todilto Limestone; they are consistent with theories presented earlier by Green (1982) and Rawson (1980a, b). Mineralization in the Todilto Limestone is

Table 5 – Isotopic and fission-track age dates of uranium mineralization in the Grants uranium district.

DISTRICT OR MINE	Rb/Sr ISOCHRON AGE (m.y.)	$^{206}Pb/^{238}U$ APPARENT AGE (m.y.)	$^{207}Pb/^{235}U$ APPARENT AGE (m.y.)	FISSION-TRACK AGE (m.y.)	U-SERIES METHOD (open system)	REFERENCE
JURASSIC TODILTO LIMESTONE						
Barbara J #2	–	118±2	135±5	–	–	
#2	–	105±2	164±5	–	–	Berglof (1969)
#3	–	153±3	154±4	–	–	
#3	–	148±3	148±4	–	–	
Section 25	–	147±3	150±4	–	–	
25	–	146±3	150±4	–	–	
Zia	–	131±3	138±4	–	–	
Banosh	–	145±3	152±4	–	–	
Faith	–	114±2	153±4	–	–	
	–	111±2	154±3	–	–	
F-33	–	131±3	147±4	–	–	
" (pitchblende)	–	78±5	107±6	–	–	
Haystack Butte (pitchblende)	–	255±5	175±5	–	–	Miller and Kulp (1963)
Flat Top (uranophane)	–	2.8	3.2	–	–	
	–	4.0	4.2	–	–	Brookins (1981b)
	–	2.7	2.8	–	–	
	–	6.6	7.4	–	–	
JURASSIC MORRISON FORMATION						
Ambrosia Lake – Sections 23, 35	139±10 (9 samples)	–	–	–	–	
Smith Lake – Mariano Lake mine	139±13 (9 samples)	–	–	–	–	Brookins (1975, 1980), Lee and Brookins (1978)
Jackpile-Paguate mine	113±7 (22 samples)	–	–	–	–	
			–	–	–	
Jackpile-Paguate mine (cofinite)	–	81±2	94±3	–	–	Brookins (1975, 1980), [illegible] and Brookins (1978, 1[illegible]
Woodrow mine (cofinite)	–	88±2	90±3			Nash and Kerr (1966), Berglof (1969)
N.E. Church Rock mine (UNC)	–	68.7±0.5	95.2±1.0	–	–	Nash (1968), Berglof (1969
Smith Lake	30±90 (scattered data)	–	–	–	–	Ludwig and others (1982)
Smith Lake – Mariano Lake mine	–	–	–	–	–	Brookins (1980)
Ambrosia Lake (uranophane)	–	–	–	13.8-15.9	–	Rosenberg and Hooper (1982
N.E. Church Rock Mine (KM)	–	8.33	8.35	6.6-6.7	–	
	–	7.84±0.04	9.56±0.06	–	–	Brookins (1981b)
Church Rock Mine	–	1.01–1.12 (3 samples)	0.982–1.07	–	–	Ludwig and others (1982)
N.E. Church Rock Mine (UNC)	–	0.974±0.546	0.776±1.140	–	–	
	–	0.911±0.063	0.862±0.131	–	–	
	–	0.620±0.026	0.509±0.052	–	–	
	–	0.486–0.490 (5 samples)	0.495–0.531	–	–	
N.E. Church Rock Mine (KM)	–	0.110±0.29	0.0474±0.4820	–	–	
CRETACEOUS DAKOTA SANDSTONE						
Church Rock Mine	–	0.834±0.421	0.775±0.861	–	–	Ludwig and others (1982)
Hogback No. 3-5	–	67,000–68,000 yrs.	100,000–102,000 yrs.	–	160,000±30,000 yrs.	Ludwig and others (1977)

UNC – United Nuclear Corporation

KM – Kerr McGee Corporation

older than mineralization in the Morrison Formation.

The Morrison Formation was deposited 135-150 m.y. ago (Berglof, 1969). Rb/Sr isochron age dates of clay minerals in barren sandstones of 142 $\pm$ 14 m.y. and 139 $\pm$ 26 m.y. are consistent with this time period (Brookins, 1975, 1980; Lee and Brookins, 1978, 1980). One problem with these dates is that the older Westwater Canyon Member in the Ambrosia Lake subdistrict is 132 $\pm$ 26 m.y., whereas the age of the younger Jackpile sandstone in the Laguna subdistrict is 142 $\pm$ 14 m.y. The reasons for this discrepancy are unclear, but may be related to the disturbance of the Rb/Sr system in a manner such as differing burial depths or ion exchange (Brookins, 1980). Their error intervals do overlap. Additional dating is required to resolve this inconsistency.

Rb/Sr isochron dates of primary tabular ore from the Smith Lake and Ambrosia Lake subdistricts are 139 $\pm$ 13 m.y., during or just after deposition of the Westwater Canyon and lower Brushy Basin Members (Brookins, 1975, 1980; Lee and Brookins, 1978, 1980). The Rb/Sr isochron date of primary tabular ore from the Laguna subdistrict is 113 $\pm$ 7 m.y., considerably less than the Jackpile sandstone and less than ore at Ambrosia and Smith Lakes subdistricts. This younger age from the Laguna subdistrict suggests either that the Jackpile ore is younger than the Westwater Canyon and lower Brushy Basin ore, or that the Jackpile ore has been oxidized and partially redistributed in early Cretaceous times (S. S. Adams and others, 1978; S. S. Adams and Saucier, 1981). The available information is too inconclusive to refute either arguement.

The Cretaceous Dakota Sandstone was deposited 90 to 94 m.y. ago (Brookins, 1980; Obradovich and Cobbin, 1975), suggesting that primary tabular ore in all three subdistricts occurred prior to deposition of the Dakota Sandstone. This is consistent with field observations in several areas at Poison Canyon and Laguna subdistricts, where ore pods appear to be truncated by local intraformational erosional surfaces (Squyres, 1980; Nash and Kerr, 1966).

Pb/U apparent age dates of ore in the Grants district are generally younger than Rb/Sr isochron dates. The Pb/U dates are discordant due to (1) lead loss, (2) ore redistribution, (3) addition of uranium, and (4) loss of radiometric daughters. However, nearly concordant age dates and an average of Pb/U apparent age dates (Dooley and others, 1966b) confirm that primary tabular mineralization occurred 90 to 100 m.y. ago, prior to deposition of the Cretaceous Dakota Sandstone. Furthermore, the Pb/U apparent age dates from the Jackpile-Paguate and Woodrow mines indicate that mineralization of these two deposits (one a sandstone deposit, the other a breccia-pipe deposit) is of the same age.

Several authors have suggested that a Late Jurassic-Early Cretaceous period of redistribution may have occurred (R. J. Peterson, 1980; Sanford, 1982; Galloway, 1980). The Pb/U dates may be indicative of such a period of oxidizing, dissolution, and redistribution. Only additional studies will resolve these problems.

Post-Cretaceous ages (Table 5) can be grouped into several intervals. Only one date, a Pb/U apparent age of 68.7 ± 0.5

m.y., falls within the age of mineralization that possibly could have occurred during Laramide times. The association of Laramide faults with uranium mineralization led Finch (1967) to interpret some stack ore as being Laramide in age. Any Laramide mineralization should have age dates within the 60-70 m.y. range (Brookins, 1980). However, Ludwig and others (1982) postulates that this particular Pb/U date is a result of contamination of primary tabular ore by younger redistribution events. Dooley and others (1966b) report the average age of post-fault ore to be 10 m.y. to Recent. Dating of mineralization associated with Laramide fault-zones is required before any mineralization can be attributed to Laramide times.

Post-Laramide mineralization is suggested by field observations throughout the Grants district (Saucier, 1980; D. S. Clark, 1980). The Rb/Sr isochron date of 30 $\pm$ 90 m.y. (Brookins, 1980) would be representative of such mineralization, especially if individual Rb/Sr determinations were from different periods of mineralization. Pb/U apparent age dates can be divided into five groups at about 13-15 m.y., 6-10 m.y., 0.9-2 m.y., 500,000 yrs., and 50,000-160,000 yrs. (Table 5). These five groupings suggest at least five different redistribution events in the Grants district. The same cyclic events could have affected the Todilto Limestone (Table 5).

Available age determinations suggest that three redistribution events affected the Ambrosia Lake and Smith Lake subdistricts during the 13-15 m.y., 6-10 m.y., and 0.9-2 m.y. periods. Three younger redistribution events appear to have affected the Church Rock subdistrict during the 0.9-2 m.y., 500,000 yrs., and 50,000-160,000 yrs. Younger redistribution events up until recent times also appears to have affected the Nose Rock deposits (D. S. Clark, 1980), although no age dates from Nose Rock are available. These observations are preliminary and are subject to change when additional age determinations become available.

Laguna subdistrict

The Laguna subdistrict forms the eastern end of the Grants uranium district in Cibola and Bernalillo Counties (Figs. 4, 6, 7) and accounts for approximately 29% of the total pre-1970 uranium production in New Mexico (McLemore, 1982c). In the Laguna subdistrict, 45 deposits or occurrences are found in the Morrison Formation (Appendix 1). Of these, 37 are in the Brushy Basin Member (including 31 in the Jackpile sandstone), 5 in the Westwater Canyon Member, and 3 in the Recapture Member (Fig. 6, Appendix 1). In addition, uranium deposits occur in breccia-pipes and the Todilto Limestone in this subdistrict; these deposits are discussed separately. Five mines or mine complexes have produced during 1952 to 1982 (Appendix 3); none of the operations are currently active. The JJ #1 and St. Anthony mines are on stand-by status.

The first discovery in this area was in 1951 by aerial reconnaissance at the Jackpile-Paguate mine. This mine is now the largest uranium mine in the world. Over 80 million lbs (36 million kg) of U_3O_8 has been produced in thirty years of operation (Hoppe, 1978), and remaining reserves are substantial.

The Jackpile-Paguate mine consists of four coalescing open pits, numerous adits, and one decline (Fig. 16). The JJ #1 and St. Anthony mines are northeast of the Jackpile-Paguate mine (Fig. 12). The mineralization at the JJ #1 is mined through a 672-ft (2Ø5-m) shaft. The St. Anthony mine was first operated in 1953 as an open cut and a 298-ft (91-m)shaft. United Nuclear acquired the property in the 196Ø's, and sank a 357-ft (1Ø9-m) shaft and excavated two open pits in 1977 (Fig. 12). In addition to these ore bodies, one deposit and several mineralized drill holes occur in the Jackpile sandstone north of the JJ #1 mine (Fig. 12). However, less than 3% of the Jackpile sandstone is mineralized (Moench and Schlee, 1967).

The Morrison Formation in the Laguna subdistrict is about as thick as in the Ambrosia Lake subdistrict, approximately 6ØØ-7ØØ ft (183-213 m) thick. However, the Brushy Basin Member is significantly thicker in the Laguna subdistrict than at Ambrosia Lake, whereas the Westwater Canyon and Recapture Members are thinner to absent. Most of the economic deposits occur in the Jackpile sandstone of the Brushy Basin Member, although uranium has been produced from the Todilto Limestone and Recapture Member (Chavez Lease).

Uranium mineralization in the Laguna subdistrict is primary-tabular and is associated with organic material. Fossil logs are common in the Jackpile sandstone, but are rarely mineralized. Mineralization in the Jackpile sandstone occurs as (1) multiple lenses of grain coatings, (2) irregular and diffuse masses of ore, and (3) discontinuous, thin, mineralized coal-like lenses. The coal-like seams or lenses have been reported elsewhere in the

Morrison Formation, but are not mineralized except in the JJ #1 and St. Anthony ore deposits. Some of the carbonaceous material and perhaps some of the uranium mineralization were deposited as discrete detrital grains and as concentrations along bedding and crossbedding planes (Jacobsen, 1980; Baird and others, 1980). However, much of the carbonaceous material and associated mineralization occur as replacements of grains, pore fillings, and concentrations around clay galls and at sandstone-shale interfaces (Beck and others, 1980; Moench and Schlee, 1967). This later form of mineralization exhibits no relationship to cross-stratification or to lithologic units, as it cuts across these features. Average ore grades may range as high as 0.9% U_3O_8.

The ore bodies in the Laguna subdistrict tend to align in a northeast-trending belt subparallel to the axis of the Jackpile sandstone (Fig. 12). Although, trace amounts of Mo and Se and minor amounts of V occur in these deposits, the quantities of these associated elements are far less than concentrations in primary tabular deposits in Ambrosia Lake and Smith Lake subdistrict. Dating of mineralization in the Jackpile sandstone suggests that it is younger than the Jackpile sandstone and the primary tabular mineralization in Ambrosia Lake and Smith Lake subdistricts (Table 5). This conflicts with observations of detrital uranium mineralization (Jacobsen, 1980; Baird and others, 1980), however, the age date is consistent with observations and interpretations of mineralization occurring prior to deposition of the Cretaceous Dakota Sandstone (Nash and

Kerr, 1966; Moench and Schlee, 1967). Additional studies are needed to resolve some of the conflicting evidence.

Additional uranium occurrences in the Brushy Basin, Westwater Canyon, and Recapture Members are minor, although the Chavez Lease produced from the Recapture Member in 1955. Production from the Chavez Lease amounted to 821 lbs (372 kg) of U_3O_8 at an average grade of 0.21%. Although the majority of the potential resources in the Laguna area occur in the Jackpile sandstone, some are thought to occur in the Recapture Member and the Todilto Limestone (U.S. Department of Energy, 1980).

Marquez-Bernabe Montaño area

The Marquez-Bernabe Montaño area lies north of the Laguna subdistrict, in McKinley, Cibola, and Sandoval Counties (Fig. 4). Only one mine has produced uranium ore from this area, although several large deposits are found in the Westwater Canyon Member (Fig. 6). Kerr McGee produced ore from the Westwater Canyon Member at the Rio Puerco mine in 1979 and 1980. Exxon located several shallow, low-grade ore bodies in the San Antonio Valley area (S. C. Moore and Lavery, 1980). Kerr McGee and Bokum discovered separate ore bodies in the Marquez area. Kerr McGee drilled in the area in 1982, whereas Bokum suspended shaft-sinking and construction of a mill due to financial difficulties. Conoco also located ore bodies on the Laguna Indian Reservation, at Bernabe Montaño (Kozusko and Saucier, 1980).

The Westwater Canyon Member is approximately 200 to 300 ft (61 to 91 m) thick in the Marquez-Bernabe Montaño area. The depth of mineralization is about 800 ft (244 m) at the Rio Puerco mine, about 900-1,000 ft (244-305 m) at San Antonio Valley, about 2,100 ft (640 m) at Marquez, and about 1,000-2,500 ft (305-732 m) at Bernabe Montaño. Preliminary studies indicate that most of the mineralization is primary tabular ore and occurs in multiple horizons (S. C. Moore and Lavery, 1980; B. A. Livingston, Jr., 1980; Kozusko and Saucier, 1980).

At Marquez, ore is controlled by shale breaks, high permeability, and recurrence of meandering streams. Where the shale beds are absent, uranium mineralization is dispersed throughout the sandstone and is subeconomic. Mineralized sandstones tend to be permeable; however, excessively permeable sandstones allow mineralization to be redistributed elsewhere. Mudstone pebbles restrict the permeability and concentrate uranium mineralization. Uranium mineralization appears to be restricted to meandering channels within the dominantly braided-stream complex (B. A. Livingston, Jr., 1980). Actual development and mining of these deposits will add to our knowledge of mineralization in this area.

A few minor occurrences are found in the Jackpile sandstone and the Brushy Basin Member near the Rio Puerco mine (Fig. 6). Two minor occurrences are found in Cretaceous coal beds south of the Bernabe Montaño area (Fig. 1). Two beach-placer sandstone deposits occur in the Bernabe Montaño area and will be discussed separately.

Ambrosia Lake Subdistrict

Over 200 uranium occurrences are found in the Ambrosia Lake subdistrict in the Todilto Limestone, Morrison Formation and

Cretaceous sediments (Figs. 7, 8, 11; Appendix 1). Over half of these occurrences are in the Morrison Formation, mostly in the Westwater Canyon member and the Poison Canyon sandstone. More than 50 of these occurrences have produced uranium since the initial sandstone discovery in Poison Canyon in 1951 (Appendix 3). The Blue Peak mine was the first underground uranium mine in the Grants district. The Ambrosia Lake-Mt. Taylor trend (Fig. 11) is the largest mineralized area in the Grants district and accounts for substantial portion of the reserves and potential resources in New Mexico (McLemore, 1981; U.S. Department of Energy, 1980). Production from this district has exceeded 77,000 tons (69,500 metric tons) of U_3O_8 (Holen and Fitch, 1982). One of these deposits, Gulf's Mt. Taylor, contains more than 100 million pounds (45,000 metric tons) of U_3O_8 (Cheney, 1981; Jackson, 1977). More than 326,000 tons (296,000 metric tons) of U_3O_8 at an average grade of 0.10% U_3O_8 is estimated to occur in the Ambrosia Lake-Mt. Taylor trend (Holen and Fitch, 1982).

The Morrison Formation in this area is approximately 600-700 ft (183-213 m) thick, about the same thickness as in the Laguna subdistrict. However, the Westwater Canyon and the Recapture Members are thicker in the Ambrosia Lake area than at Laguna. The Jackpile sandstone is absent in the Ambrosia Lake area. The Westwater Canyon Member and the Poison Canyon sandstone are the principle sandstone hosts for mineralization in the Ambrosia Lake subdistrict. The Westwater Canyon Member consists of three or more thick-bedded, coarse-grained, arkosic sandstones separated by thin beds of shale and siltstone (Hilpert, 1969). The Poison Canyon sandstone is the basal sandstone of the Brushy Basin

Member and consists of arkosic sandstone similar in appearance and composition to the Westwater Canyon sandstones. Mineralization ranges in depth from the surface at Poison Canyon to 700 to 900 feet (213-274 meters) at Ambrosia Lake, to 3,300 feet (1,060 meters) at Mt. Taylor.

Uranium mineralization occurs as primary-tabular and redistributed ore bodies. Primary-tabular ore bodies are typical of the occurrences elsewhere in the district. This mineralization is not directly controlled by faults, fractures, or folds; however, they tend to subparallel depositional features such as channel configuration, cross-stratification, and intraformational disconformities. These ore deposits occur as groups of lenses or pods and may split and occupy several stratigraphic horizons. The ore trends are well developed in the Ambrosia Lake-Mt. Taylor area (Fig. 11).

Redistributed ore bodies are geochemical cell-controlled and in places localized along fractures and faults. Multiple horizons of "stacked" ore along Laramide faults may attain a thickness of over 100 ft (30 m). These ore bodies are closely associated with primary tabular ore bodies and grade into them (Hilpert, 1969). Fracture-controlled redistributed-ore occurs in the western portion of Ambrosia Lake (Granger and others, 1961) and at Poison Canyon mine (Tessendorf, 1980). At the Poison Canyon mine, remnants of ore around fossil logs in limonitic sandstones occurs updip from fracture-controlled ore (Tossendorf, 1980).

Geochemical cell-controlled, redistributed ore is found in the Ambrosia Lake area, but may be difficult to distinguish from primary tabular ore. Alteration patterns suggest redistribution and remobilization of primary tabular ore at the Sandstone mine (Foster, J. F. and Quintanar, 1980). Small roll-type deposits occur at the Johnny M mine (Falkowski, 1980a, b). Relicit or remnant mineralization occurs in section 28, T. 14 N., R. 10 W. (D. A. Smith, and Peterson, 1980) section 23, T. 14 N., R. 10 W. (Harlen Holen, pers. commun., 1983) and at Poison Canyon mine (Tessendorf, 1980).

The Johnny M mine is one of several deposits in the Grants uranium district where ore occurs in both the Poison Canyon sandstone and the Westwater Canyon Member (Falkowski, 1980a, b). Primary-tabular and roll-type ore occur in the Westwater Canyon Member where organic debris is abundant. Uranium mineralization commonly occurs around fossil logs and debris accumulations and shows the direction of the groundwater flow (Falkowski, 1980a, b). Mineralization in the overlying Poison Canyon sandstone is more massive and lower in grade than ore in the Westwater Canyon Member. Organic debris and fossil logs are not common in the Poison Canyon sandstone, and no roll-type deposits have been delineated.

The most recent exploration activity in the Ambrosia Lake subdistrict is at La Jara Mesa (12N.9W.12.300, Appendix 1) where Midas has discovered a small- to medium-sized ore body in the Poison Canyon sandstone at about 600 ft (183 m) depth. This ore body is probably an extension of the Taffy mine (12N.9W.11.334, Appendix 1). Homestake is studyng the feasibility of mining this ore body. Recent reports indicate there is a potential for 10 million lbs (4.5 million kg) of uranium on the property (New Mexico Uranium Newsletter, August 1983).

Uranium occurrences are found in the basal Recapture Member (Appendix 1); however, none of these deposits have yielded any ore. The extent of these occurrences is not known, although Kerndamex found good, high-grade ore northwest of San Mateo (Harlen Holen, pers. commun., 1983). Small to medium ore deposits are found in the Todilto Limestone, as previously discussed. Although, exact quantities of reserves in the Morrison Formation and Todilto Limestone in this subdistrict are not available due to proprietary information, they are substantial and mining will continue, providing economic conditions improve. The majority of the potential uranium resources are estimated to occur in the Westwater Canyon Member, but potential resources are also thought to occur in the Recapture Member, the Todilto Limestone, and Cretaceous Dakota Sandstone (U.S. Department of Energy, 1980).

Smith Lake subdistrict

The Smith Lake subdistrict is southwest of Crownpoint and north of Thoreau in McKinley County (Fig. 4). Eight mines in this area have produced ore in the past; they are Mariano Lake, Black Jack No. 2, Mac No. 2, Ruby No. 1, 2, and 3, and Black Jack No. 1 (Fig. 13). Two additional ore bodies occur in the area, Phillip's section 20 and Western Nuclear's Ruby No. 4 (Fig. 13). Development of the Ruby No. 4 ore body has begun and production will start upon reopening of the Ruby No. 3 decline.

Only one mine, the Black Jack No. 1, and several mineralized drill holes in sections 11, 13, and 14, R. 15 N., R. 13 W., occur in the Westwater Canyon Member. The remaining seven mines and two ore bodies, and miscellaneous mineralized drill holes all are in the Brushy Basin member and are aligned in a northwest-southeast trend (Fig. 13). In addition, three mineralized drill holes in the Morrison Formation have been discovered northwest of the Mariano Lake mine (Appendix 1); however, no other infornation is available (Neil Fishman, written commun., 2/83).

At least two periods of mineralization occurred at the Black Jack No. 1 mine in the Westwater Canyon Member. Two horizons of primary-tabular ore are restricted to well cemented sandstones in the northern and western portions of the mine (MacRae, 1963). Younger, redistributed, fault-controlled ore is associated with fractured and permeable sandstones separated by numerous shale breaks in the eastern portion of the mine. More than seven horizons were deposited along the major faults. Nearby mineralized drill holes may represent remnant or relict ore pods.

Ore deposits in the overlying Brushy Basin member are aligned in a northwest-southeast trend (fig. 13) and occurs in the two lowermost sandstone units. The Brushy Basin member in this area ranges from 80-180 feet (24 to 55 meters) thick ard sandstones make up almost half of the unit. The two mineralized sandstones are separated by ten feet (3 meters) of shale and may be stratigraphically equivalent to the Poison Canyon sandstone in the Ambrosia Lake subdistrict.

Ore deposits in the overlying Brushy Basin Member are aligned in a northwest-southeast trend (Fig. 13) and occur in the two lowermost sandstone units. The Brushy Basin Member in this area ranges from 8Ø to 18Ø ft (24 to 55 m) in thickness and sandstones make up almost a half of the unit. The two mineralized sandstones are separated by 1Ø-2Ø ft (3-6 m) of shale and may be stratigraphically equivalent to the Poison Canyon sandstone in the Ambrosia Lake subdistrict.

Uranium mineralization in the lowermost Brushy Basin sandstone has features typical of classical roll-type deposits (Mathews and others, 1979). A well defined "C" geometry and characteristic pyrite-limonitic-hematitic alteration pattern are found at the Ruby mines (Ristorcelli, 198Ø; Keith Rosvold, Western Nuclear, written commun., 1981); however, variations of the roll-type deposit are common. The Mariano Lake ore body occurs on the reduced side of the redox interface and was classified a roll-type deposit (Jenkins and Cunningham, 1981; Place and others, 198Ø; Sachdev, 198Ø). However, petrographic, geochemical and isotopic studies indicate that at least part of the Mariano Lake ore body may be primary-tabular (Fishman and Reynolds, 198Ø). Fission track and Rb/Sr studies at Mariano Lake also suggest at least two periods of mineralization (Lee and Brookins, 1978; Rosenberg and Hooper, 1982). A redox boundary exists at the Black Jack No. 2 and Mac No. 1 mines, but no well defined geometry or alteration patterns were observed (Hoskins, 1963).

A remnant ore body occurs in the lowest sandstone at the South Pod ore body (Western Nuclear Ruby No. 3 mine), where primary tabular mineralization is surrounded by oxidized sandstone. The mineralized sandstons are well cemented with calcite, which reduces permeability. Thick adjacent overbank mudstones form a bottleneck near the ore body and may have restricted oxidizing fluids from redistributing the mineralization (Fig. 17). Other remnant ore bodies may occur in the Smith Lake area, but are difficult to locate.

Mineralization in the middle sandstone occurs at Mac No. 2 and Ruby No. 3 mines. The ore at the Ruby No. 3 mine is primary tabular and occurs downdip from a redox front. Small ore pods occur in front of and at the redox interface, but does not have the typical geometry of a roll-type deposit (Ristorcelli, 1980). It is possible that this ore is primary tabular, similar to ore at Mariano Lake mine (Fishman and Reynolds, 1982). Well cemented sandstones and the nature of the uranium-humate complexing helped in preserving these deposits from redistribution.

The Mariano Lake anticline, north of the Smith Lake mines (Fishman and Reynolds, 1982), may have some structural control and hydrologi effect on the Smith Lake deposits (Place, 1980; Fishman and Reynolds, 1982). The Mariano Lake anticline may have impeded ground-water flow in the vicinity of the Mariano Lake and Ruby No. 1 deposits, which helped to preserve these ore bodies (Fishman and Reynolds, 1982).

Additional research is needed in the Smith Lake area to adequately classify these deposits. Locally, only one major redox event appears to have affected the ore bodies; but did not completely redistribute the mineralization. Elsewhere, additional migration of uranium mineralization is indicated from age dating by Brookins (1980), Lee and Brookins (1978), and

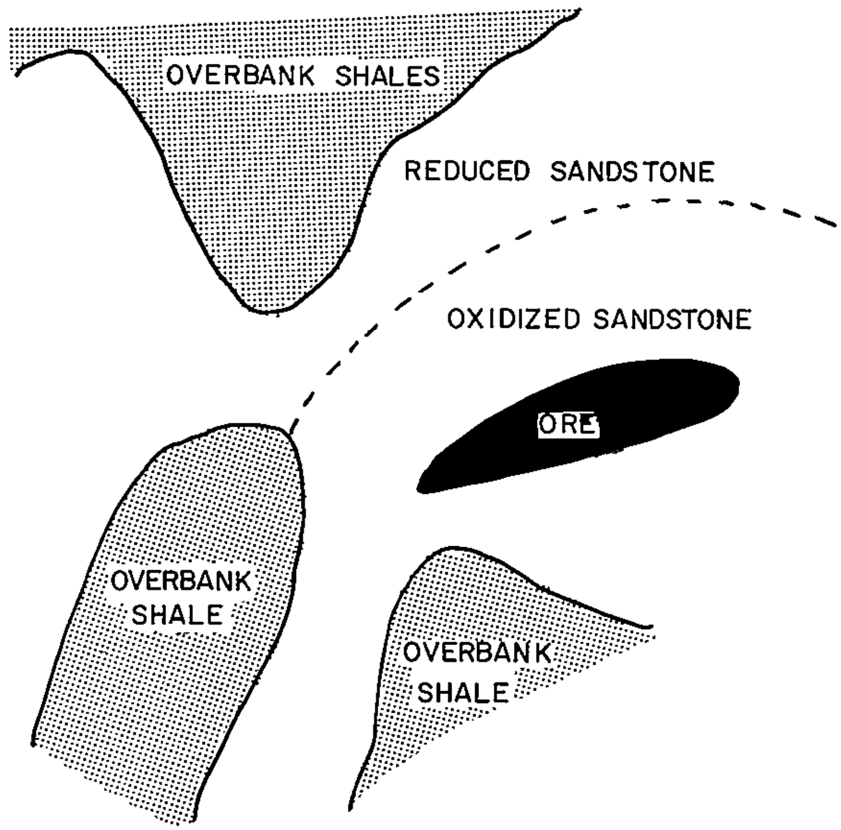

FIGURE 17-SKETCH MAP OF A RELICT OR REMNANT ORE BODY IN THE BRUSHY BASIN MEMBER IN THE SMITH LAKE SUBDISTRICT, NEW MEXICO (MODIFIED FROM K. S. ROSVOLD, UNPUBLISHED REPORT, 1981).

Rosenberg and Hooper (1982). Age dates by Brookins (1980) indicate that primary-tabular mineralization in the Smith Lake and Ambrosia Lake subdistricts are of the same age. This relationship needs to be studied in more detail.

Additional minor occurrences are found in the Recapture Member in the Smith Lake area as well as in the Westwater Canyon and Brushy Basin Members east and west of the mineralized Smith Lake trend (Figs. 1, 8, 9; Appendix 1). The significance of these occurrences is unknown. Uranium resources are thought to occur in the Brushy Basin Member, Westwater Canyon Member, Recapture Member, Todilto Limestone, and Cretaceous Dakota Sandstone (U.S. Department of Energy, 1980).

Church Rock subdistrict

The Church Rock subdistrict (or Gallup subdistrict) forms the west end of the Grants uranium district in McKinley County (Fig. 4) and contains about 50 uranium occurrences in the Morrison Formation (Appendix 1, Figs. 8, 9). Most of these occurrences are found in the Westwater Canyon Member, although uranium mineralization also occurs in the Brushy Basin Member and the Cretaceous Dakota Sandtone at six localities. Uranium mineralization in this area was discovered in the early 1960's; however, recent extensions of the district northward and eastward in the Crownpoint area have greatly increased reserves and potential resources. Two distinctive trends occur in the subdistrict; one at the Gallup area where mineralization occurs in the Westwater Canyon and Brushy Basin Members and the Dakota Sandstone, and the second trend at Crownpoint where mineralization occurs in the Westwater Canyon member. It is estimated that reserves at the Gallup trend exceed 100 million lbs (45 million kg) of U_3O_8 (Holen and Finch, 1982). Reserves are confidential for the large deposits owned by Mobil at Crownpoint. Conoco's Section 29 deposit contains 10 million lbs (3 million kg) of U_3O_8 (Wentworth and others, 1980). Additional deposits between 5 and 20 million lbs (1-6 million kg) of U_3O_8 occur at Dalton Pass, Narrow Canyon, and Canyon Prospects (Perkins, 1979); the reliability of these reserve estimates is unknown. Potential uranium resources also occur in the Westwater Canyon and Recapture members (U.S. Department of Energy, 1980).

In the Gallup area, (Figs. 8, 9) redistributed ore bodies are common. R. J. Peterson (1980) describes a pre-Dakota geochemical cell-controlled ore deposit in section 13, T. 16 N., R. 17 W.; although primary tabular mineralization may also be preserved. Elsewhere, ore deposits near the surface are oxidized. Redistributed ore occurs at the Church Rock and Northeast Church Rock mines.

The Church Rock mine was operated during the early 1960's and reopened in 1976 by United Nuclear Corp. Ore occurs in multiple horizons in the Westwater Canyon and Brushy Basin Members and the Cretaceous Dakota Sandstone, and is below the water table. Most of the mineralization is controlled by a steeply dipping fracture system that trends northeastward (Hilpert, 1969). Mineralization in the Dakota Sandstone occurs along the fracture system in the Westwater Canyon Member, and these redistributed ore bodies grade into thin, uneconomic blankets of primary tabular mineralization.

At United Nuclear's Northeast Church Rock mine further north (Appendix 1, Figs. 8, 9), redistributed mineralization is also associated with a northeast-trending fault system. Two mineralized horizons occur in the Westwater Canyon Member and average about 0.20% U_3O_8. Over 15 million lbs (7 million) kg) is estimated to occur at this deposit (Hilpert, 1969).

At Kerr McGee's Northeast Church Rock 1 and Church Rock 1-East mines, mineralization occurs in five sandstones of the Westwater Canyon Member at 1,500 to 2,000 feet (543-610 m) deep. These east-west trending ore deposits are 3-10 ft (1-3 m) thick and average 0.19% U_3O_8 in grade. Primary tabular and redistributed ore bodies are present. Primary tabular ore forms the bulk of the deposit in the middle sandstones of the Westwater Canyon Member, and may have been reworked by early geochemical-cell processes. Typical geochemical-cell controlled roll-front deposits are well developed in the upper sandstone of the Westwater Canyon Member. Fracture-controlled mineralization occurs in the lower sandstones of the Westwater Member and is similar to fracture-controlled deposits in the Ambrosia Lake area. Geochemically, the primary tabular ore deposits are different from primary tabular ore deposits elsewhere in the Grants uranium district. The Northeast Church Rock deposits are lower in organic C, V, and S than primary tabular deposits elsewhere (Fishman and Reynolds, 1983). Furthermore, they appear to be younger in age than deposits in the Smith Lake and Ambrosia Lake areas (Ludwig and others, 1982).

Uranium mineralization at Crownpoint occurs in the 260 ft

(79 m) thick Westwater Canyon member at depths of approximately 2,000 ft (610 m). Up to four mineralized horizons occur at Conoco's deposits in the upper Westwater Canyon Member (Wentworth and others, 1980). Ore appears to parallel sedimentary trends, although thick adjacent mudstones may have contributed to localizing the humates and uranium (Wentworth and others, 1980). These ore deposits are enriched in Mo, V, and Se, and are typical of primary tabular mineralization elsewhere in the Grants district, although redistributed ore may occur locally. Vogt and others (1982) describe the occurrence of uraninite mineralization that is not associated with abundant humic material or coffinite. This may be representative of redistributed ore.

Conoco-WMC (Wyoming Mineral Corp.) recently suspended shaft sinking at its Crowpoint property and now the property is controlled by WMC. Mobil succeeded in producing uranium by in situ leaching in Texas, and the small and isolated ore bodies in the Crownpoint area prompted Mobil to attempt in situ leaching at Crownpoint. Mobil's pilot in situ leaching plant was successful, and Mobil plans continue in situ leaching of their deposits. A slurry containing the yellowcake (U_3O_8 concentrate) is shipped to Texas for processing.

Nose Rock area

The Nose Rock area forms the northern extension of the Grants uranium district northeast of Crownpoint, in north-central McKinley County (Fig. 4). Although this area has not been completely explored, over 25 million lbs (11 million kg) of U_3O_8 in reserves is estimated by Phillips Petroleum Company (D. S.

Clark, 1980). Uranium mineralization occurs in the Westwater Canyon Member at 3,000 to 4,500 ft (914-1,372 m). A southeast migrating redox front has concentrated uranium mineralization in unoxidized sandstones in the Nose Rock area, contrary to the northward-migrating front in the Ambrosia Lake and Smith Lake subdistricts. This primary geochemical-cell controlled ore may be older than primary ore at Ambrosia Lake and differs from redistributed ore (D. S. Clark, 1980). The presence of several roll-type ore bodies in the Nose Rock area may suggest that several redox events occured. Shaft sinking at Nose Rock was suspended in 1981 before any conclusive evidence regarding the nature and genesis of these ore deposits could be obtained.

Chaco Canyon area

The Chaco Canyon area is located north of the Church Rock subdistrict, southeast of the Chaco Canyon National Monument in McKinley and San Juan Counties (Fig. 4). In July through November, 1978, Bendix Field Engineering Corp., contractor for the U.S. Department of Energy, drilled 15 holes 4,200 to 5,200 ft (1,280-1,580 m) deep to test the uranium potential of the Morrison Formation in deeper portions of the San Juan Basin (Hicks and others, 1980; Bendix Field Engineering Corp., 1979).

Five drill holes penetrated nine mineralized zones in both the Westwater Canyon and lower Brushy Basin Members. The zones contain from 0.015 to 0.125% eU_3O_8 (radiometric equivalent U_3O_8). Mineralization occurs at the contacts between altered arkosic sandstones and mudstones. The lithology and depositional environments of the sandstones in the Chaco Canyon area are similar to sandstones elsewhere in the Grants uranium district, but the uranium mineralization is thinner and lower grade than in the Grants uranium district. The uranium mineralization in Chaco Canyon also contains less organic carbon than primary tabular mineralization elsewhere in the Grants uranium district (Lease, 1979; Brookins, 1979; Hicks and others, 1980).

The U.S. Department of Energy (1980) has estimated potential resources in the area (McLemore, 1981). The presence of the uranium mineralization in the Westwater Canyon and Brushy Basin Members does indicate a potential for uranium deposits in the deeper portions of the San Juan Basin. The economic feasibility of production remains to be proven.

Reflections and synthesis of Morrison mineralization in the Grants uranium district

Although the uranium deposits in the Grants uranium district have been studied for over thirty years and have received more attention than most mineral deposits, geologists cannot agree on the origin and genesis of the ore bodies. The following comments and observations on this problem are in order:

1) Three types of mineralization are found in the Grants uranium district; they are (a) primary tabular (trend or prefault), (b) redistributed (stack or fault-controlled and roll-type or geochemical-cell controlled), and (c) remnant or relict primary ore.
2) Mineralization is similar whether in sandstones of the Westwater Canyon Member, Brushy Basin Member, Poison Canyon sandstone, or Jackpile sandstone, although local differences do occur.

3) The nature of the organic material is still unclear, although a humic affinity appears most likely (Squyres, 1980; Leventhal, 1980; Granger, 1968). Petrographic relationships, chemistry, and uranium distribution imply that uranium was introduced into the sediments after the organic material was emplaced, but before sediment compaction (Webster, 1983).

4) Primary tabular ore bodies are typically enriched in Mo, V, and Se. However, Mo and V are generally absent or in low concentrations in redistributed ore bodies.

5) Bleached sandstones and altered feldspars and magnetite are associated with mineralization.

6) The importance of composition of the host sandstones, geometry of the host sandstones, clay mineralogy, or ground-water flow is unclear at the present time.

7) Depositional environments of host sandstones may have locally controlled humate and uranium concentration. However, any conclusive associations between mineralization and depositional environments have not been demonstrated.

8) Most of the primary uranium mineralization exhibits little or no relationship to tectonic structures. However, pre-Cretaceous structures influenced the deposition of host sandstones and ground-water flow and therefore, may have indirectly influenced primary tabular mineralization. After deposition of the host sandstones, regional strucures may have influenced ground-water flow and, in turn, redistribution and mobilization of uranium mineralization.

9) Mobilization and redistribution of primary tabular ore

occurred periodically and produced redistributed ore bodies of different ages. Some primary tabular ore may hae been originally deposited by geochemical processes (roll-type). Subsequent geochemical events redistributed this ore.

10) Numerous sources exist for the uranium and associated elements. L. T. Silver, (1977) found zircons in granitic basement rocks to be anomalously high in uranium and suggested these rocks as a potential source. The alteration of acid volcanic detrital fragments within the host sandstones (D. C. Fitch, 1980; Falkowski, 1980a, b) could release uranium into the ground water system. Alteration of volcanic ash units in the source terrain also could release uranium (S. S. Adams, and Saucier, 1981). A regional uraniferous source terrain appears to be a likely source for these deposits.

11) Numerous sources exist for the ore-controlling humates. Humates may be derived from (a) buried organic material and logs within the host sandstones (Squyres, 1980; Granger, 1968); (b) adjacent lacustrine mudstones and shales rich in organic material (F. Peterson, and Turner-Peterson, 1980); (c) detrital material (Jacobson, 1980); (d) overlying Dakota Sandstone (Green, 1980; Granger, 1968; Granger and others, 1961); or (e) organic-rich layers deposited on top of the Morrison Formation prior to deposition of the Dakota Sandstone and subsequently eroded (Green, 1980; Granger, 1968).

12) Preservation of the uranium deposits can be attributed to (a) protective overlying cover of impermeable rocks; (b)

many deposits occur below the water table; (c) the resistance of the humate-uranium mineralization complex to oxidation and mobilization; (d) calcite and clay cementation; and (e) local structures (folds).

The mineralization history of the Grants uranium district is complex and depends upon depositional environments, ground-water flow regimes during depositional and post-depositional events and preservation mechanisms. It is beyond the scope of this report to adequately discuss these problems. The few topics discussed above are intended to provide the reader with a basic understanding of the complexity involved in the formation of these unique uranium deposits.

Shiprock District

The Shiprock district is located on the Navajo Reservation in northwestern San Juan County and is subdivided into two subdistricts, the Chuska (or Sanostee) and Carrizo Mountains. The majority of the uranium deposits occur in the Salt Wash and Recapture Members of the Morrison Formation, although some ore was produced also from the Todilto Limestone. Since 1948, over 495,000 lbs (224,000 kg) of uranium have been produced from this district (Table 4). Only one mine, the Enos Johnson mine in the Chuska subdistrict, has been active during recent times. This mine closed in 1982 because of a lack of a market.

The Salt Wash Member is the lowest member of the Morrison Formation in the area (Fig. 10) and consists of fine- to medium-grained sandstones and sandy and silty shales. The Salt Wash is

220 ft (67 m) thick at Oak Creek in the Carrizo Mountains subdistrict and thins to the north due to a Bluff high. At Sanostee (Chuska subdistrict), the Salt Wash is only 50 ft (15 m) thick. Farther southeast, in the Toadlena and Church Rock areas, the Salt Wash is absent (Hilpert, 1969) due to non-deposition.

The Recapture Member overlies the Salt Wash Member and consists of locally conglomeratic sandstones and minor interbeds of siltstone and shale. The Recapture Member is about 500 ft (152 m) thick at Sanostee and thins northward, where it grades into a sandstone-shale sequence.

The Westwater Canyon Member ranges from 140 to 270 ft (43 to 88 m) thick and consists of arkosic to subarkosic sandstones and shales (Hilpert, 1969). The Brushy Basin Member ranges from 150 to 400 ft (46 to 122 m) in thickness and consists primarily of shale with a few arkosic to subarkosic sandstones (Hilpert, 1969; Green and others, 1980d). The sandstones in these members are typical of the mineralized sandstones in the Grants uranium district; however, detrital organic material is absent in the outcrops (Green and others, 1980d). At least one subeconomic ore deposit is known to occur in the Westwater Canyon Member in this district, and there are a few occurrences and radioactive anomalies in Brushy Basin sandstones (Appendix 1; Green and others, 1980d). In addition, similar lithologies, depositional environments, and alteration between the sandstones in the Shiprock district and the Grants district suggest that these sandstones could contain uranium ore bodies (Green and others, 1980d; U.S. Department of Energy, 1980).

Uranium mineralization occurs in the Todilto Limestone; however, only one property produced ore which was below Ø.1Ø% U_3O_8 (Appendix 3). Todilto mineralization is spotty and discontinuous, and does not constitute an economic resource in this area (Green and others, 198Ød).

Carrizo Mountains subdistrict

The Carrizo Mountains subdistrict forms the northern portion of the Shiprock district in the eastern Carrizo Mountains along the New Mexico and Arizona border (Figs. 1, 18). Much of the district lies in Arizona (Scarborough, 1981). Uranium and vanadium mineralization was discovered in the Salt Wash Member in 1918 by John Wade (Chenoweth and Learned, 198Øa). Radium ore was produced from one lease, owned by George O. Williams and Nephi Johnson from 1923 to 1927 (Bureau of Indian Affairs files, 1927). The area remained inactive from 1927 until 1942, when Curran Brothers and Wade, and the Vanadium Corporation of America obtained mining leases for vanadium in Arizona and New Mexico. Subsequently 12 plots or claims were issued to VCA and the entire lease was commonly referred to as the East Reservation Lease (lease No. I-149-IND-57Ø5). Approximate locations of the five plots in New Mexico are shown in Figure 18. Early production from the East Reservation Lease from 1942 to 1946 amounted to 1Ø,216 tons (9,268 metric tons) of ore averaging 2.47% V_2O_5. Much of the uranium left in the mill tailings was reprocessed at Durango, Colorado, for the Manhattan project. The total amount of contained U_3O_8 is estimated to be 44,95Ø lbs (2Ø,389 kg; W. L. Chenoweth, written commun., 1983).

The AEC was created in 1947 and, as a result of an ore procurement program, VCA began prospecting and mining on their East Reservation Lease for uranium. The first uranium ore shipments were in April 1948. Mining in the Carrizo Mountains ceased in 1968. From 1948 to 1968, 160,772 lbs (72,925 kg) of U_3O_8 were produced from the New Mexico portion of the Carrizo Mountains subdistrict (Table 4).

Uranium and vanadium mineralization in the Carrizo Mountains subdistrict is restricted to the Salt Wash Member. Ore bodies tend to form clusters that are elongated and blanket-like. Unlike uranium deposits in the Grants uranium district, the ore deposits in the Carrizo Mountains subdistrict are high in vanadium and are controlled by paleostream channels (Hilpert, 1969; Chenoweth and Malan, 1973; Huffman and others, 1980). The U:V ratio averages about 1:7 and ranges from 3:2 to 1:13 (Hilpert, 1969). Ore bodies tend to parallel paleostream channels and are associated with organic material derived frmo adjacent sandbar, swamp, and lake deposits. Most ore bodies are small and irregular, and only a few deposits have yielded over 1,000 tons (907 metric tons) of ore (Appendix 3; Hilpert, 1969). It is likely that additional ore deposits may occur in the area (Hilpert, 1969; Scarborough, 1981; U.S. Department of Energy, 1980; Green and others, 1980d), especially downdip of King Tutt mesa (Fig. 18) in a projection of a mineralized paleochannel system (W. L. Chenoweth, personal commun., 1983). Additional ore bodies may also occur on Horse Mesa (Fig. 18).

The source of uranium and vanadium in the Salt Wash Member is not known, but could have been derived from nearby volcanic

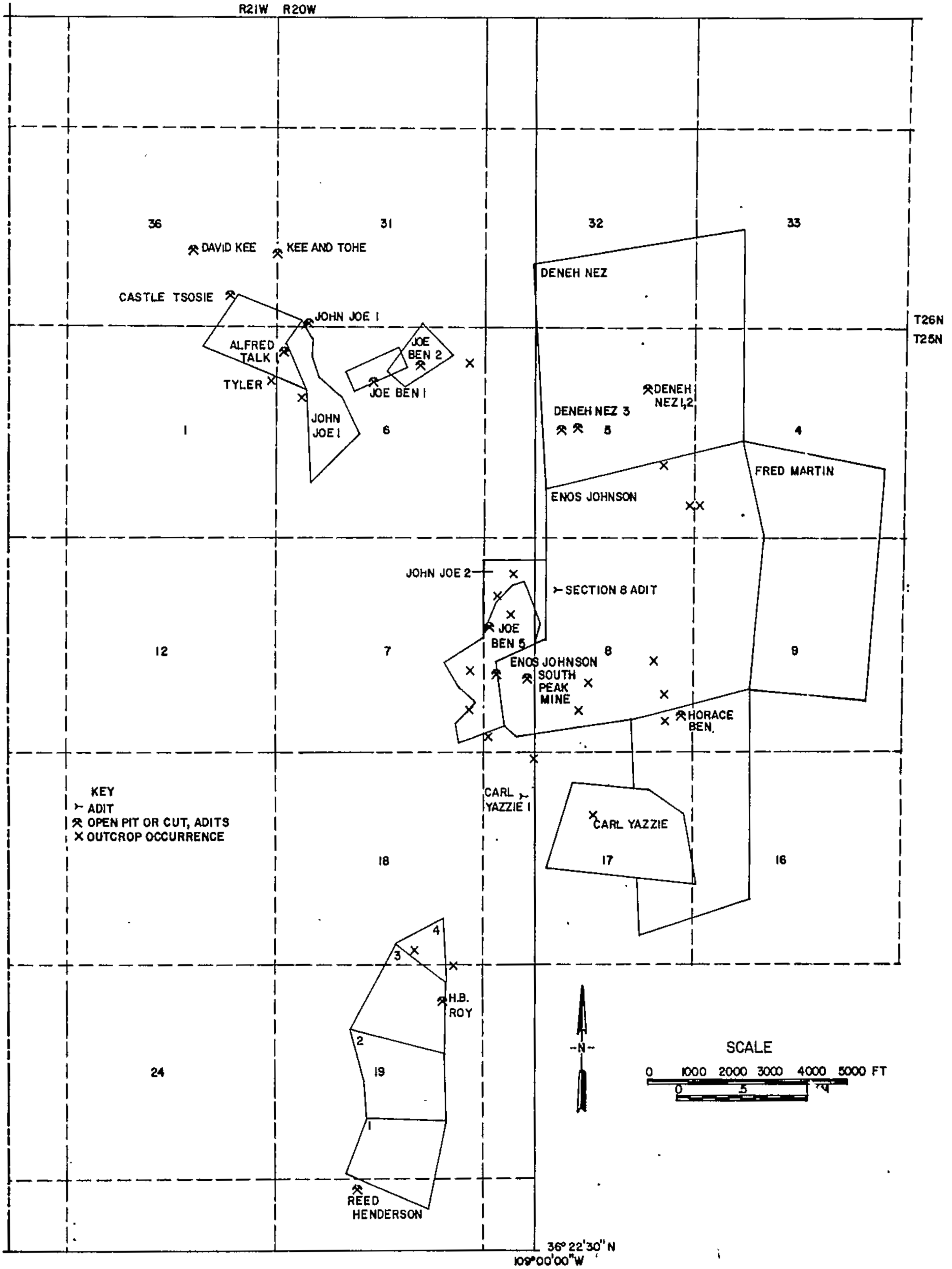

FIGURE 19- URANIUM MINING CLAIMS AND MINES IN THE CHUSKA MOUNTAINS (SANOSTEE) SUBDISTRICT , SHIPROCK DISTRICT, SAN JUAN COUNTY , NEW MEXICO. MODIFIED FROM UNPUBLISHED U.S. ATOMIC ENERGY COMMISION FILES (1956) AND BLAGBROUGH AND OTHERS (1959).

terrains or volcanic detritus within the Morrison Formation (Thamm and others, 1981; Scarborough, 1981). The time of deposition is not known either, but is presumed to be pre-Laramide in age (Scarborough, 1981).

Chuska Subdistrict

The Chuska or Sanostee subdistrict is in the southern portion of the Shiprock district in the Chuska Mountains (Figs. 1, 19). Uranium and vanadium mineralization was discovered in the Salt Wash and Recapture Members and the Todilto Limestone in the early 1950's and the first ore shipments were made in 1951. From 1951 to 1982, approximately 335,000 lbs (152,000 kg) of U308 have been produced from 10 properties (Appendix 3; Table 4). The only active mine in recent years in this subdistrict is the Enos Johnson mine, which is the largest producing mine in the Chuska subdistrict and outside the Grants uranium district.

Uranium in the Salt Wash and Recapture Members occurs as grain coatings, cement, and tabular ore bodies in sandstones and is associated with organic material. Mineralized carbonized logs are common. The upper Recapture sandstones contain the largest and richest deposits in the Chuska subdistrict. The U:V ratio averages about 1:2 and ranges from 1:3 to 3:1, similarly to U:V ratios found in the Grants district (Hilpert, 1969). Two types of ore are present. A black ore is associated with organic material and a red ore is associated with hematite. The lack of vanadium and high quantities of clay have hindered the marketing of this ore at mills in Durango and Shiprock. Ore bodies may parallel paleostream channels as in the Carrizo Mountains subdistrict, but nonchannel-controlled peneconcordant ore bodies are common (Green and others, 1980d; Blagbrough and others, 1959). The ore bodies in the Salt Wash are small, ranging from 25 to 50 ft (7 to 15 m) in diameter and up to 2 ft (0.6 m) in thickness (Blagbrough and others, 1959). The ore bodies in the upper Recapture are larger, ranging up to hundreds of feet in diameter and up to 20 ft (6 m) in thickness (Blagbrough and others, 1959). Ore grades in both units average about 0.20% U_3O_8. The source and timing of these deposits are unknown, but probably related to the deposits in the Carrizo Mountains subdistrict. It is likely that additional ore deposits may exist in the Salt Wash and Recapture Members in this area (Blagbrough and others, 1954; Hilpert, 1969; U.S. Department of Energy, 1980; Green and others, 1980d).

<u>Other areas in New Mexico</u>

Several areas outside the Grants uranium district are noted for uranium potential in sandstones and shales in the Morrison Formation. One of the more favorable areas is at the Collins-Warm Springs area in the Nacimiento Mountains, in Sandoval County (Appendix 1). Eleven uranium occurrences are found in the Brushy Basin Member (Appendix 1); one of them, the Collins, produced 989 lbs (449 kg) of U_3O_8 that averaged 0.12% U_3O_8 (Appendix 3). At least three occurrences are found in the Westwater Canyon Member, and one occurrence is in the Morrison Formation, undivided (Appendix 1).

The Recapture, Westwater Canyon, and Brushy Basin Members are present in this area and their lithologies are similar to those in the Grants uranium district (Santos, 1975a). The Westwater Canyon Member is about 240 ft (73 m) thick, but may be locally absent. The Brushy Basin Member is 300 to 350 ft (91-107 m) thick and consists of a lower mudstone unit and the overlying Jackpile sandstone (of economic usage).

Uranium mineralization occurs in at least four horizons in the upper Westwater Canyon Member, the lower unit of the Brushy Basin Member, and lower Jackpile Sandstone. Uranium occurs (1) at the contacts between sandstone and green claystone, (2) along bedding planes and fractures in sandstone and underlying siltstone, and (3) as disseminations within homogeneous sandstone (Kittleman and Chenoweth, 1957). The potential for discovering additional uranium deposits in the Brushy Basin Member in this area is good.

Uranium mineralization occurs in the Westwater Canyon Member at Dennison-Bunn claim south of Cuba in Sandoval County (Fig. 1). The Westwater Canyon Member is about 200 ft (61 m) thick and consists of medium- to fine-grained sandstones, siltstones, and shales. The host sandstones are characteristic of low- to moderately low-energy fluvial environments. The channels trend west-southwest (Ridgley, 1980). Uranium occurs at the irregular boundary between oxidized and reduced sandstones throughout the Westwater Canyon Member in this area, and is associated with iron-stained zones and carbonaceous material. This deposit may be a roll-type deposit (Ridgley, 1980) or a remnant or relict ore body, and may be indicative of additional ore deposits in the area. Geochemical and petrologic studies are needed to adequately classify this ore deposit. Potential resources in the Westwater Canyon Member are thought to occur in this area (U.S. Department of Energy, 1980). as 434 tons (344 metric tons) of U_3O_8 at $30 per pound at an average grade of 0.27% U_3O_8 (U.S. Department of Energy, 1980).

Minor uranium occurrences are found throughout the Morrison Formation in the Majors Ranch area, White Mesa district, Rio Puerco Valley, and Nacimiento Mountains in Sandoval County, and in the Chama Basin and Gallina Mountain areas in Rio Arriba County (Appendix 1). Many drill holes in these areas have penetrated mineralization. However, some of these areas are remote and isolated, and only reconnaissance studies, if any, have been completed (Santos, 1975a; Light, 1982; Chenoweth, 1974b; Kittleman, 1957). Additional work in these areas is warranted.

In eastern New Mexico (Mora, Quay, San Miguel, and Harding Counties), the Morrison Formation is divided into three informal members. The basal member consists of red, green, and purple shales separated by red or gray sandstones. The middle member consists of red, green, and purple shales and red sandstones. The upper member consists of gray and buff conglomeratic sandstones and sandstones and interbedded sandy shales (W. I. Finch, 1972). Twelve uranium occurrences are found in the Morrison Formation in eastern New Mexico (Appendix 1), and only one of these, the Polita #2 in Harding County, produced ore which amounted to 2 lbs (0.9 kg) of U_3O_8 at an average grade of 0.15% U_3O_8 (Appendix 3). A shipment of 30 tons (27 metric tons) of mineralized, silicified logs is reported from the Bel Aro mine

(W. I. Finch, 1972), but is not confirmed by AEC production records .

Uranium generally occurs in the basal member or the lower portion of the middle members, although some minor occurrences are found in the upper member as well (Appendix 1). Uranium is associated with woody material, fossil logs and bones, carbonaceous debris, and at sandstone-shale interfaces. Mineralization is low grade and small in extent. It is doubtful that any large Grants-type deposits occur in these sandstones due to (1) lack of abundant humic material, (2) lack of favorable braided-stream sandstones, and (3) discontinuous and thin sandstones.

Sandstone, Shale, and Coal Deposits in other Formations

Uranium in Pennsylvanian and Permian sedimentary rocks

Pennsylvanian and Permian rocks occur throughout the state and consist of numerous formational units (Dane and Bachman, 1965; New Mexico Geological Society, 1982). Less than 100 uranium occurrences are found in sandstones of the Sangre de Cristo (Pennsylvanian-Permian), Abo (Permian), and Cutler (Permian) Formations (Appendix 1). Production from these units amounts to 295 lbs (134 kg) of U_3O_8 from 10 properties in Mora, Rio Arriba, and Sierra Counties (Appendix 3). Minor, isolated uranium occurrences are also found in the Madera (Pennsylvanian) and Yeso (Permian) Formations. The majority of uranium occurrences in Pennsylvanian and Permian rocks are found in (1) eastern New Mexico, (2) the Nacimiento Mountains in Sandoval and Rio Arriba Counties, (3) the Scholle district in Socorro, Torrance, and Valencia Counties, (4) the Zuni Mountains in Cibola County, (5) the Sierra Cuchillo in Sierra County, and (6) the Sacramento Mountains in Otero County. Minor, isolated occurrences are found in Tijeras Canyon in Bernalillo County, Estey district in Lincoln County, Rayo district in Socorro County, and Iron Mountain and Caballo Mountains in Sierra County (Appendix 1).

In eastern New Mexico, uranium occurs in feldspathic to arkosic sandstones of the Sangre de Cristo Formation (Appendix 1). The Sangre de Cristo Formation overlies marine beds of the Madera Formation. The Yeso Formation and San Andres Limestone overlie the Sangre de Cristo Formation (May and others, 1977).

The Sangre de Cristo Formation consists of interbedded red to maroon sandstones, conglomerates, siltstones, and shales deposited in piedmont, lacustrine, and meandering to braided-stream, alluvial fan environments. The maximum thickness is about 5,000 ft (1,524 m; May and others, 1977).

Twelve uranium occurrences are found in the Sangre de Cristo Formation in Colfax, Mora, San Miguel, and Santa Fe Counties (Appendix 1). Uranium and vanadium have been produced from only one property, the LeDeoux Ranch in Mora County, where production amounted to 9 lbs (4 kg) of U_3O_8 at an average grade of 0.04% (Appendix 3). Uranium-vanadium mineralization typically occurs in fluvial sandstones and conglomerates of a braided-stream environment (Appendix 1; May and others, 1977). Copper occurs with uranium-vanadium mineralization at the Coyote district in Mora county (Tschanz and others, 1958). Gamma-log anomalies are interpreted to represent uranium mineralization in subsurface drill holes, as they are found in several drill holes (Appendix 1; May and others, 1977; Reid and others, 1980a). The presence of uranium occurrences, abundant organic material, favorable lithologies and geometry of host rocks, and a uraniferous source in the Precambrian terrain of the Sangre de Cristo Moutains indicate potential for medium-size uranium ore bodies. The U.S. Department of Energy (1980) is of the opinion that potential uranium resources do occur in this area.

Permian stratigraphy in north-central New Mexico is complex (New Mexico Geological Society, 1982) and will not be described in detail here. North of the Nacimiento Mountains, the dominant uranium-bearing unit is the Cutler Formation which consists of approximately 1,500 to 2,500 ft (457 to 762 m) of fluvial sediments. In the Nacimiento Mountains, in Sandoval and Rio Arriba Counties, the Cutler Formation grades into the Abo Formation and the overlying Yeso Formation (L. A. Woodward, Kaufman, and others, 1974). The Abo Formation is lithologically similar to the Cutler Formation and consists of fluvial sandstones separated by thick shales and mudstones. The Yeso Formation consists of a lower eolian(?) sandstone overlain by marginal marine and intertidal, fine-grained, reddish sediments with local evaporites.

Less than a dozen uranium occurrences are found in the Cutler Formation in Rio Arriba County, and the majority of these are in the Coyote area (Appendix 1). Less than 182 lbs (83 kg) of U_3O_8 were produced from three properties in the Coyote area (Appendix 3). One ore shipment from the Red Head #2 averaged 0.16% U_3O_8; however, other shipments averaged 0.10% U_3O_8 or less (Appendix 3). Uranium occurs with organic material in fluvial sandstones in this area. The uranium potential of this area is uncertain, but is presumed to be low.

In the Nacimiento Mountains, over 35 uranium occurrences are known in the Abo Formation (Appendix 1); however, only two properties, both in the Vegitas Cluster area, have yielded 19 lbs (9 kg) of U_3O_8 (Appendix 3). Uranium mineralization typically occurs with copper mineralization and both are associated with organic material in fluvial sandstones, siltstones, and conglomerates. In the Jarosa area mineralized sandstones are partially eroded, leaving mineralized sandstone remnants exposed;

one of these occurrences is at Teakettle Rock (Fig. 20). Uranium contents rarely exceed 0.10% except in Section 12 (T. 21 N., R. 2 E.) and at Deer Creek where uranium concentration is 0.14% U_3O_8 (Appendix 2). In most places, uranium-copper mineralization is sporadic and discontinuous. Organic material is only locally abundant. The potential for discovering high-grade, large-tonnage uranium deposits in this area is poor.

Uranium and copper minerals occur in meandering fluvial sandstones, conglomerates, and siltstones of the Abo Formation in the Scholle district in Torrance, Socorro, and Valencia Counties (Fig. 21). Although no uranium has been produced from this area, about $700 of radium was produced from the Abo Mining Claims (3N.5E.23.111, Appendix 1) in 1916 (U.S. Bureau of Mines files, 1949). Total mineral production from this district amounts to 15,037 tons (13,641 metric tons) of ore yielding 1,122,465 lbs (509,142 kg) of copper; 426 lbs (193 kg) of lead; 8,148 ounces (230,992 grams) of silver; and 10 ounces (282 grams) of gold between 1915 and 1962 (U.S. Bureau of Mines, Mineral Yearbook, 1904-1981). Five selected samples from this district ranged from 0.001% to 0.017% U_3O_8, 0.83 to 14.33% Cu, 0.05 to 3.18 oz/ton (15.6 to 99.4 mg/kg) Ag, and trace amounts of Au (Appendix 1; McLemore, 1982c). Most of the mines and prospects consist of shafts, pits, and short adits (Fig. 21), and the most extensive underground workings are at Copper Girl No. 1 (Fig. 22) and the Abo Mine. Prospecting for uranium took place in the 1950's, after a local prospector discovered a thin seam of 13% U_3O_8 at the Abo Mining Claims (3N.5E.23.111, Appendix 1).

Uranium and copper mineralization occurs as (1)

Figure 2Ø - Teakettle Rock in the Nacimiento Mountains is a remnant of a resistant fluvial sandstone in the Permian Abo Formation. Disseminated copper and uranium minerals are associated with carbonaceous material that forms banding within the bleached sandstone.

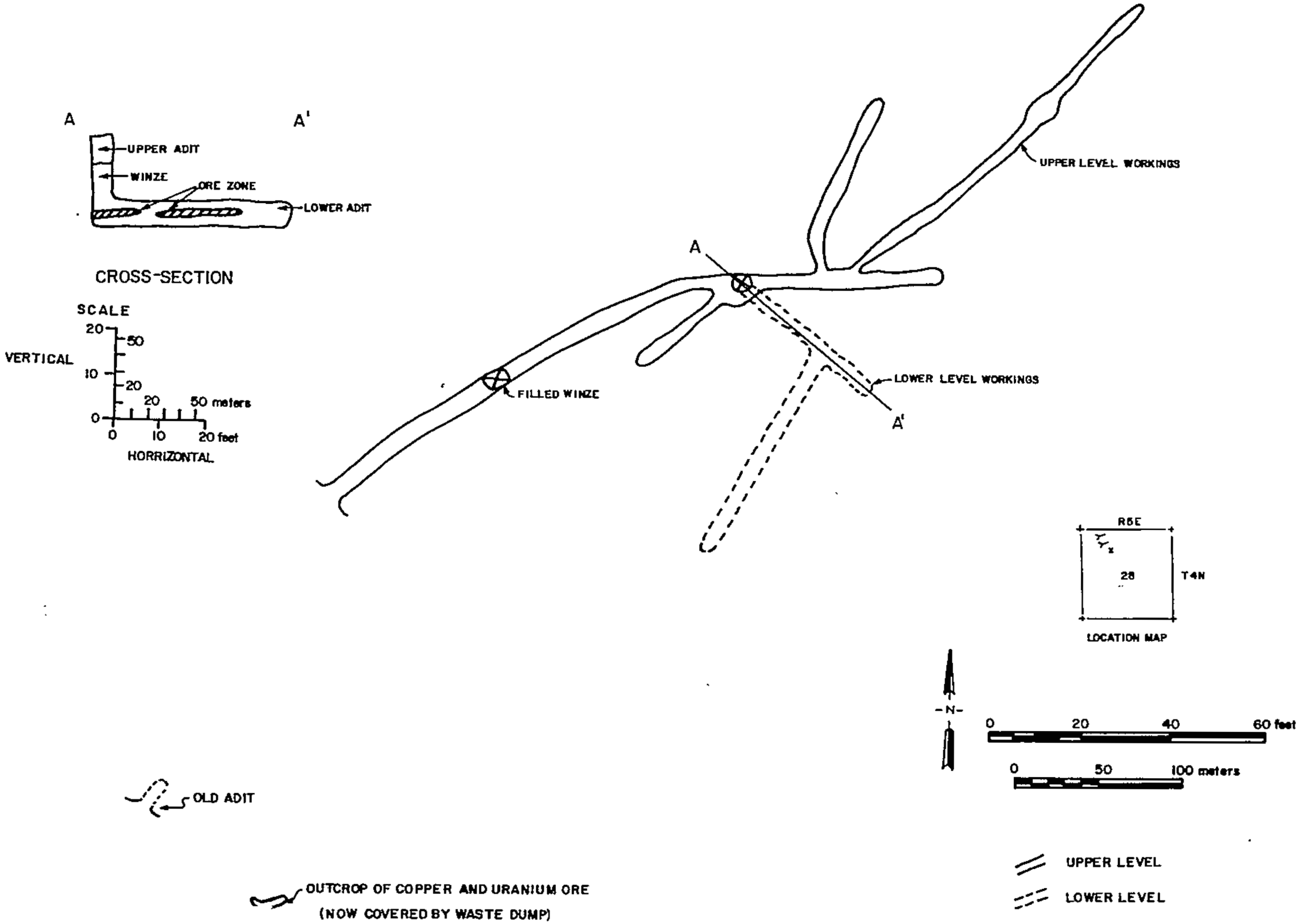

FIGURE 22- PLAN MAP OF THE COPPER GIRL NO.1 MINE, TORRANCE COUNTY, NEW MEXICO.

SIMPLIFED FROM U.S. ATOMIC ENERGY COMMISION MAP (JULY 1955)

disseminations within bleached arkosic sandstones, limestone-pebble conglomerates, and gray siltstones; (2) along bedding planes within sandstones and underlying siltstones and shales; and (3) as replacements of wood and organic material. Copper oxides, chalcopyrite, and chalcocite are the dominant copper minerals present; whereas tyuyamunite, metatyuyamunite, carnotite, and uraninite are the dominant uranium minerals present (R. Gibson, 1952; Collins and Nye, 1957b). The uranium-copper mineralization is low grade and discontinuous along the outcrop. Several small but scattered ore bodies were located by subsurface drilling in meandering fluvial sandstones in the vicinity of the Abo Mining Claims. However, none of these ore economic bodies approached economic grades (Collins and Nye, 1957b). Anomalously high uranium and copper concentrations occur in water and stream-sediment samples from the immediate vicinity of the mineralized area, but only weak anomalies occur downdip (Pierson and others, 1981; Planner, 1980). This suggests that only small, scattered, low-grade ore bodies occur in the area, and that the economic potential of the Scholle district is low.

Uranium also occurs with copper mineralization in the Abo Formation at the Mirabel copper and Ingersol mines in the Zuni Mountains, Cibola County (Fig. 23; Appendix 1). Uranium was first reported to occur in this area in 1952 (Gott and Erickson, 1952), and is also found in fault and shear zones in the underlying Precambrian granitic rocks (Fig. 23; Appendix 1). Although no uranium has been produced from this area, copper was first mined by Indians several hundred years ago (Lindgren and

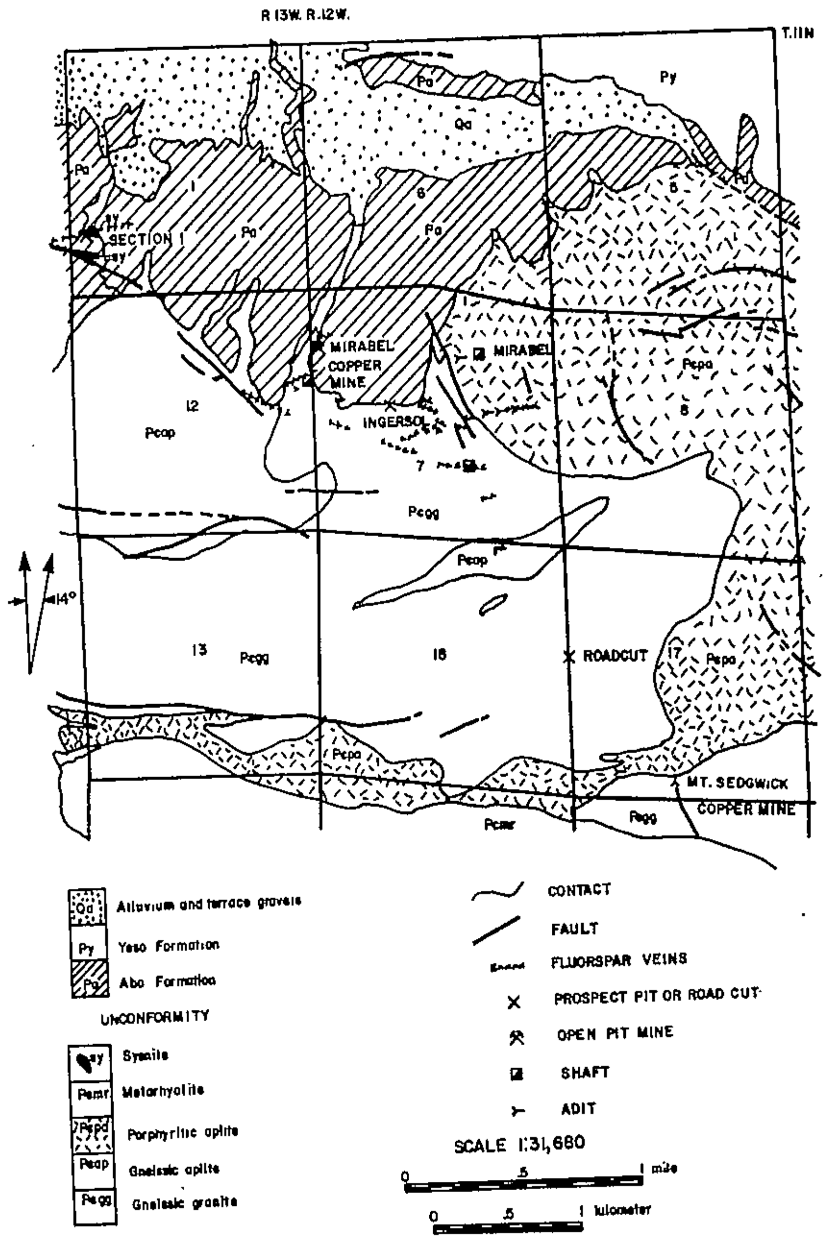

FIGURE 23 -SIMPLIFIED GEOLOGIC MAP SHOWING URANIUM IN THE ZUNI MOUNTAINS, CIBOLA COUNTY. MODIFIED FROM GODDARD (1966).

others, 1910). Since then copper, gold, and silver have been produced from this area, but production figures are not known.

Copper and uranium minerals replace wood fragments and organic debris in fluvial sandstones, which is typical of most Abo mineralization in New Mexico. Anomalously high uranium values occur in water and stream-sediment samples in this area (Maassen and LaDelfe, 1980) and radiometric anomalies were detected by an aerial reconnaissance of the area (Geometrics, Inc., 1979a). These anomalies may be attributed to additional sandstone deposits or to hydrothermal-vein deposits that occur in the area.

The Abo Formation in the Sierra Cuchillo, Sierra County, consists of basal conglomerates, sandstones, and limestones overlain by a thick shale sequence. The maximum thickness of the Abo Formation is approximately 920 ft (280 m; Jahns, 1955a). Six uranium occurrences are found in Abo sandstones, siltstones, and limestones (Appendix 1), and production from three of these occurrences amounts to 47 lbs (21 kg) of U_3O_8 (Appendix 3). Production from one property, State mining lease, assayed 0.16% U_3O_8. At the Glory No. 2 and Empire claims, uranium and copper minerals occur in silicified sandstones of the Abo Formation and in Tertiary rhyolite dikes. Production from these claims amounts to 28 lbs (17 kg) of U_3O_8 at an average grade of 0.18 (Appendix 3) and an unknown quantity of copper ore. The mineralization at Glory No. 2 and Empire claims is described as hydrothermal-vein deposits (Boyd, 1957); however, the permeability of the sandstones and presence of organic material influence deposition of mineralization.

In general, the lack of continuous permeable sandstones, the absence of abundant organic material, and the low grade and small size of known deposits suggest that economic ore bodies are unlikely to be found in the Sierra Cuchillo. However, ore bodies similar to the Glory No. 2 and Empire claims, that are related to Tertiary intrusives or volcanics, may occur in the Sierra Cuchillo.

Uranium, copper, lead, and zinc mineralization occurs in the Abo Formation in the Sacramento Mountains, Otero County (Appendix 1). The Abo Formation in this area is subdivided into three members, a basal conglomerate (Ø-3ØØ ft = 15-91 m thick), a middle arkose (5Ø-2ØØ ft = 15-61 m thick), and an upper red shale (Ø-3ØØ ft = Ø-91 m thick). Most of the mineralization occurs in the middle arkose member in the Sacramento and Tularosa mining districts (Appendix 1; Jerome and others, 1965; LaPoint, 1976).

Uranium-copper mineralization is found in nodules, as replacements of woody material along bedding planes and fractures, and at sandstone-shale interfaces. However, lead and zinc mineralization is the dominant ore in the High Rolls area in the Sacramento mining district and accounts for most of the mineral production (Jerome and others, 1965). Significant amounts of copper and trace amounts of uranium are found with lead-zinc mineralization only at the Warnock mine, although low concentrations of copper may occur at other lead mines. Lead and zinc occur in minor quantities at copper mines. A sample from the Adycopt copper mine assayed Ø.ØØ8% U_3O_8, 6.45% Cu, and Ø.Ø1% Pb (Appendix 2). North of the High Rolls area, up to Ø.Ø3% U3O8 is found at the Luz #2 occurrence (Appendix 2); lead and copper are present in minor quantities (Appendix 1).

The unique relationship between copper-uranium mineralization and lead-zinc mineralization is unclear. The structural history, presence of igneous rocks, and mineral assemblages suggest a hydrothermal origin (Jerome and others, 1965). However, no clear evidence of hydrothermal activity and no significant alteration are found adjacent to igneous dikes in the area. Although lead-zinc mineralization does not appear to be related to organic material, uranium-copper mineralization is. The absence of hydrothermal alteration, mineral associations, and ore-controlling features (sedimentary and bedding characteristics instead of fractures and faults) suggests a syngenic (Jerome and others, 1965) or hypogenic origin for the lead, zinc, copper, and uranium mineralization. Original groundwater flow or subsequent remobilization of uranium and copper could have formed copper deposits in areas of abundant organic material. Unfortunately, the subsurface potential, the source of mineralization, and the mineralization processes remain unclear.

In general, Pennsylvanian and Permian sediments in New Mexico are unfavorable for large, economic uranium deposits, except for the Sangre de Cristo Formation. Although numerous uranium occurrences are found in these rocks, they are low grade, small in extent, and occur in discontinuous and thin sandstones, siltstones, and limestones. Organic material is the primary limiting factor, as it occurs abundantly only locally. In contrast, the Sangre de Criso Formation contains ore bodies in braided-stream sandstones that tend to be regionally continuous and organic material is abundant. Past production from Pennsylvanian and Permian sediments is minor and future production is doubtful.

Uranium in Triassic sedimentary rocks

The majority of uranium occurrences in Triassic sedimentary rocks are found in the underlying Santa Rosa Sandstone and in the Chinle Formation in eastern New Mexico (Appendix 1). Although in Arizona more uranium was produced from the Chinle Formation than from any other unit (Scarborough, 1980, 1981), in New Mexico uranium mineralization in Triassic rocks is minor. The largest red-bed sandstone copper deposits of New Mexico are in the Chinle Formation (Soulè, 1956; L. A. Woodward, Kaufman, and others, 1974), however, less than 100 uranium occurrences are found in Triassic sedimentary rocks in New Mexico. The majority of these are in the Great Plains of eastern New Mexico and the Nacimiento Mountains in Rio Arriba and Sandoval Counties (Appendix 1). Less than 177 lbs (80 kg) of U_3O_8 have been produced from 5 mines in the Chinle Formation (Appendix 3). Uranium in Triassic rocks also occurs in the Chaco Basin-Llaves area in Rio Arriba County, and the East Mogollon Slope area in Catron County and adjacent eastern Arizona. Minor, isolated uranium occurrences are found in Cibola, Santa Fe, Socorro, and Lincoln Counties (Appendix 1).

In eastern New Mexico (Quay, San Miguel, Chaves, Lea, Guadalupe, and Harding Counties), the Triassic section consists of the Dockum Group, which contains (in ascending order) the Santa Rosa Sandstone, the Chinle Formation, and the Redonda

Formation. In western New Mexico (San Juan Basin), the Triassic section consists primarily of the Chinle Formation. However, in the Zuni Mountains the Moenkopi Formation underlies the Chinle, and in western New Mexico the Chinle is locally overlain by the Glen Canyon Group (Green and Pierson, 1977; O'Sullivan, 1977).

Only four uranium occurrences are found in the basal Santa Rosa Sandstone in eastern New Mexico (Appendix 1). The Santa Rosa Sandstone consists dominantly of medium-grained, calcareous sandstones, is about 150 to 200 ft (45 to 61 m) thick, and is subdivided into four members (V. C. Kelley, 1972). The uranium mineralization occurs in the middle and upper members (W. I. Finch, 1972). Uranium also occurs with the asphaltite deposits near Santa Rosa (Hail, 1955, 1957). Uranium mineralization is absent at the Stauber copper mine in Guadalupe County (Gott and Erickson, 1952).

In eastern New Mexico the Chinle Formation is about 400 to 1,200 ft (121 to 366 m) thick (V. C. Kelley, 1972) and contains the majority of the uranium deposits and occurrences found in Triassic rocks of New Mexico. In the Great Plains region the Chinle consists of three informal members; a lower shale, middle sandstone (locally called the Cuervo Sandstone Member), and an upper shale (V. C. Kelley, 1972; McLemore and Menzie, 1983). The lower member consists of interbedded grayish-red and greenish-gray shales, claystones, siltstones, and sandstones. The middle sandstone member consists of reddish-brown to maroon sandstones and gray limestone-pebble conglomerates separated by greenish-gray to maroon shales and siltstones. The upper member consists of thick-bedded, reddish-brown sandstones and siltstones separated by grayish-red and greenish-gray shales. The Chinle Formation in eastern New Mexico was probably deposited under arid conditions by a complex fluvial system with adjacent flood plains and lacustrine environments (McLemore and Menzie, 1983; Reid and others, 1980b).

Most of the uranium occurrences in the Chinle Formation of eastern New Mexico are found in sandstones, conglomerates, and limestones of the upper portion of the lower member and in the middle sandstone member (Appendix 1). Uranium mineralization occurs as disseminations within limestone-pebble conglomerates and sandstones, at sandstone-shale interfaces, and as halos surrounding clay galls. Organic material, clays, and structures such as folds appear to localize uranium, although these ore-controlling features are not important everywhere. Copper mineralization is rarely present.

Five areas in eastern New Mexico are favorable for low-grade uranium mineralization in the Chinle Formation. They are the Sabinoso district in San Miguel County (McLemore and Menzie, 1983); the San Jon, Tucumcari, and Forrest areas in Quay County; and central Lea County (U.S. Department of Energy, 1980). Uranium was produced from Chinle deposits in the Sabinoso district, San Jon, and Forrest areas (Appendix 3). One ore shipment from the Forrest area (Good Luck) in Quay County averaged 0.22% U_3O_8 (Appendix 1). Chemical analyses of up to 0.89% U_3O_8 (Hunt Oil) are reported from selected samples from the Sabinoso district (Appendix 2; McLemore and Menzie, 1983), and up to 0.15% U_3O_8 (Wallace Lease) in the San Jon area (Appendix 1).

However, most chemical analyses and average grades of ore shipments from other localities are less than 0.10% U_3O_8 (Appendix 1, 2).

It is doubtful that any large-tonnage, high-grade deposits with ore grades exceeding 0.10% U_3O_8 occur in the Chinle Formation in eastern New Mexico, despite estimates from the U.S. Department of Energy (1980). Small, low-grade deposits with ore grades ranging upwards to 0.10% U_3O_8 are probably common in these areas; however, the inaccessibility of many of these deposits and the high development and production costs would limit the economic feasibility.

The Redonda Formation consists of even bedded, orange-red, fine-grained sandstones and siltstones. It is about 50 to 200 ft (15 to 61 m) thick (V. C. Kelley, 1972). Only a few minor and isolated occurrences are found in this unit.

In northwestern New Mexico (San Juan Basin and adjacent areas), the Chinle Formation locally exceeds 1,640 ft (500 m) of thickness and consists of up to five members (O'Sullivan, 1977). In the southern San Juan Basin four members are present, in ascending order, Shinarump, Monitor Butte, Petrified Forest, and Owl Rock. Eastward, the basal Shinarump and Monitor Butte Members are absent and the Salitral Shale Tongue and Agua Zarca Sandstone are present. These two members are overlain by the Poleo Sandstone Lentil, Petrified Forest, and an unnamed siltstone member (O'Sullivan, 1974, 1977). These units extend into the Nacimiento Mountains. The Chinle Formation in the San Juan Basin was also deposited under arid conditions, in complex fluvial, lacustrine, and overbank environments similar to the depositional environments in eastern New Mexico.

In the Nacimiento copper and uranium minerals occur in lenticular channel sandstones in the Aqua Zarca Sandstone Member, Poleo Sandstone Lentil, and uppermost siltstone member (Appendix 1). The largest copper deposits in the Nacimiento Mountains occur in the Chinle Formation (L. A. Woodward, Kaufman, and others, 1974); however, only trace amounts of uranium mineralization are associated with the major copper deposits (Chenoweth, 1974b). About 18 uranium occurrences are found in the Chinle Formation in the Nacimiento Mountains and the Chama Basin-Llaves area. The Lucky Strike and Midcontinent prospects produced uranium ore from the upper Chinle Formation. Only 5 lbs (2 kg) of U_3O_8 at an average grade of 0.06% U_3O_8 were produced from these properties (Appendix 3).

Many of the uranium occurrences in the Nacimiento Mountains are associated with copper mineralization. Copper may be absent locally, especially in uranium deposits occurring in the Poleo Sandstone Lentil. It is doubtful whether any economic ore deposits occur in the Chinle Formation in the Nacimiento Mountains and Chama Basin-Llaves area because of the lack of continuity of the sandstones, lack of abundant organic material, low permeability and porosity of the sandstones, and the younger age of the Chinle sandstones in these areas as compared to older uraniferous sandstones in the lower Chinle Formation in Arizona.

Although no uranium occurrences have been found in the East Mogollon area in Catron County (Fig. 1), May and others (1980) and the U.S. Department of Energy (1980) speculate that undiscovered uranium deposits in the Chinle Formation occur in the subsurface. This area is the eastward, subsurface extension of the Cameron district in Arizona, where uranium has been produced from Chinle sandstones (Scarborough, 1980, 1981). Uranium in Arizona occurs as tabular, pod-like ore bodies in channel sandstones of the lower Chinle Formation and is associated with carbonaceous material and silicified logs in point-bar sequences near shallow synclines. Copper is absent, except at one locality in Arizona. There is no evidence available to confirm or dispute uranium mineralization in the Chinle Formation in this area.

Minor isolated occurrences are found in Cibola, Santa Fe, Socorro, and Lincoln Counties (Appendix 1). At the Blakely Ranch in Santa Fe County up to 0.065% U is reported to occur in conglomerates (Reid and others, 1980b). Elsewhere in the state secondary uranium minerals or radiometric anomalies occur (Appendix 1), but it is unlikely that these occurrences could have any economic potential.

Uranium in Cretaceous rocks

Deposits in the Burro Canyon Formation

In the Chama Basin a thin sequence of rocks lies between the Morrison Formation and the Dakota Sandstone. This sequence has been correlated by some authors with the Jackpile sandstone and by others with the lower Dakota Sandstone, however, it is best correlated with the Lower Cretaceous Burro Canyon Formation. The Burro Canyon Formation is lithologically similar to the upper

Morrison Formation except that the Burro Canyon is conglomeratic (Saucier, 1974). It consists of massive conglomeratic sandstones with thin discontinuous lenses of green and pink shales (Saucier, 1974; Green and others, 1980a; Ridgley, 1983). These are channel-bar and channel-fill deposits of a braided-stream environment (Green and others, 1980a).

Eight uranium occurrences are found in the Burro Canyon Formation, but none of them has produced any ore (Appendix 1). Uranium is generally associated with organic material and humates and limonitic staining. In the subsurface in sections 3, 4, 8, and 10, T. 25 N., R. 5 E., redistributed-ore occurs as fracture-controlled and roll-type mineralization (Saucier, 1974). Ore pods are small and low grade, and occur at depths of 200-600 ft (60-180 m). The U.S. Department of Energy (1980) believes that potential uranium resources may occur in this area.

Deposits in the Dakota Sandstone

More than 30 uranium occurrences are found in the Dakota Sandstone in the Laguna, Smith Lake, Ambrosia Lake, and Church Rock subdistricts of the Grants uranium district, and in Rio Arriba, Sandoval, San Miguel, San Juan, Catron, and Sierra Counties (Appendix 1); ten of these have produced 510,795 lbs (231,693 kg) of U_3O_8 (Table 4, Appendix 3). Most of these occurrences are found in the Church Rock, Smith Lake, and Ambrosia Lake subdistricts, and in the La Ventana area in Sandoval County.

The Dakota Sandstone is generally transgressive and intertongues with the Mancos Shale. It unconformably overlies the Brushy Basin Member throughout the Grants uranium district, except in the western portion of the Church Rock area where it unconformably overlies the Westwater Canyon Member. The Dakota Sandstone consists of thick-bedded quartz sandstones and thin carbonaceous shales, lignites, and coal lenses. The deposition took place in fluvial channels and backshore, paludal, coastal, and off-shore marine environments (Pierson and Green, 1980). It is 65 to 150 ft (20-45 m) thick.

Uranium mineralization in the Dakota Sandstone in the Grants district occurs as tabular masses that range in thickness from a few inches to 25 ft (8 m). Mineralization typically occurs with organic material at the base of channel sandstones along fractures, joints, or faults; beneath a clay lense or bed in sandstone, and in carbonaceous shales. Major uranium deposits in the Dakota Sandstone (Appendix 1) are always associated with (1) joints, fractures, or faults; (2) an underlying permeable (sandy) Brushy Basin Member; or (3) underlying Westwater Canyon Member (Pierson and Green, 1980). Additional uranium mineralization is commonly present in the underlying Westwater Canyon or Brushy Basin Members. Pb/U isochron dating indicates that Dakota mineralization is less than 0.8 m.y. (Ludwig and others, 1977, 1980). These features suggest that uraniferous waters, probably from the Westwater Canyon or Brushy Basin Members, migrated upwards along fractures, joints, or faults, or through permeable sandstones and deposited uranium in permeable Dakota sediments containing carbonaceous material or in carbonaceous shales (Pierson and Green, 1980).

Additional uranium deposits may be present in the Dakota Sandstone, especially in areas of faulting, jointing, and fracturing. However, most of these undiscovered deposits are likely to be small- to medium-sized, similarly to the known deposits in the Dakota Sandstone.

In the La Ventana area, uranium production from the Butler Brothers mine amounts to 290 lbs (132 kg) of U_3O_8 that averaged 0.63% U_3O_8 (Appendix 3). Uranium mineralization occurs in carbonaceous shale and lignite lenses in the Dakota Sandstone. Additional uranium occurrences are found in the Dakota Sandstone and in the Menefee Formation in the vicinity of the Butler Brothers mine (Appendix 1). At the Cleary prospect, uranium occurs within carbonaceous shale and peat layers at the base of the Dakota Sandstone (Appendix 1). A selected sample from the Cleary prospect contained 0.038% U_3O_8 (Appendix 2). Although small deposits of economic grade (greater than 0.10% U_3O_8) may occur in the La Ventana area, the potential for large, economic deposits is poor due to the low grade and thinness of the shale layers.

Deposits in other Cretaceous rocks

More than 30 uranium occurrences are found in Cretaceous rocks other than in the Burro Canyon Formation, Dakota Sandstone, and upper Crevasse Canyon Formation (Appendix 1). The majority of these uranium occurrences are in sandstones, carbonaceous shales, and lignites-coals in the Mancos Formation (Mesaverde Group), and Fruitland Formation in McKinley, Cibola, San Juan, Sandoval, Bernalillo, Sierra, and Lincoln Counties. These occurrences are usually isolated, small, and low grade. It is doubtful whether any of them could have any economic potential. However, two areas, the Boyd prospect in San Juan County and La Ventana area in Sandoval County, contain high concentrations of uranium and may have economic potential.

The Boyd prospect is located northwest of Farmington in San Juan County and is included on the San Juan Coal Company's mining lease. In 1955, 74 lbs (34 kg) of U_3O_8 at an average grade of 0.05% U_3O_8 were produced from this mine (Appendix 3). One 10 ton (9 metric tons) shipment assayed 0.10% U_3O_8. The uranium mineralization is finely disseminated and occurs at the base of a 20- to 30-ft (6- to 9-m) thick sandstone (Fig. 24) belonging to the lower Kirkland or upper Fruitland Formations. Hematitic alteration and finely disseminated organic material are associated with uranium mineralization. A selected sample assayed 0.182% U_3O_8 (Appendix 2), but assays up to 0.22% U_3O_8 are reported (Chenoweth, 1958).

The stratigraphic position of this occurrence has been the subject of some controversy. The massive brown, uraniferous sandstone has been correlated with the Pictured Cliffs Sandstone, the Kirkland Formation, and the Fruitland Formation (Chenoweth, 1958). The mineralized sandstone rests on a fossiliferous bluish-gray lag conglomerate and gray to bluff shale. Continental fluvial environments are indicated by vertebrate, mollusk, and plant fossils, thereby eliminating the Pictured Cliffs correlation. The absence of coal beds overlying the mineralized sandstone suggests correlation with lower Fruitland Formation,

Figure 24 - Mineralized sandstone of the lower Kirkland or upper Fruitland Formations at the Boyd prospect in San Juan County. This sandstone rests on a fossiliferous bluish-gray lag conglomerate and gray to bluff shale.

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however, additional stratigraphic studies are required.

The Boyd prospect is unique, as there is no other major uranium occurrence in middle Cretaceous rocks in the central San Juan Basin, excluding minor isolated occurrences in coal beds. The origin of mineralization is not known but may be related to faulting in the vicinity. The economic potential of the Boyd prospect is probably low judging from low-grade ore shipments and thin mineralized zones at the surface. However, subsurface extent of this mineralized zone is unknown.

The La Ventana area lies south of Cuba in Sandoval County. Uranium occurs in coal, carbonaceous shale, and carbonaceous sandstone in the Upper Cretaceous Menefee Formation of the Mesaverde Group (Appendix 1; Bachman and others, 1959; Greer and others, 1980c). The La Ventana tongue of the Cliff House Sandstone overlies the Menefee Formation and the basal contact may be locally mineralized (Green and others, 1980c). Uranium also occurs in the older Dakota Sandstone at La Ventana.

At least three mineralized horizons occur at La Ventana, and the highest uranium content is in the coal seams. Concentrations as high as 0.62% U_3O_8 may be found in coal, whereas the coal ash has uranium concentrations as high as 1.34% (Bachman and others, 1959; Vine and others, 1953). Mineralized zones are thin and range in thickness from a few inches to 1.5 ft (0.5 m). The absence of structure control of these uranium deposits is indicative of supergenic (Bachman and others, 1959) or hypogenic origins. Bachman and others (1959) estimates that 132 tons (120 metric tons) of U_3O_8 in coal and carbonaceous shale at an average grade of 0.10% uranium are found at La Ventana mesa. The reliability of this estimate is unknown.

Deposits in the Crevasse Canyon Formation

Although the majority of the 28 uranium occurrences in the Cretaceous Crevasse Canyon Formation are found in the Gallinas Mountains, Datil Mountains, and Quemado-Pie Town area, Socorro and Catron Counties, nine uranium occurrences are in shales and coal seams in the Church Rock, Smith Lake, and Ambrosia Lake subdistricts of the Grants uranium district in McKinley County (Appendix 1). These occurrences are isolated, small, and low grade, and do not have any significant uranium potential. However, sandstones in the upper Crevasse Canyon Formation in the Gallinas Mountains, Datil Mountains, and Quemado-Pie Town area do have a significant uranium potential. Uranium production from deposits in the Crevasse Canyon Formation in the Datil Mountains and Quemado area amounts to 1,194 lbs (542 kg) of U_3O_8 at an average grade of 0.12% U_3O_8 (Appendix 3). In addition, potential uranium resources in the Datil Mountains from the Crevasse Canyon and Tertiary Baca Formations have been estimated by the U.S. Department of Energy (1980).

The Crevasse Canyon Formation consists of interbedded sandstones, siltstones, shales, and coal seams deposited in a coastal-plain environment. In the uppermost Crevasse Canyon Formation in Socorro and Catron Counties lies an altered or transition zone of bleached and oxidized sandstones and shales, which is truncated by an unconformity (Chamberlin, 1981a, b, c).

The unconformity separates the Crevasse Canyon Formation from the overlying Baca Formation and is typically expressed by an abrupt change in grain size from medium-grained Cretaceous sandstones to Tertiary conglomeratic sandstones (R. M. Chamberlin, pers. commun., 1983). The altered or transition zone has been mapped in the Datil Mountains and Quemado area by Chamberlin (1981a, b) and Guilinger (1982), and is believed to extend into the Gallinas Mountains to the east and the Pie Town area to the west. This zone may extend into the San Juan Basin; however, additional mapping in this area is required to verify any altered or transition zones. The altered or transition zone was previously interpreted as (1) reworked Cretaceous rocks assigned to the overlying Baca Formation (New Mexico Geological Society, 1959), (2) an intertonguing Baca-Crevasse Canyon contact, (3) an altered zone formed by oxidizing ground waters (Pierson and others, 1981), and (4) a paleosol or weathering profile (Chamberlin, 1981a, b).

The interpretation of this transition zone is important because all of the major uranium occurrences in the Gallinas Mountains, Datil Mountains, and Quemado-Pie Town area are found in it. Uranium occurs only in trace amounts in coals and carbonaceous shales below this zone in Socorro and Catron Counties (Bachman and Reid, 1952a; personal reconnaissance, 1980-1982). In the Red Basin area of the Datil Mountains and in the Pie Town-Quemado area this transition zone is well developed and has been mapped by Chamberlin (1981). Small ore bodies have yielded ore from 1954 to 1957 (Appendix 3), and additional small ore bodies were discovered by Gulf Minerals in the early 1970's

(Appendix 1; Chamberlin, 1981a, b). In the Gallinas Mountains only small and isolated occurrences are found in the Crevasse Canyon Formation (Appendix 1); most of the uranium potential is concentrated in the overlying Baca Formation. However, the potential of the Crevasse Canyon Formation in the subsurface has not been adequately examined.

The uranium deposits in the Crevasse Canyon Formation are typically small (less than several thousand tons of U_3O_8), and are associated with organic material, iron staining, clay galls, and sandstone-shale interfaces (Appendix 1; Collins, 1958a; Chamberlin, 1981a, b). Selected samples contain as much as 0.024% U_3O_8 (Appendix 2), although reported assays are as high as 1.28% U_3O_8 (Collins, 1958a). The presence of ghost rolls (Chamberlin, 1981a, b) indicates that roll-type uranium deposits are likely to occur in the subsurface.

Deposits in lower Tertiary Rocks

More than 30 uranium occurrences are found in lower Tertiary sediments in New Mexico. These occurrences are found within several hundred feet above an unconformity on Cretaceous rocks. Production from Tertiary sediments at two properties in Socorro and San Juan Counties amounts to 354 lbs (161 kg) of U_3O_8. Uranium occurrences are found in the Baca Formation, Ojo Alamo Sandstone, Galisteo Formation, and McRae Formation in Socorro, Catron, San Juan, Sandoval, Rio Arriba, and Sierra Counties (Appendix 1).

Only one property, the Hook Ranch mine in Socorro County, produced from the Eocene Baca Formation; the production amounted to 306 lbs (139 kg) of U_3O_8 at an average grade of 0.18%. Some production from the Red Basin Group in Catron County may have been derived from the Baca Formation, although the majority of the ore produced was from the underlying Crevasse Canyon Formation. At least 14 additional uranium occurrences are in the Baca Formation in the Gallinas-Bear Mountains, Datil Mountains, and Pie Town-Quemado area (Appendix 1).

The Baca Formation unconformably overlies the Cretaceous Crevasse Canyon Formation and consists of mudstones, siltstones, sandstones, and conglomerates of braided-alluvial plain, meander belt, and lacustrine environments (Cather, 1980). Uranium mineralization is associated with carbonaceous material, carbonaceous shale lenses, or fossil logs in fluvial sandstones and conglomeratic sandstones in the middle and lower members of the formation. Chemical analyses as high as 3.27% U_3O_8 are reported from mineralized lenses in the Baca Formation (New Mexico Geological Society, 1959); however, samples collected by the author contained less than 0.02% U_3O_8 (Appendix 2).

In the Riley area of the Bear Mountains, Socorro County, uranium mineralizatio is closely associated with organic material in reduced sandstones of the middle member of the Baca Formation. Detailed drilling has delineated several ore bodies which contain a few hundred thousand lbs of uranium ore exceeding 0.10% U_3O_8 (Don Sargent, consulting geologist, written commun., 1983). Widely spaced drilling has outlined an adjacent area of favorable reduced sandstones.

Potential uranium deposits are likely to occur in the upper Crevasse Canyon Formation in the Red Basin area and in the Baca Formation in the Riley area of the Bear Mountains. Additional drilling in the Baca and Crevasse Canyon Formations may delineate additional favorable areas.

The Paleocene(?) Ojo Alamo Sandstone crops out in the San Juan Basin and consists of 20 to 400 ft (6-120 m) of fluvial sediments. The Ojo Alamo Sandstone rests unconformably on the Cretaceous Kirkland Formation and is overlain by the Nacimiento Formation (Green and others, 1980a, c). Only one property, Claim #14 in San Juan County, has any recorded production, which amounts to 48 lbs (22 kg) of U_3O_8 at an average grade of 0.11% U_3O_8 (Appendix 3). Unfortunately, this property can no longer be located.

The greatest uranium potential in the Ojo Alamo Sandstone is in the Mesa Portales area in Sandoval County (Appendix 1). Although only a few minor and unverified uranium occurrences have been reported at Mesa Portales (Appendix 1), radiometric anomalies are detected by water, stream-sediment, and aerial-radiometric studies (Green and others, 1980a, c). Recent drilling at Mesa Portales indicated that low-grade uranium occurs in blanket-like bodies in several horizons. The lack of a clear mineralization pattern may suggest that these deposits are modified roll-type or remnant ore bodies (Green and others, 1980a, c). Favorable criteria such as abundant carbonaceous material, permeable fluvial sandstones, and favorable geometry of host rocks suggest that the Ojo Alamo Sandstone is favorable for containing uranium deposits. Despite the absence of proven economic uranium mineralization (over Ø.1Ø% U_3O_8; Green and others, 198Øa, c), the U.S. Department of Energy (198Ø) estimates that some potential uranium resources occur in the Mesa Portales area.

Seven uranium occurrences are found in the Eocene Galisteo Formation in the Hagan Basin, Sandoval County (Appendix 1; McLemore, 1982c). Although these deposits have not yielded any ore, the U.S. Department of Energy (198Ø) believes some potential resources are present in this area. The Galisteo Formation consists of fluvial-lacustrine sandstones, siltstones, conglomerates, and tuffs, and ranges in thickness from 9ØØ to 4,ØØØ ft (275-1,2ØØ m). These sediments rest unconformably on the Cretaceous Mancos Shale (Mesaverde Group) and are overlain by the Espinaso Volcanics. Uranium-bearing latite dikes and sills, probably related to the Espinaso Volcanics, intrude this sequence.

Uranium mineralization in the Galisteo Formation occurs in high-energy, braided-stream sediments of a complex alluvial-fan sequence. Uraninite and coffinite occur as sand coating in roll-type ore bodies (J. C. Moore, 1979). One of these ore bodies is estimated to contain Ø.9 million lbs (41Ø,ØØØ kg) of U_3O_8 at an average grade of Ø.Ø9% U_3O_8 at depths of 1Ø-4ØØ ft (3-12Ø m; J. C. Moore, 1979). One sample from the ore pile at the Diamond Tail decline in this area assayed Ø.Ø64% U_3O_8 and a trace of Se (Appendix 2).

High production costs, low-grade ore, environmental costs, and a declining uranium market forced Union Carbide to abandon uranium mining in this area. Mining may resume if economic conditions improve.

A few isolated uranium occurrences are found in sandstones of the McRae Formation of Late Cretaceous to early Tertiary age in Sierra County (Appendix 1). The McRae Formation is divided into the basal Jose Creek Member and the overlying Hall Lake Member. The Jose Creek Member consists of gray shales, sandstones, and conglomerates, and is Cretaceous in age. The overlying Hall Lake Member is Tertiary in age and consists of purple shales and interbedded sandstones and conglomerates. Uranium concentrations at these localities are less than 0.02% U_3O_8 (Templain and Dotterrer, 1978). Very little additional information exists concerning these ocurrences because they lie on the private Pedro Armendaris Land Grant and consequently have not been examined in detail. If the McRae Formation is similar in age and lithology to the Crevasse Canyon and Baca Formations in Socorro and Catron Counties (Chamberlin, 1981a, b), then also the uranium occurrences may be similar to those in the Crevasse Canyon and Baca Formations.

Deposits in upper Tertiary and Quaternary rocks

Much of the uranium potential occurs in lower Tertiary sediments (discussed above). Less than 50 uranium occurrences are found in Tertiary and Quaternary sediments (Appendix 1), in the San Jose Formation, Popotosa Formation, Santa Fe Group, Tesuque Formation, Carson Conglomerate, Ogalla Formation, ard Recent hot springs deposits. All of these occurrences are small and low grade. Two of these, the San Jose #13 in Santa Fe County and San Lorenzo #1 in Socorro County, have yielded ore amounting to 18 lbs (8 kg) of U_3O_8 at grades averaging less than 0.05% U_3O_8.

Most of these occurrences are found in the Tesuque Formation of the Santa Fe Group in Santa Fe County (Appendix 1). Sediments of the Tesuque Formation were derived from the Precambrian rocks in the Sangre de Cristo Mountains and volcanic rocks in the Jemez Mountains (Hilpert, 1969). These occurrences probably represent accumulations of uraniferous ground waters. Uranium may have been derived from the Sangre de Cristo Mountains, the Jemez volcanics, or alteration of detritus in the host rocks. Uranium typically occurs as coatings around opal and chert grains, with organic debris, and in clay zones. One property, the San Jose #13 in Santa Fe County, yielded 12 lbs (5 kg) of U_3O_8 at an average grade of 0.05% U_3O_8 in 1957 (Appendix 3). It is unlikely any large economic deposits (greater than 0.10% U_3O_8) could occur in these sediments because insufficient time has elapsed to form large uranium deposits.

Uranium mineralization is found in the Popotosa Formation in Socorro County (Appendix 1). Anomalous concentrations of lithium are also found in ash beds of the Popotosa Formation and are locally associated with uranium mineralization (Appendix 1). The San Lorenzo #1 yielded 6 lbs (3 kg) of U_3O_8 at an average grade of 0.02% U_3O_8 (Appendix 3) from a chert bed in the Popotosa Formation. The economic uranium potential in these rocks is poor because of their low grade and small size.

The Nacimiento Formation in northern New Mexico overlies the

Ojo Alamo Formation and is in turn overlain by the San Jose Formation. The lower contact with the Ojo Alamo Formation is gradational and intertonguing. An angular unconformity separates the Nacimiento and the overlying San Jose Formations (Green and others, 1980a, c). Only one occurrence (Anomaly NA-17, Rio Arriba County) is found at the contact of these formations; however, radiometric anomalies have been detected by hydrogeochemical and aerial-radiometric studies (Green and others, 1980a, c). Favorable host-rock characteristics, abundant carbonaceous material, low dip of beds, and radiometric anomalies indicate that this unit may contain uranium deposits. However, the lack of known large uranium ore bodies suggests that ground waters were not significantly enriched in uranium (Green and others, 1980a, c).

Twelve uranium occurrences are found in the San Jose Formation in Sandoval, Rio Arriba, and San Juan Counties (Appendix 1). Uranium is associated with carbonaceous material in fluvial sandstones and one coal seam. The permeable fluvial sandstones are persistent laterally and carbonaceous material is abundant. A few uranium anomalies were detected by hydrogeochemical studies (Green and others, 1980a). However, despite favorable characteristics of this unit, large economic ore bodies have not been found.

Seven radioactive hot springs deposits are found in Sandoval, Dona Ana, and Grant Counties (Appendix 1). They occur as travertine or tufa and are being deposited at the present time. Although these uranium occurrences do not have economic potential, they are significant because they indicate a source of uranium in the present environment. One sample from Soda Dam in Sandoval County contains Ø.ØØ1% U_3O_8 and 35.9% Ca (Appendix 2). Numerous hot springs occur along the Rio Grande valley and in the Mogollon Plateau region; the uranium content or radioactivity are unknown for most of them.

Limestone Deposits

Uraniferous limestones, exclusive of the Todilto Limestone, are not common in New Mexico. Most uranium in limestones (exclusive of the Todilto Limestone) is of a vein-type of uncertain origin and is described elsewhere. However, two areas, the Rocky Arroyo area in Eddy County and Union County, contain uranium occurrences in limestone and additional favorability criteria to be considered as favorable for containing uranium deposits.

Uranium occurs at four localities in the Rocky Arroyo area near Carlsbad (Appendix 1). It is associated with asphaltite pellets within sandstones, dolomites, and dolomitic limestones of the Permian Yates and Seven Rivers Formations. The age of mineralization is Permian, similar to the age of the host rocks (Pierce and Roshalt, 1961; Sam Thompson and Alonso Jacka, pers. commun., 11/19/81). One sample collected from the Rocky Arroyo prospect assayed Ø.Ø17% U_3O_8 and Ø.7% organic carbon (Appendix 2), but assays as high as 2.3% U_3O_8 have been reported (Waltman, 1954). In 198Ø, the U.S. Department of Energy (198Ø) considered this area as favorable for potential uranium resources; however, low grades, small tonnages, and long haulage distances to existing mills would hamper development of these deposits.

The Yates and Seven Rivers Formations are representative of the back reef environment of the marine Capitan Limestone reef complex (Pierce and Roshalt, 1961; Alonso Jacka, pers. commun., 11/19/81). The asphaltite and associated uranium mineralization were deposited shortly after dolomitization of the limestone (Roy Foster, Petroleum Research and Recovery Center, pers. commun., 1981; author's thin-section analysis). These occurrences do not appear to have any lateral continuity. All four occurrences are minor, and gamma-log anomalies in oil and gas tests, thought to represent similar occurrences in the subsurface (Waltman, 1954), cannot be correlated between adjacent wells.

Uraniferous marlstones of the Jurassic Morrison Formation occur in eastern Union County and adjacent western Oklahoma (Consulting Professionals, Inc., 1980; Abbott, 1975). At least four localities of uranium-bearing marl are found in Union County (Appendix 1); additional occurrences are in Oklahoma. Chemical analyses of samples of this marlstone range up to 260 ppm U (Abbott, 1975; Consulting Professionals, Inc., 1980). Additional detailed studies of this area would probably reveal similar occurrences.

Uranium occurs in dense marlstone and may be associated with disseminated organic particles (Consulting Professionals, Inc., 1980). This unit is approximately 82 to 112 ft (25-34 m) above the base of the Morrison Formation and locally splits into two marlstone beds separated by 9 to 15 ft (3-4.5 m) of siltstone and mudstone. These uraniferous marlstones appear to be continuous throughout Union County (Consulting Professionals, Inc., 1980).

However, the units are thin (less than 3 ft = 1 m) and low in grade (less than Ø.Ø1% U_3O_8) and would not constitute a significant economic uranium source at the present time. The U.S. Department of Energy (198Ø) estimates that potential resources (classified incorrectly as sandstone deposits) exist in the area.

Beach-Placer Sandstone Deposits

Beach-placer sandstone deposits are concentrations of heavy minerals that form on beaches or in long-shore bars in a marginal-marine environment (Mickle and Mathews, 1978; Mickle, 1978; Mathews and others, 1979). Numerous beach-placer sandstone deposits are found in northern New Mexico (Table 6, Appendix 1), and at least three wells have penetrated similar deposits in the subsurface (Chenoweth, 1957a). All of these deposits except the Cimarron deposit in Colfax County are in the San Juan Basin (Fig. 25). Although beach-placer sandstone deposits are found in strata of all ages; the deposits in New Mexico are restricted to Upper Cretaceous rocks in the Gallup, Dalton, Point Lookout, Pictured Cliffs, and Trinidad Sandstones (Chenoweth, 1957a; Houston and Murphy, 1977).

The beach-placer sandstones are radioactive due to radioactive zircon, monazite, and columbium minerals. In addition, minerals such as ilmenite, anatase, leucoxene, magnetite, hematite, zircon, garnet, and tourmaline are common in these sandstones. Anomalously high concentrations of Ti, Fe, Sc, Nb, Th, U, and rare-earth elements are charateristic. These

Table 6 - Beach-Placer Sandstone deposits in New Mexico

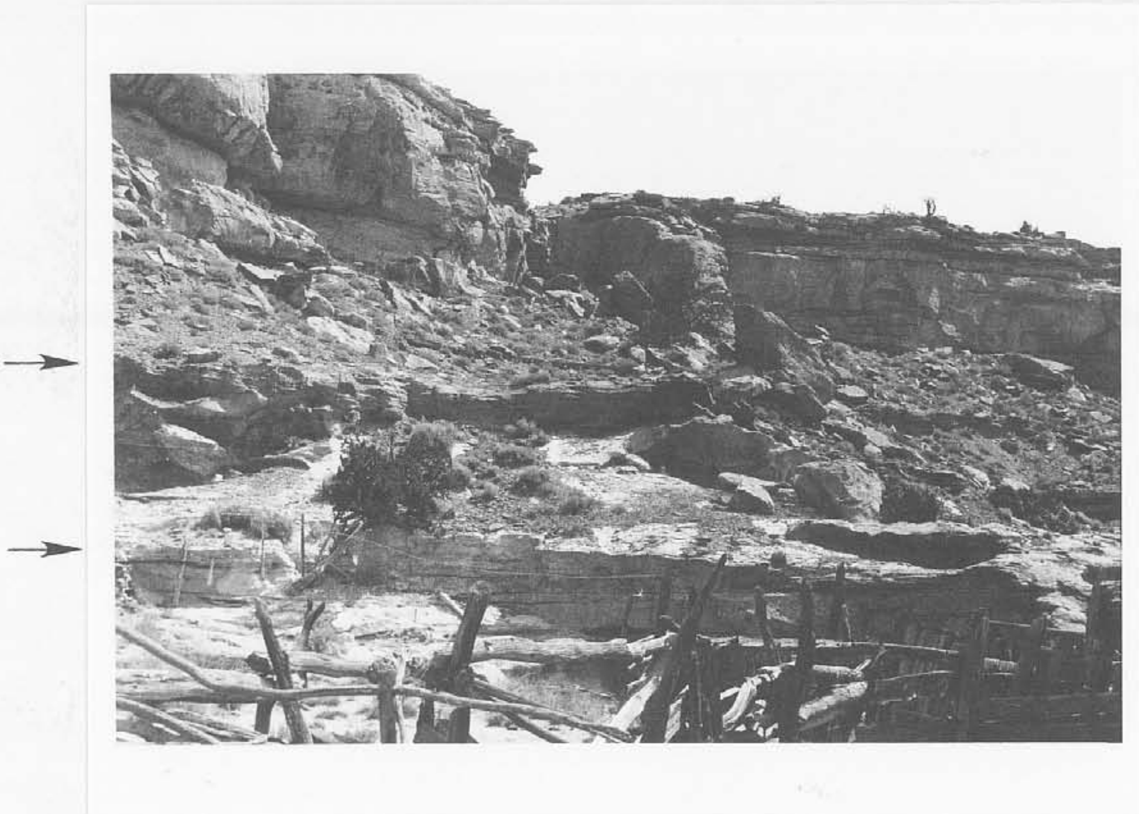
Occurrence Number	Name	County	Host
26N.19S.6	Cimarron	Colfax	Trinidad Sandstone
28N.1E.3.311, 28N.1E.3.323	Airbourne Anomalies #12 (Stinking Lake)	Rio Arriba	Point Lookout Sandstone
17N.4W.34.332	B.P. Hovey Ranch (Torreon Wash)	Sandoval	Point Lookout Sandstone
12N.2W.31.420	Herrera Ranch	Sandoval	Gallup Sandstone
11N.2W.16.200	Herrera Ranch	Bernalillo	Point Lookout Sandstone (?)
15N.19W.32.432	Gallup titanium deposit (Defiance)	McKinley	Gallup Sandstone
19N.6W.13,14, 19N.6W.15.340 19N.6W.23.344 19N.6W.25,26	Farr Ranch (Star Lake)	McKinley	Pictured Cliffs Sandstone
15N.6W.4.140, 8.420	Miguel Creek Dome	McKinely	Dalton sandstone member (Crevasse Canyon Formation)
18N.14W.35.300	Standing Rock	McKinely	Point Lookout Sandstone
31N.14W.13	Anomaly #4 Barker Dome	San Juan	Pictured Cliffs Sandstone
30N.15W.6 30N.16W.32 30N.16W.10.340 31N.16W.24 31N.15W.30 31N.15W.30 31N.15W.30 31N.15W,19.400 31N.16W.14 31N.16W.15 31N.16W.3.100 31N.16W.3.200, 30N.15W.6	Anomaly #5,6,7,8, 9,10,11,12,13-15 16-18,19-20,21, near 21, Deposit x-y, #2	San Juan	Point Lookout Sandstone
32N.16W.28 32N.16W.28	Anomaly #22-23 (Salt Creek Wash), Near #23	San Juan	Point Lookout Sandstone
32N.16W.29 32N.17W.27 32N.17W.15 32N.17W.27 32N.17W.22,27 31N.16W.15,16 31N.16W.10, 32N.16W.19	Anomaly #24,32, 33,34,35,36,37, Deposit #2	San Juan	Point Lookout Sandstone
28N.17W.13	Anomaly #46	San Juan	Point Lookout Sandstone
30N.16W.15.323	Hogback #2	San Juan	Point Lookout Sandstone
26N.19W.31	Sanostee	San Juan	Gallup Sandstone
23N.19W.14	Tordlena	San Juan	Gallup Sandstone

sandstones range from olive-gray, rust-brown, brownish-black to maroon, and occassionally are called "black sandstone deposits." Beach-placer sandstone deposits occur at the top of beach sandstones and at places in two or more intervals (Fig. 26).

Only one locality in New Mexico, the Hogback #2 property (30N.16W.15.323, Appendix 1) in San Juan County, has been mined; where 8 tons (7 metric tons) of "no-pay" ore yielding 3 lbs (1 kg) of U_3O_8 (0.02%) was produced from the Point Lookout Sandstone in 1954 (Appendix 3). Many of the beach-placer sandstone deposits in New Mexico are low-tonnage and low-grade and remain undeveloped. However, it is estimated that a total of 4,751,200 tons (4,310,200 metric tons) of ore containing 12.82% TiO_2, 2.07% ZrO_2, 15.51% Fe, and less than 0.10% $eThO_2$ (radiometric equivalent ThO_2) are present in the San Juan Basin in New Mexico (Dow and Batty, 1961). The reliability of this estimate is uncertain. Additional deposits probably remain undiscovered in the area. The small size and low-grade of individual deposits prevent large-scale mining of them despite their economic potential.

In addition, Recent beach-placer sandstone deposits in Florida and Georgia are mined for titanium, and thorium is recovered as a by-product from monazite. Monazite from these deposits constitutes only 0.3 to 1.0% of the heavy minerals recovered. Thorium may be as high as 5% in the monazite. Thus the amount of thorium produced in the future will probably come from these recent deposits or as by-product of other mining ventures.

Figure 26 - Beach-placer sandstone deposits at B.P. Hovey Ranch in the Torreon Wash area, Sandoval County, Arrow points to two separate intervals at the top of the beach sandstones.



Miscellaneous deposits in sedimentary rocks

Uraniferous nopedogenic calcretes

Although uraniferous nonpedogenic calcretes have not been reported to occur in New Mexico, Carlisle and others (1978) estimate the probability of their presence in the Mimbres-Palomas Basin in Luna County, New Mexico to be fair. Nonpedogenic calcrete is a mixture of secondary carbonate and smectite replacing alluvium, soil, or other regolith deposits in semiarid to subhumid climate. Nonpedogenic calcretes should not be confused with caliche or other calcareous soils, although both are similar in composition and texture and both form in oxidizing environments. Nonpedogenic calcretes, unlike caliches, are not formed by soil processes, but are formed by lateral movement of carbonate-enriched fluids instead of by vertical transport, and are therefore nonpedogenic. Uraniferous calcretes have only recently been discovered; they are economically important in Western Australia and the Namib Desert of South West Africa (Carlisle and others, 1978; Mickel and Mathews, 1978).

Uraniferous calcretes occur along the axial portions of fluvial valleys in a dry climate with seasonal rainfall. Evaporation rates are high and of the limited runoff is largely confined to subsurface drainage basins. Groundwaters are characteristically enriched in carbonate, uranium, and vanadium. Groundwaters near calcrete deposits in Western Australia contain 15-70 ppb U and 3-12 ppb V (Carlisle and others, 1978). Carnotite is the dominant uranium mineral present in known uraniferous calcretes, although soddyite has been reported to occur in South West Africa. Absence of soil carbonate deposits or other uranium-fixing processes in the catchment area is essential. Uraniferous calcretes occur in constricted shallowing or upwelling of the groundwater flow within the catchment area (Carlisle and others, 1978). Preservation of the uranium mineralization requires tectonic and climatic stability and protection of mineralization from subsequent dissolution (Carlisle and others, 1978).

In southern New Mexico a uraniferous source terrain is present in the Burro, Caballo, Organ, and Tres Hermanos Mountains (Appendix 1). Well-water analyses (Union Carbide Corp., 1981L) range from Ø to 9 ppb, in uranium content in contrast to uranium concentrations in well waters near Waterloo which range up to 288 ppb U (Carlisle and others, 1978, p. 245). Seven, shallow (11 ft = 3 m) backhoe trenches dug by Carlisle and others (1978) in this area failed to locate any nonpedogenic calcrete or anomalous uranium-bearing rocks, although calcrete deposits may exist at depth.

Additional areas, especially in sediments of the ancient Rio Grande (Giles and others, 1981, p. 66), may contain calcrete deposits which should be examined for their uranium potential. A valley calcrete deposit west and south of the Ladron Mountains in Socorro County is currently being examined by James Barker (New Mexico Bureau of Mines and Mineral Resources). This deposit was previously interpreted as a travertine deposit, but it lacks the apron-shaped geometry typical of most travertine deposits and displays characteristics typical of valley calcretes (J. M.

Barker, 1983). The presence of a uraniferous source in the Ladron Mountains suggests a potential for nonpedogenic calcrete uranium deposits in this area. However, tectonic stability is a major requirement for uraniferous calcretes in Western Australia (Carlisle and others, 1979), and it is lacking in northwestern Socorro County and elsewhere in New Mexico.

Precambrian Quartz-pebble conglomerate deposits

Early Proterozoic quartz-pebble conglomerates in Witwatersrand, South Africa and Blind River-Elliot Lake district, Ontario, contain significant uranium deposits (Mickel and Mathews, 1978). These deposits typically occur in lower Proterozoic sediments that range in age from 2.2 to 2.7 b.y. and are adjacent to Archean source terrains (Button and Adams, 1981). Uraninite and brannerite are the dominant ore minerals. It is believed that uraniferous quartz-pebble conglomerates were formed before 1.8 to 2.0 b.y. ago, when the atmosphere contained insufficient oxygen to allow oxidation and dissolution of uranium minerals.

Several areas in New Mexico are known to contain Precambrian quartz-pebble conglomerates. The absence of uranium occurrences, the absence of uraninite and pyrite in the conglomerates, the young age (1.8 b.y. or younger), and the absence of Archean source rocks in southwestern United States indicate low probability for uraniferous Precambrian quartz-pebble conglomerates in New Mexico.

Phosphorite deposits

Phosphorites are sedimentary rocks that contain more than 20% of phosphatic minerals and were typically deposited in a marine environment. Average grade of uranium in these deposits ranges from 0.005 to 0.03% (Mickle and Mathews, 1978). Phosphate deposits in west-central Florida are currently being mined for their phosphate content and uranium is recovered as a by-product. Phosphate deposits within the Permian Phosphoria Formation in Idaho, Montana, Wyoming, Utah, and Nevada may contain 0.001 to 0.65% uranium. Unfortunately, rocks typical of the Florida deposits and of the Phosphoria Formation are absent in New Mexico.

Deposits in Intrusive Igneous and Metamorphic Rocks

Uranium deposits in intrusive igneous and metamorphic rocks

Introduction

More than 200 uranium occurrences represent orthomagmatic, contact-metasomatic, anatectic, and hydrothermal-vein (magmatic-hydrothermal, authigenic, and allogenic deposits of NURE; Mathews, 1978) uranium deposits in Precambrian granitic rocks, Tertiary intrusives and volcanics, and metamorphic rocks (Appendix 1). In addition to these occurrences, more than 80 thorium veins, more than 25 pegmatites, and 3 carbonatite dike complexes are found in New Mexico and are described separately. Uranium production from 12 properties amounts to 28,595 lbs (12,970 kg) of U_3O_8 at an average grade of 0.14% U_3O_8 (Appendix 3); most of this production is from the La Bajada mine in Santa Fe County.

Although some of the world's largest potential resources of uranium occur in igneous and metamorphic rocks, the potential for uranium and thorium deposits in igneous and metamorphic rocks in New Mexico has not been well examined. Many of the NURE quadrangle reports (Table 1) have not adequately evaluated potential host rocks, and only one area in New Mexico, the Burro Mountains in Grant County, is believed to contain potential uranium resources (U.S. Department of Energy, 1980; O'Neill and Thiede, 1981). The majority of uranium occurrences in igneous and metamorphic rocks in New Mexico are found in Precambrian granitic rocks, Tertiary intrusives and volcanics, copper veins, fluorite veins, and metamorphic or altered sediments (Appendix 1). Several areas in New Mexico may be favorable for containing uranium deposits in igneous and metamorphic rocks (McLemore, 1982a), however, many of these areas have not been mapped in detail, nor has the uranium potential been adequately assessed. A few of these areas are described here.

Uranium in Precambrian granitic rocks

The majority of the uranium occurrences in igneous and metamorphic rocks in New Mexico are found in Precambrian terrains (Appendix 1; McLemore 1982a). The best potential for uranium deposits in Precambrian rocks in New Mexico is in the Burro Mountains in Grant County (U.S. Department of Energy, 1980; O'Neill and Thiede, 1981). Additional favorable areas include the Sangre de Cristo Mountains, Tusas Mountains in Rio Arriba County, and Tajo granite in Socorro County. Other areas may also be favorable for uranium deposits. Some of these areas are described by McLemore (1982a).

Over 100 uranium and thorium occurrences are found in the Burro Mountains in western Grant County (Appendix 1). Three of these have produced 1,367 lbs (620 kg) U_3O_8 (Appendix 3). Most of the occurrences are in the White Signal, Black Hawk, Tyrone, and Telegraph districts. Radioactive pegmatites are also present in this area, especially in the White Signal and Gold Hills districts, and are discussed separately. Minor occurrences are also found in the Langford and Malone districts and throughout other parts of the Burro Mountains (Appendix 1). The Burro Mountains are highly mineralized and contain significant deposits of gold, silver, copper, lead, zinc, and fluorspar, but only copper has been produced recently.

The Burro Mountain consists of a Precambrian core overlain by Cretaceous and Tertiary sediments and Tertiary volcanics. Tertiary intrusives have been locally injected into the sequence. The Precambrian Bullard Peak and Ash Creek metamorphic series are intruded by the Burro Mountain granite (Precambrian) and basaltic to diabasic dikes (probably Precambrian). The majority of the mineral deposits occur in the Burro Mountain granite, except for mineralization at Tyrone, which occurs in the Tertiary Tyrone laccolith.

Uranium was first discovered in 1920 at the Merry Widow mine in the White Signal district (F. I. Leach, 1920). An unknown amount of radium was produced during the 1920's from the Floyd Collins, Merry Widow, and Eugenie mines, and about 500 lbs (227 kg) of torbernite were produced from the Eugenie mine (Gillerman, 1964). Only two mines produced uranium ore in the 1950's and early 1960's. Production from Floyd Collins amounted to 489 lbs (222 kg) of U_3O_8 at an average grade of 0.15% U_3O_8 and from the Inez property, 848 lbs (385 kg) of U_3O_8 at an average grade of 0.16% U_3O_8 (Appendix 3).

Several hundred veins occur in the White Signal district (Gillerman, 1964, 1968; Hedlund, 1978g, h), over 70 of which contain radioactive minerals (Fig. 27, Appendix 1). Most of the veins are small and rarely exceed 500 ft (152 m) in length. No veins have been explored at depths exceeding 206 ft (63 m; Gillerman, 1964, 1968). Four mineralogical types of veins can be distinguished: (1) quartz-pyrite veins, (2) quartz-specularite, (3) silver and silver-lead veins, and (4) turquoise veins (Gillerman, 1964, 1968). Uranium occurs in all four types; however, most of the larger deposits are associated with quartz-pyrite veins. Two major exceptions are the Apache Trail (quartz-specularite vein-deposit), and Uncle Sam (silver vein-deposit) deposits.

With a few exceptions, the uranium-bearing veins appear to occur at the intersection of east-trending quartz-pyrite veins and northwest-trending diabase dikes (Gillerman, 1964, 1968). The Floyd Collins and Inez deposits are associated with diabase dikes; however, gold-bearing quartz-pyrite veins are absent. The Blue Jay-Banner deposits occur within altered latite(?) dikes along a major east-trending fault (the Blue Jay fault). At the Blue Jay prospect, quartz-pyrite veins are absent; however, they are present farther to the west along the fault at the Banner prospect. The majority of the gold-producing veins contain uranium minerals or radiometric anomalies; however, only one silver vein, the Uncle Sam mine, contains uranium minerals. The turquoise veins contain only minor amounts of uranium.

Uranium mineralogy is complex and is described by Gillerman (1964, 1968). Uraninite is present, but the dominant ore minerals are secondary phosphates. Much of the phosphate is probably derived from phosphate-enriched diabase and latite dikes (Gillerman, 1968). A sample from the Merry Widow mine assayed Ø.Ø2% U_3O_8, and a sample from the Blue Jay mine assayed Ø.Ø36% U_3O_8, trace Au, and Ø.5 oz/ton Ag (Appendix 2). Up to Ø.59% U3O8 is reported from analyses by O'Neille and Thiede (1981).

The uranium-bearing veins are small and irregular, but many individual veins may occur along a single fault (Fig. 27). The age of mineralization is uncertain; field relationships tend to indicate a Tertiary age (Gillerman, 1964, 1968, 197Ø). The source of the uranium is unknown. The Tyrone laccolith, Tertiary volcanics, a buried pluton, and the Precambrian Burro Mountain granite could have contributed uranium (Gillerman, 1968; O'Neill and Thiede, 1981). This area is considered favorable for containing uranium deposits; however, additional drilling and geochemical studies are required to adequately assess the potential.

The Black Hawk mining district (or Bullard Peak district) is known for silver veins containing appreciable amounts of nickel, cobalt, and uranium. This unique mineral association is rare and is one of a few representatives of a native silver-nickel-cobalt-uraninite assemblage (Gillerman, 1964). Seven uranium occurrences in this area are described in Appendix 1, although none of these occurrences have produced any uranium ore.

The veins fill fractures and faults that trend northeasterly in the Burro Mountain granite and quartz diorite, and the Tertiary Twin Peaks monzonite porphyry stock. Uraninite is the dominant uranium mineral, although it is a minor constituent of these silver veins. Old records from the Alhambra and Black Hawk mines indicate that cobalt and nickel increase with depth. Uraninite is associated with the nickel and cobalt and may also increase with depth (Gillerman, 1964, 1968). The Black Hawk mine is the deepest mine in the district at 497 ft (151 m) (Appendix 1).

Fractures and faults are the primary ore controls. The veins are within 1,000 ft (305 m) of the Tertiary monzonite porphyry stock and the veins tend to thin when intruding monzonite porphyry dikes. The monzonite porphyry tends to concentrate mineralization on one side of the dike; however, the veins are thinner on the opposite side. When the veins occur along margins of monzonite porphyry dikes, they tend to thicken (Gillerman, 1964, 1968).

The uranium potential of this area is speculative. A dump sample from the Alhambra mine assayed 0.17% U_3O_8 (Appendix 2) and higher assays are reported (Gillerman, 1964, 1968, Gillerman and Whitebread, 1956). However, very little information on the depths of these veins is available. Drilling of this area is required to adequately assess the uranium, nickel, cobalt, and silver potential. Uranium could be mined as a co-product of the other metals.

The Tyrone copper deposit in the Burro Mountains contains anomalously large amounts of uranium (Raup, 1953). Torbernite and autunite occur in the kaolinized areas of the porphyry-type copper deposit (Kolessar, 1970, 1982). This copper deposit occurs in the Tyrone quartz monzonite laccolith (Tertiary) and the underlying Precambrian Burro Mountain granite. Copper mineralization, dominantly as chalcocite, varies from a few feet (m) to 300 ft (91 m) in thickness and is associated with sericitic alteration. Uranium occurs in highly fractured, kaolinized areas of the Tyrone laccolith and Precambrian granite (Appendix 1). This hydrothermal deposit has been classified as allogenic by O'Neill and Thiede (1981) based on (1) a Precambrian granitic source, (2) low thorium-to-uranium ratios, and (3) low thorium concentrations. However, in the vicinity of the Tyrone copper mine uranium is sporadic, discontinuous, and secondary, and does not constitute an economic by-product at the present time (Joseph Kolessar, pers. commun., 9/22/82). Uranium occurrences in the Copper Mountain area (Kolessar, 1970; Appendix 1) are also low-grade, discontinuous, and subeconomic.

The Wild Horse Mesa area is in the eastern part of the Telegraph district in the northern Burro Mountains, Grant County (Fig. 28). In this area, the Burro Mountain granite is unconformably overlain by the Beartooth Quartzite and Colorado Shale (Cretaceous). Although uranium has not been produced in this area, fluorite and base metals have been. Currently this area is inactive except for sporatic exploration for uranium and fluorite.

Uranium mineralization in this area occurs as (1) veins along faults, shears, and fractures within granite (Fig. 29), (2) veins along faults between the granite and Beartooth Quartzite, (3) veins and replacements of quartzite along the unconformity between the granite and Beartooth Quartzite, and (4) minor amounts within fluorite veins that intrude the granite (Appendix 1). The veins are thin and discontinuous and are associated with iron-staining, silicification, and sericitic alteration. Ten uranium occurrences are found in this area (Fig. 28) and numerous radiometric anomalies occur along the unconformity and major fault and shear zones. Chemical analyses of nine samples range from 0.009% to 0.59% U_3O_8 and trace amounts of gold may also occur (Appendix 2). The highest chemical uranium values are from a fault zone between granite and quartzite at the Union Hill claims (Fig. 30; Appendix 1). The samples were taken near the portal of a 180-ft (55 m) adit, which penetrates two shear zones (Fig. 30). Additional radiometric anomalies occur along the same fault.

This area is highly fractured and faulted. Four major fault systems which trend northeast, northwest, west, and north (O'Neill and Theide, 1981), appear to coincide with the uranium mineralization. The fluorspar veins trend northwest (Gillerman, 1964) and are slightly radioactive (Appendix 1). Tertiary rhyolites have intruded parts of the sequence, but are barren of mineralization. Two samples of rhyolite contain less than 5 ppm U (O'Neill and Theide, 1981).

Similar fault-controlled uranium occurrences are found in the Red Rock area (western Telegraph district) at the Purple Rock

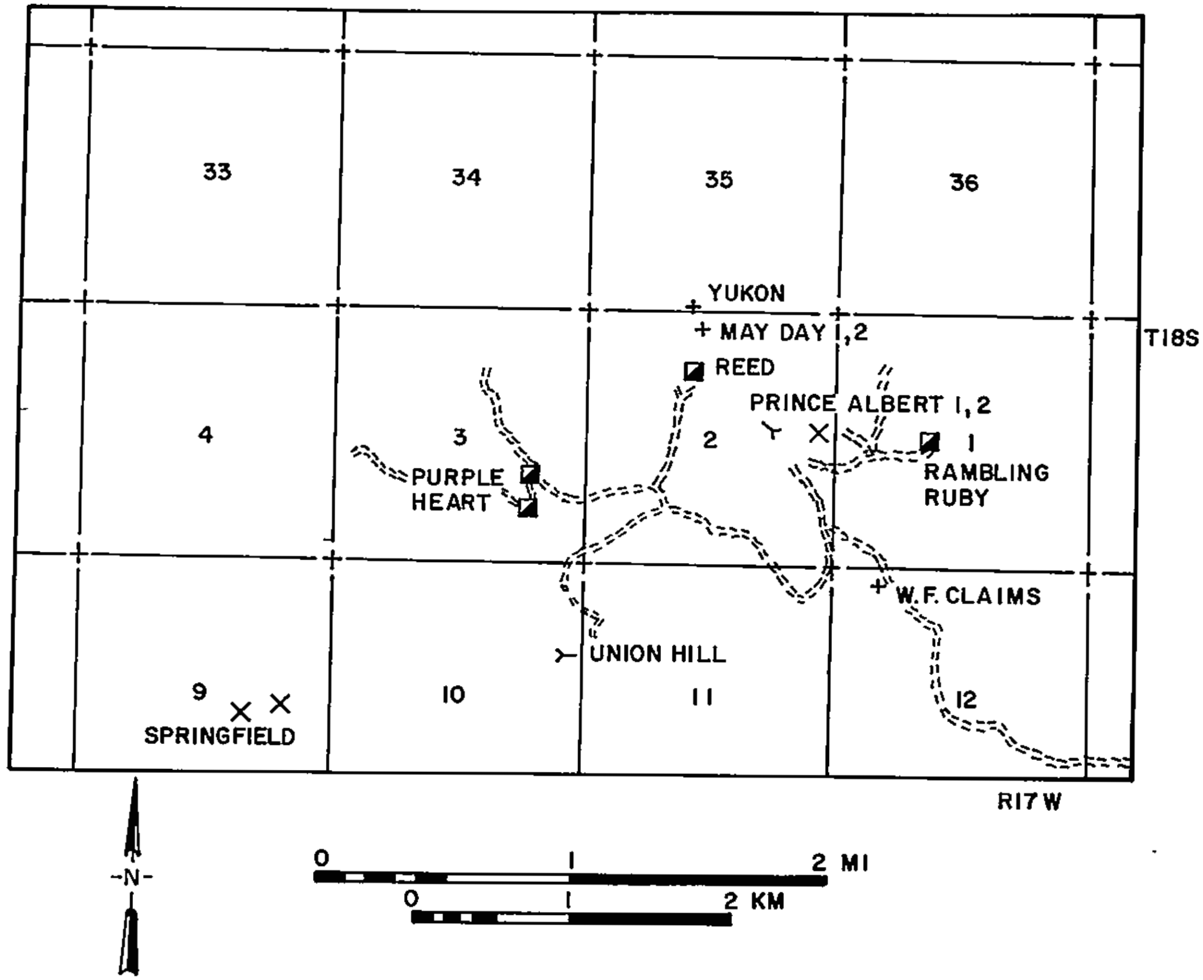


FIGURE 28-URANIUM OCCURRENCES IN THE WILD HORSE MESA AREA, GRANT COUNTY.

Figure 29 - Mineralized shear or fault zone at the Prince Albert #1 mine in the Wild Horse Mesa area, Burro Mountains, Grant County looking south. The adit is in Precambrian granite.

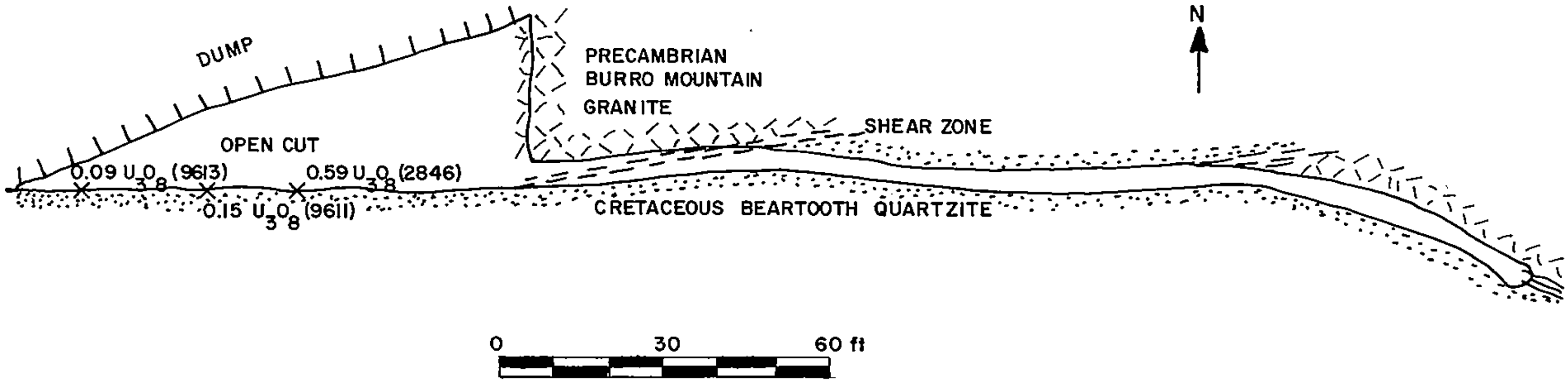


FIGURE 30-PLAN MAP OF THE UNION HILL ADIT (18S.17W.10.242), GRANT COUNTY, SHOWING LOCATION OF SAMPLES.

Mine, Blue Eagle, and Sandy Group; in the Little Burro Mountains district near Tyrone at the Tunoco mining claims (18S.15W.28.231,243, Appendix 1), Section 21 (18S.15W.21.211; Appendix 1); and in the Little Burro Mountains district (18S.15W.35.143; Appendix 1). At the Purple Rock mine and the Tunoco mining claims, uranium is associated with fluorite (Appendix 1). In the Little Burro Mountains district, uranium mineralization is associated with faults in granite and faults between the granite and Beartooth Quartzite. Chemical uranium values from these samples in this area range from 0.002 to 0.008% U_3O_8 (Appendix 2). Faults in Precambrian granite control uranium mineralization at the Purple Rock mine and the Tunoco mining claims as well. In 1956, 30 lbs (14 kg) of U_3O_8 at an average grade of 0.04% U_3O_8 were produced from Section 21 in the Little Burro Mountains district.

The age and origin of mineralization are unclear. Hewitt (1957, 1959) described at least two periods of fluorite deposition in the Redrock area. Deposition of colorless to green fluorite was followed by deposition of radioactive purple fluorite. Age of fluorite mineralization is interpreted to be mid- to late-Tertiary (Hewitt, 1959; Gillerman, 1964, 1968). However, most of the uranium mineralization in the Wild Horse Mesa is not associated with the fluorite veins, although fluorine may be anomalously high (O'Neill and Thiede, 1981). Elsewhere in the Burro Mountains uranium is interpreted as occurring after fluorite mineralization (Kolessar, 1970; Gillerman, 1964, 1968).

Additional minor and isolated uranium occurrences are found in the Burro Mountains (Appendix 1). Some of the occurrences are related to deposits within recognized mining districts. Other occurrences may be indicative of additional uranium deposits. Most of these occurrences are along fractures and faults that trend northeast, northwest, or east.

Detailed geological and geochemical studies are warranted in the Burro Mountains to adequately assess this area for mineral potential. In addition, these studies could address the source and genesis of the mineralization in the Burro Mountains, and also the relationship, if any, between the various mineralized areas.

Uranium occurrences are found scattered throughout the Sangre de Cristo Mountains in northern New Mexico (Appendix 1; McLemore, 1982a). Many of these areas have not been mapped in detail, and any interpretation of the uranium potential thus is difficult. Follow-up studies are warranted in several areas where radiometric anomalies were detected by stream-sediment sampling and aerial reconaissance surveys.

The only recorded uranium production from the Sangre de Cristo Mountains other than from pegmatites was a 5-ton (4.5 metric ton) ore shipment at 0.03% U_3O_8 from the Black Copper #2 Mine in Taos County in 1957 (Appendix 3). Uranium mineralization was found in two 6-ft (2 m) wide zones of gold-silver veins about 50 ft (15 m) apart. The mineralization occurs in Precambrian granodiorite near a major fault (Condie, 1981; S. D. Brown, 1982). Field examination of the immediate surface area adjacent to the mine could not locate any significant radioactivity (Appendix 1); however, uranium mineralization may occur at depth.

The Bitter Creek prospects are located along Bitter Creek about three mi (five km) north of Red River in the Anchor district. Several caved adits and prospect pits are located along shear zones and pegmatites; most of them are along silver-bearing quartz veins (J. H. Schilling, 1960).

The Bitter Creek area is in the vicinity of the Questa caldera margin (currently being mapped by the U.S. Geological Survey). This area is highly faulted and fractured. A block of granitic and gneissic rocks is faulted into the Tertiary volcanics (Condie, 1981). Uranium mineralization occurs along faults, shear-zones, and pegmatites within the Precambrian fault block (Fig. 31). One sample from a shear zone in coarse-grained granite assayed 0.03% U_3O_8 and 16 ppm Th (#1786, Appendix 2); whereas a sample from a pegmatitic granite assayed 0.11% U3O8 and 47 ppm Th (#1787, Appendix 2). The Precambrian rocks are a complex of granite, gneiss, diabase dikes, and pegmatites. Additional mapping is required to determine the extent and origin of the uranium mineralization.

Six uranium occurrences are found in the Costilla Peak massif in northern Taos County (Appendix 1), and additional stream-sediment samples contain greater than 5,000 ppm U_3O_8 (Fig. 32; Reid and others, 1980b; Goodknight and Dexter, 1983). Stream and spring waters in this area contain as much as 250 ppb U_3O_8 (Reid and others, 1980b; Morgan and Broxton, 1978). Three types of Precambrian granite are found in the Costilla Peak massif: a coarse-grained biotitic granite, a pegmatitic granite, and a foliated gneissic granite. Pegmatites in the vicinity of the Billy Goat prospect are radioactive (Fig. 32; Appendix 1); a

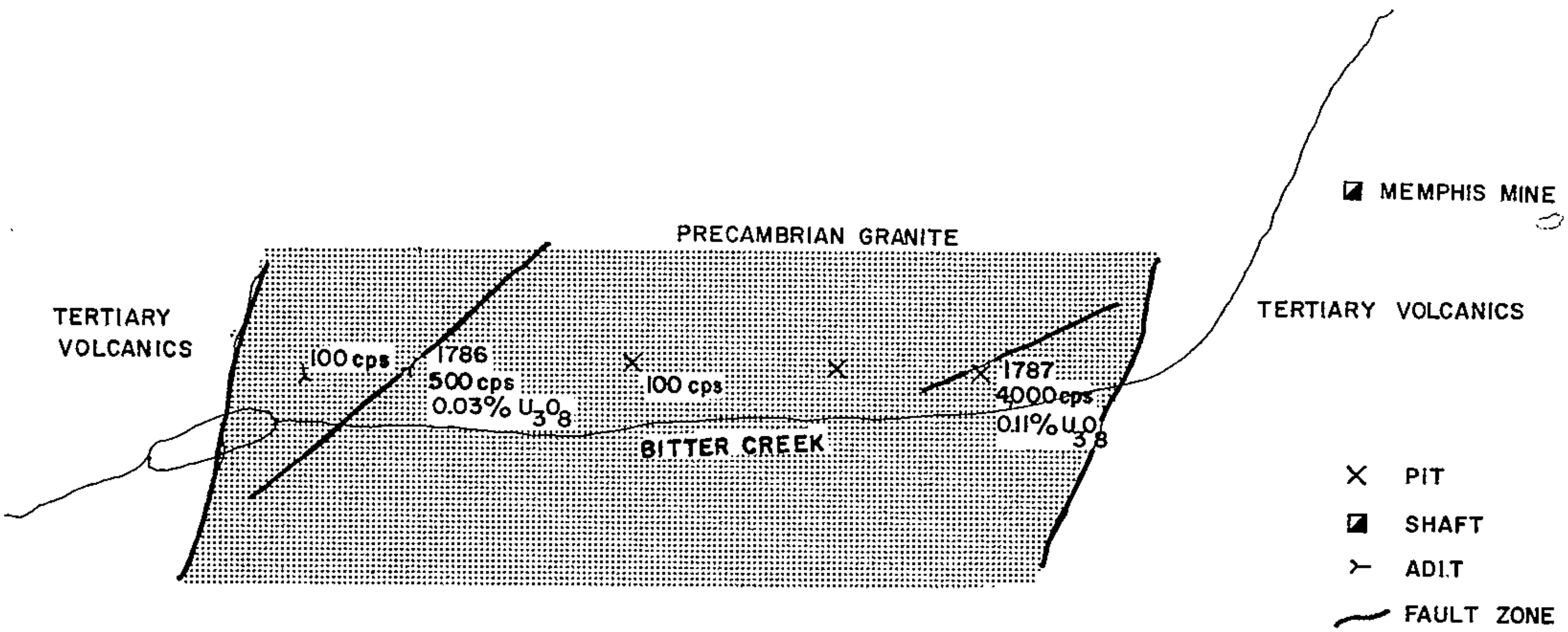


FIGURE 31 - BITTER CREEK PROSPECTS AND MINES, NORTH OF RED RIVER, TAOS COUNTY, NEW MEXICO.

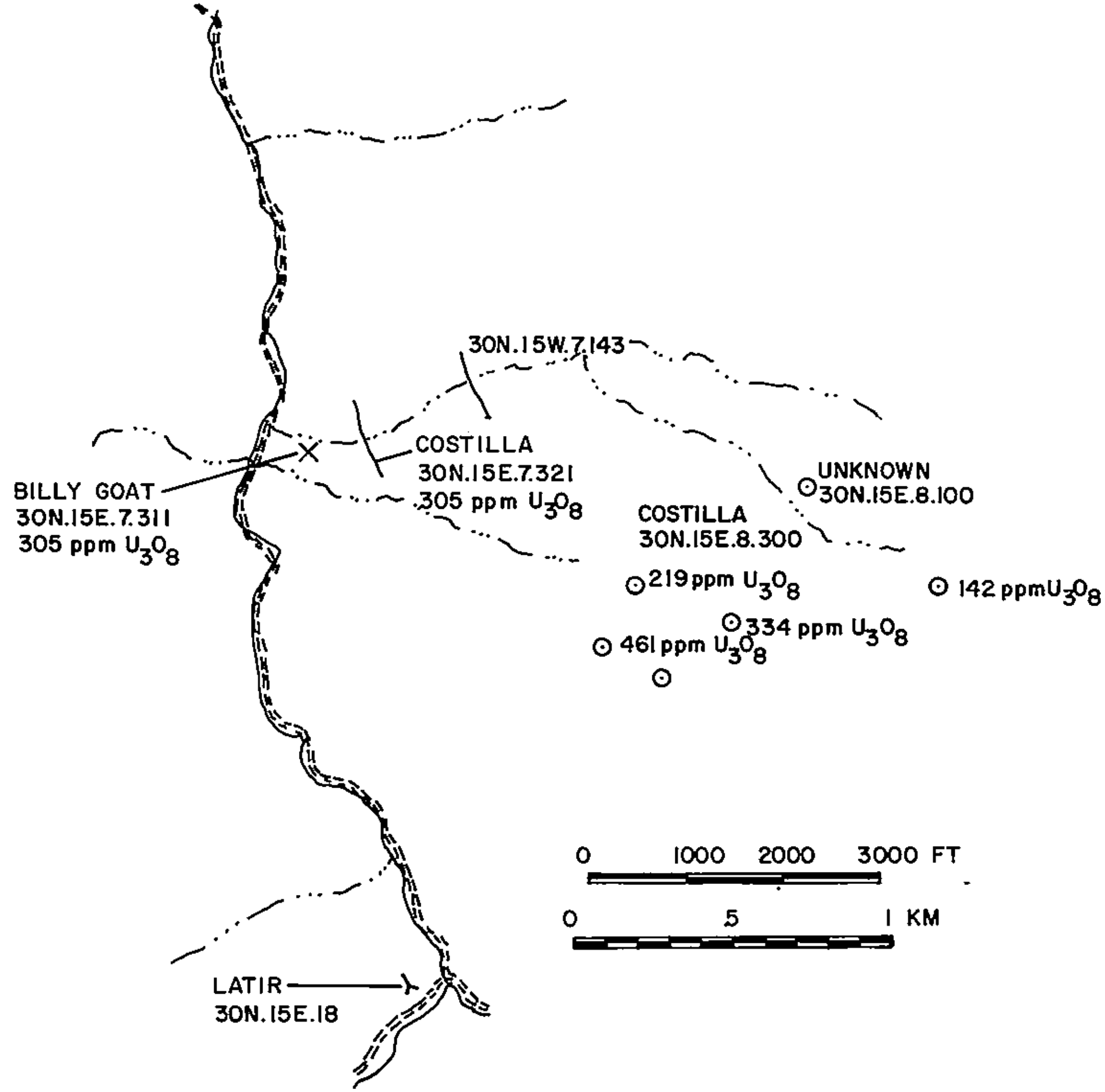


FIGURE 32-URANIUM OCCURRENCES IN THE COSTILLA PEAK MASSIF, TAOS COUNTY. CHEMICAL ANALYSES FROM REID AND OTHERS (1980a).

sample from a radioactive pegmatite contained 305 ppm U_3O_8 (Reid and others, 1980b). Additional granitic samples collected by Goodknight and Dexter (1983) contain up to 0.38% U_3O_8. Uranium mineralization is fault-controlled and is found along north-south trending fractures in coarse-grained granite. Uranosilicates, dominantly uranophane, are common in many mineralized samples (Goodknight and Dexter, 1983). No other mineralization is found in the area, although anomalously high concentrations of copper, lead, and zinc are reported at one locality by Goodknight and Dexter (1983).

The Costilla Peak granite is anomalously high in uranium (Goodknight and Dexter, 1983), indicating a potential source. Furthermore, the granite may have been covered by Tertiary volcanics of the Amalia Tuff, which could have released uranium into the system (Goodknight and Dexter, 1983). Detailed mapping and geochemical surveys are required in this area, especially at the higher elevations, to adequately assess the uranium potential.

Anomalously high uranium values in stream sediments and water samples north and east of Big Costilla Peak may indicate additional uranium occurrences in that area (Morgan and Broxton, 1973; Goodknight and Dexter, 1983). Numerous uranium anomalies from the aerial radiometric survey of the Raton 1- by 2-degree quadrangle further suggest the presence of uranium occurrences in the Big Costilla Peak area of the Costilla Peak massif (Geometrics, 1979; Goodknight and Dexter, 1983).

A Precambrian granite similar to the Costilla Peak massif occurs southwest of Costilla Peak in the Urraca Canyon and Fito del Medio in Taos County. Stream-sediment samples contain up to 383 ppm U_3O_8 in Urraca Canyon and up to 30 ppm U_3O_8 in Rito del Medio. Uranium concentration appears to increase with increase in elevation (Reid and others, 1980b), suggesting that the uraniferous source is at higher elevations.

Only one unverified uranium occurrence is found in the Rio Hondo area, Taos County (Appendix 1); the exact location is unknown. Stream-sediment samples in the Rio Hondo area contain up to 159 ppm U_3O_8, but rock samples collected at the bottom of the canyon contained less than 4 ppm U_3O_8 (Reid and others, 1980b). Additional geochemical sampling of the higher elevations is warranted.

Several uranium occurrences are associated with fluorite in the Tusas Mountains, Rio Arriba County (Fig. 33, Appendix 1). Uranium occurs in the Precambrian Tusas Mountain granite (1) at the contact between the granite and Precambrian Moppin Formation, (2) along the boundaries of inclusions, xenoliths, and roof pendants, and (3) along fractures within the granite. The Tusas Mountain granite is white to pink, fine-grained, porphyritic, and only locally foliated (Wobus and Hedge, 1982; Kent, 1980). The intrusive contact with the Moppin Formation is sharp and well exposed along the west edge of the intrusive. The distinctive features of this granite are the lack of pervasive foliation and its younger age as compared with other Precambrian granites in northern New Mexico. The Tusas Mountain granite is between 1,430 and 1,500 m.y. old, as compared to 1,700 m.y. old foliated granites in the Tusas Mountains (Wobus and Hedge, 1982). The

Tusas Mountain granite (Wobus and Hedge, 1982) is similar in its chemistry to the high Si and high K granites of Condie and Budding (1979).

In 1954, 6 lbs (3 kg) of U_3O_8 of an average grade of 0.04% U_3O_8 were produced from the Tusas East Slope #5 prospect. One 5-ton (5-metric ton) shipment from the Tusas East Slope Claim assayed 0.12% U_3O_8. A second ore shipment from the JOL prospect in 1956 amounted to 6 lbs (3 kg) of U_3O_8 at an average grade of 0.04% U_3O_8 (Appendix 3). However, chemical analyses of samples collected by Craig Goodknight and Jim Dexter (Bendix Field Engineering Corp.) contained up to 0.17% U and 2% Th (28N.7E.13.333; Fig. 33, Appendix 1). Anomalous amounts of Nb (720 ppm in #MFQ-806, Fig. 33) and La (580 ppm, 28N.7E.24.223, Fig. 33, Appendix 1) are present in some of the samples. An open-file report in 1983 by Craig Goodknight and Jim Dexter interprets and classifies the uranium occurrences associated with the Tusas Mountain granite.

Uranium occurs along fractures and joints in weathered and altered Precambrian Tajo granite in the Rio Grande valley, east of Socorro (McLemore, 1983b; Appendix 1). Six outliers of granite are exposed along two northwest-trending fault zones (Fig. 34). Fluorite and barite veins occur along these faults, but only the Gonzales fluorite-barite prospect is radioactive, indicating the presence of uranium and thorium. Several radiometric anomalies occur along northwest- to northeast-trending faults, fractures, and joints within five of the six outliers (Fig. 34). Purple fluorite, hematitization, and silicification are associated with uranium mineralization.

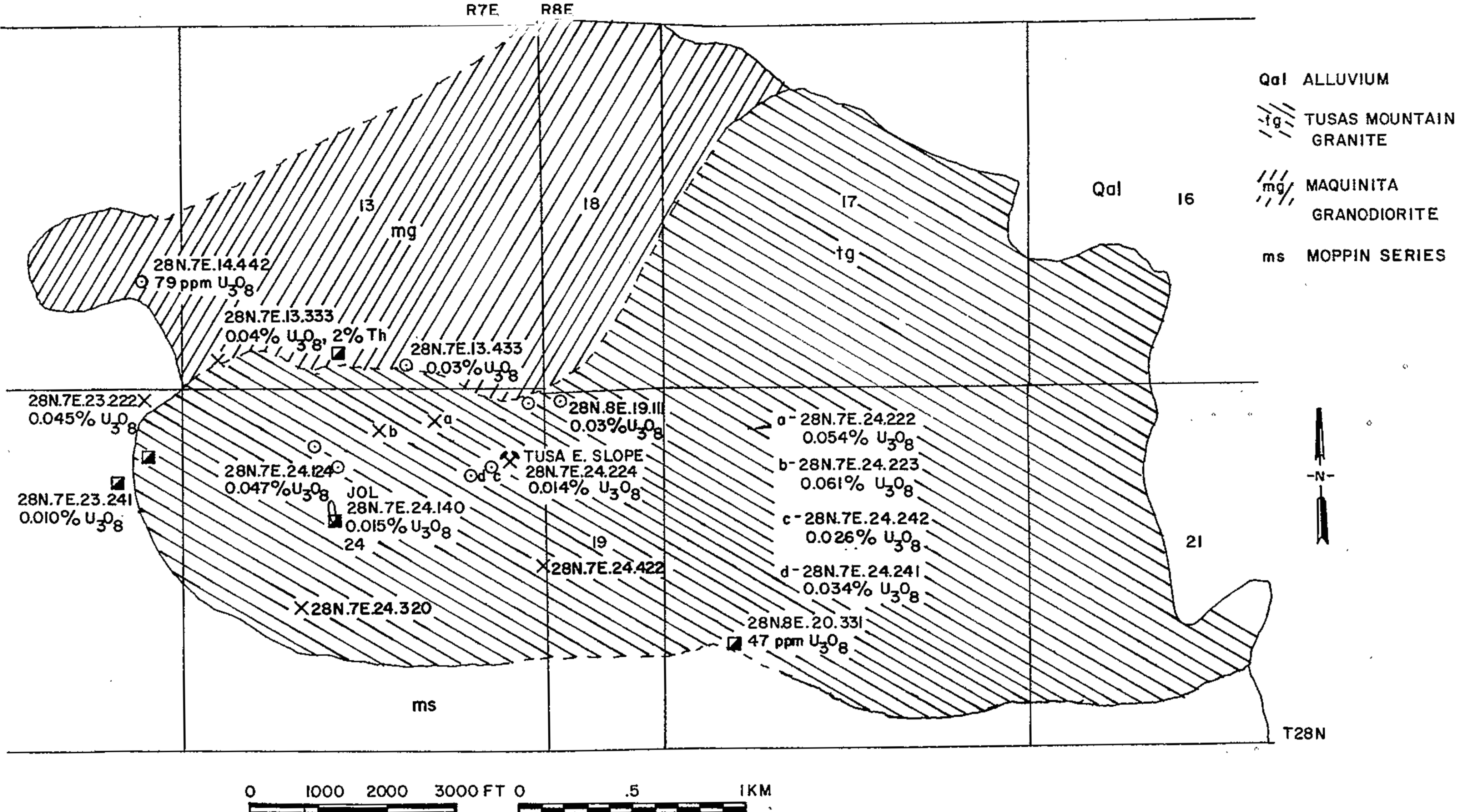


FIGURE 33- URANIUM MINES AND OCCURRENCES IN THE TUSAS MOUNTAINS, RIO ARRIBA COUNTY. CHEMICAL ANALYSES FROM CRAIG GOODKNIGHT AND JIM DEXTER (BENDEX FIELD ENGINEERING CORP.) AND NMBMMR CHEMICAL LABORATORY (APPENDIX 2.)

Although no uranium minerals have been identified, uranium concentrations are as high as 0.019% U_3O_8 (Appendix 2). Higher uranium concentrations are expected to occur at depth, below the zone of oxidation. Lead concentration in one sample is 0.13% (Appendix 2).

The uranium potential of the Tajo granite is uncertain. Although this granite exhibits the mineralogy and alteration typical of uraniferous granitic rocks, the low grade and small size of known surface mineralization suggests a poor economic potential. However, the subsurface extent of the Tajo granite is not known. The area is within the Rio Grande graben and is extremely faulted. It is conceivable that the unexposed portion of the Tajo granite lies at great depth.

Uranium in Tertiary intrusive and volcanic rocks

Many uranium and thorium occurrences are found in Tertiary intrusive and volcanic rocks in New Mexico and most are described under deposits in copper or fluorite veins, or thorium deposits in veins. However, a few uranium occurrences are found as hydrothemal-vein deposits in these rocks. Some of these occurrences may actually be volcanogenic uranium deposits, but are described here as hydrothermal-vein deposits. In New Mexico, uranium occurrences in these Tertiary rocks are found in sulfide veins, copper veins, iron deposits, and fluorite veins. Only two areas in the state, the Baby mine in Catron County and La Bajada mine in Santa Fe County, produced uranium from vein deposits.

Several occurrences are found in the Mogollon volcanic field

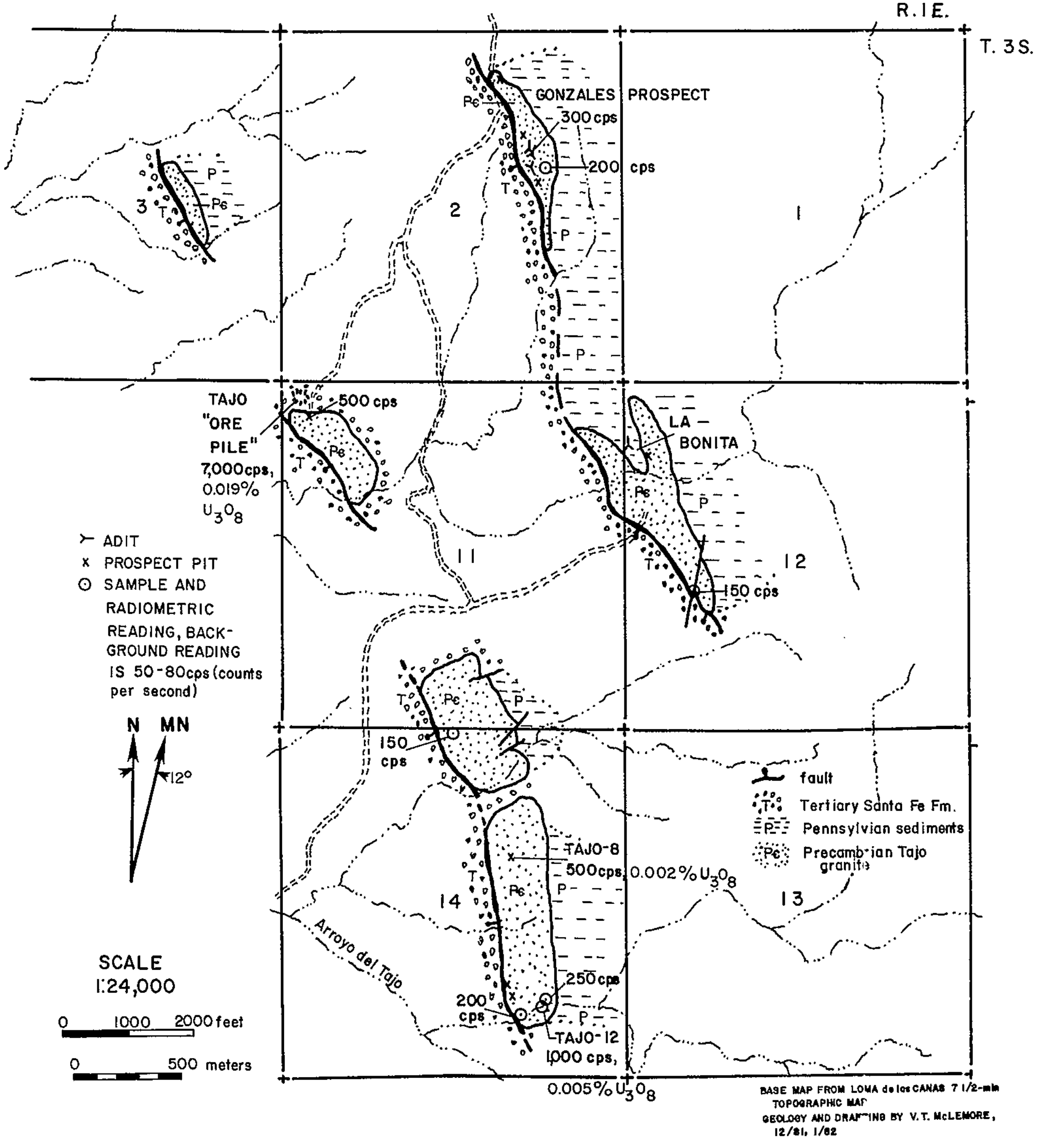


FIGURE 34 - Geologic map showing anomalously high radiometric readings of the Tajo granite (Precambrian), Socorro County, New Mexico.

in southwestern New Mexico (Appendix 1; McLemore, 1982a); however only one deposit yielded any ore, the Baby mine in the Mogollon Mountains in Catron County. Uranium production from this mine amounts to 14 lbs (6 kg) of U_3O_8 at an average grade of 0.01% U_3O_8 (Appendix 3). One additional uranium occurrence is found in the area, the Evelyn prospect, located south of the Baby mine in Whitewater Canyon (Appendix 1).

Both of these uranium occurrences are in a highly mineralized area in the Mogollon mining district. Gold, silver, fluorite, copper, lead, and uranium have been produced from the district (Ratte and others, 1979; Collins, 1957). The area is located on the northwestern edge of the Bursum caldera (Ratte and others, 1979; New Mexico Geological Society, 1982) and the resulting fracturing and faulting has controlled mineralization. Uranium and other mineralization occur along north-northeast and west-northwest trending faults in the precaldera Whitewater Creek Rhyolite and may be related to the caldera. Uranium and vanadium minerals are associated with pyrite and fluorite in a Last Chance Andesite dike trending N 70° W and along the extension of a northwest-trending fault. The sulfide-bearing quartz veins, common to other areas of this district, are absent at the Baby mine.

Mineralization at the Evelyn prospect occurs in clay gangue along northeast-trending shears in Whitewater Creek Rhyolite (Collins, 1957). Sulphide-bearing quartz veins are absent at the Evelyn prospect and uranium is associated with pyrite.

The uranium potential in the rugged Mogollon Mountains is speculative. An aerial radiometric anomaly coincides with this area (White and Foster, 1981; Texas Instruments, Inc., 1978); however, a reconnaissance of faults and veins in the area by Collins (1957) failed to locate any additional uranium mineralization on the surface. The author's field reconnaissance in the area was also unsuccessful. Two areas were found by Collins (1957) that were similar in alteration and mineralogy to the Baby mine area; but no anomalous radioactivity could be detected. Furthermore, the steep sided canyons and rugged terrain in the Mogollon Mountains would hamper exploration and mining efforts.

The La Bajada mine is located in the canyon of the Santa Fe River, south of Santa Fe (Appendix 1). A small amount of copper and silver was produced in the 1920's (Chenoweth, 1979) and 27,111 lbs (12,297 kg) of U_3O_8 at an average grade of 0.14% U_3O_8 from 1956 to 1966 (Appendix 3). The first two shipments in 1956 and 1957 averaged over 0.18% U_3O_8. In addition to uranium, copper, and silver mineralization, cobalt, nickel, molybdenum, and germanium are present in significant concentrations (Chenoweth, 1979; Hilpert, 1969). Mineralization occurs in thin veins along a fault zone within the Oligocene Espinaso Formation and a limbergite dike. The uniqueness of the deposit is due to the presence of ore-controlling organic material, yet the volcanics and limburgite dike are intensely altered by hydrothermal solutions. The organic material is thought to have been derived from the underlying Cretaceous sediments (Haji-Vassiliou and Kerr, 1972, 1973). Due to the complex association of uranium and organic material, uranium minerals have not been identified (Hilpert, 1969; Lustig, 1958). A sample from the dump contains 0.09% U_3O_8, 1.51% Cu, and 19 ppm Th (Appendix 2).

The Lone Star Mining Company produced uranium from the 200-ft (61 m) long, 50-ft (15 m) wide, and 200-ft (181 m) deep open pit. The pit was stripped over most of the underground workings. Environmental problems prevented development and re-opening of the mine in the 1970's. In late 1970's, Bokum Resources and Union Carbide Corp. drilled exploratory holes in the vicinity of the La Bajada mine; however, their results are not available. Reserves are probably present at the mine, but environmental problems will hamper future mining of this hydrothermal deposit. One additional occurrence, the Hiser Moore #1, is found in the area.

Uranium occurs along fractures and shear zones in many areas. At the Mimi #4 claim in Sandoval County, 0.018% U and 171 ppm Th (Appendix 2) occurs in hematitic altered latite dikes and sills (Fig. 35). Uranium roll-type deposits also occur in the Galisteo Formation elsewhere in this area (McLemore, 1982c). Uranium veins are found at Cerro Colorado, Bernalillo County, and Black Butte, Socorro County. Uranium concentration at Cerro Colorado is 0.007% U_3O_8 (Appendix 2). Uranium occurs along a fault zone at the Mule Creek prospect and is in the vicinity of the Mule Creek cauldron (New Mexico Geological Society, 1982). Additional similar occurrences are present in the state (Appendix 1). Some of these occurrences are high grade (Mule Creek prospect); however, uranium mineralization is discontinuous and spotty. Most of these occurrences may be indicative of uraniferous sources nearby.

Figure 35 - Uranium mineralization occurs along fractures in latite dike at the Mimi #4 claim in Sandoval County and is typical of many deposits in igneous rocks

Uranium in copper veins

Numerous areas in Taos, Rio Arriba, Santa Fe, Cibola, Lincoln, Otero, and Luna Counties are characterized by copper and uranium minerals that occur along shear zones, fractures, and in veins (Appendix 1). Uranium and copper in most of these areas tends to be low grade and low tonnage. They are found in highly altered and mineralized areas and may be associated with silicification, hematization, and argillization.

Uranium and copper mineralization in the Picuris district, Taos County, and Petaca district, Rio Arriba County, occurs in veins and along fractures in Precambrian metamorphic rocks adjacent to or within pegmatites. Uranium and copper minerals also parallel schiltosity and foliation in the Picuris district. Up to 169 ppm U and 4.6% Cu are reported form samples at Copper Hill (Appendix 1; Craig Goodknight, Bendix Field Engineering Corp. written commun., 4/24/82). A sample from the Lucky Seven claim in the Petaca district contained Ø.Ø21% U3O8 (Appendix 1; U.S. Atomic Energy Commission, 197Ø), whereas samples from the Rancho AAA claim assayed Ø.Ø1Ø% U3O8 and 3.ØØ% Cu (Appendix 2).

In the Cerrillos and Nambe districts in Santa Fe County uranium occurs with copper, lead, and zinc deposits in Tertiary monzonite or monzonite porphyry. Samples from the Cash Entry, Evelyn Copper, and Turquoise mines in the Cerrillos district contained less than Ø.ØØ1% U, but one sample from the Turquoise Hill mine contains Ø.ØØ85% U (Griggs, 1953). Low-grade uranium and copper mineralization at the Marion and Shaw #2 mines in the Nambe district occurs in Precambrian schists and granites

(Appendix 1).

The copper and uranium mineralization in the Permian Abo Formation in the Zuni Mountains has been discussed above. In addition to sandstone deposits, copper and uranium occur along shear-zones, fractures, and foliation planes within Precambrian granitic rocks near Diener (Fig. 23). Fluorite and barite may locally occur in these deposits.

Uranium and copper mineralization is found in the Nogal and Gallinas Mountains districts in Lincoln County (Appendix 1). Uranium, copper, and gold occur at the Silver Plume mine in the Nogal district, and uranium may occur elsewhere in the area. Uranium and thorium is associated with the copper-fluorite-bastnaesite deposits in the Gallinas Mountains.

Uranium and copper are present in Tertiary volcanic and intrusive rocks at Orogrande in Otero County, and Carrizalillo Hills, Cooks Peak, and Tres Hermanos Mountains in Luna County. The mineralization occurs along fractures and faults. A sample from the Calumet mine in the Carrizalillo Hills contains 0.003% U_3O_8 and 2.3% Cu (Appendix 2).

Minor copper and uranium occurrences are found along the Rio Grande valley in Socorro and Sierra Counties (Appendix 1; McLemore, 1983b). Copper and uranium minerals occur along foliation planes and fractures in Precambrian rocks and Tertiary volcanic rocks. Uranium concentrations are below economic grades, and silicification and hydrothermal-alteration are minor.

At the Glory No. 2 and Empire Group in the Iron Mountain district, Sierra County, uranium and copper occur in silicified sandstones and siltstones of the Abo formation and Tertiary rhyolite dikes. In 1955-1956, 10 tons of ore were produced yielding 38 lbs (17 kg) of U3O8 at an average grade of 0.18% U3O8 (Appendix 3). Uranium and copper minerals occur as disseminations, veinlets, and small pods in at least four horizons. Both uranium and copper are sporadically distributed and discontinuous in siltstones, sandstones, and rhyolites (Boyd, 1957). Mineralization is associated with silicification and argillic alteration, and was probably emplaced after or during intrusion of the rhyolites. The hydrothermal fluids moved through permeable siltstones and sandstones, and deposited uranium near accumulations of organic material. It is conceivable that uranium and copper mineralization pre-existed in the sandstones and siltstones, and was subsequently remobilized by hydrothermal solutions.

It is unlikely that any of these uranium and copper hydrothermal-vein deposits represent economic deposits, because they are small and low grade. However, many of these occurrences are indicative of uraniferous sources and perhaps may be indicative of uranium ore bodies in sandstones or igneous rocks in these terrains.

Uranium in Fluorite veins

Uranium occurs with many of the fluorite veins in central and southwestern New Mexico (Appendix 1; McAnulty, 1978). Generally, uranium occurs in trace amounts with purple to purple-black fluorite. Minor occurrences are found at the following localities: (1) the Mirabel mine in the Zuni Mountains, Cibola

County (Fig. 23); (2) in the fluorite-bastnaesite veins in the Gallinas Mountains, Lincoln County; (3) Juan Torres prospect in the Ladron Mountains, Socorro County; (4) Gonzales and La Bonita prospects, Socorro County; (5) Lyda K mine in the Caballo Mountains, Sierra County; (6) Blue Star prospect, Dona Ana County; (7) Lookout prospect and other fluorite veins in the Cooke's Range, Luna County; and (8) the Clum, Aquilar, Hines, Last Chance, Big Chief, Reed, Purple Rock, and Purple Heart mines in Grant County. Uranium production from the Blue Star prospect, Dona Ana County, amounted to 14 lbs (6 kg) of U_3O_8 at 0.06% U_3O_8; no other deposits have yielded uranium ore (Appendix 3).

Fluorite is common to many uranium deposits; however, most fluorite veins do not contain uranium in appreciable amounts. Uranium concentrations are typically less than 0.1% U_3O_8 (Appendix 1, 2). It is doubtful that uranium in fluorite veins in New Mexico would have any economic potential, although fluorite is common as a gangue mineral in uranium deposits.

Uranium deposits in altered or metamorphosed sediments

A few uranium occurrences are found in altered or metamorphosed sedimentary rocks near or adjacent to Tertiary igneous intrusives and occur as hydrothermal-vein, anatectic, or contact-metasomatic deposits (Appendix 1). These occurrences are isolated, small in size, and low grade. The subsurface potential has rarely been examined. These occurrences may be indicative of other types of uranium deposits, or of a uraniferous source.

Yellow uranium minerals were reported to occur along fractures in limestones and shales of the Chinle Formation near igneous dikes and sills at the Sonora prospect, Cibola County (Appendix 1; Hilpert, 1969; McLemore, 1982c). Copper, lead, silver and nickel minerals are present (Hilpert, 1969). Mineralization is within ten ft (3 m) of the igneous dikes or sills, but not all of the intrusives are mineralized.

At least 15 pyrometasomatic iron deposits in Lincoln County contain uranium mineralization (Appendix 1). Most of them are small replacement bodies within a few hundred feet of an intrusive igneous body (V. C. Kelley, 1949; Soulè, 1947; Sheridan, 1947; Griswold, 1959, 1964). The iron deposits have replaced limestones of the Permian San Andres and Yeso Formations, where these rocks have been folded. The primary minerals are magnetite and hematite, but secondary uranium minerals have also been identified (Walker and Osterwald, 1956; R. Weber, New Mexico Bureau of Mines and Mineral Resources, pers. commun., 1980). Most of the iron deposits are only slightly radioactive and uranium has not been produced from any of them (Appendix 1). Samples from the Eagle Nest #1 and 2, White Oaks district, and the American, Gallinas Mountains district, contained 0.01% or less U_3O_8 (Appendix 2). Iron deposits in the Orogrande district in Otero County are similar to the Lincoln County deposits, but are not radioactive (author's field notes, 11/14/82). Uranium potential in these deposits is poor.

The Napane claims are located in the Fremont mining district in the Sierra Rica, Hidalgo County (Fig. 1). Uranium production from this property amounts to 5 lbs (16 kg) U308 at an average grade of 0.19% U_3O_8 (Appendix 3). In addition, unknown quantities of copper, lead, zinc, and silver have been produced. Copper, lead, zinc, and silver mineralization was discovered in the area in 1884; uranium was discovered in 1953.

Mineralization is accompanied by silicification and recrystallization of the limestones and sandstones. Copper, lead, zinc, and silver veins and replacement pods are common throughout the Sierra Rica. However, uranium mineralization occurs only at the east end of the Napane claims (Fig. 36). Uranium minerals occur as disseminations within silicified sandstones and limestones, and along east-west trending fractures and joint surfaces. A sample from an ore dump contains Ø.13% U_3O_8 and 1,276 ppm Th (Appendix 2). Chemical analyses up to Ø.47% U_3O_8 are reported (May and others, 1981). Uranium mineralization is sporadic and discontinuous, and no other radiometric anomalies can be found in the area (personal reconnaissance, 12/2/81; May and others, 1981).

The potential of this area is unknown. Surface reconnaissance is unfavorable; however, no drilling for uranium has ever taken place. Two potential sources for uranium mineralization exist: the Apache cauldera and Tertiary granitic intrusives. Subsurface studies are needed to adequately assess the uranium potential. Potential for copper, lead, zinc, and silver is fair.

<u>Thorium deposits in vein-type occurrences</u>

Thorium veins constitute the largest reserves of relatively high-grade thorium in the United States. The reserves in veins

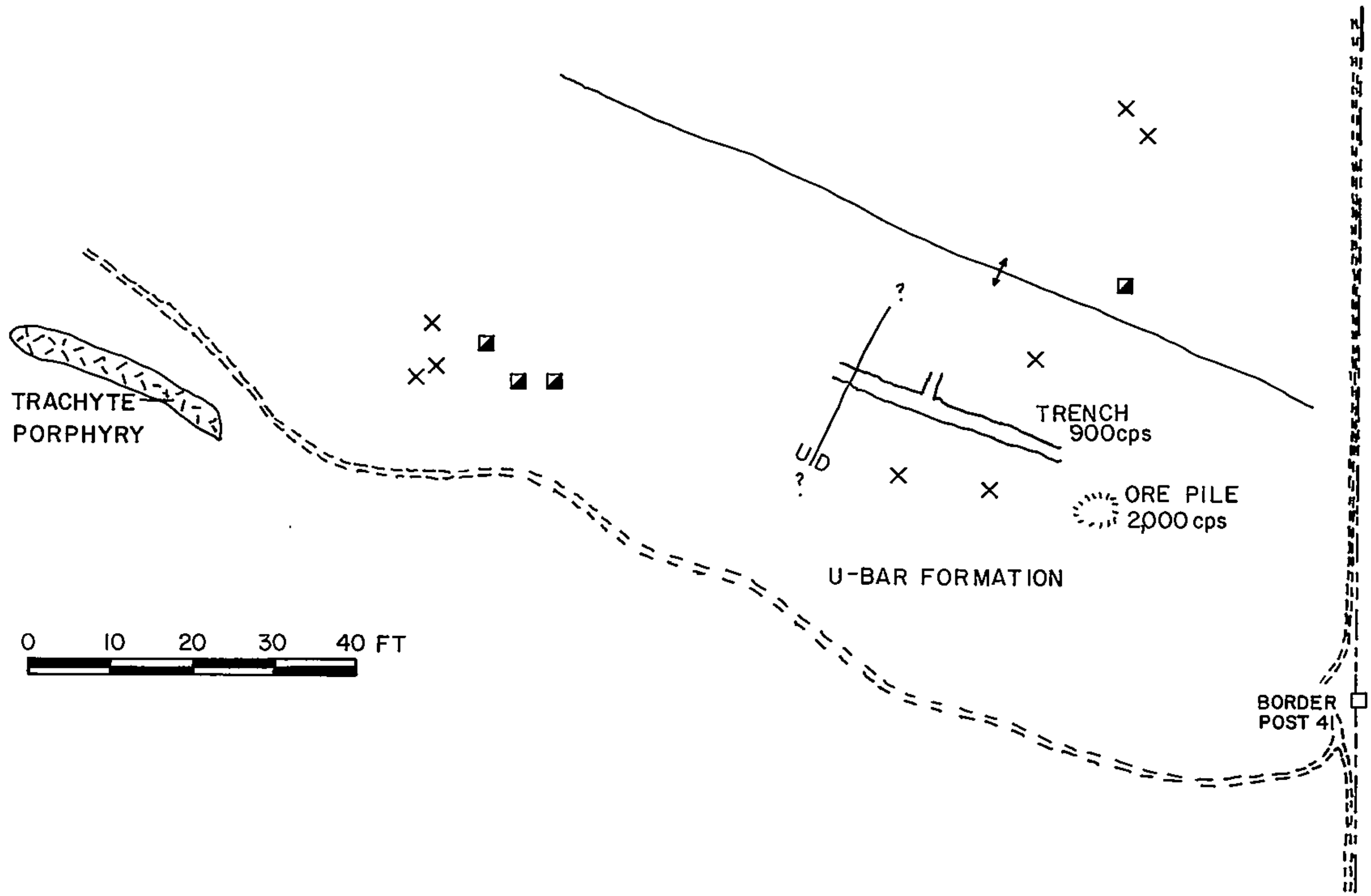


FIGURE 36-MAP OF THE NAPANE CLAIMS, HIDALGO COUNTY. MODIFIED FROM STRONGIN (1957).

are estimated as 142,000 tons (128,820 metric tons), about 75% of the total thorium reserves in the United States (Staatz and others, 1979). Most of the reserves are from seven areas in Colorado, Idaho, Montana, Wyoming, and California, and most of these veins are associated with alkalic igneous rocks or carbonatites (Staatz, 1974; Staatz and others, 1979). Unfortunately, thorium veins in New Mexico have not been adequately evaluated.

Several areas in New Mexico are known for their thorium occurrences (Fig. 3). Vein-type deposits in igneous and metamorphic rocks containing thorium and minor amounts of uranium occur in the Chico Hills area, Colfax County; Gallinas and Capitan Mountains, Lincoln County; Caballo Mountains, Sierra County; Burro Mountains, Grant County; and Cornudas Mountains, Otero County (Appendix 1). Additional thorium occurrences are found in pegmatites and carbonatites; these deposits are discussed separately. In addition, the beach-placer sandstone deposits in northern New Mexico contain thorium (discussed above).

Although none of these vein-deposits have been mined specifically for thorium, bastnaesite was produced from the Red Cloud and Rio Tinto mines in the Gallinas Mountains, Lincoln County (Appendix 1). Three tons (3 metric tons) of ore yielding one lb (0.5 kg) of U_3O_8 (0.02% U_3O_8) was produced from the Bear Canyon Group in the Capitan Mountains, Lincoln County (Appendix 3); the thorium content is unknown.

Thorium-bearing veins in New Mexico, as elsewhere in the

United States, occur as tabular bodies, narrow lenses, breccia-fillings. They vary from a few feet to 1,000 ft (305 m) in length and from a fraction of an inch to 10 ft (3 m) in width. Thorium, uranium, and rare-earth elements in these veins tend to be spotty, disontinuous, and low-grade; unlike other thorium-vein deposits in the country (Staatz, 1974). Thorium veins in the Chico Hills area, Gallinas Mountains, Caballo Mountains, and Cornulas Mountains are associated with alkalic igneous rocks similar to many thorium-vein deposits in Colorado, Idaho, Montana, and California (Staatz, 1974). Thorium potential exists in New Mexico; however, the lack of demand for thorium has prevented adequate exploration and development of potential areas in the state.

Twenty-three samples collected during field reconnaissance were assayed for thorium (Appendix 2). The highest concentrations are of pegmatite and beach-placer sandstone samples. The thorium content of carbonatite and thorium-vein samples were low; however, higher concentrations can be expected at depth.

The Chico Hills area is located in eastern Colfax County south of the Raton-Clayton volcanic field. Although only six occurrences are described in Appendix 1 (Fig. 5), Staatz (1982) located 29 thorium veins in a 16 mi^2 (41 km^2) area in the vicinity of Laughlin Peak. The veins are up to 800 ft (244 m) long and up to 20 ft (6 m) thick, and intrude Cretaceous sediments, Tertiary volcanic flows, and Tertiary intrusive dikes and sills. The veins appear to be associated with alkalic intrusive dikes and sills (Staatz, 1974; 1982). Samples of these thorium veins collected by Staatz (1974) range from less than 0.05% up to 0.82% Th. Additional samples collected by Reid and others (1980a; #428, 866-869) as part of the NURE program contained up to 278 ppm U, 150 ppm Nb, and greater than 1,000 ppm La. Thorium was not looked for; however, it is probable that these samples contain anomalous amounts of thorium because they are quite radioactive but contain very little uranium (Reid and others, 1980a; #866, 867). Thorite, brookite, xenotime, and florencite are reported to occur in some of the thorium veins; quartz, microcline, and limonite are common gangue minerals. A carbonatite dike is found in the area (M. H. Staatz, pers. commun., 1983).

Over a dozen thorium and uranium occurrences are found in the fluorite-copper-bastnaesite deposits in the Gallinas Mountains, Lincoln County (Fig. 37, Appendix 1). Although no uranium or thorium have been produced from this area; 71 tons (64 metric tons) of bastnaesite and 2,000 tons (1,814 metric tons) of fluorite, which assayed 6 oz/ton (187 grams/metric ton) silver, 22% lead, 6.93% copper, and 1.93% zinc, have been produced. Most of the production was from the Red Cloud and Rio Tinto claims (Griswold, 1959). The fluorite-copper-bastnaesite deposits occur as vein-fillings in breccia and fracture zones within the Permian Yeso Formation in the vicinity of syenite to monzonite laccoliths and sills. Up to 5% bastnaesite occurs in these deposits (Perhac, 1964; Perhac and Heinrich, 1964); however, less than 0.10% ThO_2 occurs in the bastnaesite. Although this area has been examined by Soulè (1946a), Rothrock and others (1946),

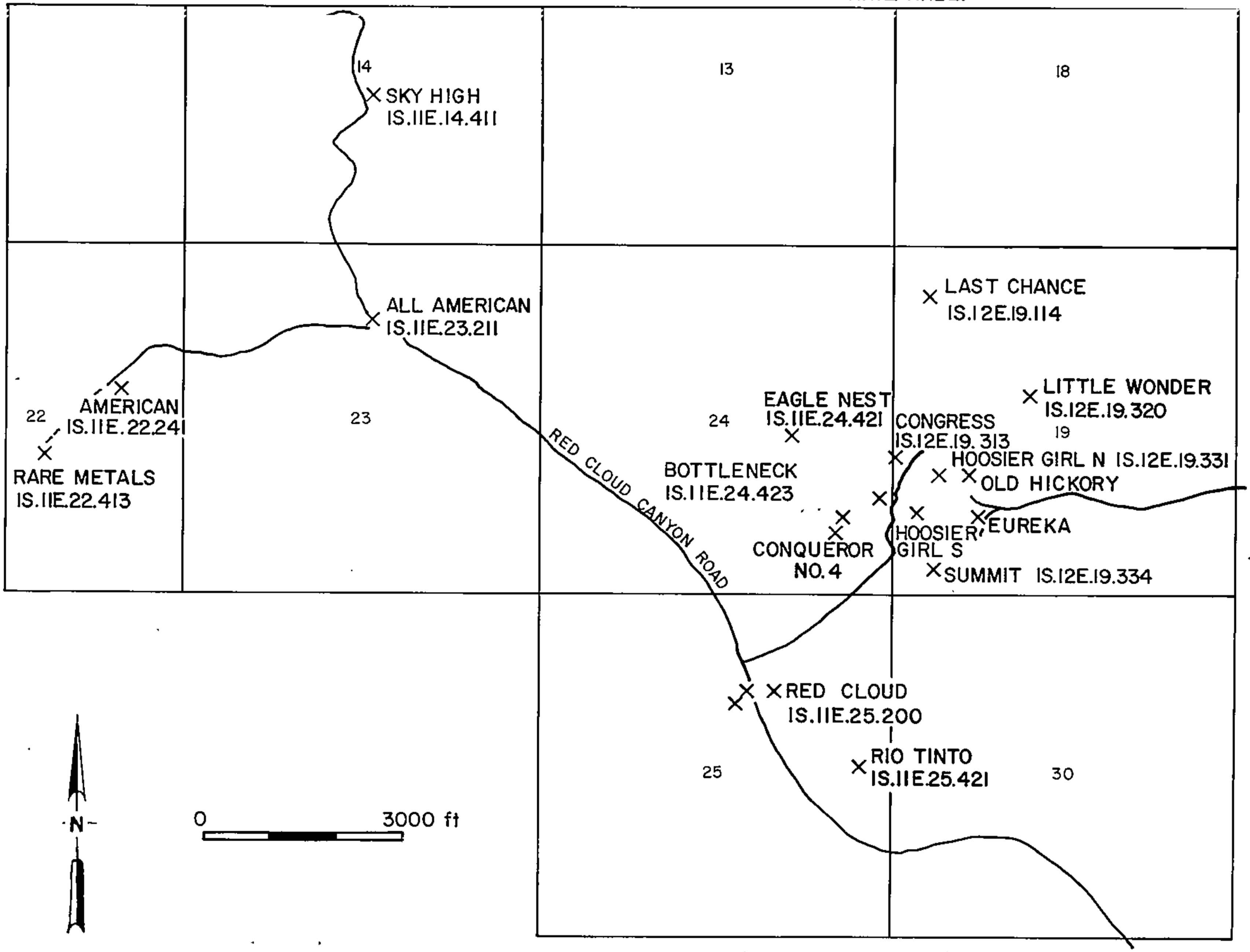
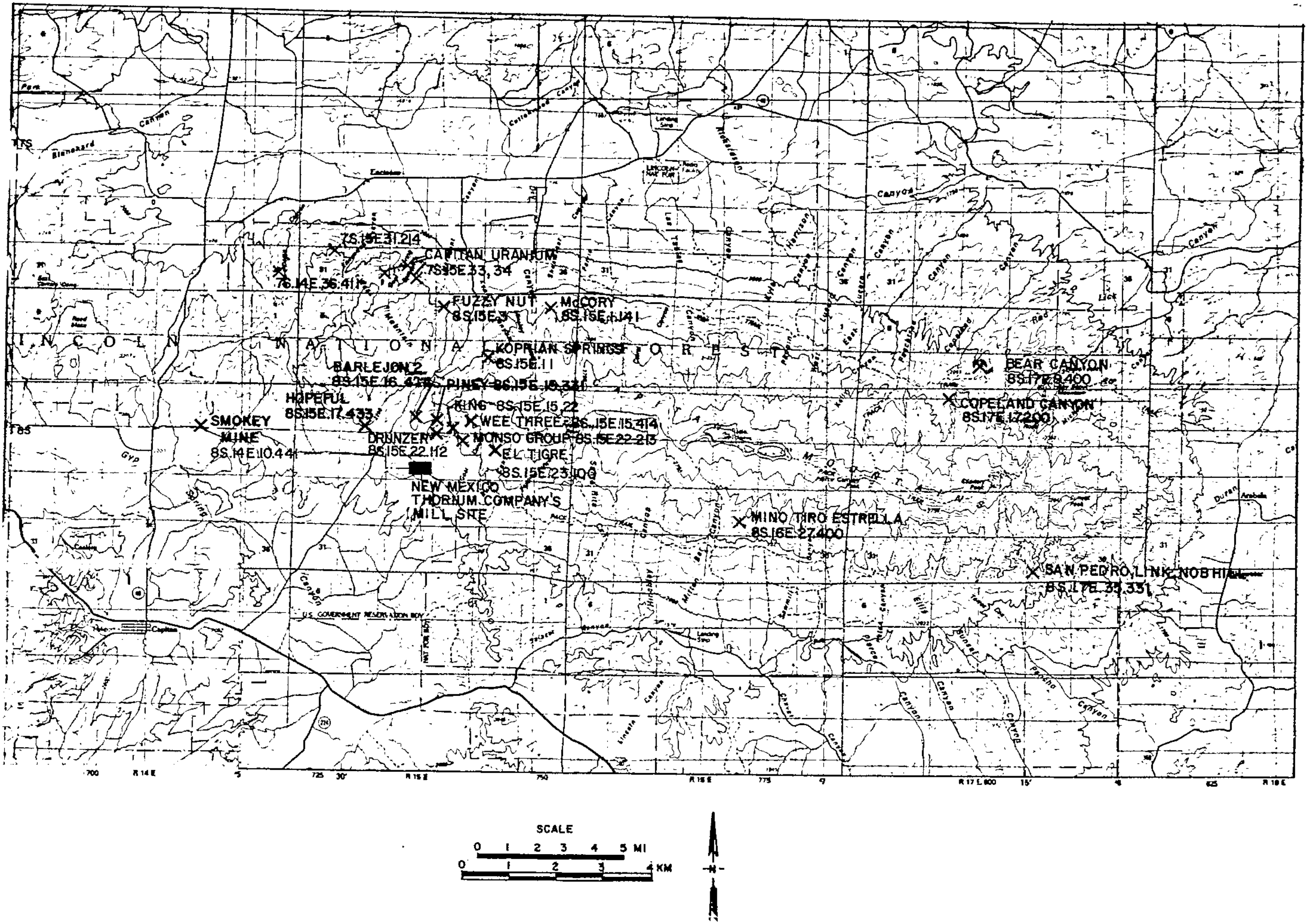


FIGURE 37–MINES AND PROSPECTS IN THE GALLINAS MOUNTAINS DISTRICT, LINCOLN COUNTY, NEW MEXICO. MODIFIED FROM ROTHROCK AND OTHERS (1946), GRISWOLD (1959), AND WILLIAMS (1966).

FIGURE 33—THORIUM VEINS IN THE CAPITAN MOUNTAINS, LINCOLN COUNTY, NEW MEXICO



Twenhofel and Brick (1956a, b), Griswold (1959), Perhac (1970), and Perhac and Heinrich (1964), additional studies are required to adequately assess any thorium or uranium potential.

During the 1950's, extensive exploration in the Capitan Mountains, Lincoln County, resulted in locating more than 69 anomalies found in 18 locations (Appendix 1, Fig. 38). Most of these anomalies contain dominantly thorium, however, some uranium is present (Appendix 1). The Mert Uranium Co. shipped 3 tons (3 metric tons) of "no pay" ore assaying 0.02% U_3O_8 from the Bear Canyon Group in 1954 (8S.17E.9.400, Appendix 1); this occurrence consists of a thorium-bearing iron deposit. A thorium mill was built by the New Mexico Thorium Company (Fig. 38) in the late 1950's, but it never processed any ore. The ruins of the mill have been dismantled by the U.S. Forest Service and only a small cleared area remains.

Thorium and uranium occurs as vein-fillings in high-angle shear and fracture zones in the intrusion that varies in composition from alaskite to monzonite and forms the Capitan Mountains. The continuity, size, shape, and strike of individual deposits are quite variable, and would restrict exploration and development. Some of the mineralized zones are up to 8 ft (2 m) wide and 1,000 ft (305 m) long. One sample from the McCory claims assayed 0.02% U_3O_8 and 217 ppm Th (Appendix 2). Additional thorium analyses reported by Staatz (1974) range as high as 1.12% Th. The major radioactive minerals are thorite and allanite (Griswold, 1959; Collins, 1956; Staatz, 1974), whereas, hematite and other iron oxides, fluorite, quartz, tourmaline, and feldspar are closely associated with the thorium veins. Rare-earth elements, molybdenum, copper, and gold occur with these deposits (Griswold, 1959; Collins, 1956). Dozer cuts, prospect pits, and a few adits are the only development of the veins (Appendix 1).

Thorium occurs in the syenite bodies in the Red Hills area of the Caballo Mountains, Sierra County. The syenite bodies have the character red to pink, irregular, dike-like zones within Precambrian granites and consist dominantly of microcline, with minor amounts of chlorite, hematite, biotite, apatite, anatase, barite, fluorite, bastnaesite, uranophane, and thorite. The contacts of these bodies are gradational except where cut by shear fractures. These features suggest a metasomatic origin, possibly a result of fenitization, although alkalic rocks and carbonatites are absent in the area (Staatz and others, 1965). Four occurrences of radioactive syenite bodies are described in Appendix 1; Staatz and others (1965) located more than 45 syenite bodies in less than a 2 mi^2 (5 square km^2) area. Samples contain up to Ø.44% Th and Ø.Ø7% U_3O_8 (Staatz and others, 1965). Samples collected from the Red Rock No. 1 claim assayed Ø.ØØ5% U_3O_8 and 1Ø4 ppm Th (Appendix 2). The potential for thorium and possibly uranium is fairly good in this area.

Thorium occurs in the Gold Hills and White Signal districts in the Burro Mountains, Grant County (Appendix 1). Thorite occurs along a basic dike intruding the Precambrian Burro Mountain granite at the Grandview Claims (Staatz, 1965; 1974). Up to Ø.72% Th occurs in a two ft (Ø.6 m) long vein. In the White Signal district, thorium is noted in several localities

(Appendix 1). From 405 to 702 ppm are reported from Tullock Peak (O'Neille and Thiede, 1981), and from 547 ppm to 582 ppm Th from the Banner and Tunnel Site No. 1. Thorium content of 220 ppm occurs at the Blue Jay mine (O'Neille and Thiede, 1981). Thorium also occurs at the Purple Rock mine in the western portion of the Telegraph district. Other thorium occurrences in Grant County are in pegmatites and are described separately.

The Cornudas Mountains in Otero County are along the New Mexico-Texas border east of El Paso (Fig. 1). This area consists of nepheline-syenite laccoliths, sills, and dikes that have intruded Permian sediments (Zapp, 1941). These intrusive rocks form the northern extension of the Trans-Pecos magmatic province, and were emplaced about 35 m.y. ago (D. S. Barker, 1977; D. S. Barker, and Hodges, 1977; D. S. Barker, and others, 1977). Four localities of thorium and uranium mineralization occur within nepheline-syenite, eudiolyte-nepheline-syenite, and syenite dikes or sills (Appendix 1). Rare-earth elements, beryllium, niobium, nickel, columbium, lithium, tin, zirconium, and fluorite are associated with the thorium-rich alkalic rocks (Collins, 1958b; Holser, 1959a). Additional reconnaissance is required to adequately assess the thorium and uranium potential of this area.

Chemical analyses of samples from the El Porvenir district in San Miguel County and Tusas Mountains in Rio Arriba County are also anomalously high in Th (Appendix 1; Craig Goodnight, written commun., 4/24/82). Samples of hydrothermal veins from Gallina Creek area in the El Porvenir district contain up to 546 ppm eTh (radiometric equivalent Th; 17N.14E. 14.114, 17N.14E.14.144, Appendix 1). Samples of vein-type deposits from the Bromide No.

2 district in the Tusas Mountains contain up to 2% Th (Appendix 1, 28N.7E.13.333). These two localities may indicate additional areas containing thorium veins. Further geochemical sampling for thorium, niobium, and rare-earth elements is warranted in these areas.

Thorium and uranium deposits in Pegmatites

Pegmatites generally have potential for uranium and thorium, but are poor mining targets (Gableman, 1977, p. 89-90; J. W. Adams, and others, 1980). Uranium and thorium minerals are common in pegmatites, but are too scattered throughout the pegmatites to constitute an economic uranium or thorium deposit. Over 12,000 lbs (5,000 kg) of uranium have been produced from eleven pegmatites in the United States; about 10,000 lbs (4,500 kg) of this uranium production have come from the Platt pegmatite in Wyoming (J. W. Adams, and others, 1980, p. 2-3). Only two pegmatites in New Mexico have produced uranium; they are the Sparks Stone (15 tons = 14 metric tons ore that yielded 32 lbs = 14 kg U_3O_8) and the Pineapple #1 (4 tons = 4 metric tons ore that yielded 2 lbs = 0.9 kg U_3O_8) in San Miguel and Rio Arriba Counties (Table 7; Appendix 3). Uranium- and thorium-bearing minerals have been produced from at least eight pegmatites in San Miguel, Taos, and Rio Arriba Counties; however, their thorium and uranium contents are not known (Table 7).

At least 77 pegmatites in seven counties in New Mexico are radioactive and contain uranium- and thorium-bearing minerals (Appendix 1). Forty-nine radioactive pegmatites occur in Rio

Table 7 - Uranium and thorium production from pegmatites in New Mexico.
1- uranium and thorium content, in any, unknown
2- from U.S. Atomic Energy Commission production records, government contracts only, for the years 1948-1970 (Appendix 3).

Occurrence Number	Name	Production
RIO ARRIBA COUNTY		
26N.8E.18.113	Fridlund	[1]5,000 pounds of columbite, samarskite, and monazite
26N.8E.36.221	Globe	[1]5,000 pounds of columbite
27N.8E.11.311	Kiawa, South Kiawa	[1]100 pounds of samarskite
27N.8E.36.332	Lonesome	[1]12 pounds of samarskite and monazite
26N.9E.30.233	Pineapple	[2]4 tons ore yielding 2 pounds U_3O_8 (0.03%)
26N.9E.18.133	Pino Verde	[1]few hundred pounds of monazite and bismutite
26N.8E.1.122	St. Joseph	[1]few pounds of mica, beryl, columbite-tantalite, and samarskite
SAN MIGUEL		
18N.13E.36.400	Guy No. 1	[1]500 pounds of Ta-U-REE
16N.14E.5.132	Sparks Stone	[2]15 tons ore yielding 32 pounds U_3O_8 (0.11%)
TAOS		
23N.11E.29	Harding Mine	[1]12,000 tons Ta-Li ore

Arriba County and 12 radioactive pegmatites occur in San Miguel County. In addition, radioactive pegmatites are found in Grant, Taos, Bernalillo, Hidalgo, and Mora Counties. Samarskite and monazite are the most common uranium- and thorium-bearing minerals found in New Mexico pegmatites, although other minerals, such as euxenite, crytolite, carnotite, uraninite, uranophane, fergusonite, thorite, allanite, hatchettolite, microlite, radioactive muscovite or biotite, and radioactive columbite, are locally found in these pegmatites. Selected uranium and thorium minerals are sporadically distributed in pegmatites and generally occur in pockets such as at Nambe (Fig. 39). Samples from these pegmatites collected by the author range as high as 0.13% U_3O_8 (Nambe, Rio Arriba County) and 10,332 ppm Th (Globe, Rio Arriba County; Appendix 2). However, it is doubtful that pegmatites in New Mexico will constitute a major source of uranium or thorum unless expensive hand-sorting mining methods are used.

Thorium and uranium deposits in Carbonatites

Carbonatites are carbonate-rich rocks of apparent magmatic derivation or descent, and commonly contain uranium and thorium minerals. Uranium has been produced from only one carbonatite complex in the world, the Palabora carbonatite complex in Transvaal, South Africa. Copper is the major commodity produced at Palabora; uranium and phosphate are by-products. Uranium reserves at Palabora are estimated as 10,000 tons (9,072 metric tons) of uranium at a grade of 0.004% (Nishimori and Powell, 1980). Several massive carbonatites in the United States are noted for their thorium content; thorium reserves from two of the

Figure 39 - Robert North is pointing to a pocket of monazite within the Nambe pegmatite, Rio Arriba County.

largest known deposits (Iron Hill, Colorado, and Sulphide Queen, California) are estimated as 40,830 tons (37,040 metric tons) (Staatz and others, 1982).

Only three areas in New Mexico are known to contain carbonatites; they are the Monte Largo Hills, Bernalillo County, and the Lemitar and Chupadera Mountains, Socorro County (Fig. 40). A small carbonatite dike has recently been discovered by M. H. Staatz (pers. commun., 1983) in the Chico Hills area, in Colfax County. These carbonatites occur as dikes, stockworks, and veins; large intrusive bodies such as at Palabora and Iron Hill, Colorado, have not been found in New Mexico. Alkalic rocks are absent from Lemitar and Chupadera Mountains in New Mexico, whereas at Monte Largo, Palabora, and Iron Hill alkalic rocks are associated with carbonatites. Alkalic rocks are associated with the Chico Hills carbonatite (M. H. Staatz, pers. commun., 1983).

Only two or three carbonatites dikes are present in the Monte Largo Hills, and a little over a dozen of them are in the Chupadera Mountains. Over 100 dikes and veins have been found in the Lemitar Mountains (McLemore, 1982b, 1983c). The Monte Largo and Chupadera carbonatites are not significantly radioactive, uranium concentrations are less than 0.005% U_3O_8 and thorium concentrations less than 119 ppm Th (Appendix 2). However, uranium concentrations as high as 0.25% U_3O_8 are found in the Lemitar carbonatites, whereas thorium concentrations are less than 74 ppm Th (McLemore, 1982b, 1983c). Pierson and others (1981) report that one carbonatite dike contains up to 1,950 ppm Th. The exposed dikes in all three of these areas indicate low-

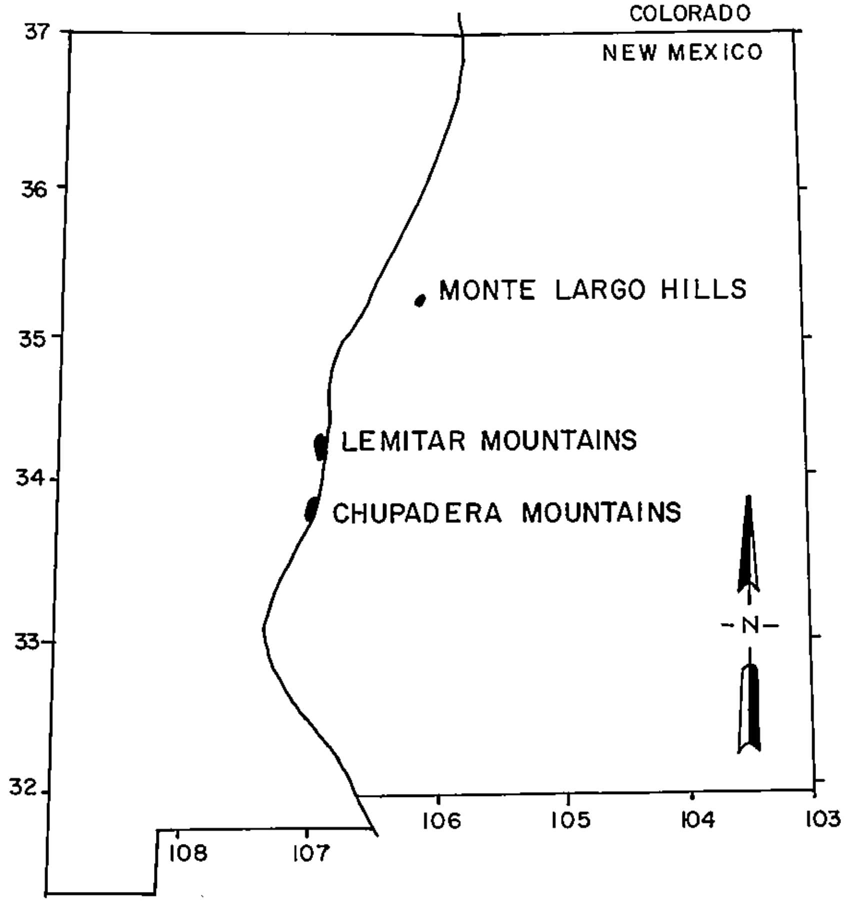


FIGURE 40–CARBONATITES IN NEW MEXICO

tonnages and low-grade uranium and thorium deposits. However, high-grade and large tonnage deposits may exist at depth. Any uranium or thorium would probably be produced only as a by-product of another commodity such as titanium, niobium, or rare-earth elements.

Deposits in Volcanic Rocks

Numerous uranium occurrences are related to volcanic rocks throughout north-central and south-central New Mexico (Appendix 1; McLemore, 1982a); however, only one volcanogenic deposit, the Terry (Pitchblende Strike) in Sierra County, has yielded ore. In 1955 and 1960, 127 tons (115 metric tons) of ore yielding 359 lbs (163 kg) of U_3O_8 at an average grade of 0.14% was produced (Appendix 3). Uranium mineralization at the Terry deposit occurs in an andesite sill along ring fractures of the Nogal Canyon cauldron. The presence of high concentrations of fluorite associated with the uranium mineralization hampered milling of this ore (Irving Rapaport, pers. commun., 1983).

Minor uranium occurrences are found in volcanic rocks and along ring fractures and cauldron margins throughout southwestern New Mexico (Appendix 1). Many of these are associated with corresponding water and stream-sediment anomalies (McLemore. 1982a). Only the Nogal Canyon cauldron appears to have any uranium potential (U.S. Department of Energy, 1980), but many of these areas have not been adequately examined for uranium potential.

Deposits of Uncertain Origin

Vein-type deposits in sedimentary rocks

Vein-type deposits in sedimentary rocks are controlled by structure. The source of the uranium, mode of transport, and depositional mechanisms are unknown. In New Mexico, vein-type deposits occur in breccia pipes (discussed separately) and along the Rio Grande Valley in Socorro and Sierra Counties (Appendix 1). Uranium mineralization occurs along faults and fractures in sandstones and limestones. High-grade, but small-tonnage, deposits are common.

One of the largest vein-type deposits is the Jeter mine in the Ladron Mountains, Socorro County (McLemore, 1983b; Hilpert, 1969; Chamberlin and others, 1982). From 1954 to 1958, 58,562 lbs (26,563 kg) U_3O_8 at an average grade of 0.33% were produced from the Jeter mine.

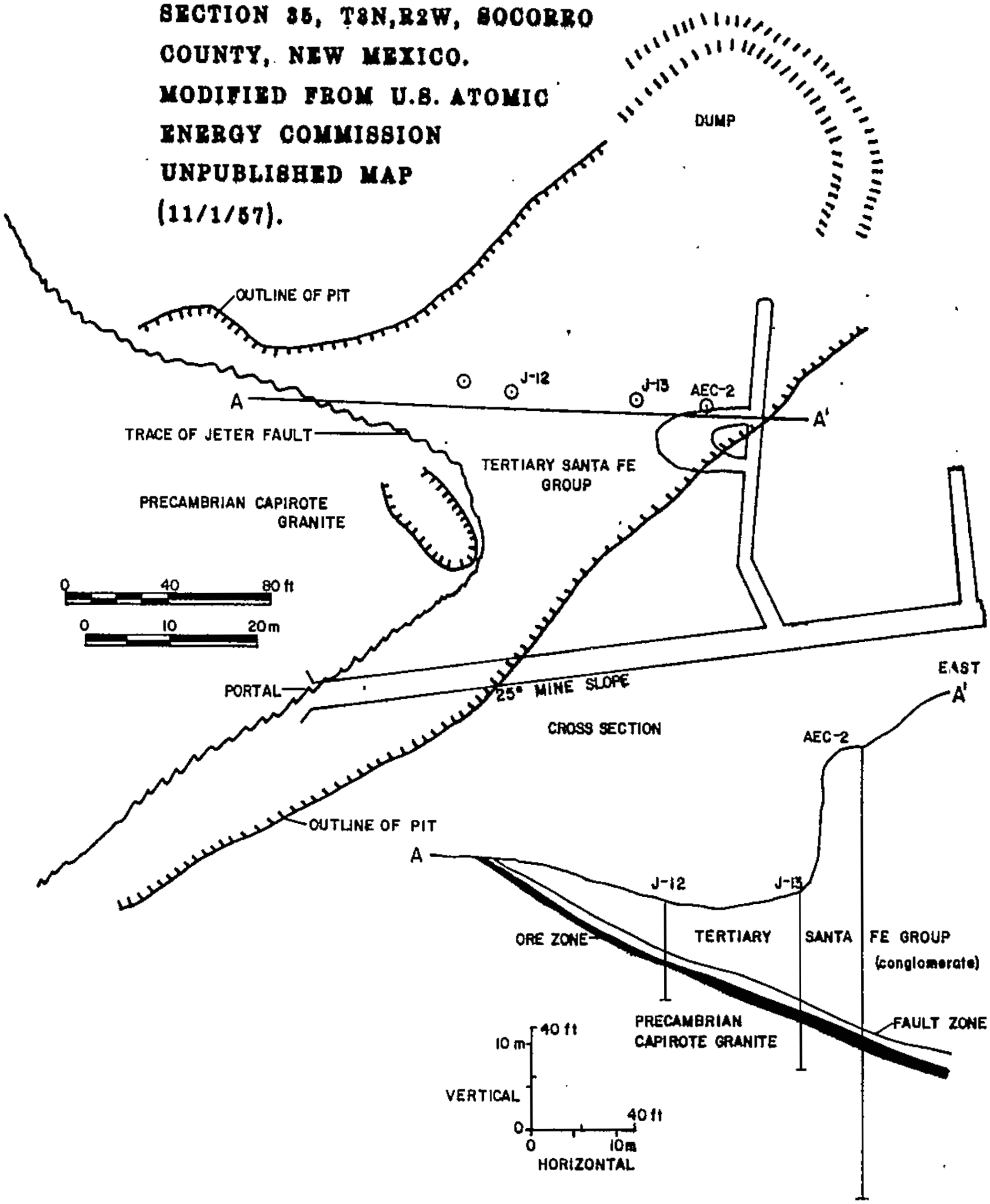
Uranium and copper minerals occur within a carbonaceous mudstone that forms a fault breccia along the footwall of a fault separating the Precambrian granite from the Quaternary-Tertiary Santa Fe Group (Chamberlin and others, 1982; Hilpert, 1969; Collins and Nye, 1957). The primary uranium mineral is coffinite (common to many sandstone deposits), which appears to be confined to the fault breccia (Collins and Nye, 1957a). Two ore bodies were mined by an open-pit and a 300-ft 25° decline (Fig. 41). At least seven additional copper occurrences, some of which are associated with uranium are situated along the major fault zone (Chamberlin and others, 1982; Appendix 1).

The origin of the Jeter deposit is controversial. It has been described as being hydrothermal (Collins and Nye, 1957; U.S. Department of Energy, 1980) and as a vein-type deposit (Hilpert, 1969; Pierson and others, 1980). However, the Jeter deposit lacks the symmetrical alteration, mineralogy, and silicification characteristic of hydrothermal and vein-type deposits (Chamberlin and others, 1982). A supergene (Chamberlin and others, 1982) or hypogene (B. A. Black, 1964) origin is suggested on the basis of kaolinization, bleaching, lack of silicification, and mineralogy. In trace element analyses of vertically oriented samples at the Jeter mine (Pierson and others, 1981), uranium and vanadium decrease from top to bottom, whereas molybdenum is concentrated in the middle. This geochemical signature, typical of Wyoming-type sandstone deposits, is interpreted by Chamberlin and others (1982) to represent a supergene origin. Additional chemical analyses of vertically oriented samples and samples updip and downdip of the Jeter deposit are needed to verify this geochemical signature. For the purposes of this report, the Jeter deposit is classified as a vein-type deposit of unknown origin.

Numerous vein-type uranium occurrences are present along the Rio Grande Valley in Socorro and Sierra Counties (Appendix 1). Production from five of these occurrences amounts to 4,688 lbs (2,126 kg) of U_3O_8 (Appendix 3). The Lucky Don-Little Davie mines produced 4,229 lbs (1,913 kg) of U_3O_8 alone. Other producing mines include Aqua Torres, Maria #1, and Paran claim (Appendix 3).

Most of the vein-type occurrences are in partly silicified

FIGURE 41-PLAN MAP OF THE JETER MINE, SECTION 35, T3N,R2W, SOCORRO COUNTY, NEW MEXICO. MODIFIED FROM U.S. ATOMIC ENERGY COMMISSION UNPUBLISHED MAP (11/1/57).



and recrystallized limestones and sandstones along the footwall of major fault systems. Uranium mineralization is sporatic and discontinuous along these faults. Secondary yellow uranium minerals are common.

At the Agua Torres and Maria #1 mines, north-trending faults separate the Permian Abo Formation from the mineralized Pennsylvanian Madera Limestone. Ore shipments as high as Ø.23% U_3O_8 are reported from these deposits (U.S. Atomic Energy Commission, ore production reports, 1955-1956).

Uranium mineralization at the Lucky Dog and Little Davie mines occurs in silicified and recrystallized limestones of the Permian San Andres Limestone. A northeast-trending fault controls uranium mineralization and separates the Permian Yeso Formation and San Andres Limestone. Selected samples from the Lucky Dog and Little Davie mines assayed Ø.38% and 1.4% U_3O_8 (Appendix 2).

Uranium mineralization occurs along the east-west-trending Garfield fault system in the southern end of the Caballo Mountains in Sierra County, at the Paran, Hot Rock, and Treasure Uranium claims (Appendix 1). Mineralization is sporadic and discontinuous, and only the Paran claims have yielded any ore (Appendix 3).

Small vein-type uranium occurrences may be found along faults elsewhere in the Rio Grande valley. One such occurrence is in the Cretaceous-Tertiary McRae Formation in the Fra Cristobal Mountains. Most of these occurrences are minor and less than Ø.Ø1% U_3O_8 (Appendix 1).

The origin of these deposits is speculative. It is possible that vein-type uranium deposits in the Rio Grande valley may be related to sandstone deposits. Similar processes could deposit uranium in both sandstones and along faults. Hydrothermal solutions may also have formed these deposits. Further work is needed to define and classify these vein-type occurrences.

Breccia-pipe deposits

Brecia-pipe deposits are vertical or steeply dipping cylindrical features bonded by ring-fractures and filled with a heterogenous mixture of brecciated wall rocks. Over 600 breccia-pipes are found in the Ambrosia and Laguna subdistricts, but only a few are mineralized (Hilpert, 1969; Nash, 1968; Moench, 1962). Pipe structures in the Cliffside (D. S. Clark, and Havenstrite, 1963), Doris Decline (Granger and Santos, 1963), and Jackpile-Paguate mines (Hilpert and Moench, 1960) have yielded ore as part of the sandstone deposits; the exact tonnage attributed to these breccia-pipes is not known. Very little brecciation has occurred at the Cliffside and Doris pipes, however, these pipes appear to be related to other breccia pipes in the area. The Woodrow deposit is the largest uranium producer from a breccia-pipe in New Mexico (Appendix 3).

Breccia-pipe deposits in New Mexico range from 5 to 200 ft (1.5 to 61 m) in diameter and up to 300 ft (91 m) or more in length (Megrue and Kerr, 1965). The Woodrow deposit is about 24 to 34 ft (7 to 11 m) in diameter and at least 300 ft (91 m) long. In Arizona, the mineralized Orphan Lode breccia-pipe is 150 to 500 ft (45 to 152 m) in diameter and at least 1,500 ft (457 m) long (Gornitz and Kerr, 1970). Additional mineralized breccia-pipes occur in Arizona, where production has exceeded 4 million lbs (1.8 million kg) of U_3O_8 at an average grade of 0.43% (Scarborouh, 1980, 1981). Over 134,000 lbs (61,000 kg) of U_3O_8 at an average grade of 1.26% U_3O_8 was produced from the Woodrow deposit in New Mexico (Appendix 3).

Breccia-pipes in Arizona occur in Permian rocks, whereas similar deposits in New Mexico occcur in Jurassic rocks. Uranium-lead dating of the uranium in the Orphan Lode deposit in Arizona implies deposition before Late Jurassic, 140 million years ago (Gornitz and Kerr, 1970; Berglof, 1969), whereas dating of uranium in the Woodrow deposit suggests mineralization at 90-100 million years ago (Berglof, 1969; Nash, 1968). Similarities in form, structure, alteration, and mineralogy between the Orphan Lode and Woodrow deposits may indicate a similar origin despite their differences in size and age. The origin of these breccia-pipe deposits is controversial. Solution collapse of underlying strata, such as limestone or evaporites, could have formed these pipes (Hilpert and Moench, 1960; Gornitz and Kerr, 1970; Scarborough, 1981). Mineralizing fluids entered the permeable collapse feature and deposition of uranium and copper minerals occurred.

It is possible that additional breccia-pipes remain undiscovered in the Grants uranium district; but whether they will be of sufficient grade and tonnage for economic deposits is uncertain. Numerous small but high-grade breccia-pipe deposits have been found recently in Arizona (Scarborough, 1980; Nash,

1983) but the potential for similar deposits in New Mexico appears to be unfavorable (Green and others, 1980b, c).

Numerous clastic plugs and dikes, similar to breccia-pipes in the San Juan Basin, occur throughout the Cimmarron valley area in Union County. The origin of these plugs may be due to solution collapse, faulting, or filling from below the plug (B. H. Parker, 1933; Consulting Professionals, Inc., 1980). Copper mineralization is commonly associated with these plugs, but only one or two plugs contain uranium mineralization (Appendix 1; Consulting Professionals, Inc., 1980). The Ft. Pitt Copper Co. plug (Appendix 1) contains up to 0.004% U_3O_8 (W. I. Finch, 1972). Consulting Professionals, Inc. (1980) located a mineralized plug in the Bentz Arroyo south of Goodson School, which contains 32 ppm U_3O_8 and 0.3% Cu; however, they were unable to locate any additional uranium mineralization in these plugs.

Deposits in diatremes

A diatreme is a funnel-shaped volcanic rock or pipe which formed by a violent eruption into the enclosing sediments. Over 300 diatremes occur in the Hopi Buttes volcanic field in New Mexico and Arizona; most of these diatremes are in Arizona. Two petrographic types are found. Monchiquite diatremes are common in the southwestern part of the volcanic field in Arizona, whereas limburgite or minettes are found in the northeast portion in Arizona and New Mexico (Shoemaker, 1956a; Green and others, 1980b). Only one diatreme has produced uranium; 192 tons (174 metric tons) of ore averaging 0.15% U_3O_8 was produced from the Seth-la-kai diatreme in Arizona (Lowell, 1956; Chenoweth and

Malan, 1973). None of the diatremes in New Mexico have been exploited for their uranium content.

The minettes are highly potassic basaltic rocks with anomalous amounts of Ba, Sr, Be, B, U, and rare-earth elements. Uranium and thorium analyses from the Outlet Neck, Bennett Peak, and Mitten Rock in New Mexico range from 10.6 to 12.3 ppm U and from 28.4 to 50.1 ppm Th (Shoemaker, 1956a, p. 183). Only two diatremes in New Mexico are known to contain uranium minerals. The Shiprock diatreme contains 0.082% U, and the East Side (or King Tutt) diatreme is also impregnated with uranium minerals (Appendix 1).

In Arizona, where the balk or mineralized diatremes occur, uranium is associated with the bedded limestone or travertine deposits that formed within maars. The maars are a direct result of the collapse of the diatreme; lake sediments formed within the maars (Chenoweth and Malan, 1973; Scarborough, 1981; Green and others, 1980b). The diatremes of the ancient Hopi Lake in Arizona are considered a favorable area for potential uranium deposits (Green and others, 1980b). The uranium occurrences in diatremes in New Mexico do not exhibit any favorable characteristics similar to the Arizona diatremes, and their uranium potential then must be regarded as poor.

Unconformity-type deposit

Some of the world's largest high-grade uranium deposits are found in unconformity-related deposits in Canada and Australia (Mickle and Mathews, 1978). Unconformity-related deposits are vein-like deposits that occur at a Precambrian unconformity between crystalline basement rocks and overlying Precambrian sedimentary rocks. However, Langford (1980) suggests that all unconformities below continental deposits of Precambrian to Cretaceous times should have uranium potential. For the purposes of this report only Precambrian unconformity-related deposits are considered.

The Sangre de Cristo Mountains in northern New Mexico exhibit the greatest similarity to the unconformity-related model (Kalliokoski and others, 1978). An unconformity separates marine phyllites of the Ortega Group from the amphibolites and fluvial sandstones and conglomerates of the Vadito Group. The stratigraphic relationships between the Ortega and Vadito Groups are uncertain; it is currently believed that the Ortega Group is the older unit (Nielson and Scott, 1979). The U.S. Geological Survey and others (1980) describe an unconformity that separates a quartzite from a younger stratified sequence near Rio Mora, in the Pecos Wilderness and adjacent areas. Anomalous water and stream-sediment samples high in uranium occur in the general vicinity of these areas (Morgan and Broxton, 1978; Boliver, 1980).

F. B. Barker (1958) and Bingler (1968) did not recognize any unconformities in the Precambrian terrane in the Tusas Mountains in Rio Arriba County. However, Gresens (1976) describes an unconformity that separates the younger Ortega Group (metasedimentary rocks) from an older basement of metavolcanic and metasedimentary rocks. T. R. Gibson (1981) and Kent (1980) have mapped a part of this unconformity. It is not known whether uranium occurrences in the area are related to the unconformity.

Additional unconformities may exist in the Precambrian terrane in New Mexico which may be favorable for uranium exploration (McLemore, 1982a). Other unconformities in southern New Mexico and in the Rio Grande valley area have been recognized but appear to be unfavorable for uranium mineralization (McLemore, 1982a). At the present time, none of the New Mexico uranium deposits appear to be representative of the unconformity-related model, although the potential for locating such deposits may exist.

Uranium and Thorium Potential Resources and Reserves in New Mexico

Uranium resources are defined by the U.S. Department of Energy (DOE, 1980) as the sum of known uranium reserves and estimated potential uranium resources. Reserves are known quantites of uranium ore that have been measured directly. Potential resoruces are the quantities of undiscovered uranium ore believed or expected to occur in areas of known production or in areas of favorable geologic settings or formations. Potential resources are divided into probable, possible, or speculative (Fig. 42).

Reserves and potential reserves are divided into selected maximum forward-cost categories ($30, $50, and $100 per pound of U_3O_8) to cover current economic conditions. Cost categories do not represent the price at which uranium would be sold because expenditures prior to reserve calculations are not included. Forward-cost categories only include capital and operating costs which have not yet been incurred. The price necessary to support a 15% rate of return would be 1.3 to 1.5 times the forward cost per pound of U_3O_8 (U.S. Department of Energy, 1980, p. 136).

Uranium reserves are compiled yearly by the DOE and released in "Statistical data of the uranium industry". Uranium resources in New Mexico have been discussed by Hilpert (1969), McLemore (1981), Chenoweth (1982), and Harris and Carrigan (1981). All of the uranium reserves and the majority of the potential resources in New Mexico are in the San Juan Basin area (Tables 8 and 9, Fig. 43). About 112,500 tons (102,058 metric tons) of $30 per pound of U_3O_8 reserves are in the San Juan Basin, New Mexico

Table 8 - Uranium reserves for ore reserve areas in the San Juan Basin as of January 1, 1983. Information supplied by the Minerals Assessment Division, Grand Junction Area Office, U.S. Department of Energy. See figure 43 for location of resource areas. [1] Includes \$3Ø reserves.

Resource Area	\$3Ø/lb U_3O_8 Reserves Short Tons U_3O_8	\$5Ø/lb U_3O_8 Reserves [1] Short Tons U_3O_8
Ambrosia, Mt. Taylor and East Chaco Canyon	51,ØØØ	115,ØØØ
Laguna, Chama Basin, and Nacimiento	4,ØØØ	4Ø,ØØØ
Blackjack, Gallup, West Chaco Canyon, and Shiprock	18,ØØØ	46,ØØØ
Total	73,ØØØ	2Ø1,ØØØ

Table 9 - Potential uranium resources for resource areas in New Mexico as of January 1, 1983. Information supplied by the Minerals Assessment Division, Grand Junction Area Office, U.S. Department of Energy. See Figure 43 for location of resource areas. [1] Includes $30 resources.

Resource Area	$30/lb U_3O_8 Category Short Tons U_3O_8		$50/lb U_3O_8 Category[1] Short Tons U_3O_8	
	Probable	Possible	Probable	Possible
COLORADO PLATEAU (1/1/83)				
Shiprock and West Chaco Canyon	27,667	22,146	60,750	53,622
Gallup	10,410	2,198	22,072	5,374
Blackjack	14,437	473	31,578	2,179
East Chaco Canyon	3,315	12,469	7,351	28,519
Ambrosia	17,212	5,644	35,113	12,602
Mt. Taylor	26,237	4,356	54,779	10,149
Laguna	7,874	1,802	15,361	4,269
Nacimiento and Chama Basin	2,327	4,117	4,540	8,938
Central Basin	-	6,922	-	19,867
Subtotal	109,479	60,127	231,544	145,519
BASIN AND RANGE (1/1/83)				
La Bajada-Hagan	844	-	2,801	-
Subtotal	344	-	2,801	-
TOTAL	110,323	60,127	234,345	145,519

Figure 42-Definition of Resourse Classes

RESERVES + **POTENTIAL RESOURCES** = **URANIUM RESOURCES**

(Defined by direct sampling)

(Incompletely defined or undiscovered)

PROBABLE POSSIBLE SPECULATIVE

(Table 8), about 55% of the total \$30 reserves in the United States (DOE, written comm., 1981). About 109,479 tons (99,318 metric tons) of \$30 per pound of U_3O_8 probable resources are in the San Juan Basin, New Mexico, and about 884 tons (766 metric tons) of \$30 per pound of U_3O_8 probable resources are in the La Bajada-Hogan basin area (Table 9, Fig. 43). The total of \$30 probable resources in New Mexico is about 110,323 tons (100,083 metric tons).

Most of New Mexico's potential uranium reserves are in sandstone deposits of the Jurassic Morrison Formation in the Colorado Plateau. Uraniferous limestones and sandstones of the Jurassic Todilto Limestone and Cretaceous Dakota Formation also occur in this area (McLemore, 1981b; U.S. Department of Energy, 1980). Additional areas outside the San Juan Basin are also highly favorable for containing uranium deposits, although only minor production, if any, is reported from many of these areas (McLemore, 1981b, 1983a). Most of these areas have been discussed in this report and by McLemore (1981b). Upon the increase in demand for uranium, exploration in these areas may resume.

Thorium reserves and resources in New Mexico have not been adequately evaluated and are little known. This is due in part to the lack of an economic demand for thorium and the apparent low grade and low tonnage of thorium deposits in New Mexico. An estimate of thorium reserves in all known beach-placer sandstones in the San Juan Basin was made as part of a titanium and iron resources study by Dow and Batty (1961); who estimated that collectively 4,751,200 tons (4,310,200 metric tons) of ore containing less than 0.10% $eThO_2$ (radiometric equivalent ThO_2) occurs in these deposits. The reliability of this estimate is uncertain.

The largest thorium reserves in the United States are in vein-type deposits (Staatz and others, 1979). Thorium veins in New Mexico are known to occur in Colfax, Lincoln, Sierra, Grant, Rio Arriba, and Otero Counties, and would constitute most of New Mexico's thorium resources. Additional minor thorium occurrences in New Mexico may be found in pegmatites in the Tusas and Sangre de Cristo Mountains and in carbonatites in Socorro County, but the presently available data suggest that thorium is sporadic and low-grade in these areas. Most of these areas have been described in this report. Thorium reserves in New Mexico probably are insignificant when compared to other areas in the United States (Staatz and others, 1979), and will probably remain unknown unless an economic demand for thorium is established.

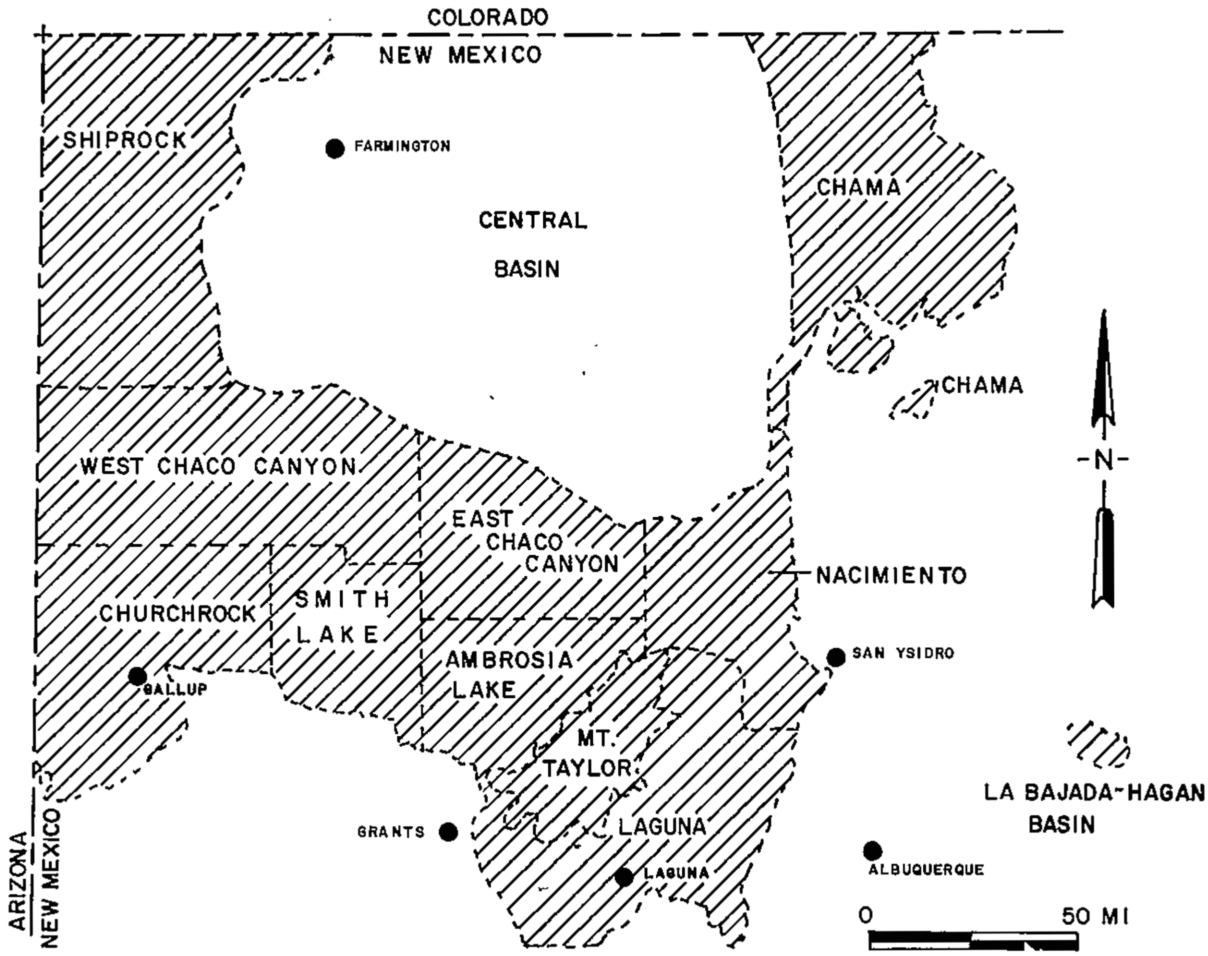


FIGURE 43–POTENTIAL RESOURCE AREAS IN SAN JUAN BASIN

Appendix 1 Radioactive Ocurrences in New Mexico

under separate cover

APPENDIX 1

Uranium and Thorium Occurrences in New Mexico

INTRODUCTION

The following compilation of uranium and thorium occurrences, prospects, deposits, and mines and their descriptions is the most comprehensive tabulation of natural-occurring radioactive occurrences in New Mexico to date. It is possible that many additional occurrences will be discovered in the future. For the purposes of this compilation any locality where uranium or thorium mineralization is reported or produced, or where uranium or thorium concentration exceeds 0.001%, or where the radioactivity is twice background radioactivity or greater is considered an occurrence. Many of the radioactive occurrences are economically insignificant or mined out and some reported occurrences could not be verified as containing uranium or thorium mineralization. These localities are still listed as occurrences in this report because they were reported as such in the literature. The recently published "Energy Resources Map of New Mexico" (U.S. Geological Survey and New Mexico Bureau of Mines and Mineral Resources, 1981) locates numerous "occurrences" not included in this compilation. Many of these localities represent anomalous water and rock samples (high in uranium) and localities examined for radioactive elements with negative results by the U.S. Geological Survey and the U.S. Atomic Energy Commission (see appendix 5 for a listing of Preliminary Reconnaissance Reports).

Each description is a brief account of the location, commodities, development, production, geology, and classification of the occurrence as obtained from field reconnaissance and published and unpublished reports. Many, but not all, of the occurrences were examined by the author (denoted by FN and date of field reconnaissance) or by Orin J. Anderson (Anderson, O. J., 1980), also with the New Mexico Bureau of Mines and Mineral Resources. As part of the NURE program, investigators examined other occurrences as well; these examinations are noted as comments for each description if the author or Orin J. Anderson were unable to examine them. Chemical analyses of samples collected by the author are tabulated in appendix 2 and listed in each prospective occurrence description. Published references are cited in the bibliography (appendix 4) and unpublished sources are noted in the descriptions.

Each occurrence is listed alphabetically by county and numbered according to its location. A complete index by county (fig.1-1) precedes each county listing and an index by mining district and by 1- by 2-degree topographic quadrangle (fig. 1-2) follows the occurrence descriptions. Each occurrence is plotted on a county map (precedes each county listing) and on plate 1 (state map at 1:1,000,000 scale). A key to map symbols used on these maps is shown on table 1-1. Some occurrences are plotted on additional, more detailed maps as indicated.

EXPLANATION OF DESCRIPTION

The descriptions of radioactive occurrences in this section are brief summaries of all available information, published and unpublished. Not all of the available information could be included; for some occurrences this information is company confidential or very extensive. For other occurrences, very little information could be obtained. Each description consists of sixteen entries or less (depending upon available information) keyed by number and contains the information described below.

1: Occurrence number or map number refers to the location or approximate location of each occurrence, prospect, deposit or mine. The numbering system used is based upon the township, range, and section land-grid system (fig. 1-3) and is used by the New Mexico State Engineer for numbering water wells and springs. In this system, each occurrence has a unique location number consisting of four parts separated by periods (i.e. 5N.1ØW.24.213). The first part refers to the township, the second part to the range, and the third part to the section. The fourth part locates the occurrence to the nearest quarter-quarter-quarter section block as indicated in figure 1-3. An occurrence designated 5N.1ØW.24.213 is located in the SW1/4,NW1/4,NE1/4 of section 24, T. 5 N., R. 1Ø W. Some occurrences are only located to the nearest section, quarter-section, or quarter-quarter section because the occurrence cannot be more accurately located or the occurrence extends over the entire given area. In unsurveyed areas, the locations are approximated by projecting section lines.

2: The name of the occurrence, prospect, deposit, or mine as found in the literature is given. Aliases are given in parenthesis. Earlier reports have misidentified some of these properties; these incorrect names are listed as aliases. Unnamed or unknown properties have no other identification.

3: The location of the occurrence, prospect, deposit, or mine is given by the section, township, and range (land-grid system) and by latitude and longitude. Areas not surveyed according to the land-grid system are indicated by the word "unsurveyed"; section lines are then projected. If there is any uncertainty with respect to the location, the latitude and longitude is approximated or is omitted entirely and the word "approximate" may be used. The locations are verified from the literature and those examined by the author and by Orin J. Anderson are exact.

4: The name of the 7-1/2- or 15-minute topographical quadrangle map on which the occurrence is located and the elevation are given.

5: Mining district (as defined by File and Northrop, 1966) or geographical area is given.

6: Commodities present at the locality (including U-uranium, Th-thorium, V-vanadium, Cu-copper, Mo-molybdenum, Se-selenium, Pb-lead, Zn-zinc, Ag-silver, Au-gold, REE-rare-earth elements, Mn-manganese, Ti-titanium, Nb-niobium, Ta-tantalium, Ni-nickel).

7: The extent of development or prospecting is briefly described.

8: Production figures for uranium and vanadium are from the

U.S. Atomic Energy Commission, government contracts only, for the years 1948 through 1970 (appendix 3). These are the best records available. Other production information is obtained from cited sources.

9: Radioactivity measurements at the locality are given as counts per second (cps). A Geometrics Gamma Ray scintillometer, model GR-101A was used by the author and Orin J. Anderson (Anderson, O.J., 1980). Background (bkgd) radioactivity and high or average radioactivity are given. Occasionally, other radiometric readings are given as times background radioactivity as obtained from cited sources.

10: The formation name and geologic age of the host rock is given.

11: Briefly describes the geology, host rock, and character of the occurrence.

12: Lists important radioactive minerals and chemical analyses. Samples collected by the author are listed as NMBMMR chem lab or NMBMMR XRF lab, date assayed, and sample number; and are listed collectively in appendix 2.

13: Refers to a modified classification used by the U.S. Department of Energy (table 2) as described in the introduction of this report.

14: Comments or additional information is given. Any published mine maps or geologic cross-sections of the locality will be cited.

15: References or sources of information are listed in an abbreviated form and arranged in chronologic order. If the occurrence was examined by the author, it is indicated by FN (field notes) and the date of reconnaissance. Published reports are given as last name of author(s) and year of publication in parenthesis; the complete citation may be found in the bibliography (appendix 4). Occasionally, the year of publication is followed by a page number (i.e. 1956, p. 32) or by a number (i.e. 1956, #56) which refers to the page number or property number used in that publication. Some of the cited references may not mention or describe the occurrence specifically; however, it is included because it describes the geology of the locality or includes a geologic map of the area. The U.S. Atomic Energy Commission Preliminary Reconnaissance Reports (PRR) are cited by report number, prefixed with PRR, and by year in parenthesis or as U.S. Atomic Energy Commission (1970). The PRR's are tabulated separately in appendix 5. Unpublished reports and files are cited last and are not cited in the bibliography. The most recent date of information is given in parenthesis. Many of these unpublished sources are abbreviated as follows: NMBMMR files (New Mexico Bureau of Mines and Mineral Resources - Virginia McLemore and Robert W. Eveleth files), USAEC files (U.S. Atomic Energy Commission in Grand Junction, Colorado), USDOE files (U.S. Department of Energy in Grand Junction, Colorado), USBM (U.S. Bureau of Mines), CRIB (Computerized Resource Information Bank, U.S.

Geological Survey), MILS (Mineral Industry Location Survey, U.S. Bureau of Mines), PC (personal communication), and WC (written communication). Copies of most of these reports are available for inspection at the New Mexico Bureau of Mines and Mineral Resources offices.

16: Indicates which figures included in this report concerns the occurrence.

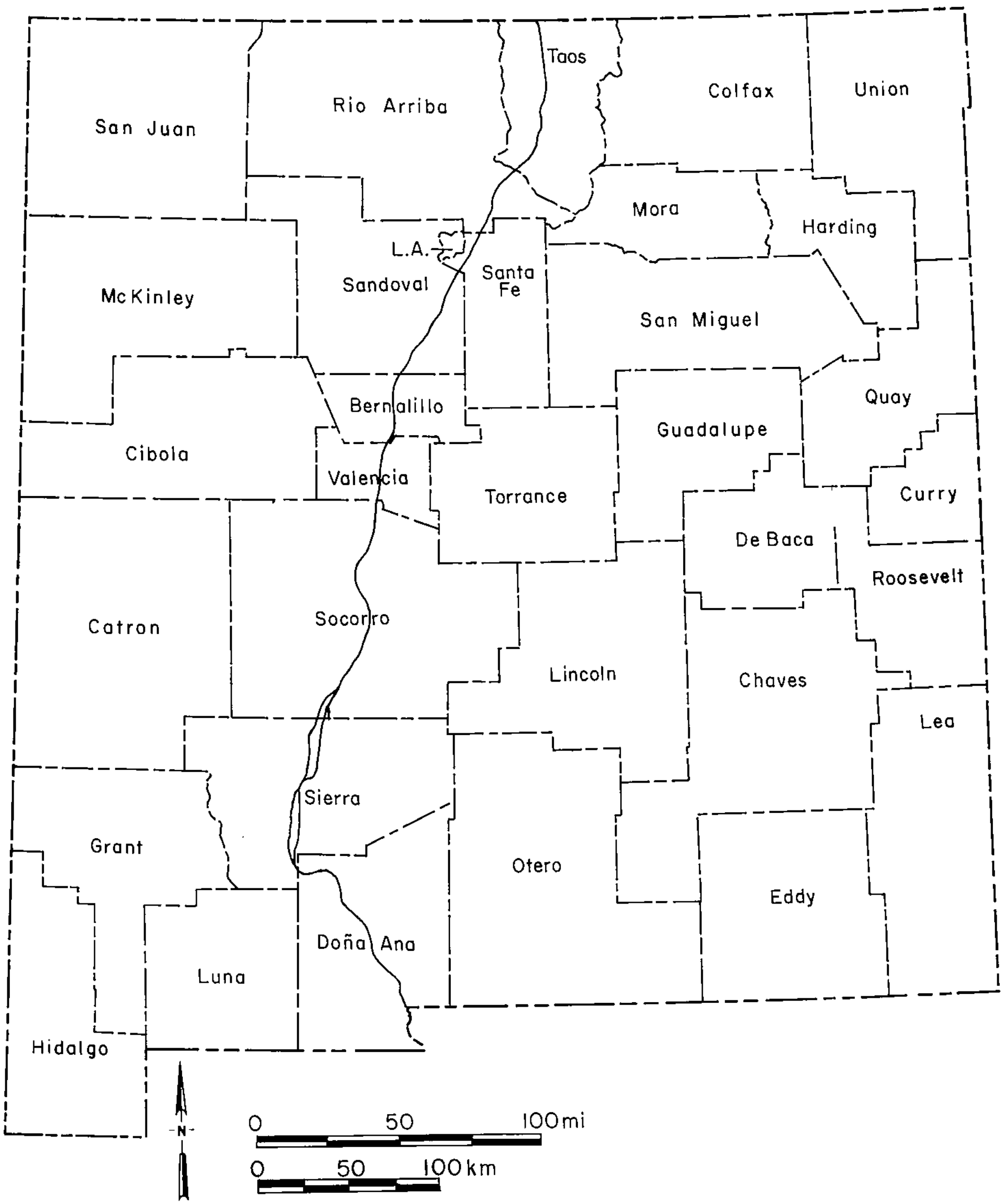


Figure 1-1 - Counties in New Mexico

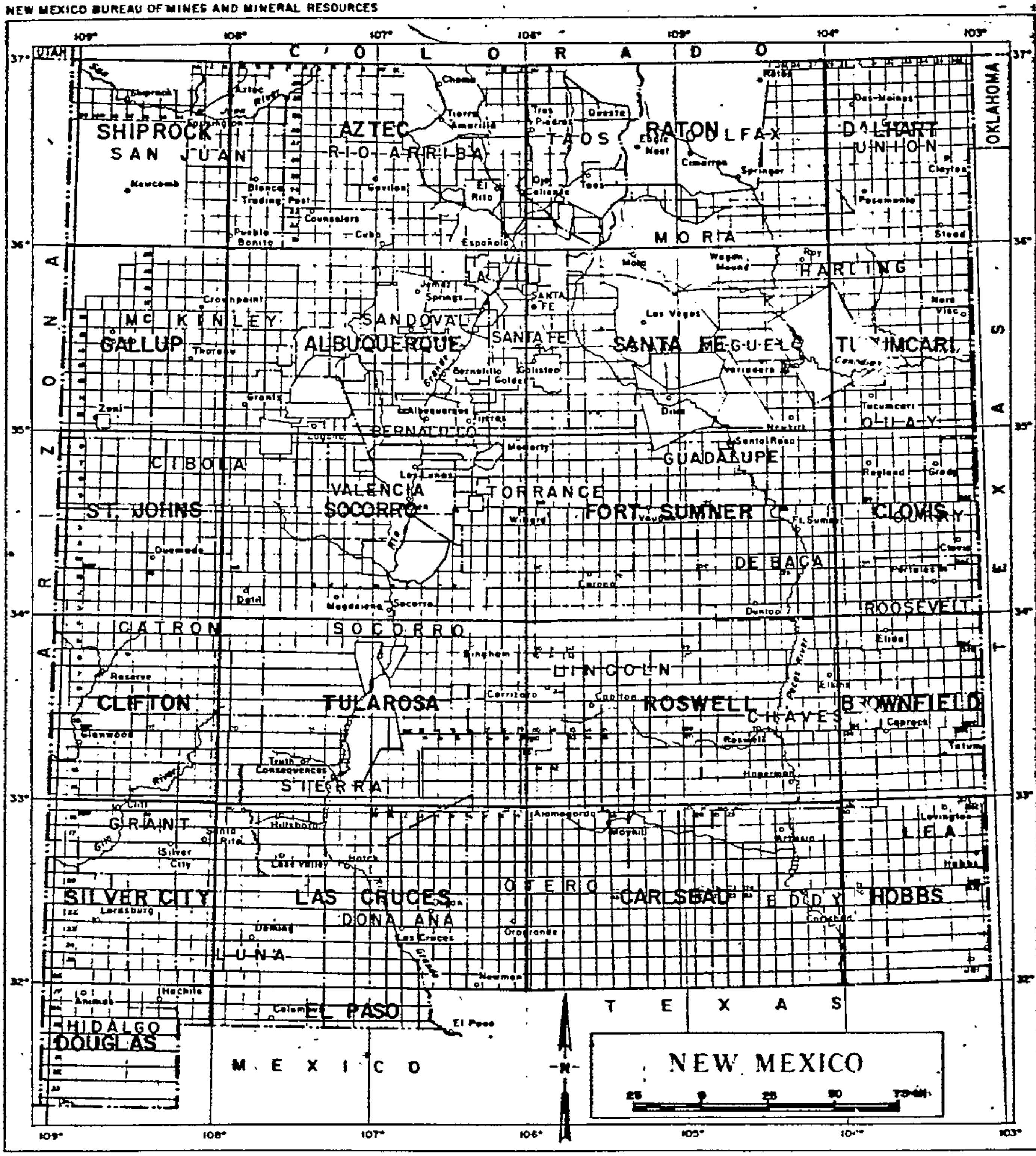


FIGURE 2- 1-BY 2-DEGREE TOPOGRAPHIC QUADRANGLES IN NEW MEXICO

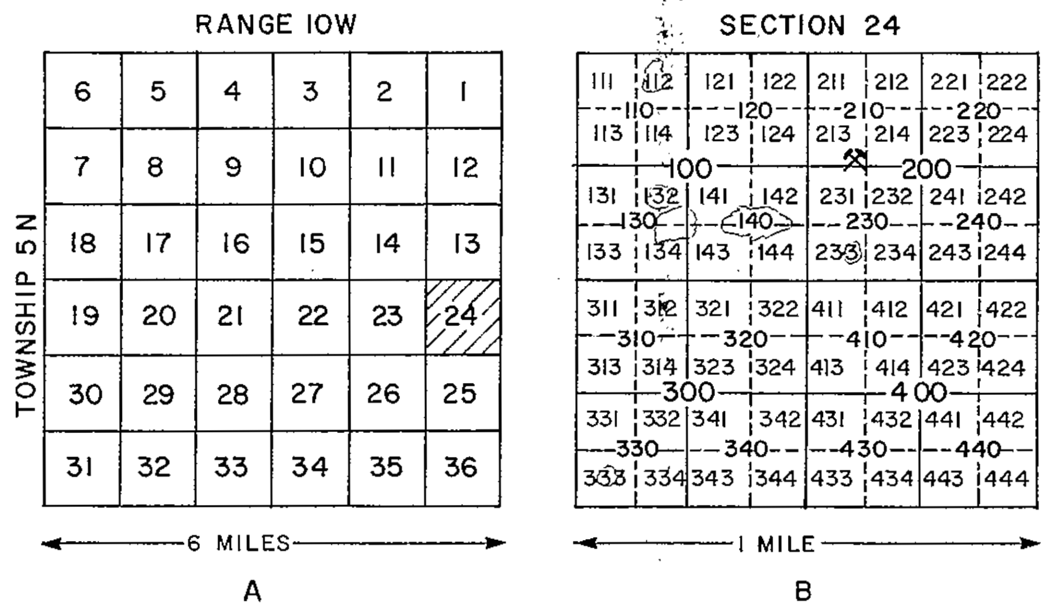


Figure 1-3 – Method of numbering uranium and thorium occurrences.
A) Subdivision of a township into sections,
B) Subdivision of a section into quarter-quarter-quarter section blocks. Mine symbol indicates location of an occurrence numbered 5N.10W.24.213.

CLASS / PRODUCTION CATEGORY	DEPOSITS IN IGNEOUS AND METAMORPHIC ROCKS	DEPOSITS IN VOLCANIC ROCKS	SANDSTONE DEPOSITS	DEPOSITS IN OTHER SEDIMENTARY ROCKS	DEPOSITS OF UNCERTAIN ORIGIN
OCCURRENCE, NO PRODUCTION	×	△	□	○	◇
UP TO 20,000 POUNDS U_3O_8	⚒	▲	⊠	◓	⬘
20,000-200,000 POUNDS U_3O_8	⊗		◩	◑	◆
200,000-2 MILLION POUNDS U_3O_8			◪	●	
2 MILLION-20 MILLION POUNDS U_3O_8			▣		
GREATER THAN 20 MILLION POUNDS U_3O_8			■		

TABLE 1-1 - KEY TO SYMBOLS USED ON RADIOMETRIC OCCURRENCE LOCATION MAPS

BERNALILLO COUNTY

Alphabetical (1Ø occurrences)

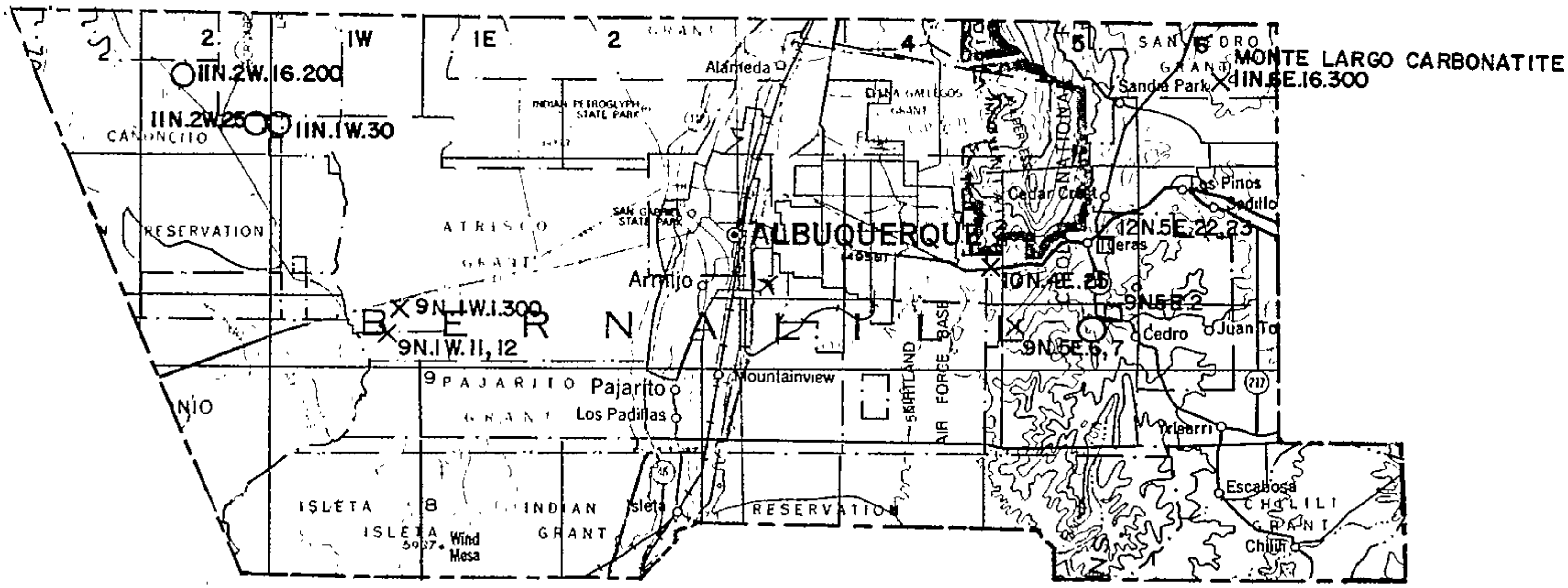
Angell	11N.2W.25
Angell	11N.1W.3Ø
Cerro Colorado-Archuleta	9W.1W.1.3ØØ
Cerro Pelon	9N.5E.6,7
Herrera Ranch	11N.2W.16.2ØØ
Lucky Strike claim	1ØN.4E.25
Monte Largo Carbonatite	11N.6E.16.3ØØ
Tijeras Canyon	9N.5E.2
Unknown	1ØN.5E.22,23
White Lovelace Claims	9N.1W.11,12

Alias	Name	Number
Grandview Mining Co.	Cerro Pelon	9N.5E.6,7
Junio	Cerro Colorado-Archuleta	9N.1W.1.3ØØ
L.W. Claims	Cerro Colorado-Archuleta	9N.1W.1.3ØØ
Public Domain	Tijeras Canyon	9N.5E.2
Public Domain	Unknown	1ØN.5E.22,23
Rio Puerco claims	Cerro Colorado-Archuleta	9N.1W.1.3ØØ
Wac Mine	Cerro Pelon	9N.5E.6,7

Numerical

9N.1W.1.3ØØ	Cerro Colorado-Archuleta
9N.1W.11,12	White Lovelace Claims
9N.5E.2	Tijeras Canyon
9N.5E.6,7	Cerro Pelon
1ØN.4E.25	Lucky Strike claim
1ØN.5E.22,23	Unknown
11N.6E.16.3ØØ	Monte Largo Carbonatite
11N.1W.3Ø	Angell
11N.2W.16.2ØØ	Herrera Ranch
11N.2W.25	Angell

FIGURE 1-4-RADIOACTIVE OCCURRENCES IN BERNALILLO COUNTY, NEW MEXICO



0 10 miles

0 10 20 kilometers

N

CONTOUR INTERVAL 500 FEET

BERNALILLO COUNTY

1: 11N.1W.30
2: Angell
3: 30 T11N R1W 35°9'5"N 106°59'20"W
4: Benavidez Ranch 7-1/2
5: Albuquerque Basin
6: U
7: no workings
8: no production
10: Cretaceous Mesaverde Group - Gibson Coal(?)
11: radioactive carbonized wood in mudstone and coal
13: Coal/sandstone
15: McLemore (1982c, #55); Green and others (1980c, #276); Hilpert and Corey (1955); PRR ED-R-381 (1954); ED-R-290 (1954)

1: 11N.2W.25
2: Angell
3: 25 T11N R2W 35°9'5"N 106°59'45"W
4: Herrera 7-1/2, Benavidez Ranch 7-1/2
5: Albuquerque Basin
6: U
7: no workings
8: no production
10: Cretaceous Mesaverde Group - Gibson Coal
11: radioactive carbonized wood in mudstone and coal
13: Coal/sandstone
15: McLemore (1982c, #44); Green and others (1980c, #277); Hilpert and Corey (1955); PRR ED-R-381 (1954); ED-R-290 (1954)

1: 9N.1W.1.300
2: Cerro Colorado-Archuleta (L.W. Claims, Junio, Rio Puerco claims)
3: SW1/4 1, NW1/4 12 T9N R1W 35°1'50"N 106°54'00"W
4: La Mesita Negra 7-1/2 Elevation 5,630 ft
5: Albuquerque Basin-Rio Puerco area
6: U
7: pits, 75-ft 30° decline
8: no production
9: bkgd 50 cps, adit and dumps 100-160 cps, bench cut 400 cps
10: Tertiary rhyolite/trachyte plugs intruding Tertiary volcanic sequence
11: fracture and fault controlled, sericitic alteration
12: yellow uranium minerals reported, 0.007% U_3O_8 (NMBMMR chem lab, 5/20/82, #2130); 14 ppm Th (NMBMMR XRF lab, 2/83, #2130)
13: Hydrothermal-vein
14: Town of Atrisco Grant
15: FN 2/23/82; McLemore (1982c, #117); Green and others (1980c, #18); Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 6); Hilpert (1965; 1969, p. 32); Wright, H.E. (1943); MILS (1981)

1: 9N.5E.6, 7
2: Cerro Pelon (Grandview Mining Co., Wac Mine)
3: 6, 7 T9N R5E
4: Tijeras 7-1/2 Elevation 6,730 ft
5: Tijeras Canyon district-Sandia Mountains
6: U, Cu, fluorite
7: 25-ft inclined shaft, 15-ft adit, 3 300-400 ft adits
8: no uranium production
10: Precambrian schist and quartzite
11: radioactive copper-fluorite veins along fractures and shear zones
13: Hydrothermal-vein
14: mine map by Kelley and Northrop (1975, p. 104)
15: McLemore (1982c, #58); Kelley, V.C., and Northrop (1975); Rothrock (1946); PRR DEB-RRA-643 (1953)

1: 11N.2W.16.200
2: Herrera Ranch
3: NE1/4 16 T11N R2W
4: Herrera 7-1/2
5: Albuquerque Basin
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone(?)
13: Beach-placer Sandstone
14: could not locate on 9/2/81
15: FN 9/2/81; McLemore (1982c, #41); Chenoweth (1957b)

1: 10N.4E.25
2: Lucky Strike claim
3: N1/2 25 T10N R4E
4: Sedillo 7-1/2
5: Tijeras Canyon district-Sandia Mountains
6: U
7: open cut
8: no production
10: Precambrian pegmatite intruding quartz diorite porphyry
11: radioactive magnetite in fractured pegmatite
13: Pegmatite
15: McLemore (1982c, #56); U.S. Atomic Energy Commission (1970, p. 5)

1: 11N.6E.16.300
2: Monte Largo Carbonatite
3: SW1/4 16 T11N R6E (unsurveyed) 35°10'40N 106°18'15"W
4: Sandia Park 7-1/2 Elevation 6,720 ft
5: Sandia Mountains (Monte Largo Hills)
6: U, Nb, Th, REE
7: no development or exploration
8: no production
9: bkgd 30-50 cps, average 50-60 cps, high 80-100 cps
10: Precambrian-Ordovician carbonatites intruding Precambrian metamorphic rocks
11: 1,000-ft long dark brown dike (N35°W), light brown veins (N 10°W)
12: 0.005% U_3O_8 (NMBMMR chem lab, 5/20/82, #2135); 29 ppm Th (NMMBMR XRF lab, 2/83, #2135)
13: Carbonatite
14: San Pedro Grant
15: FN 2/23/82; McLemore (1982c, #114); Kelley, V.C. and Northrop (1975, p. 104); Heinrich (1966); Lambert (1961)

1: 9N.5E.2
2: Tijeras Canyon (Public domain)
3: 2 T9N R5E
4: Tijeras 7-1/2, Sedillo 7-1/2
5: Tijeras Canyon district-Sandia Mountains
6: U, Cu, fluorite
7: 40-ft adit
8: no uranium production
10: Pennsylvanian Madera Formation
11: radioactive lenses of coal and veins of fluorite in sandstone
13: Sandstone/Hydrothermal-vein
15: McLemore (1982c, #57); Kelley, V.C. and Northrop (1975, p. 104); Anderson, E.C. (1957); PRR DEB-RRA-873 (1953)

1: 10N.5E.22, 23
2: Unknown (Public domain)
3: 22, 23 T10N R5E 35°5'16"N 106°22'56"W
4: Tijeras 7-1/2
5: Tijeras Canyon district-Sandia Mountains
6: U, Cu
7: 70-ft adit, 4 pits
8: no uranium production
10: Permian Abo Formation
11: radioactive jasperized fossil logs in pink arkose
12: copper oxides, 0.06% U (Hilpert, 1969)
13: Sandstone
15: McLemore (1982c, #55); Green and others (1980c, #17); Kelley, V.C. and Northrop (1975, p. 104); Hilpert (1969, p. 32); PRR DEB-RRA-874 (1953); F-1027 (1953); MILS (1981)

1: 9N.1W.11,12
2: White Lovelace Claims
3: 11, 12 T9N R1W 35°1'2"N 106°53'22"W
4: La Mesita Negra 7-1/2 Elevation
5: Albuquerque Basin-Rio Puerco area
6: U, Mn
7: blasted cuts and piles of waste
8: no production
9: bkgd 50 cps, high 250 cps
10: Tertiary rhyolite plugs intruding Tertiary volcanic sequence
11: fracture and fault controlled
13: Hydrothermal-vein
14: Town of Atrisco Grant
15: FN 3/19/82; Green and others (1980c, #332); Wright (1943)

CATRON COUNTY

Alphabetical (32 occurrences)

Baby Mine	10S.19W.20.341
Dorothy B Mines #1,2,3	4N.21W.24.323
Drag A Ranch	2N.9W.31
Evelyn No. 1 and 2	11S.19W.5
Federal Uranium area	2N.10W.20.440
Frank Owen	9S.20W.5,6,7
Hancock-Geotex	3N.11W.32.321
Mangum	3N.16W.22.341
McPhaul Adit	2N.11W.14.243
Midnight Group	2N.11W.12.114
Mogollon	9S.16W.7,8
Ox Spring Placer	2N.10W.27.231
Quary	8S.17W.27.332
Red Basin Claims	2N.10W.19.121
Red Basin #1	2N.10W.19.244
Red Basin #2	2N.10W.20.131
Southwest Minerals Property	2N.10W.36.444
Unnamed-Red Hill Area	1N.19W.21.100
Unknown	2N.9W.33.100
Unknown	2N.10W.9.100
Unnamed	2N.10W.27.444
Unknown	2N.10W.35.232
Unknown	2N.11W.11.113
Unknown	2N.11W.11.324
Unknown	2N.11W.11.421
Unknown	2N.11W.13.112
Unknown	2N.11W.13.321
Unknown	2N.11W.14.224
Unknown	3N.16W.21.342
Unknown-Horse Springs	3S.13W.29
Varnum	3N.16W.21.231
Yequa Claims	2N.10W.27.222

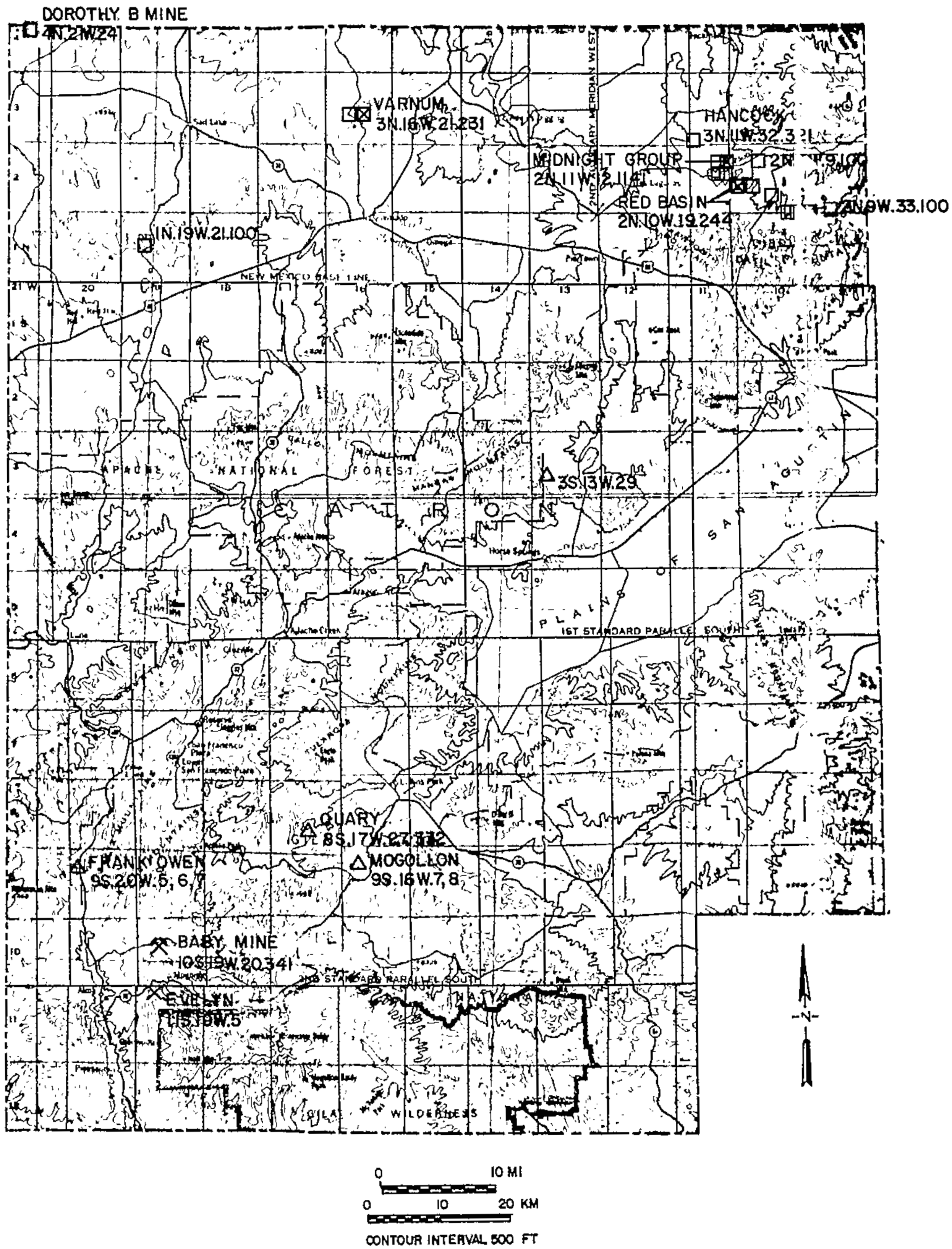
Alias	Name	Number
Horse Springs	Unknown	3S.13W.29
Hot Spot Claims	Red Basin #2	2N.10W.20.131
Hot Spot #1-8	Red Basin Claims	2N.10W.19.121
Hot Spot #1-4	Southwest Minerals Property	2N.10W.36.444
Midnight #2	Midnight Group	2N.11W.12.114
Red Basin	Drag A Ranch	2N.9W.31
Red Basin	Midnight Group	2N.11W.12.114
Red Basin	Unknown	2N.10W.35.232
Section 21	Unknown	3N.16W.21.342
Section 21	Varnum	3N.16W.21.231

CATRON COUNTY (continued)

Numerical

1N.19W.21.100	Unnamed-Red Hill Area
2N.9W.31	Drag A Ranch
2N.9W.33.100	Unknown
2N.10W.9.100	Unknown
2N.10W.19.121	Red Basin Claims
2N.10W.19.244	Red Basin #1
2N.10W.20.131	Red Basin #2
2N.10W.20.440	Federal Uranium Area
2N.10W.27.222	Yequa Claims
2N.10W.27.231	Ox Spring Placer
2N.10W.27.444	Unnamed
2N.10W.35.232	Unknown
2N.10W.36.444	Southwest Minerals Property
2N.11W.11.113	Unknown
2N.11W.11.324	Unknown
2N.11W.11.421	Unknown
2N.11W.12.114	Midnight Group
2N.11W.13.112	Unknown
2N.11W.13.321	Unknown
2N.11W.14.224	Unknown
2N.11W.14.243	McPhaul Adit
3N.11W.32.321	Hancock-Geotex
3N.16W.21.232	Varnum
3N.16W.21.342	Unknown
3N.16W.22.243	Mangum
3S.13W.29	Unknown-Horse Springs
4N.21W.24	Dorothy B Mines #1,2,3
8S.17W.27.332	Quary
9S.16W.7,8	Mogollon
9S.20W.5,6,7	Frank Owen
10S.19W.20.341	Baby Mine
11S.19W.5	Evelyn No. 1 and 2

FIGURE 1-5-RADIOACTIVE OCCURRENCES IN CATRON COUNTY, NEW MEXICO



1: 10S.19W.20.341
2: Baby Mine
3: SW1/4 20 T10S R19W 33°25'15"N 108°48'45"W
4: Mogollon 7-1/2 Elevation 5,535 ft, 5,630 ft
5: Coney mining area-Mogollon district
6: U, V, Au, Ag, Cu, F
7: 130 and 40-ft adits, small pits
8: 7 tons ore yielding 141 lbs U_3O_8 (0.10%), 98 lbs U_2O_5; Au in 1880's
9: bkgd 50-60 cps, average 100-150 cps, high 350 cps
10: Tertiary Last Chance Andesite intruding Whitewater Creek Rhyolite
11: mineralization associated with purple fluorite in shear zone in andesite
12: up to 3.18% U_3O_8 reported (Collins, 1957)
13: Hydrothermal-vein
14: discovered April, 1955; mined 1956 by 3-11 Mining Co (James R. Wray)
15: FN 4/8/81; McLemore (1982, #223); White and Foster (1981, #1); Bornhorst and Elston (1981); Ratté (1981); Anderson, O.J. (1980); Weber and Willard (1959); Collins (1957); PRR DEB-P-4-1461 (1955); NMBMMR files (1956); USAEC files (1960); CRIB (1982)

1: 4N.21W.24.323
2: Dorothy B Mines #1, 2, 3
3: 24 T4N R21W 34°33'40"N 108°59'45"W
4: Twenty-two Springs 7-1/2 Elevation 6,200 ft
5: Quemado area
6: U
7: no workings
8: no production
9: 2 times background radioactivity reported
10: Cretaceous Dakota Sandstone
13: Sandstone
15: May and others (1980, #22)

1: 2N.9W.31
2: Drag A Ranch (Red Basin)
3: 31 T2N R9W 34°21'10"N 107°49'15"W
4: Cal Ship Mesa 7-1/2 Elevation
5: Datil district
6: no workings, outcrop
7: no production
8: 3-5 times bkgd radioactivity (Chamberlin, 1981)
9: Eocene Baca Formation
10: radioactive zones in sandstone
12: 0.029% U, 0.1% V_2O_5 (Bachman and others, 1957)
13: Sandstone
15: Chamberlin (1981b); Pierson and others (1981, #16); Hilpert (1969, p. 32); Bachman, Baltz, and Griggs (1957); PRR F-1102 (1954);R.M. Chamberlin (PC, June, 1981)

1: 11S.19W.5
2: Evelyn No. 1 and 2
3: N1/2 5 T11S R19W 33°23'00"N 108°49'30"W
4: Holt Mountain 7-1/2 Elevation 6,120 ft
5: Mogollon district
6: U, Au
7: 65-ft adit, pits
8: no production
9: bkgd 50-80 cps, pit 150 cps
10: Tertiary Whitewater Creek Rhyolite
11: radioactivity associated with shear zones in rhyolite flow
13: Hydrothermal-vein
14: did not find described location on 7/4/82, but did locate a pit in the vicinity
15: FN 7/4/82; White and Foster (1981, #2); Collins (1957); PRR DEB-RRA-1438 (1954); DEB-RRA-1439 (1954); USAEC files (1957)

1: 2N.10W.20.440
2: Federal Uranium area
3: S1/2 20, N1/2 29 T2N R10W 34°22'30"N 107°54'30"W
4: Third Canyon 7-1/2, Madre Mountain 7-1/2
5: Datil district
6: U
7: drill holes, no workings
8: no production
10: Eocene Baca Formation
11: radioactive zones associated with organic material
13: Sandstone
15: Chamberlin (1981b); Collins (1957)

1: 9S.20W.5, 6, 7
2: Frank Owen
3: 5, 6, 7 T9S R20W 33°32'40"N 108°56'5"W
4: Saliz Pass 7-1/2 Elevation 5,800 ft
5: Mogollon Mountains
6: U
7: 2 road cuts - prospect pits reported but not found
8: no production
9: bkgd 50 cps, high along fractures 100 cps
10: Tertiary Bloodgood Canyon Tuff of Elston (1968)
11: white altered and fractured rhyolite tuff
13: Volcanogenic
15: FN 7/5/82; Rattè (1980); PRR ASO-30 (1955)

1: 3N.11W.32.321
2: Hancock-Geotex
3: SW1/4 32 T3N R11W 34°26'30"N 108°0'55"W
4: Tres Lagunas 7-1/2 Elevation 7,555 ft
5: Datil District
6: U
7: bulldozer cut, drill holes sec. 31 (70-90 ft deep)
8: no production
9: no anomalous readings in pit, 3-4 times background in outcrop
10: Cretaceous Crevasse Canyon Formation
11: radioactive organic debris within sandstone outcrop northeast of pit
13: Sandstone
15: Chamberlin (1981b); Collins (1957); U.S. Atomic Energy Commission (1970, p. 7-9); PRR B (1956); R.M. Chamberlin (PC, June, 1981)

1: 3N.16W.22.341
2: Mangum
3: SW1/4 22 T3N R16W 34°28'00"N 108°31'10"W
4: Tejana Mesa 7-1/2 Elevation 7,040 ft
5: Quemado area
6: U, V
7: no workings, wooden chute at locality
8: no production
9: bkgd 20-50 cps; high 1,400 cps (Guilinger, 1982)
10: Cretacoeus Crevasse Canyon Formation
11: radioactivity associatd with organic debris at the top of the Crevasse Canyon Formation
13: Sandstone
15: Guilinger (1982); May and others (1980, #25); Hilpert (1969); Bachman and others (1957); PRR F-1153 (1954); PRR A (1956); USAEC files (1960)

1: 2N.11W.14.243
2: McPhaul Adit
3: CE1/2 E1/2 14 T2N R11W 34°23'50"N 107°57'15"W
4: Third Canyon 7-1/2 Elevation 7,460 ft
5: Datil district
6: U
7: 50-ft adit
8: production included with Midnight group
9: bkgd 30-60 cps, high 500 cps
10: Cretaceous Crevasse Canyon Formation
11: associated with organic material in sandstone
13: Sandstone
14: several adits along basal sandstone along this mesa
15: Chamberlin (1981b); Pierson and others (1981, #11); Hilpert (1969); Bachman, Baltz, and Griggs (1957); Collins (1957); PRR F-1129 (1954); R.M. Chamberlin (PC, June, 1981)

1: 2N.11W.12.114
2: Midnight Group (Midnight #2, Red Basin)
3: W1/2 NW1/4 12 T2N R11W 34°25'00"N 107°57'5"W
4: Third Canyon 7-1/2 Elevation 7,750 ft
5: Datil district
6: U, V, $CaCO_3$
7: 5-20 ft open pit, outcrop anomalies, drill holes
8: 460 tons ore yielding 1,097 lbs U_3O_8 (0.12%), 643 lbs V_2O_5, up to 4.0% $CaCO_3$
9: bkgd 30-50 cps, average 300 cps, high 600 cps
10: Cretaceous Crevasse Canyon Formation
11: mineralization associated with organic material, 1-2 ft thick
12: tyuyamunite, 0.0068% U_3O_8 (NMBMMR Chem lab, 2/9/81, #35)
13: Sandstone
14: mined in 1957 by Utomic E. and M., U:V ratio 1:2; may include production from other adits and pits in sec. 13 and 14
15: FN 8/29/80; Chamberlin (1981b); Pierson and others (1981, #10); Anderson, O.J. (1980); Hilpert (1969, p. 33, #5); New Mexico Geological Society (1959); Collins (1957); Bachman, Baltz, and Griggs (1957); Griggs (1953); PRR F-1129 (1954); NMBMMR files (1980); USAEC files (1960); CRIB (1982)

1: 9S.16W.7, 8
2: Mogollon
3: 7, 8 T9S R16W, 11, 12 T9S R17W 33°32'N 108°33'W
4: Telephone Canyon 7-1/2
5: Mogollon Mountains
6: U reported
7: small prospect pit reported but not found
8: no production
9: no anomalous radioactivity found
10: Tertiary rhyolite
11: radioactive opal reported
13: Volcanogenic
15: FN 7/3/82; PRR D-311 (1951)

1: 2N.10W.27.231
2: Ox Spring Placer (unnamed)
3: 27 T2N R10W 34°22'15"lat 107°52'50"long
4: Madre Mountain 7-1/2 Elevation 7,400 ft
5: Datil district
6: U, V
7: pits, drill holes
8: no production
9: twice background (Pierson and others, 1981)
10: Cretaceous Crevasse Canyon Formation
11: Carbonaceous trash in bleached fluvial sandstone
12: 0.026-0.14% U
13: Sandstone
14: claim post-Ox Spring Placer 150 acres (W.M. Moore and others, 337 Moran St., Reno, Nevada; 1/8/79);
15: Pierson and others (1981, #14); Bachman, Baltz, and Griggs (1957); Hilpert (1969, p. 32); Melancon (1953); PRR F-1032 (1953)

1: 8S.17W.27.332
2: Quary
3: SW1/4 SW1/4 27 T8S R17W 33°34'25"N 108°35'10"W
4: Telephone Canyon 7-1/2 Elevation 7,500 ft
5: Mogollon Mountains
6: U reported
7: one shallow prospect pit - no additional workings found
8: no production known
9: no anomalous readings
10: Tertiary andesite
13: Volcanogenic
14: no mineralization found
15: FN 7/3/82; Anderson, O.J. (1980)

1: 2N.10W.19.121
2: Red Basin Claims (Tietzen, Hot Spot 1-8)
3: NW1/4 19 T2N R10W 34°23'20"N 107°55'40"W
4: Third Canyon 7-1/2 Elevation 7,410-7,440 ft
5: Datil district
6: U, V
7: 200-ft long cut, short adit (24-48 ft deep)
8: production, if any, included with Red Basin #1
10: Cretaceous Crevasse Canyon Formation
11: 2-3 ft thick zones associated with organic material in conglomeratic sandstone
12: 0.019 and 0.022% U_3O_8 reported (PRR)
13: Sandstone-tabular
15: Chamberlin (1981b); Pierson and others (1981, #12, 13); Hilpert (1969, p. 32); New Mexico Geological Society (1959); Bachman, Baltz, and Griggs (1957); Collins (1957); PRR F-1033 (1953); PEB-RRA-1432 (1954); DEB-RRA-1186 (1954); R.M. Chamberlin (PC, June, 1981); MILS (1980); USAEC files (1960)

1: 2N.10W.19.244
2: Red Basin #1
3: SE1/4 NE1/4 19 T2N R10W 34°0'1"N 107°55'1"W
4: Third Canyon 7-1/2 Elevation 7,400-7,420 ft
5: Datil district
6: U, V
7: decline adit (caved), 200-ft long cut (24-48 ft deep)
8: 23 tons ore yielding 92 lbs U_3O_8 (0.20%), 139 lbs V_2O_5
9: bkgd 50-60 cps, high 3,000 cps
10: Cretaceous Crevasse Canyon Formation
11: 2-3 ft zone associated with organic material
12: 0.024% U_3O_8 (NMBMMR chem lab, 10/29/80, #9670)
13: Sandstone
14: may include production from Red Basin #2 and Red Basin claims
15: FN 8/29/80; Chamberlin (1981b); Pierson and others (1980, #12); Hilpert (1969, p. 32); New Mexico Geological Society (1959); Bachman, Baltz, and Griggs (1957); Collins (1957); NMBMMR files (1956); USAEC files (1960); R.M. Chamberlin (PC, June, 1981); CRIB (1982)

1: 2N.10W.20.131
2: Red Basin #2 (Hot Spot claims)
3: NW1/4 20 T2N R10W 34°23'8"N 107°54'58"
4: Third Canyon 7-1/2 Elevation 7,430 ft
5: Datil district
6: U, V
7: open cut, pit
8: production, if any, included with Red Basin #1
10: Cretaceous Crevasse Canyon Formation
11: radioactive zones in medium-grained buff sandstone
13: Sandstone
15: Chamberlin (1981); Pierson and others (1981, #13); Hilpert (1969, p. 32); PRR DEB-RRA-1432 (1954); DEB-RRA-1185 (1954); R.M. Chamberlin (PC, June, 1981)

1: 2N.10W.36.444
2: Southwest Minerals Property (Hot Spot claims #1-4)
3: 36 T2N R10W, 1 T1N R10W 34°20'25"N 107°50'20"W
4: Cal Ship Mesa 7-1/2 Elevation 7,420 ft, 7,380 ft
5: Datil district
6: U
7: bulldozer cut, anomalous along outcrop
8: no production
9: bkgd 30-50 cps, high 300 cps (outcrop)
10: Eocene Baca Formation
11: radioactive zones associated with organic lenses in fluvial sandstone
12: 0.05% U_3O_8 (NMBMMR Chem lab, 10/20/80, #9610)
13: Sandstone
15: FN 8/29/80; Chamberlin (1981); Pierson and others (1981, #17); Collins (1957); PRR ASO-14 (1954); R.M. Chamberlin (PC June, 1981)

1: 1N.19W.21.100
2: Unnamed-Red Hill area
3: NE1/4 21 T1N R19W 34°17'40"N 108°50'00"W
4: Blaines Lake 7-1/2 Elevation 7,000-7,200 ft
5: Red Hill area-Quemado
6: U
7: no workings, outcrop
8: no production
9: bkgd 20-35 cps, average 60-70 cps, high 80-90 cps
10: Cretaceous Crevasse Canyon Formation
11: organic material in sandstone channels
13: Sandstone-tabular
15: FN 4/1/81; May and others (1980, #24); PRR ASO-18 (1954)

1: 2N.9W.33.1ØØ
2: Unknown
3: NW1/4 33 T2N R9W 34°21'35"N 1Ø7°47'2Ø"W
4: Cal Ship Mesa 7-1/2 (unsurveyed) Elevation 7,46Ø ft
5: Datil district
6: U
7: 1 pit
8: no production
9: 5 times bkgd radioactivity (Chamberlin, 1981)
1Ø: Cretaceous Crevasse Canyon Formation
11: radioactivity associated with alteration front
13: Sandstone
15: Chamberlin (1981b); R.M. Chamberlin (PC, June, 1981)

1: 2N.1ØW.9.1ØØ
2: Unknown
3: NW1/4 9 T2N R1ØW
4: Third Canyon 7-1/2
5: Datil district
6: U
7: no workings
8: no production
1Ø: Cretaceous Crevasse Canyon Formation
11: mineralization in a chert at the base of a sandstone
13: Sandstone
15: Melancon (1953)

1: 2N.1ØW.27.444
2: Unnamed
3: SE1/4 SE1/4 27 T2N R1ØW 34°21'5Ø"N 1Ø7°52'5"W
4: Cal Ship Mesa 7-1/2 Elevation 7,4ØØ ft
5: Datil district
6: U
7: no workings - several anomalies along outcrops
8: no production
9: 3-5 times bkgd radioactivity
1Ø: Eocene Baca Formation
11: anomalous readings in sandstone outcrop along base of Baca Formation
12: Ø.Ø11-Ø.Ø26% U_3O_8 reported (PRR)
13: Sandstone
15: Chamberlin (1981b); Hilpert (1969, p. 32); Melancon (1953); PRR F-1Ø32 (1953); R.M. Chamberlin (PC, June, 1981)

1: 2N.10W.35.232
2: Unknown (Red Basin)
3: CNE1/4 35 T2N R10W 34°21'15"N 107°51'00"W
4: Cal Ship Mesa 7-1/2 Elevation 7,400 ft
5: Datil district
6: U
7: drill holes, anomalies along outcrop
8: no production
9: 3-5 times background radioactivity (Chamberlin, 1981)
10: Eocene Baca Formation
11: anomalous reading in sandstone outcrop at base of Baca Formation
13: Sandstone
15: Chamberlin (1981b); Pierson and others (1981, #15); Hilpert (1969, p. 33); Bachman, Baltz, and Griggs (1957); PRR F-1104 (1954); R.M. Chamberlin (PC, June, 1981)

1: 2N.11W.11.113
2: Unknown-McPhaul Ranch
3: NW1/4 NW1/4 11 T2N R11W 34°25'1"N 107°58'8"W
4: Third Canyon 7-1/2 Elevation 7,770 ft
5: Datil district
6: U
7: no workings, outcrop
8: no production
9: bkgd 50 cps; high 1,000 cps
10: Cretaceous Crevasse Canyon Formation
11: associated with altered sandstone
13: Sandstone
15: Chamberlin (1981b, p. 24); Melancon (1953)

1: 2N.11W.11.324
2: Unknown
3: SE1/4 NE1/4 SW1/4 11 T2N R11W 34°24'35"N 107°57'32"W
4: Third Canyon 7-1/2 Elevation 7,570 ft
5: Datil district
6: U
7: no workings, outcrop (pit nearby)
8: no production
9: bkgd 50 cps; high 5,000 cps
10: Cretaceous Crevasse Canyon Formation
11: radioactive calcite cemented zone in sandstone
12: 0.02% U_3O_8 (Chamberlin, 1981, p. 25)
13: Sandstone
15: Chamberlin (1981b); Bachman, Baltz, and Griggs (1957, p. 17); Melancon (1953); R.M. Chamberlin (PC, June, 1981)

1: 2N.11W.11.421
2: Unknown-McPhaul Ranch
3: CE1/2 E1/2 11 T2N R11W 34°24'45"N 107°57'15"W
4: Third Canyon 7-1/2 Elevation 7,720 ft
5: Datil district
6: U, V
7: no workings, outcrop adjacent to road, drill hole
8: no production
9: bkgd 30-50 cps, high 300 cps
10: Cretaceous Crevasse Canyon Formation
11: radioactive zone in dark-brown, coarse-grained sandstone
13: Sandstone
15: FN 3/29/80; Chamberlin (1981b); Pierson and others (1980, #9) Hilpert (1969, p. 33); Bachman, Baltz, and Griggs (1957); PRR F-1031 (1953)

1: 2N.11W.13.112
2: Unknown
3: NW1/4 NW1/4 13 T2N R11W 34°24'15"N 107°56'55"W
4: Third Canyon 7-1/2 Elevation 7,590 ft
5: Datil district
6: U
7: open cut
8: no production
9: bkgd 50 cps, high 500 cps
10: Cretaceous Crevasse Canyon Formation
13: Sandstone
15: Chamberlin (1981b); Melancon (1953); R.M. Chamberlin (PC, June, 1981)

1: 2N.11W.13.321
2: Unknown-adit
3: CW1/2 13 T2N R11W 34°23'50"N 107°56'55"W
4: Third Canyon 7-1/2 Elevation 7,420 ft
5: Datil district
6: U
7: adit, anomalies nearby in outcrop
8: production, if any, included with Midnight Group
9: bkgd 50 cps, high 1,500 cps
10: Cretaceous Crevasse Canyon Formation
13: Sandstone
15: Chamberlin (1981b); Melancon (1953); R.M. Chamberlin (PC, June, 1981)

1: 2N.11W.14.224
2: Unnamed-McPhaul Adit
3: NE1/4 NE1/4 14 T2N R11W 34°23'48"N 107°57'10"W
4: Third Canyon 7-1/2 Elevation 7,430 ft
5: Datil district
6: U, V
7: 30-ft adit, open cut
8: production, if any, included in Midnight Group
9: bkgd 30 cps; adit 125 cps; high 1,100 cps
10: Cretaceous Crevasse Canyon Formation
12: 0.042 and 0.056 reported (PRR)
13: Sandstone
15: FN 8/29/80; Chamberlin (1981b); Hilpert (1969, p. 33); PRR F-1031 (1953)

1: 3N.16W.21.342
2: Unknown-Section 21
3: SW1/4 21 T3N R16W 34°28'00"N 108°30'15"W
4: Tejana Mesa 7-1/2 Elevation 7,000 ft
5: Quemado area
6: U
7: outcrop anomaly
8: no production
9: bkgd 20-50 cps, high 150 cps (Guilinger, 1982)
10: Eocene Baca Formation
11: associated with thin lenses of dark iron oxides within red sandstone
12: 0.012% U_3O_8 (NMBMMR chem lab, 3/3/83, #3398)
13: Sandstone
15: Guilinger (1982)

1: 3S.13W.29
2: Unknown-Horse Springs
3: 29 T3S R13W
4: Wallace Mesa 7-1/2
5: Quemado area
6: U
7: no workings
8: no production
10: Tertiary Datil Group
11: slightly radioactive gray tuff
13: Volcanogenic
15: PRR ASO-17 (1954)

1: 3N.16W.21.231
2: Varnum (Section 21 3N 16W NEQ, Mangum)
3: NE1/4 21 T3N R16W 34°28'25"N 108°30'58"W
4: Tejana Mesa 7-1/2 Elevation 7,000 ft
5: Quemado area
6: U, V
7: poorly exposed caved pits, small dump
8: 12 tons ore yielding 5 lbs U_3O_8 (0.02%), 12 lbs V_2O_5
9: bkgd 20-40 cps, average 80-90 cps, high 300 cps
10: Cretaceous Crevasse Canyon Formation
11: associated with organic material in limonitic stained sandstone at the top of the Crevasse Canyon Formation
12: 0.053% U, 0.10% V_2O_5 (Bachman and others, 1957, #215699)
13: Sandstone
14: mined 1956 by H.D. Varnum
15: FN 4/1/81; Guilinger (1982); Anderson, O.J. (1980); May and others (1980, #25); Hilpert (1969, p. 33); Bachman, Baltz, and Griggs (1957, p. 21); PRR F-1103 (1954); PRR file A (1956); NMBMMR files (1980); USAEC files (1960)

1: 2N.10W.27.222
2: Yequa Claims
3: SE1/4 27 T2N R10W 34°22'5"N 107°51'55"W
4: Cal Ship Mesa 7-1/2 Elevation 7,400 ft
5: Datil district
6: U
7: 3 pits
8: no production
9: Cretaceous Crevasse Canyon Formation
10: mineralized sandstone - possibly part of a roll-front
13: Sandstone
15: Melancon (1953); R.M. Chamberlin (PC, June, 1981)

CHAVES COUNTY

Alphabetical (3 occurrences)

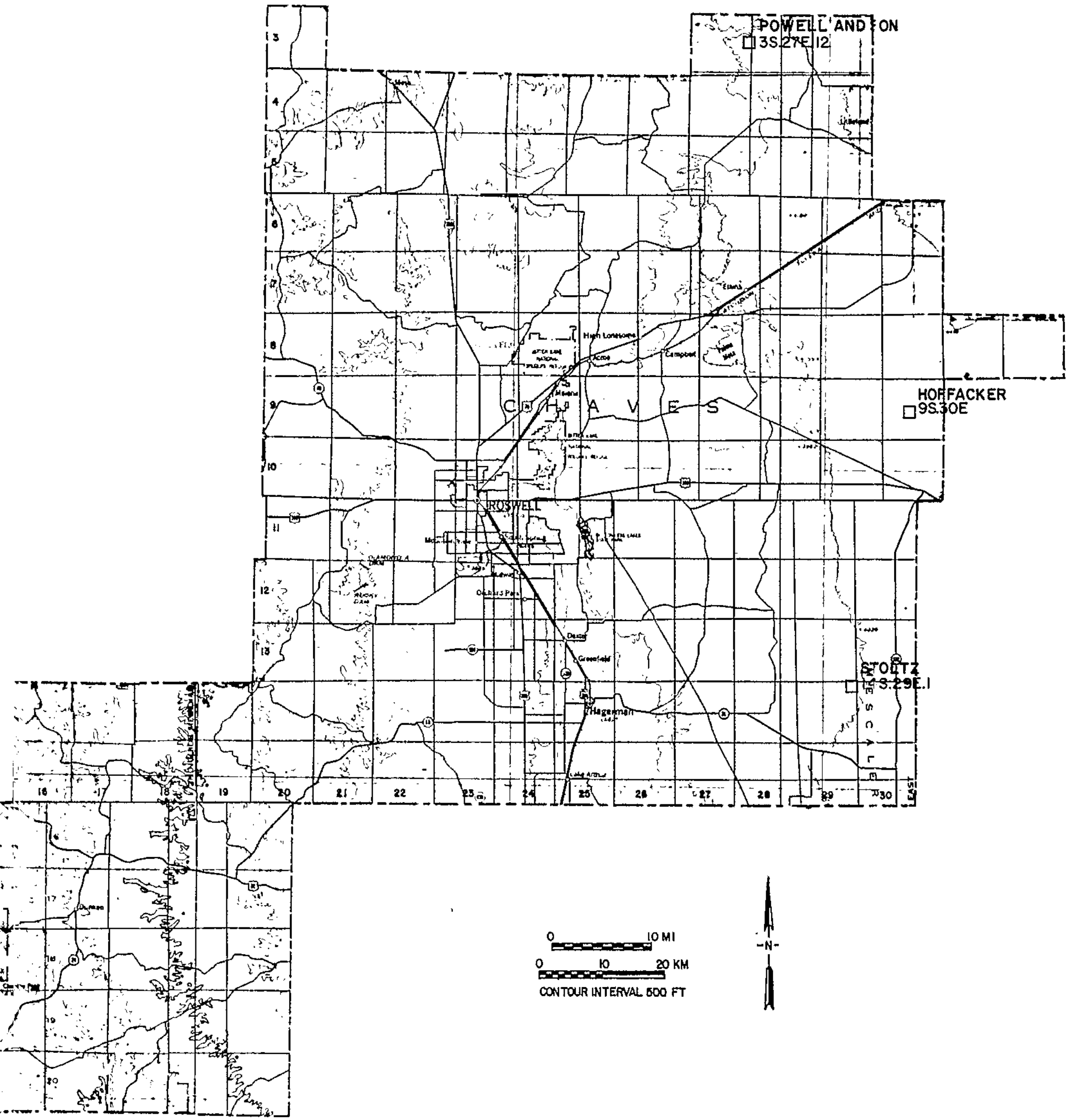
Hoffacker test hole	9S.30E
Powell and Son	3S.27E.12
Stoltz test hole	14S.29E.1

No aliases

Numerical

3S.27E.12	Powell and Son
9S.30E	Hoffacker test hole
14S.29E.1	Stoltz test hole

FIGURE 1-6–RADIOACTIVE OCCURRENCES IN CHAVES COUNTY, NEW MEXICO



CHAVES COUNTY

1: 9S.30E.
2: Hoffacker Test Holes
3: exact location unknown, about T9S R30E 33°28'00"N 103°52'00"W
4: Presler Lake, Curlew Lake SE 7-1/2
5: Great Plains
6: U(?)
7: no workings-drill hole
8: no production
10: Triassic Dokum Group
13: Sandstone
15: Finch, W.I. (1972, #1)

1: 3S.27E.12
2: Powell and Son
3: 12 T3S R27E
4: Howell Ranch 7-1/2
5: Great Plains
6: U(?)
7: 6 drill holes 50-60 ft deep
8: no production
10: Triassic Dokum Group(?)
11: yellow uranium minerals in limestone conglomerate
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 10)

1: 14S.29E.1
2: Stoltz test hole
3: 1 T14S R29E
4: Vest Camp 7-1/2
5: Great Plains
6: U
7: one drill hole 152-162 ft deep
8: no production
10: Triassic Dokum Group-Chinle Formation-basal unit
11: bleached arkose to subarkose containing abundant volcanic fragments, uranium associated with greatest percentage of heavy minerals
12: up to 0.04% U_3O_8 in core sample (USAEC)
13: Sandstone
15: Finch, W.I. (1972, #2); USAEC files (1969)

Alphabetical (104 occurrences)

Acoma Reservation	9N.7W.26.100	San Mateo	13N.8W.30.243
Alpine Test	10N.5W.2.120	Section 3	12N.9W.3
Balo Mining Company	8N.6W.18.300	Section 4	10N.3W.4.412
Bibo	11N.4W.29.313	Section 4	12N.9W.4
Black Hawk and Bunney Groups	12N.9W.4.414	Section 9 Mine	12N.9W.9.120
Brownlow-Heath Prospect	6N.4W.4.220	Section 9 adit	12N.9W.9.131
Cedar 1	11N.9W.20.414	Section 9	12N.9W.9.142
Chavez Mine	10N.3W.22.400	Section 9 NE	12N.9W.9.213
Christmas Day	12N.9W.4.243	Section 19	13N.8W.19.300
Crackpot Mine	8N.5W.8.113	Section 22 Linear Trenches	12N.9W.22.200
Dave Group	11N.9W.3.100	Sonora 1-4 Claims	7N.5W.12.220
F-33 Mine	12N.9W.33.444	South Paguate Orebody	10N.5W.16.210
Forrest Group	12N.9W.34.430	Taffy	12N.9W.11.334
Gay Eagle	12N.9W.4.432	Tom 13	11N.9W.4.411
H-1	10N.5W.2.410	UDC #1-5	12N.9W.4.442
Horace and Quemazon Claims	10N.9W.4.411	Unnamed-Quemado	4N.19W.3.332
Ingersol Copper	11N.12W.7.144	Unknown-Laguna Reservation	8N.5W.6.100
Jackpile Mine	11N.5W.26,35;10N.5W.2	Unnamed	8N.6W.5.111
J.J. #1	11N.5W.13.300,24.100	Unnamed	8N.6W.5.131
La Jara Mesa-Section 12	12N.9W.12.300	Unnamed	8N.6W.5.133
La Jara #1-9	12N.9W.15.411	Unnamed	8N.6W.10.333
Last Chance	12N.9W.8.224	Unnamed	8N.6W.11.323
Lone Pine 3	11N.9W.8.214	Unknown	9N.5W.27.134
Mirabel Copper deposit	11N.12W.7.110	Unknown	9N.5W.27.231
Mirabel Mine	11N.12W.7.200	Unknown	9N.7W.8.400
Mt. Sedgwick Copper Mine	11N.12W.17.344	Unknown	9N.7W.11.100
Mt. Taylor	13N.8W.24.433	Unknown	9N.7W.17.300
NJ-45	11N.5W.35.220	Unknown	10N.3W.27
Oak Creek Canyon	10N.5W.11.140	Unknown	10N.3W.34.100
P-9-2	10N.5W.4.440	Unknown	10N.3W.34.200
P-9-3	10N.5W.4.440	Unknown	10N.5W.14.110
P-10	10N.5W.4.300	Unknown	11N.4W.7.333
P-11	10N.5W.4.440	Unknown	11N.4W.18.300
P-13	10N.5W.4.400	Unknown	11N.4W.20.332
PW 2 and 3	11N.5W.33.342	Unknown	11N.4W.31.410
Paguate Mine	10N.5W.4,5;11N.5W.33	Unknown	11N.5W.24.340
Paisano Mine	8N.6W.16.124	Unknown	11N.5W.25.200
Parje	9N.6W.17.114	Unknown	11N.9W.9
Red Bluff #1	12N.9W.4.212	Unknown	11N.9W.17
Red Bluff #2 and 4	12N.9W.4.221	Unknown	11N.12W.17.133
Red Bluff #3, 5 and 9	12N.9W.4.214	Unknown	11N.13W.1.331
Red Bluff #7	12N.9W.4.342	Unknown	11N.15W.23
Red Bluff #8	12N.9W.4.433	Unknown	12N.4W.23
Red Bluff #10	12N.9W.4.434	Unknown	12N.4W.30
Saint Anthony	11N.4W.19.300	Unknown	12N.4W.30.400
Saint Anthony Mine	11N.4W.30.110	Unknown	12N.5W.35
Saint Anthony Mine	11N.4W.30.240	Unknown	12N.5W.36
Saint Anthony	11N.5W.24.411	Unknown	12N.9W.19
San Antonio Valley	12N.4W.15,22	Vanadium No. 1	12N.9W.33.333
San Antonio Valley	12N.4W.21.100	Wilcox Ranch	13N.15W.14.200
San Antonio Valley	12N.4W.4.300	Windwhip Mine	11N.5W.35.100
Sandy Mine	9N.5W.27.211	Woodrow Mine	11N.5W.36.443
		Zia Mine	12N.9W.15.323

CIBOLA COUNTY (continued)

Alias	Name	Number
Abeyta	Chavez Mine	10N.3W.22.400
Narcisco Abeyta	Chavez Mine	10N.3W.22.400
A. Head/J. Kealey	Cedar	11N.9W.20.414
Airborne Anomaly	Unknown	11N.15W.23
Anaconda	Crackpot Mine	8N.5W.8.113
Anaconda	F-33 Mine	12N.9W.33.444
Anaconda-SWQ	Section 9	12N.9W.9.143
Balo Mining Claims	Paisano Mine	8N.6W.16.124
Bibo	Saint Anthony Mine	11N.4W.30.110
Bibo	Saint Anthony Mine	11N.4W.30.240
Black Hawk-Bunney	Section 4	12N.9W.4
Bonanza #1	Taffy	12N.9W.11.334
Bottoms	Last Chance	12N.9W.8.224
Bullard Uranium(?)	Section 3	12N.9W.3
Calumet	Chavez Mine	10N.3W.22.400
Canoncito	Chavez Mine	10N.3W.22.400
Ceboletta Grant	St. Anthony Mine	11N.4W.19.300
Christmas Day 1-4	Christmas Day	12N.9W.4.243
Christmas Day	Section 4	12N.9W.4
City View	Cedar 1	11N.9W.20.414
Coffey Mine	UDC #1-5	12N.9W.4.442
Crusher No. 1 and 2	Cedar 1	11N.9W.20.414
Diener	Mount Sedgwick Copper Mine	11N.12W.17.344
Dooklex 3-5	Lone Pine 3	11N.9W.8.214
Elkins and Jones	Red Bluff #1	12N.9W.4.212
Mark Elkins	Section 9 Mine	12N.9W.9.120
Mark Elkins	Unknown	12N.9W.19
Exxon	San Antonio Valley	12N.4W.4.300
Exxon	San Antonio Valley	12N.4W.15,22
Exxon	San Antonio Valley	12N.4W.21.100
Falcon	Cedar 1	11N.9W.20.414
Gay Eagle	Section 4	12N.9W.4
Gulf	Mount Taylor	13N.8W.24.433
Hanosh	Saint Anthony Mine	11N.4W.30.110
Head and Kealey	Forrest Group	12N.9W.34.430
John 1-4	Lone River	11N.9W.8.214
Keradamex-Gulf	Section 19	13N.8W.19.300
L-Bar	J.J. #1	11N.5W.13.300

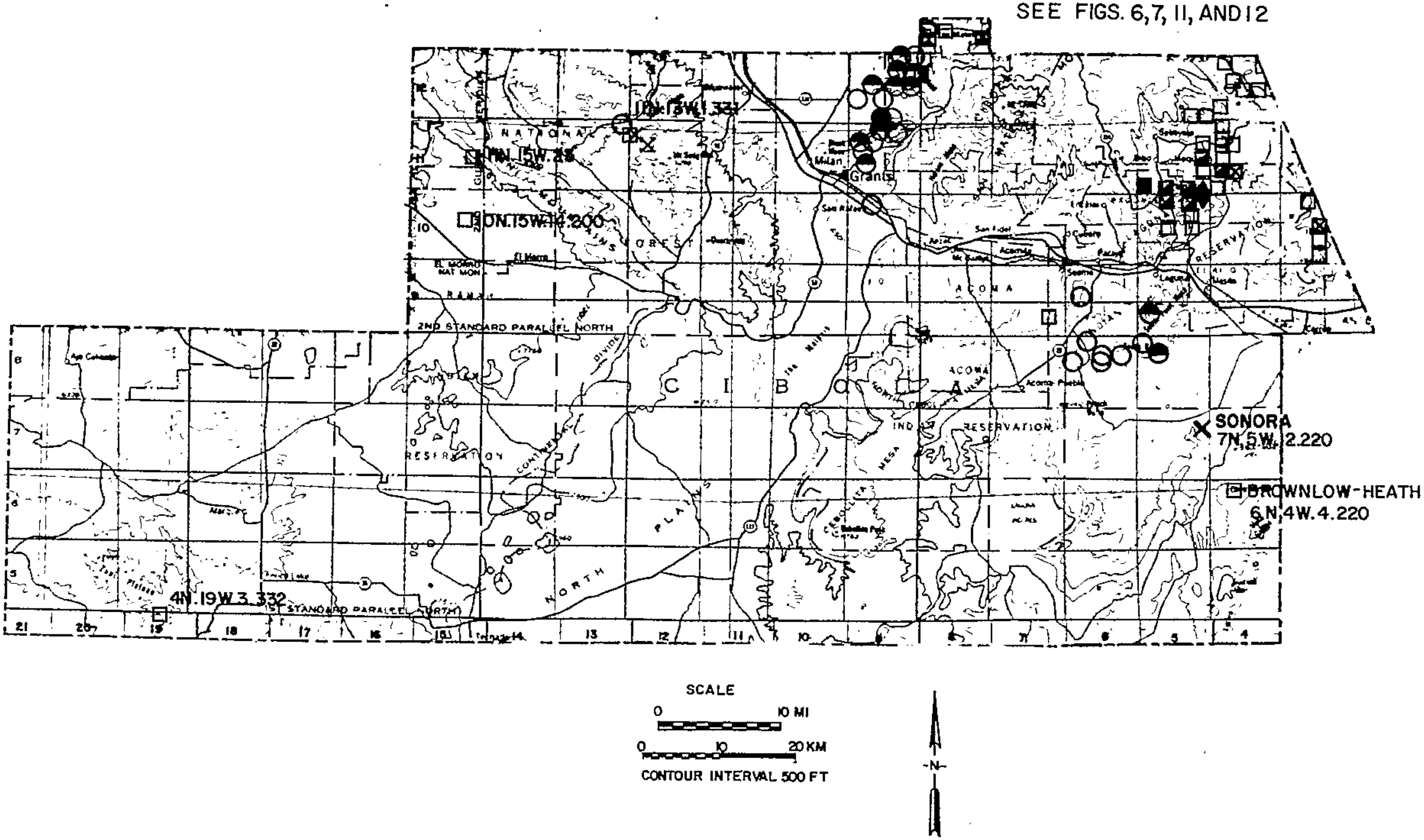
Alias	Name	Number
Little Haystack 1-29	Lone Pine	11N.9W.8.214
Lone Pine(?)	Section 3	12N.9W.3
M-6	Saint Anthony Mine	11N.4W.30.110
M-6	Saint Anthony Mine	11N.4W.30.240
M-Mirabel	Vanadium No. 1	12N.9W.33.333
Norandex	Section 19	13N.8W.19.300
Phil	Christmas Day	12N.9W.4.243
Pit I and II	Sandy Mine	9N.5W.27.211
Willie P. Orebody	Saint Anthony	11N.5W.24.411
Project 69-MQ	San Antonio Valley	12N.4W.4.300
Project 69-SA, 69-FL	San Antonio Valley	12N.4W.15,22
Project 69 SA	San Antonio Valley	12N.4W.21.100
Rare Metals	San Mateo	13N.8W.30.243
Red Bluff #1-5, #7-10	Section 4	12N.9W.4
Rosa Claims	Section 22	12N.9W.22.200
St. Anthony Mine	Bibo	11N.4W.29.313
St. Anthony	Unknown	11N.4W.20.332
Seboyta	Saint Anthony Mine	11N.4W.30.110
Section 20	Cedar 1	11N.9W.20.414
Section 30	San Mateo	13N.8W.30.243
Section 33	F-33 Mine	12N.9W.33.444
Sohio	J.J. #1	11N.5W.13.300
South Laguna	Sandy Mine	9N.5W.27.211
South Laguna	Unknown	9N.5W.27.134
South Laguna	Unknown	9N.5W.27.231
South Sawnee dome	Brownlow-Heath Prospect	6N.4W.4.220
Tom Group	Tom 13	11N.9W.4.411
Townsite(?)	P-10	10N.5W.4.300
Trusteo Corp.	Taffy	12N.9W.11.334
UDC	Section 4	12N.9W.4
Unknown	Section 9 mine	12N.9W.9.120
Unknown	Section 22 Linear Trenches	12N.9W.22.200
Unnamed	Forrest Group	12N.9W.34.430
Vanadium Claim(?)	Tom 13	11N.9W.4.411
VDC	UDC #1-5	12N.9W.4.442
Wilson Todilto	Unknown	8N.5W.6.100
Windy Claims	Sonora 1-4 Claims	7N.5W.12.220
Yucca	Cedar 1	11N.9W.20.414

CIBOLA COUNTY (continued)

Numerical

4N.19W.3.332	Unnamed Quemado
6N.4W.4.220	Brownlow-Heath Prospect
7N.5W.12.220	Sonora 1-4 Claims
8N.5W.6.100	Unknown-Laguna Reservation
8N.5W.8.113	Crackpot Mine
8N.6W.5.111	Unnamed
8N.6W.5.131	Unnamed
8N.6W.5.133	Unnamed
8N.6W.10.333	Unnamed
8N.6W.11.323	Unnamed
8N.6W.16.124	Unnamed
8N.6W.18.300	Balo Mining Company
9N.5W.27.134	Unknown
9N.5W.27.211	Sandy Mine
9N.5W.27.231	Unknown
9N.6W.17.114	Parjae
9N.7W.8.400	Unknown
9N.7W.11.100	Unknown
9N.7W.17.300	Unknown
9N.7W.26.100	Acoma Reservation
10N.3W.4.412	Section 4
10N.3W.22.400	Chavez Mine
10N.3W.27	Unknown
10N.3W.34.100	Unknown
10N.3W.34.200	Unknown
10N.5W.2.120	Alpine Test
10N.5W.2.410	H-1
10N.5W.4,5;11N.5W.33	Paguate Mine
10N.5W.4.300	P-10
10N.5W.4.400	P-13
10N.5W.4.440	P-9-2
10N.5W.4.440	P-9-3
10N.5W.4.440	P-11
10N.5W.11.140	Oak Creek Canyon
10N.5W.14.110	Unknown
10N.5W.16.210	South Paguate Orebody
10N.9W.4.411	Horace and Quemazon
10N.9W.33	Unknown
10N.15W.14.200	Unknown
11N.4W.7.333	Unknown
11N.4W.18.300	Unknown
11N.4W.19.300	Saint Anthony
11N.4W.20.332	Unknown
11N.4W.29.313	Bibo
11N.4W.30.110	Saint Anthony Mine
11N.4N.30.240	Saint Anthony Mine
11N.4W.31.410	Unknown
11N.5W.13.300,24.100	J.J. #1
11N.5W.24.340	Unknown
11N.5W.24.411	Saint Anthony
11N.5W.25.200	Unknown
11N.5W.26,35;10N.5W.2	Jackpile Mine
11N.5W.33.342	PW 2 and 3
11N.5W.35.100	Windwhip Mine
11N.5W.35.220	NJ-45
11N.5W.36.443	Woodrow Mine
11N.9W.3.100	Dave Group
11N.9W.4.411	Tom 13
11N.9W.8.214	Lone Pine 3
11N.9W.9	Unknown
11N.9W.17	Unknown
11N.9W.20.414	Cedar
11N.12W.7.110	Mirabel Copper deposit
11N.12W.7.144	Ingersol Copper
11N.12W.7.200	Mirabel Mine
11N.12W.17.133	Unknown
11N.12W.17.344	Mt. Sedgwick Copper Mine
11N.13W.1.331	Unknown
11N.15W.23	Unknown
12N.4W.4.300	San Antonio Valley
12N.4W.15,22	San Antonio Valley
12N.4W.21.100	San Antonio Valley
12N.4W.23	Unknown
12N.4W.30	Unknown
12N.4W.30.400	Unknown
12N.5W.35	Unknown
12N.5W.36	Unknown
12N.9W.3	Section 3
12N.9W.4	Section 4
12N.9W.4.212	Red Bluff #1
12N.9W.4.214	Red Bluff #3, 5 and 9
12N.9W.4.221	Red Bluff #2 and 4
12N.9W.4.243	Christmas Day
12N.9W.4.342	Red Bluff #7
12N.9W.4.414	Black Hawk and Bunney Group
12N.9W.4.432	Gay Eagle
12N.9W.4.433	Red Bluff #8
12N.9W.4.434	Red Bluff #10
12N.9W.4.442	UDC #1-5
12N.9W.8.224	Last Chance
12N.9W.9.120	Section 9 Mine
12N.9W.9.131	Section 9 adit
12N.9W.9.143	Section 9
12N.9W.9.213	Section 9 NE
12N.9W.11.334	Taffy
12N.9W.12.300	La Jara Mesa-Section 12
12N.9W.15.323	Zia Mine
12N.9W.15.411	La Jara #1-9
12N.9W.19	Unknown
12N.9W.22.200	Section 22 Linear Trenches
12N.9W.33.333	Unknown
12N.9W.33.444	F-33 Mine
12N.9W.34.430	Forrest Group
13N.8W.19.300	Section 19
13N.8W.24.433	Mt. Taylor
13N.8W.30.243	San Mateo

FIGURE 1-7-RADIOACTIVE OCCURRENCES IN CIBOLA COUNTY, NEW MEXICO



CIBOLA COUNTY

(NOTE: Many of these occurrences are plotted on figure 6 and 7)

1: 9N.7W.26.100
2: Acoma Reservation (Bluff)
3: NW1/4 26 9N R7W
4: Cubero 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: open pit
8: no production
10: Jurassic Morrison Formation-Recapture Member
12: yellow uranium minerals
13: Sandstone
15: Willson (1957; PRR unnumbered (1955)

1: 10N.5W.2.120
2: Alpine Test
3: NE1/4 NW1/4 2 T10N R5W 35°7'48"N 107°20'15"W
4: Moquino 7-1/2 Elevation 5,940 ft
5: Laguna subdistrict-Grants uranium district
6: U, V
7: 110-ft adit
8: production included with Jackpile
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 9/71 to 4/73 by Anaconda
15: FN 3/4/82; see Jackpile Mine for references
16: figure 16

1: 11N.4W.29.313
2: Bibo (St. Anthony Mine)
3: SW1/4 29 T11N R4W 35°9'5"N 107°17'29"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: 2 open cuts
8: production, if any, included with St. Anthony Mine (11N.4W.30.110)
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: USAEC files (1960)
16: figure 12

1: 12N.9W.4.414
2: Black Hawk and Bunney Groups
3: SE1/4 4 T12N R9W 35°17'40"N 107°47'15"W
4: Dos Lomas 7-1/2 Elevation 7,015 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit (40 ft deep)
8: 13,908 tons ore yielding 72,996 lbs U_3O_8 (0.26%); 4.361 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several deposits in crinkly zone up to 5 ft thick
13: Limestone
14: mined 1952, 1956, 1958-1963, 1965-1967
15: Green and others (1980c, #106); Hilpert (1969, p. 59, #4); Anderson, E.C. (1955); PRR CEB-13 (1950); USAEC files (1969)

1: 8N.6W.18
2: Balo Mining Company
3: S1/2 18 T8N R6W 34°55'N 107°30'10"W
4: Acoma Pueblo 7-1/2 Elevation 6,170 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: pits
8: no production
10: Jurassic Todilto Limestone
11: mineralization associated with intraformational folds, organic debris
12: uraninite, tyuyamunite
13: Limestone
14: Laguna Indian Reservation
15: Pierson and others (1981, #4); Hilpert (1969, p. 56); ED-R-383 (1954); ED-R-286 (1954); unnumbered (1955)

1: 6N.4W.4.220
2: Brownlow-Heath Prospect (South Suwanee dome)
3: NE1/4 NE1/4 4 T6N R4W, SE1/4 SE1/4 33 T7N R4W 34°46'58"N 107°15'35"W
4: Cerro Verde 7-1/2 Elevation 6,230 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 3 shallow pits
8: no production
9: bkgd 50 cps, conglomerate 250-300 cps
10: Triassic Chinle Formation-Shinarump Member
11: radioactive zones in two separate discontinuous conglomeratic sandstones, associated with wood fragments and mudstone galls
12: 0.008, 0.009% U_3O_8 (NMBMMR chem lab, 5/20/82, #2137,2138)
13: Sandstone
15: FN 3/18/82; Pierson and others (1981, #8); Hilpert (1969, p. 56); Willson (1957); PRR ED-R-753 (1956)

1: 11N.9W.20.414
2: Cedar 1 (Section 20, Yucca, A. Head/J. Kealey, Falcon, City View, Crusher No. 1 and 2)
3: SE1/4 20 T11N R9W 35o10'00"N 107o48'14"W
4: Grants 7-1/2 Elevation 6,575 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, Mo, road metal
7: open pits (20 ft deep)
8: 3,177 tons ore yielding 13,456 lbs U_{308} (0.20%), 6,164 lbs V2O5
10: Jurassic Todilto Limestone (lacustrine)
11: deposit associated with east-trending intraformation folds, 3-5 ft thick
12: yellow uranium minerals
13: Limestone
14: mined 1952-1957, Utco U Corp.; locked gate on 5/20/82
15: Green and others (1980c, #122); Anderson, O.J. (1980); Holmquist (1970, p. 123); Hilpert (1969, p. 58, #5); Traden and others (1967); Anderson, E.C. (1955); PRR 201-EB (1951); 200-AEC (1951); USAEC files (1960); CRIB (1982)

1: 10N.3W.22.400
2: Chavez Mine (Calumet, Canoncito, Abeyta, Narciso Abeyta)
3: SE1/4 22 T10N R3W 35o4'35"N 107o8'10"W
4: Mesa Gigante 7-1/2 Elevation 6,080 ft
5: Laguna subdistrict-Grants Uranium district
6: U, V
7: 50-ft adit with 50-ft drift, open pit
8: 192 tons ore yielding 821 lbs U3O8 (0.21%); 2,165 lbs V2O5
10: Jurassic Morrison Formation-Recapture Member
11: mineralized coarse-grained, poorly sorted arkose with organic debris
12: carnotite
13: Sandstone-roll-type
14: mined 1955 by Calumet and Hecla; mine map by Moench and Schlee (1967, p. 99)
15: Green and others (1980c, #86, 279); Anderson, O.J. (1980); Hilpert (1969, p. 57, #18); Moench and Schlee (1967, p 98-99); Kittleman (1957, p. 41); PRR-ED-R-291 (1954); ED-R-617 (1956); USBM files (1956); CRIB (1982)

1: 12N.9W.4.243
2: Christmas Day (Phil, Christmas Day 1-4)
3: NE1/4 4 T12N R9W 35°17'50"N 107°47'12"W
4: Dos Lomas 7-1/2 Elevation 7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit (20 ft deep)
8: 2,625 tons ore yielding 9,374 lbs U_3O_8 (0.18%); 5,621 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several deposits 1,500 ft long and up to 200 ft wide and several ft thick in crinkly zone
12: secondary yellow uranium minerals
13: Limestone
14: mined 1954-1956 by Colamer Corp.
15: Anderson, O.J. (1980); Green and others (1980c, #104); Hilpert (1969, p. 58, #6); McLaughlin (1963); Chew (1956); USAEC files (1960)

1: 8N.5W.8.113
2: Crackpot Mine (Anaconda Co)
3: NW1/4 8 T8N R5W 34°56'20"N 107°23'36"W
4: South Butte 7-1/2 Elevation 6,300 ft
5: Laguna subdistrict-Grants uranium district
6: U, V
7: open pit, short adits (26-40 ft long)
8: 3,214 tons ore yielding 8,396 lbs U_3O_8 (0.13%); 21,348 lbs V_2O_5
10: Jurassic Todilto Limestone
11: mineralization associated with intraformational folds and organic debris along bedding planes and grain boundaries
12: uraninite, tyuyamunite
13: Limestone
14: Laguna Indian Reservation, mined out in Aug. 1955; mine map by Moench and Schlee (1967)
15: Pierson and others (1981, #6); Anderson, O.J. (1980); Hilpert (1969); Moench and Schlee (1967, p. 103-104); Kittle and others (1967); Willson (1957); PRR unnumbered (1955); CRIB (1982); USAEC files (1960)

1: 11N.9W.3.100
2: Dave Group
3: W1/2 3 T11N R9W
4: Grants 78-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pits - drill holes
8: no production
10: Jurassic Todilto Limestone (lacustrine)
13: Limestone
14: locked gates on 5/20/82
15: Anderson, E.G. (1955)

1: 12N.9W.33.444
2: F-33 Mine (Section 33, Anaconda)
3: 33, 34 T12N R9W 35o13'8"N 107o47'2"W
4: Grants 7-1/2 Elevation 7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 3 declines (one 1,800 ft long)
8: 48,688 tons ore yielding 304,871 lbs U308 (0.31%), 31,306 lbs V_2O_5
9: bkgd 30 cps, high on dump 7,000 cps
10: Jurassic Todilto Limestone
11: several deposits along intraformation folds in platy and crinkly members
12: carnotite, uraninite, bante, fluorite, pyrite, pitchblende, coffinite, tyuyamunite
13: Limestone
14: mined 1954-1959, 1971-1977, last mined by Homestake
15: FN 5/20/82; Anderson, O.J. (1980); Green and others (1980c, #119); Holmquist (1970, p. 123); Hilpert (1969, p. 59, #10); Kittle and others (1967); Kerr and Wilcox (1963); U.S. Atomic Energy Commission (1959a, p. 62); Chew (1956); USAEC files (1960); CRIB (1982)

1: 12N.9W.34.430
2: Forrest Group (Unnamed, Head and Keely)
3: SE1/4 SW1/4 34 T12N R9W 35o13'30"N 107o46'20"W
4: Grants 7-1/2 Elevation 7,500 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drilling
8: mined as part of F-33
9: no readings above background
10: Jurassic Todilto Limestone
12: tyuyamunite reported
13: Limestone
15: FN 5/20/82; Green and others (180c, #289); U.S. Atomic Energy Commission (1970, p. 222); Anderson, E.C. (1955); PRR 204-AEC (1951)

1: 12N.9W.4.432
2: Gay Eagle
3: SE1/4 4 T12N R9W 35°17'35"N 107°47'18"W
4: Dos Lomas 7-1/2 Elevation 7,050 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit (40 ft deep)
8: 4,156 tons ore yielding 17,475 lbs U_3O_8 (0.21%); 12,066 lbs V_2O_5
10: Jurassic Todilto Limestone
11: deposit 400-500 ft long, few to tens of feet wide, 5-20 ft thick along an intraformational fold
13: Limestone
14: mined 1952-1965 by Mesa Mining Co.
15: Green and others (1980c, #107); Hilpert (1969, p. 59, #13); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 49); Gabelman (1956, p. 397); Chew (1956); PRR GJEB-11 (1950); CEB-13 (1950); USBM files (1955); USAEC files (1965)

1: 10N.5W.2.410
2: H-1
3: NW1/4 SW1/2 2 T10N R5W 35°7'28"N 107°20'40"W
4: Mesita 7-1
5: Laguna subdistrict-Grants uranium district
6: U, V
7: 475-ft adit
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 7/73 to 4/75 by Anaconda
15: FN 3/4/82; Green and others (1980c, #91); see Jackpile Mine for references

1: 10N.9W.4.411
2: Horace and Quemazon Claims
3: SE1/4 4 T10N R9W 35°7'20"N 107°47'00"W
4: Grants SE 7-1/2, Grants 7-1/2
5: Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
11: uranium minerals along fractures and bedding planes
12: 0.11% U (Hilpert, 1969)
13: Limestone
15: Green and others (1980c, #285); Hilpert (1969, p. 57); PRR ED-R-427 (1955); ED-R-297 (1954); ED-R-600 (1955)

1: 11N.12W.7.144
2: Ingersol Copper
3: SW1/4 6, NW1/4 7 T11N R12W 35°12'00"N 108°8'10"W
4: Post Office Flats 7-1/2 Elevation 8,200 ft
5: Zuni Mountains district
6: Cu, U
7: cuts, pits, adits
8: no uranium production
9: bkgd 30-50 cps, high 200-250 cps
10: Precambrian granite overlain by Permian Abo Formation
11: uranium and copper mineralization associated with organic material in arkoses and granites
13: Sandstone
14: mine map by Baumgardner (1956)
15: FN 9/14/80; Green and others (1980b, #112); Hilpert (1969, p. 58); Baumgardner (1956); Hilpert and Corey (1955); PRR ED-R-369 (1954)
16: figure 23

1: 11N.5W.26,35; 10N.5W.2
2: Jackpile Mine
3: 26, 35 T11N R5W, 2 T10N R5W 35°8'15"N 107°20'00"W
4: Moquino 7-1/2 Elevation 6,000 ft
5: Laguna subdistrict-Grants uranium district
6: U, V
7: 2 contigous open pits - 3,000 acres total (all properties)
8: 80 mill lbs U_3O_8 shipped through 1978 from all properties; reserves remaining
10: Jurassic Morrison Formation-Brushy Basin member-Jackpile sandstone
11: mineralization associated with organic material in fluvial sandstone, mineralization 110-115 m.y. in age
12: coffinite, uraninite, minor uranium minerals
13: Sandstone-primary tabular; Breccia-pipe
14: mined 1952-1981 by Anaconda - 26.2 mill tons ore shipped from all properties
15: FN 3/4/82; Beck and others (1980); Green and others (1980c, #79); Brookins (1979a); Hoppe (1978); Chapman, Wood, and Griswold, Inc. (1979); Hilpert (1969, p. 58, #43); Moench and Schlee (1967, p. 87-93); U.S. Atomic Energy Commission (1959b, p. 47); Hough (1955); Mathewson and Allison (1954) Robert D. Lynn (Anaconda, WC, 3/15/82); CRIB (1982)
16: figures 12 and 16

1: 11N.5W.13.300,24.100
2: J.J. #1 (L-Bar, Sohio)
3: SW1/4 13, NW1/4 24 T11N R5W 35°10'40"N 107°19'30"W
4: Moquino 7-1/2 Elevation 6,280 ft
5: Laguna subdistrict
6: U, V
7: 672-ft vertical shaft - 100-150 ft center drill spacing
8: 943,000 tons ore at 0.125% U_3O_8 from 1976-1981; total reserves 4.5 mill tons of ore at 0.188% U_3O_8
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: uranium mineralization associated with carbonaceous material in fluvial sandstones
12: grades range 0.1 to 0.4% U_3O_8, coffinite, uraninite
13: Sandstone-tabular
14: operated by Sohio in partnership with Reserve 1976-1981, now owned exclusively by Sohio; Cebolleta Grant
15: FN 3/4/82; Hatchell and Wentz (1981); Green and others (1980c, #72, 84); Hoppe (1978); Chapman, Wood, and Griswold. Inc. (1977, #4); Jacobsen (1980); Hilpert (1969, p. 57); Moench and Schlee (1967); CRIB (1981); J.H. Olsen, Jr. (Mining Engineer, Sohio Western Mining Co., WC, May 7, 1982); CRIB (1981)
16: figure 12

1: 12N.9W.12.300
2: La Jara Mesa-Section 12
3: SW1/4 12 T12N R9W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drilling--600 ft deep
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
13: Sandstone
14: extension of Taffy orebody, owned by Midas
15: DOE files (1983)

1: 12N.9W.15.411
2: La Jara #1-9
3: SE1/4 15 T12N R9W 35°16'10"N 107°46'20"W
4: Dos Lomas 7-1/2 Elevation 7,060 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit, trenching (30-ft deep)
8: 3,573 tons ore yielding 31,277 lbs U_3O_8 (0.44%); 613 lbs V_2O_5
10: Jurassic Todilto Limestone
11: patchy ore bodies in crinkly zone, 3-5 ft thick
13: Limestone
14: mined 1952-1960 by Chena Mining Co.
15: Anderson, O.J. (1980); Green and others (1980c, #118); Holmquist (1970, p. 122); Hilpert (1969, p. 59, #18); USAEC files (1960)

1: 12N.9W.8.224
2: Last Chance (Bottoms)
3: NE1/4 8 T12N R9W 35°17'19"N 107°48'0"W
4: Dos Lomas 7-1/2 Elevation 7,050 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, fluorite
7: open pit (15 ft deep)
8: 2,753 tons ore yielding 9,334 lbs U_3O_8 (0.17%); 12,804 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several deposits in crinkly zone
13: Limestone
14: mined 1952-1956 by J.F. Broadders; B.J. Bottoms claimed 10/77
15: Anderson, O.J. (1980); Green and others (1980c, #111); Hilpert (1969, p. 59, #19); Anderson, E.C. (1955); USAEC files (1960); CRIB (1982)

1: 11N.9W.8.214
2: Lone Pine 3 (Little Haystack 1-29, John 1-4, Double X 3-5)
3: NE1/2 8 T11N R9W 35°12'2'N 107°48'22"W
4: Grants 7-1/2 Elevation 7,250 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 2 adits
8: 392 tons ore yielding 893 lbs U_3O_8 (0.13%); 3,309 lbs V_2O_5
10: Jurassic Todilto Limestone (lacustrine)
11: small deposit 2-3 ft thick
13: Limestone
14: mined in 1954-1955, Permian Basin Uranium Corp.; locked gates on 5/20/82
15: Green and others (1980c, #121); Anderson, O.J. (1980); Holmquist (1970, p. 123); Hilpert (1969, p. 58, #21); Kerr and Wilcox (1963); Anderson, E.C. (1955); CRIB (1982); USAEC files (1960)

1: 11N.12W.7.110
2: Mirabel Copper deposit
3: W1/2 7 T11N R12W 35°12'00"N 108°9'10"W
4: Post Office Flats 7-1/2 Elevation 8,000-8,100 ft
5: Zuni Mountains district
6: Cu, U
7: bulldozer cuts, pits, 12-ft shaft, adit
8: no uranium production
9: bkgd 50 cps, average 50-150 cps, high 240 cps
10: Precambrian granite overlain by Permian Abo Formation
11: uranium and copper minerals associated with organic material
and fossil logs and within shear zones in the granite
13: Sandstone/Hydrothermal-vein
14: mine symbol on topographic map; mine map by Baumgardner
(1956)
15: FN 9/14/80; Green and others (1980b, #111); Hackman and Olson
(1977); Goddard (1966); Soulè (1956); Baumgardner (1956);
Hilpert and Corey (1955); Gott and Erickson (1951, #13-15);
PRR D-242 (1951)
16: figure 23

1: 11N.12W.7.200
2: Mirabel Mine
3: NE1/4 7 T11N R12W 35°11'50"N 108°8'10"W
4: Post Office Flats 7-1/2 Elevation 8,040 ft, 8,200 ft, 8,320 ft
5: Zuni Mountain district
6: U, fluorite, barite, gold, silver
7: 3 adits (one 269-ft deep), 2 50-ft shafts, open cuts
8: 500 tons fluorite, no uranium production
9: bkgd 50 cps, high 100 cps
10: Precambrian gneissic granite
11: radioactive fluorite vein trending N85°E, 1500-ft long
12: copper oxides, purple fluorite
13: Hydrothermal-vein
14: vein essentially mined out, mine symbol on topographic map
15: FN 9/14/80; Green and others (1980b, #110); Hackman and Olson
(1977); Goddard (1966); Phillips (1960); Gott and Erickson (1951;
1952); Rothrock and others (1946); PRR D-242 (1951)
16: figure 23

1: 11N.12W.17.344
2: Mt. Sedgwick copper mine (Diener)
3: SW1/4 17 T11N R12W 35°10'30"N 108°7'35"W
4: Post Office Flats 7-1/2 Elevation 8,400 ft
5: Zuni Mountains district
6: Cu, U
7: 2 shafts, open cuts, adit
8: no uranium production
9: bkgd 50 cps, high 100 cps
10: Precambrian gneissic granite
11: radioactive shear zone
12: copper oxides, fluorite
13: Hydrothermal-vein
15: FN 9/14/80; Green and others (1980b, #133); Hackman and Olson (1977); Goddard (1966); Konigsmark (1955)
16: figure 23

1: 13N.8W.24.433
2: Mount Taylor (Gulf)
3: SE1/4 24 T13N R8W 35°20'15"N 107°37'54"W
4: San Mateo 7-1/2 Elevation 7,300 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 2 3,300-ft shafts
8: in 1981 produced 470,000 lbs U_3O_8 - over 100 mill lbs U_3O_8 in reserves (Jackson, 1977; Barendsen and Heron, 1980)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 8-27 ft thick ore bodies
12: average grade 0.3% U_3O_8
13: Sandstone
14: mined 1980-1982 by Gulf; deepest uranium mine in United States, late 1982 placed on standby
15: FN 4/12/81; Barendsen and Heron (1980); Green and others (1980c, #95); Riese and Brookins (1980); Riese and others (1980); Riese (1980; 1977); Chapman, Wood, and Griswold, Inc. (1979, #37); Jackson (1977); Denver Post (11/7/82); CRIB (1982)
16: figure 11

1: 11N.5W.35.220
2: NJ-45
3: NE1/4 NE1/4 35 T11N R5W 35°8'35"N 107°19'45"W
4: Moquino 7-1/2 Elevation 6,380 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 50-ft adit, plus 3 additional adits
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 6/81 to 2/82 by Anaconda
15: FN 3/4/82; see Jackpile Mine for references
16: figure 16

1: 10N.5W.11.140
2: Oak Creek Canyon
3: NE1/4 10, NW1/4 11 T10N R5W 35°6'50"N 107°20'00"W
4: Mesita 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U, V
7: bulldozer cut
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone-tabular
15: Green and others (1980C, #82); Hilpert (1969, p. 59); Moench and Schlee (1967); Schlee and Moench (1963)
16: figure 12

1: 10N.5W.4.440
2: P-9-2
3: SE1/4 SE1/4 4 T10N R5W 35°7'30"N 107°22'20"W
4: Mesita 7-1/2 Elevation 6,100 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 100-ft adit
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 3/74 to 11/76 by Anaconda
15: FN 3/4/80; see Jackpile Mine for references
16: figure 16

1: 10N.5W.4.440
2: P-9-3
3: SE1/4 SE1/4 4 T10N R5W 35°7'25"N 107°22'20"W
4: Mesita 7-1/2 Elevation 6,140 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 310 ft adit
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 11/75 to 2/76 by Anaconda
15: FN 3/4/82; see Jackpile Mine for references
16: figure 16

1: 10N.5W.4.300
2: P-10 (Townsite?)
3: SW1/4 4 T10N R5W 35°7'20"N 107°20'30"W
4: Mesita 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: 2,100-ft decline (13% grade)
8: 1,000 tpd max - production included with Jackpile Mine
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
12: average grade 0.15-0.34% U_3O_8
13: Sandstone
14: mined 1/74 to 11/81 by Anaconda; reserves depleted
15: FN 3/4/82; see Jackpile Mine for references; Green and others (1980c, #80); Hilpert (1969, p. 57)
16: figure 16

1: 10N.5W.4.440
2: P-11
3: SE1/4 SE1/4 4 T10N R5W 35°7'30"N 107°22'25"W
4: Mesita 7-1/2 Elevation 6,100 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 170-ft adit
8: production is company confidential
10: Juassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 11/75 to 2/76 by Anaconda
15: FN 3/4/82; see Jackpile Mine for references
16: figure 16

1: 10N.5W.4.400
2: P-13
3: SE1/4 4 T10N R5W 35°7'25"N 107°22'28"W
4: Mesita 7-1/2 Elevation 6,160 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 150-ft adit - 2 adits
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 6/81 to 1/82 by Anaconda; problems with flooding
15: FN 3/4/82; see Jackpile Mine for references
16: figure 16

1: 1ØN.5W.4, 5; 11N.5W.33
2: Paguate Mine (see Jackpile Mine)
3: 4, 5 T1ØN R5W, 33 T11N R5W 35°7'5Ø"N 1Ø7°22'55"W
4: Moquino 7-1/2, Seboyeta 7-1/2 Elevation 6,ØØØ-6,2ØØ ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 2 open pits
8: production included with Jackpile Mine
9: reserves remaining
1Ø: Jurassic Morrison Fm-Brushy Basin Member-Jackpile sandstone
11: mineralization associated with organic material in fluvial sandstone, upper 2/3 of sandstone
12: coffinite, uraninite, minor uranium minerals
13: Sandstone
14: mined 1953-1981 by Anaconda
15: (see Jackpile for more references); FN 3/4/82; Green and others (198Øc, #81); CRIB (1981)
16: figures 12 and 16

1: 8N.6W.16.124
2: Paisano Mine (Balo Mining Claims)
3: NW1/4 16 T8N R6W 34°55'2Ø"lat 1Ø7°28'28"long
4: South Butte 7-1/2 Elevation 6,2ØØ ft
5: Laguna subdistrict-Grants uranium district
6: U
7: open pit - now covered or caved 2-ft deep
8: 9 tons ore yielding 34 lbs U_3O_8 (Ø.18%); 92% $CaCO_3$
9: twice background (Anderson, 198Ø)
1Ø: Jurassic Todilto Limestone (lacustrine)
11: mineralizaion associated with intraformational folds, organic debris
12: uraninite, tyuyamunite
13: Limestone
14: Laguna Indian Reservation; mined 3rd 1/4 1957
15: Pierson and others (1981, #5); Anderson, O.J. (198Ø); Hilpert (1969, p. 6Ø3, #23); PRA EP:R-286; CRIB (1982); USAEC files (196Ø)

1: 11S.5W.33.342
2: PW 2 and 3
3: C S1/2 33 T11N R5W 35°7'12"N 1Ø7°22'15"W
4: Moquino 7-1/2 Elevation 5,98Ø ft
5: Laguna subdistrict-Grants uranium district
6: U, V
7: 65-ft adit
8: production included with Jackpile Mine
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 2/78 to 8/8Ø by Anaconda
15: FN 3/4/82; see Jackpile Mine for references
16: figure 16

1: 9N.6W.17.114
2: Parjae
3: NW1/4 17 T9N R6W 35°00'50"N 107°29'59"W
4: Laguna 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: bulldozer cut
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized conglomeratic sandsone beneath channel scour
13: Sandstone
15: Green and others (1980c, #90); Hilpert (1969, p. 57); Moench (1963a); PRR unnumbered (1955)

1: 12N.9W.4.212
2: Red Bluff #1 (Elkins and Jones)
3: NE1/4 4 T12N R9W 35°18'10"N 107°47'25"W
4: Dos Lomas 7-1/2 Elevation 6,900 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: shallow pit
8: total production Red Bluff-Gay Eagle group - 45,127 tons ore yielding 180,067 lbs U_3O_8 (0.20%); 49,831 lbs V_2O_5
10: Jurassic Todilto Limestone
11: ore in crinkly zone
13: Limestone
14: includes total production from Red Bluff #1-10 and Gay Eagle; little, if any, production from Red Buff #1, claim map by Anderson, O.J. (1980)
15: Green and others (1980c, #291); Anderson, O.J. (1980); PRR GJEB-11 (1950)

1: 12N.9W.4.221
2: Red Bluff #2 and 4
3: NE1/4 4 T12N R9W 35°18'00"N 107°47'20"W
4: Dos Lomas 7-1/2 Elevation 6,900 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: 2,756 tons ore yielding 10,157 lbs U_3O_8 (0.18%)
10: Jurassic Todilto Limestone
11: several small deposits
13: Limestone
15: PRR GJEB-11 (1950); CEB-11 (1950); USAEC files (1960)

1: 12N.9W.4.214
2: Red Bluff #3, 5, and 9
3: NE1/4 4 T12N R9W 35°18'00"N 107°47'18"W
4: Dos Lomas 7-1/2 Elevation 6,980 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: 457 tons ore yielding 1,350 lbs U_3O_8 (0.15%); 1,220 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several small deposits in crinkly zone
13: Limestone
14: mined 1952-1956 by Mesa Mining Co.
15: Anderson, O.J. (1980); Green and others (1980c, #103); Hilpert (1969, p. 58-59, #24, 25, 27); Anderson, E.C. (1955); PRR CEB-11 (1950); GJEB-11 (1950); USAEC files (1960)

1: 12N.9W.4.342
2: Red Bluff #7
3: SW1/4 4 T12N R9W 35°17'35"N 107°47'35"W
4: Dos Lomas 7-1/2 Elevation 6,970 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: 587 tons ore yielding 2,274 lbs U_3O_8 (0.19%); 890 lbs V_2O_5
10: Jurassic Todilto Limestone
11: two or more small deposits in the crinkly zone
13: Limestone
14: mined 1953-1958; additional production included in Red Bluff #10
15: Anderson, O.J. (1980); Green and others (1980c, #105); Hilpert (1969, p. 59, #28); Anderson, E.C. (1955); PRR CEB-11 (1950); CEB-RR-25A (1951); USBM files (1955); USAEC files (1960)

1: 12N.9W.4.433
2: Red Bluff #8
3: SE1/4 4 T12N R9W 35°17'30"N 107°47'30"W
4: Dos Lomas 7-1/2 Elevation 7,050 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: 2,490 tons ore yielding 9,465 lbs U_3O_8 (0.19%); 9,381 lbs V_2O_5
10: Jurassic Todilto Limestone
11: cluster of small deposits
13: Limestone
14: additional production included in Red Bluff #10
15: Anderson, O.J. (1980); Green and others (1980c, #109); Hilpert (1969, p. 59, #26); U.S. Atomic Energy Commission (1959a, p. 49); Anderson, E.C. (1955); PRR-CEB-RR-25A (1951); USBM files (1955); USAEC files (1960)

1: 12N.9W.4.434
2: Red Bluff #10
3: SE1/4 4 T12N R9W 35°17'30"N 107°47'15"W
4: Dos Lomas 7-1/2 Elevation 7,070 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: 41,914 tons ore yielding 168,560 lbs U_3O_8 (0.20%); 37,116 lbs V_2O_5 from Red Bluff #7, 8, and 10
10: Jurassic Todilto Limestone
13: Limestone
15: Anderson, O.J. (1980); Green and others (1980c, #103); Hilpert (1969, p. 59, #13); Anderson, E.C. (1955); USAEC files (1960)

1: 11N.4W.19.300
2: Saint Anthony-Open Pit 2 (Cebolleta Grant)
3: SW1/4 19, N1/2 30 T11N R4W 35°9'45"N 107°17'45"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: large open pit - 75 ft deep
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: 4 horizons
13: Sandstone
14: stripping ratio in 1977 1:10
15: Green and others (1980c, #68); Chapman, Wood, and Griswold, Inc. (1979, #6); Hilpert (1969, p. 57); CRIB (1981)
16: figure 12

1: 11N.4W.30.110
2: Saint Anthony Mine (Seboyeta, Hanosh, M-6, Bibo, Cebolleta Grant)
3: NW1/4 30 T11N R4W 35°9'30"N 107°18'20"W
4: Moquino 7-1/2 Elevation 6,091 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 298-ft shaft, shallow open pits
8: 78,722 tons ore yielding 320,942 lbs U_3O_8 (0.20%); 100 lbs V_2O_5
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: mined 1953-1960; majority of ore miend from underground, although a small amount was mined from open pits (see Bibo 11N.4W.29.313); located on topographic quadrangle map
15: Green and others (1980c, #20); Holmquist (1970, p. 103); U.S. Atomic Energy Commission (1970, p. 223; 1959a, p. 47); Hilpert (1969, p. 57); Moench and Schlee (1967, p. 93-94); Mathewson and Allison (1954); PRR ED-R-213 (1953); ED-R-220 (1953); USAEC files (1960)
16: figure 12

1: 11N.4W.30.240
2: Saint Anthony Mine-Open Pit 1 (Bibo)
3: NE1/4 30 T11N R4W 35°9'25"N 107°17'35"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: large open pit - 75 ft deep
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: 4 horizons
13: Sandstone
14: stripping ratio in 1977 1:10
15: Baird and others (1980); Green and others (1980c, #69); Hilpert (1967, p. 57)
16: figure 12

1: 11N.5W.24.411
2: Saint Anthony-Underground (Willie P ore body)
3: SE1/4 24 T11N R5W 35°9'55"N 107°18'58"W
4: Moquino 7-1/2 Elevation 6,181 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: 357-ft shaft
8: production is company confidential
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: economic mineralization is associated with medium- to coarse-grained sandstones displaying large-scale tabular cross-stratificaion in 3 horizons
13: Sandstone
14: mine map by Baird and others (1980); mined 1977-1980 by United Nuclear
15: Baird and others (1980); Green and others (1980c, #73, 75); Chapman, Wood, and Griswold, Inc. (1979, #5); Siemers and Austin (1979); Hilpert (1969, p. 57); Moench and Schlee (1967)
16: figure 12

1: 12N.4W.15, 22
2: San Antonio Valley (Project 69-SA, 69-PL, Exxon)
3: 15, 22 T12N R4W 35°15'48"N 107°14'45"W
4: La Gotera 7-1/2, Marquez 7-1/2 Elevation 6,630 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes-plans for pilot leach plant, depth 925 ft
8: no production
9: assay values range up to 0.38% U_3O_8
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1 mi long, 1000 ft wide, 6-12 ft thick deposit associated with organic material in fluvial sandstone
13: sandstone
14: cancelled plans in March, 1981, because of market conditions
15: FN 3/4/82; Hatchell (1981); Moore, S.C. and Laverty (1980); Chenoweth and Holen (1980, p. 18-19, #31); USAEC files (1960)

1: 12N.4W.21.100
2: San Antonio Valley (Project 69-SA, Exxon)
3: NW1/4 21 T12N R4W 35°15'30"N 107°1'2"W
4: Marquez 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes-plans for pilot leach plant-depth 925-ft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Moore, S.C. and Laverty (1980); Green and others (1980c, #60); Chapman, Wood, and Griswold, Inc. (1979, #C); CRIB (1982)

1: 12N.4W.4.300
2: San Antonio Valley (Project 69-MQ, Exxon)
3: SW1/4 4 T12N R4W 35°17'35"N 107°16'5"W
4: Marquez 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes-depth 900-1,000 ft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1-2 horizons
13: Sandstone
15: Moore, S.C. and Laverty (1980); Green and others (1980c, #59); Chapman, Wood, and Griswold, Inc. (1979, #D)

1: 9N.5W.27.211
2: Sandy Mine (South Laguna, Pit I and II)
3: NE1/4 27 T9N R5W 34°59'13" 107°20'55"W
4: Dough Mountain 7-1/2 Elevation 5,950 ft
5: Laguna subdistrict-Grants uranium district
6: U, V
7: 2 open pits (1967) 30-ft deep
8: 939 tons ore yielding 2,221 lbs U_3O_8 (0.12%); 2,579 lbs V_2O_5
10: Jurassic Entrada Sandstone and Todilto Limestone
11: ore deposits mostly in sandstone (tabular modified by rolls) and extend into overlying limestone
12: carnotite, tyuyamunite, metatyuyamunite, uraninite, coffinite
13: Sandstone-tabular/Limestone
14: Laguna Indian Reservation; discovered in 1950; mine map by Moench and Schlee (1967)
15: Pierson and others (1981, #1); Anderson, O.J. (1980); Moench and Schlee (1967, p. 100-103); Hilpert (1969, p. 56, #76); Willson (1957); PRR ED-R-477 (1951); CRIB files (1982); USAEC files (1960)

1: 13N.8W.30.243
2: San Mateo (Section 30, Rare Metals)
3: SE1/4 NE1/2 30 T13N R8W 35°19'42"N 107°43'14"W
4: San Mateo 7-1/2 Elevation 7,020 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 1,043-ft vertical shaft
8: 833,176 tons ore yielding 2,834,962 lbs U_3O_8 (0.17%) until 1970
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: several deposits elongated southwestward, 3 horizons
13: Sandstone
14: 1959-1971 by United Nuclear Corp.
15: Anderson, O.J. (1980); Green and others (1980c, #93); Chapman, Wood, and Griswold, Inc. (1979, #13); Holmquist (1970, p. 46); Hilpert (1969, p. 59); U.S. Atomic Energy Commission (1959a, p. 60); USAEC files (1960); CRIB (1982)
16: figure 11

1: 12N.9W.3
2: Section 3 (Lone Pine-Bullard Uranium?)
3: W1/2 3 T12N R9W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: bulldozer trench
8: no production
9: abnormal radioactivity reported
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: leased by F.A. Sitton
15: Green and others (1980c, #292?); USAEC files (1960)

1: 10N.3W.4.412
2: Section 4
3: C E1/2 4 T10N R3W 35°7'25"N 107°9'5"W
4: Mesa Gigante 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: short adit
8: no production
10: Jurassic Morrison Formation-Recapture Member
11: mineralized zone (3 in thick) along contact between carbonaceous and conglomeratic sandstones
13: Sandstone
15: Green and others (1980c, #85); Hilpert (1969, p. 57); Moench and Schlee (1967, p. 98-100); Moench and Puffett (1963)

1: 12N.9W.4
2: Section 4 (Black Hawk-Bunney, UDC, Gay Eagle, Red Bluff #1-#5, #7-10, Christmas Day)
3: 4 T12N R9W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pits
8: total production: 59,035 tons ore yielding 253,063 lbs U_3O_8 (0.21%); 61,188 lbs V_2O_5
10: Jurassic Todilto Limestone
11: up to 18 separate ore bodies - most are mined out
13: Limestone
14: mined 1952-1967 (see individual claims listed above)
15: Anderson, O.J. (1980); Green and others (1980c, #290); Hilpert (1969, p. 59); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 49); Chew (1956); Anderson, E.C. (1955); USAEC files (1967); CRIB (1982)

1: 12N.9W.9.120
2: Section 9 Mine (Unknown, Mark Elkins)
3: NW1/4 9 T12N R9W 35°17'15"N 107°47'45"W
4: Dos Lomas 7-1/2 Elevation 7,040 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, fluorite, barite
7: open pits (35 ft deep)
8: 64,424 tons ore yielding 189,778 lbs U_3O_8 (0.15%); 112,584 lbs V_2O_5
10: Jurassic Todilto Limestone, Summerville Formation
11: 25 orebodies associated with intraformational folds in Todilto and Summerville limestones
13: Limestone
14: mined 1950 by Fred Glover, 1953-1962 by Farris Mines (Anaconda); first ore shipment from Ambrosia Lake area
15: Anderson, O.J. (1980); Green and others (1980c, #112-115); Hilpert (1969, p. 59, #30); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 50); Anderson, E.C. (1955); PRR CEB-12 (1959); CRIB (1982)

1: 12N.9W.9.131
2: Section 9 Adit
3: SW1/4 NW1/4 9 T12N R9W 35°17'5"N 107°47'55"W
4: Dos Lomas 7-1/2 Elevation 7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open cut, adit
8: production included Section 9 Mine (12N.9W.9.120)
10: Jurassic Todilto Limestone
13: Limestone
15: Anderson, O.J. (1980); Green and others (1980c, #113); Hilpert (1969, p. 59)

1: 12N.9W.9.142
2: Section 9 (Anaconda-SWQ)
3: C 9 T12N R9W 35°16'56"N 107°47'35"W
4: Dos Lomas 7-1/2 Elevation 7,010 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit (depth 10-30 ft)
8: production included Section 9 Mine (12N.9W.9.120)
10: Jurassic Todilto Limestone
13: Limestone
15: Anderson, O.J. (1980); Green and others (1980c, #115); Hilpert (1969, p. 59); U.S. Atomic Energy Commission (1959a, p. 50)

1: 12N.9W.9.213
2: Section 9 NE
3: W1/2 NE1/4 9 T12N R9W 35°17'12"N 107°47'30"W
4: Dos Lomas 7-1/2 Elevation 7,040 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: production included in Section 9 Mine (12N.9W.9.120)
10: Jurassic Todilto Limestone
13: Limestone
15: Anderson, O.J. (1980); Green and others (1980c, #114); Hilpert (1969, p. 59); PRR CEB-12 (1959)

1: 13N.8W.19.300
2: Section 19 (Keradamex-Gulf, Norandex)
3: C S1/2 19 T13N R8W 35°20'15"N 107°43'35"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (912-942 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: 6-33 ft thick; 1 horizon; long, sinous ore body
13: Sandstone
15: Green and others (1980c, #97, 252); Chapman, Wood, and Griswold, Inc. (1979, #L); USAEC files (1960)

1: 12N.9W.22.200
2: Section 22 Linear Trenches (Rose Claims, Unknown)
3: N1/2 22 T12N R9W 35°15'30"N 107°46'15"W
4: Dos Lomas 7-1/2 Elevation 7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: linear prospecting trenches 2-1/2 ft deep
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: claims owned by Anaconda, doubtful any ore was found
15: Anderson, O.J. (1980); USAEC files (1952)

1: 7N.5W.12.220
2: Sonora 1-4 Claims (Windy claims)
3: NE1/4 NE1/4 12 T7N R5W, SW1/4 SW1/4 6 T7N R4W 34o51'27"N 107o18'20"W
4: Cerro Verde 7-1/2 Elevation 5,880 ft
5: Laguna subdistrict-Grants uranium district
6: U, Pb, Cu, Ag(?), Ni(?)
7: cuts along hills near arroyos
8: no production
9: bkgd 20-30 cps, high cps
10: Triassic Chinle Formation intruded by basalt and rhyolite dikes and sills
11: radioactive lenses in nodular limestone and conglomerate adjacent to basalt and rhyolite sills and dikes
12: sulfide minerals
13: Contact-metasomatic
15: FN 3/18/82; McLemore (1982c, #105); Pierson and others (1981, #7); Hilpert (1969, p. 56); PRR ED-R-392 (1954)

1: 10N.5W.16.210
2: South Paguate Orebody
3: N1/2 16 T10N R5W
4: Mesita 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Beck and others (1980)
16: figure 12

1: 12N.9W.11.334
2: Taffy (Bonanza #1, Trustco Corp.)
3: SW1/4 11 T12N R9W 35o16'35"N 107o45'45"W
4: Dos Lomas 7-1/2 Elevation 7,700 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open cuts (51 ft deep)
8: 110 tons ore yielding 362 lbs U308 (0.17%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: ore body associated with plant debris and clay galls, up to 2 ft thick
13: Sandstone
14: mined 1961
15: Anderson, O.J. (1980); Green and others (1980c, #116); Hilpert (1969, p. 39, #98); Granger (1963)

1: 11N.9W.4.411
2: Tom 13 (Tom Group, Vanadium Claim?)
3: SE1/4 4 T11N R9W 35°12'35"N 107°47'25"W
4: Grants 7-1/2 Elevation 7,050 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, Ca
7: several bench cuts - 30 ft deep
8: 32 tons ore yielding 169 lbs U_3O_8 (0.26%), 315 lbs V_2O_5
9: slightly above background (Anderson, O.J., 1980)
10: Jurassic Todilto Limestone
11: small deposit 2-3 ft thick
13: Limestone
14: Anaconda, mined in 1954-1955; locked gates on 5/20/82
15: Green and others (1980c, #120); Anderson, O.J. (1980); Hilpert (1969, p. 58, #47); Anderson, E.C. (1955); USAEC files (1955)

1: 12N.9W.4.442
2: UDC #1-5 (Coffey Mine, VDC)
3: SE1/4 4 T12N R9W 35°17'35"N 107°47'2"W
4: Dos Lomas 7-1/2 Elevation 7,100 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit (80 ft deep)
8: 927 tons ore yielding 3,091 lbs U_3O_8 (0.17%); 1,375 lbs V_2O_5
10: Jurassic Todilto Limestone
11: small deposit in crinkly zone
13: Limestone
14: mined 1953-1954 by Uranium Development Co.
15: Anderson, O.J. (1980); Green and others (1980c, #110); Hilpert (1969, p. 59, #49); Anderson, E.C. (1955)

1: 4N.19W.3.332
2: Unnamed-Quemado
3: SW1/4 SE1/4 3 T4N R19W 34°35'50"N 108°48'45"W
4: Moreno Hill 7-1/2 Elevation 6,900 ft
5: Quemado area
6: U
7: no workings
8: no production
9: 3 times background radioactivity reported
10: Cretaceous Crevasse Canyon Formation
13: Sandstone
14: examined by May and others (1980)
15: May and others (1980, #23)

1: 8N.5W.6.100
2: Unknown-Laguna Reservation (Wilson Todilto Prospect #2)
3: NW1/4 6 T8N R5W
4: South Butte 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
10: Jurassic Todilto Limestone, Summerville Formation
13: Limestone
14: Laguna Indian Reservation
15: Moench (1964b); PRR unnumbered (1955)

1: 8N.6W.5.111
2: Unnamed
3: NW1/4 NW1/4 5 T8N R6W 34°57'20"N 107°29'59"W
4: South Butte 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: several small ore deposits
10: Jurassic Todilto Limestone (lacustrine)
11: several small ore deposits
13: Limestone
14: Laguna Indian Reservation
15: Hilpert (1969, p. 56); Moench and Schlee (1967); Moench (1964b)

1: 8N.6W.5.131
2: Unnamed
3: C W1/2 NW1/4 5 T8N R6W 34°57'18"N 107°30'00"W
4: South Butte 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: Laguna Indian Reservation
15: Hilpert (1969, p. 56); Moench and Schlee (1967)

1: 8N.6W.5.133
2: Unnamed
3: SW1/4 SW1/4 NW1/4 5 T8N R6W 34°57'15"N 107°29'59"W
4: South Butte 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: Laguna Indian Reservation
15: Hilpert (1969, p. 56); Moench and Schlee (1967)

1: 8N.6W.10.333
2: Unnamed
3: SW1/4 SW1/4 10 T8N R6W 34°55'50"N 107°27'45"W
4: South Butte 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Todilto Limestone (lacustrine)
11: small deposit
13: Limestone
14: Laguna Indian Reservation
15: Hilpert (1969, p. 56); Moench (1964b)

1: 8N.6W.11.323
2: Unnamed
3: C W1/2 11 T8N R6W 34°56'10"N 107°26'35"W
4: South Butte 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: Laguna Indian Reservation
15: Hilpert (1969, p. 56); Moench and Schlee (1967); Moench (1964b)

1: 9N.5W.27.134
2: Unknown (South Laguna)
3: NW1/4 27 T9N R5W 34°59'10"N 107°20'30"W
4: Dough Mountains 7-1/2 Elevation 5,950 ft
5: Laguna subdistrict-Grants uranium district
6: U, V
8: no production
10: Jurassic Todilto Limestone (lacustrine)
11: mineralization associated with intraformational folds, organic debris
13: Limestone
14: Laguna Indian Reservation
15: Hilpert (1969, p. 56); Pierson and others (1981, #3)

1: 9N.5W.27.231
2: Unknown (South Laguna)
3: NE1/4 27 T9N R5W 34°59'15"N 107°20'45"W
4: Dough Mountain 7-1/2 Elevation 5,950 ft
5: Laguna subdistrict-Grants uranium district
6: U, V
7:
8: no production
10: Jurassic Todilto Limestone (lacustrine)
11: mineralization associated with intraformational folds, organic debris
13: Limestone
14: Laguna Indian Reservation
15: Pierson and others (1981, #2); Hilpert (1969, p. 56); Hilper and Moench (1960, p. 459)

1: 9N.7W.8.400
2: Unknown
3: SE1/2 8 T9N R7W
4: Cubero 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings--drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Willson (1957)

1: 9N.7W.11.100
2: Unknown
3: NW1/4 11 T9N R7W
4: Cubero 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Willson (1957)

1: 9N.7W.17.300
2: Unknown
3: SW1/4 17 T9N R7W
4: Cubero 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings--drill holes
8: no production
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
15: Willson (1957, p. 34)

1: 10N.3W.27
2: Unknown
3: SE1/4 27 T10N R3W 35°4'10"N 107°8'5"W
4: Mesa Gigante 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: 2 open-cuts
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980c, #87); Hilpert (1969, p. 57); Moench and Schlee (1967); Moench and Puffett (1963)

1: 10N.3W.34.100
2: Unknown
3: NW1/4 34 T10N R3W 35°3'55"N 107°8'50"W
4: Mesa Gigante 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #88); Hilpert (1969, p. 57); Moench and Schlee (1967)

1: 10N.3W.34.200
2: Unknown
3: NE1/4 34 T10N R3W 35°3'45"N 107°8'45"W
4: Mesa Gigante 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #89); Hilpert (1969, p. 57); Moench and Schlee (1967, p. 98-100)

1: 10N.5W.14.110
2: Unknown
3: NW1/4 14 T10N R5W 35°7'28"N 107°19'55"W
4: Mesita 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: outcrop-no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #83); Hilpert (1969 p. 57)

1: 10N.7W.33
2: Unknown
3: S1/2 33 T10N R7W
4: Cubero 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Willson (1957)

1: 11N.4W.7.333
2: Unknown
3: SW1/4 7 T11N R4W, SE1/4 12 T11N R5W 35°11'25"N 107°18'38"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Baird and others (1980); Jacobsen (1980)

1: 11N.4W.18.3ØØ
2: Unknown
3: SW1/4 18T11N R4W 35°1Ø'4Ø"N 1Ø7°18'12"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: 2 or more deposits
13: Sandstone
15: Green and others (198Øc, #67); Hilpert (1969, p. 57)

1: 11N.4W.2Ø.332
2: Unknown (St. Anthony)
3: SW1/4 2Ø T11N R4W 35°9'45"N 1Ø7°17'17"W
4: Moquino 7-1/2 Elevation 6,Ø45 ft
5: Laguna subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: examined by Green and others (198Øc)
15: Green and others (198Øc, #278); Nash (1968); Hilpert and Corey (1955)

1: 11N.4W.31.41Ø
2: Unknown
3: N1/2 SE1/4 31 T11N R4W 35°8'1Ø"N 1Ø7°17'4Ø"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: 1,ØØØ-2,ØØØ ft long trench
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone-tabular
15: Green and others (198Øc, #71); Hilpert (1969, p. 57); Schlee and Moench (1961)

1: 11N.5W.24.340
2: Unknown
3: S1/2 S1/2 24 T11N R5W 35°9'40"N 107°19'0"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #74); Hilpert (1969, p. 57)

1: 11N.5W.25.200
2: Unknown
3: NW1/4 25 T11N R5W 35°9'25"N 107°18'50"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #76); Hilpert (1969, p. 57)

1: 11N.9W.9
2: Unknown
3: 9 T11N R9W 35°11'50"N 107°47'20"W
4: Grants 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production recorded in USAEC files
10: Jurassic Todilto Limestone
13: Limestone
14: locked gates on 5/20/82
15: Green and others (1980c, #287)

1: 11N.9W.17
2: Unknown
3: 17 T11N R9W
4: Grants 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Mancos Shale
11: radioactive shale
13: Shale
15: PRR DEB-260 (1951)

1: 11N.12W.17.133
2: Unknown-roadcut
3: 17, 18 (line) T11N R12W 35°10'55"N 108°8'00"W
4: Post Office Flats 7-1/2 Elevation 8,240 ft
5: Zuni Mountains district
6: Cu, U
7: roadcut-no workings although a prospect pit is reported to occur nearby
8: no production
9: bkgd 50 cps, high 110 cps
10: Precambrian gneissic granite
11: radioactive shear zones
12: copper oxides
13: Hydrothermal-vein
15: FN 9/14/80; Goddard (1966); PRR D-239(1951); D-241 (1951)
16: figure 23

1: 11N.13W.1.331
2: Unknown-Section 1
3: SW1/4 1 T11N R13W 35°12'29"N 108°7'11"W
4: Post Office Flats 7-1/2 Elevation 7,920 ft
5: Zuni Mountains district
6: U, fluorite
7: no workings-outcrop in arroyo
8: no production
9: bkgd 50 cps, high 100 cps
10: Precambrian syenite in gneissic granite
11: radioactive fluorite vein intruding syenite and granite
12: fluorite
13: Hydrothermal-vein
15: FN 7/24/81; Goddard (1966)
16: figure 23

1: 11N.15W.23
2: Unknown (Airborne Anomaly near Dents Ranch)
3: 23 T11N R15W
4: Ramah 7-1/2
5:
6: U
7: no workings
8: no production
10: Triassic Chinle Formation-lower member
11: mineralized shale-sandstone contact
12: 0.01 U_3O_8 (PRR)
13: Sandstone/Shale
15: PRR ED-R-478 (1955)

1: 12N.4W.23
2: Unknown
3: C E1/2 23 T12N R4W 35°15'15"N 107°13'25"W
4: La Gotera 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Hilpert (1969, p. 58)

1: 12N.4W.30
2: Unknown
3: W1/2 30 T12N R4W 35°14'20"N 107°18'15"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #63); Hilpert (1969, p. 58)

1: 12N.4W.30.400
2: Unknown
3: SE1/4 30 T12N R4W 35°14'5"N 107°17'40"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #64); Hilpert (1969, p. 58)

1: 12N.5W.35
2: Unknown
3: N1/2 35 T12N R5W 35°13'45"N 107°20'10"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #65); Hilpert (1969, p. 58)

1: 12N.5W.36
2: Unknown
3: E1/2 36 T12N R5W 35°13'10"N 107°18'35"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Green and others (1980c, #66); Hilpert (1969, p. 58)

1: 12N.9W.19
2: Unknown-Section 19 (Mark Elkins)
3: N1/2 19 T12N R9W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: doubtful if any mineralization exists as the area is covered by alluvium
15: Green and others (1980c, #293); Thaden and others (1967); PRR CEB-212 (1951)

1: 12N.10W.33
2: Unknown
3: 33 T12N R10W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: Anaconda
15: Green and others (1980c, #294)

1: 12N.9W.33.333
2: Vanadium No. 1 (M. Mirabel)
3: 32, 33 T12N R9W
4: Grants 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings found on 5/20/82
8: no production
9: no anamalous radioactivity found on 5/20/82
10: Jurassic Todilto Limestone
13: Limestone
15: FN 5/20/82; Green and others (1980c, #288); PRR 203-AEC (1951); CEB-RR-29 (1951)

1: 10N.15W.14.200
2: Wilcox Ranch
3: NE1/4 14 T10N R15W
4: Togeye Lake 7-1/2
5: Grants uranium district
6: U
7: drill holes
8: no production
10: Triassic Chinle Formation-Shinarump Member
12: 0.14% U_3O_8 (Hilpert, 1969)
13: Sandstone
15: Green and others (1980b, #113, #116); Hackman and Olson (1977); Hilpert (1969, p. 57); Moench and Schlee (1967)

1: 11N.5W.35.100
2: Wind Whip Mine
3: NW1/4 35 T11N R5W 35°8'30"N 107°20'35"W
4: Moquino 7-1/2
5: Laguna subdistrict-Grants uranium district
6: U, V
7: 70-ft deep open pit
8: 2,788 tons ore yielding 17,325 lbs U_3O_8 (0.31% U_3O_8); 9,298 lbs V_2O_5
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone and Wind Whip dike
11: sandstone-type deposit adjacent to a dike containing uranium minerals along fracture
13: Sandstone-roll-type and tabular/Hydrothermal-vein
14: mined 1954 by Anaconda, now buried by Jackpile dumps
15: Green and others (1980c, #77); Hilpert (1969, p. 57, #101); Moench and Schlee (1967, p. 94-96); Hilpert and Moench (1960, p. 454); Allison (1954); Mathewson and Allison (1954)
16: figures 12 and 16

1: 11N.5W.36.443
2: Woodrow Mine
3: SE1/4 36 T11N R5W, NE1/4 1 T10N R5W 35°8'00"N 107°18'45"W
4: Moquino 7-1/2 Elevation 6,000 ft
5: Laguna subdistrict - Grants uranium district
6: U, V
7: 230-ft vertical shaft, 2 shafts at 100-ft level
8: 5,326 tons ore yielding 134,014 lbs U_3O_8 (1.26%), 4,895 lbs V_2O_5
10: Jurassic Morrison Formation - Breccia-pipe
11: uranium mineralization in near vertical brecciated sandstone pipe, 30 ft diameter
12: coffinite, antunite, novacekite, torbernite, uraninite
13: Breccia-pipe
14: mined 1954-1956 by Anaconda
15: Anderson, O.J. (1980); Green and others (1980c, #78); Chapman, Wood, and Griswold (1979, #7); Hilpert (1967, p. 58, #102); Moench and Schlee (1967, p. 96-97); Wylie (1963); Hilpert and Moench (1960, p. 456); CRIB (1982)
16: figure 12

1: 12N.9W.15.323
2: Zia Mine
3: SW1/4 15 T12N R9W 35°15'50"N 107°46'40"W
4: Dos Lomas 7-1/2 Elevation 7,080 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pits, adit
8: production included with La Jara
10: Jurassic Todilto Limestone, Entrada Sandstone
11: deposits in lower Todilto and upper Entrada
13: Limestone
15: Anderson, O.J. (1980); Green and others (1980c, #117); Hilpert (1969, p. 59, #52); Kittle and others (1967); CRIB (1982)

COLFAX COUNTY

<u>Alphabetical</u> (9 occurrences)

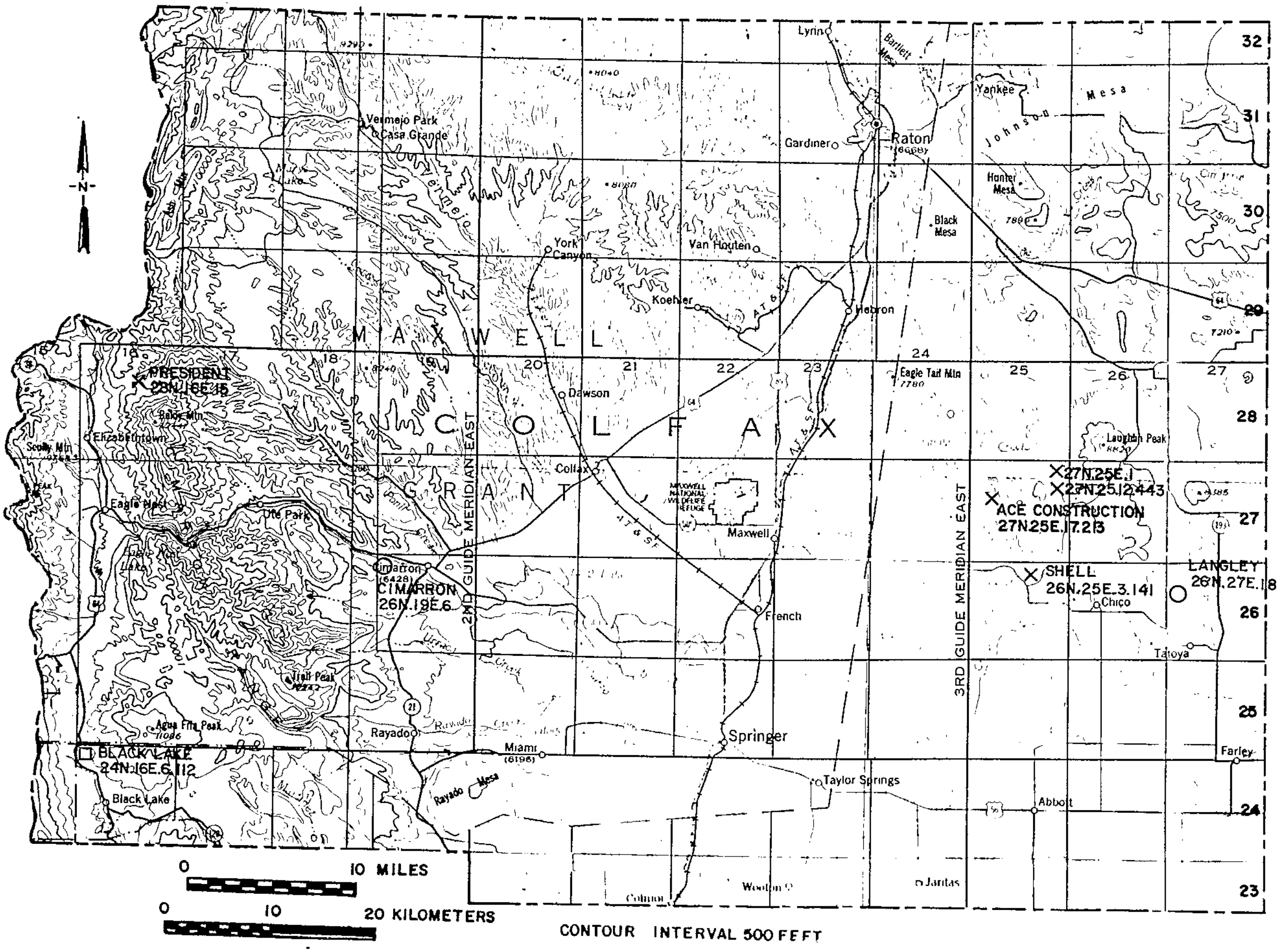
Ace Construction	27N.25E.17.213
Black Lake	24N.16E.6.112
Blasted Pine	27N.25E.1.411
Cimarron--Black-Sandstone deposit	26N.19E.6
Langley Prospect	26N.27E.18
Laughlin Peak	27N.25E.1.2ØØ
Laughlin Peak	27N.25E.12.443
President Mine	28N.16E.15
Shell Prospect	26N.25E.3.141

No Aliases

<u>Numerical</u>

24N.16E.6.112	Black Lake
26N.19E.6	Cimarron--Black-Sandstone deposit
26N.25E.3.141	Shell Prospect
26N.27E.18	Langley Prospect
27N.25E.1.2ØØ	Laughlin Peak
27N.25E.1.411	Blasted Pine
27N.25E.12.443	Laughlin Peak
27N.25E.17.21	Ace Construction
28N.16E.15	President Mine

FIGURE 1-8- RADIOACTIVE OCCURRENCES IN COLFAX COUNTY, NEW MEXICO



1: 27N.25E.17.213
2: Ace Construction
3: NW1/4 NE1/4 17 T17N R25E 36°34'45"N 104°18'10"W
4: Tres Hermanos Peak 7-1/2 Elevation 7,060 ft
5: Chico Hills area
6: U, Th
7: 4 shallow pits
8: no production
10: Tertiary diorite porphyry dike intruding rhyolite flow, basalt cap, and Cretaceous shales and limestones
11: mineralization along margins of dike
12: 278 ppm U (Reid and others, 1980)
13: Contact-metasomatic
14: private property
15: Reid and others (1980a, #11); U.S. Atomic Energy Commission (1970, p. 11)

1: 24N.16E.6.112
2: Black Lake
3: NW1/4 NW1/4 6 T24N R16E 36°20'53"N 105°17'14"W
4: Osha Mountain 7-1/2 Elevation 8,800 ft
6: U, V
7: no workings - road cut along NM Highway 38
8: no production
9: bkgd 30 cps; high 2,000 cps
10: Pennsylvanian-Permian Sangre de Cristo Formation
11: uraniferous black shale and overlying bleached buff to brown arkosic conglomerate containing organic material stocking N5°W 80°W dip
12: metatyuyamunite, 0.13% U_3O_8, 1.0% V_2O_5 (USDOE, WC, 3/8/78); 0.002% U_3O_8 (NMBMMR chem lab, 11/15/82, #2390)
13: Sandstone-tabular
15: FN 6/16/82; Reid and others (1980a, #9); Elevatorski (1979); May and others (1977); Clark, K.F. and Read (1972); USDOE files (WC, petrographic report, 3/8/78)

1: 27N.25E.1.411
2: Blasted Pine
3: NW1/4 SE1/4 1 T27N R25E 36°36'9"N 104°13'53"W
4: Pine Buttes 7-1/2 Elevation 7,200 ft
5: Chico Hills area
6: U, Th
7: pit
8: no production
9: bkgd 50 cps; high 4,000 cps
10: Cretaceous Dakota Sandstone (Tertiary andesite-dacite-phonolite sill in vicinity of occurrence)
11: vein-type mineralization along fractures trending N78°W, up to 1-1/2 ft thick; 0.001% U_3O_8, 0.0002% Th (NMBMMR chem lab, 9/83, #4100)
13: Hydrothermal-vein
15: FN 8/4/83; Reid and others (1980a, #12); Wood, G.H. and others (1953); PRR DEB-RRA-1433 (1954); CRIB (1982)

1: 26N.19E.6
2: Cimarron Black-Sandstone deposit
3: 6 T26N R19E(?)
4: Cimarron 15
5: Cimarron area
6: U, Th
7: no workings
8: no production
9: no anomalous radiometric readings on 6/3/82
10: Cretaceous Trinadad Sandstone
13: Beach-placer Sandstone
14: 3 miles west of Cimarron along Route 64
15: FN 6/3/82; Houston and Murphy (1977, p. A6)

1: 26N.27E.18
2: Langley Prospect
3: 18 T26N R27E
4: Lawrence Arroyo 7-1/2
5: Chico Hills area
6: U, Th
7: pit
8: no production
10: Tertiary andesite and monzonite
12: 0.11% U308 (PRR)
13: Hydrothermal-vein
15: Reid and others (1980a, #15); PRR DEB-RRA-1440 (1954);
DEB-RRA-1439 (1954)

1: 27N.25E.1.200
2: Laughlin Peak
3: 1 T27N R25E, 6 T27N R26E 36°36'20"N 104°13'45"W
4: Pine Buttes 7-1/2
5: Chico Hills area
6: U, Th
7: shaft, pit
8: no production
9: bkgd 50 cps, >10,000 cps
10: Cretaceous Dakota Sandstone in vicinity of Tertiary
intrusive
11: 1,500-ft long vein; 0.051, 0.005% U_3O_8, 0.006, 0.001% Th
(NMBMMR chem lab, 9/83, #4101, 4102)
13 Hydrothermal-vein
15: FN 8/4/83; Staatz (1982)

1: 27N.25E.12.443
2: Laughlin Peak
3: SE1/4 12 T27N R25E 36°35'00"N 104°13'45"W
4: Pine Buttes 7-1/2 Elevation 7,560 ft
5: Chico Hills area
6: U, Th
7: 10 pits
8: no production
10: Tertiary trachyte
11: radioactive fault gouge
13: Hydrothermal-vein
15: Staatz (1982; 1974); Reid and others (1980a, #13); U.S. Atomic Energy Commission (1970, p. 13-14); Walker and Osterwald (1963; 1956); Tschanz (1958); CRIB (1982)

1: 28N.16E.15
2: President Mine
3: 15, 22 T28N R16E (unsurveyed) 36°38'45"N 105°13'30"W
4: Ute Park 15
5: Elizabethtown district
6: Pb, Cu, Au, U(?)
7: 80- to 100-ft shaft, 40-ft shaft, 3 adits
8: no uranium production
10: Tertiary and/or Cretaceous sediments
12: uraninite reported in quartz-pyrite veins (Northrop, 1959)
13: Hydrothermal-vein
14: PRR reports no anomalous radioactivity on dumps
15: Clark, K.F. and Reid (1972); Northrop (1944); PRR M-856 (1953)

1: 26N.25E.3.141
2: Shell Prospect
3: 3 T26N R25E 36°31'1"N 104°16'13"W
4: Tres Hermanos Peak 7-1/2
5: Chico Hills area
6: U, Th
7: 4-ft and 12-ft adits
8: no production
10: Tertiary rhyolite sill
13: Contact-metasmatic
15: Reid and others (1980a, #14); U.S. Atomic Energy Commission (1970, p.12)

CURRY COUNTY

No occurrences

DE BACA COUNTY

Alphabetical (1 occurrence)

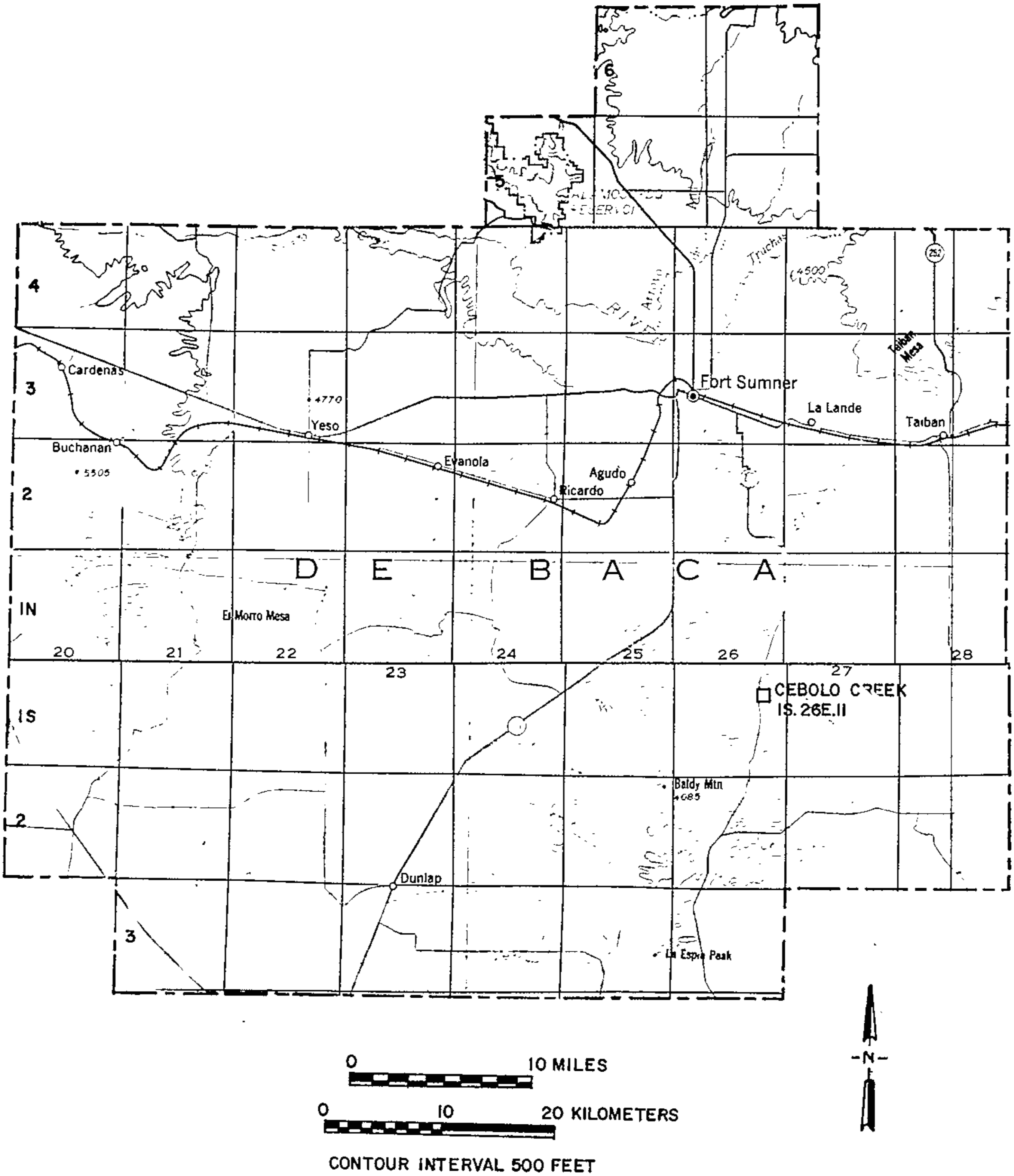
Cebolo Creek	1S.26E.11

No Aliases

Numerical

1S.26E.11	Cebolo Creek

FIGURE 1-9- RADIOACTIVE OCCURRENCES IN DEBACA COUNTY, NEW MEXICO



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DE BACA COUNTY

1: 1S.26E.11
2: Cebolo Creek
3: 11 T1S R26E
4: Eighteenmile Hill 7-1/2
5: Pecos River Valley area
6: U
8: no production
1Ø: Triassic Chinle Formation--lower member
13: Sandstone
15: Finch, W.I. (1972, #3)

DOÑA ANA COUNTY

Alphabetical (4 occurrences)

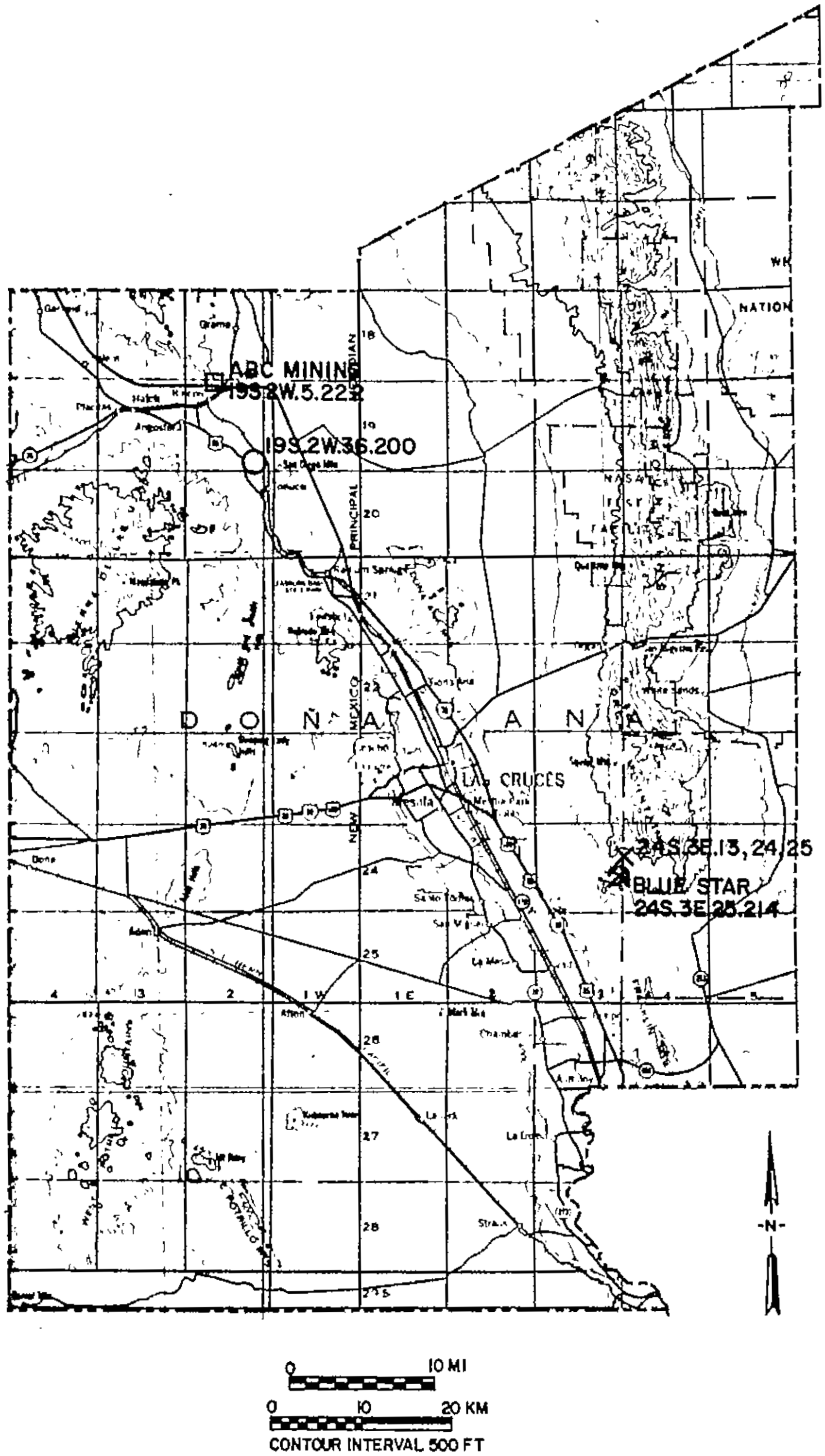
ABC Mining	19S.2W.5.222
Blue Star Claims	24S.3E.25.214
Russel Soper Property	19S.2W.36.200
Unknown-Mesilla Park	24S.3E.13,24,25

Alias	Name	Number
Diamond Gravel Mine	Blue Star Claims	24S.3E.25.214
Ellingson	Blue Star Claims	24S.3E.25.214
Hot Spot Claim	Russel Soper Property	19S.2W.36.200
Snooper Claim(?)	ABC Mining	19S.2W.5.222
Unknown	Russel Soper Property	19S.2W.36.200

Numerical

19S.2W.5.222	ABC Mining
19S.2W.36.200	Russel Soper Property
24S.3E.13,24,25	Unknown-Mesilla Park
24S.3E.25.214	Blue Star Claims

FIGURE 1-10-RADIOACTIVE OCCURRENCES IN DONA ANA COUNTY, NEW MEXICO



DONA ANA COUNTY

1: 19S.2W.5.222
2: ABC Mining (Snooper Claim?)
3: 4,5 T19S R2W 32°41'24"N 107°03'44"W
4: Rincon 7-1/2 Elevation 4,460 ft, 4,640 ft
5: Rio Grande Valley
6: U
7: pit, shaft
8: no production
10: Tertiary Santa Fe Group
11: radioactive quartz sandstone
13: Sandstone
14: U.S. Atomic Energy Commission (1970) gives incorrect location
15: Seager and others (1982); Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 17)

1: 24S.3E.25.214
2: Blue Star Claims (Diamond Gravel Mine, Ellingson)
3: SW1/4 NW1/4 25 T24S R3E 32°11'25"N 107°35'42"W
4: Bishop Cap 7-1/2 Elevation 4,600-4,800 ft
5: Bishop Cap district
6: U, fluorite, Cu
7: 30-ft adit, 75-ft adit, open cuts, drilling
8: 12 tons of ore yielding 14 lbs U_3O_8 (0.06%); 9 lbs V_2O_5
10: Pennsylvanian Magdalena Group-Fusselman Dolomite
11: radioactive fault-zone in limestone, 100 ft long, 4-15 ft thick
12: purple fluorite, barite, calcite, pyrite, galena, 0.17% U_3O_8
13: Hydrothermal-vein
14: 12 tons fluorite produced; uranium produced in 1955 by A.V. Conn
15: Anderson, O.J. (1980); McAnulty (1978, p. 24); Seager (1973); U.S. Atomic Energy Commission (1970, p. 15-16); Williams (1966); Kottlowski (1961); Sur (1946); PRR F-1036, plus supplement (1954); DEB-RRA-1424 (1954); USAEC files (1960); USBM files (1954); MILS (1980)

1: 19S.2W.36.200
2: Russel Soper Property (Unknown, Hot Spot Claim)
3: NW1/4 36 T19S R2W
4: San Diego Mountain
5: Rio Grande Valley
6: U, barite, fluorite
7: no workings
8: no production
10: Recent Travertine deposit(?)
11: radioactive calcareous tufa
12: 0.001% U_3O_8 (PRR)
13: Hot Springs deposit(?)
15: Boyd and Wolfe (1953, p. 142); USAEC PRR DEB-A-520 (1953 plus supplement #1)

1: 24S.3E.13
2: Unknown-Mesilla Park
3: 13, 24, 25 T24S R3E
4: Bishop Cap 7-1/2
5: Bishop Cap district
6: U, fluorite
7: pits
8: no production
1Ø: Pennsylvanian Magdalena Group
11: radioactive fluorite veins in fault zone
12: Ø.Ø57% U_3O_8
13: Hydrothermal-vein
15: PRR DEB-RRA-1424 (1954)

EDDY COUNTY

Alphabetical (5 occurrences)

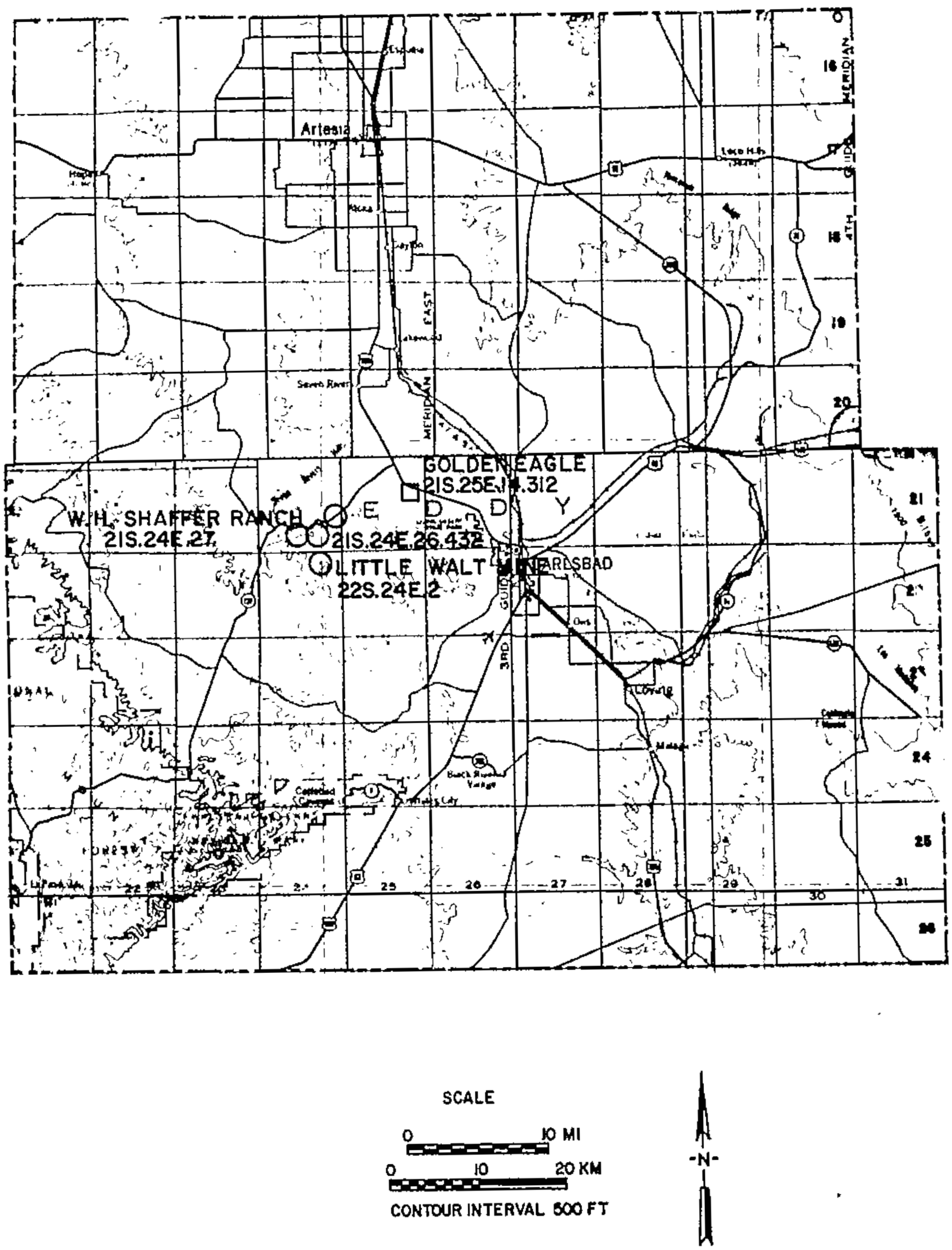
Golden Eagle	21S.25E.14.312
Little Walt Mine	22S.24E.2
Rocky Arroyo Prospect	21S.24E.26.432
Unknown-road cut	21S.24E.24.241
W.H. Shaffer Ranch	21S.24E.27

Alias	Name	Number
Ammon	Golden Eagle	21S.25E.14.213
Lone Eagle	Golden Eagle	21S.25E.14.213
Pitts and Price, Jr.	Rocky Arroyo Prospect	21S.24E.26.432
Stop 1-4	Unknown-road cut	21S.25E.24.241
Teepee Mine	Rocky Arroyo Prospect	21S.24E.26.432

Numerical

21S.24E.26.432	Rocky Arroyo Prospect
21S.24E.27	W.H. Shaffer Ranch
21S.25E.14.312	Golden Eagle
21S.24E.24.241	Unknown-road cut
22S.24E.2	Little Walt Mine

FIGURE 1-11–RADIOACTIVE OCCURRENCES IN EDDY COUNTY, NEW MEXICO



EDDY COUNTY

1: 21S.25E.14.312
2: Golden Eagle (Lone Eagle, Ammon)
3: SW1/4 14 T21S R25E 32°28'40"N 104°22'20"W
4: West Carlsbad 15 Elevation 3,400 ft
5: Carlsbad district
6: Cu, U
7: open pit 20-ft deep, 25-ft decline (caved)
8: no uranium production
9: bkgd 20-30 cps, high 45-50 cps in pit
10: Permian Yates Formation
11: radioactivity associated with copper oxides in sandstones
12: 0.004% U_3O_8, 1.05% Cu (NMBMMR chem lab, 6/22/83, #3736)
13: Sandstone
14: mine plan by Soulè (1956)
15: FN 11/18/81; Soulè (1956, p. 72-74); Gibson (1952, #15); PRR RG-15-51 (1951)

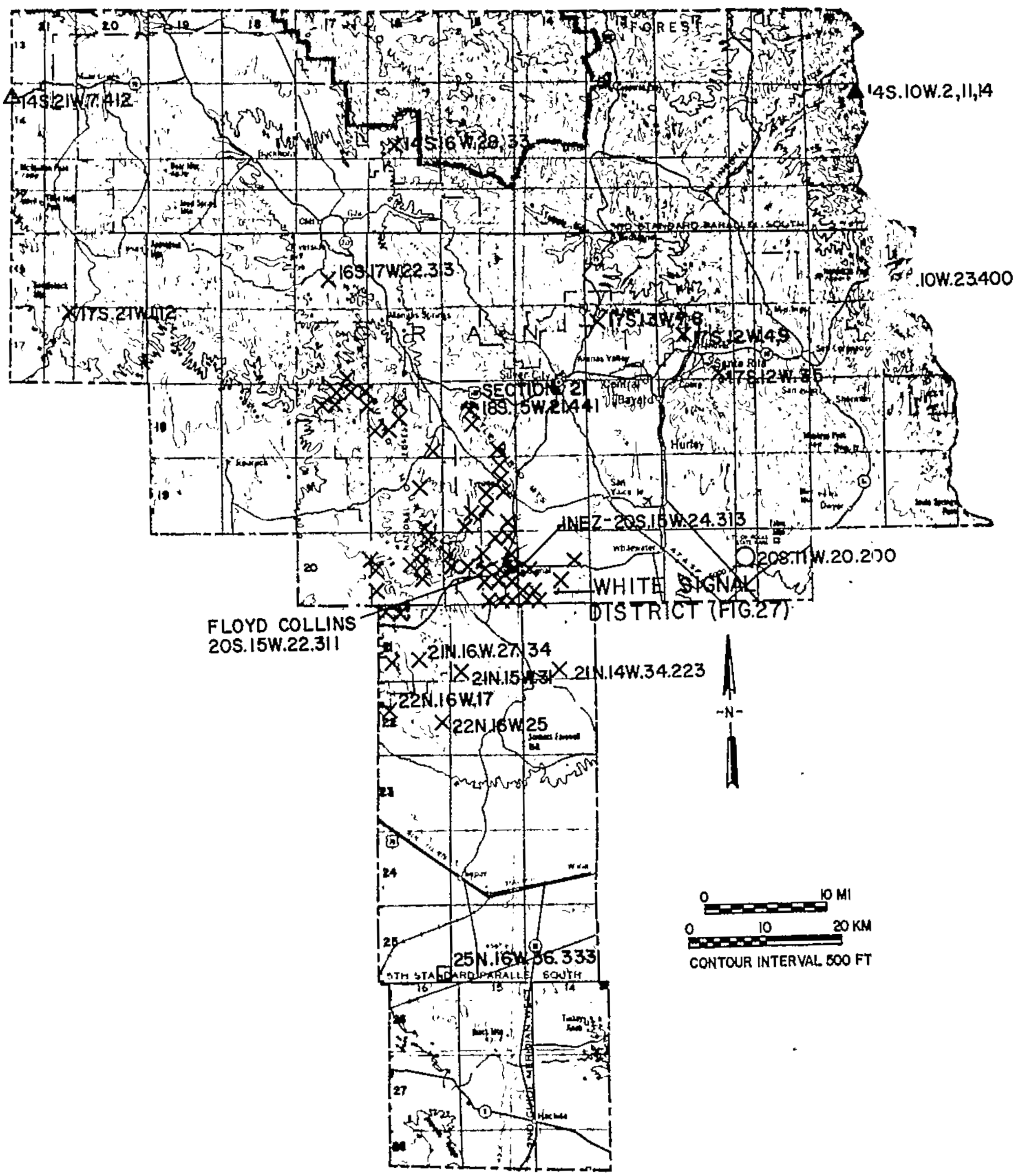
1: 22S.24E.2
2: Little Walt Mine
3: SW1/4 2 T22S R24E
4: West Carlsbad 15
5: Carlsbad area
6: U(?), Cu
7: 25-ft shaft
8: no production
9: bkgd 10-15 cps, high 30 cps
10: Permian Yates Formation
12: slightly radioactive zones in limestone containing hematitic nodules
13: Limestone
15: FN 3/18/81; PRR M-1584 (1954)

1: 21S.24E.26.432
2: Rocky Arroyo Prospect (Teepee Mine, Pitts and Price, Jr.)
3: SE1/4 26 T21S R24E 32°25'45"N 104°28'5"W
4: West Carlsbad 15 Elevation 3,650 ft
5: Carlsbad area
6: U, petroleum
7: 60-ft adit
8: no production
9: bkgd 10-40 cps, high 500 cps, average 100-300 cps
10: Permian Yates or Seven Rivers Formation
11: radiodactivity associated with asphaltic (dead oil) material in dolostone
12: 0.012% U_3O_8 with 0.7% C (NMBMMR chem lab 11/30/81, 2/8/82, #1530)
13: Limestone
15: FN 3/18/81; Anderson, O.J. (1980); Finch, W.I. (1972, #4); U.S. Atomic Energy Commission (1970, p. 18); Motts (1962); Pierce and Rosholt (1961); Waltman (1954); PRR DEB-RRA-1416 (1954); MILS (1981)

1: 21S.24E.24.241
2: Unknown-road cut (Stop 1-4)
3: NE1/4 24 T21S R24E 32°26'00"N 104°26'45"W
4: West Carlsbad 15' Elevation 3,500 ft
5: Carlsbad area
6: U, petroleum
7: no workings-road cut
8: no production
9: bkgd 20 cps, high 70 cps
10: Permian Seven Rivers Formation
11: radioactivity associated with asphaltic material (dead oil) in dolostone above stromalite zone
13: Limestone
14: dead oil material dated as Permian (Thompson and Jacka, PC, 1981)
15: FN 11/19/81; Sam Thompson and Alonso Jacka (PC, 11/19/81);

1: 21S.24E.27
2: W.H. Shaffer Ranch
3: 27 T21S R24E
4: West Carlsbad 15
5: Carlsbad area
6: U(?)
7: 2 pits reported but none found on 11/18/81
8: no production
9: 10 times background radioactivity reported
10: Permian Queens Formation
11: radioactivity reportedly associated with asphaltic material in sandstone, similar to material at the Rocky Arroyo prospect
13: Sandstone (Limestone?)
14: Anadarco's Purdue #1-F well in general area
15: FN 11/18/81; PRR DEB-RRA-1419(1954)

FIGURE 1-12-RADIOACTIVE OCCURENCES IN GRANT COUNTY, NEW MEXICO



Alphabetical (129 occurrences)

Acme-Utah-California	20S.15W.22.421
Alhambra	18S.16W.21.331
Alhambra #1-Bluebell #2-Lindsey #2	20S.15W.21.231
Anomaly No. 1	19S.15W.11.122
Anomaly No. 2	19S.15W.2.344
Anomaly No. 6	20S.14W.19.441
Anomaly No. 7	20S.15W.36.400
Anomaly No. 9	18S.16W.36.341
Anomaly No. 10	18S.16W.36.434
Anomaly No. 15	21S.15W.31.100
Anomaly No. 16	21S.15W.31.200
Anomaly No. 17	21S.15W.31.300
Apache Trail-Black Cat	20S.15W.2.242
Arrowhead Claim	20S.15W.22.342
Austin-Amazon Mine	19S.16W.35.220
Banner	20S.15W.26.113
Bisbee	20S.14W.27.400
Black Beauty Claims	20S.15W.35.123
Black Hawk Mine	18S.16W.16,21
Black Range-Dry Gallinas Canyon	16S.10W.23.400
Black Range (Wilderness Area)	14S.10W.2,11,14
Blue Eagle Fluorspar	18S.18W.21.220
Blue Jay	20S.15W.26.122
Bouncing Bet	20S.15W.24.421
Buckhorn No. 2 Claim	20S.15W.19.224
Calamity	20S.15W.23.432
Carlisle Claim	17S.21W.1,12
Chapman Turquoise Mine	20S.15W.25.244
Chino Mine	17S.12W.35
Clum, Aguilar Mine	14S.16W.28,33
Coal Creek	14S.21W.7.412
Combination	20S.15W.23.213
Continental Mine	17S.12W.4,9
Co-op Mine	21S.16W.29.422
Copper Glance	20S.15W.23.100
Copper King No. 1, 2	19S.15W.15
Edmonds shaft	20S.15W.34.144
Edwards No. 5 Claim	20S.15W.27.441
Eugenie	20S.15W.26.223
Faywood Hot Springs	20S.11W.20.200
Floyd Collins	20S.15W.22.311
Golden Eagle	20S.15W.14.223
Grandview Group	22S.16W.17
High Noon No. 1 Claim	20S.15W.17.443
Hines Werney	21S.14W.34.223
Inez-Hummer	20S.15W.24.313
Jay Hawk Claims	17S.13W.7,8
Langford fluorspar	22S.16W.25
Lettie Mae	20S.15W.22.212
Little Cookie #1	20S.15W.18
Lone Jack	20S.15W.24.321
Lost Glove pegmatite	20S.16W.2.434
May Day 1 and 2	18S.17W.2.122
Merry Widow	20S.15W.22.324
Miss Virginia	19S.15W.36.414
Monarch No. 2, Money Maker, Wild Irishman	20S.15W.19.330
New Years Gift	20S.15W.23.311
North and South Pegmatites	21S.16W.29.244
Osmer Silver	18S.16W.29.414
Paddy Ford	20S.15W.23.421
Paymaster-Silver Lode	20S.15W.28.114
Pegmatites	20S.15W.28.113
Pitman Claims	20S.16W.19.211
Prince Albert #1	18S.17W.2.421
Prince Albert #2	18S.17W.2.244
Purple Heart Mine	18S.17W.3.423
Purple Rock Mine	13S.18W.22.233
Rambling Ruby	13S.17W.1.144
Red Bird	20S.15.23.334
Red Dodson	20S.15W.14.244
Red Hill Turquoise Mine	20S.15W.16.124
Reed Mine	18S.17W.2.142
Rose	13S.16W.29.242
Sandy Group	18S.18W.15.433
Section 21 T18S R15W	13S.15W.21.441
Shamrock	20S.15W.23.330
Silver King	18S.16W.21.223
Springfield Claim	18S.17W.9.412
Summit	20S.16W.23.233
Tullock Peak	20S.15W.25.314
Tunnel Site No. 1	20S.15W.26.244
Tunoco Mining Claims	18S.15W.28.231
Tunoco Mining Claims	18S.15W.28.243
Tyrone Copper Mine	19S.15W.14
Uncle Sam and adjacent properties	20S.14W.32.233
Union Hill Claims	18S.17W.10.242
Unknown	16S.17W.22.313
Unknown	18S.15W.28.211
Unknown	18S.15W.35.143
Unknown	19S.15W.27.414
Unknown	19S.15W.28.334
Unknown	19S.15W.32.242
Unknown	19S.15W.36.132
Unknown	19S.15W.36.133
Unknown	19S.15W.36.332
Unknown	20S.14W.13
Unknown	20S.14W.23.233
Unknown	20S.14W.29.342
Unknown	20S.14W.30.313
Unknown	20S.14W.30.332
Unknown	20S.14W.30.431
Unknown	20S.14W.30.441
Unknown	20S.14W.31.122
Unknown	20S.14W.31.233
Unknown	20S.15W.1.143
Unknown	20S.15W.13.214
Unknown	20S.15W.14.142
Unknown	20S.15W.14.231
Unknown	20S.15W.21.242
Unknown	20S.15W.23.222
Unknown	20S.15W.26.124
Unknown	20S.15W.26.221
Unknown	20S.15W.26.422
Unknown	20S.15W.26.442
Unknown	20S.15W.27.332
Unknown	20S.15W.28.321
Unknown	20S.16W.14.142
Unknown	20S.16W.18.142
Unknown	20S.16W.26.222
Unknown	20S.16W.30.441
Unknown	21S.16W.4.333
Unknown	21S.16W.6.423
Unknown	20S.16W.22.123
Unknown	20S.16W.36.333
W.F. Claims	18S.17W.12.121
White Bull pegmatites	19S.16W.23.131
White Top Hill	21S.16W.27.134
Wisconsin Group	20S.15W.24.143
Yukon Group	17S.17W.35.344

Alias	Name	Number
Aguilar Mine	Clum, Aguilar Mine	14S.16W.28,33
Alberstone	Wisconsin Group	20S.15W.24.143
Alhambra	Black Hawk Mine	18S.16W.16,21
Anomaly #3	Tunoco Mining Claims	18S.15W.28.231
Anomaly #4	Tunoco Mining Claims	18S.15W.28.243
Anomaly #5	Section 21 T18S R15W	18S.15W.21.441
Anomaly #8	Tullock Peak	20S.15W.25.223
Artiminas Mine	Floyd Collins Mine	20S.15W.22.311
Barnett Shaft	Unknown	20S.16W.26.222
Beam Mining	Coal Creek	14S.21W.7.412
Black Cat	Apache Trail-Black Cat	20S.15W.2.242
Bluebelle #2	Alhambra #1-Bluebell #2-Lindsey #2	20S.15W.21.231
Blue Bird	Coal Creek	14S.21W.7.412
Book Claims	Paddy Ford	20S.15W.23.421
Book Claims	Wisconsin Group	20S.15W.24.143
California	Acme-Utah-California	20S.15W.22.421
Denver Claims	Alhambra #1-Bluebell #2-Lindsey #2	20.15W.21.231
East Vein	Clum, Aguilar Mines	14S.16W.28,33
Fitzi	Wisconsin Group	20S.15W.24.143
George	Clum, Aguilar Mines	14S.16W.28,33
Good Hope	Black Hawk Mine	18S.16W.16,21
Good Luck	Inez-Hummer	20S.15W.24.313
Good Luck	Co-op Mine	21S.16W.29.422
High Point Extension	Austin-Amazon	14S.16W.35.220
Hill Claims	Merry Widow	20S.15W.22.324
Hill Claims	Acme-Utah-California	20S.15W.22.421
Hobson	Silver King	18S.16W.21.223
Hope #1	Summit	20S.16W.23.233
Hunecke	Black Hawk Mine	18S.16W.16,21
J and K Mine	Lettie Mae	20S.15W.22.212
Janet	Wisconsin Group	20S.15W.24.143
Jimmy and Thwarts	Unknown	20S.16W.26.222
Junoco property	Section 21 T18S R15W	18S.15W.21.441
Leachs Claims	Floyd Collins Mine	20S.15W.22.311
Leachs Claims	Merry Widow Mine	20S.15W.22.324
Lindsey #2	Alhambra #1-Bluebell #2-Lindsey #2	20S.15W.21.231
Little May Claim	Lettie Mae	20S.15W.22.212
May Day 1 and 2	Yukon Group	18S.17W.2.344
McCauley	Purple Rock Mine	18S.18W.22.233
Moneymaker Claims	Monarch No. 2, etc.	20S.15W.19.330
Nigger Canyon	Anomaly No. 1	19S.15W.11.122
Oil Center Tool Co.	Section 21 T18S R15W	18S.15W.21.441
Pajaro Azul	Coal Creek	14S.21W.7.412
Ra-Tor uranium claims	Unknown	20S.16W.30.441
Redrock Canyon claims	Section 21 T18S R15W	18S.15W.21.441
Redrock Canyon claims	Tunoco Mining Claims	18S.15W.28.231
Redrock Canyon claims	Tunoco Mining Claims	18S.15W.28.243
Santa Rita	Chino Mine	17S.12W.35
7-X-V Ranch	Inez-Hummer	20S.15W.24.313
Silver Saucer shafts	Jay Hawk Claims	17S.13W.7,8
Spar #1-6	Clum, Aguilar Mines	14S.16W.28,33
Thunderbird Claim	White Top Hill	21S.16W.27.134
Utah	Acme-Utah-California	20S.15W.22.421
Werney Hills	Hines Werney	21S.14W.34.223
Wes William Shaft	Summit	20S.16W.23.233
White Rock	Rhoda #1-8, etc.	21S.17W.1,12
White Top	North and South Pegmatites	21S.16W.29.244
Wild Irishman Claims	Monarch No. 2, etc.	20S.15W.19.330
Wild Irishman Claims	Unknown	20S.16W.26.222
Wisconsin Group	Paddy Ford	20S.15W.23.421

GRANT COUNTY

1: 20S.15W.22.421
2: Acme-Utah-California (Hill Claims)
3: SE1/4 22 T20S R15W 32°33'10"N 108°22'40"W
4: Burro Peak 7-1/2 Elevation 6,084 ft
5: White Signal district-Burro Mountains
6: U, Au
7: 80-ft, 18-ft, and 35-ft shafts, pits, road cuts
8: no uranium production
9: bkgd 50 cps, high 100 cps
10: Precambrian diabase and rhyolite dikes intrude granite
11: mineralization associated with faults in seritized diabase dikes
12: uraninite, torbernite, and autunite reported by Keith (1945)
13: Hydrothermal-vein
15: FN 7/12/80; McLemore (1982a, #279); O'Neill and Thiede (1982, #73y, 74y, 75y, 83y, 85y); Hedlund (1978g, #9, 10); Gillerman (1964); Keith (1945b); PRR unnumbered (1951, 5 separate reports); D-193 (1951); D-195 (1951); CRIB (1982)
16: figure 27

1: 18S.16W.21.331
2: Alhambra
3: SW1/4 21 T18S R16W 32°43'10"N 108°29'55"W
4: Redrock NE 7-1/2, Redrock 15 Elevation 5,700 ft
5: Black Hawk district-Burro Mountains
6: Ag, U, Ni,Co, Cu, Pb, Zn
7: 505-ft and 350-ft shafts plus 2 additional shafts, 1 adit
8: no uranium production, $400,000 Ag production
9: bkgd 50 cps; high on dumps 150 cps
10: Precambrian Burro Mountain granite
11: radioactive fracture up to 15 ft wide (N15°E 80-85°SE)
12: pitchblende, 0.17% U_3O_8 (NMBMMR chem lab, 10/20/80, #9615)
13: Hydrothermal-vein
14: Western States Mineral Resources plans to dewater mine; mine map by Gillerman (1964)
15: FN 7/23/80; McLemore(1982a, #241); O'Neill and Thiede (1982, #33); Hedlund (1980b, #4); Gillerman (1968; 1964); Gillerman and Whitebread (1956); Lovering (1956); Granger and others (1952); Granger (1950); PRR D-187 (1951); USAEC files (1953); CRIB (1982); MILS (1980); USBM files (1953)

1: 20S.15W.21.231
2: Alhambra #1-Bluebelle #2-Lindsey #2 (Denver claims)
3: NE1/4 21 T20S R15W 32°33'28"N 108°23'50"W
4: Burro Peak 7-1/2 Elevation 6,220 ft
5: White Signal district-Burro Mountain
6: U, Au, Ag, Cu, W, Sb
7: 2 shafts (65-ft deep), trench, pits
8: no uranium production
9: bkgd 50 cps; high 100 cps
10: Precambrian Burro Mountain granite and diabase dike
11: mineralization along fractured diabase dike in quartz-hematite vein; strike of dike N20°W dips NE
12: autunite and metatorbernite reported, 26-210 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: FN 7/12/80; McLemore (1982a, #274); O'Neill and Thiede (1982, #68y, 69,70y); Anderson, O.J. (1980); Hedlund (1978g, #4); U.S. Atomic Energy Commission (1970, p. 21); Gillerman (1964, p. 95); Keith (1945b); PRR D-187 (1951); D-191 (1951); D-192 (1951); D-196 (1951)
16: figure 27

1: 19S.15W.11.122
2: Anomaly No. 1 (Nigger Canyon)
3: NW1/4 11 T19S R15W 32°40'30"N 108°21'5"W
4: Tyrone 7-1/2 Elevation 5,800 ft
5: Burro Mountains district-Little Burro Mountains
6: U
7: 10-ft pit
8: no production
9: bkgd 50 cps, high 125 cps
10: Precambrian Burro Mountain granite, basaltic dike
11: radioactive veins along fractures in Mangos fault zone
12: 0.004% U_3O_8 (NMBMMR chem lab, 3/3/83, #3154)
13: Hydrothermal-vein
15: FN 9/22/82; Hedlund (1978d); U.S. Atomic Energy Commission (1970, p. 26-27; 1966, p. 56); Allison and Ove (1957)
16: figure 27

1: 19S.15W.2.344
2: Anomaly No. 2 (Little Burro Mountains)
3: SW1/4 SW1/4 2 T19S R15W 32°40'40"N 108°22'5"W
4: Tyrone 7-1/2 Elevation 5,930 ft
5: Burro Mountains district-Little Burro Mountains
6: U
7: 8-ft pits
8: no uranium production
9: bkgd 50 cps, high 90 cps
10: Precambrian Burro Mountain granite
11: radioactivity associated with fractures along Mangas fault
13: Hydrothermal-vein
15: FN 9/22/82; Hedlund (1978d); U.S. Atomic Energy Commission (1970, p. 28-29; 1966, p. 56); Allison and Ove (1957)

1: 20S.14W.19.441
2: Anomaly No. 6 (White Signal)
3: SE1/4 SE1/4 19 T20S R14W 32°32'40"N 108°19'30"W
4: White Signal 7-1/2 Elevation 5,860 ft
5: White Signal district-Burro Mountains
6: U
7: no workings-outcrop
8: no uranium production
10: Precambrian Burro Mountain granite
12: 0.05% U_3O_8 (Allison and Ove, 1957)
13: Hydrothermal-vein
15: Hedlund (1978h); U.S. Atomic Energy Commission (1970, p. 37-39; 1966, p. 56); Allison and Ove (1957); PRR Unnumbered (1955)
16: figure 27

1: 20S.15W.36.400
2: Anomaly #7 (White Signal)
3: S1/2 36 T20S R15W 32°31'16"N 108°20'45"W
4: White Signal 7-1/2 Elevation 5,760 ft
5: White Signal district-Burro Mountains
6: U
7: no workings-outcrop
8: no production
9: bkgd 50 cps, high 100-120 cps
10: Precambrian Burro Mountain granite
11: radioactive fractured and hematitic-stained granite
12: 0.03% U_3O_8 (Allison and Ove, 1957)
13: Hydrothermal-vein
15: FN 8/6/82; Hedlund (1978h); U.S. Atomic Energy Commission (1970, p. 40-42; 1966, p. 56); Allison and Ove (1957); PRR unnumbered (1955)
16: figure 27

1: 18S.16W.36.341
2: Anomaly No. 9 (Little Burro Mountains)
3: SW1/4 36 T18S R16W 32°31'5"N 108°27'00"W
4: Wind Mountain 7-1/2 Elevation 5,990 ft
5: Black Hawk district-Burro Mountains
6: U, Au, Ag
7: no workings-outcrop
8: no uranium production
10: Precambrian Burro Mountain granite
13: Hydrothremal-vein
15: Hedlund (1978a); U.S. Atomic Energy Commission (1970, p. 46-48; 1966, p. 56); Allison and Ove (1957)

1: 18S.16W.36.434
2: Anomaly No. 10
3: SE1/4 36 T18S R16W 32°31'5"N 108°26'50"W
4: Wind Mountain 7-1/2 Elevation 6,050 ft
5: Black Hawk district-Burro Mountains
6: U
7: no workings-outcrop
8: no uranium production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: Hedlund (1978a); U.S. Atomic Energy Commission (1970, p. 49-52; 1966, p. 56); Allison and Ove (1957)

1: 21S.15W.31.100
2: Anomaly No. 15 (Gold Hill)
3: NW1/4 31 T21S R15W 32°26'20"N 108°26'15"W
4: C-Bar Ranch 7-1/2
5: Burro Mountain district
6: U
7: no workings-outcrop
8: no uranium production
10: Precambrian Burro Mountain granite and Cretaceous Beartooth Quartzite
11: radioactive veins along unconformity between granite and quartzite
13: Hydrothermal-veins
15: Hedlund (1978f); U.S. Atomic Energy Commission (1970, p. 52); Allison and Ove (1957)

1: 21S.15W.31.200
2: Anomaly No. 16 (Gold Hill)
3: NE1/4 31 T21S R15W 32°26'15"N 108°25'50"W
4: C-Bar Ranch 7-1/2
5: Burro Mountain district
6: U
7: no workings-outcrop
8: no uranium production
10: Precambrian Burro Mountain granite and Cretaceous Beartooth Quartzite
11: radioactive veins along unconformity between granite and quartzite
13: Hydrothermal-vein
15: Hedlund (1978f); U.S. Atomic Energy Commission (1970, p. 53); Allison and Ove (1957)

1: 21S.15W.31.300
2: Anomaly No. 17 (Gold Hill)
3: S1/2 31 T21S R15W 32°26'00"N 108°26'00"W
4: C-Bar Ranch 7-1/2
5: Burro Mountain district
6: U
7: no workings-outcrop
8: no uranium production
10: Precambrian Burro Mountain granite and Cretaceous Beartooth Quartzite
11: radioactive veins along unconformity between granite and quartzite
13: Hydrothermal-vein
15: Hedlund (1978f); U.S. Atomic Energy Commission (1970, p. 54); Allison and Ove (1957)

1: 20S.15W.2.242
2: Apache Trail-Black Cat
3: NE1/4 2 T20S R15W 32°36'00"N 108°21'20"W
4: White Signal 7-1/2 Elevation 6,200 ft
5: Burro Mountains district
6: Cu, U, Ag, Au, Bi, Pb, Zn, fluorite
7: 200-ft shaft, inclined shaft, pits
8: 5 carloads 5% Cu and 5 oz/ton Ag, 50 tons 1.5 oz/ton Au and 4% bismuth, no uranium production
10: Precambrian Burro Mountain granite cut by veins, diabase dike
11: mineralization along fault cutting vein and diabase dike, quartz-hematite vein
12: uranium minerals (metatorbernite)
13: Hydrothermal-vein
14: inferred reserves 146,000 tons of 0.01% U, Geologic map by Gillerman (1964, p. 89) and (Bauer, 1951); private property
15: O'Neill and Thiede (1982, #47y); Hedlund (1978h, #23); Gillerman (1964, p. 87-89); Granger and others (1952); Bauer (1951); Keith (1945b); PRR DEB-P-4-1464 (1955); DEB-P-4-1461 (1955); D-181 (1956); CRIB (1982)

1: 20S.15W.22.342
2: Arrowhead Claim
3: 22, 27 T20S R15W 32°32'45"N 108°22'50"W
4: Burro Peak 7-1/2 Elevation 6,100 ft
5: White Signal district-Burro Mountains
6: U
7: trench, 30-ft shaft, pit
8: no uranium production
10: Precambrian Burro Mountain granite intruded by latite dike
12: autunite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #76y); Hedlund (1978g); PRR DEB-P-4-1445 (1955)
16: figure 27

1: 19S.16W.35.220
2: Austin-Amazon Mine (High Point Extension)
3: 25, 26, 35, 36 T19S R16W 32°36'50"N 108°27'40"W
4: Burro Peak 7-1/2 Elevation 6,700 ft
5: Burro Mountains district
6: Cu, Au, U
7: 200-400 ft shafts, pits, trenches, short adits
8: no uranium production, copper production unknown
9: bkgd 50-60 cps, average 100-110 cps, high 150 cps
10: Precambrian Burro Mountain granite intruded by rhyolite, andesite, and quartz momzonite dikes
11: radioactivity associated with copper mineralization along fault zone (N50-55°E, 65-75°W)
12: torbernite, 0.003% U_3O_8, 7.4% Cu, no Au, 0.64 oz/ton Ag (NMBMMR chem lab, 6/22/83, #3745)
13: Hydrothermal-vein
14: geologic map by Gillerman (1964)
15: FN 7/22/80; McLemore (1982a, #262); Hedlund (1978g, #25); Gillerman (1964); PRR unnumbered (1956); CRIB (1982)
16: figure 27

1: 20S.15W.26.113
2: Banner (Unknown)
3: NW1/4 26, NE1/4 27 T20S R15W 32°32'40"N 108°22'25"W
4: White Signal 7-1/2 Elevation 6,010 ft
5: White Signal district-Burro Mountains
6: U, Th, Cu, Pb, Zn
7: caved shaft, pits
8: no uranium production
10: Precambrian Burro Mountain granite
11: radioactive quartz-pyrite veins along Blue Jay fault trending N70°E
12: 33-1,000 ppm U_3O_8, 547 ppm Th (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: active exploration 1980
15: O'Neill and Thiede (1982, #80, 81y, 101y); Hedlund (1978h, #6); Gillerman (1964, p. 91); PRR D-171 (1951); D-172 (1951); MILS (1980)
16: figure 27

1: 20S.14W.27.400
2: Bisbee
3: SE1/4 27 T20S R14W 32°32'00"N 108°23'00"W
4: Burro Peak 7-1/2 Elevation 6,020 ft
5: White Signal district-Burro Mountains
6: U, Au
7: two 80-90 ft shafts, 100-ft adit, pits
8: no uranium production
10: Precambrian Burro Mountain granite, diabase and rhyolite dikes
11: mineralized 3-ft wide vein trending N65°-85°E
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #77y, 78y); Hedlund (1978g, #8); Gillerman (1964)
16: figure 27

1: 20S.15W.35.123
2: Black Beauty Claims
3: NE1/4 35 T20S R15W 32°31'40"N 108°22'5"W
4: White Signal 7-1/2 Elevation 5,890 ft
5: White Signal district-Burro Mountains
6: U
7: open pit (5-ft diameter)
8: no uranium production
9: bkgd 50 cps, average 100-150 cps, high 250 cps
10: Precambrian Burro Mountain granite, rhyolite dike
11: radioactive quartz veins along rhyolite dike trending E-W
13: Hydrothermal-vein
14: radioactive vein could not be traced on surface
15: FN 8/6/82; Hedlund (1978h); USBM files (1949)
16: figure 27

1: 18S.16W.16,21
2: Black Hawk Mine (Good Hope, Alhambra, Hunecke)
3: 16, 21 T18S R16W 32°43'35"N 108°30'00"W
4: Wind Mountain 7-1/2, Redrock NE 7-1/2 Elevation 5,800 ft
5: Black Hawk district-Burro Mountains
6: Ag, U, Ni, Co, Bi, Mo, Zn, Pb, Cu, Au
7: 497-ft shaft (caved), 100-ft shaft, 3 additional shafts, pits
8: uranium production unknown (radium?), Ag production
9: bkgd 50-70 cps; no anomalous readings around dumps
10: Precambrian Burro Mountain granite
11: radioactive vein (N70°E, 60-70°NW) cut by fault
12: pitchblende reported; 2,200 ppm U_3O_8 (O'Neill and Thiede, 1982), 0.005% U_3O_8, 0.08% Cu, 0.05% Pb, 0.06% Zn, 0.0052% Ni, (NMBMMR chem lab, 6/22/83, #3745)
13: Hydrothermal-vein
14: Gene Galassini presently dewatering mine, mine map by Gillerman (1964)
15: FN 7/23/80; McLemore (1982a, #240); O'Neill and Thiede (1982, #29y, 30y, 31, 32y); Hedlund (1978a, 1980b); Gillerman (1968; 1964); Gillerman and Whitebread (1956); Hewitt (1959); Lovering (1956); Granger and others (1952); Granger (1950); Keith (1945b); PRR D-185 (1951), D-186 (1951), D-187 (1951), D-188 (1951), D-189 (1951); CRIB (1982); USBM (1953)

1: 16S.1ØW.23.4ØØ
2: Black Range-Dry Gallinas Canyon (Unknown)
3: SE1/4 23 T16S R1ØW 33°53'45"N 1Ø7°5Ø'3Ø"W
4: San Lorenzo 15' Elevation 6,96Ø ft
5: Black Range
6: U
7: no workings
8: no production
9: bkgd 5Ø cps, high 1ØØ cps on float
1Ø: Tertiary rhyolite
11: radioactivity associated with chert or opal in rhyolite boulder
12: Ø.Ø68% U_3O_8 (Granger and others, 1952)
13: Hydrothermal-vein/volcanogenic
15: FN 7/21/8Ø; Lovering (1956); Granger and others (1952); PRR unnumbered (1951)

1: 14S.1ØW.2,11,14
2: Black Range (Wilderness Area)
3: 2, 11, 14 T14S R1ØW 33°5'N 1Ø7°51"W (approximate)
4: Victoria Peak 7-1/2 Elevation 8,3ØØ-9,4ØØ ft
5: Black Range
6: U
7: may be prospect pits
8: no production
1Ø: Tertiary volcanics
12: pitchblende reported
13: Volcanogenic?
14: could not be found by Granger and Bauer (195Øb)
15: Granger and Bauer (195Øb)

1: 18S.18W.21.22Ø
2: Blue Eagle Fluorspar
3: 21, 28 T18S R18W
4: Redrock 15
5: Redrock area-Telegraph district
6: U, fluorspar, Th
7: short adit
8: no production
1Ø: Precambrian Burro Mountain granite and diabase
11: radioactive fluorspar veins trending NNW, fractures and fault surfaces nearby are radioactive
13: Hydrothermal-vein
14: only Precambrian exposed in 2 sections in NE1/4 21
15: Hedlund (198Øb); Hewitt (1959, p. 124); USBM files (1949)

1: 20S.15W.26.122
2: Blue Jay (Unknown)
3: S1/2 23, N1/2 26 T20S R15W 32°32'40"N 108°21'50"W
4: White Signal 7-1/2 Elevation 5,980 ft
5: White Signal district-Burro Mountains
6: U, Th, Au
7: pits, trenches, shaft, drill holes (0-50 ft deep)
8: no uranium production
9: bkgd 50-70 cps; high 1,500 cps; average on dump 330 cps; diabase 450 cps
10: Precambrian Burro Mountain granite and diabase dike
11: radioactivity associated with quartz-pyrite veins along Blue Jay fault
12: torbernite, autunite, uraninite, pitchblende; 73-5,410 ppm U_3O_8, 220 ppm Th, (O'Neill and Thiede, 1982); 0.036% U_3O_8, trace Au, 0.5 oz/ton Ag (NMBMMR chem lab, 3/17/83, #3290)
13: Hydrothermal-vein
14: indicated reserves of 2,400 tons of 0.04-0.01% U (Granger and others, 1952); mine map by Granger and Bauer (1951a); geologic map by Gillerman (1964, p. 90)
15: FN 7/12/80; O'Neill and Thiede (1982, #100, 101y, 106); Anderson, O.J. (1980); Hedlund (1978h, #2); Gillerman (1964); Lovering (1956); Granger and others (1952); Granger and Bauer (1951a); PRR-D-170 (1951); CRIB (1982); MILS (1980)
16: figure 27

1: 20S.15W.24.421
2: Bouncing Bet
3: 24 T20S R15W 32°33'10"N 108°20'30"W
4: White Signal 7-1/2 Elevation 5,900-6,000 ft
5: White Signal district-Burro Mountains
6: U, Au, Cu
7: 2 shafts, pits, trenches
8: production unknown
9: bkgd 50 cps, high 100 cps
10: Precambrian Burro Mountain granite, rhyolite dike (N30-35°E)
11: radioactive quartz-pyrite veins and altered mafic dike
12: 0.02% U (PRR D-164)
13: Hydrothermal-vein
15: FN 8/20/80; O'Neill and Thiede (1982, #110y, 111y, 112y); Hedlund (1978h, #9); Gillerman (1964); Keith (1945b); PRR D-162 (1951), D-164 (1951)
16: figure 27

1: 2ØS.15W.19.224
2: Buckhorn No. 2 Claim
3: SE1/4 19 T2ØS R15W 32°33'3Ø"N 1Ø8°25'3Ø"W
4: Burro Peak 7-1/2 Elevation 6,68Ø ft
5: Burro Mountains district
6: U
7: pit
8: no uranium production
1Ø: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #51y); Hedlund (1978g); Keith (1945b); PRR unnumbered (1951)

1: 2ØS.15W.23.432
2: Calamity
3: SE1/4 23 T2ØS R15W 32°32'55"N 1Ø8°21'3Ø"W
4: White Signal 7-1/2 Elevation 5,98Ø ft
5: White Signal district-Burro Mountains
6: U, Cu, Au, Bi, W, Mo
7: 2 shafts (1ØØ-ft deep), trenches, pits
8: no uranium production
1Ø: Precambrian Burro Mountain granite, diabase and rhyolite dikes
11: radioactive vein trending N75°E and up to 1-ft wide in Blue Jay fault system
12: 244 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: Southwestern Exploration Associates claimed 1979; examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #99); Anderson, O.J. (198Ø); Hedlund (1978h); Gillerman (1964)
16: figure 27

1: 17S.21W.1,12
2: Carlisle Claims
3: 1, 12 T17S R21W
4: Steeple Rock 15'
5: Steeple Rock district
6: U, Au, Pb, Zn, Cu, Ag
7: shafts, pits
8: no uranium production
1Ø: Tertiary rhyolite
11: radioactaive fault zones
13: Hydrothermal-vein
14: no significant reserves of uranium to be expected; mine maps by Gillerman (1964, p. 187)
15: Griggs and Wagner (1966); Gillerman (1964); PRR DEB-RRA-1169 (1954); CRIB (1982)

1: 20S.15W.25.244
2: Chapman turquoise Mine
3: NE1/2 25 T20S R15W 32°32'20"N 108°20'20"W
4: White Signal 7-1/2 Elevation 5,820 ft
5: White Signal district-Burro Mountains
6: Cu, U, turquoise
7: shaft, adit with glory hole
8: copper production unknown
9: bkgd 50 cps, high 120 cps
10: Precambrian Burro Mountain granite, Tertiary Saddle Mountain rhyolite, diabase dike
11: radioactivity associated with 2 diverging copper veins and altered diabase dike
12: pyrite, turquoise, 63 ppm U_3O_8 (O'Neill and Thiede, 1932)
13: Hydrothermal-vein
15: FN 8/20/80; O'Neill and Thiede (1982, #113); Hedlund (1978h, #8); Gillerman (1964, p. 102); PRR D-168 (1951); PRR D-169 (1951)
16: figure 27

1: 17S.12W.35
2: Chino Mine (Santa Rita)
3: 26, 27, 34, 35 T17S R12W 32°47'38"N 108°3'57"W
4: Santa Rita 7-1/2
5: Santa Rita subdistrict-Central district
6: Cu, Mo, Au, Ag, Pb, U
7: open pit
8: 110,000 tpd; no uranium production
9: radioactivity increases outward from central pit
10: Tertiary Santa Rita stock (quartz monzonite porphyry)
11: radioactive zones in southwestern part of the pit
12: 0.96 ppm U_3O_8 leachate before Cu removal, torbernite
13: Porphyry copper deposit-Orthomagmatic
14: presently closed by Kennecott Copper Corp.
15: FN 11/79; Siemers and Austin (1979); Davis and Guilbert (1973); Hernon and others (1964); Allison and Ove (1957); Foran and Perhac (1954); Granger and others (1952); Kerr and others (1950); Lindgren and others (1910)

1: 14S.16W.28,33
2: Clum, Aguilar Mines (George, Spar #1-6, East Vein)
3: 28, 33 T14S R16W 33°2'30"N 108°30'00"W
4: Canteen Canyon 7-1/2, Canyon Hill 7-1/2, Elevation 5,800 ft
5: Gila district
6: fluorite, U (occurrence?)
7: shaft, trenches, pits, adit
8: no uranium production
9: no anomalous radioactivity on 7/25/80
10: Tertiary latite and andesite
11: purple and green fluorite in breccia fillings
12: 0.29 ppm U, 0.09 ppm Th (Birsoy, 1977)
13: Hydrothermal-vein
15: FN 7/25/80; Birsoy (1977); Williams (1966)

1: 14S.21W.7.412
2: Coal Creek (Beam Mining claims, Pajaro Azul, Blue Bird)
3: SE1/4 7 T14S R21W 33°5'58"N 109°2'50"W
4: Big Lue Mountains 15' Elevation 5,760 ft
5: Mule Creek area
6: U
7: one 6-ft x 10-ft prospect pit
8: no production
9: bkgd 50 cps; high 200 cps, average in pit 100-150 cps
10: Tertiary Hells Hole rhyolite
11: radioactive fluorescent chalcedony cementing rhyolitic breccia in shear zone trending N68°E
12: 0.202% U_3O_8 (NMBMMR chem lab, 11/15/82, #2387)
13: Volcanogenic
14: prospect pit in Arizona but shear zone may extend into New Mexico (about 100 yds west of state line)
15: FN 7/5/82; Briggs (1982a); Rattè and Hedlund (1981); Weber and Willard (1959a); Dave Hedlund (WC, 10/81)

1: 20S.15W.23.213
2: Combination
3: NE1/4 23 T20S R15W 32°33'30"N 108°21'25"W
4: White Signal 7-1/2 Elevation 5,960 ft
5: White Signal district-Burro Mountains
6: U, Au, Ag, Cu
7: 3 shafts (130-ft, 60-ft), caved pits
8: no uranium production; 10,000 tons of gold and silver ore
10: Precambrian Burro Mountain granite
11: radioactive parallel veins (N45°E)
12: meta-torbernite, pyrite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982b, #92y); Gillerman (1964); Hedlund (1978h, #22); Keith (1945); PRR unnumbered (1951)
16: figure 27

1: 17S.12W.4, 9
2: Continental Mine (Fierro-Hanover)
3: 4, 9 T 17S R12W 32°50'31"N 108°5'9"W
4: Santa Rita 7-1/2
5: Central district-Fierro-Hanover subdistrict
6: Cu, Au, Ag, Zn, Pb, U
7: open pit, shaft
8: no uranium production
10: Tertiary Hanover-Fierro stock (granodiorite porphyry)
13: Porphyry copper deposit-contact metasomatic
14: Sharon Steel operators
15: Davis and Guilbert (1973); Jones, W.R. and others (1967); Hernon and others (1964); Lindgren and others (1910)

1: 21S.16W.29.422
2: Co-op Mine area (Good Luck)
3: SE1/4 29, SW1/4 28 T21S R16W 32°27'10"N 108°29'58"W
4: Gold Hill 7-1/2 Elevation 6,520 ft
5: Gold Hill district-Burro Mountains
6: U, Ag, Pb, Zn
7: 475-ft shaft (6 levels), pits, 2 adits
8: $60,000 silver production, no uranium production
9: bkgd 50-100 cps, high 130 cps
10: Precambrian Burro Mountain granite
11: radioactive silver-lead vein adjacent to intersecting fault zone trending N40°W and N70°E
13: Hydrothermal-vein
14: mine map by Gillerman (1964, p. 121)
15: FN 7/13/80; O'Neill and Thiede (1982, #57); Hedlund (1978c, #22); Gilllerman (1964, p. 116)

1: 20S.15W.23.100
2: Copper Glance
3: NE1/4 23 T20S R15W 32°33'00"N 108°21'25"W
4: White Signal 7-1/2 Elevation 5,950 ft
5: White Signal district-Burro Mountains
6: Au, U, Cu
7: 85-ft shaft, trench, cut, pit
8: no uranium production, gold and copper production unknown
10: Precambrian Burro Mountain granite, rhyolite dike
11: radioactive vein (N45°E) 3 ft wide cutting rhyolite dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #93y); Hedlund (1978h, #21); Gillerman (1964, p. 98-99); PRR unnumbered (1951)
16: figure 27

1: 19S.15W.15
2: Copper King No. 1, 2-Whitewater Canyon
3: 15 T19S R15W 32°24'30"N 108°23'40"W
4: Wind Mountain 7-1/2 Elevation 6,060 ft
5: Burro Mountains district
6: Cu
7: adit (30-ft - now caved), pit, 60-ft and 200-ft shafts, now covered, by Tyrone dumps
8: no uranium production
10: Precambrian Burro Mountain granite intruded by quartz veins, pegmatites, diabase dike
11: copper mineralization along fractures
13: Hydrothermal-vein
14: given incorrect location on PRR's and by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #38y); Hedlund (1978a, #10); PRR M-854 (1953); D-694 (1953); USAEC files (1954)

1: 20S.15W.34.144
2: Edmonds shaft
3: C 34 T20S R15W 32°31'29"N 108°22'50"W
4: Burro Peak 7-1/2 Elevation 5,970 ft
5: White Signal district-Burro Mountains
6: Pb, Zn, U, Ag
7: shaft
8: no uranium production
10: Precambrian Burro Mountain granite
11: radioactive vein (N85°W) offset by fault (N35°E)
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #79y); Hedlund (1978g, #7); Gillerman (1964)
16: figure 27

1: 20S.15W.27.441
2: Edwards No. 5 Claim
3: 27 T20S R15W 32°32'00"N 108°22'35"W
4: Burro Peak 7-1/2 Elevation 6,050 ft
5: White Signal district-Burro Mountains
6: U
7: pit
8: no uranium production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #77y); Hedlund (1978g); PRR D-178 (1951)
16: figure 27

1: 20S.15W.26.223
2: Eugenie
3: NE1/4 26 T20S R15W 32°32'30"N 108°21'30"W
4: White Signal 7-1/2 Elevation 5,940 ft
5: White Signal district-Burro Mountains
6: Au, Ag, Cu, U
7: 80-ft shaft with 30 to 40 ft drifts, pits, trenches
8: 500 lbs torbernite in 1920 (Gillerman, 1964), Cu, Au, and Ag production in 1913-1914
10: Precambrian Burro Mountain granite and diabase dike (N45°W, 45°NE)
11: radioactive quartz-pyrite vein (N55°E) and diabase dike
12: torbernite, 70-102 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #102); Anderson, O.J. (1980); Hedlund (1978h, #3); Gillerman (1964); PRR D-173 (1951); MILS (1980)
16: figure 27

1: 20S.11W.20.200
2: Faywood Hot Springs
3: NE1/4 20 T20S R11W 32°33'15"N 107°59'40"W
4: Dwyer 15 Elevation 5,020 ft
5: Faywood Hot Springs
6: U (?)
7: no workings-hot springs were developed for a health spa (now abandoned)
8: no production
9: bkgd 50 cps, average around springs 100-150 cps, high 250 cps
10: Quarternary hot springs tuff
11: radioactie calcareous tuff deposit 25-ft high and 200-ft diameter
13: Hot Springs deposit
14: high Fl content in water samples (Elston, 1957, p. 75); water samples 1.80-3.00 ppb U (Union Carbide Corporation, 1981)
15: FN 3/22/82; Union Carbide Corporation (1981d, #6243, 6244, 6245, 7802); Elston (1957); PRR DEB-P-4-1479 (1956)

1: 20S.15W.22.311
2: Floyd Collins (Leachs, Artiminas Mine #3)
3: 21, 22 (line) T20S R15W 32°33'15"N 108°23'25"W
4: Burro Peak 7-1/2 Elevation 6,160 ft
5: White Signal district-Burro Mountains
6: U, V, Cu, Pb, W
7: 2 shafts (40- and 80-ft deep), pits, open cuts
8: 2 carloads of radium in 1920; 165 tons of ore yielding 489 lbs U_3O_8 (0.15%), 94 lbs V_2O_5
9: bkgd 50-60 cps, high 600 cps
10: Precambrian Burro Mountain granite, diabase dike (N20°[illegible])
11: radioactive minerals filling cavities and veins within altered dike, ore discontinous and spotty, especially down dip
12: antunite, torbernite, uraninite; 124-1,660 ppm U_3O_8 (O'Neill and Thiede, (1982)
13: Hydrothermal-vein
14: mined in 1955, 1959, and 1964 for uranium; geologic map by Gillerman (1964, p. 92)
15: FN 7/12/80; O'Neill and Thiede (1982, #71, 78y); Anderson, O.J. (1980); Hedlund (1978g, #5); Hilpert (1965); Gillerman (1953b; 1964, p. 91); Keith (1945); PRR D-190 (1951); USAEC files (1964); CRIB (198); MILS (1980)
16: figure 27

1: 20S.15W.14.223
2: Golden Eagle (Unknown)
3: NE1/4 14 T20S R15W 32°34'15"N 108°21'40"W
4: White Signal 7-1/2 Elevation 6,120-6,130 ft
5: White Signal district-Burro Mountains
6: U, Au, Cu
7: caved pits, 80-90 ft shaft, drill holes
8: no uranium production
9: bkgd 60-80 cps, high 90 cps
10: Precambrian Burro Mountain granite, diabase dike
11: reported radioactive quartz-pyrite vein at intersection of 2 faults (N70°E and N10-15°W) near diabase dike
13: Hydrothermal-vein
15: FN 7/12/80; O'Neill and Thiede (1982, #88y, 89y); Hedlund (1978h, #15); Gillerman (1964, p. 99); PRR no number (1951)
16: figure 27

1: 22S.16W.17
2: Grandview group (10 claims)
3: 17, 18, 22, 23 T22S R16W 32°23'30"N 108°30'45"W
4: Gold Hill 7-1/2, Lisbon 7-1/2
5: Gold Hills district-Burro Mountains
6: U, Th
7: 2 pits
8: no uranium production
10: Precambrian Burro Mountain granite intruded by basic dikes
12: thorite (Staatz, 1974; 1965); up to 0.72% Th (Staatz, 1974)
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #58y); Staatz (1974; 1965, #23); PRR DEB-P-4-1449 (1955); USBM files (1962); CRIB (1982)

1: 20S.15W.17.443
2: High Noon No. 1 claim (Unnamed, Pegmatite)
3: 17, 20 T20S R15W 32°33'50"N 108°24'30"W
4: Burro Peak 7-1/2 Elevation 6,440 ft
5: White Signal district-Burro Mountains
6: Mica, Nb, Ta, U, Th, REE
7: open cut
8: no uranium production
10: Precambrian Burro Mountain granite, pegmatite
12: radioactive euxenite (Gillerman, 1964, p. 103)
13: Pegmatite
15: O'Neill and Thiede (1982, #63y); Adams, J.W. and others (1980); Hedlund (1978g, #29); Gillerman (1964); Olson, J.C. and Adams (1962); PRR DEB-P-4-1455 (1955); CRIB (1975)
16: figure 27

1: 21S.14W.34.223
2: Hines-Werney (Werney Hills)
3: NE1/4 34 T21S R14W 32°26'25"N 108°16'40"W
4: Werney Hill 7-1/2 Elevation 5,280 ft
5: White Signal district-Burro Mountains
6: U, W, Mo, Au, fluorite
7: 40-ft shaft, 6-ft diameter pit, trenches
8: no uranium production
9: bkgd 10-30 cps, high 400 cps
10: Cambrian Bliss Sandstone
11: radioactive minerals associated with fault and bedding planes in breccia zones (N85°E, N75°E)
12: 0.02% U_3O_8 (NMBMMR chem lab, 10/20/80, #9614)
13: Hydrothermal-vein
15: FN 8/20/80; O'Neill and Thiede (1982, #60); Hedlund (1978e, #1); Williams (1966); Gillerman (1952a; 1964); Lovering (1956); Gillerman and Granger (1952); Granger and others (1952); PRR DEB-P-4-1456 (1955); MILS (1978); CRIB (1982)

1: 20S.15W.24.313
2: Inez-Hummer (Good Luck, 7-X-V Ranch)
3: SW1/4 24 T20S R15W 32°32'58"N 108°21'5"W
4: White Signal 7-1/2 Elevation 5,900 ft
5: White Signal district-Burro Mountains
6: U, V, Au, Cu, Li, W
7: open cuts, adits, pits, 20-21 ft shafts
8: 262 tons ore yielding 848 lbs U_3O_8 (0.16%), 268 lbs V_2O_5
10: Precambrian Burro Mountain granite, diabase dike
11: radioactive quartz-pyrite vein (N75°E) along diabase dike contact
12: torbernite, autunite; 31-4,170 U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: mined 1955 by Western Exploration, geologic map by Gillerman (1964, p. 93)
15: O'Neill and Thiede (1982, #108, 109y); Anderson, O.J. (1980); Hedlund (1978h, #4, #10); Hilpert (1965); Gillerman (1964, p. 93, 98); Keith (1945b); PRR-D-160 (1951); PRR-D-166 (1951); D-161 (1951); D-165 (1951); USAEC files (1960); CRIB (1982); MILS (1980)
16: figure 27

1: 17S.13W.7,8
2: Jay Hawk Claims (Silver Saucer shafts)
3: 7, 8 T17S R13W 32°51'00"N 108°13'15"W
4: Fort Bayard 7-1/2 Elevation 6,650 ft
5: Pinos Altos district
6: Pb, Zn, Ag, Cu, U
7: 95-ft shaft, 145-ft shaft, 35-ft shaft, 28-ft shaft, 85-ft shaft
8: no uranium production
9: bkgd 30 cps, high 80 cps
10: Tertiary intrusives
11: anomalous radioactivity along quartz-veins in granite
13: Hydrothermal-vein
15: FN 9/22/82; Jones, W.R. and others (1970); USBM files (1948)

1: 22S.16W.25
2: Langford fluorspar (Bounds #1, Grandview, Grandrow)
3: S1/2 25, N1/2 36 T22S R16W 32°21'35"N 108°26'28"W
4: Ninetysix Ranch 7-1/2 Elevation 5,499 ft
5: Langford district-Burro Mountains
6: fluorite, U
7: pit
8: fluorite production, no uranium production
10: Precambrian Burro Mountain, rholite and diabase dikes
11: radioactive breccia zone (N15°W, 62°NE) 5 ft wide
12: uranium minerals (autunite), purple fluorite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #59x); Hedlund (1978b, #2); Gillerman (1964; 1952a); Lovering (1956); Gillerman and Granger (1952); Granger and others (1952); CRIB (1982); MILS (1978); USBM files (1962)

1: 20S.15W.22.212
2: Lettie Mae (Little May Claim, J and K Mine)
3: NE1/4 22 T20S R15W 32°33'31"N 108°22'44"W
4: Burro Peak 7-1/2 Elevation 6,100 ft
5: White Signal district-Burro Mountains
6: U, Au
7: 2 shafts, 2 pits
8: no uranium production
10: Precambrian Burro Mountain granite, diabase dike
11: radioactive quartz-pyrite veins in fractured diabase dike
12: assays range 0.01 to 0.08% U_3O_8 (Gaggini, 1948)
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #85y, 86y); Hedlund (1978g); Gaggini (1948); PRR D-193 (1951); D-194 (1951)
16: figure 27

1: 20S.15W.18
2: Little Cookie #1
3: 18 T20S R15W
4: Burro Peak 7-1/2
5: White Signal district-Burro Mountains
6: U, Mn
7: pits
8: no production
10: Precambrian Burro Mountain granite
11: radioactive vein of psilomelane N40°W
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #122x); Hedlund (1978g); U.S. Atomic Energy Commission (1970, p. 20)
16: figure 27

1: 20S.15W.24.321
2: Lone Jack
3: 24 T20S R15W 32°33'12"N 108°21'00"W
4: White Signal 7-1/2 Elevation 5,990 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no uranium production
10: Precambrian Burro Mountain granite
12: pyrite, torbernite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #97y); PRR unnumbered (1951)
16: figure 27

1: 20S.16W.2.434
2: Lost Glove pegmatite
3: SE1/4 2 T20S R16W 32°35'25"N 108°27'48"N
4: Burro Peak 7-1/2 Elevation 6,820 ft
5: White Signal district-Burro Mountains
6: U, Th, REE
7: trench
8: no production
10: Precambrian Burro Mountain granite, pegmatite
11: radioactive pegmatite, radioactive magnetite
13: Pegmatite
15: Hedlund (1978g); PRR C (1956)
16: figure 27

1: 18S.17W.2.122
2: May Day 1 and 2
3: N1/2 2 T18S R17W 32°46'31"N 108°34'16"W
4: Cliff 15 Elevation 5,360 ft
5: Wild Horse Mesa area-Telegraph district
6: U
7: no workings
8: no production
9: bkgd 50 cps, high 600 cps
10: Precambrian Burro Mountain granite
11: radioactive silicified shear zone trending N45°E
12: 0.009% U_3O_8 (NMBMMR chem lab, 3/3/83, #3158)
13: Hydrothermal-vein
14: presently part of the Reed fluorspar claims
15: FN 9/23/82; O'Neill and Thiede (1982, #24); Gillerman (1964); PRR DEB-P-4-1448 (1955)
16: figure 28

1: 20S.15W.22.324
2: Merry Widow (Leachs Claims, Hill Claims)
3: S1/2 22 T20S R15W 32°33'10"N 108°23'00"W
4: Burro Peak 7-1/2 Elevation 6,140 ft
5: White Signal district-Burro Mountains
6: U, Au, Bi, Cu, Ag
7: 150-ft shaft, pits, trenches, 16-ft shaft (5-55 ft deep)
8: unknown radium production in 1920's
9: bkgd 90-100 cps; high 1,500 cps; granite vein 100-200 cps
10: Precambrian Burro Mountain granite, diabase dike
11: radioactive quartz veins and altered dibase dike
12: 0.02%, 0.002% U_3O_8 (NMBMMR chem lab, 10/20/80, #9607, 6/22/83, #3744); 56 ppm Th (Dave Hedlund, WC, 10/81)
13: Hydrothermal-vein
14: U.V. Industries, subsidary of Sharon Steel Corp., owners, ph. 334-2225; mine and geologic map by Gillerman (1964)
15: FN 7/13/80; O'Neill and Thiede (1982, 72y); Anderson, O.J. (1980); Hedlund (1978g, #11); Gillerman (1968; 1964; 1953b); Lovering (1956); Granger and others (1952); Granger and Bauer (1951a, b); Keith (1944, 1945b); PRR; D-196 (1951); Unnumbered (1951); USAEC files (1959); USBM files (1949); CRIB (1982); MILS (1980); Dave Hedlund (USGS, WC, 10/81)
16: figure 27

1: 19S.15W.36.414
2: Miss Virginia
3: SW1/4 NW1/4 SE1/4 36 T19S R15W 32°36'27"N 108°20'50"W
4: White Signal 7-1/2 Elevation 6,090 ft
5: White Signal district-Burro Mountains
6: U
7: 10-15 ft shaft, 2 pits
8: no uranium production
10: Precambrian Burro Mountain granite
11: radioactive vein along E-W fault zone
12: autunite reported
13: Hydrothermal-vein
14: private property, no trespassing
15: O'Neill and Thiede (1982, #44y); Hedlund (1978h); PRR D-183 (1951); PRR D-182 (1951); PRR D-184 (1951); USBM files (1949)
16: figure 27

1: 20S.15W.19.330
2: Monarch No. 2, Moneymaker, Wild Irishman Claims
3: 19 T20S R15W 32°32'50"N 108°26'15"W
4: Burro Peak 7-1/2 Elevation 6,480 ft
5: White Signal district-Burro Mountains
6: U, Au, Ag, Barite, fluorite, Cu
7: pits, trenches, 2 shallow shafts
8: no uranium production, some fluorite produced
10: Precambrian Burro Mountain granite, rhyolite dikes
11: slightly radioactive quartz vein paralleling rhyolite dike which is intruded by radioactive quartz veinlets, trends N45°E
12: autunite, 0.011% U (Bauer, 1950)
13: Hydrothermal-vein/Orthomagmatic
15: Lovering (1956); Granger and others (1952); Bauer (1950a); PRR unnumbered (1951)
16: figure 27

1: 20S.15W.23.311
2: New Years Gift
3: S1/2 23 T20S R15W 32°33'8"N 108°22'18"W
4: White Signal 7-1/2 Elevation 6,280 ft
5: White Signal district-Burro Mountains
6: U, Cu, Au
7: 2 shafts now covered by Hwy 180 (122-ft and 34-ft deep)
8: no uranium production, gold/copper production unknown
10: Precambrian Burro Mountain granite
11: 2 mineralized quartz-pyrite veins cutting diabase dike
12: torbernite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #94y); Hedlund (1978h); Gillerman (1964); Keith (1945b); CRIB (1982)

16: figure 27

1: 21S.16W.29.244
2: North and South Pegmatites (White Top, Gold Hill)
3: SE1/4 29 T21S R16W 32°27'28"N 108°29'58"W
4: Gold Hill 7-1/2 Elevation 6,670 ft
5: Gold Hill district-Burro Mountains
6: REE, U, Th, Ta, mica, beryl
7: 40-ft adit, 20-ft shaft, pits
8: no uranium production
9: bkgd 50-60 cps, high 120 cps
10: Precambrian pegmatites intruding Burro Mountain granite
11: radioactive pegmatites trending N40°W
12: euxenite, samarskite, crytolite
13: Pegmatite
14: geologic map by Gillerman (1964, p. 130)
15: FN 7/13/80; Hedlund (1978c, #25); Staatz (1974); Elston (1965); Gillerman (1964); Boyd and Wolfe (1953); USBM files (1958); CRIB (1982)

1: 18S.16W.29.414
2: Osmer Silver
3: SE1/4 29 T18S R16W 32°42'10"N 108°29'50"W
4: Redrock 15 Elevation 6,000 ft
5: Black Hawk district-Burro Mountains
6: U, Ag
7: 40-ft shaft with drift
8: 120 uranium production
9: bkgd 50-60 cps
10: Precambrian Burro Mountain granite
11: slightly radioactive vein striking N60°E, 80°S
12: pitchblende reported
13: Hydrothermal-vein
14: sunk in 1958-1959 by Dave Osmer
15: FN 7/23/80; O'Neill and Thiede (1982, #35y); Hedlund (1980b); Gillerman (1964, p. 151)

1: 20S.15W.23.421
2: Paddy Ford (Book Claims, Wisconsin Group)
3: SE1/4 23 T20S R15W 32°33'5"N 108°21'40"W
4: White Signal 7-1/2 Elevation 5,970 ft
5: White Signal district-Burro Mountains
6: U, Au, Ag, Cu, Bi, Mo
7: 120-ft shaft
8: no uranium production, minor copper and gold-silver production
10: Precambrian Burro Mountain granite, rhyolite and diabase dikes
11: radioactive veins in fault zone 1-2 ft wide trending N85°E
12: 29-475 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #95, 94y); Hedlund (1978h); Gillerman (1964); Keith (1945b); PRR unnumbered (1951); CRIB (1982)
16: figure 27

1: 20S.15W.28.114
2: Paymaster-Silver Lode
3: SW1/4 21, NW1/4 28 T20S R15W 32°32'50"N 108°24'15"W
4: Burro Peak 7-1/2 Elevation 6,212 ft
5: White Signal district-Burro Mountains
6: Ag, Au, Cu, U
7: 2 shafts, adit, pits
8: no uranium production
10: Precambrian Burro Mountain granite, rhyolite and diabase dikes
11: mineralized veins trending N85°E and N80°E
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #64y, 66y, 67y); Hedlund (1978g, #6); Gillerman (1964)
16: figure 27

1: 20S.15W.28.113
2: Pegmatites (Unknown)
3: NW1/4 28 T20S R15W 32°32'30"N 108°24'20"W
4: Burro Peak 7-1/2 Elevation 6,200 ft
5: White Signal district-Burro Mountains
6: REE, U, Th (occurrence)
7: 2 pits (4-ft x 5-ft)
8: no uranium production
9: bkgd 40-50 cps, high 100 cps
10: Precambrian pegmatite intruding Burro Mountain granite
11: radioactive 5-10 ft thick pegmatite
12: euxenite reported (Gillerman, 1964, p. 103)
13: Pegmatite
15: FN 7/25/80; O'Neill and Thiede (1982, #65y); Hedlund (1978g, #28); Gillerman (1964); PRR D-180 (1951)
16: figure 27

1: 20S.16W.19.211
2: Pitman Claims
3: C N1/2 19 T20S R16W 32°33'35"N 108°32'10"W
4: Redrock 15 Elevation 5,620 ft
5: Malone district-Burro Mountains
6: Mn, U (occurrence)
7: pit
8: no production
9: bkgd 50-60 cps, high 90 cps
10: Precambrian Burro Mountain granite intruded by lamprophrye dike
11: radioactive psilomelane veins
13: Hydrothermal-vein
15: FN 7/22/80; O'Neill and Thiede (1982, #52x); Hedlund (1980a); U.S. Atomic Energy Commission (1970, p. 23)

1: 18S.17W.2.421
2: Prince Albert #1
3: SE1/4 2 T18S R17W 32°46'12"N 108°33'57"W
4: Cliff 15 Elevation 5,230 ft
5: Wild Horse Mesa area-Telegraph district
6: U
7: 15-ft adit, cut, pit
8: no production
9: bkgd 50 cps, average 100-150 cps, high 250 cps, high back of adit 400 cps
10: Precambrian Burro Mountain granite and Cretaceous Beartooth Quartzite
11: radioactive fault zone trending N60°W
12: 0.09% U_3O_8, trace Au; 0.03% U_3O_8 (NMBMMR chem lab, 10/6/82, #2847, 2848)
13: Hydrothermal-vein/unconformity-type
14: active claims
15: FN 8/5/82; O'Neill and Thiede (1982, #27, 28); Gillerman (1964); PRR DEB-P-4-1446 (1955)
16: figures 28 and 29

1: 18S.17W.2.244
2: Prince Albert #2
3: E1/2 2 T18S R17W 32°46'11"N 108°33'46"W
4: Cliff 15 Elevation 5,360 ft
5: Wild Horse Mesa area-Telegraph district
6: U
7: bulldozer stripping, outcrop anomaly, shallow pit
8: no production
9: bkgd 50 cps, average 100-150 cps, high 600 cps
10: Precambrian Burro Mountain granite and Cretaceous Beartooth Quartzite
11: radioactive fault zone trending N60°W
12: 0.017% U_3O_8 (NMBMMR chem lab, 3/3/83, #3156)
13: Hydrothermal-vein
14: active claims
15: FN 8/5/82; 9/23/82; O'Neill and Thiede (1982, #28); Gillerman (1964); PRR DEB-P-4-1447 (1955)
16: figure 28

1: 18S.17W.3.423
2: Purple Heart Mine
3: SE1/4 3 T18S R17W 32°46'00"N 108°35'00"W
4: Cliff 15 Elevation 5,550-5,570 ft
5: Wild Horse Mesa area-Telegraph district
6: U, fluorite
7: 2 shafts (65- and 108-ft deep), adit
8: no uranium production, 400 tons fluorite
9: bkgd 50 cps, high 120 cps
10: Precambrian Burro Mountain granite
11: radioactive fluorite veins striking N40°W
13: Hydrothermal-vein
15: FN 8/21/80; Gillerman (1964); Hewitt (1959); USBM files (1962); CRIB (1982)
16: figure 28

1: 18S.18W.22.233
2: Purple Rock Mine (McCauley)
3: N1/2 22 T18S R18W 32°43'40"N 108°41'25"W
4: Redrock 15 Elevation 4,240-4,320 ft
5: Red Rock area-Telegraph district
6: fluorite, U, W, Th
7: adits, shafts, pits (caved)
8: no uranium production, 15 tons fluorite shipped 1953
9: bkgd 50-60 cps, high 150 cps
10: Precambrian Burro Mountain granite, Tertiary rhyolite dike
11: radioactive silicified veins in brecciated rhyolite dike trending N50°E
12: 950 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: owned by Tom McCauley, operator of Great Eagle fluorspar mine; geologic map by Hewitt (1959, p. 125)
15: FN 8/18/80; O'Neill and Thiede (1982, #20); Hedlund (1980b); McAnulty (1978); Gillerman (1964); Walker and Osterwald (1963a); Hewitt (1959, p. 124); Wolfe (1953, p. 10-11); PRR DEB-A-532 (1953)

1: 18S.17W.1.144
2: Rambling Ruby
3: C 1 T18S R17W 32°46'15"N 108°33'20"W
4: Cliff 15' Elevation 5,550 ft
5: Wild Horse Mesa area-Telegraph district
6: fluorite, U
7: pits, shaft, trenches
8: no uranium production
9: bkgd 50 cps, high 100 cps
10: Precambrian Burro Mountain granite intruded by mafic dikes
11: radioactive quartz veins and copper veins
13: Hydrothermal-vein
15: FN 8/21/80; Gillerman (1964)
16: figure 28

1: 20S.15W.23.334
2: Red Bird
3: SW1/4 23 T20S R15W 32°33'00"N 108°22'15"W
4: White Signal 7-1/2 Elevation 6,010 ft
5: White Signal district-Burro Mountains
6: U
7: 200-ft shaft
8: no uranium production
10: Precambrian Burro Mountain granite
11: mineralized quartz-pyrite vein and rhyolite dike (S75°E, 80°S) 1.5 ft wide
12: radioactive clay
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #82y); Hedlund (1978h, #11); Gillerman (1964); Keith (1945b); PRR unnumbered (1951)

16: figure 27

1: 20S.15W.14.244
2: Red Dodson
3: E1/4 14 T20S R15W 32°34'5"N 108°21'30"W
4: White Signal 7-1/2 Elevation 6,060 ft
5: White Signal district-Burro Mountain
6: Ag, Bi, Cu, U
7: caved pits, 200-ft long adit, 60-80 ft shaft
8: 25-30 tons Ag produced, no uranium production
9: bkgd 70-90 cps, high 100 cps
10: Precambrian Burro Mountain granite intruded by diabase dikes striking N90°E, 78°N
11: radioactive quartz-pyrite vein
13: Hydrothermal-vein
15: FN 7/12/80; Hedlund (1978h, #14); Gillerman (1964)
16: figure 27

1: 20S.15W.16.124
2: Red Hill turquoise mine
3: NW1/4 16 T20S R15W 32°34'15"N 108°24'00"W
4: Burro Peak 7-1/2 Elevation 6,600 ft
5: White Signal district-Burro Mountains
6: Cu, U
7: 3 pits, adit, open cut
8: no uranium production, turquoise produced
10: Precambrian Burro Mountain granite
11: radioactive fault-zone trending N60°-65°E
12: 121 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #62); Hedlund (1978g, #30); Gillerman (1964, p. 102); PRR unnumbered (1951)
16: figure 27

1: 18S.17W.2.142
2: Reed Mine
3: N1/2 2 T18S R17W 32°46'25"N 108°34'20"W
4: Cliff 15 Elevation 5,700-5,720 ft
5: Wild Horse Mesa area-Telegraph district
6: fluorspar, U
7: 3 shafts (40-ft deep), trenches, open cuts
8: 150-200 tons of 60-75% fluorspar, no uranium production
9: bkgd 50 cps, high 120 cps
10: Precambrian Burro Mountain granite
11: radioactive fluorite vein striking N60°W, 75°SW
13: Hydrothermal-vein
14: geologic map by Gillerman (1964, p. 156)
15: FN 8/21/80; Gillerman (1964); USBM files (1951); CRIB (1982)
16: figure 28

1: 18S.16W.29.242
2: Rose
3: 28, 29 (line) T18S R16W 32°42'50"N 108°30'40"W
4: Redrock 15 Elevation 5,800 ft
5: Black Hawk district-Burro Mountains
6: Ag, Ni, Co, U
7: 200-ft shaft, 2 adits
8: no uranium production
9: bkgd 50-60 cps
10: Precambrian Burro Mountain granite
11: radioactive veins striking N75°W, 75°-80°NW; N30°E, 65°-75°SE, 2-5 ft thick
12: pitchblende reported
13: Hydrothermal-vein
15: FN 7/23/82; O'Neill and Thiede (1982, #34y); Hedlund (1980a); Gillerman (1964); Granger and others (1952); Gillerman and Whitebread (1956); Granger (1950); NMBMMR files (1932); CRIB (1982).

1: 18S.18W.15.433
2: Sandy Group
3: 15, 22 (line) T18S R18W 32°44'00"N 108°41'25"W
4: Redrock 15 Elevation 4,440 ft
5: Redrock area-Telegraph district
6: fluorite, U
7: 80-ft shaft, pits
8: no uranium production
10: Precambrian Burro Mountain granite
11: radioactive quartz-fluorite veins in fractures in granite near Tertiary rhyolite dike
12: 0.03% U_3O_8, fluorite, uranainite, uranyl silicates and phosphates
13: Hydrothermal-vein
14: probably similar to Purple Rock Mine
15: O'Neill and Thiede (1982, #21y); Hewitt (1959); PRR A-22 (1954)

1: 18S.15W.21.441
2: Section 21 T18S R15W (Oil Center Tool Co., Redrock Canyon Claims, Anomaly #5, Junoco Property)
3: NW1/4 SE1/4 SE1/4 21 T18S R15W 32°43'21"N 108°23'31"W
4: Wind Mountain 7-1/2 Elevation 6,100 ft
5: Little Burro Mountains district
6: U, Ag, Pb, Cu
7: 2 pits, bench cuts
8: 38 tons ore yielding 30 lbs U_3O_8 (0.04%), 23 lbs V_2O_5
9: bkgd 50 cps, high 250-300 cps
10: Precambrian Burro Mountain granite, Cretaceous Beartooth Quartzite
11: radioactive fault zone trending N15°E and radioactive along unconformity
12: granite 0.002% U_3O_8, quartzite 0.002% U_3O_8 (NMBMMR chem lab, 3/3/83, #3155, 3159)
13: Hydrothermal-vein
14: shipped in 1956 by Oil Center Tool Co.
15: FN 9/23/82; O'Neill and Thiede (1982, #36); Hedlund (1978a); U.S. Atomic Energy Commission (p. 34-36); Gillerman (1964); Allison and Ove (1957); PRR DEB-P-4-1478 (1956); USAEC files (1960)

1: 20S.15W.23.330
2: Shamrock
3: SW1/4 23 T20S R15W 32°33'12"N 108°22'5"W
4: White Signal 7-1/2 Elevation 6,020 ft
5: White Signal district-Burro Mountains
6: U, Cu, Au, Ag
7: 30-ft shaft, pits, trenches
8: no uranium production
10: Precambrian Burro Mountain granite intruded by diabase dikes
11: radioactive quartz-pyrite veins and 2 diabase dikes N40°W
12: secondary uranium minerals (autunite, torbernite), copper oxides
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #84y); Anderson, O.J. (1980); Hedlund (1978h, #5); Gillerman (1964); Keith (1945b); PRR unnumbered (1951)
16: figure 27

1: 18S.16W.21.223
2: Silver King (Hobson)
3: NE1/4 21 T18S R16W 32°43'40"N 108°29'55"W
4: Wind Mountain 7-1/2 Elevation 5,700 ft
5: Black Hawk district-Burro Mountains
6: Ag, U
7: 300-ft long adit, 2 decline shafts
8: $4,000 Ag produced; no uranium production
9: bkgd 50 cps, high 100 cps
10: Precambrian Burro Mountain granite
11: radioactive veins in a fault zone striking N50°-65°E
12: pitchblende
13: Hydrothermal-vein
15: FN 7/23/80; Hedlund (1978a, #20); Gillerman (1964); Gillerman and Whitebread (1956)

1: 18S.17W.9.412
2: Springfield Claim
3: NE1/4 NW1/4 SE1/4 9 T18S R17W 32°45'15"N 108°36'00"W
4: Cliff 15 Elevation 5,120 ft
5: Wild Horse Mesa area-Telegraph district
6: U, Cu
7: 2 shallow pits, one bulldozer cut
8: no production
10: Precambrian Burro Mountain granite and Bullard Peak Series
11: radioactive shear zone filled with veins, up to 2 ft wide, trending N10°E
12: 296 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: inaccessible on 8/22/80; O'Neill and Thiede (1982) examined this occurrence
15: FN 8/22/80; O'Neill and Thiede (1982, #22); PRR DEB-P-4-1472 (1956); USAEC files (1958)
16: figure 28

1: 20S.16W.23.233
2: Summit (Hope #1, Wes Williams shaft)
3: C 23 T20S R16W 32°34'15"N 108°27'50"W
4: Burro Peak 7-1/2 Elevation 6,820 ft
5: White Signal district-Burro Mountains
6: U, Pb, Au, Cu, Ag
7: 75-ft shaft, 2nd shaft
8: no uranium production
10: Precambrian Burro Mountain granite, diabase dike
11: radioactive vein along contact of diabase dike striking N45°E
12: 87-262 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: restaked in 1972 as Hope #1; examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #49); Hedlund (1978g, #18); Gillerman (1964, p. 79); PRR D-279 (1951)
16: figure 27

1: 20S.15W.25.314
2: Tullock Peak (Anomaly #8, White Signal)
3: SW1/4 25 T20S R15W 32°32'20"N 108°21'40"W
4: White Signal 7-1/2 Elevation 5,960 ft
5: White Signal district-Burro Mountains
6: Cu, Ag, U, Th, Au
7: 3 shafts (deepest is 260-ft), pits, cuts
8: 25 tons copper and gold produced, no uranium production
9: bkgd 100 cps, high 150 cps
10: Precambrian Burro Mountain granite intruded by diabase dike
11: radioactive subparallel veins within a 1-4 ft zone
12: torbernite, 17-600 ppm U_3O_8, 405-702 ppm Th (O'Neill and Thiede, 1982), 0.002% U_3O_8 (NMBMMR chem lab, 6/22/83, #3740)
13: Hydrothermal-vein
15: FN 7/21/80; O'Neill and Thiede (1982, #105); Hedlund (1978h, #7); U.S. Atomic Energy Commission (1970, p. 43-45); Gillerman (1964); Allison and Ove (1957); Keith (1944); PRR D-167 (1951); PRR unnumbred (1955); CRIB (1982)
16: figure 27

1: 20S.15W.26.244
2: Tunnel Site No. 1
3: 26 T20S R15W 32°32'25"N 108°21'20"W
4: White Signal 7-1/2 Elevation 5,900 ft
5: White Signal district-Burro Mountains
6: Au, Ag, Cu, W, U, Th
7: 10 ft caved shaft, 250 ft adit with 20 ft and 40 ft winzes
8: no uranium production
9: bkgd 60 cps, high 100 cps, hot vein reported at back of adit
10: Precambrian Burro Mountain granite, Tertiary rhyolite dike
11: radioactive quartz-pyrite veins along intrusive contact
12: 19 ppm U_3O_8, 582 ppm Th (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
15: FN 7/21/80; O'Neill and Thiede (1982, #103); Hedlund (1978h, #3A); Lovering (1956); Granger and others (1952); Granger and Bauer (1950a); PRR D-174 (1951)
16: figure 27

1: 18S.15W.28.231
2: Tunoco Mining Claims (Redrock Canyon, Anomaly #3)
3: N1/2 28 T18S R15W 32°42'55"N 108°23'45"W
4: Wind Mountain 7-1/2 Elevation 6,080 ft
5: Little Burro Mountains district
6: U
7: blasting at outcrop, shallow pit
8: no production
9: bkgd 50 cps, high 150 cps
10: Precambrian Burro Mountain granite
11: radioactive zones along fractures adjacent to fault
12: fluorite; 0.005% U_3O_8, 21.7% F (NMBMMR chem lab, 3/3/83, #3149)
13: Hydrothermal-vein
14: property owned by Phelps Dodge Corp.
15: FN 9/23/82; Hedlund (1978a); U.S. Atomic Energy Commission (1970, p. 30-31); Allison and Ove (1957); USAEC files (1950's)

1: 18S.15W.28.243
2: Tunoco Mining Claims (Redrock Canyon, Anomaly #4)
3: NE1/4 28 T18S R15W 32°43'5"N 108°23'45"W
4: Wind Mountain 7-1/2 Elevation 5,500 ft
5: Little Burro Mountain district
6: U
7: blasting at outcrop, road cuts
8: no production
9: bkgd 50 cps, high 150 cps
10: Precambrian Burro Mountain granite, Beartooth Quartzite
11: radioactive fault zone trending N15°E, hematitic alteration
12: quartzite 0.009% U_3O_8 (NMBMMR chem lab, 3/3/83, #3157)
13: Hydrothermal-vein
15: FN 9/23/82; O'Neill and Thiede (1982, #37); Hedlund (1978a); U.S. Atomic Energy Commission (1970, p. 32-33); Allison and Ove (1957); PRR DAO-P-4-1482 (1954); USAEC files (1950's)

1: 19S.15W.14
2: Tyrone Copper Mine
3: 14, 22, 23, 26, 27 T19S R15W 32°38'25"N 108°22'20"W
4: Tyrone 7-1/2, Wind Mountain 7-1/2 Elevation 6,300 ft
5: Tyrone district
6: Cu, Au, Ag, Zn, Pb, Mo, U, fluorite
7: open pit
8: 238,000 tpd copper, no uranium production
9: traces of radioactivity in drill holes by Phelps Dodge
10: Tertiary Tyrone quartz monzonite laccolith
11: torbernite and autunite in kaolinized and fractured areas of oxidized zone
12: copper oxides
13: Porphyry copper deposit/Orthomagmatic
14: presently being operated by Phelps Dodge Corp. (currently closed)
15: FN 11/79; Kolessar (1982; 1970, p. 127-132); Siemers and Austin (1979); Hedlund (1978a, d); Gillerman (1964; 1952c); Raup (1953); Lindgren and others (1910); CRIB (1981)

1: 20S.14W.32.233
2: Uncle Sam and adjacent properties
3: 29, 30, 31, 32 T20S R14W 32°31'30"N 108°18'45"W
4: White Signal 7-1/2 Elevation 5,700 ft
5: White Signal district-Burro Mountains
6: Ag, U, Pb, Mo
7: pits, shafts, adits (main shaft 100 ft deep) along fault
8: $20,000 Ag production; no uranium production
9: bkgd 50-60 cps, average 60-150 cps, high 200 cps
10: Precambrian Burro Mountain granite
11: radioactive shear zone striking N45°W up to 8 ft wide along Uncle Sam fault; 4,000 ft long mineralized zone
12: 0.004% U_3O_8, trace Au, 0.80 oz/ton Ag (NMBMMR chem lab, 6/22/83, #3734)
13: Hydrothermal-vein
15: FN 7/12/80; O'Neill and Thiede (1982, #120, 116Y, 117Y, 118Y, 119Y, 121Y); Hedlund (1978h, #16); U.S. Atomic Energy Commission (1970, p. 22); Gillerman (1968; 1964); Lovering (1956); Granger and others (1952); PRR DH-30 (1951); CRIB (1982)
16: figure 27

1: 18S.17W.10.242
2: Union Hill Claims
3: NE1/4 10 T18S R17W 32°45'25"N 108°34'40"W
4: Cliff 15 Elevation 5,600 ft
5: Wild Horse Mesa area-Telegraph district
6: Mo, Pb, Sb, W, Zn, U
7: 180 ft adit, cuts, drilling
8: no production
9: bkgd 50-60 cps; average 400-800 cps; high 8,500 cps
10: PrecambrianBurro Mountain granite and Cretaceous Beartooth Quartzite
11: radioactive veins in fault zone trending east-west in granite and quartzite
12: 0.15, 0.09, 0.59% U_3O_8 (NMBMMR chem lab, 10/20/80, and 10/6/82, #9611, 9613, 2846), torbernite, uraninite
13: Hydrothermal-vein
14: adit driven by court order for assessment evaluation, presently active; mine map and location of samples of fig. 30
15: FN 8/21/80; 8/5/82; O'Neill and Thiede (1982, #23); Gillerman (1964)
16: figures 28 and 30

1: 16S.17W.22.313
2: Unknown (Cliff)
3: SW1/4 22 T16S R17W 32°53'52"N 108°35'40"W
4: Cliff 15 Elevation 4,640 ft
5: Cliff-Gila area
6: U, Zn, Pb
7: 2 caved shafts
8: no uranium production
10: Tertiary Schoolhouse Mountain Formation (volcanics)
11: radioactive veins in highly altered volcanic rock
12: 128 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: within Schoolhouse Mountain cauldera; examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #25); Wahl (1980)

1: 18S.15W.28.211
2: Unknown (Anomaly #5)
3: N1/2 28 T18S R15W 32°43'10"N 108°23'50"W
4: Wind Mountain 7-1/2 Elevation 5,560 ft
5 Little Burro Mountain district
6: U
7: no workings
8: no production
9: bkgd 50 cps, high 150 cps
10: Precambrian Burro Mountain granite
11: radioactive fault zone
13: Hydrothermal-vein
15: FN 9/23/82; U.S. Atomic Energy Commission (1970, p. 34); Allison and Ove (1957)

1: 18S.15W.35.143
2: Unknown-Section 35
3: W1/2 35 T18S R15W 32°41'58"N 108°22'3"W
4: Tyrone 7-1/2 Elevation 6,040 ft
5: Burro Mountains district-Little Burro Mountains
6: U
7: 10-ft adit
8: no production
9: bkgd 30 cps, high 100 cps
10: Precambrian granite
11: radioactivity along fractures
13: Hydrothermal-vein
15: FN 9/23/82

1: 19S.15W.27.414
2: Unknown-Tyrone
3: SE1/4 27 T19S R15W 32°37'14"N 108°22'34"W
4: Burro Peak 7-1/2 Elevation 6,420 ft
5: Tyrone district-Burro Mountains
6: U, Cu, Mo
7: no workings-road cut, pits in area
8: no production
10: Tertiary Tyrone stock (quartz diorite mylonite)
11: radioactive fault zones trending N40°-60°E
12: 200-940 ppm U_3O_8
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #41); Hedlund (1978g); Gillerman (1964, p. 111)

1: 19S.15W.28.334
2: Unknown-Tyrone
3: SW1/4 28 T19S R15W 32°37'15"N 108°24'12"W
4: Burro Peak 7-1/2 Elevation 6,420 ft
5: Tyrone district-Burro District
6: U, Cu
7: no workings-road cut
8: no production
10: Tertiary Tyrone stock (quartz monzonite)
11: radioactive fault zone trending N20°E-30°E
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #39); Hedlund (1978g); Gillerman (1964, p. 111)

1: 19S.15W.32.242
2: Unknown-Tyrone (Liberty Bell?)
3: NE1/4 32 T19S R15W 32°36'52"N 108°24'30"W
4: Burro Peak 7-1/2 Elevation 6,380 ft
5: Tyrone district-Burro Mountains
6: U, Cu, Pb
7: 10 ft long E-W trending adit
8: no production
10: Tertiary Tyrone stock
11: radioactive fault zone trending N20°E and N85°W
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #40); Hedlund (1978g); D-695 (1953)

1: 19S.15W.36.132
2: Unknown
3: NE1/4 SW1/4 NW1/4 36 T19S R15W 32°36'45"N 108°21'10"W
4: White Signal 7-1/2 Elevation 6,263 ft
5: White Signal district-Burro Mountains
6: U
7: pits
8: no production
10: Precambrian Burro Mountain granite, basic dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #42y); PRR D-183 (1951)
16: figure 27

1: 19S.15W.36.133
2: Unknown
3: SW1/4 SW1/4 NW1/4 36 T19S R15W 32°36'45"N 108°21'17"W
4: White Signal 7-1/2 Elevation 6,200 ft
5: White Signal district-Burro Mountains
6: U
7: pit
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #43y); PRR D-182 (1951)
16: figure 27

1: 19S.15W.36.332
2: Unknown
3: NE1/4 SW1/4 SW1/4 36 T19S R15W 32°36'25"N 108°21'7"W
4: White Signal 7-1/2 Elevation 6,100 ft
5: White Signal district-Burro Mountains
6: U
7: pits
8: no production
10: Precambrian Burro Mountain granite
11: radioactive quartz-pyrite vein in N70°E trending fault zone
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #45y); PRR unnumbered (1951)
16: figure 27

1: 20S.14W.13
2: Unknown
3: 13 T20S R14W
4: Whitewater 7-1/2
5: White Signal district-Burro Mountains
6: U
7: 2 shafts, 2 pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: PRR unnumbered (1951)
16: figure 27

1: 20S.14W.23.233
2: Unknown
3: C 23 T20S R14W 32°33'17"N 108°16'45"W
4: White Signal 7-1/2 Elevation 5,560 ft
5: White Signal district-Burro Mountains
6: U
7: pits
8: no production
10: Precambrian Burro Mountains granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #61y); PRR unnumbered (1957)
16: figure 27

1: 20S.14W.29.342
2: Unknown
3: SW1/4 29 T20S R14W 32°32'00"N 108°18'50"W
4: White Signal 7-1/2 Elevation 5,780 ft
5: White Signal district-Burro Mountains
6: U
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #121y); Hedlund (1978h)
16: figure 27

1: 20S.14W.30.313
2: Unknown-pegmatites
3: W1/2 30 T20S R14W 32°32'8"N 108°20'10"W
4: White Signal 7-1/2 Elevation 5,850 ft
5: White Signal district-Burro Mountains
6: U, REE, Au
7: open cuts, shaft
8: no uranium production
10: Precambrian Burro Mountain granite, pegmatite
11: two radioactive pegmatites, N75°E
12: 66 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Pegmatites
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #114); Hedlund (1978h, #26); PRR unnumbered (1951)
16: figure 27

1: 20S.14W.30.332
2: Unknown-White Signal
3: SW1/4 30 T20S R15W 32°32'00"N 108°20'2"W
4: White Signal 7-1/2 Elevation 5,800 ft
5: White Signal district-Burro Mountains
6: U, Ag, W
7: two shallow pits, bulldozer stripping
8: no uranium production
10: Precambrian Burro Mountain granite
11: radioactive quartz-pyrite vein in N70°E trending fault zone
12: 46-148 U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #115); Hedlund (1978h); PRR unnumbered (1951)
16: figure 27

1: 20S.14W.30.431
2: Unknown
3: SE1/4 30 T20S R14W 32°31'5"N 108°19'40"W
4: White Signal 7-1/2 Elevation 5,740 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite, rhyolite dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #116y); Hedlund (1978h)
16: figure 27

1: 20S.14W.30.441
2: Unknown
3: SE1/4 30 T20S R14W 32°31'00"N 108°19'58"W
4: White Signal 7-1/2 Elevation 5,800 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #117y); Hedlund (1978h)
16: figure 27

1: 20S.14W.31.122
2: Unknown
3: NW1/4 31 T20S R14W 32°30'50"N 108°19'58"W
4: White Signal 7-1/2 Elevation 5,770 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #118y); Hedlund (1978h); PRR unnumbered (1951)
16: figure 27

1: 20S.14W.31.233
2: Unknown
3: S1/4 SW1/4 NE1/4 31 T20S R14W 32°31'31"N 108°19'40"W
4: White Signal 7-1/2
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neille and Thiede (1981, #119y)
16: figure 27

1: 20S.15W.1.143
2: Unknown
3: 1 T20S R15W 32°35'57"N 108°20'55"W
4: White Signal 7-1/2 Elevation 6,075 ft
5: Burro Mountains district
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite, diabase dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #46y); Hedlund (1978h)

1: 20S.15W.13.214
2: Unknown
3: 13 T20S R15W 32°34'2"N 108°20'50"W
4: White Signal 7-1/2 Elevation 6,040 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #90y); Hedlund (1978h)
16: figure 27

1: 20S.15W.14.142
2: Unknown-White Signal
3: NE1/4 SE1/4 NW1/4 14 T20S R15W 32°34'14"N 108°21'52"W
4: White Signal 7-1/2 Elevation 6,100 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no uranium production
10: Precambrian Burro Mountain granite, rhyolite dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #87y); Hedlund (1978h); PRR unnumbered (1981)
16: figure 27

1: 20S.15W.14.231
2: Unknown-White Signal
3: SW1/4 NW1/4 NE1/4 14 T20S R15W 32°34'21"N 108°21'43"W
4: White Signal 7-1/2 Elevation 6,090 ft
5: White Signal district-Burro Mountain
6: U, Au
7: shaft
8: no uranium production
10: Prcambrian Burro Mountain granite, diabase dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #88y); Hedlund (1978h)
16: figure 27

1: 20S.15W.21.242
2: Unknown
3: NE1/4 SE1/4 NE1/4 21 T20S R15W 32°33'16"N 108°23'25"W
4: Burro Peak 7-1/2
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1981, #70)
16: figure 27

1: 20S.15W.23.222
2: Unknown
3: NE1/4 23 T20S R15W 32°33'33"N 108°21'25"W
4: White Signal 7-1/2 Elevation 5,960 ft
5: White Signal district-Burro Mountains
6: U
7: shaft, pits
8: no uranium production
10: Precambrian Burro Mountain granite, rhyolite dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #91y)
16: figure 27

1: 20S.15W.26.124
2: Unknown
3: SW1/4 NE1/4 NW1/4 26 T20S R15W 32°32'35"N 108°22'00"W
4: White Signal 7-1/2
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1981, #101); PRR D-172 (1951)
16: figure 27

1: 20S.15W.26.221
2: Unknown
3: NE1/4 26 T20S R15W 32°32'35"N 108°21'30"W
4: White Signal 7-1/2 Elevation 6,030 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no production
10: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #107y); Hedlund (1978h); PRR D-176 (1951)
16: figure 27

1: 2ØS.15W.26.422
2: Unknown-White Signal
3: NE1/4 NE1/4 SE1/4 23 T2ØS R15W 32°32'35"N 1Ø8°21'2Ø"W
4: White Signal 7-1/2 Elevation 5,985 ft
5: White Signal district-Burro Mountain
6: U, Cu
7: small prospect pit
8: no uranium production
1Ø: Precambrian Burro Mountain granite
11: radioactive quartz-pyrite vein within a N75°E-trending fault
12: 292 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #1Ø6); Hedlund (1978h); PRR-D-177 (1951)
16: figure 27

1: 2ØS.15W.26.442
2: Unknown
3: NE1/4 NE1/4 SE1/4 26 T2ØS R15W 32°31'45"N 1Ø8°21'25"W
4: White Signal7-1/2 Elevation 5,985 ft
5: White Signal district-Burro Mountains
6: U, Cu
7: small pit
8: no uranium production
1Ø: Precambrian Burro Mountain granite
11: quartz-pyrite vein
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #1Ø4y); Hedlund (1978h); PRR-D-175 (1951)
16: figure 27

1: 2ØS.15W.27.332
2: Unknown
3: SW1/4 27 T2ØS R15W
4: Burro Peak 7-1/2
5: White Signal district-Burro Mountains
6: U, Au
7: no workings-outcrop
8: no production
1Ø: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #77y); PRR D-179 (1951)
16: figure 27

1: 20S.15W.28.321
2: Unknown
3: C W1/2 28 T20S R15W 32°32'20"N 108°24'7"W
4: Burro Peak 7-1/2 Elevation 6,160 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits, shaft
8: no uranium production
10: Precambrian Burro Mountain granite, diabase dike
11: radioactive quartz veins along E-W fault
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #66y); PRR D-180 (1951)
16: figure 27

1: 20S.16W.14.142
2: Unknown-White Signal
3: NW1/4 14 T20S R16W 32°34'10"N 108°28'4"W
4: Burro Peak 7-1/2 Elevation 6,700 ft
5: White Signal district-Burro Mountains
6: U
7: no workings-road cut
8: no production
10: Precambrian Burro Mountain granite
11: radioactive fault zone trending N50°-80°E
12: 207 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #48); Hedlund (1978g)
16: figure 27

1: 20S.16W.18.142
2: Unknown (Little Cookie #1?)
3: 18 T20S R16W 32°34'5"N 108°32'20"W
4: Redrock 15 Elevation 5,540 ft
5: Malone district-Burro Mountains
6: U, Mn
7: shaft, pit (partially caved)
8: no uranium production
9: bkgd 50-60 cps, high 130 cps
10: Precambrian Burro Mountain granite
11: radioactive quartz-psilomelane veins
13: Hydrothermal-vein
15: FN 7/22/80

1: 2ØS.16W.22.123
2: Unknown
3: 22 T1ØS R16W 32°33'3Ø"N 1Ø8°29'1Ø"W
4: Burro Peak 7-1/2
5: White Signal district-Burro Mountains
6: U
7: pit
8: no uranium production
1Ø: Precambrian Burro Mountain granite
13: Hydrothermal-vein
15: Hedlund (1978g); PRR D-28Ø (1951)
16: figure 27

1: 2ØS.16W.26.222
2: Unknown (Barnett Shaft, Jimmy and Thwarts, Wild Irishman)
3: NE1/4 26 T2ØS R16W 32°32'4Ø"N 1Ø8°27'35"W
4: Burro Peak 7-1/2
5: White Signal district-Burro Mountains
6: U, Au, Ag, Cu
7: shafts, adits, pits
8: no uranium production
1Ø: Precambrian Burro Mountain granite, rhyolite dike
13: Hydrothermal-vein
15: O'Neill and Thiede (1982, #5Øy); PRR unnumbered (1951)

1: 2ØS.16W.3Ø.441
2: Unknown-Malone (Ra-Tor Uranium claims??)
3: SE1/4 3Ø T2ØS R16W 32°32'ØØ"N 1Ø8°31'51'W
4: Redrock 15 Redrock SE 7-1/2 Elevation 5,84Ø ft
5: Malone district-Burro Mountains
6: U, Sb, W
7: small pit, bulldozer trenches
8: no production
1Ø: Precambrian Burro Mountain granite, diabase dike
11: radioactive quartz-specularite veins along diabase dike
12: 136 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: active claims-Southwestern Exploration Associates; examined by O'Neill and Thiede (1982)
15: O'Neill and Thiede (1982, #53); Hedlund (198Øc); NMBMMR files (1928)

1: 21S.16W.4.333
2: Unknown (Richard W. Curiton?)
3: SW1/4 4 T21S R16W 32°30'3"N 108°30'1"W
4: Redrock 15 Redrock SE 7-1/2 Elevation 6,240 ft
5: Gold Hill district-Burro Mountains
6: U, Au
7: 4-ft deep, 50-ft long trench
8: no uranium production
9: bkgd 50 cps, granite 100-150 cps, high in diabase 700 cps, average in diabase 250 cps
10: Precambrian Burro Mountain granite, Tertiary diabase dike
11: radioactive diabase dike lenses in fault zone trending N5°W
12: 0.048% U_3O_8 (NMBMMR chem lab, 10/6/82, #2849)
13: Hydrothermal-vein
15: FN 8/4/82; Hedlund (1980c); PRR E (1955)

1: 21S.16W.6.423
2: Unknown
3: SW1/4 NE1/4 SE1/4 6 T21S R16W 32°30'25"N 108°31'23"W
4: Redrock 15 Redrock SE 7-1/2 Elevation 6,040 ft
5: Gold Hill district-Burro Mountains
6: U, W, Li
7: no workings
8: no production
9: bkgd 50 cps, high 60 cps
10: Precambrian Burro Mountain granite intruded by diabase dike
11: radioactive quartz-specularite veins in diabase dike
12: 182 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Hydrothermal-vein
14: 4 pits in diabase dike to southwest show no anomalous radioactivity (FN 8/4/82)
15: FN 9/24/82; O'Neill and Thiede (1982, #54); Hedlund (1980c)

1: 25S.16W.36.333
2: Unknown-Hatchita
3: 35, 36 T25S R16W 2, 3 T26S R16W
4: Brockman 7-1/2
5: Little Hatchet Mountains district
6: U
7: no workings
8: no uranium production
10: Cretaceous Sarten Sandstone
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 19)

1: 18S.17W.12.121
2: W.F. Claims
3: NW1/4 12 T18S R17W 32°45'40"N 108°33'30"W
4: Cliff 15 Elevation 5,360 ft
5: Wild Horse Mesa-Telegraph district
6: U, Au
7: no workings-outcrop
8: no production
9: bkgd 50 cps, high 250 cps
10: Precambrian Burro Mountain granite, Cretaceous Beartooth Quartzite
11: radioactive fault zone trending N70°E
12: 0.065, 0.01% U_3O_8 (NMBMMR, chem lab, 10/6/82, #2844, 2345)
13: Hydrothermal-vein
15: FN 8/5/82; Joe Aiello (owner, PC, 8/5/82)
16: figure 28

1: 19S.16W.23.131
2: White Bull pegmatites
3: NW1/4 23 T19S R16W 32°38'28"N 108°28'30"W
4: Wind Mountain 7-1/2 Elevation 6,460 ft
5: Burro Mountains district
6: U, Th, REE
7: pits, shaft
8: no uranium production
9: bkgd 50 cps, high 60 cps
10: Precambrian Burro Mountain granite, pegmatites
11: radioactive pegmatite adjacent to diabase dike
12: thorite, 0.035% U_3O_8 (USGS files)
13: Pegmatite
15: FN 9/24/80; Hedlund (1978a); USGS files (1957)

1: 21S.16W.27.134
2: White Top Hill (Thunderbird Claim)
3: W1/2 27 T21S R16W 32°27'00"N 108°28'50"N
4: C Bar Ranch 7-1/2 Elevation 6,265 ft
5: Gold Hill district-Burro Mountains
6: U, REE, beryl
7: pit
8: no uranium production
10: Precambrian Burro Mountain granite, pegmatite
11: zoned pegmatite
13: Pegmatite
15: Hedlund (1978f); Gillerman (1964); PRR B(1956)

1: 20S.15W.24.143
2: Wisconsin Group (Book Claims, Alberstone, Fitzi, Janet)
3: 23, 24 T20S R15W 32°33'15"N 108°21'10"W
4: White Signal 7-1/2 Elevation 6,050 ft
5: White Signal district-Burro Mountains
6: U, Au
7: pits
8: no uranium production
9:
10: Precambrian Burro Mountain granite intruded by felsite dikes
11: weak radioactive diabase dikes
12:
13: Hydrothermal-vein
14:
15: O'Neill and Thiede (1982, #91y, 96y, 98y); Hedlund (1978h); Keith (1945b) PRR D-162 (1951), D-163 (1951), D-164 (1951), D-159 (1951)
16: figure 27

1: 17S.17W.35.344
2: Yukon Group (May Day 1 and 2)
3: 35 T17S R17W, 2 T18S R17W 32°46'30"N 108°34'20"W
4: Cliff 15 Elevation 5,200 ft
5: Wild Horse Mesa-Telegraph district
6: U
7: no workings-outcrop anomaly
8: no uranium production
9: bkgd 50 cps, high 600 cps
10: Precambrian Burro Mountain grantie, basic dike, Cretaceous Beartooth Quartzite
11: radioactive minerals along fractures in dike and granite and along unconformity
12: autunite, pyrite
13: Hydrothermal-vein
14: presently part of the Reed fluorspar claims
15: FN 9/23/82; O'Neill and Thiede (1982, #24, 26y); PRR DEB-P-4-1448 (1955)
16: figure 28

GUADALUPE COUNTY

Alphabetical (6 occurrences)

American Uranium prospect	7N.19E.4
Branch Ranch	11N.25E.27
Neafus Ranch	11N.25E.17.311
Porcupine	8N.18E.13
Santa Rosa railroad cut	8N.21E.2
Santa Rosa Tar Sand	9N.21E.1.122

No aliases

Numerical

7N.19E.4	American Uranium prospect
8N.18E.13	Porcupine
8N.21E.2	Santa Rosa railroad cut
9N.21E.1.122	Santa Rosa Tar Sand
11N.25E.17.311	Neafus Ranch
11N.25E.27	Branch Ranch

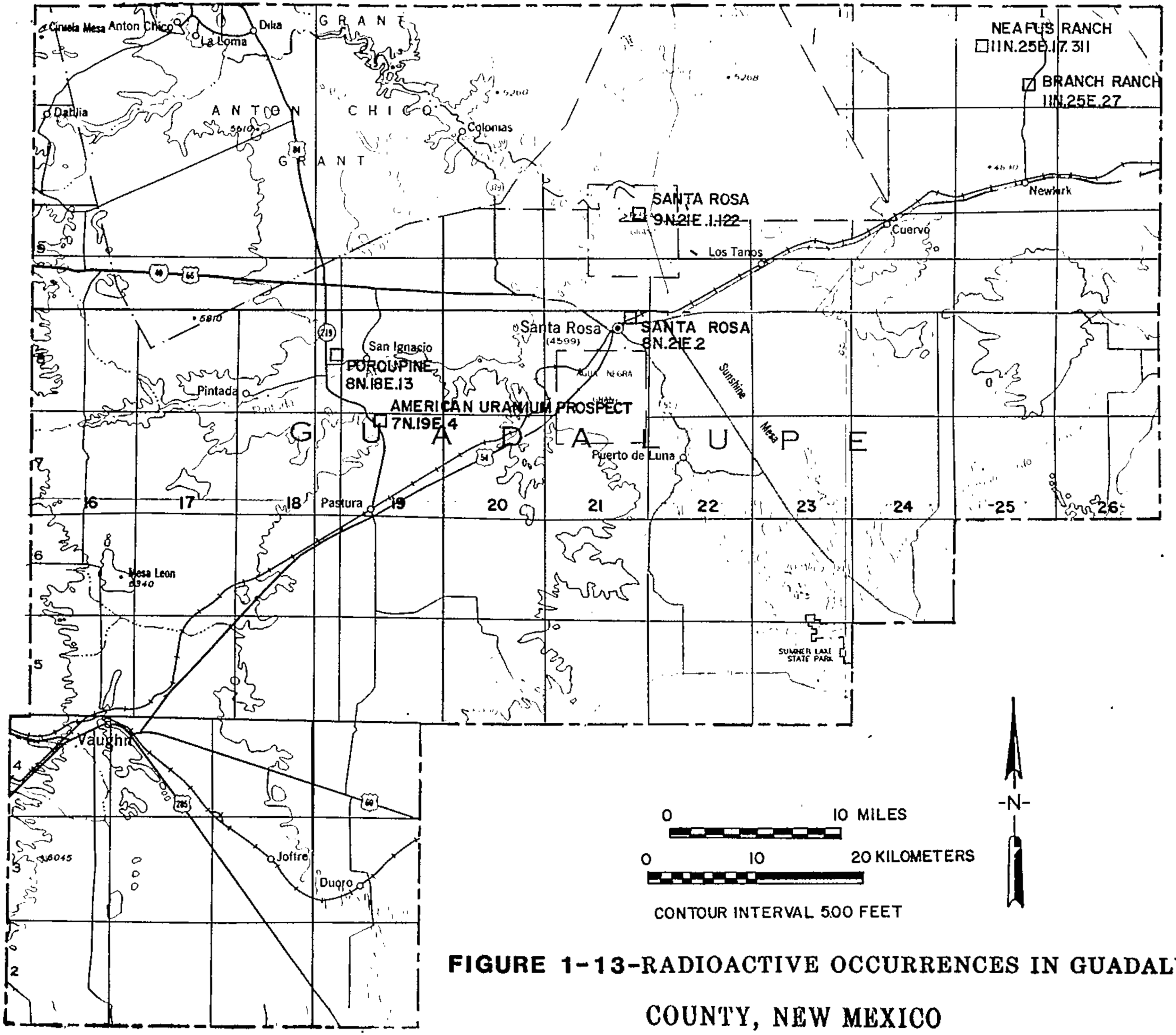


FIGURE 1-13-RADIOACTIVE OCCURRENCES IN GUADALUPE COUNTY, NEW MEXICO

GUADALUPE COUNTY

1: 7N.19E.4
2: American Uranium prospect
3: 4 T7N R19E
4: Pastura 7-1/2
5: Great Plains
6: U
7: prospect pit, drill holes
8: no production
10: Triassic Santa Rosa Sandstone-upper member
11: mineralized yellowish-gray calcareous sandstone
12: 0.045% U_3O_8
13: Sandstone
15: Finch, W.I. (1972, #5)

1: 11N.25E.27
2: Branch Ranch
3: 27 T11N R25E 35°9'8"N 104°16'41"W
4: Neafus Ranch 7-1/2
5: Conchas Lake area-Great Plains
6: U, V
7: bulldozer cut 450-ft long
8: no production
9: 180 times background
10: Triassic Chinle Formation - middle member
11: mineralized sandstone containing carbonaceous material in litharenite
12: carnotite(?); 7,810 ppm U; 5,000 ppm V (Reid and others, 1980b)
13: Sandstone-tabular
15: Reid and others (1980b, #40); Finch, W.I. (1972, #8)

1: 11N.25E.17.311
2: Neafus Ranch
3: 17 T11N R25E 35°11'00"N 104°19'5"W
4: Neafus Ranch 15
5: Conchas Lake area
6: U
7: no workings-outcrop
8: no production
10: Triassic Chinle Formation - middle member
11: mineralized zone associated with carbonaceous material in fine-grained sublitharenite
12: 103 ppm U
13: Sandstone
15: Reid and others (1980b, #39); Finch, W.I. (1972, #9)

1: 8N.18E.13
2: Porcupine
3: 13 T8N R18E
4: San Ignacio 7-1/2
6: U
8: no production
10: Triassic Santa Rosa Sandstone - upper member
11: mineralized light olive-gray sandy claystone
13: Sandstone/Shale
15: Finch, W.I. (1972, #6)

1: 8N.21E.2
2: Santa Rosa railroad cut
3: 2 T8N R21E
4: Santa Rosa 7-1/2
5: Santa Rosa area
6: U
8: no production
10: Triassic Santa Rosa Sandstone-upper member
11: mineralized carbonaceous clay lenses
13: Sandstone
15: Finch, W.I. (1972, #7)

1: 9N.21E.1.122
2: Santa Rosa Tar Sand
3: N1/2 1 T9N R21E (unsurveyed) 35°2'29"N 104°39'59"W
4: Catfish Falls 7-1/2 Elevation 4,700 ft
5: Pecos River Valley area
6: U, tar sand, asphalt
7: large quarry
8: no uranium production
10: Triassic Santa Rosa Sandstone - upper and middle member
11: asphalt-bearing sandstones containing up to 0.025% U in oil ash (Hail, 1955)
13: Sandstone
14: partially covered by water from Los Esteros Dam; mine maps by Gorman and Robeck (1946)
15: Budding (1980); McDowell (1972); Gorman and Robeck (1946); Hail (1957 and 1955, p. 37)

HARDING COUNTY

Alphabetical (3 occurrences)

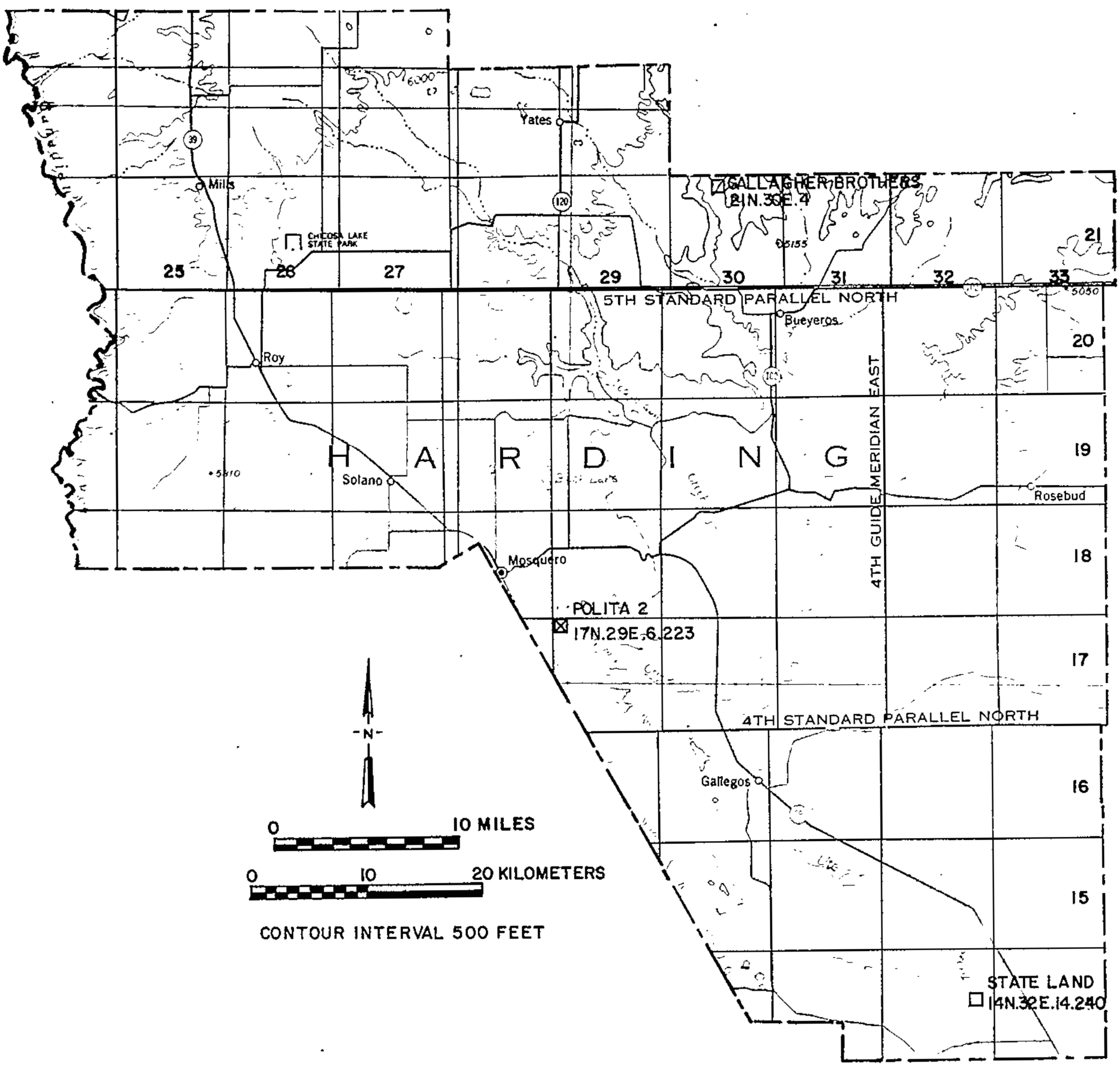
Gallagher Brothers	21N.30E.4
Polita #2	17N.29E.6.223
State Land	14N.32E.14.240

Alias	Name	Number
Ute Creek	Gallagher Brothers	21N.30E.4
Logan, Ute Creek, Acme	State Land	14N.32E.14.240

Numerical

14N.32E.14.240	State Land
17N.29E.6.223	Polita #2
21N.30E.4	Gallagher Brothers

FIGURE 1-14 - RADIOACTIVE OCCURRENCES IN HARDING COUNTY, NEW MEXICO



HARDING COUNTY

1: 21N.3ØE.4
2: Gallagher Brothers (Ute Creek)
3: 4 T21N R3ØE 36°44'4"N 1Ø3°44'51"W
4: Beenham SW 7-1/2
5: Ute Creek area
6: U
7: no workings - dogholes
8: no production
1Ø: Jurassic Morrison Formation
11: mineralization associated with bones and organic trash
13: Sandstone
15: Consulting Professionals, Inc. (198Ø, #2); Finch, W.I. (1972, #12); U.S. Atomic Energy Commission (197Ø, p. 22Ø)

1: 17N.29E.6.223
2: Polita #2
3: NE1/4 NE1/4 6 T17N R29E 35°44'1Ø"N 1Ø3°53'3Ø"W
4: Chinaberry Canyon 7-1/2 Elevation 4,76Ø ft
5: Mosquero Creek area
6: U
7: 75-ft long trench
8: 1 ton ore yielding 2 lbs U_3O_8 (Ø.15%), 5 lbs V_2O_5 (Ø.34%)
1Ø: Jurassic Morrison Formation
11: mineralized wood material in sediments
13: Sandstone
14: shipped in 1955 by Ramon Pacheio
15: Anderson, O.J. (198Ø); Finch, W.I. (1972, #11); USAEC files (196Ø); MILS (1981)

1: 14N.32E.14.24Ø
2: State Land (Logan, Ute Creek, Acme)
3: NE1/4 14 T14N R32E
4: Montesito Creek 7-1/2
5: Ute Creek area
6: silica, U
7: pits
8: no uranium production
1Ø: Triassic Chinle Formation-middle member
11: mineralized carbon trash lense in gray to green sandstone and volcanic ash bed
13: Sandstone
15: Finch, W.I. (1972, #1Ø); U.S. Atomic Energy Commission (197Ø, p. 56); PRR unnumbered (1956)

HIDALGO COUNTY

Alphabetical (17 occurrences)

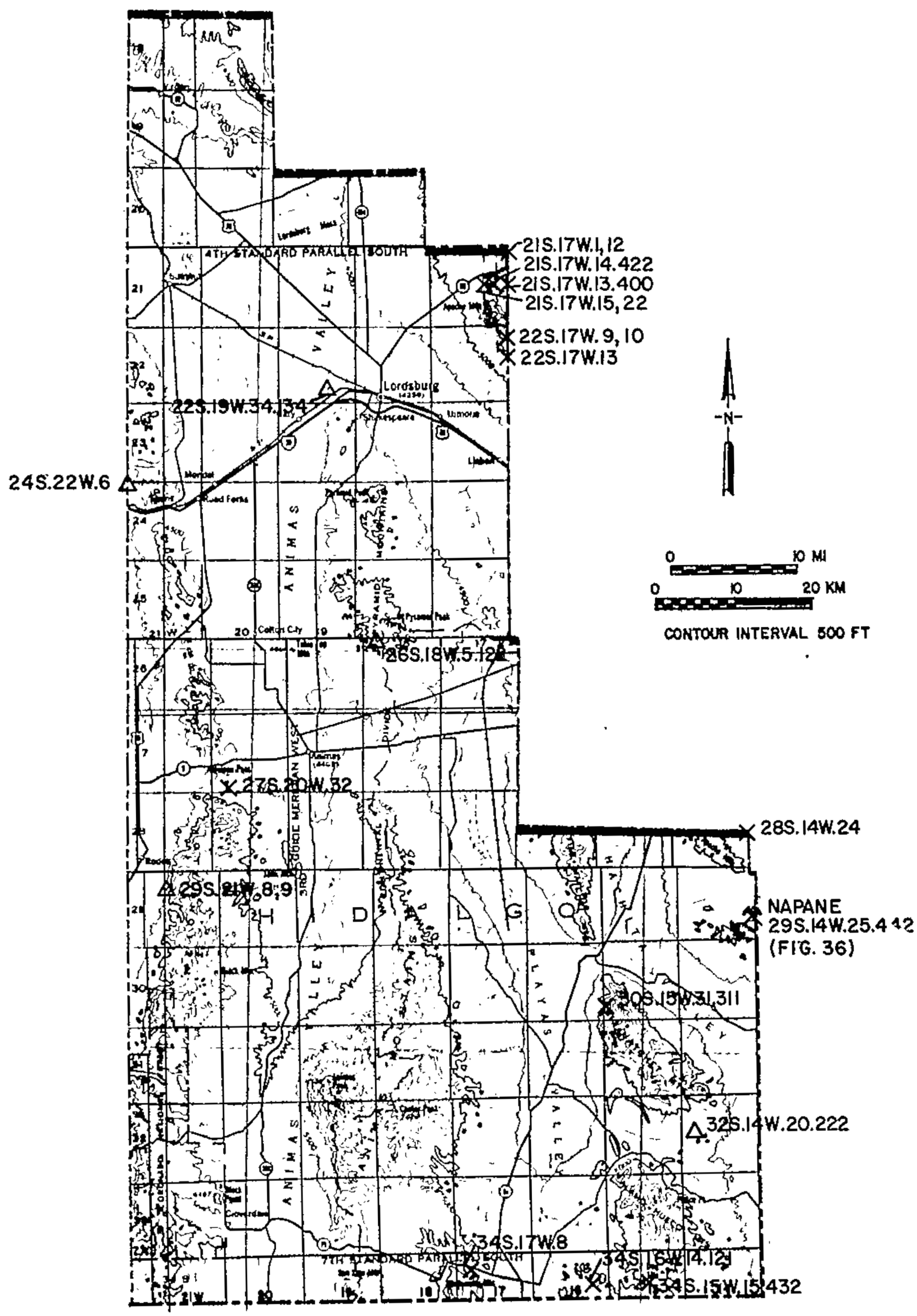
Anomaly #11	26S.18W.5.122
Anomaly #12	30S.15W.31.311
Anomaly #13	32S.14W.20.222
Anomaly #14	34S.16W.14.121
Apache and Chapo Mines	28S.14W.24
Boles Uranium	34S.17W.8
Bug House Claim	
Napane	29S.14W.25.442
Opportunity Claims	34S.15W.15.432
Paul #5 and #6	22S.17W.13
Pegmatites	21S.17W.15,22
Radioactive High	24S.22W.6
Rhoda #1-8, Beal #1-2, Ruby #1-5, Rugby #6-15, Sidney #1-7	21S.17W.6,7
Unknown	22N.17W.9,10
Unknown	22S.19W.34.134
Unknown	27S.20W.32
Unknown	29S.21W.8,9
White Rock pegmatites	21S.17W.13.400
White Rock pegmatites	21S.17W.14.422

Aliases	Name	Number
Animas	Unknown	29S.21W.8,9
Big Hatchet Mts.	Anomaly #12	30S.15W.31.311
Big Hatchet Mts.	Anomaly #13	32S.14W.3.222
Big Hatchet Mts.	Anomaly #14	34S.16W.14.121
Dog Claims	Opportunity Claims	34S.15W.15.432
Neglect	Opportunity Claims	34S.15W.15.432
Nutshell	Napane	29S.14W.25.442
Occidental	Napane	29S.14W.25.442
Pyramid Mts.	Anomaly #11	26S.18W.5.122
Section 34	Unknown	22S.19W.34
Separ-Lordsburg	Unknown	22S.17W.9,10
Steins Pass	Radioactive High	24S.22W.6
Thunderbird Uranium Corp.	White Rock pegmatites	21S.17W.13.400
Unknown	Pegmatites	21S.17W.15,22
Unknown	Anomaly #14	34S.16W.14
Weatherford's Uranium deposit	Pegmatites	21S.17W.15,22
White Rock	Rhoda #1-8, Beal #1-2, Ruby #1-5, Rugby #6-15, Sidney #1-7	
Yucca	Napane	29S.14W.25.442

Numerical

21S.17W.6,7	Rhoda #1-8, Beal #1-2, Ruby #1-5, Rugby #6-15, Sidney #1-7
21S.17W.13.400	White Rock pegmatites
21S.17W.14.422	White Rock pegmatites
21S.17W.15,22	Pegmatites
22S.17W.9,10	Unknown
22S.17W.13	Paul #5 and 6
22S.19W.34	Unknown
24S.22W.6	Radioactive High
26S.18W.5.122	Anomaly #11
27S.20W.32	Unknown
28S.14W.24	Apache and Chapo Mines
29S.14W.25.442	Napane
29S.21W.8,9	Unknown
30S.15W.31.311	Anomaly #12
32S.14W.20,222	Anomaly #13
34S.15W.15.432	Opportunity Claims
34S.16W.14.121	Anomaly #14
34S.17W.8	Boles Uranium

FIGURE 1-15-RADIOACTIVE OCCURRENCES IN HIDALGO COUNTY, NEW MEXICO



1: 26S.18W.5.122
2: Anomaly No. 11 (Pyramid Mountains)
3: NE1/4 NW1/4 5 T26S R18W, SW1/4 33 T25S R18W
4: South Pyramid Peak 7-1/2
5: Pyramid Mountains
6: U
7:
8: no production
10: Tertiary rhyolite
11: radioactive fault zone
12: uraniferous opal, 0.002% U_3O_8
13: Volcanogenic
15: U.S. Atomic Energy Commission (1966, p. 60); Allison and Ove (1957); PRR unnumbered (1955)

1: 30S.15W.31.311
2: Anomaly No. 12 (Big Hatchet Mountains)
3: 31 T30S R15W
4: Big Hatchet Peak 15
5: Big Hatchet Mountains
6: U
7:
8: no production
10: Precambrian granite faulted with arkosic sandstone
11: radioactive fault zone
13: Hydrothermal-vein
15: U.S. Atomic Energy Commission (1966, p. 61); Allison and Ove (1957); PRR unnumbered (1955)

1: 32S.14W.20.222
2: Anomaly No. 13 (Big Hatchet Mountains)
3: NE1/4 20 T32S R14W
4: Big Hatchet Peak 7-1/2, Big Hatchet Peak 15
5: Big Hatchet Mountains
6: no commodities-radioactive anomaly only
7: no workings - outcrop only
8: no production
9: bkgd 50-60 cps; high in small area 100-110 cps
10: Tertiary rhyolite tuff
11: radioactive fractured rhyolite tuff
13: Volcanogenic
15: FN 3/24/82; McLemore (1982a, #335); Zeller, R.A., Jr. (1975); U.S. Atomic Energy Commission (1966a, p. 61); Allison and Ove (1957, p. 13); PRR unnumbered (1955)

1: 34S.16W.14.121
2: Anomaly No. 14 (unknown)
3: NW1/4 14 T34S R16W
4: Dog Mountains SW 7-1/2 Dog Mountains 15 Elevation
5: Dog Mountains
6: ?
7: no workings found
8: no production
9: slightly above background radioactivity reported
1Ø: Tertiary granite
11: radioactive anomaly probably due to granite outcrop
13: Orthomagmatic
14: could not locate on 12/4/81
15: FN 12/4/81; Zeller, R.A., Jr. (1975); U.S. Atomic Energy Commissio
(1966a, p. 61); Allison and Ove (1957); PRR unnumbered (1955)

1: 28S.14W.24
2: Apache and Chapo Mines
3: 24 T28S R14W
4: Hachita SE 7-1/2, Hachita 15 Elevation
5: Apache No. 2 district
6: Zn, Cu, Au, Ag, Pb, W, B
7: numerous shafts, pits, trenches, dumps
8: no uranium production
9: bkgd 3Ø-4Ø cps, Apache 4Ø-5Ø cps, vein 7Ø-8Ø cps, other mines 3Ø-4Ø cps
1Ø: Cretaceous U-Bar Formation intruded by Apache Hills rhyolite stock
13: Hydrothermal-vein/Contact-metasmatic
14: Bill Bastran, claimholder
15: FN 12/2/81; Walton and others (198Øb); Peterson, S.L. (1976); Strongin (1957); PRR DEB-RRA-116Ø(1953)

1: 34S.17W.8
2: Boles Uranium prospect
3: 8 T34S R17W 31°21"N 1Ø8°36'
4: Antelope Wells 15
5: Whitewater Mountains
6: Mn, U
7:
8: no production
1Ø:
13:
14: uranium prospect reported in MILS in Whitewater Mountains, owned by T.C. Boles, Elston (WC) reports a manganese prospect at the given location, no other information is available
15: MILS (198Ø); Elston, W.E. (WC)

1: A
2: Bug House Claim
3:
4:
5: Pyramid Mountains - district uncertain
6: REE, U, Th, fluorite
7:
8: no production
10: Tertiary dike intruding andesite
11: bastnaestie reported with fluorite along contacts of dike
13: Hydrothermal-vein(?)
14: owned by John W. House; location uncertain
15: Anonymous (1946)

1: 29S.14W.25.442
2: Napane (Occidental, Yucca, Nutshell)
3: NE1/4 SE1/4 25 T29S R14W 31°45'15"W 108°12'50W
4: Victoria Ranch 7-1/2 Elevation 5,050-5,100 ft
5: Hatchita-Sierra Rica district
6: Cu, Ag, Au, U, Pb, Zn, Mn
7: 100-ft shafts, pits, trenches (radioactive area in trenches on hill above main Napone workings)
8: 9 tons ore yielding 35 lbs U_3O_8 (0.19% U_3O_8), 4 lbs V_2O_5
9: bkgd 30-40 cps; average in trench 100-300 cps; high in trench 400-500 cps; high ore pile 2,000 cps
10: Cretaceous U-Bar Formation-Oyster Member
11: uranium minerals in fractured limestones and sandstones along fault zone, may be related to Apache cauldron
12: 0.13% U_3O_8 (NMBMMR chem lab, 2/10/82, #1782); 127 ppm Th (NMBMMR XRF lab, 2/83, #1782)
13: Hydrothermal-vein
14: Mr. Everhart, ph. no. 436-2511, Hatchet Ranch owner; mined 1953 by Hawkins, Kelley and Butterworth
15: FN 12/2/81; May and others (1981, #8); Anderson, O.J. (1980); Walton and others (1980b); van der Spuy (1970); Hilpert (1965); Elston (1965); Strongin (1957); Anderson, E.C. (1954); USAEC files (1960)
16: figure 36

1: 34S.15W.15.432
2: Opportunity Claims (Neglect, Dog Claims)
3: SE1/4 15 T34S R15W 31°20'50"N 108°21'00"W
4: Dog Mountains SE 7-1/2 Elevation 5,150 ft
5: Antelope Wells district-Dog Mountains
6: U
7: 30-ft and 10-ft deep pits
8: no production (mineral specimen locality)
9: bkgd 50 cps; dump 400-600 cps; pit 300-400 cps; high 800-1,100 cps
10: Tertiary Oak Creek Tuff-rhyolite
11: radioactive opal veins in fault zone in silicified rhyolite
12: 0.02% U_3O_8, 18 ppm Th (NMBMMR chem lab, 2/10/82, #1781; NMBMMR XRF lab, 2/83), up to 0.77% U_3O_8 reported
13: Hydrothermal-vein/Volcanogenic
15: FN 12/3/81; May and others (1981, #7); Walton and others (1980); Reiter (1980); Elston and Erb (1979); Keith (1969); Zeller, R.A., Jr. (1959); PRR-DEB-RRA-1437 (1954)

1: 22S.17W.13
2: Paul #5 and 6
3: 13 T22S R17W
4: Gold Hill 7-1/2
5: Burro Mountains-Gold Hill district
6: Pb, Ag, U
7: pits
8: no production
10: Precambrian Burro Mountain granite
11: galena-silver-uranium vein up to 1 ft thick
13: Hydrothermal-vein
14: staked by T.S. Melancon in 1955
15: USBLM files (1955)

1: 21S.17W.15,22
2: Pegmatites
3: 15, 22 T21S R17W
4: Gold Hill 7-1/2
5: Gold Hill district-Burro Mountains
6: U, Th, REE
7:
8: no production
10: Precambrian Burro Mountains granite, pegmatites
12: allanite, cyrtolite, euxenite, samarskite
13: Pegmatites
15: W.E. Elston, unpublished manuscript, 1960

1: 24S.22W.6
2: Radioactive High (Steins Pass)
3: 6 T24S R22W(?)
4: Vanar 15, San Simon 15
5: Peloncillo Mountains
6: U
7:
8: no production
10: Tertiary diabase
11: radioactive diabasic flow rock
13: Volcanogenic
14: location uncertain
15: U.S. Atomic Energy Commission (1970, p. 58)

1: 21S.17W.6, 7
2: Rhoda #1-8, Beal #1-2, Ruby #1-5, Rugby #6-15, Sidney #1-7 (White Rock)
3: 1, 12 T21S R17W 6, 7 T21S R16W 32°29'N 108°32'W
4: Gold Hill 7-1/2 Redrock 15
5: Gold Hills district-Burro Mountains
6: beryl, U, Th
7: pits, 20 ft shaft, adit (10 ft), road cuts
8: no production
10: Precambrian Burro Mountain granite, pegmatites
12: euxenite, allanite, samarskite; 0.004-0.02% U (USAEC files, 1955)
13: Pegmatite
15: O'Neill and Thiede (1982, #56x); Staatz (1974); Elston (1964); (PRR DEB-A-515 (1953); USAEC files (1955)

1: 22S.17W.9, 10
2: Unknown (Separ-Lordsburg)
3: 9, 10 T22S R17W
4: Gold Hill 7-1/2
5: Gold Hill district-Burro Mountains
6: U
7: no workings-outcrop
8: no production
10: Precambrian granite (?)
11: radioactive granite-quartz vein
13: Hydrothermal-vein
15: U.S. Atomic Energy Commission (1970, p. 24)

1: 22S.19W.34.134
2: Unknown-Section 34
3: N1/2 34 T22S R19W
4: Gary 7-1/2 Elevation 4,280 ft
5: Lordsburg district
6: Mn, U(?)
7: several small pits and open cuts, deepest 10-ft
8: no production
9: bkgd 30-40 cps; locally up to 60 cps
10: Tertiary andesite and rhyolite flows
11: reported radioactive fractures in rhyolite
13: Volcanogenic
14: no uranium found on 12/1/81
15: FN 12/1/81; Thorman and Drewes (1978); PRR DEB-A-519 (1953)

1: 27S.20W.32
2: Unknown
3: 32 T27S R20W
4: Pratt 15
5: Peloncillo Mountains
6: U(?)
7: open pit
8:
10: Cretaceous Sarten Sandstone
11: faulted sandstone and shale
13: Hydrothermal-vein
14: PRR reported no radioactivity
15: Walton and others (1980); PRR DEB-RRA-1196 (1954)

1: 29S.21W.8,9
2: Unknown (Animas)
3: 8,9 T29S R21W (unsurveyed) 31°48'N 108°59'W (approximate)
4: Pratt 15
5: Peloncillo Mountains
6:
7:
8:
10: Tertiary volcanic breccia
11: radioactivity associated with conglomerite and volcanic breccia
13: Volcanogenic
15: May and others (1981, #6X); Walton and others (1980); U.S. Atomic Energy Commission (1970, p. 57); PRR A-P-46

1: 21S.17W.14.422
2: White Rock pegmatites
3: NE1/4 14 T21S R17W 32°29'58"N 108°33'14"W
4: Gold Hill 7-1/2 Elevation 5,830 ft
5: Gold Hill district-Burro Mountains
6: U, Th, REE, mica
7: pits, trenches, 10-ft adit
8: no production
10: Precambrian Burro Mountain granite, pegmatite, diabase dike
11: radioactive zoned pegmatite
12: 105 ppm U_3O_8 (O'Neill and Thiede, 1982)
13: Pegmatite
15: O'Neill and Thiede (1982, #55); Hedlund (1978d); Gillerman (1964, p. 128)

1: 21S.17W.13.400
2: White Rock pegmatites (Thunderbird Uranium Corp.)
3: SE1/4 13 T21S R17W 32°29'00"N 108°32'30"W
4: Gold Hill 7-1/2 Elevation 5,830 ft
5: Gold Hill district-Burro Mountains
6: U, Th, REE, mica
7: pits, trenches
8: no uranium production
10: Precambrian Burro Mountain granite, pegmatite
11: zoned radioactive pegmatites
12: euxenite, allanite, samarskite
13: Pegmatite
15: Hedlund (1978d, #24); Gillerman (1964, p. 128); USAEC files (1960)

LEA COUNTY

Alphabetical (2 occurrences)

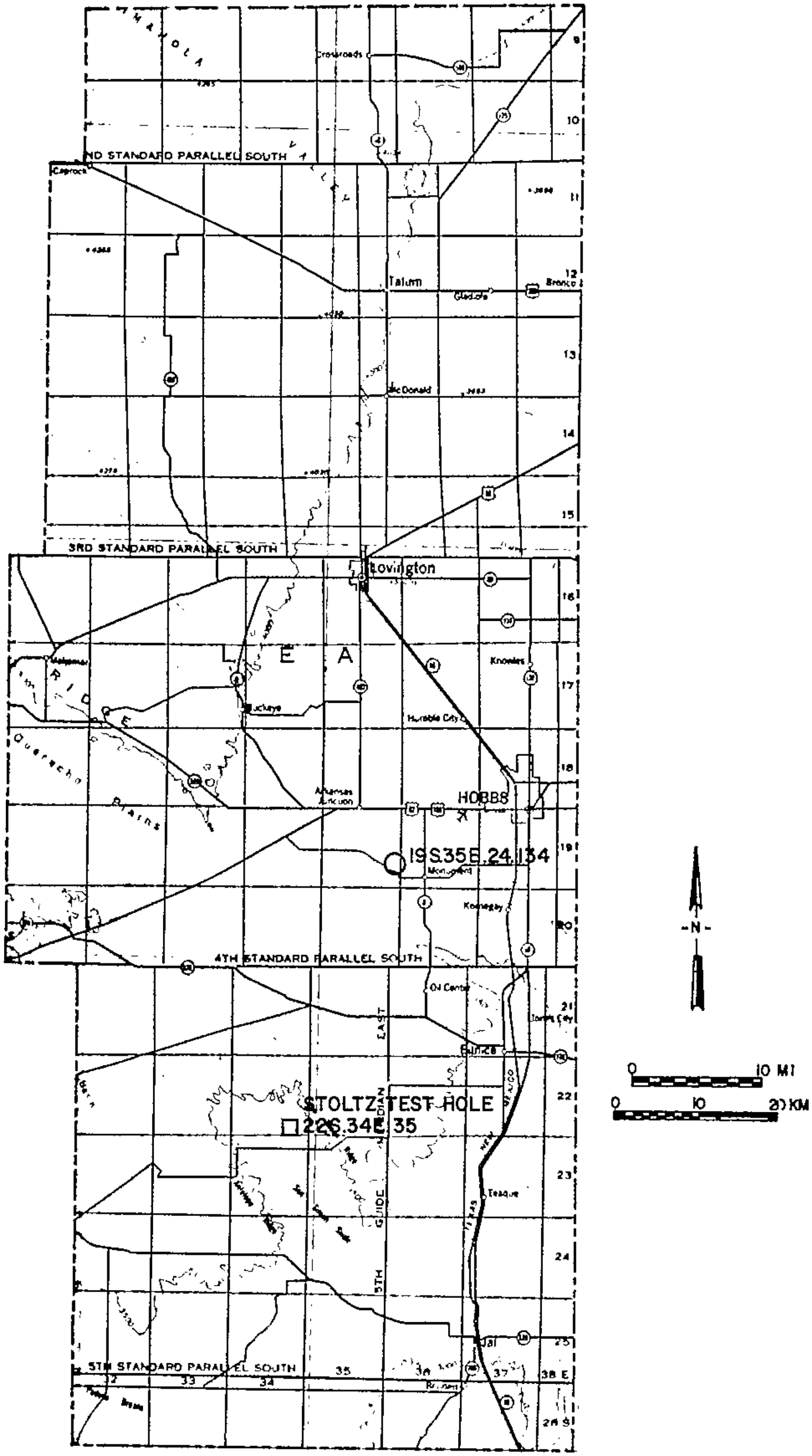
Stoltz test hole	22S.34E.35
Unknown	19S.35E.24.134

Alias	Name	Number
Clay Pit	Unknown	19S.35E.24.134
Mooreland and Hooper	Unknown	19S.35E.24.134

Numerical

19S.35E.24.134	Unknown
22S.34E.35	Stoltz test hole

FIGURE 1-16-RADIOACTIVE OCCURRENCES IN LEA COUNTY, NEW MEXICO

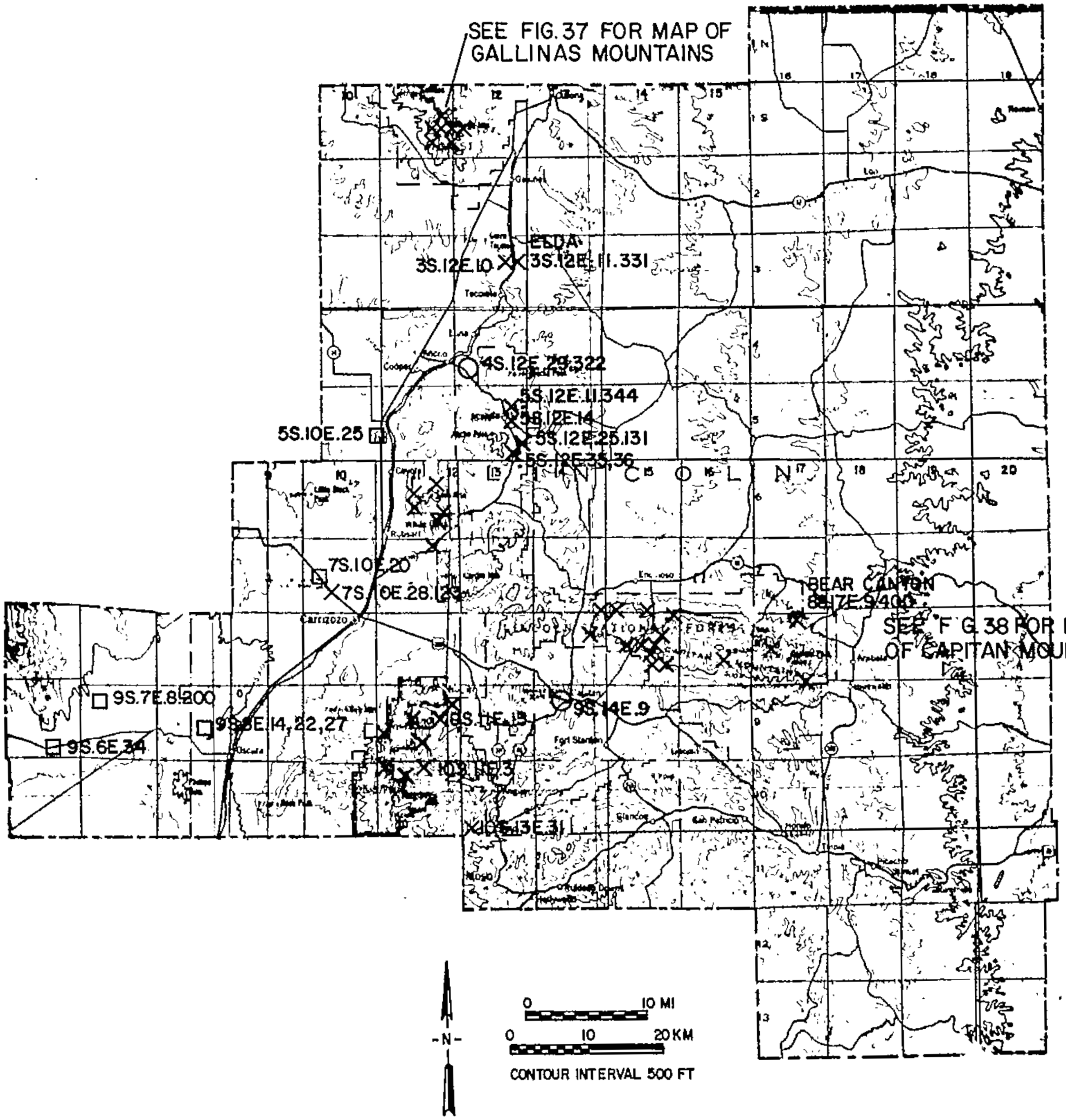


LEA COUNTY

1: 22S.34E.35
2: Stoltz test hole
3: 35 T22S R34E
4: Oil Center 15
5: near Monument & Jail Oil field - Great Plains
6: U(?)
7: no workings-drill hole
8: no production
10: Triassic Dockum Group - basal member
13: Sandstone
15: Finch, W.I. (1972, #13)

1: 19S.35E.24.134
2: Unknown (Clay Pit, Mooreland and Hooper)
3: 24 T19S R35E 32°38'40"N 103°25'00"W
4: Monument 15
5: Hobbs area (edge of Pearl Oil field) - Great Plains
6: Clay, U(?)
7: quarry
8: clay produced, no uranium production
10: Tertiary Ogallala Formation (?) or Pleistocene Gatuna Formation(?)
11: carnotite along bedding planes in clay
12: 0.006% U_3O_8 (reported by Waltman, 1954)
13: Shale
15: Finch, W.I. (1972, #14); Northrop (1959); Waltman (1954)

FIGURE 1-17- RADIOACTIVE OCCURENCES IN LINCOLN COUNTY, NEW MEXICO



Alphabetical (64 occurrences)

Alaskan #1 Lode	5S.12E.14
All American	1S.11E.23.211
American	1S.11E.22.241
Barlejon No. 2 (1-8)	8S.15E.16.414
Bear Canyon Group	8S.17E.9.400
Black Night-Good Night	6S.11E.24.131
Bond #4	3S.12E.10.424
Bonita Claims (1-13)	10S.11E.9.211
Bottleneck Prospect	1S.11E.24.423
Capitan Uranium Co. No. 14 & 18	7S.15E.33,34
Congress Prospect	1S.12E.19.313
Copeland Canyon	8S.17E.17.200
Drunzer	8S.15E.22.112
Eagle Nest	1S.11E.24.421
Eagle Nest No. 1 and 2	6S.11E.21.274
Elda	3S.12E.11.331
El Tigre	8S.15E.23.100
Ferro	6S.11E.16.422
Fuzzy Nut #1-18	8S.15E.3
Helen Rae-American	9S.12E.12,13
Hoosier Girl	1S.12E.19.331
Hopeful Claims #1-19	8S.15E.17.433
Iron Rail and Iron Contact Mine	5S.12E.11.344
King	8S.15E.15,22
Koprian Springs	8S.15E.11
Lane Claim	5S.12E.25.131
Last Chance	1S.12E.19.114
Little Mac	6S.11E.25.114
Little Wonder, Old Hickory, Eureka	1S.12E.19.320
Maud Mine	10S.11E.3.324
McCory Claims	8S.15E.1.141
Mina Tiro Estrella-Capitan	8S.16E.27.400
Mockingbird Gap	9S.6E.34
Monso Group #2, 4, 5	8S.15E.22.213
Old Jack-Jack #1	5S.12E.35.424
Piney	8S.15E.15.331
Pride No. 2, E and M No. 13	1S.11E.27.414
Prince Mine	6S.11E.14.223
Rare Metals	1S.11E.22.413
Red Cloud Mine, Red Cloud Copper, Conqueror No. 4, Hilltop	1S.11E.25.200
Richardson Claims	9S.11E.15.100
Rio Tinto	1S.11E.25.421
San Pedro-Link Hill Claims	8S.17E.35.331
Silver Plume	10S.13E.31.242
Sky High	1S.11E.14.411
Smokey Mine	6S.14E.10.441
Spur Adit	10S.11E.3.411
Summit	1S.12E.19.334
Tecolote Peaks Iron Claim	3S.12E.10.423
Unknown	4S.12E.29.322
Unknown-Ancho	5S.10E.25
Unknown-Carrizozo	7S.10E.20
Unknown-road cut	7S.10E.28.123
Unknown-Section 2	7S.11E.2.222
Unknown	7S.14E.36.411
Unknown	7S.15E.31.214
Unknown	9S.7E.8.200
Unknown-Oscura	9S.8E.14,22,27
Unknown-Tortolita Canyon	9S.11E.13.112
Unknown	9S.11E.19.414
Unknown	9S.11E.27.233
Unknown	9S.14E.9
Wee Three	8S.15E.15.124
Yellow Jacket	6S.11E.22.411

Alias	Name	Number
Barry Prospects	Wee Three No. 1-3	8S.15E.22.124
Big Chief	Bear Canyon Group	8S.17E.9.400
Bunton's Iron	Copeland Canyon	8S.17E.17.200
Busy Bee	Bear Canyon Group	8S.17E.9.400
Carolyn O	Prince Mine	6S.11E.14.223
Conqueror	Rio Tinto	1S.11E.25.421
Conqueror #4	Red Cloud Mine	1S.11E.25.200
Dutchman	Bear Canyon Group	8S.17E.9.400
E and M No. 13	Pride No. 2	1S.11E.27.414
Eureka	Little Wonder	1S.12E.19.320
Grace #5, 7, and 8	Smokey Mine	6S.14E.10.441
Henry Claim	Little Mac	6S.11E.25.114
Hill Top	Red Cloud Mine	1S.11E.25.200
House	Prince Mine	6S.11E.14.223
Hudspeth	Black Knight-Good Night	6S.11E.24.131
Iron Contact Mine	Iron Rail	5S.12E.11.344
Iron Hammer No. 2	American	1S.11E.22.241
Jack #1	Old Jack	5S.12E.35.424
JB Close	Ferro	6S.11E.16.422
Las Cinco Reinas	Prince Mine	6S.11E.14.223
Little Mack	Little Mac	6S.11E.25.114
Lone Mountain	Ferro	6S.11E.16.422
Mert	Bear Canyon Group	8S.17E.9.400
Metal #1-3	Copeland Canyon	8S.17E.17.200
North Group	McCory Claims	8S.14E.1.141
Old Hickory	Little Wonder	1S.12E.19.320
Pimi	Piney	8S.15E.15.331
Pinie	Piney	8S.15E.15.331
Pittsburgh Iron Claims	Smokey Mine	6S.14E.10.441
Red Cloud Copper	Red Cloud Mine	1S.11E.25.200
Ruth Ann	Wee Three No. 1-3	8S.15E.15.414
Silver Dollar	Bear Canyon Group	8S.17E.9.400
Silvertone	Monzo Group #2, 4, 5	8S.15E.22.213
Sparkey #1-3	Fuzzy Nut #1-18	8S.15E.3
Spring Gulch	Old Jack	5S.12E.35.424
Stoddard Mine	Eagle Nest No. 1 & 2	6S.11E.21.274
Summit	Piney	8S.15E.15.331
Tortolita Canyon	Unknown	9S.11E.13.112
Valley of Fire	Unknown-road cut	7S.10E.28.123
Wasp Claims	Yellow Jacket	6S.11E.22.411

Numerical

1S.11E.14	Sky High
1S.11E.22.241	American
1S.11E.22.413	Rare Metals
1S.11E.23.211	All American
1S.11E.24.421	Eagle Nest
1S.11E.24.423	Bottleneck Prospect
1S.11E.24,25	Red Cloud Mine
1S.11E.25.421	Rio Tinto
1S.11E.27	Pride No. 2
1S.12E.19.114	Last Chance
1S.12E.19.313	Congress Progress
1S.12E.19.320	Little Wonder
1S.12E.19.331	Hoosier Girl
1S.12E.19.334	Summit
3S.12E.10.423	Tecolote Peaks Iron Claim
3S.12E.10.424	Bond #4
3S.12E.11.331	Elda
4S.12E.29.322	Unknown
5S.10E.25	Unknown-Ancho
5S.12E.11.344	Iron Rail and Iron Contact Mine
5S.12E.14	Alaskan #1 Lode
5S.12E.25.131	Lane Claim
5S.12E.35,36	Unknown-Spring Gulch
6S.11E.14	Prince Mine
6S.11E.22,21	Eagle Nest #1 & 2
6S.11E.15,16	Ferro
6S.11E.22.411	Yellow Jacket
6S.11E.24	Black Night-Good Night
6S.11E.25	Little Mac
6S.14E.10.441	Smokey Mine
7S.10E.16,20,21	Unknown-Carrizozo
7S.10E.28.123	Unknown-road cut
7S.11E.2.222	Unknown-sec. 3
7S.14E.36.411	Unknown
7S.15E.31.214	Unknown
7S.15E.33,34	Capitan Uranium
8S.15E.1.141	McCory Claims
8S.15E.3	Fuzzy Nut #1-18
8S.15E.11	Koprian Springs
8S.15E.15.331	Piney
8S.15E.15,22	King
8S.15E.15.414	Wee Three No. 1-3
8S.15E.16.414	Barlejon No. 2
8S.15E.17.433	Hopeful Claims 1-19
8S.15E.22.112	Drunzer
8S.15E.22.213	Monso Group #2, 4, 5
8S.15E.23.100	El Tigre
8S.16E.27.400	Mina Tiro Estrella-Capitan
8S.17E.9.400	Bear Canyon Group
8S.17E.17.200	Copeland Canyon
8S.17E.35.331	San Pedro-Link Hill Claims
9S.6E.34	Mockingbird Group
9S.7E.8.200	Unknown
9S.8E.14,22,27	Unknown
9S.11E.13	Unknown-Tortolita Canyon
9S.11E.15,16	Richardson Claims
9S.11E.19	Unknown
9S.11E.27	Unknown
9S.12E.12,13	Helen Rae-American
9S.14E.9	Unknown
10S.11E.3.411	Spur Adit
10S.11E.4,9	Bonita Claims
10S.11E.6	Maud Mine
10S.13E.31	Silver Plume

LINCOLN COUNTY

1: 5S.12E.14
2: Alaskan #1 Lode
3: 14 T5S R12E
4: White Oaks North 7-1/2, Ancho 7-1/2
5: Jicarilla district
6: Fe, U(?)
7: 3 pits, 30-ft shaft
8: no production
10: Tertiary monzonite
13: Contact-metasmatic(?)
14: PRR reported no anomalous radioactivity
15: USGS and NMBMMR (1981); Kelley, V.C. (1949); PRR DEB-RRA-588 (1953)

1: 1S.11E.23.211
2: All American
3: NE1/4 23 T1S R11E 34°12'50"N 105°45'30"W
4: Pajaro Canyon 7-1/2 Elevation 7,760 ft
5: Gallinas Mountains District
6: fluorite, U, Th, REE, Cu, Fe
7: 85-ft vertical shaft
8: 129 tons fluorite (1949-1951), no uranium production
9: no anomalous radioactivity on 8/15/80
10: Permian Yeso Formation, intruded by Tertiary syenite porphyry sill
11: bastnaesite reported in breccia vein fillings
12: purple fluorite, barite, calcite, copper oxides, bastnaesite reported
13: Hydrothermal-vein
14: geologic map by Griswold (1959, p. 69)
15: FN 8/15/80; Williams (1966); Griswold (1959); Rothrock and others (1946); PRR DEB-RRA-646 (1953); DEB-RRA-789; MILS (1978)
16: figure 37

1: 1S.11E.22.241
2: American (Iron Hammer No. 2)
3: NE1/2 22 T1S R11E 34°12'35"N 105°46'10"W
4: Pajaro Canyon 7-1/2 Elevation 8,200 ft
5: Gallinas Mountain district
6: Fe, U, Th
7: caved adit (60-100 ft), open cuts
8: no uranium production; 3,800 tons iron ore
9: bkgd 50-70 cps; dump 100-175 cps; along vein 200-300 cps
10: Tertiary syenite intruding Permian Yeso Formation (iron replacement)
11: highest radioactivity with highest iron content in 5-6 ft zone of many veins
12: 0.03% $eThO_2$; 0.0094% U_3O_8 (Perhac, 1970); 0.007% U_3O_8 (NMBMMR chem lab, 10/29/80, #9671)); magnetite, hematite, galena
13: Contact-metasomatic
14: mine map by Kelley (1947, p. 173, fig. 34, p. 175, fig. 35) and Sheridan (1947, fig. 3)
15: FN 8/16/80; Perhac (1970); Griswold (1959); Kelley, V.C. (1949); Sheridan (1947); PRR DEB-RRA-639 plus 2 supplements (1953)
16: figure 37

1: 8S.15E.16.414
2: Barlejon No. 2 (1-8)
3: SE1/4 16 T8S R15E 33°36'40"N 105°28'25"W
4: Capitan Pass 7-1/2 Elevation 7,520 ft
5: Capitan district
6: U, Th, REE
7: shallow pit overgrown with vegetation
8: no production
9: bkgd 50 cps; high 100-150 cps; 400 times background reported
10: Tertiary alaskite
11: associated with breccia fillings of smokey quartz and red clay
12: 0.03-0.17% U_3O_8 in quartz veins, 0.35-0.39% U_3O_8 gouge, 4.03% ThO_2, USAEC (1970)
13: Hydrothermal-vein (breccia)
15: FN 5/8/81; USAEC (1970), p. 62; Lincoln County courthouse records (1950's)
16: figure 38

1: 8S.17E.9.400
2: Bear Canyon Group (Mert, Big Chief, Silver Dollar, Bear Canyon, Busy Bee, Dutchman)
3: E1/2 9 T8S R17E (unsurveyed) 33°37'30"N 105°16'00"W
4: Capitan Peak 7-1/2 Elevation 6,800 ft
5: Capitan district
6: U, Th, V, Fe
7: pits, trenches, 80-ft adit
8: 3 tons of ore yielding 1 lb U_3O_8 (0.02%), 2 lb V_2O_5
9: bkgd 50 cps, high 350 cps
10: Tertiary alaskite
11: radioactive magnetite vein intruding alaskite trending N80°W
12: magnetite, hematite; 0.011% U_3O_8 (NMBMMR chem lab, 3/3/83, #3143)
13: Hydrothermal-vein
14: shipped in 1954 by Mert Uranium Company
15: FN 8/14/81; USAEC files (1954); Lincoln County courthouse records (1950's)
16: figure 38

1: 6S.11E.24.131
2: Black Night-Good Night (Black Knight, Hudspeth)
3: 23,24 T6S R11E (unsurveyed) 33°46'30"N 105°46'20"W
4: Lone Mountain 7-1/2 Little Black Peak 15' Elevation 7,150-7,450
5: White Oaks district-Lone Mountain
6: Fe, U
7: cuts, pits (largest cut 50-75 ft x 20 ft high)
8: no production
9: bkgd 50 cps, high 100-150 cps
10: Permian San Andres Formation (pyrometasomatic iron replacement) intruded by quartz monzonite dikes
11: highest radioactivity with highest iron content in 4-8 ft zone of veins and lense-shaped bodies
12: magnetite, hematite, 0.013% U_3O_8 reported by PRR supplement
13: Contact-metasomatic
15: FN 8/12/80; Schnache (1977); Smith, C.T. (1964); Sheridan (1947); Griswold (1959); Kelley, V.C. (1949); PRR DEB-RRA-645 (1953, plus supplement #1)

1: 3S.12E.10.424
2: Bond #4
3: 10 T3S R12E 34°3'30"N 105°39'58"W
4: Tecolote Peak 7-1/2 Elevation 6,720 ft
5: Tecolote iron district
6: Fe, U(?)
7: 40-ft shaft
8: no uranium production
10: Permian Yeso Formation
11: magnetite-hematite replacement bocy is reportedly slightly radioactive
13: Contact-metasomatic
15: USGS and NMBMMR (1981); Kelley, V.C. (1949); PRR DE3-RRA-613 (1953)

1: 10S.11E.9.211
2: Bonita Claims (1-13)
3: 4,9 (line) T10S R11E (unsurveyed) 33°27'40"N 105°48'25"W
4: Nogal Peak 7-1/2, Sierra Blanca Peak 15 Elevation 6,050-7,150 ft
5: Nogal district-Sacramento Mountains
6: Mo, Ag, Au, Cu, U
7: 4 ft x 10 ft cut at 6,050 ft, 20-ft adit 1/4 mile up creek
8: no uranium production
9: bkgd 50 cps; cut 200 cps; adit 600-1,000 cps
10: Tertiary Sierra Blanca Volcanics
11: radioactivity associated with quartz-sulfide veins cutting andesites (N45°W)
12: pyrite, chalcopyrite, molybdenite(?), galena
13: Hydrothermal-vein (fault)
15: FN 6/3/81; Thompson, T.B. (1973); U.S. Atomic Energy Commission (1970, p. 60); PRR-ASO-26 (1954); MILS (1981)

1: 1S.11E.24.423
2 Bottleneck Prospect
3: SE1/4 24 T1S R11E 34°12'14"N 105°45'8"W
4: Rough Mountain 7-1/2 Elevation 7,705 ft
5: Gallinas Mountains district
6: U, Th, REE, fluorite
7: 25-ft shaft
8: no uranium or thorium production
9: no anomalous radioactivity
10: Permian Yeso Formation intruded by rhyolite-porphyry sill
12: bastnaestie reported, fluorite, barite, calcite
13: Hydrothermal-vein
15: FN 8/16/80; Perhac (1964); Rothrock and others (1946); MILS (1981)
16: figure 38

1: 7S.15E.33,34
2: Capitan Uranium Co. No. 14 and 18 (CPU #11-18)
3: 33, 34 T7S R15E
4: Encinoso 7-1/2
5: Capitan district
6: U, Th
7: pits, trenches
8: no production
9: 800 times background radioactivity reported
10: Tertiary alaskite
11: radioactive breccia vein fillings
12: 0.35-1.00% ThO_2, 0.06-0.18% U_3O_8 reported
13: Hydrothermal-vein
15: U.S. Atomic Energy Commission (1970, p. 4); Collins (1956) Lincoln County courthouse records (1950's); MILS (1981); PRR A (1955)
16: figure 38

1: 1S.12E.19.313
2: Congress Prospect
3: SW1/4 19 T1S R12E 34°12'30"N 105°43'55"W
4: Rough Mountain 7-1/2 Elevation 7,800 ft
5: Gallinas Mountains district
6: U, Th, REE
7: 2 pits reported
8: no uranium production
10: Permian Yeso Formation
11: bastnaesite veins intrude sandstone and limestone
12: bastnaesite, fluorite reported
13: Hydrothermal-vein
15: Perhac (1964); Rothrock and others (1946); MILS (1978)
16: figure 37

1: 8S.17E.17.200
2: Copeland Canyon (Bunton's Iron and Metal #1-3)
3: S1/2 8, N1/2 17 T8S R17E (unsurveyed) 33°36'50"N 105°17'5"W
4: Capitan Peak 7-1/2 Elevation 7,200 ft
5: Capitan district
6: U, Th, Fe
7: 3 pits or trenches; largest 20 ft x 5 ft x 3 ft
8: no production
9: bkgd 50 cps, high 100-120 cps
10: Tertiary alaskite
11: thorium breccia veins and magnetite-hematite veins
13: Hydrothermal-vein
15: FN 7/16/81; Lincoln County courthouse records (1950's)
16: figure 38

1: 8S.15E.22.112
2: Drunzer
3: NE1/4 22 T8S R15E (unsurveyed) 33°36'25"N 105°27'20"W
4: Capitan Pass 7-1/2 Elevation 7,380 ft
5: Capitan district
6: U, Th
7: bulldozer cuts, trenches, pits on ridge
8: no production
9: bkgd 50 cps, high 80-100 cps
10: Tertiary alaskite
11: radioactive breccia vein (N70°E30°N), 3 inches wide
12: possibly radioactive allanite
13: Hydrothermal-vein (breccia)
15: FN 5/8/81; 6/4/81; Griswold (1959); MILS (1981)
16: figure 38

1: 1S.11E.24.421
2: Eagle Nest
3: E1/2 24 T1S R11E 34°12'30"N 105°44'15"W
4: Rough Mountain 7-1/2 Elevation 7,800 ft
5: Gallinas Mountain district
6: U, Th, REE
7: 3 pits, trenches
8: no uranium production
10: Permian Yeso Formation (quartz sandstone)
11: bastnaesite in veins in fault zone
12: fluorite, barite, quartz, pyrite, bastnaesite
13: Hydrothermal-vein
15: Perhac (1964); Rothrock and others (1946); MILS (1981)
16: figure 37

1: 6S.11E.21.274
2: Eagle Nest No. 1 and 2 (Stoddard Mine)
3: 21, 22 T6S R11E 33°46'35"N 105°47'40"W
4: Lone Mountain 7-1/2 Little Black Peak 15 Elevation 6,450-6,475 ft
5: White Oaks district-Lone Mountain
6: Fe, U
7: cuts (largest 400-500'x 30' high)
8: no production
9: bkgd 40-50 cps, high 100-120 cps
10: Permian San Andres Formation intruded by Tertiary Lone Mountain stock (iron replacement)
11: highest radioactivity with highest iron content
12: 0.01% U_3O_8 (NMBMMR chem lab, 10/20/80, #9605); 0.034% U_3O_8 and 0.70% ThO_2 (PRR)
13: Contact-metasomatic
15: FN 8/13/80; Schnacke (1977); U.S. Atomic Energy Commission (1970, p. 63); Smith, C.T. (1964); MILS (1981); PRR ASO-98 (1956)

1: 3S.12E.11.331
2: Elda
3: 10, 11 T3S R12E 34°3'25"N 105°39'55"W
4: Tecolote Peak 7-1/2 Elevation 6,700 ft
5: Tecolote Iron district
6: Fe, U(?)
7: open pits, shafts
8: no uranium production
10: Permian Yeso Formation
11: slightly radioactive magnetite-hematite replacement body
13: Contact-metasomatic
15: USGS and NMBMMR (1981); Kelley, V.C. (1949); PRR DEB-RRA-589(1953); DEB-RRA-610(1953); MILS (1981)

1: 8S.15E.23.100
2: El Tigre
3: NE1/4 23 T8S R15E (unsurveyed)
4: Capitan Pass 7-1/2
5: Capitan district
6: U, Th
7: pits
8: no production
10: Tertiary alaskite
13: Hydrothermal-vein
15: BLM claim notices (1982)
16: figure 38

1: 6S.11E.16.422
2: Ferro (JB Close, Lone Mountain)
3: 15, 16 T6S R11E 33°47'10"N 105°47'40"W
4: Lone Mountain 7-1/2, Little Black Peak 15 Elevation 6,300-6,400'
5: White Oaks district-Lone Mountain
6: Fe, U
7: cuts-open pit (largest cut 200-300'x 20' high)
8: 4,116-8,250 tons iron ore, no uranium production
9: bkgd 50 cps, high 100-200 cps
10: Permian San Andres Formation intruded by Tertiary Lone Mountain stock (pyrometasomatic iron replacement)
11: highest radioactivity with highest iron content
12: magnetite, hematite, 0.0083-0.0094% U_3O_8 reported by PRR
13: Contact-metasomatic
15: FN 8/12/80; Schnacke (1977); Smith, C.T. (1964); Griswold (1959); PRR DEB-RRA-548 (1953) plus supplement #1

1: 8S.15E.3
2: Fuzzy Nut #1-18 (Sparky #1-3)
3: 3 T8S R15E
4: Encinoso 7-1/2
5: Capitan district
6: U, Th
7: no workings found 6/6/81
8: no production
9: bkgd 50 cps, high 100-150 cps
10: Tertiary alaskite
11: radioactive breccia fillings
13: Hydrothermal-vein
15: FN 6/6/81; Collins (1956); Lincoln County courthouse records (1950's)
16: figure 38

1: 9S.12E.12,13
2: Helen Rae-American
3: 12, 13 T9S R12E
4: Capitan 15 Capitan 7-1/2
5: near village of Capitan
6: Au, U(?)
7:
8: no uranium production
11: slightly radioactive breccia and silicified zones
12: Hydrothermal-vein(?)
15: USGS and NMBMMR (1981); PRR DEB-RRA-1118 (1953)

1: 1S.12E.19.331
2: Hoosier Girl (Hoosier Girl North and South)
3: SW1/4 19 T1S R12E 34°12'25"N 105°43'45"W
4: Rough Mountain 7-1/2 Elevation 7,700 ft
5: Gallinas Mountains district
6: fluorite, bastnaesite, REE, U, Th
7: pits, shafts (440, 300, 650-ft caved), trenches
8: no production
9: bkgd 50 cps, high 100 cps
10: Permian Yeso Formation (quartz sandstones and limestones)
11: associated with veins up to 6-ft wide
12: bastnaesite <5%
13: Hydrothermal-vein
15: FN 8/16/80; Williams (1966); Perhac (1964); Perhac and Heinrich (1964); Griswold (1959); Soulé (1946); Rothrock and others (1946)
16: figure 37

1: 8S.15E.17.433
2: Hopeful Claims #1-19
3: 17 T8S R15E
4: Capitan Pass 7-1/2
5: Capitan district
6: U, Th
7: 10 ft x 3 ft x 6 ft pit reported but not found
8: no production
9: bkgd 50 cps, reconnaissance of area 50-70 cps, 500 times background reported
10: Tertiary alaskite
11: radioactive veins along fault zones, some clay zones
12: purple fluorite reported
13: Hydrothermal-vein
14: could not be found, local rancher has not seen any pits
15: FN 5/8/81; 6/4/81; U.S. Atomic Energy Commission (1970, p. 66); Collins (1956)
16: figure 38

1: 5S.12E.11.344
2: Iron Rail and Iron Contact Mine
3: 11 T5S R12E 33°53'5"N 105°39'30"W
4: Ancho 7-1/2 Elevation 6,920 ft
5: Jicarilla district
6: Fe, U(?)
7: pits
8: no uranium production
10: Permian Yeso Formation (?)
13: Contact-metasomatic
15: USGS and NMBMMR (1981)

1: 8S.15E.15,22
2: King
3: 15, 22 T8S R15E
4: Capitan Pass 7-1/2
5: Capitan district
6: U, Th
7: bulldozer cuts
8: no production
10: Tertiary alaskite
11: radioactive breccia vein fillings
13: Hydrothermal-vein (breccia)
15: Griswold (1959)
16: figure 38

1: 8S.15E.11
2: Koprian Springs
3: 11 T8S R15E
4: Encinoso 7-1/2
5: Capitan district
6: U, Th
7: pits
8: no production
1Ø: Tertiary alaskite
11: radioactive breccia fillings
12: Ø.ØØ2-Ø.Ø51% U_3O_8 Ø.34% ThO_2 reported
13: Hydrothermal-vein (breccia)
15: Collins (1956)
16: figure 38

1: 5S.12E.25.131
2: Lane Claim
3: 25 T5S R12E 33°51'ØØ"N 1Ø5°38'48"W
4: White Oaks North 7-1/2 Elevation 7,16Ø ft
5: Jicarilla district
6: Fe, U(?)
7: 2 pits
8: no uranium produced, 7Ø tons of 6Ø% iron ore shipped
9: bkgd 3Ø-5Ø cps; high 8Ø cps
1Ø: Premian Yeso Formation intruded by syenite
11: slightly radioactive iron-ore replacement body
13: Contct-metasomatic
15: FN 6/6/81; USGS and NMBMMR (1981); Kelley, V.C. (1949); PRR DEB-RRA-584 (1953)

1: 1S.12E.19.114
2: Last Chance
3: NW1/4 19 T1S R12E 34°12'5Ø"N 1Ø5°43'5Ø"W
4: Rough Mountain 7-1/2 Elevation 7,5ØØ ft
5: Gallinas Mountain district
6: fluorite, U, Th, REE
8: no uranium production
1Ø: Permian Yeso Formation
11: bastnaesite in veins
13: Hydrothermal-vein
15: Perhac (1964)
16: figure 37

1: 6S.11E.25.114
2: Little Mac (Little Mack, Henry Claim)
3: NW1/4 25 T6S R11E 33°45'30"N 105°44'40"W
4: Lone Mountain 7-1/2, Little Black Peak 15 Elevation 6,650-6,775 ft
5: White Oaks district-Lone Mountain
6: Au, Sb, U
7: 150-ft shaft, 100-ft adit, open cuts, trenches
8: 2,579 oz/ton gold, no uranium production
9: bkgd 50-60 cps, dumps 50-80 cps, monzonite 50-100 cps, rhyolite 150-200 cps
10: Teriary monzonite, rhyolite dikes intruded Permian sediments
11: associated with veins trending N70°E along rhyolite dike contacts
13: Hydrothermal-vein
14: present owner Bud Grenshaw, White Oaks, NM; mine map by Griswold (1959)
15: FN 8/12/80; Griswold (1959); PRR DEB-RRA-697 (1953)

1: 1S.12E.19.320
2: Little Wonder, Old Hickory, Eureka
3: NW1/4 SW1/4 19 T1S R12E 34°12'25"N 105°43'45"W
4: Rough Mountain 7-1/2 Elevation 7,700 ft
5: Gallinas Mountains district
6: fluorite, Th, U, REE, Cu, V
7: pits, 3 shafts, adit, cuts
8: no uranium production
10: Permian Yeso Formation (arkosic sandstone) intruded by Tertiary syenite sill
11: bastnaesite in veins cutting sandstones and limestones
12: 0.002-0.019% U_3O_8, 0.10-0.11% V_2O_5 (PRR), bastnaesite, fluorite, barite, copper oxides
14: Hydrothermal-vein (breccia)
15: Perhac (1964); Rothrock and others (1946); PRR DEB-RRA-638 (1953, also supplement no. 1)
16: figure 37

1: 10S.11E.3.324
2: Maud Mine
3: SW1/4 3 T10S R11E 33°27'45"N 105°47'32"W
4: Nogal Peak 7-1/2, Sierra Blanca 15
5: Nogal district-Sacramento Mountains
6: Au, Pb, Ag, U
7: 200-ft shaft (filled), adits
8: no uranium production
9: bkgd 50 cps, high on dump (east side) 100 cps
10: Tertiary Sierra Blanca Volcanics
11: radioactivity associated with quartz vein intruding andesite
12: pyrite, galena
13: Hydrothermal-vein
15: FN 6/3/81

1: 8S.15E.1.141
2: McCory claims (North Group)
3: SE1/4 36 T7S R15E, 31 T7S R16E, NW1/4 1 T8S R15E
33°38'31"N 105°25'45"W
4: Encinoso 7-1/2 Elevation 7,640 ft
5: Capitan district
6: U, Th
7: cuts, trench 5 ft x 5 ft x 5 ft
8: no production
9: average 150-200 cps; high 3,200 cps
10: Tertiary alaskite
11: radioactive breccia fillings in veins, 3 ft zone, 100 ft long
12: purple fluorite, quartz, tourmaline, 0.02, 0.023% U_3O_8 (NMBMMR chem lab, 2/10/82, #1784); 217 ppm Th (NMBMMR XRF lab, 2/83, #1784)
13: Hydrothermal-vein (breccia)
15: FN 6/6/81, 8/20/81; Griswold (1969)
16: figure 38

1: 8S.16E.27.400
2: Mina Tiro Estrella-Capitan
3: SE1/4 27 T8S R16E (unsurveyed) 33°34'N 105°21'W
4: Capitan Peak 7-1/2 Elevation 7,520 ft
5: Capitan Mountains
6: U, Th
7: 15-ft trench
8: no production
9: bkgd 50 cps; highest on dump 170 cps; face of trench 120 cps
10: Tertiary alaskite
11: breccia vein at intersection of two fractures N60°E, N35°W
12: allanite, titanite, quartz
13: Hydrothermal-vein
15: FN 8/13/81; Frank Kimbler (PC., 8/81); USBLM claim notices, 2/22/81
16: figure 38

1: 9S.6E.34
2: Mockingbird Gap
3: NE1/4 34 T9S R6E
4: Mockingbird Gap 15
5: south of Estey district-Oscuro Mountains
6: U, Cu
7: pit
8: no uranium production
10: Permian Abo Formation
11: copper-bearing graywacke
12: 0.001% U_3O_8 (Baltz, 1956)
13: Sandstone
14: White Sands Missile Range
15: Baltz (1955, #46); PRR RG 3-51 (1951)

1: 8S.15E.22.213
2: Monso Group #2, 4, 5 (Monzo, Silvertone)
3: 22 T8S R15E
4: Capitan Pass 7-1/2 Elevation 7,800 ft
5: Capitan district
6: U, Th
7: cuts reported, 1 pit found
8: no production
9: bkgd 50 cps; high 60-70 cps
10: Tertiary alaskite
11: radioactive breccia vein
12: 0.003-0.010% U_3O_8, 3.57% ThO_2 reported
13: Hydrothermal-vein
14: deposit described could not be found on 6/4/81
15: FN 6/4/81; Collins (1956); PRR DEB-P-4-1453 (1955); DEB-RR-452 (1952)
16: figure 38

1: 5S.12E.35.424
2: Old Jack-Jack #1 (Spring Gulch)
3: 35, 36 T5S R12E 33°50'00"N 105°38'55"W
4: White Oaks North 7-1/2 Elevation 6,880 ft
5: Jicarilla district
6: U(?), Au, Fe
7: 2 pits
8: no uranium production
9: bkgd 30-50 cps, high 80 cps
10: Permian Yeso Formation
13: Sandstone or Contact-metasomatic
15: FN 6/6/81; USGS and NMBMMR (1981); PRR-DEB-RRA-587 (1953)

1: 8S.15E.15.331
2: Piney (Pinie, Summit, Pimi)
3: SW1/4 15 T8S R15E 33°36'30"N 105°28'5"W
4: Capitan Pass 7-1/2 Elevation 7,800 ft
5: Capitan district
6: U, Th
7: bulldozer cuts, open pit, drill holes
8: no production
9: bkgd 60-150 cps; average 400-500 cps; high along veins 1,000 cps
10: Tertiary alaskite
11: radioactive veins cutting syenite
12: 4.8% U_3O_8 (1), 0.002-0.029% U_3O_8, 0.12-0.16% V_2O_5 reported (PRR)
13: Hydrothermal-vein
15: FN 5/8/81; Collins (1956); U.S. Atomic Energy Commission (1970, p. 65); MILS (1981)
16: figure 38

1: 1S.11E.27.414
2: Pride No. 2, E and M No. 13
3: SW1/4 27 T1S R11E 34°11'N 105°46'15"W
4: Pajaro Canyon 7-1/2 Elevation 7,500 ft
5: Gallinas Mountains district
6: U, Th, REE
7: pits
8: no uranium production
10: Permian Yeso Formation
11: bastnaesite in veins
13: Hydrothermal-vein
15: Perhac (1970, 1964)
16: figure 37

1: 6S.11E.14.223
2: Prince Mine (House, Carolyn O, Las Cinco Reinas)
3: 14 T6S R11E 33°47'30"N 105°46'10"W
4: Lone Mountain 7-1/2, Little Black Peak 15 Elevation 6,700 ft
5: White Oaks district-Lone Mountain
6: asbestos, U, Fe
7: cuts, pits, caved adit (200-ft)
8: no production
9: bkgd 50-60 cps; average 100-150 cps; high 300 cps
10: Permian San Andres Formation intruded by Tertiary Lone Mountain stock (pyrometasomatic iron replacement)
11: associated with highest iron content, uranium minerals along fractures and with pyrite
12: 0.015-0.031% U_3O_8, metatorbernite, torbernite reported
13: Contact-metasomatic
14: mine map by Sheridan(1947, p. 16, fig. 21)
15: FN 8/13/80; Griswold (1959); Walker and Osterwald (1956); Krauskopf (1956); PRR DEB-RRA-583 (1953); Kelley, V.C. (1949); R. Weber (PC, 7/13/81)

1: 1S.11E.22.413
2: Rare Metals
3: SE1/4 22 T1S R11E 34°12'25"N 105°46'25"W
4: Pajaro Canyon 7-1/2 Elevation 7,800 ft
5: Gallinas Mountain district
6: Fe, U
7: adits (one 150-ft long), 50-ft shaft, trenches, pits
8: no uranium produced
10: Tertiary syenite intruding Permian Yeso Formation (iron replacement
13: Contact-metasomatic
14: geologic map by Kelley (1949, fig. 35)
15: Perhac (1970); Griswold (1959); Kelley, V.C. (1949); Sheridan (1947); PRR DEB-RRA-639 (1954)
16: figure 37

1: 1S.11E.25.200
2: Red Cloud Mine, Red Cloud Copper, Conqueror No. 4, Hilltop
3: 24, 25 T1S R11E 34°12'20"N 105°44'40"W
4: Rough Mountain 7-1/2 Elevation 7,500 ft
5: Gallinas Mountains district
6: fluorite, REE, Th, U, Ag, Pb, Cu, Zn
7: cuts, adit, shafts (110-ft deep), pits
8: 1,000 tons fluorite; 60 tons bastnaesite; 2,384 tons of 6% Ag, 22% Pb, 7% Cu, 2% Zn; no uranium production
9: bkgd 50-70 cps; dump 100-200 cps; gouge zone 200-300 cps
10: Permian Yeso Formation
12: bastnasite, purple fluorite, copper oxides
13: Hydrothermal-vein (breccia)
15: FN 8/16/80; Perhac (1970; 1964); Williams (1966); Perhac and Heinrich (1964); Rothrock and others (1946); Soulè (1946)
16: figure 37

1: 9S.11E.15.100
2: Richardson Claims
3: NW 15, 16 T9S R11E 33°31'40"N 105°47'29"W
4: Church Mountain 7-1/2, Carrizozo 15 Elevation 7,900-8,000 ft
5: Nogal district-Sacramento Mountains
6: Mo, Au, U
7: pits
8: no uranium production
9: 2-5 times background reported
10: Tertiary Sierra Blanca Volcanics (andesite)
12: pyrite
13: Hydrothermal-vein
15: U.S. Atomic Energy Commission (1970, p. 61)

1: 1S.11E.25.421
2: Rio Tinto (Conqueror)
3: SE1/4 25 T1S R11E 34°11'35"N 105°44'5"W
4: Rough Mountain 7-1/2
5: Gallinas Mountains district
6: fluorite, U, Th, REE
7: 230-ft shaft, open pit
8: 300 tons fluorite-copper-lead, 11 tons bastnaesite
10: Permian Yeso Formation
11: bastnaesite in mineralized breccia zone
12: fluorite, barite, azurite, malachite, wulfenite, bastnaesite
13: Hydrothermal-vein
14: extension of Red Cloud mine; mine map by Griswold (1959, p. 18)
15: Perhac (1964); Griswold (1959)
16: figure 37

1: 8S.17E.35.331
2: San Pedro-Link-Nob Hill Claims (East Group)
3: SW1/4 35 T8S R17E 33°33'50"N 105°15'00"W
4: Capitan Peak 7-1/2, Arabela 7-1/2 Elevation 7,240 ft
5: Capitan district
6: U, Th, Fe
7: small prospect pit
8: no production
9: bkgd 50 cps, high 100-120 cps
10: Tertiary alaskite
11: radioactive zones along fractures, 6 inches wide (poorly exposed)
13: Hydrothermal-vein
14: one vein exposed along road (no other workings), iron veins nearby
15: FN 8/21/81; Lincoln County courthouse records (1950's); USBM files (1956)
16: figure 38

1: 10S.13E.31.242
2: Silver Plume
3: 31 T10S R13E 33°24'00"N 105°42'32"W
4: Angus 7-1/2 Elevation 7,640; 7,760 ft
5: Nogal district
6: Cu, Au, U(?)
7: adit, pits
8: no uranium production
13: Hydrothermal-vein(?)
15: USGS and NMBMMR (1981); PRR DEB-RRA-1120 (1953)

1: 1S.11E.14.411
2: Sky High
3: NW1/4 SE1/4 14 T1S R11E 34°13'20"N 105°45'30"W
4: Pajaro Canyon 7-1/2 Elevation 7,850 ft
5: Gallinas Mountains district
6: fluorite, U, Th, REE
7: 100-ft caved adit, pit
8: no uranium production
10: Permian Yeso Formation
11: bastnaesite in vein
12: fluorite, quartz, barite, calcite, bastnaesite
13: Hydrothermal-vein
15: Perhac (1964); Rothrock and others (1946)
16: figure 37

1: 6S.14E.10.441
2: Smokey Mine (Pittsburgh Iron Claims, Grace #5, 7, and 8)
3: 11, 14, 15 T6S R14E
4: Capitan 7-1/2, Capitan 15 Elevation 6,900 ft
5: south of Jicarilla district-Jicarilla Mountains
6: Fe, U
7: pits
8: no uranium production, present production 300 t/day aggregate
9: bkgd 20-30 cps, high 100 cps
10: Permian San Andres Formation intruded nearby Tertiary alaskite
11: spotty radioactivity in limestone associated with hematite silicification
12: magnetite, hematite
13: Contact-metasmatic
14: presently being operated by H.N. LaRue and Sons, P.O. Box 146, Capitan, NM 88316
15: FN 6/4/81; Soulè (1959); Kelley, V.C. (1949); PRR-DEB-RRA-612 (1950's)
16: figure 38

1: 10S.11E.3.411
2: Spur adit (Renouned)
3: 3 T10S R11E 33°28'10"N 105°47'15"W
4: Nogal Peak 7-1/2 Sierra Blanca Peak 15
5: Nogal district-Sacramento Mountains
6: Au, U
7: adit
8: no uranium production
9: bkgd 50 cps, high 150 cps
10: Tertiary Sierra Blanca volcanics
13: Hydrothermal-vein
15: FN 6/3/81

1: 1S.12E.19.334
2: Summit
3: SW1/4 19 T1S R12E 34°12'5"N 105°43'50"W
4: Rough Mountain 7-1/2 Elevation 7,790 ft
5: Gallinas Mountain district
6: fluorite, U, Th, REE
7: 25-ft pit
8: no uranium production
9: no anomalous radioactivity
10: Permian Yeso Formation (quartz sandstone)
11: 2-4 ft thick vein with bastnaesite
12: fluorite, quartz, bastnaesite
13: Hydrothermal-vein
15: FN 8/16/80; Perhac (1964)
16: figure 37

1: 3S.12E.10.423
2: Tecolote Peaks Iron Claim
3: 10 T 35 R12E 34°3'30"N 105° ' "W
4: Tecolote Peak 7-1/2 Elevation 6,770 ft
5: Tecolote Iron district
6: Fe, U(?)
7: 15-ft shaft, pit
8: no uranium production
10: Permian Yeso Formation
11: slightly radioactive iron replacement body
13: Contact-metasomatic
15: USGS and NMBMMR (1981); Kelley, V.C. (1949); PRR DEB-RRA-611 (1953)

1: 4S.12E.29.322
2: Unknown
3: 29 T4S R12E 33°56'00"N 105°42'35'W
4: Ancho 7-1/2 Elevation 6,300 ft
5: Jicarilla district
6: clay, U(?)
7: 4 open-stopes, open cuts, 2 caved adits
8: no uranium production
9: background 30 cps; no anomalous readings above bkgd
10: Jurassic Morrison Formation adjacent to andesite intrusive
11: slightly radioactive zones associated with iron oxides and black shales
13: Shale
15: FN 5/8/81; USGS and NMBMMR (1981); PRR DEB-RR-457 (1953)

1: 5S.10E.25
2: Unknown-Ancho
3: 11, 24, 25, 35, 36 T5S R10E
4: Lone Mountain 7-1/2, Little Black Peak 15
5: west of Jicarilla district
6: U
7: pits
8: no uranium production
9: 2-5 times background reported
10: Triassic Chinle Formation
11: associated with woody remains in bleached sandstone
13: Sandstone
15: PRR DEB-RRA-1122 (1953)

1: 7S.1ØE.2Ø
2: Unknown-Carrizozo (Harkey Prospect)
3: 16, 2Ø, 21 T7S R1ØE 33°41'1Ø"N, 1Ø5°53'59"W
4: Carrizozo W 7-1/2, Carrizozo 15
5: Carrizozo area
6: U
7: pits
8: no uranium production
9: 1Ø times background reported
1Ø: Cretaceous Dakota Formation surrounded by recent basalt flow
11: radioactive sandstone N45°E 15°E
12: Ø.ØØ9-Ø.Ø28% U_3O_8, Ø.Ø3-Ø.Ø7% V_2O_5 reported
13: Sandstone
15: PRR DEB-P-4-1476 (1956); MILS (1981)

1: 7S.1ØE.28.123
2: Unknown-road cut (Valley of Fire)
3: NW1/4 28 T7S R1ØE 33°41'45"N 1Ø5°54'45"W
4: Carrizozo W 7-1/2, Carrizozo 15 Elevation 5,225 ft
5: Carrizozo area
6: U
7: no workings-road cut (5 x 1ØØ ft)
8: no production
9: bkgd 3Ø-5Ø cps; average 5ØØ-6ØØ cps; high along contact 1,2ØØ cps
1Ø: Tertiary syenite intruding Cretaceous Mancos shale
11: associated with syenite dike and organic material in shale and limestone
12: 2Ø7 ppm (Berry and others, 198Ø)
13: Orthomagmatic
15: FN 3/19/81; Berry and others (198Ø, #3)

1: 7S.11E.2.222
2: Unknown-sec. 2
3: 2 T7S R11E, 35 T6S R11E 33°44'ØØ"N 1Ø5°45'2Ø"W
4: Carrizozo 7-1/2, Carrizozo 15' Elevation 6,Ø75 ft
5: White Oak district-Lone Mountain
6: U, Au
7: shaft, arroyo outcrop
8: no production
9: bkgd 4Ø-6Ø cps, shale 4Ø-6Ø cps, rhyolite 1ØØ-15Ø cps
1Ø: Cretaceous Mancos Formation intruded by Tertiary rhyolite dike
11: rhyolite dike
12: Ø.Ø1% U_3O_8 reported by PRR, airbourne anomaly
13: Orthomagmatic
15: FN 8/12/8Ø; U.S. Atomic Energy Commission (1966, p. 44); Griswold (1959); Collins and Mallory (1954, p. 14); PRR ED-R-1249 (1953); USAEC files (195Ø's)

1: 7S.14E.36.411
2: Unknown
3: SE1/4 36 T7S R14E
4: Jacob Springs 7-1/2, Elevation 6,980 ft
5: Capitan district
6: U, Th
7: pit
8: no production
10: Tertiary alaskite
13: Hydrothermal-vein
15: Anonymous-unpublished field map, NMBMMR files (probably done in 1950's)
16: figure 38

1: 7S.15E.31.214
2: Unknown
3: NW1/4 31 T7S R15E
4: Jacob Springs 7-1/2 Elevation 7,400 ft
5: Capitan district
6: U, Th
7: pit
8: no production
10: Tertiary alaskite
13: Hydrothermal-vein
15: Anonymous-unpublished field map, NMBMMR files (probably done in 1950's)
16: figure 38

1: 9S.7E.8.200
2: Unknown
3: NE1/4 8 T9S R7E
4: Chihuahua Ranch 15
5: south of Estey district-Oscura Mountains
6: Cu, U
7: pit
8: no production
10: Permian Abo Formation
11: copper-bearing graywacke
12: 0.001% U_3O_8 reported
13: Sandstone
15: Baltz (1955, #45)

1: 9S.8E.14, 22, 27
2: Unknown-Oscura
3: 14, 22, 27 T9S R8E
4: Chihuahua Ranch 15
5: south of Estey district-Oscura Mountains
6: U
7: short adits
8: no uranium production
9: 2-3 times background reported
10: Triassic Chinle Formation overlain by Cretaceous Dakota Sandstone
11: slight radioactivity associated with woody remains in sandstone at unconformity
13: Sandstone
15: USGS and NMBMMR (1981); PRR DEB-RRA-1124 (1953)

1: 9S.11E.13.112
2: Unknown-Tortolita Canyon
3: NW1/4 13 T9S R11E
4: Church Mountain 7-1/2, Carrizozo 15 Elevation 7,240 ft
5: Nogal district-Sacramento Mountains
6: Au, U
7: 5 ft x 10 ft cut into hill
8: no uranium production
9: bkgd 50 cps, high 100 cps
10: Tertiary Sierra Blanca Volcanics
11: radioactivity associated with quartz-pyrite(?) veins in andesite (N65^{O}W)
13: Hydrothermal-vein (fault)
15: FN 6/13/81

1: 9S.11E.19.414
2: Unknown
3: 19 T9S R11E
4: Church Mountain 7-1/2, Carrizozo 15 Elevation 7,200 ft
5: Nogal district-Sacramento Mountains
6: Au, U
7: 50-ft adit
8: no uranium production
9: slightly above background
10: Tertiary Sierra Blanca volcanics
13: Hydrothermal-vein
15: PRR DEB-RRA-1119 (1953)

1: 9S.11E.27.233
2: Unknown
3: NE1/4 27 T9S R11E
4: Church Mountain 7-1/2, Carrizozo 15' Elevation 8,270 ft
5: Nogal district-Sacramento Mountains
6: Au, U
7: adit, pits
8: no uranium production
9: bkgd 50 cps, high 250 cps
10: Tertiary Rialto stock
12: 0.003% U_3O_8 (NMBMMR chem lab, 3/3/83, #3153)
13: Hydrothermal-vein
15: FN 6/5/81

1: 9S.14E.9
2: Unknown
3: 9 T9S R14E
4: Capitan 7-1/2, Capitan 15
5: Sierra Blanca coal field
6: coal, U(?)
7: open pits
8: no uranium production, coal produced
10: Cretaceous Mesaverde Group
13: Coal
14: PRR reports no anomalous radioactivity
15: USGS and NMBMMR (1981); PRR DEB-RRA-1121 (1953)

1: 8S.15E.15.124
2: Wee Three No. 1-3, Barry Prospects, Ruth Ann
3: 22 T8S R15E
4: Capitan Pass 7-1/2
5: Capitan district
6: U, Th
7: pits, trenches, reported
8: no production
9: bkgd 50 cps, nothing above background found 6/4/81
10: Tertiary alaskite
11: radioactive breccia zone N20°W
12: 0.001-0.002% U_3O_8, 0.17% ThO_2, allanite
13: Hydrothermal-vein
14: deposit could not be found on 6/4/81
15: FN 6/4/81; Griswold (1959); Collins (1956); PRR DEB-P-4-1462 (1955)
16: figure 38

1: 6S.11E.22.411
2: Yellow Jacket (Wasp Claims)
3: 22 T6S R11E 33°46'10"N 105°46'40"W
4: Lone Black Peak 7-1/2, Little Black Peak 15 Elevation 6,350-6,400 ft
5: White Oaks district-Lone Mountain
6: Fe, U, Cu, Au
7: pits, cuts (largest 300-400 ft x 6-10 ft high), inclined shaft, 150-ft adit
8: 17,500 tons magnetite, no uranium production
9: bkgd 30-50 cps, high along vein 250-320 cps
10: Permian San Andres Formation intruded by Tertiary Lone Mountain stock (pyrometasomatic iron replacement)
11: highest radioactivity with highest iron content associated with syncline
12: magnetite, hematite
13: Contact-metasmatic
14: mine map by Kelley (1949, p. 154, fig. 28)
15: FN 8/13/80; Schnacke (1977); Smith, C.T. (1964); Griswold (1959); Kelley, V.C. (1949); Sheridan (1947); PRR DEB-RRA-585 (1953)

LOS ALAMOS COUNTY

No occurrences

LUNA COUNTY

Alphabetical (10 occurrences)

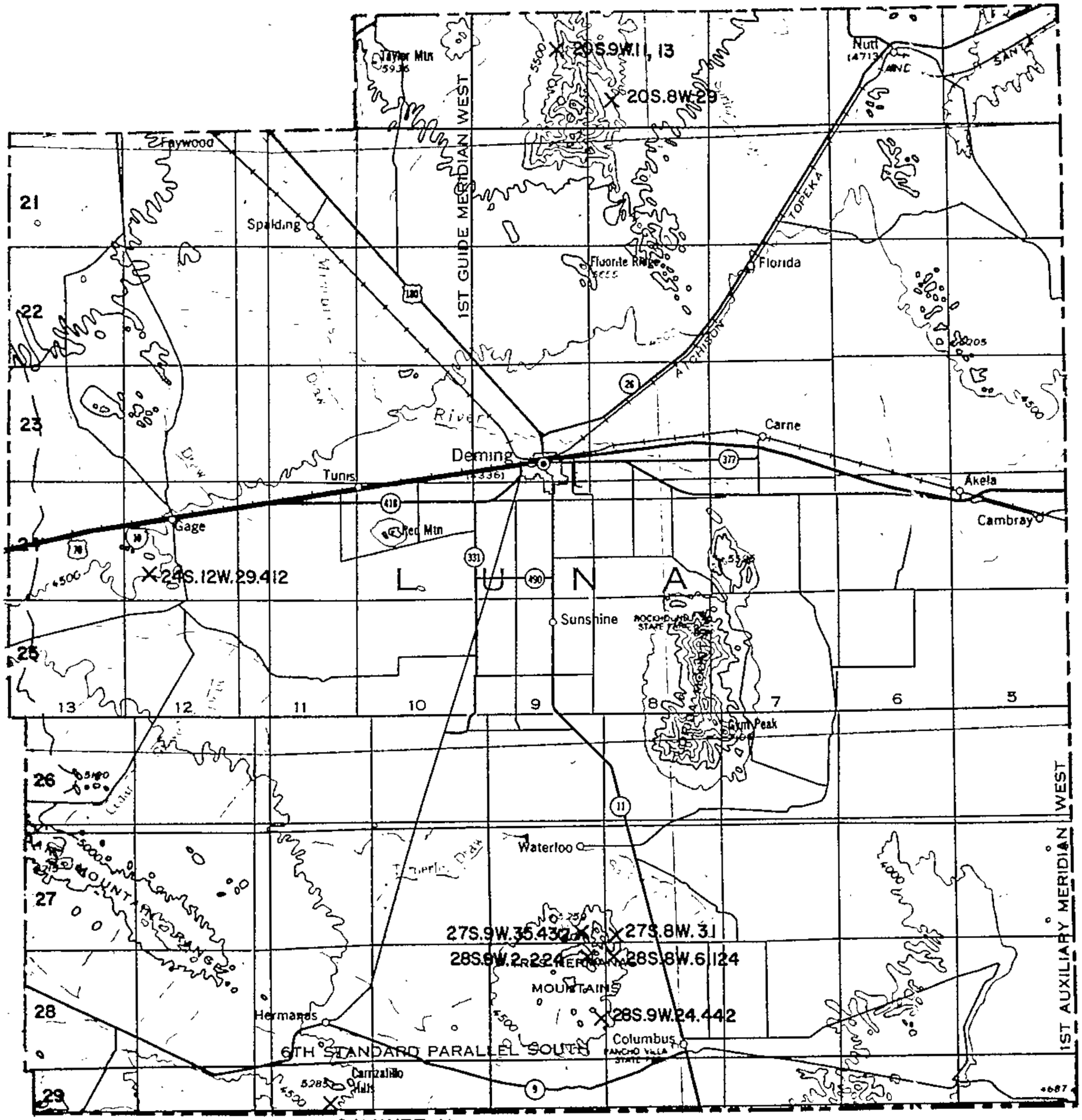
Calumet Mine	29S.11W.14.121
Cooks Peak	20S.8W.29
Lookout Claims 1-3	20S.9W.11
Section 2	28S.9W.2.224
Section 24	28S.9W.24.442
Section 35	27S.9W.35.432
Tungsten Hill	24S.12W.29.412
Unknown	27S.8W.31.133
Unknown	27S.8W.31.314
Zumwalt	28S.8W.6.124

Alias	Name	Number
Bond prospect	Lookout Claims 1-3	20S.9W.11
Brunkman	Tungsten Hill	24S.12W.29.412
High Hope 1-8	Calumet	29S.11W.14.121
Home Stake Group	Section 35	27S.9W.35.432
Kimmick	Tungsten Hill	24S.12W.29.412
Middle Sister Peak	Unknown	27S.8W.31.133
Middle Sister Peak	Unknown	27S.8W.31.314
Morlock	Tungsten Hill	24S.12W.29.412
Rambler No. 1	Section 35	27S.9W.35.432
Sister Peak	Zumwalt	28S.8W.6.124
South Trail Group	Section 2	28S.9W.2.224
Unknown	Section 2	28S.9W.2.224
Unknown	Section 24	28S.9W.24.442

Numerical

20S.8W.29	Cooks Peak
20S.9W.11	Lookout Claims 1-3
24S.12W.29.412	Tungsten Hill
27S.8W.31.133	Unknown
27S.8W.31.314	Unknown
27S.9W.35.432	Section 35
28S.8W.6.124	Zumwalt
28S.9W.2.224	Section 2
28S.9W.24.442	Section 24
29S.11W.14.121	Calumet Mine

FIGURE 1-18-RADIOACTIVE OCCURRENCES IN LUNA COUNTY, NEW MEXICO



CALUMET MINE
29S.11W.14.121

0 10 MILES

0 10 20 KILOMETERS

N

CONTOUR INTERVAL 500 FEET

1: 29S.11W.14.121
2: Calumet Mine (High Hope 1-8)
3: NE1/4 NW1/4 14 T29S R11W 31°47'30"N 107°56'30"W
4: Hermanas 7-1/2 Elevation 4,530 ft
5: Carrizalillo Hills district
6: Cu, U, Mn, Ag
7: 200-ft adit connecting to 80-ft shaft, several pits
8: no uranium production, minor Au and Ag production in 1948
9: bkgd 50 cps, high 100-150 cps on east side of claims
10: Tertiary andesite intruded by porphyritic rhyolite dike
11: radioactive copper veins along shear zones and fractures in altered rhyolite and andesite intruding limestone
12: 0.003% U_3O_8, 2.3% Cu (NMBMMR Chem lab, 5/20/82, #2139)
13: Hydrothermal-vein
14: PRR locates mine incorrectly in sec. 12 T29S R11W; geologic sketch map by Griswold (1961)
15: FN 3/23/82; McLemore (1982a, #340); Griswold (1961, p. 134-135); PRR DEB-P-4-1457 (1955)

1: 20S.8W.29
2: Cooks Peak area
3: 29 T20S R8W
4: Lake Valley 15
5: Cooks Peak district
6: U, Pb, Cu
7: shafts, pits, adits, trenches
8: no uranium production
10: Mississippian Lake Valley Limestone
11: radioactive veins in fractures and replacements of limestone
13: Hydrothermal-vein
15: PRR DEB-RRA-1145 (1953)

1: 20S.9W.11,13
2: Lookout No. 1-3 (Bond Prospect)
3: SE1/4 11, NW1/4 13 T20S R9W
4: Lake Valley 15, Dwyer 15
5: Cooks Peak district
6: U, Pb, fluorite
7: open cuts
8: no uranium production, 102 tons of fluorite produced in 1944 and 1946
10: Mississippian Lake Valley Limestone(?)
11: radioactive fluorite veins and replacements of limestone
13: Hydrothermal-vein
15: U.S. Atomic Energy Commission (1970, p. 69); Williams (1966); Rothrock and others (1946)

1: 28S.9W.2.224
2: Section 2 (South Tail Group, Unknown)
3: NE1/4 NE1/4 2 T28S R9W 31°54'25N 107°43'25"W
4: North Peak 7-1/2 Elevation 4,900 ft
5: Tres Hermanos Mountains district
6: Cu, Pb, Zn, Mn, U
7: 3 shafts, several pits
8: no uranium production
9: bkgd 40-50 cps, altered granite 70-80 cps, high 90-100 cps
10: Tertiary quartz monzonite
11: radioactive quartz-pyrite veins
13: Hydrothermal-vein
14: majority of copper mined out
15: FN 3/23/82; Griswold (1961, p. 60); Balk (1961); PRR DEB-RRA-1192 (1953)

1: 28S.9W.24.442
2: Section 24 (Unknown)
3: SE1/4 24 T28S R9W 31°51'15"N 107°42'25"W
4: Columbus 7-1/2 Elevation 4,450 ft
5: Tres Hermanas Mountains district
6: Ca, U (occurrence)
7: 25-30 ft shaft, large open pit (100-ft x 20-ft x 6-ft deep)
8: no uranium production
9: bkgd 30-40 cps, high 90 cps
10: Tertiary rhyolite and latite breccia
11: radioactive veins of calcite and calcite cement in volcanic breccia
13: Hydrothermal-vein
15: FN 3/25/82; Balk (1961)

1: 27S.9W.35.432
2: Section 35 (Rambler No. 1, Homestake Group)
3: SW1/4 SE1/4 35 T27S R9W 31°54'40"N 107°43'40"W
4: North Peak 7-1/2 Elevation 4,900 ft
5: Tres Hermanas Mountains district
6: Cu, Pb, Zn, Au(?), U
7: 2 shafts (50-ft or more deep), pits
8: no production known
9: bkgd 50 cps, averge 100-200 cps, high 300 cps
10: Tertiary quartz monzonite
11: radioactive quartz-pyrite vein
12: 0.007% U_3O_8, 0.05% Cu, 0.40% Pb, trace Au (NMBMMR chem lab, 6/22/83, #3731)
13: Hydrothermal-vein
14: existing dumps are badly weathered
15: FN 3/23/82; McLemore (1982a, #341); Griswold (1961, p. 59-60); Balk (1961); PRR DEB-RRA-1191 (1953)

1: 24S.12W.29.412
2: Tungsten Hill, Irish Rose (Morlock, Brunkman, Kimmick)
3: SE1/4 29 T24S R12W 32°11'45"N 108°5'50"W
4: Gage 7-1/2 Elevation 4,500 ft
5: Victoria Mountains district
6: Wn, Be, U
7: numerous pits, 125-ft declined shaft, raise, 18-ft shaft
8: no uranium production, tungsten produced
9: bkgd 20 cps, high 40-50 cps
10: Lower Cretaceous sediments, Montoya Dolomite intruded by alkali granite, tactite
11: radioactive copper-quartz veins in southeastern portion of the claimed area, tactite is slightly radioactive
13: Contact-metasomatic-hydrothermal vein
14: presently active as the Moon claims
15: FN 3/22/82; Griswold (1961); Holser (1953); PRR M-1504 (1954), M-1505 (1954), DAO-P-4-1490 (1953)

1: 27S.8W.31.133
2: Unknown-Middle Sister Peak
3: SW1/4 NW1/4 31 T27S R8W 31°55'01"N 107°42'28"W
4: North Peak 7-1/2 Elevation 4,600 ft
5: Tres Hermanas Mountains district
6: Pb, Zn, U (occurrence)
7: shafts, pits, trenches
8: no uranium production
9: bkgd 20-40 cps, high 60 cps
10: Tertiary quartz monzonite with limestone xenoliths
11: slightly radioactive sulfide-quartz veins
13: Contact-metasomatic
15: FN 3/23/82; Griswold (1961, p. 63); Balk (1961); PRR DEB-RRA-1193 (1953)

1: 27S.8W.31.314
2: Unknown-Middle Sister Peak
3: SW1/4 31 T27S R8W 31°54'45"N 107°42'10"W
4: North Peak 7-1/2 Elevation 4,700 ft
5: Tres Hermanas Mountains district
6: Pb, Zn, U (occurrence)
7: trench
8: no uranium production
9: bkgd 30-50 cps, veins in quartz monzonite 80-100 cps
10: Tertiary quartz monzonite with limestone xenoliths
11: radioactive sulfide-quartz veins in quartz monzonite along contact
13: Contact-metasomatic
15: FN 3/23/82; Griswold (1961, p. 63); Balk (1961); PRR DEB-RRA-1193 (1953)

1: 28S.8W.6.124
2: Zumwalt (Sister Peak)
3: NE1/4 NW1/4 6 T28S R8W 31°54'25"N 107°41'58"W
4: North Peak 7-1/2 Elevation 4,600 ft
5: Tres Hermanas Mountains district
6: Mn, fluorescent calcite - U occurrence
7: 200-ft adit (due west), 50-ft shaft, 20-ft shaft, several pits
8: no production known
9: bkgd 20-50 cps, veins in quartz monzonite-80cps, calcite veins 50 cps
10: Tertiary quartz monzonite with limestone xenoliths
11: radioactive veins along contact between quartz monzonite and limestone xenoliths
12: "uranoan calcite" lines the walls of natural cave reported by Northrop (1959) and Griswold (1961)
13: Contact-metasomatic
14: PRR reports 2.5 times background radioactivity in adit (did not examine adit on 3/23/82)
15: FN 3/23/82; Griswold (1961, p. 149); Balk (1961); Northrop (1959, p. 166); PRR DEB-RRA-1139 (1953)

Alphabetical (340 occurrences)

Alpha	14N.13W.12.333
Alta	14N.11W.5.313
Ann Lee	14N.9W.28.144
Anomaly	15N.17W.28.114
Anomaly	15N.17W.33.422
Anomaly	15N.17W.34.432
Barbara J. #1	13N.9W.30.213
Barbara J. #2-Whitecap	13N.9W.30.141
Barbara J. #3	13N.9W.30.221
Beacon Hill Claims	13N.9W.20.131
Beacon Hill #18-23	13N.9W.20.133
Beacon Hill Gossett	13N.9W.18.444
BG Group	13N.9W.20.200
Billy the Kid; Greer, Warren & McCormack	14N.11W.19.220
Black Jack No. 1	15N.13W.12.322
Black Jack No. 2	15N.13W.18.223
Black Rainbow Claims	16N.18W.36.300
Blue Peak	13N.10W.24.234
Bobcat	13N.10W.24.144
Borrego Pass	16N.10W.7,18
Bottoms Claims	14N.11W.18.443
Buckey-Section 14	14N.10W.14.414
Canyon	17N.13W.34
Canyon Mulatto	14N.9W.12.400
Canyon Mulatto	14N.9W.24.100
Car-Ball #13	16N.18W.26.220
CD and S	16N.17W.35.411
C and H	13N.9W.22
Chaco Canyon-Drill Hole CC-2	20N.9W.9.222
Chaco Canyon-Drill Hole CC-3	20N.8W.9.111
Chaco Canyon-Drill Hole CC-15	20N.10W.16.441
Charlotte	13N.9W.33.433
Church Rock	16N.16W.17.212
Churchrock 8 and 2	17N.16W.9
Cliffside	14N.9W.36.332
Crownpoint	17N.12W.19.312
Crownpoint	17N.12W.29.212
Crownpoint-Section 9	17N.13W.9.322
Crownpoint North Trend	17N.13W.4
Crownpoint South Trend	17N.13W.16
Dakota Mine	13N.10W.4.243
Dalton Pass	17N.14W.28.400
Dalton Pass-Section 30	17N.13W.30
Dalton Pass	17N.14W.24,25
Davenport Incline	13N.9W.20.312
Delter	16N.17W.36.114
Diamond No. 2	15N.17W.33.214
Dog Group	13N.9W.20.411
Doris Decline	13N.9W.21.324
Doris West Extension	13N.9W.21.332
Dysart #1	14N.10W.11.312
Dysart #2	14N.10W.11.424
Eagle #1-6	14N.12W.18.430
East Malpais Lease	13N.9W.20.233
Elkins Claims	14N.12W.24.243
Elkins Claims	14N.12W.24.414
Elkins Claims	14N.12W.24.421
Evelyn	14N.11W.9.214
Faith Mine	13N.9W.29.141
Farr Ranch	19N.6W.13,14
Farr Ranch	19N.6W.15.340
Farr Ranch	19N.6W.23.344
Farr Ranch	19N.6W.25,26
Febco	14N.10W.31.344
Fernandez-Main Ranch	13N.8W.15.444
Flat Top Mine	13N.9W.30.442
Flea Mine	13N.9W.20.422
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Foutz #2	15N.16W.5.222
Foutz #3	16N.16W.31.444
Francis	14N.11W.8.213
Gallup Titanium Deposit	15N.19W.32.432
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Hardwork	13N.10W.16.100
Haven	14N.11W.21.313
Haystack-Section 13 R11W Pit	13N.11W.13.114
Haystack-Section 13 Pit	13N.11W.13.314
Haystack-Section 13	13N.11W.13.324
Haystack-Section 13	13N.11W.13.444
Haystack-Secton 19 Open-pit Complex	13N.10W.19.110
Hogan Mine	13N.9W.14.414
Hogback #3-5	15N.18W.12.244
Ho Hon-James Group	13N.11W.15.111
Hope Mine	13N.9W.19.323
Isabella	13N.9W.7.221
Johnny M	13N.8W.7,18
Juan Tafoya-Marquez Grant	13N.5W.32
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Junior	13N.10W.4.223
Kroeger	17N.10W.27
Largo	14N.13W.14.114
Last Chance #2	14N.14W.2.123
Lee Mine	13N.8W.17.223
Little Joe & Rimrock Claims	13N.10W.33.320
Lost Mine	14N.11W.35.120
Mac #1	15N.14W.12.423
Mac #2	15N.13W.18.442
Malpais Raise	13N.9W.20.144
Mancos-Section 7	16N.16W.7.331
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Marquez Canyon Mine	13N.5W.25.400
Marquez Canyon	13N.5W.25.100
Marquez Mine	13N.9W.23.233
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Mesa Top Mine	13N.9W.20.321
Miguel Creek Dome	15N.6W.4.140,8.420
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Narrow Canyon	17N.14W.2
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N.E. Church Rock #1-East	17N.16W.36.100
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N.E. Church Rock #3	17N.16W.21.210
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Nose Rock	19N.12W.36.414
Pat	13N.10W.4.244
Piedra Trieste	13N.9W.30.143
Poison Canyon	13N.9W.19.420
Pyramid Group	16N.16W.22
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Red Cap Group	14N.11W.28.113
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Section 14	13N.10W.14.220
Section 15	14N.10W.15.441
Section 16	13N.9W.16.333
Section 16	13N.9W.16.441
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Silver Bit	14N.12W.10.200
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Standing Rock	18N.14W.35.300
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Tanny Uranium Deposit	14N.10W.34.441
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Unnamed	13N.8W.6
Unknown	13N.8W.16.133
Unknown	13N.9W.30.114
Unknown quarry	13N.9W.31.214
Unknown	13N.10W.19.120
Unknown	13N.10W.22.240
Unknown	13N.10W.34
Unknown	13N.11W.10.200
Unknown	13N.11W.11.144
Unknown	13N.11W.12.333
Unknown	13N.11W.12.344
Unknown	13N.11W.13.120
Unknown-Prewitt	13N.11W.21
Unknown	13N.19W.32
Unnamed	14N.8W.30.100
Unknown	14N.9W.14
Unknown	14N.10W.11.232
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Unknown-Section 4	14N.11W.4.100
Unknown	14N.11W.4.200
Unknown	14N.11W.17.234
Unknown	14N.11W.19.232
Unknown	14N.11W.19.414
Unknown	14N.11W.19.423
Unknown	14N.11W.20.444
Unknown	14N.16W.30.111
Unknown	15N.9W.21
Unknown	15N.12W.23.220
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Unknown-Section 13	15N.13W.13.400
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Unknown	15N.9W.9
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Unknown	15N.13W.5.300
Unknown	15N.13W.14

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Unknown-Section 21	16N.15W.21.300
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Unknown	16N.16W.4.400
Unknown-Section 7	16N.16W.7.132
Unknown-Section 8	16N.16W.8.422
Unknown-Section 8	16N.16W.8.443
Unknown-Section 9	16N.16W.9.400
Unknown	16N.16W.9.411
Unknown-Section 16	16N.16W.16.110
Unknown	16N.16W.16.200
Unknown	16N.16W.17.100
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Unknown-Section 18	16N.16W.18.113
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Unknown-Section 24	16N.17W.24.200
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Unknown-White Cliffs	16N.17W.31.224
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Vallejo	13N.9W.34.343
Vanadium #1	13N.10W.26.222
West Eagle 1-3	14N.13W.24.234
West Largo	15N.10W.17.300
Westwater #1	15N.16W.2.442
White Cap	13N.9W.30.123
Williams and Reynolds Mine	15N.16W.4.441
X-C	13N.9W.30.233
Yucca #2	14N.11W.28.134

Alias	Name	Number
A. Berryhill	Section 35	15N.11W.35.200
A. Hyde	Anomaly	15N.17W.28.114
Amiran	Section 25 SEQ-Desiderio	13N.10W.25.411
Anaconda	Alta	14N.11W.5.313
Anaconda	Unknown	15N.16W.15
Andrews	Red Top #1 and #2	14N.11W.18.340
Andrews	Unknown	14N.11W.19.414
Arthur Bibo	Haystack Section 13 Pit	13N.11W.13.314
Arthur Bibo	Haystack Section 13	13N.11W.13.444
B-G Group	Dog Group	13N.9W.20.411
Bailey and Fife	X-C	13N.9W.30.233
Beacon Hill #23	Davenport Incline	13N.9W.20.312
Becenti	Diamond No. 2	15N.17W.33.214
Becenti Claims	Anomaly	15N.17W.28.114
Berryhill-Elkins	Silver Spur Group	14N.10W.31.334
Berryhill-Elkins	Lost Mine	14N.11W.35.120
Bilba	Haystack Section 13 Pit	13N.11W.13.314
Billy the Kid	Section 19	14N.11W.19.244
Black Diamond	Diamond NO. 2	15N.17W.33.214
Black Rock	Pat	13N.10W.4.244
Bokum	Marquez Canyon Mine	13N.5W.25.400
Bokum-S.E. ore body	Juan Tafoya-Marquez Grant	13N.15W.32
Bottoms	Red Top #1 and #2	14N.11W.18.340
Brown Vandiver	Section 18	13N.10W.18.341
Calumet Mine	Marquez Mine	13N.9W.23.233
Carter & others	Section 17	14N.9W.17.323
Centennial	Section 8	13N.9W.8.114
Charles Zuni	Redco	13N.11W.10.110
Chill Wills	Section 24	13N.9W.24.121
Christenson	Williams & Reynolds Mine	15N.16W.4.441
Christian Mine	U Mine	15N.16W.4.414
Conoco	Borrego Pass	16N.10W.7,18
Conoco	Crownpoint	17N.12W.19.312
Dakota Mine	Pat	13N.10W.4.244
Dalco	Whitecap	13N.9W.30.123
Dalco #1	Barbara J. #2-Whitecap	13N.9W.30.141
Dalco #2	Whitecap	13N.9W.30.123
Dalton Pass	Unknown	17N.14W.27.300
Davenport	Beacon Hill #18-23	13N.9W.20.133
Defiance	Gallup Titanium Deposit	15N.19W.32.432
Dog Incline	Dog Group	13N.9W.20.411
Dog #10	East Malpais Lease	13N.9W.20.233
Double Jerry	Vallejo	13N.9W.34.343
Dysart Group	Section 12	14N.10W.12.411
Dysart #3	Mary #1	14N.10W.11.112
East Claims	Section 12	13N.9W.12
East Malpais	Beacon Hill	13N.9W.20.133
Elizabeth #1-8	Section 26	14N.9W.26.332
Enerdyne	Section 31	14N.8W.31.130
Esta Cho	Unknown	13N.11W.10.200
F. Manol	Section 30	13N.9W.30.333
Farris 1	Vallejo	13N.9W.34.343
Feboo	Section 5	13N.10W.5.144
Feboo	Silver Spur Pits	14N.10W.31.233
Feboo Lease	Section 18	13N.8W.18.331
Fife and Bailey	Barbara J. #3	13N.9W.30.221
Fife and Bailey	Flat Top Mine	13N.9W.30.442
Flat Claims	Section 32	13N.9W.32.321
Flea-Doris Extension	Flea Mine	13N.9W.20.422
Flea-Doris Extension	Doris West Extension	13N.9W.21.332
Flea Incline	Dog Group	13N.9W.20.411
Four Corners Uranium	Diamond No. 2	15N.17W.33.214
Frosty Group	Section 31	14N.8W.31.130
Garcia #1-5	Blue Peak	13N.10W.24.234
Gossett	Pat	13N.10W.4.244
G. Hanash	Unknown	13N.10W.22.240
Glen and Edith	Section 24	13N.11W.24.222
Green Hornet	Westwater #1	15N.16W.2.442
Group Claims	Section 2	13N.11W.2.124
Gulf	Fernandez-Main Ranch	13N.8W.15.444
Gulf	Mariano Lake	15N.14W.12.134
Gulf	Mount Taylor	13N.7W.30.100
Gulf	West Largo	15N.10W.17.300
Hanosh	Section 26	13N.10W.26.221
Hanosh and Mollico	Section 22	13N.10W.22.232
Haystack #12	Hogback #3-5	15N.18W.12.444
Henri Dole	Unknown quarry	13N.9W.31.214
Homer Scriven	Section 36	13N.10W.36.224
Homestake	Sections 2 and 3	14N.10W.2,3
Homestake-Sapin	Section 13	14N.10W.13.413
Homestake-Sapin	Section 15	14N.10W.15.441
House Lake Project	Section 20	15N.13W.20.223
Hutton-Titchen group	Unknown	13N.10W.19.120
Hyde	Hogback #3-5	15N.18W.12.444
Hyde, Tucker, and Davenport	Hogback #3-5	15N.18W.12.444
Ike	Section 26	14N.9W.26.332
Indian Allotment	Section 22	13N.10W.22.232
Indian Allotment	Section 24	13N.11W.24.222
Indian Allotment	Section 26	13N.10W.26.221
Indian Allotment	Unknown	13N.10W.22.240
In Sprecher	Black Rainbow Claims	16N.18W.36.300
J and M	Section 36	14N.10W.36.222
Jeep 1-6	Bucky-Section 14	14N.10W.14.414
Jerry Wayne	Section 17	14N.9W.17.323
Kerr-McGee	Cliffside-Section 36	14N.9W.36.332
Kerr-McGee	Marquez Canyon	13N.5W.25.100
Largo	Diamond No. 2	15N.17W.33.214
Lease 60-167	Section 36	14N.10W.36.222
Lee-Kerr McGee	Roca Honda	13N.8W.8.400

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Alias	Name	Number
Lawrence Elkins	Elkins Claims	14N.12W.24.243
Little Doris	Doris Decline-Section 21	13N.9W.21.324
Little Doris	Doris West Extension	13N.9W.21.332
Los Tres Mosqueteros	Section 5	13N.10W.5.144
Maddox and Teague	Section 19	14N.11W.19.244
Malpais	Beacon Hill	13N.9W.20.133
Malpais	Beacon Hill	13N.9W.18.444
Malpais #13	East Malpais Lease	13N.9W.20.233
Mano #1	Roundy Mine	13N.9W.30.323
Manol	Roundy Mine	13N.9W.30.323
Manol	Section 30	13N.9W.30.333
Marcus (on topo map)	Marquez Mine	13N.9W.23.233
Martinez Lease	Pat	13N.10W.4.244
Melrich	Section 32	14N.8W.32.340
Mesa Top	Beacon Hill	13N.9W.20.133
Mesa Top #7	Davenport Incline	13N.9W.20.312
Mesa Top Mine	Malpais Raise	13N.9W.20.144
Mesa Top #5	Mesa Top Mine	13N.9W.20.321
Midas Claims	Nicholson-Brown	15N.14W.26.423
Mid-Continent	Unknown	14N.10W.11.232
Mike Smith Lease	Diamond No. 2	15N.17W.33.214
Mining Unit 30	Section 29	14N.9W.29.100
Mining Unit 33	Section 33-Branson	14N.9W.33.213
Mobil	Crownpoint-Section 9	17N.13W.9.322
Mobil-TVA	Crownpoint-North Trend	17N.13W.4
Mobil-TVA	Crownpoint-South Trend	17N.13W.16
Mobil-TVA	Monument	17N.12W.28.144
Moe No. 1	Poison Canyon	13N.9W.19.420
Moe #2	Davenport Incline	13N.9W.20.312
Moe #3	Beacon Hill	13N.9W.18.444
Moe #4	Section 32	13N.9W.32.144
Moe #5	Section 32, 33	15N.11W.32.224
Nah-A-Bah	Section 24	13N.11W.24.222
Old Church Rock	Church Rock	16N.16W.17.212
Old Moe	Section 32, 33	15N.11W.32.224
Operation Haystack	Section 25-SEQ-Desiderio	13N.10W.25.411
Ox Group	Section 31	14N.8W.31.130
Palo Verde Group	Section 18	13N.8W.18.244
Paris #1	Doris Incline-Section 21	13N.9W.21.324
Pat	Seciton 4	13N.10W.4.134
Phillips	Cliffside-Section 36	14N.9W.36.332
Phillips	Nose Rock #1	19N.11W.31.133
Phillips	Nose Rock	19N.12W.32
Phillips	Nose Rock	19N.12W.36.414
Phillips	Section 36	14N.9W.36.422
Phillips	Unknown-Section 14	16N.17W.14.100
Phillips Ore body	Section 20	15N.13W.20.223
Phillips Petroleum Co.	Unknown-Section 9	16N.16W.9.400
Phillips Petroleum Co.	Unknown-Section 13	16N.17W.13.411
Phillips Petroleum Co.	Unknown-Section 18	16N.16W.18.111
Phillips Petroleum Co.	Unknown-Section 18	16N.16W.18.113
Phillips Petroleum Co.	Unknown-Section 18	16N.16W.18.332
Phillips Petroleum Co.	Unknown-Section 19	16N.16W.19.132
Phillips Petroleum Co.	Unknown-Section 23	16N.16W.23.210
Pioneer Nuclear	Narrow Canyon	17N.14W.2
Private Property	Grover Claims	14N.11W.20.133
Prospect #1	Foutz #1	15N.16W.4.111
Prospect #2	Foutz #2	15N.16W.5.222
Pyramid Rock	Pyramid Group	16N.16W.32.440
Q-32	X-C	13N.9W.30.233
Railroad Section	Haystack Section 13 Pit	13N.11W.13.314
Railroad Section	Haystack Seciton 13	13N.11W.13.444
Ranchers	Johnny M.	13N.8W.7,18
Rats Nest	Section 3	15N.16W.3.332
Realto	Section 24	13N.9W.24.121
Red Bluff #1	Section 36	13N.10W.36.224
Red Top #1, 3-7	Billy the Kid	14N.11W.19.220
Red Top #1-10 Claims	Blue Peak	13N.10W.24.234
Reynolds Prospect	June	14N.13W.14.222
Rimrock	Section 36	13N.10W.36.224
Rimrock #1	Roundy Mine	13N.9W.30.323
Rimrock #1	Section 3	15N.16W.3.332
Rimrock #2	T-20 Shaft	13N.9W.30.414
Rimrock #2	U Mine	15N.16W.4.414
Rimrock #2	Williams & Reynolds Mine	15N.16W.4.441
Rimrock #3	Section 30	13N.9W.30.333
Rimrock #3	X-C	13N.9W.30.233
Rio de Oro	Dysart #1	14N.10W.11.312
Rio de Oro	Section 26	14N.9W.26.332
R.M. Shaw	Red Point Lode	13N.10W.16.134
Roca Honda-Kerr-McGee	Lee Mine	13N.8W.17.223
Ross Fitch	Unknown	13N.11W.11.144
Roundy Lease	Section 30	13N.9W.30.333
Ruby Well #2	Ruby #2 ore body	15N.13W.27.120
San Mateo Dome	Section 32	14N.8W.32.340
Santa Fe-Christensen	Section 3	15N.16W.3.332
Santa Fe Railroad	Section 17	14N.10W.17
Santa Fe Railroad	Unknown	13N.9W.30.114
Santa Fe Railroad	Unknown quarry	13N.9W.31.214
Santa Fe Railroad	Unknown	13N.10W.34
Section 4	Pat	13N.10W.4.244
Section 7	Isabella	13N.9W.7.221
Section 11	Dysart #1	14N.10W.11.312
Section 11 SEQ	Dysart #2	14N.10W.11.424
Section 11 NWQ	Mary #1	14N.10W.11.112
Section 13	Section 24	13N.9W.24.121
Section 17	Church Rock	16N.16W.17.212
Section 18	Beacon Hill	13N.9W.18.444
Section 19	Billy the Kid	14N.11W.19.220
Section 20	Dog Group	13N.9W.20.411
Section 21	Ruby #1 and #2 decline	15N.13W.21.142
Section 21	Haven	14N.11W.21.313
Section 21 and 28	Red Cap Group	14N.11W.28.113
Section 22	C&H Claims	13N.9W.22
Section 24	Blue Peak	13N.10W.24.234
Section 24	Haystack Section 19 Open-pit Complex	13N.10W.19.110
Section 24 and 26	Section 24	14N.10W.24.332
Section 28	Ann Lee	14N.9W.28.144
Section 29-Conoco	Crownpoint	17N.12W.29.212
Section 29	Faith Mine	13N.9W.29.141
Section 30	Roundy Mine	13N.9W.30.323
Section 33	Charlotte	13N.9W.33.433
Section 34	Sandstone	14N.9W.34.424
Section 34	Tanny Uranium deposit	14N.10W.34.441
Section 34	Vallejo	13N.9W.34.343
Section 35	CD and S	16N.17W.35.411
Section 35 Strip	Lost Mine	14N.11W.35.120
Shale #1-36	Section 18	14N.9W.18.420
Silver Spur #1-5	Silver Spur Group	14N.10W.31.334
Silver Spur #5	Silver Spur Pits	14N.10W.31.233
Small Stake	Feboo	14N.10W.31.344
Small Stake	Silver Spur Group	14N.10W.31.334
Spencer Shaft	Section 8	13N.9W.8.114
Standing Rock	Narrow Canyon	17N.14W.2
Star Lake	Farr Ranch	19N.6W.15.340
Star Lake	Farr Ranch	19N.6W.23.344
Star Lake	Farr Ranch	19N.6W.25,26
Star Lake	Farr Ranch	19N.6W.13,14
State #1-27 Claims	Section 8	13N.9W.8.114
T-2	Yucca #2	14N.11W.28.134
T-#1-10	Red Cap Group	14N.11W.28.113
T-9 ore body	T-20 Shaft	13N.9W.30.414
T-10	Yucca #2	14N.11W.28.134
Tag Claims	Section 25 Decline-Red Rock Claims	13N.10W.25.221
Tana and Alto	Section 12	14N.10W.12.411
T.C. Davis	Section 4	14N.10W.4.110,130
T.C. Davis	Section 4	14N.10W.4.220,240
T.C. Davis	Section 6	14N.10W.6.424
T.C. Davis	Section 8	14N.10W.8.100

MCKINLEY COUNTY (continued)

Alias	Name	Number
T.C. Davis	Section 18	14N.10W.18.230
Teton	Section 28	14N.10W.28.211
T Group	Red Cap Group	14N.11W.28.113
Tidewater	Unknown	15N.12W.23.220
Tidewater	Unknown-Section 13	15N.13W.13.220
Tidewater Drill Hole	Unknown-Section 13	15N.13W.13.400
Tidewater Oil Co.	Unknown-Section 21	16N.15W.21.300
Tom Elkins	Elkins Claims	14N.12W.24.421
Torrivio Anticline	Gallup Titanium deposit	15N.19W.32.432
UNC	Black Jack 2	15N.13W.18.223
United Nuclear	Section 27	14N.9W.27.324
United Nuclear Corp./TVA	Canyon	17N.13W.34
United Nuclear/TVA	Dalton Pass-Section 30	17N.13W.30
United Nuclear/TVA	Dalton Pass	17N.14W.24,25
United Nuclear-Homestake	Mac #1	15N.14W.12.423
United Nuclear Corp.	Mancos-Section 7	16N.16W.7.331
United Nuclear Corp.	Mancos-Section 12	16N.17W.12.444
United Nuclear	N.E. Church Rock	17N.16W.35.200
United Nuclear	Section 1	14N.11W.1.333
United Western	Section 36	14N.10W.36.222
Unknown	Crownpoint	17N.12W.19.312
Unknown	Elkins Claims	14N.12W.24.414
Unknown	Piedra Trieste	13N.9W.30.143
Unknown	Red Top #1 and 2	14N.11W.18.340

Alias	Name	Number
Unknown	Santa Fe Railroad	13N.9W.19.134
Unknown	Standing Rock	18N.14W.35.300
Unknown	Shirley and Gunther Co.	13N.10W.24.222
Unknown	Yucca #2	14N.11W.28.134
Unnamed	Beacon Hill Claims	13N.9W.19,20
Unnamed	Largo	14N.13W.14.114
Unnamed	Silver Bit	14N.12W.10.200
Vilatie Hyde	Flat Top Mine	13N.9W.30.442
Weingarten State Lease	Gallup Titanium Deposit	15N.19W.32.432
Western Nuclear	Ruby #3 and #4 Decline	15N.13W.25.224
Western Nuclear	Unknown	15N.13W.11.200
Western Nuclear	Unknown	16N.13W.14
West Ranch	Section 32,33	15N.11W.32.224
Westvaco	Faith Mine	13N.9W.29.141
Westvaco	Section 5	13N.10W.5.144
Westwater Corp.	Section 13	14N.10W.13.243
W.F. Marquez	Section 24	13N.9W.24.300,400
Willcoxson Ranch	Section 4	14N.10W.4.110,130
Willcoxson Ranch	Section 4	14N.10W.6.424
Willcoxson Ranch	Section 6	14N.10W.6.424
Willcoxson Ranch	Section 8	14N.10W.8.100
Willcoxson Ranch	Section 18	14N.10W.18.230
Williams	Section 18 SEQ	13N.10W.18.430
Williams and Thompson	Section 18	13N.10W.18.341
Wingate	Unknown	14N.16W.30.111
Yellow Jacket	Foutz #3	16N.16W.31.444

Numerical

9N.17W.4	Unknown-Zuni Indian Reservation
13N.5W.25.100	Marquez Canyon
13N.5W.25.400	Marquez Canyon Mine
13N.5W.32	Juan Tafoya-Marquez Grant
13N.7W.30.100	Mount Taylor
13N.8W.5	Unnamed
13N.8W.6	Unnamed
13N.8W.7.120	Section 7
13N.8W.7,18	Johnny M.
13N.8W.8.400	Roca Honda
13N.8W.9.300	Roca Honda
13N.8W.15.444	Fernandez-Main Ranch
13N.8W.16.133	Unknown
13N.8W.17.223	Lee Mine
13N.8W.18.244	Section 18
13N.8W.18.331	Section 18
13N.9W.1.200	Section 1
13N.9W.2.143	Section 2
13N.9W.2.233	Section 2
13N.9W.2.313	Section 2
13N.9W.2.411	Section 2
13N.9W.5.222	Section 5
13N.9W.6.322	Section 6
13N.9W.7.221	Isabella
13N.9W.8.114	Section 8
13N.9W.12	Section 12
13N.9W.13.400	Section 13
13N.9W.14.414	Hogan Mine
13N.9W.16.333	Section 16
13N.9W.16.441	Section 16
13N.9W.17.311	Section 17
13N.9W.18.444	Beacon Hill Gossett
13N.9W.19,20	Beacon Hill Claims
13N.9W.19.134	Santa Fe Railroad
13N.9W.19.323	Hope Mine
13N.9W.19.420	Poison Canyon
13N.9W.20.133	Beacon Hill #18-23
13N.9W.20.144	Malpais Raise
13N.9W.20.200	BG Group
13N.9W.20.233	East Malpais Lease
13N.9W.20.312	Davenport Incline
13N.9W.20.321	Mesa Top Mine
13N.9W.20.411	Dog Group
13N.9W.20.422	Flea Mine
13N.9W.21.324	Doris Decline-Section 21
13N.9W.21.332	Doris West Extension
13N.9W.22	C & H Claims
13N.9W.23.233	Marquez Mine
13N.9W.24.121	Section 24
13N.9W.24.220	Section 24
13N.9W.24.300,400	Section 24
13N.9W.29.141	Faith Mine
13N.9W.30.114	Unknown
13N.9W.30.123	White Cap
13N.9W.30.141	Barbara J #2-White Cap
13N.9W.30.143	Piedra Trieste
13N.9W.30.213	Barbara J #1
13N.9W.30.221	Barbara J #3
13N.9W.30.233	X-C
13N.9W.30.323	Roundy Mine
13N.9W.30.333	Section 30
13N.9W.30.414	Unknown
13N.9W.30.442	Flat Top Mine
13N.9W.31.113	Section 31
13N.9W.31.120	Section 31 Strip
13N.9W.31.214	Unknown
13N.9W.32.111	Section 32 Quarry
13N.9W.32.144	Section 32
13N.9W.32.321	Section 32
13N.9W.33.433	Charlotte
13N.9W.34.343	Vallejo
13N.10W.3	Section 3
13N.10W.4.134	Section 4
13N.10W.4.223	Junior
13N.10W.4.243	Dakota Mine
13N.10W.4.244	Pat
13N.10W.5.144	Section 5
13N.10W.10,11	Sections 10 and 11
13N.10W.12,13	Sections 12 and 13
13N.10W.14.220	Section 14
13N.10W.15.133	Summit Group
13N.10W.16.100	Hardwork
13N.10W.16.134	Red Point Lode
13N.10W.17.110	Section 17
13N.10W.17.330	Section 17
13N.10W.18.233	Section 18
13N.10W.18.341	Section 18
13N.10W.18.430	Section 18 SEQ
13N.10W.19.110	Haystack Section 19
13N.10W.19.120	Unknown
13N.10W.22.232	Section 22
13N.10W.22.240	Unknown
13N.10W.23.444	Section 23,26
13N.10W.24.144	Bobcat
13N.10W.24.222	Shirley and Gunther
13N.10W.24.234	Blue Peak
13N.10W.24.444	Redrock Claims
13N.10W.25.114	Section 25 Open-pit
13N.10W.25.122	Section 25 Shaft
13N.10W.25.212	Section 25 Divide Claims
13N.10W.25.221	Section 25 Decline-Red Rock Claims
13N.10W.25.411	Section 25 SEQ-Desidero
13N.10W.26.221	Section 26
13N.10W.26.222	Vanadium #1
13N.10W.33.320	Little Joe and Rimrock Claims
13N.10W.34	Unknown
13N.10W.36.224	Section 36
13N.11W.1.412	Section 1
13N.11W.2.124	Section 2
13N.11W.10.110	Redco
13N.11W.10.200	Unknown
13N.11W.11.144	Unknown
13N.11W.12.333	Unknown
13N.11W.12.344	Unknown
13N.11W.13.114	Haystack Section 13 pit
13N.11W.13.120	Unknown
13N.11W.13.314	Haystack Section 13 pit
13N.11W.13.324	Haystack Seciton 13
13N.11W.13.444	Haystack Section 13
13N.11W.15.111	Ho Hon
13N.11W.21	Unknown-Prewitt
13N.11W.24.222	Section 24
13N.11W.32.	Unknown
14N.8W.30.100	Unnamed-Enerdyne
14N.8W.31.130	Section 31
14N.8W.32.340	Section 32
14N.9W.4	Green Pick #20
14N.9W.12.400	Canyon Mulatto
14N.9W.14	Unknown
14N.9W.17.100	Section 17
14N.9W.17.323	Section 17
14N.9W.18.420	Section 18
14N.9W.19.244	Section 19.
14N.9W.20.114	Section 20
14N.9W.20.333	Section 20
14N.9W.24.100	Canyon Mulatto
14N.9W.26.332	Section 26
14N.9W.26.430	Section 26
14N.9W.27.310	Section 27
14N.9W.27.324	Section 27
14N.9W.28.144	Ann Lee
14N.9W.29.100	Section 29
14N.9W.29.300	Section 29
14N.9W.29.400	Section 29
14N.9W.30.141	Section 30 West
14N.9W.30.232	Section 30
14N.9W.31.222	Section 31
14N.9W.32.122	Section 32
14N.9W.33.213	Section 33
14N.9W.34.424	Sandstone
14N.9W.35.233	Section 35

Numerical (continued)

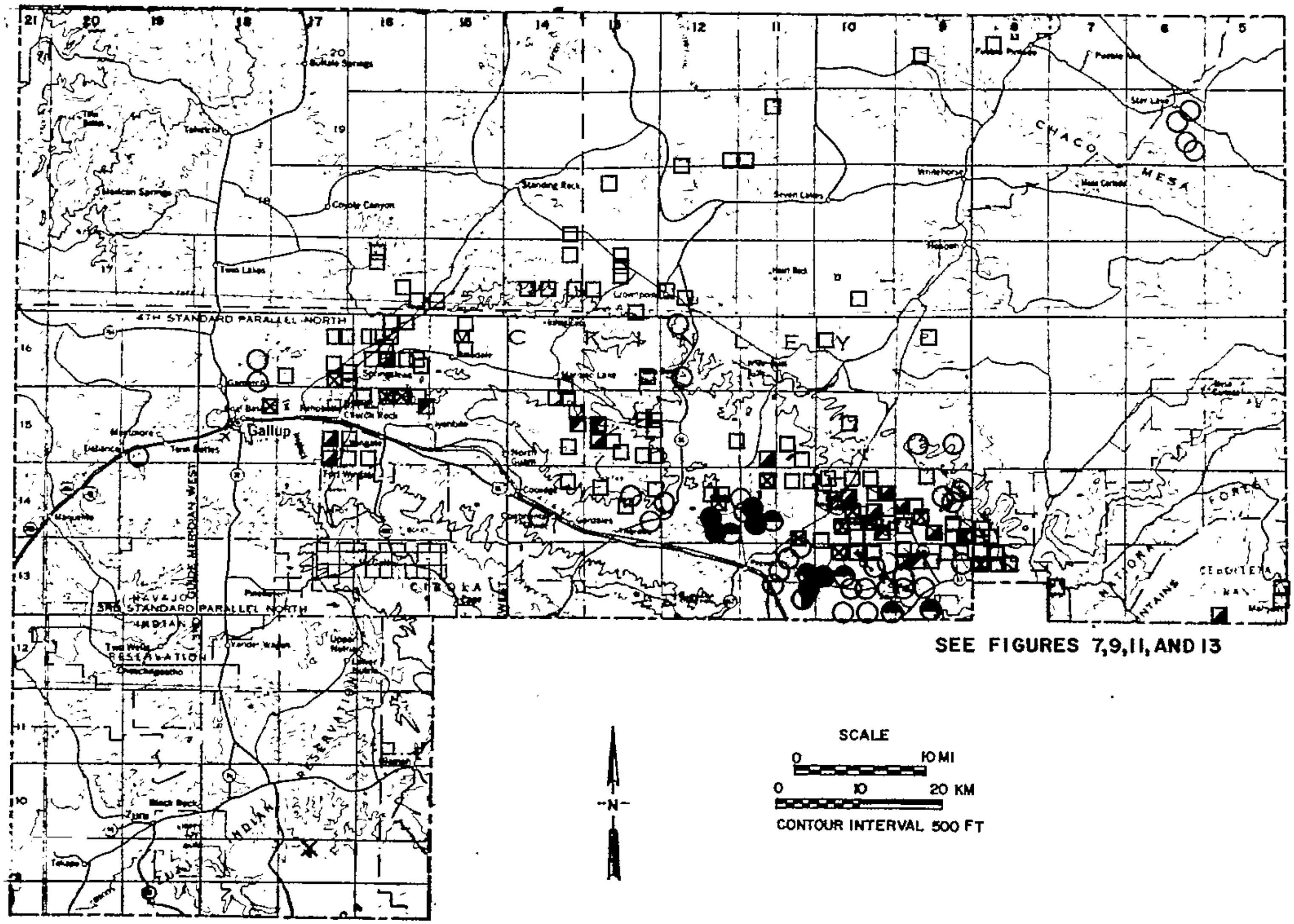
14N.9W.36.332	Cliffside-Section 36
14N.9W.36.422	Section 36
14N.10W.2,3	Section 2,3
14N.10W.4.110,130	Section 4
14N.10W.4.220,240	Section 4
14N.10W.6.424	Section 6
14N.10W.8.100	Section 8
14N.10W.10.244	Section 10
14N.10W.11.112	Mary #1
14N.10W.11.232	Unknown
14N.10W.11.312	Dysart #1
14N.10W.11.424	Dysart #2
14N.10W.12.411	Section 12
14N.10W.13.243	Section 13
14N.10W.13.413	Section 13
14N.10W.14.414	Buckey
14N.10W.15.441	Section 15
14N.10W.17	Section 17
14N.10W.18.230	Section 18
14N.10W.21.222	Section 21
14N.10W.22.223	Section 22
14N.10W.23.134	Section 23
14N.10W.24.332	Section 24
14N.10W.25.144	Section 25
14N.10W.26.220	Section 26
14N.10W.27.144	Section 27
14N.10W.28.211	Section 28
14N.10W.29.244	Section 29
14N.10W.31.233	Silver Spur Pits
14N.10W.31.334	Silver Spur Group
14N.10W.31.344	Febco
14N.10W.34.441	Tanny Uranium Deposit
14N.10W.36.130	Section 36
14N.10W.36.222	Section 36
14N.11W.1.100	Section 1
14N.11W.1.333	Section 1
14N.11W.1.334	Unknown-United Nuclear
14N.11W.2.444	Section 2
14N.11W.4.100	Unknown
14N.11W.4.200	Unknown
14N.11W.5.313	Alta
14N.11W.8.213	Francis
14N.11W.9.214	Evelyn
14N.11W.17.234	Unknown
14N.11W.18.340	Red Top #1 and 2
14N.11W.19.220	Billy the Kid, Greer, Warren, and McCormack
14N.11W.19.232	Unknown
14N.11W.19.244	Section 19
14N.11W.19.414	Unknown
14N.11W.19.423	Unknown
14N.11W.20.133	Glover Claims
14N.11W.20.144	Red Top Mine
14N.11W.20.444	Unknown
14N.11W.21.313	Haven
14N.11W.28.113	Red Cap Group
14N.11W.28.134	Yucca #2
14N.11W.34.223	Section 34
14N.11W.35.120	Lost Mine
14N.12W.10.200	Silver Bit #7
14N.12W.10.200	Silver Bit
14N.12W.10.233	Silver Bit #15
14N.12W.10.243	Silver Bit #18
14N.12W.18.430	Eagle #1-6
14N.12W.24.243	Elkins Claims
14N.12W.24.414	Elkins Claims
14N.12W.24.421	Elkins Claims
14N.13W.8	Tietjen-Lewis No. 1
14N.13W.12.333	Alpha
14N.13W.14.111	Largo
14N.13W.14.222	June
14N.13W.24.234	West Eagle 1-3
14N.14W.2.123	Last Chance #2
14N.16W.30.111	Unknown
15N.6W.4.140,8.420	Miguel Creek Dome
15N.9W.21	Unknown
15N.10W.17.300	West Largo
15N.11W.27.412	Section 27
16N.18W.36.300	Black Rainbow Claims

15N.11W.32.224	Section 32,33
15N.11W.35.200	Section 35
15N.12W.23.220	Unknown
15N.12W.24	Unknown
15N.13W.11.200	Unknown
15N.13W.12.322	Black Jack No. 1
15N.13W.13.220	Unknown-Section 13
15N.13W.13.400	Unknown-Section 13
15N.13W.18.223	Black Jack No. 2
15N.13W.18.442	Mac #2
15N.13W.20.223	Section 20
15N.13W.21.142	Ruby #1 and #2 decline
15N.13W.25.224	Ruby #3 and #4
15N.13W.25.440	South Pod ore body
15N.13W.26.200,400	Ruby #4 ore body
15N.13W.27.120	Ruby #2 ore body
15N.14W.2	Unknown
15N.14W.3	Unknown
15N.14W.12.134	Mariano Lake
15N.14W.12.423	Mac #1
15N.14W.25.423	Nicholson-Brown
15N.16W.2.323	Unknown-Section 2
15N.16W.2.442	Westwater #1
15N.16W.3.332	Section 3
15N.16W.4.111	Foutz #1
15N.16W.4.414	U Mine
15N.16W.4.441	Williams and Reynolds
15N.16W.5.222	Foutz #2
15N.16W.6.221	Unknown-Section 6
15N.16W.15	Unknown
15N.17W.28.114	Anomaly
15N.17W.28.132	Section 28
15N.17W.33.214	Diamond No. 2
15N.17W.33.422	Anomaly
15N.17W.34.432	Anomaly
15N.18W.12.244	Hogback #3-5
15N.19W.32.432	Gallup Titanium Deposit
16N.9W.9	Unknown
16N.10W.7,18	Borrego Pass
16N.12W.32.234	Unknown
16N.13W.5.300	Unknown
16N.13W.14	Unknown
16N.13W.26.300	Unknown
16N.14W.2.100	Unknown
16N.14W.34	Unknown
16N.15W.21.300	Unknown-Section 21
16N.16W.3.222	Unknown
16N.16W.4.400	Unknown
16N.16W.7.132	Unknown Section 7
16N.16W.7.331	Mancos-Section 7
16N.16W.8.422	Unknown-Section 8
16N.16W.8.443	Unknown-Section 8
16N.16W.9.400	Unknown-Section 9
16N.16W.9.411	Unknown
16N.16W.16.110	Unknown
16N.16W.16.200	Unknown
16N.16W.17.100	Unknown
16N.16W.17.212	Unknown
16N.16W.18.111	Unknown
16N.16W.18.113	Unknown
16N.16W.18.332	Unknown
16N.16W.19.200	Unknown
16N.16W.22	Pyramid Group
16N.16W.22.200	Unknown Section 22
16N.16W.23.210	Unknown Section 23
16N.16W.31.444	Foutz #3
16N.16W.32.440	Pyramid Group
16N.17W.12.444	Unknown-Section 12
16N.17W.13.323	Unknown-Section 13
16N.17W.13.411	Unknown-Section 13
16N.17W.14.100	Unknown Section 14
16N.17W.23.221	Section 23-Grace Nuclear
16N.17W.24.200	Unknown-Section 24
16N.17W.25.241	Unknown-Section 25
16N.17W.31.224	Unknown-White Cliffs
16N.17W.35.411	C D and S
16N.17W.36.114	Delter
16N.18W.26.220	Car-Ball #13

Numerical (continued)

17N.10W.27	Kroeger #1
17N.12W.19.312	Crownpoint
17N.12W.28.144	Monument
17N.12W.29.212	Crownpoint
17N.13W.4	Crownpoint North Trend
17N.13W.9.322	Crownpoint-Section 9
17N.13W.16	Crownpoint-South Trend
17N.13W.30	Dalton Pass-Section 30
17N.13W.34	Canyon
17N.14W.2	Narrow Canyon
17N.14W.24,25	Dalton Pass
17N.14W.27.300	Unknown
17N.14W.28.400	Dalton Pass
17N.15W.31.100	N.E. Church Rock-Section 31
17N.16W.9	Churchrock 8 and 2
17N.16W.21.210	N.E. Churchrock #3
17N.16W.27.200	N.E. Churchrock #2
17N.16W.35.200	N.E. Churchrock #1
17N.16W.35.200	N.E. Churchrock
17N.16W.36.100	N.E. Churchrock #1-East
18N.14W.35.300	Standing Rock
19N.6W.13,14	Farr Ranch
19N.6W.15.340	Farr Ranch
19N.6W.23.344	Farr Ranch
19N.6W.25,26	Farr Ranch
19N.11W.10	Nose Rock
19N.11W.31.133	Nose Rock #1
19N.12W.32	Nose Rock
19N.12W.36.414	Nose Rock
20N.8W.9.111	Chaco Canyon-Drill Hole CC-3
20N.9W.9.222	Chaco Canyon-Drill Hole CC-2
20N.10W.16.441	Chaco Canyon-Drill Hole CC-15

FIGURE 1-19-RADIOACTIVE OCCURRENCES IN McKINLEY COUNTY, NEW MEXICO



SEE FIGURES 7,9,11, AND 13

C-}

MCKINLEY COUNTY

(NOTE: Most of these occurrences are plotted on one or more of figures 6, 7, 8, 9, 11, and 13)

1: 14N.13W.12.333
2: Alpha
3: SW1/4 12 T14N R13W 35°27'6"N 108°10'20"W
4: Thoreau 7-1/2 Elevation 8,200 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill holes, pit
8: no production
10: Cretaceous Mancos Shale, Jurassic Morrison Formation
13: Shale/Sandstone
15: U.S. Atomic Energy Commission (1970, p. 78-80); Smith, C.T. (1954)

1: 14N.11W.5.313
2: Alta (Anaconda)
3: NW1/4 SW1/4 5, SW1/4 6 T14N R11W 35°28'15"N 108°1'55"W
4: Thoreau NE 7-1/2 Elevation 7,120 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: 3 adits (50 ft, 150 ft long)
8: 3,330 tons ore yielding 27,212 lbs U_3O_8 (0.40%); 13,719 lbs V_2O_5
10: Jurassic Morrison Formation-Westwater Canyon Member
11: near pinchout of sandstone tongue associated with organic debris, typical roll evident before mining
13: Sandstone
14: mined 1951-1961, 1966, 1968; mine map by Konigsmark (1958)
15: Anderson, O.J. (1980); Green and others (1980b, #93); Hackman and Olson (1977); Holmquist (1970); Hilpert (1969, p. 41, #2; 1965, p. 216); Granger (1963b); Konigsmark (1958, p. 26); USAEC files (1966); CRIB (1976)

1: 14N.9W.28.144
2: Ann Lee (Section 28)
3: C 28 T14N R9W 35°24'50"N 107°47'40"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 735-ft vertical shaft with drifts
8: 1,116,729 tons ore yielding 5,032,647 lbs U_3O_8 (0.20%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 3 horizons of up to 7% U_3O_8, 20-30 ore pods
12: jordisite, coffinite
13: Sandstone-primary tabular
14: mined 1958-1973, 1977-1981 by Phillips and United Nuclear
15: Green and others (1980c, #166); Squyres (1980; 1963); Chapman, Wood, and Griswold, Inc. (1979, #22); Siemers and Austin (1979); Holmquist (1970); Hilpert (1969, p. 38, #3); U.S. Atomic Energy Commission (1959a, p. 59); USAEC files (1971)

1: 15N.17W.33.422
2: Anomaly
3: E1/2 33 T15N R17W
4: Bread Springs 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
13: Sandstone
15: Chico (1959); Ryan and Berkoff (1956); PRR GJEB-144 (1952)

1: 15N.17W.34.432
2: Anomaly
3: SW1/4 34 T15N R17W
4: Bread Springs 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
13: Sandstone
15: Chico (1959)

1: 15N.17W.28.114
2: Anomaly (Becenti Claims, A. Hyde)
3: NW1/4 28 T15N R17W 35°30'15"N 108°39'00"W
4: Gallup East 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #127); Ruzycki (1957); Ryan and Berkoff (56); PRR GJEB-145 (1952)

1: 13N.9W.30.213
2: Barbara J #1
3: NW1/4 NE1/4 30 T13N R9W 35°19'55"N 107°49'45"W
4: Dos Lomas 7-1/2 Elevation 6,910 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 300-ft vertical shaft, room and pillar
8: 8,691 tons ore yielding 52,631 lbs U_3O_8 (0.26%); 14,830 lbs V_2O_5
9: bkgd 20-30 cps; around shaft 800-1,000 cps; high on dump 2,500 cps
10: Jurassic Todilto Limestone
11: ore associated with intraformational folds
12: carnotite, fluorite, barite
13: Limestone
14: mined 1956-1957, 1968 by Mid-Continent Uranium Co.
15: FN 4/6/82; Anderson, O.J. (1980); Green and others (1980c, #236); Holmquist (1970, p. 110); Santos (1970); Hilpert (1969, p. 34, #1; 1965, p. 214); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 43; 1954b, p. 3-23); USAEC files (1960)

1: 13N.9W.30.141
2: Barbara J #2-Whitecap (Dalco #1)
3: SE1/4 NW1/4 30 T13N R9W 35°19'44"N 107°50'00"W
4: Dos Lomas 7-1/2 Elevation 6,875 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 460 ft shaft
8: 58,448 tons ore yielding 232,830 lbs U_3O_8 (0.20%)
10: Jurassic Todilto Limestone
11: ore associated with intraformational folds in middle units
12: pitchblende, gummite
13: Limestone
14: mined 1957-1964, 1966-1968 by Mid-Continent Uranium Corp. (owners)
15: FN 4/6/82; Green and others (1980c, #233); Holmquist (1970, p. 109); Santos (1970); Hilpert (1969, p. 35, #8, 51); McLaughlin (1963, . 147); U.S. Atomic Energy Commission (1959, p. 43), USAEC files (1968)

1: 13N.9W.30.221
2: Barbara J #3 (Fife and Bailey)
3: NE1/4 NE1/4 30 T13N R9W 35°20'00"N 107°49'30"W
4: Dos Lomas 7-1/2 Elevation 6,445 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 435-ft shaft
8: 102,128 tons ore yielding 485,719 lbs U_3O_8 (0.23%) until 1970
9: bkgd 20-30 cps, high 500 cps
10: Jurassic Todilto Limestone
11: ore replaces limestone and occurs along bedding planes associated with intraformational anticlinal folds (N10°E)
12: uraninite, tyuyamunite, uranophane, carnotite
13: Limestone
14: mined 1959-1963 and 1979-1980 (numerous operators)
15: FN 4/6/82; Anderson, O.J. (1980); Green and others (1980c, #237); Santos (1970); Holmquist (1970, p. 111); Hilpert (1969, p. 35, #3); U.S. Atomic Energy Commission (1959a, p. 3-24); USAEC files (1963)

1: 13N.9W.19,20
2: Beacon Hill Claims (Unnamed)
3: 19, 20 T13N R9W 35°20'40"N 107°49'20"W
4: Dos Lomas 7-1/2 Elevation 7,100 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Hilpert (1969, p. 34); USAEC files (1967)

1: 13N.9W.20.133
2: Beacon Hill #18-23 (Mesa Top, Malpais, East Malpais, Davenport)
3: NW1/2 20 T13N R9W 35°20'35"N 107°49'14"W
4: Dos Lomas 7-1/2 Elevation 7,130 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 240 ft 45° decline shaft-open stope and random pillar
8: production included with Beacon Hill (13N.9W.18.441)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: oxidized redistributed deposits, 2-6 ft thick
12: coffinite
13: Sandstone
15: Green and others (1980c, #226); Santos (1970); Hilpert (1969, p. 34); Rapaport (1963, p. 126); U.S. Atomic Energy Commission (1959a, p. 48); USAEC files (1967)

1: 13N.9W.18.444
2: Beacon Hill-Gossett (Malpais #1Ø, 14; Sec. 18, Moe #3)
3: SE1/4 18, NW1/4 2Ø T13N R9W 35°21'ØØ"N 1Ø7°49'3Ø"W
4: Dos Lomas 7-1/2 Elevation 7,Ø7Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 515-ft 7Ø° decline (air vent for Poison Canyon mine)
8: 39,354 tons ore yielding 166,Ø65 lbs U_3O_8 (Ø.21%); 22,671 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon Sandstone
11: tabular deposit of redistributed ore 1-1Ø ft thick
12: tyuyamunite, coffinite
13: Sandstone-redistributed
14: mined 1956-1963, 1966-1967
15: Anderson, O.J. (198Ø); Green and others (198Øc, #221); Holmquist (197Ø, p. 37); Hilpert (1969, p. 34, #6); McLaughlin (1963); Rapaport (1963); U.S. Atomic Energy Commission (1959a, p. 44); Konigsmark (1958); USAEC files (1967)

1: 13N.9W.2Ø.2ØØ
2: BG Group
3: 2Ø T13N R9W 35°2Ø'4Ø"N 1Ø7°48'25"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined from Dog Incline
8: 2Ø,ØØ1 tons ore yielding 86,161 lbs U_3O_8 (Ø.22%)
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: 1 13-ft thick ore body (1 horizon)
13: Sandstone
14: mined 1969-71 (see Dog Group)
15: Holmquist (197Ø, p. 4Ø); USAEC files (1971)

1: 14N.11W.19.220
2: Billy the Kid; Greer, Warren, and McCormack (Section 19, Red Top #1,3-#7)
3: NE1/4 NE1/4 19 T14N R11W 35°26'00"N 108°2'15"N
4: Thoreau NE 7-1/2 Elevation 6,980 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V, limestone (aggregate)
7: 3 open pits (7 20-ft deep, largest 300 yds long)
8: 8,724 tons ore yielding 2,693 lbs U_3O_8 (0.15%), 4,276 lbs V_2O_5
9: bkgd 20-50 cps; high 1,000 cps
10: Jurassic Todilto Limestone
11: 2-ft thick mineralized limestone
12: carnotite, fluorite, barite; 0.112% U_3O_8, trace Se (NMBMMR chem lab, 7/82, #2301)
13: Limestone
14: mined 1952-1954, 1958, 1960, 1976; may include production from Section 19 (Maddox and Teague)
15: FN 5/20/82; Anderson, O.J. (1980); Green and others (1980b, #100, 101); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1969, p. 41, #35; 1965); Anderson, E.C. (1955); Smith, C.T. (1954); USAEC files (1960)

1: 15N.13W.12.322
2: Black Jack No. 1
3: NE1/4 NE1/4 SW1/4 12 T15N R13W 35°32'45"N 108°10'4"W
4: Hosta Butte 7-1/2 Elevation 7,438 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, Mo, Se
7: 825-ft 3-compartment shaft with drifts, now cemented over
8: 1,439,432 tons ore yielding 6,440,419 lbs U_3O_8 (0.22%)
9: bkgd 50 cps; dumps average 500-1,000 cps; high 1,200 cps
10: Jurassic Morrison Formation-Westwater Canyon Member
11: V-shaped primary trend and secondary post-fault ore deposits in up to seven horizons controlled by sedimentary structures and north-trending faults
12: uraninite, coffinite; 0.293% U_3O_8 (NMBMMR chem lab, 3/3/83, #3163)
13: Sandstone
14: mined 1959-1971
15: FN 7/-21-82; Anderson, O.J. (1980); Green and others (1980b, #81); Perkins (1979); Hackman and Olson (1977); Holmquist (1970, p. 22); Hilpert (1969, p. 42, #8); MacRae (1963); USAEC files (1971); CRIB (1976)

1: 15N.13W.18.223
2: Black Jack No. 2 (UNC)
3: NW14 18 T15N R13W 35°31'58"N 108°15'12"W
4: Mariano Lake 7-1/2 Elevation 7,420 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: vertical shaft (330 ft) with drift-backfilled
8: 247,613 tons ore yielding 1,129,004 lbs U_3O_8 (0.23%)
10: Jurassic Morrison Formation-Brushy Basin Member
11: several deposits in gray, crossbedded sandstone, controlled by sedimentary structures
12: uraninite, coffinite, vanadinite
13: Sandstone
14: mined 1959-1964; mine map by Hoskins (1963)
15: Anderson, O.J. (1980); Green and others (1980b, #70); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979); Green and Jackson (1975); Holmquist (1970, p. 20); Hilpert (1969, p. 42, #9); Hoskins (1963); USAEC files (1970)

1: 16N.18W.36.300
2: Black Rainbow Claims (I N Sprecher)
3: 36 T16N R18W 35°34'30"N 108°42'40"W
4: Gallup East 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
11: disseminated uranium in shale bed at base of Dakota
12: 0.02-0.04% U_3O_8 (USBM)
13: Shale
14: little or no potential
15: Green and others (1980b, #130); USBM files (1954)

1: 13N.10W.24.234
2: Blue Peak (Garcia #1-5, Red Top #1-10 Claims, Section 24)
3: SE1/4 NE1/4 24 T13N R10W 35°20'30"N 107°51'10"W
4: Dos Lomas 7-1/2 Elevation 7,320 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 6 adits (12-ft, 100-ft, 75-ft, 3-ft, 4-ft, 75-ft), stripping
8: 12,051 tons ore yielding 44,020 lbs U_3O_8 (0.19%); 18,707 lbs V_2O_5
9: bkgd 50-100 cps; K-shale 200 cps; high 4,000 cps
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: ore associated with fractures and organic debris and may be related to a facies change in the Brushy Basin member
12: coffinite, tyuyamunite, autunite, carnotite
13: Sandstone-tabular
14: mined 1951-1961, 1964
15: FN 7/22/81; Green and others (1980c, #205); Anderson, O.J. (1980); Turner-Peterson and others (1980a, p. 177); Holmquist (1970, p. 31); Hilpert (1969, p. 37); Rapaport (1963, p. 123); Konigsmark (1958, p. 20); USAEC files (1964); USBM files (1964)

1: 13N.10W.24.144
2: Bobcat
3: NW1/4 24 T13N R10W 35°'32"N 107°50'58"W
4: Dos Lomas 7-1/2 Elevation 7,380 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, Ca
7: rim stripping (50-ft trench)
8: 117 tons ore yielding 186 lbs U_3O_8 (0.06%), 71 lbs V_2O_5 (0.12%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
13: Sandstone
14: mined 1956 by Brown and Wallace
15: Green and others (1980c, #204); Hilpert (1969, p. 36, #11); Mathewson (1953b); USAEC files (1956)

1: 16N.10W.7,18
2: Borrego Pass (Conoco)
3: 7,18 T16N R10W
4: Borrego Pass 7-1/2
5: West Largo-Hospah area-Grants uranium district
6: U
7: drill holes - 1-3 shafts planned; 2,275-ft deep
8: no production-40 mill lbs U_3O_8 reserves; 850 TPD planned
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1,500-2,100 ft wide and 6,000 ft long ore body
13: Sandstone
14: extends into sec. 13 T16N R11W; plans suspended
15: Sayala and Ward (1983); Holen (1982); Chenoweth and Holen (1980, #17); Perkins (1979)

1: 14N.11W.18.443
2: Bottoms Claims (L. Bottoms)
3: S1/2 S1/2 SE1/4 18 T14N R11W 35°26'10"N 108°2'15"W
4: Thoreau NE 7-1/2 Elevation 6,940 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, limestone (aggregate)
7: no uranium production, may have been mined for aggregate
8: 5-10 ft deep, 100-ft diameter open pit
9: bkgd 20-30 cps, high 350 cps
10: Jurassic Todilto Limestone
11: spotty and discontinuous mineralization along bedding planes and fractures, one zone several inches thick
12: 0.227% U_3O_8 (NMBMMR chem lab, 7/82, #2300)
13: Limestone
15: FN 5/20/82; Green and others (1980b, #98); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1969, p. 41); Smith, C.T. (1954); PRR CEB-18

1: 14N.10W.14.414
2: Bucky (Section 14, Jeep #1-6, Buckey)
3: SE1/4 14 T14N R10W 35°26'30"N 107°51'25"W
4: Ambrosia Lake 7-1/2 Elevation 7,035 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 380-ft vertical shaft (290-387 ft deep)
8: 161,638 tons ore yielding 770,893 lbs U308 (0.24%); 240 lbs V_2O_5 until 1965
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 4-9 ft thick ore zone
13: Sandstone-primary tabular
14: mined 1957-1965, 1972, 1978-1980
15: FN 4/5/82; Green and others (1980c, #134); Perkins (1979, p. 71); Holmquist (1970, p. 62); Santos (1970); Hilpert (1969, p. 39, #12); U.S. Atomic Energy Commission (1959a, p. 44); USAEC files (1965)

1: 14N.9W.12.400
2: Canyon Mulatto
3: SE1/4 12 T14N R9W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation
13: Shale
14: incorrect location given by Green and others (1980b)
15: Green and others (1980b, #115); Hilpert and Corey (1955); Bachman and others (1953)

1: 14N.9W.24.100
2: Canyon Mulatto
3: NW1/4 24 T14N R9W 35°25'55"N 107°45'00"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, coal
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation-Gibson Coal
11: 3-inch thick lense of coaly material
12: channel sample 1.3 ft-long - 0.03% U
13: Coal
15: Green and others (1980c, #161); Hilpert (1969, p. 38);
Bachman and others (1953)

1: 17N.13W.34
2: Canyon (United Nuclear Corp.TVA)
3: 34 T17N R13W
4: Crownpoint 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: 1-3 shafts 2,200-2,800 ft deep planned (Perkins, 1979)
8: 5 mill lbs U_3O_8 reserves, 850 TPD (Perkins, 1979).
10: Jurassic Morrison Formation-Westwater Canyon Member
11: orebodies 7-ft thick
12: 0.12% U_3O_8 average grade
13: Sandstone
14: mine plan submitted in 1978, plans suspended in 1982
15: Chenoweth and Holen (1980, #8); Perkins (1979, p. 84)

1: 16N.18W.26.220
2: Car-Ball #13
3: NE1/4 26 T16N R18W 35°35'35"N 108°42'35"W
4: Gallup East 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7:
8: no production
10: Cretaceous Crevasse Canyon Formation-Dilco Coal
11: 1-1/2 ft thick radioactive zone in carbonaceous shale
13: Shale
15: Green and others (1980b, #19); Hackman and Olson (1977);
Hilpert (1969, p. 44); Ryan and Berkoff (1956); PRR ED-R-240
(1953)

1: 13N.9W.22
2: C and H Claims (Section 22)
3: 22 T13N R9W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone(?)
11: mineralized drill hole
13: Sandstone
14: drilled by Calumet and Hecla
15: USAEC files (1950's)

1: 16N.17W.35.411
2: C D and S (Section 35)
3: NW1/4 NW1/4 SE1/4 35 T16N R17W 35°34'30"N 108°36'25"W
4: Church Rock 7-1/2 Elevation 7,040 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: prospect pits, face cuts (50-ft deep)
8: 16 tons ore yielding 48 lbs (0.15% U_3O_8)
9: bkgd 50 cps, high 100 cps (Anderson, 1980)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: mineralization in carbonaceous mudstone lense in sandstone
12: yellow uranium minerals, 83.7 ppm U (Green and others, 1980b)
13: Sandstone-tabular
14: mined 1957 by C D and S Mining Co.
15: Anderson, O.J. (1980); Green and others (1980b, #46); Hackman and Olson (1977); Hilpert (1969, p. 44); USAEC files (1957); CRIB (1976)

1: 20N.9W.9.222
2: Chaco Canyon-Drill Hole CC-2
3: NE1/4 NE1/4 NE1/4 9 T20N R9W 35°59'10"N 107°47'20"W
4: Seven Lakes NE 7-1/2 Elevation 6,318 ft
5: Chaco Canyon area
6: U
7: drill hole 4,650 ft deep
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: 2 mineralized zones at 4,297-4,299 ft and 4,307-4,308 ft
13: Sandstone
15: Hicks and others (1980); Lease (1979); Brookins (1979)

1: 20N.8W.9.111
2: Chaco Canyon-Drill Hole CC-3
3: NW1/4 NW1/4 NW1/4 9 T20N R8W 35°59'8"N 107°41'50"W
4: Pueblo Pintado 7-1/2 Elevation 6,422 ft
5: Chaco Canyon area
6: U
7: drill hole-5,041 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 mineralized zones at 4,608-4,609 ft and 4,669-4,670 ft
13: Sandstone
15: Hicks and others (1980); Lease (1979); Brookins (1979)

1: 20N.10W.16.441
2: Chaco Canyon-Drill Hole CC-15
3: NW1/4 SE1/4 SE1/4 16 T20N R10W 35°57'35"N 107°54'00"W
4: Seven Lakes NW 7-1/2 Elevation 6,330 ft
5: Chaco Canyon area
6: U
7: drill holes-4,450 ft deep
8: no production
10: Jurassic Morrison Formation-Brushy Basin and Westwater Canyon Members
11: 4,250-4,252 ft (Jmw)
13: Sandstone
15: Hicks and others (1980); Lease (1979); Brookins (1979)

1: 13N.9W.33.433
2: Charlotte (Section 33, Farris)
3: S1/2 33 T13N R9W 35°18'18"N 107°47'40"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 5 pits scattered throughout SE1/4 and SW1/4
8: 208 tons ore yielding 704 lbs U_3O_8 (0.17%), 87% $CaCO_3$
10: Jurassic Todilto Limestone
11: mineralization along small folds, small ore bodies
13: Limestone
14: mined 1958 by Westvaco
15: Anderson, O.J. (1980); Green and others (1980c, #246); Hilpert (1969, p. 35); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 63); USAEC files (1958)

1: 17N.16W.9
2: Churchrock 8 and 2
3: 9 T17N R16W 35°42'55"N 108°32'35"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #23); Chapman, Wood, and Griswold, Inc. (1979)

1: 16N.16W.17.212
2: Church Rock (Old Church Rock, Section 17)
3: 17 T16N R16W
4: Church Rock 7-1/2 Elevation 6,810 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: 862-ft shaft, 800-900 ft shaft
8: 77,965 tons ore yielding 302,608 lbs U_3O_8 (0.19%) until 1970
10: Cretaceous Dakota Sandstone, Jurassic Morrison Formation-Westwater Canyon and Brushy Basin Members
11: ore associated with organic debris at contact of Dakota and Brushy Basin and Westwater sandstones, several horizons
13: Sandstone-fracture-controlled redistributed
14: mined 1960-1962, reopened by United Nuclear 1976-1977, 1979-1981
15: Ludwig and others (1982); Green and others (1980b, #32); Perkins (1979); Hackman and Olson (1977); Chapman, Wood, and Griswold, Inc. (1979, #46); Holmquist (1970, p. 14); Hilpert (1969, p. 44, #20); Chenoweth and Laverty (1964); USAEC files (1962)

1: 14N.9W.36.332
2: Cliffside-Section 36 (Phillips, Kerr-McGee)
3: SE1/4 36 T14N R9W 35°23'45"N 107°44'59"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 1,497-ft vertical shaft-modified room and pillar
8: 745,074 tons ore yielding 6,046,780 lbs U_3O_8 (0.41%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons, 1-33 ft thick orebodies; mineralized breccia or collapse pipe (South Pipe)
12: 0.52% U_3O_8 (Hilpert, 1969)
13: Sandstone-primary tabular; Breccia-Pipe
14: mined 1960-now, now owned by Kerr-McGee
15: Green and others (1980c, #173); Squyres (1980); Chapman, Wood, and Griswold, Inc. (1979, #16); Holmquist (1970, p. 93); Santos (1970); Hilpert (1969, p. 39, #21); Clark and Havenstrite (1963); U.S. Atomic Energy Commission (1959a, p. 64); USAEC files (1971); CRIB (1976); USBM files (1962)

1: 17N.12W.19.312
2: Crownpoint (Conoco, Unknown)
3: SE1/4 19 T17N R12W 35°41'6"N 108°9'36"W
4: Crownpoint 7-1/2 Elevation 6,980 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production-40 mill lbs U_3O_8 reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: may use in-situ leaching
15: Holen (1982); Green and others (1980b, #64); Perkins (1979)

1: 17N.13W.4
2: Crownpoint North Trend (Mobil-TVA)
3: 2,3,4,5 T17N R13W 35°43'55"N 108°13'25"W
4: Crownpoint 7-1/2
5: Church Rock subdivision-Grants uranium district
6: U
7: drill holes-plans for pilot leaching at depth 1,900-2,000 ft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Holen (1982); Green and others (1980b, #61); Conine (1980); Chenoweth and Holen (1980, p. 18-19, #6)

1: 17N.13W.9.322
2: Crownpoint-Section 9 (Mobil)
3: SW1/4 9 T17N R13W 35°43'00"N 108°13'40"W
4: Crownpoint 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: pilot test site for in-situ leaching (drill holes)
8: production confidentil
10: Jurassic Morrison Formation-Westwater Canyon Member
11: many discontinuous ore bodies in a 30-ft thick horizon
12: coffinite, 0.095% U_3O_8, up to 0.4% U_3O_8
13: Sandstone
14: initiated November, 1979 for 10-month period obtaining 15% recovery, at depths of about 2,000 ft
15: Vogt, Strom, and Venuto (1982)

1: 17N.12W.29.212
2: Crownpoint (Section 29-Conoco)
3: NE1/4 29 T17N R12W 35°40'50"N 108°7'50"W
4: Crownpoint 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: shaft sinking to 1,307 ft; proposed depth of 2,160 ft; suspended in March, 1981
8: no production-10 mill lbs U_3O_8 reserves (Wentworth and others, 1980); 1,350 TPD planned
10: Jurassic Morrison Formation-Westwater Canyon Member
11: series of ore pods in 4 horizons in channel sandstones
12: coffinite, secondary uranium minerals
13: Sandstone
14: discovered in mid-1970's, shaft sinking began in January, 1980, shaft was drilled to total depth rather than employing conventional shaft-sinking methods
15: Holen (1982); Chenoweth and Holen (1980); Green and others (1980b, #65); Wentworth and others (1980); Chapman, Wood, and Griswold, Inc. (1979); Perkins (1979)

1: 17N.13W.16
2: Crownpoint-South Trend (Mobil-TVA)
3: 16 T17N R13W 35°42'10"N 108°13'25"W
4: Crownpoint 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes - in-situ leaching at depths of 1,900-2,000 ft
8: production confidential-10 mill lbs U_3O_8 reserves (Perkins, 1979)
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: first test in sec. 9 and 16, lease includes all or parts of sec. 2-6, 8, 9, 11-17, 20-24, 27-29 T17N R13W
15: Holen (1982); Green and others (1980b, #62); Chapman, Wood, and Griswold, Inc. (1979); Perkins (1979)

1: 13N.1ØW.4.243
2: Dakota Mine
3: CE1/2 4 T13N R1ØW 35°23'1Ø"N 1Ø7°53'4Ø"W
4: Goat Mountain 7-1/2 Elevation 7,16Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: adit
8: production included with Pat Mine (13N.1ØW.4.244)
9: bkgd 5Ø cps, high 5ØØ cps (Anderson, 198Ø)
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: mined with Pat in 1952-1963
15: Anderson, O.J. (198Ø); Green and others (198Øc, #319); PRR GJEB-R-188 (1952); USAEC files (1963)

1: 17N.14W.28.4ØØ
2: Dalton Pass
3: SE1/4 28 T17N R14W (unsurveyed) 35°4Ø'5"N 1Ø8°19'33"W
4: Dalton Pass 7-1/2 Elevation 7,4ØØ ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
1Ø: Cretaceous Crevasse Canyon Formation-Gibson Coal
11: radioactive coal bed
12: Ø.Ø25% U
13: Coal
15: Green and others (198Øb, #58); Hackman and Olson (1977); Hilpert (1969, p. 44); Bachman and others (1953)

1: 17N.13W.3Ø
2: Dalton Pass-Section 3Ø (United Nuclear/TVA)
3: 3Ø T17N R13W
4: Dalton Pass 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes-shaft site; 2,2ØØ-2,8ØØ ft deep
8: no production-5 mill lbs U_3O_8 reserves (Perkins, 1979)
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: 7-ft thick ore horizon
12: average grade of Ø.12% U_3O_8
13: Sandstone
14: plans suspended
15: Holen (1982); Perkins (1979, p. 84)

1: 17N.14W.24,25
2: Dalton Pass (United Nuclear Corp./TVA)
3: 24,25 T17N R14W
4: Dalton Pass 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes-shaft #2 site; 2,200 ft depth; 2-5 sites planned
8: no production-20 mill lbs U_3O_8 reserves; up to 3,400 TPD
10: Jurassic Morrison Formation-Westwater Canyon Member
12: average grade of 0.1% U_3O_8
13: Sandstone
14: plans suspended
15: Holen (1982); Chenoweth and Holen (1980, #5); Green and others (1980b, #59); Chapman, Wood, and Griswold, Inc. (1979); Perkins (1979, p. 81)

1: 13N.9W.20.312
2: Davenport Incline (Mesa Top #7, Moe #2, Beacon Hill #23?)
3: C W1/2 20 T13N R9W 35°20'28"N 107°49'13"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 470-ft 70° inclined adit; 650-ft workings; mined by gophering
8: 7,517 tons ore yielding 28,539 lbs U_3O_8 (0.17%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
13: Sandstone
14: mined 1957-1968, reserves depleted
15: Green and others (1980c, #224); Holmquist (1970, p. 120); Hilpert (1969, p. 34, #60); U.S. Atomic Energy Commission (1959a, p. 44, 48); USAEC files (1968)

1: 16N.17W.36.114
2: Delter
3: NW1/4 36 T16N R17W 35°34'43"N 108°35'41"W
4: Church Rock 7-1/2 Elevation 6,950 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings-occurrence
8: no production
9: 25 times background across channel width (Green and others, 1980b)
10: Cretaceous Dakota Sandstone
11: mineralizedal part of stream channel scour associated with organic debris
12: carnotite
13: Sandstone
14: examined by Green and others (1980b); geologic map by Gabelman (1956a)
15: Green and others (1980b, #45); Pierson and Green (1977); Hackman and Olson (1977); Hilpert (1969, p. 44); Riemer (1969); Gabelman (1956a, p. 316)

1: 15N.17W.33.214
2: Diamond No. 2 (Largo, Becenti, Mike Smith Lease, Black Diamond, Four Corners Uranium)
3: SE1/4 NW1/4 NE1/4 33 T15N7W 35°29'30"N 108°38'33"W
4: Bread Springs-1/2 Elevation 6,920 ft
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: 2 declines N50°W, 28° decline, 500-ft long
8: 55,717 tons ore yielding 244,939 lbs U_3O_8 (0.22%), 88,279 lbs V_2O_5
9: bkgd 50 cps, high 2,000 cps
10: Cretaceous Dakota Sandstone scouring Jurassic Morrison Formation-Westwater Canyon Member
11: mineralization associated with organic material at base of Dakota sandstone channel scouring into Westwater Canyon sandstone
12: uraninite, coffinite, tyuyamunite; 0.034% U_3O_8 (NMBMMR chem lab, 3/3/83, #3151)
13: Sandstone
14: mined 1952-1959, 1964-1970; mine map by Hilpert (1969, p. 91), Chico (1959), and Gabelman (1956a)
15: FN 7/20/82; Anderson, O.J. (1980); Green and others (1980b, #22); Hackman and Olson (1977); Pierson and Green (1977); Holmquist (1970, p. 8); Hilpert (1969, p. 43, #3); Chenoweth and Laverty (1964); Chico (1959); U.S. Atomic Energy Commission (1959a, p. 45); Gabelman (1956a, p. 312); Rian and Berkoff (1956); Gruner and others (1954, p. 37); Mirsky (1953); PRR unnumbered (1953); USAEC files (1970); CRIB (1976)

1: 13N. 9W.20.411
2: Dog Group (Dog Incline, Flea Incline, B-G Group, Sec. 20)
3: C 20 T13N R9W 35°20'30"N 107°48'45"W
4: Dos Lomas 7-1/2 Elevation 7,020 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 300-ft 30° decline shaft (Dog), 380-ft 30° decline (Flea) both caved (160-ft deep) - room and pillar
8: 244,177 tons ore yielding 906,235 lbs U_3O_8 (0.19%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: oxidized redistributed ore along fractures trending N15°W, 2-16 ft thick
13: Sandstone
14: patented claims mined 1957-1975, 1978-1980 (production includes BG and Flea Mines)
15: Anderson, O.J. (1980); Green and others (1980c, #225); Holmquist (1970, p. 40); Hilpert (1969, p. 34, #27); Rapaport (1963, p. 126); U.S. Atomic Energy Commission (1959a, p. 45); USAEC files (1971)

1: 13N.9W.21.324
2: Doris Decline-Section 21 (Doris #1, Little Doris)
3: C SW1/4 21 T13N R9W 35°20'22"N 107°47'30"W
4: Dos Lomas 7-1/2 Elevation 6,820 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 200-ft 30° decline (badly caved)
8: 31,950 tons ore yielding 118,052 lbs U_3O_8 (0.18%) through 1970
9: bkgd 20-30 cps, ore pile 4,000 cps
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: black ore associated with organic material in coarse-grained oxidized sandstone in a cylindrical collapse structure
12: coffinite; uranopilite; 0.46% U_3O_8; 694 ppm Se; (NMBMMR chem lab, 5/20/82, #2173)
13: Sandstone-primary tabular; Breccia-pipe
14: mined 1958-61, 1979-197980 by M and M Mining Co.; mine map by Granger and Santos (1963)
15: FN 4/7/82; Green and others (1980c, #227); Siemers and Austin (1979); Holmquist (1970, p. 41); Hilpert (1969, p. 34, #81); Rapaport (1963, p. 129); Granger and Santos (1963); U.S. Atomic Energy Commission (1959a, p. 54); USAEC files (1963)

1: 13N.9W.21.332
2: Doris West Extension (Little Doris, Flea-Doris Extension, Section 21)
3: NE1/4 SW1/4 21 T13N R9W 35°20'20"N 107°47'40"W
4: Dos Lomas 7-1/2 Elevation 6,890 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: decline
8: production included with Doris Decline
9: bkgd 20-30 cps, ore pile 1,500-2,000 cps
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: black ore associated with organics in coarse-grained sandstone
12: coffinite; 0.28% U_3O_8, 95 ppm Se (NMBMMR chem lab, 5/20/82, #2175)
13: Sandstone
14: mined 1979-81 by M and M Mining Co., connects to Dog-Flea Mine
15: FN 4/7/82; Hatchell, B. and Wentz (1981, p. 69); Green and others (1980c, #227); Siemers and Austin (1979); Hilpert (1969, p. 34, #81); Rapaport (1963, p. 129); U.S. Atomic Energy Commission (1959a, p. 54); USAEC files (1963)

1: 14N.10W.11.312
2: Dysart #1 (Rio de Oro, Section 11)
3: SW1/4 11 T14N R10W 35°27'20"N 107°52'18"W
4: Ambrosia Lake 7-1/2 Elevation 7,110 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 395-ft vertical shaft, modified room and pillar
8: 891,922 tons ore yielding 3,795,495 lbs U_3O_8 (0.21%); 47,438 lbs V_2O_5
10: Jurassic Morrison Formation-Westwater Canyon Member
11: cluster of deposits controlled by bedding structures and one linear ore body controlled by fault
12: coffinite, up to 2.79% U_3O_8 (Berkoff and Stocking, 1958)
13: Sandstone-primary tabular, redistributed
14: mined 1956-1962 first Westwater Canyon member uranium discovery; presently owned by Homestake; maps by Berkoff and Stocking (1958)
15: FN 4/5/82; Anderson, O.J. (1980); Green and others (1980c, #129); Perkins (1979, p. 70); Chapman, Wood, and Griswold, Inc. (1979, #2); Holmquist (1970, p. 57); Santos (1970); Hilpert (1969, p. 39, #28); Cronk (1963); U.S. Atomic Energy Commission (1959a, p. 51); Berkoff and Stocking (1958); PRR-NM-101 (1955); USAEC files (1962)

1: 14N.10W.11.424
2: Dysart #2 (Section 11 SEQ)
3: SE1/4 11, SW1/4 12 T14N R10W 35°27'15"N 107°51'35"W
4: Ambrosia Lake 7-1/2 Elevation 7,115 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 550-ft vertical shaft - connects to Section 12 shaft (490-ft deep)
8: 237,602 tons ore yielding 894,642 lbs U_3O_8 (0.19%)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: large, irregular-shaped tabular deposit
13: Sandstone-primary tabular
14: mined 1959-1962, ventilation shaft for Section 12 (Cobb)
15: FN 4/5/82; Anderson, O.J. (1980); Green and others (1980c, #130); Siemers and Austin (1979); Perkins (1979, p. 71); Chapman, Wood, and Griswold, Inc. (1979, #31); Holmquist (1970, p. 59); Hilpert (1969, p. 39, #29); USAEC files (1963)

1: 14N.12W.18.430
2: Eagle #1-6
3: SW1/4 SE1/4 18 T14N R12W 36°26'20"N 108°8'45"W
4: Thoreau 7-1/2 Elevation 7,400 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, limestone (aggregate)
7: large open pit and stripping complex
8: no uranium production
9: no anomalous readings above background found
10: Jurassic Todilto Limestone
11: uranium mineralization reported but not found
13: Limestone
14: probably mined for limestone aggregate
15: FN 5/19/82; Green and others (1980b, #83); Hackman and Olson (1977); Hilpert (1969, p. 42)

1: 13N.9W.20.233
2: East Malpais Lease (Malpais #13, Dog #10)
3: 20 T13N R9W 35°20'32"N 107°48'50"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Malpais Raise (160-ft deep)
8: 30,333 tons ore yielding 139,818 lbs U_3O_8 (0.23%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: 3-9 ft thick
13: Sandstone
14: mined 1958-1960
15: Holmquist (1970, p. 38); USAEC files (1960)

1: 14N.12W.24.243
2: Elkins Claims (Lawrence Elkins)
3: SE1/4 NE1/4 24 T14N R12W 35°25'50"N 108°3'20"W
4: Thoreau NE 7-1/2 Elevation 7,150 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: open pit, stripping (0-50 ft deep)
8: 59 tons ore yielding 151 lbs U_3O_8 (0.13%); 231 lbs V_2O_5
10: Jurassic Todilto Limestone
11: 4.5-ft thick ore zone in crinkly member
13: Limestone
14: mined 1952-1954
15: Anderson, O.J. (1980); Green and others (1980b, #102); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1969, p. 42, #20); PRR CEB-17 (1950); USAEC files (1954)

1: 14N.12W.24.414
2: Elkins Claims (unknown)
3: SE1/4 24 T14N R12W 35°25'40"N 108°3'55"W
4: Thoreau NE 7-1/2 Elevation 7,300 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly (10-ft maximum depth)
8: no production
10: Jurassic Todilto Limestone
11: 1/2-2 ft thick mineralized zone in crinkly member
12: minor secondary uranium minerals
13: Limestone
15: Green and others (1980b, #126); USAEC files (1954)

1: 14N.12W.24.421
2: Elkins Claims (Tom Elkins)
3: NW1/4 SE1/4 24 T14N R12W 35°25'45"N 108°3'15"W
4: Thoreau NE 7-1/2 Elevation 7,150 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: production included with Elkins Claims (14N.12W.24.243)
10: Jurassic Todilto Limestone
11: ore bodies in crinkly zone, spotty and discontinous
13: Limestone
15: Green and others (1980b, #103); Hilpert (1969, p. 42, #48; (1965); USAEC files (1954)

1: 14N.11W.9.214
2: Evelyn
3: NW1/4 9 T14N R11W 35°27'40"N 108°00'45"W
4: Thoreau NE 7-1/2 Elevation 7,240 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: 350-ft adit, two 30-ft adits (30-ft deep)
8: 10,743 tons ore yielding 49,584 lbs U_3O_8 (.23%); 23,539 lbs V_2O_5 until 1970
10: Jurassic Morrison Formation-Brushy Basin Member
11: several deposits associated with carbonaceous debris in sandstone lenses (3.5 ft thick)
12: tyuyamunite, coffinite
13: Sandstone
14: mined 1953-1972 intermittently; patented claims by W.C. Andrews; mine map by Konigsmark (1958)
15: Anderson, O.J. (1980); Green and others (1980b, #95); Hackman and Olsen (1977); Holmquist (1970, p. 28); Hilpert (1969, p. 41, #34); Konigsmark (1958, p. 24); USAEC files (1970)

1: 13N.9W.29.141
2: Faith Mine (Section 29, Westvaco)
3: E1/2 W1/2 29 T13N R9W 35°19'42"N 107°48'50"W
4: Dos Lomas 7-1/2 Elevation 6,840 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 460-ft vertical shaft and hoisting shaft, modified room and pillar
8: 66,327 tons ore yielding 258,615 lbs U_3O_8 (0.19%)
10: Jurassic Todilto Limestone
11: cluster of about 30 disconnected ore bodies in 2 horizons, 6-11 ft thick
13: Limestone
14: mined 1958-1964, now controlled by Ranchers Exploration
15: Anderson, O.J. (1980); Green and others (1980c, #232); Holmquist (1970, p. 116); U.S. Atomic Energy Commission (1970, p. 83); Hilpert (1969, p. 35, #11); Kittle and others (1967); McLaughlin (1963, p. 147); U.S. Atomic Energy Commission (1959a, p. 59); PRR DEB-209 (1951); USAEC files (1964); USBM files (1958)

1: 19N.6W.13,14
2: Farr Ranch (Star Lake)
3: 13,14 T19N R6W 35°52'45"N 107°26'10"W
4: Star Lake 7-1/2
5: San Juan Basin area
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Pictured Cliffs Sandstone
13: Beach Placer Sandstone
15: Green and others (1980c, #271, 272); Scott, G.R., and others (1980); Chenoweth (1957b); Hilpert and Corey (1955); PRR ED-R-458 (1955)

1: 19N.6W.15.340
2: Farr Ranch (Star Lake)
3: SW1/4 15 T19N R6W 35°52'30"N 107°27'35"W
4: Star Lake, Rincon Marquez 7-1/2
5: San Juan Basin area
6: U, Th, Ti, Fe, Zn
7: no workings
8: no production
10: Cretaceous Pictured Clifs Sandstone
13: Beach Placer Sandstone
15: Scott, G.R. and others (1980); Dow and Batty (1961); USBM files (1958); CRIB (1972)

1: 19N.6W.23.344
2: Farr Ranch (Star Lake)
3: SW1/4 23 T19N R6W 35°51'25"N 107°26'40"W
4: Rincon Marquez 7-1/2
5: San Juan Basin area
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Pictured Cliffs Sandstone
13: Beach Placer Sandstone
15: Chenoweth (1957b); PRR ED-R-458 (1955)

1: 19N.6W.25,26
2: Farr Ranch (Star Lake)
3: 25, 26 T19N R6W 35°51'15"N 107°25'25"W
4: Rincon Marquez 7-1/2
5: San Juan Basin area
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Pictured Cliffs Sandstone
13: Beach Placer Sandstone
15: Green and others (1980c, #273, 274); Chenoweth (1957b); Hilpert and Corey (1955); PRR ED-R-458 (1955)

1: 14N.10W.31.344
2: Febco (Small Stake)
3: SW1/4 31 T14N R10W 35°23'40"N 107°56'10"W
4: Goat Mountain 7-1/2 Elevation 7,120 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: short adit
8: production included with Silver Spur Group (14N.10W.31.334)
10: Cretaceous Dakota Sandstone
11: radioactivity associated with carbonaceous trash in sandstone
13: Sandstone
14: mined 1952
15: Anderson, O.J. (1980); Green and others (1980c, #148); Pierson and Green (1977); Hilpert (1969, p. 40); Thaden and others (1963); Mirsky (1958); PRR GJEB-R-172 (1952) USAEC files (1960)

1: 13N.8W.15.444
2: Fernandez-Main Ranch (Gulf)
3: 14,15,22,23 T13N R8W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (2,510-3,017 ft deep)
8: no production - 8-9 mill lbs U_3O_8 reserves (Holmquist, 1970)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons, 13-38 ft thick
12: 35-ft of 0.66% U_3O_8 at 3,160 ft in one hole
13: Sandstone
14: discovered in 1968
15: Chenoweth and Holen (1980, p. 18, #23); Green and others (1980c, #96); Chapman, Wood, and Griswold, Inc. (1979 #I); Holmquist (1970, p. 97)

1: 13N.9W.30.442
2: Flat Top Mine (Fife and Bailey, Vilatie Hyde)
3: SE1/4 SE1/4 30 T13N R9W 35°19'18"N 107°49'48"W
4: Dos Lomas 7-1/2 Elevation 6,805 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 230-ft 30° decline, modified room and pillar
8: 49,663 tons ore yielding 216,486 lbs U_3O_8 (0.22%); 66,126 lbs V_2O_5
9: bkgd 20-30 cps; high 1,000 cps
10: Jurassic Todilto Limestone
11: 420-ft by 170-ft ore body
12: tyuyamunite, carnotite, fluorite, barite
13: Limestone
14: mined 1955-1966 by Holly Uranium Co., reserves depleted in 1966
15: FN 4/6/82; Anderson, O.J. (1980); Green and others (1980c, #241); Holmquist (1970, p. 115); Gabelman (1970); Santos (1970); Hilpert (1969, p. 35, #12); McLaughlin (1963, p. 147); U.S. Atomic Energy Commission (1959a, p. 46); Anderson, E.C. (1957); NMBMMR files (1966); USAEC files (1966); USBM files (1953)

1: 13N.9W.20.422
2: Flea Mine (Flea-Doris Extension)
3: 20, 21 T13N R9W 35°20'28"N 107°48'15"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 900-ft decline
8: production included with Dog Mine
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
13: Sandstone
14: idle 1980
15: Hatchell, B. and Wentz (1981, p. 69); Siemers and Austin (1979); Perkins (1979); Hilpert (1969, p. 34)

1: 15N.16W.4.111
2: Foutz #1 (Prospect #1)
3: NW1/4 NW1/4 NW1/4 4 T15N R16W 35°33'55"N 108°33'3"W
4: Church Rock 7-1/2 Elevation 7,280 ft
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: caved open pit
8: 324 tons ore yielding 1,844 lbs U_3O_8 (0.28%), 2,676 lbs V_2O_5
9: bkgd 30-50 cps, high 120 cps
10: Jurassic Morrison Formation-Westwater Canyon Member
11: top of oxidized Westwater Canyon sandstone, 1-4 ft thick
13: Sandstone-redistributed, roll-front
14: mined 1953 by Foutz Mining Co. and Hanosh Mining Co.
15: FN 7/22/82; Anderson, O.J. (1980); Green and others (1980b, #52); Hackman and Olson (1977); Holmquist (1970, p. 10); Hilpert (1969, p. 43, #85); Konigsmark (1958); Sharp (1955; 1954); PRR ED-R-214 (1953); USAEC files (1953)

1: 15N.16W.5.222
2: Foutz #2 (Prospect #2)
3: NE1/4 NE1/4 NE1/4 5 T15N R16W 35°33'55"N 108°33'5"W
4: Church Rock 7-1/2 Elevation 7,280 ft
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: 110-ft dozer cut, 6-ft caved adit
8: 242 tons ore yielding 1,045 lbs U_3O_8 (0.22%); 2,877 lbs V_2O_5
9: bkgd 30-50 cps, no anomalous readings above bkgd
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 3-14 ft ore zone in uppermost oxidized Westwater Canyon sandstone
13: Sandstone-redistributed
14: mined 1953-1954 by Foutz Mining Co., anomaly reported in Recapture member (PRR)
15: FN 7/22/82; Anderson, O.J. (1980); Green and others (1980b, #49, 51); Hackman and Olson (1977); Holmquist (1970, p. 10); Hilpert (1969, p. 43, #86); Konigsmark (1958); Sharp (1955); PRR-ED-R-215 (1953); USAEC files (1954); CRIB (1976)

1: 16N.16W.31.444
2: Foutz #3 (Yellow Jacket, 3 YJ)
3: SE1/4 SE1/4 SE1/4 31 T16N R16W 35°34'00"N 108°53'58"W
4: Church Rock 7-1/2 Elevation 7,280 ft
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: 4 interconnected adits with 300-ft drifts and stopes
8: 2,412 tons ore yielding 8,556 lbs U_3O_8 (0.18%), 12,466 lbs V_2O_5
9: bkgd 50 cps, average in adit 300-400 cps, high 7,000 cps
10: Jurassic Morrison Formation-Brushy Basin Member
11: thin lenses of ore in poorly sorted, cross bedded conglomeratic sandstone, 3-ft thick, 250-ft long, 10-100 ft wide, fracture-controlled oxidized sandstone, lack of organic debris
12: carnotite, secondary yellow uranium minerals
13: Sandstone-redistributed
14: mined 1953-1955 by Foutz Mining Co.
15: FN 7/22/82; Anderson, O.J. (1980); Green and others (1980b, #50); Hackman and Olson (1977); Holmquist (1970, p. 10); Hilpert (1969, p. 45, #37); Sharp (1954); USAEC files (1955)

1: 14N.11W.8.213
2: Francis (1-35)
3: NW1/4 NE1/4 8 T14N R11W 35°25'45"N 108°1'30"W
4: Thoreau NE 7-1/2 Elevation 7,300 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: short tunnel and 3 adits (15-ft, 15-ft, 50-75 ft)
8: 755 tons ore yielding 6,164 lbs U_3O_8 (0.41%); 12,578 lbs V_2O_5
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized fossil logs and tabular layers in sandstone lenses (2.5 ft thick), directly beneath Dakota Sandstone
12: tyuyamunite
13: Sandstone
14: mined 1953-1954 by Farris Mines, Inc.: mine map by Konigsmark (1958)
15: Anderson, O.J. (1980); Green and others (1980b, #94); Hackman and Olson (1977); Holmquist (1970, p. 27); Hilpert (1969, p. 41, #38); Konigsmark (1958); USAEC files (1954)

1: 15N.19W.32.432
2: Gallup Titanium deposit (Weingarten State Lease, Defiance, Torrivio Anticline)
3: NE1/4 SW1/4 SE1/4 32 T15N R19W 35°28'5Ø"N 1Ø8°52'15"W
4: Twin Buttes 7-1/2 Elevation 6,9ØØ ft
5: Church Rock subdistrict-Grants uranium district
6: U, Th, Ti, REE
7: no development-may have been drilled
8: no production
9: bkgd 3Ø cps, high 5ØØ cps
1Ø: Cretaceous Mancos Formation-Gallup Sandstone Member
11: olive-green heavy sandstone lense on top of middle sandstone of Gallup Sandstone member, trends N25°W intermittently for 1,5ØØ-ft, up to 4-ft thick
12: monazite, ilmenite, rutile, brookite, anatose; Ø.Ø75% U_3O_8, 1Ø.25% Ti (NMBMMR chem lab, 11/15/82, #2391); 1,983 ppm Th (NMBMMR XRF lab, 2/83, #2391)
13: Beach-placer sandstone
15: FN 7/2Ø/82; Houston and Murphy (1977); Overstreet (1967); Dow and Batty (1961, p. 37); Sun and Allen (1957); Chenoweth (1957b); Allen, J.E. (1956, p. 1,789); PRR ED-R-618 (1956); USBM files (1958); CRIB (1972)

1: 14N.11W.2Ø.133
2: Glover Claims (Private Property, Fred Glover)
3: SW1/4 NE1/4 2Ø T14N R11W 35°25'4Ø"N 1Ø8°Ø1'5Ø"W
4: Thoreau NE 7-1/2 Elevation 7,Ø3Ø ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: open pits (shallow)
8: production, if any, included with Red Top Mines or Billy the Kid; Gray Warren, and McCormack (Section 19)
1Ø: Jurassic Todilto Limestone
13: Limestone
14: mined 195Ø
15: FN 5/2Ø/82; Anderson, O.J. (198Ø); Green and others (198Øb, #1Ø4); Hackman and Olson (1977); Green and Pierson (1971); Hilert (1969, p. 41, #14; 1965); Lovering (1956, p. 374); Smith, C.T. (1954); PRR GEB-21 (195Ø); USAEC files (196Ø)

1: 14N.9W.4
2: Green Pick #2Ø, 21
3: 4 T14N R9W (unsurveyed)
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
1Ø: Cretaceous Point Lookout Sandstone-Hosta Tongue
12: schroeckingerite, Ø.1Ø% U reported
13: Sandstone
15: Green and others (198Øc, #155); Hilpert (1969, p. 37); PRR DEB-252 (1952)

1: 13N.10W.16.100
2: Hardwork
3: N1/2 16 T13N R10W 35°21'00"N 107°54'00"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
12: 1.18% U_3O_8 reported
13: Limestone
15: Green and others (1980c, #326); McLaughlin (1963, p. 146); PRR CEB-15 (1950)

1: 14N.11W.21.313
2: Haven (Section 21)
3: NW1/4 SW1/4 21 T14N R11W 35°25'35"N 108°01'00"W
4: Thoreau NE 7-1/2 Elevation 6,940 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: several open pits
8: production, if any, included with Red Cap Group
9: bkgd 20 cps, high 600 cps
10: Jurassic Todilto Limestone
11: mineralized micrite west of and in footwall of fault
12: carnotite
13: Limestone
14: mined 1953
15: FN 5/20/82; Anderson, O.J. (1980); Green and others (1980b, #106); Hackman and Olson (1977) Hilpert (1969, p. 41, #37; 1965)

1: 13N.11W.13.114
2: Haystack-Section 13 Pit (NM-B-1 lease)
3: NW1/4 NW1/4 13 T13N R11W 35°21'35"N 107°57'35"W
4: Bluewater 7-1/2 Elevation 7,080 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, limestone
7: small open pit - presently filled and reseeded
8: production included in Haystack-Section 13 (13N.11W.13.324); about 500 tons of ore
9: no anomalous readings
10: Jurassic Todilto Limestone
11: mineralization in upper limestone, associated with intraformational folds
13: Limestone
14: produced 1979-1980 by Todilto Exp. and Dev. Co.
15: FN 5/21/82; Green and others (1980c, #182); Hilpert (1969, p. 37); USAEC files (1961); CRIB (1976); USDOE files (1983)

1: 13N.11W.13.314
2: Haystack-Section 13 Pit (NM-B-1 lease, Bilba, Arthur Bibo, Railroad Sec.)
3: NW1/4 SW1/4 13 T13N R11W 35°21'15"N 107°57'32"W
4: Bluewater 7-1/2 Elevation 7,050 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, limestone
7: two coalescing open pits - 60-ft deep
8: 1,162 tons ore yielding 2,830 lbs U_3O_8 (0.12%) until 1970
10: Jurassic Todilto Limestone
11: mineralization in upper limestone, associated with intraformational folds
13: Limestone
14: produced 1958, 1961 by Arthur Bibo; then 1976-1981 by Todilto Exp. and Dev. Co. (production included in Haystack-Section 13, 13N.11W.13.324
15: FN 5/21/82; Green and others (1980c, #183); Siemers and Austin (1979); Hilpert (1969, p. 37, #17); Kittle and others (1967); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 52); Fincher and Konigsmark (1957); Anderson, E.C. (1955); PRR CEB-16 (1950); USAEC files (1965); USDOE files (1982)

1: 13N.11W.13.324
2: Haystack-Section 13 (NM-B-1 lease)
3: SW1/4 13 T13N R11W 35°21'20"N 107°57'20"W
4: Bluewater 7-1/2 Elevation 7,100 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 1,700-ft decline, open pit
8: 191,000 tons of ore yielding 458,579 pounds of U_3O_8 at an average grade of 0.112% U_3O_8 (USDOE files)
10: Jurassic Todilto Limestone, Entrada Sandstone
11: 3-ft thick, six ore bodies found in this area
13: Limestone
14: produced 1975-1981 by Todilto Exp. and Dev. Co.; includes all production from NM-B-1 Lease
15: FN 5/21/82; Green and others (1980c, #313, 316, 328); USAEC files (1965); USDOE files (1982)
16: figure 14

1: 13N.11W.13.444
2: Haystack-Section 13 (NM-B-1 lease, Railroad section, Arthur Bibo)
3: SE1/4 13 T13N R11W 35°21'15"N 107°57'00"W
4: Bluewater 7-1/2 Elevation 7,101 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit - extension of Haystack Section 19
8: 3,736 tons ore yielding 16,701 lbs U_3O_8 (0.22% U_3O_8)
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #184, 314); Hilpert (1969, p. 37); PRR CEB-16 (1950); USAEC files (1965)

1: 13N.10W.19.110
2: Haystack-Section 19 Open-pit Complex (Section 24)
3: NW1/4 19 T13N R10W, NE1/4 NE1/4 24 T13N R11W 35°20'45"N 107°55'55"W
4: Bluewater 7-1/2 Elevation 7,100 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, limestone
7: large open pit complex - deepest 60-ft
8: 137,310 tons ore yielding 562,267 lbs U_3O_8 (0.20%); 165,494 lbs V_2O_5 until 1970. In 1979 produced 300 tpd
10: Jurassic Todilto Limestone
11: mineralization in upper limestone, associated with intraformational folds, largest orebody was 1,150-ft long and 130-520 ft wide
13: Limestone
14: produced intermittently 1952-1981, last producer Todilto Exp. and Dev. Co.; mine map by Gabelman (1956b, p. 393)
15: FN 5/21/82; Green and others (1980c, #200, 201, 301, 304, 331); Perkins (1979); Siemers and Austin (1979); Holmquist (1970, p. 106); Hilpert (1969, p. 36, #16); Kittle and others (1967); McLaughlin (1963, p. 146); U.S. Atomic Energy Commission (1959a, p. 53); Fincher and Konigsmark (1957); Gabelman (1956b); Chew (1956); PRR CEB-9 (1950); USAEC files (1965)

1: 13N.9W.14.414
2: Hogan Mine
3: SE1/4 14 T13N R9W 35°21'10"N 107°45'30"W
4: Dos Lomas 7-1/2 Elevation 6,920 ft
5: Ambrosia Lake subdistrict-Grants uranaium district
6: U, Mo
7: 340-ft vertical shaft
8: 129,551 tons ore yielding 678,510 lbs U_3O_8 (0.26%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: redistuted ore bodies in 3 horizons along flank of anticlinal fold parallel to San Mateo fault, related to a facies change
12: coffinite, jordisite
13: Sandstone-redistributed
14: mined 1959-1962
15: Anderson, O.J. (1980); Green and others (1980c, #219); Perkins (1979, p. 70); Santos (1970); Holmquist (1970, p. 42); Hilpert (1969, p. 33, #39); Rapaport (1963, p. 131); Mining World (1959, p. 46-48); USAEC files (1962)

1: 15N.18W.12.244
2: Hogback #3-5 (Haystack #12, Hyde, Tucker and Davenport)
3: SE1/4 SE1/4 NE1/4 12 T15N R18W 35°32'50"N 108°41'30"W
4: Gallup East 7-1/2 Elevation 6,950 ft
5: Churchrock subdistrict-Grants uranium distraict
6: U, V, coal
7: 490-ft 40° decline with 500-ft drifting and open stopes, pits
8: 6,354 tons ore yielding 24,234 lbs U_3O_8 (0.19%), 2,954 lbs V_2O_5
9: bkgd 50 cps, high near portal 900 cps (Anderson, 1980)
10: Cretaceous Dakota Sandstone
11: 3-10 ft thick ore body in carbonaceous coaly shale or lignite lense at base of Dakota, deposited in swamp environment
12: yellow uranium minerals
13: Shale/Sandstone
14: mined 1951-1960
15: Anderson, O.J. (1980); Green and others (1980b, #20, 129, 128); Hackman and Olson (1977); Ludwig and others (1977); Pierson and Green (1977); Hilpert (1969, p. 43, #2, 3); Chenoweth and Laverty (1964); Ryan and Berkoff (1956); Gabelman (1956a); Vine (1956); Mirsky (1953); PRR GJEB-173 (1952); USAEC files (1960); CRIB (1976)

1: 13N.9W.19.323
2: Hope Mine
3: SE1/4 SW1/4 19 T13N R9W 35°20'10"N 107°49'59"W
4: Dos Lomas 7-1/2 Elevation 6,970 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 440-ft shaft covered, plugged, and reseeded
8: production unknown
10: Jurassic Todilto Limestone
11: ore associated with varves and fractures and intraformation folds
12: fluorite, hematite
13: Limestone
14: 1979-1981 by Ranchers Exploration (closed due to lack of reserves)
15: FN 4/12/81, 4/6/82; Green and others (1980c, #336); Siemers and Austin (1979)

1: 13N.11W.15.111
2: Ho Hon-James Group
3: NW1/4 15 T13N R11W 35°21'00"N 107°59'20"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone (lacustrine)
13: Limestone
15: Green and others (1980c, #315); USAEC files (1960)

1: 13N.9W.7.221
2: Isabella (Section 7)
3: NE1/4 NE1/4 7 T13N R9W 35°22'25"N 107°49'30"W
4: Dos Lomas 7-1/2 Elevation 6,960 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 285-ft vertical shaft (caved), room and pillar mining
8: 76,748 tons ore yielding 237,060 lbs U_3O_8 (0.15%) until 1962
10: Jurassic Morrison Formation-Brushy Basin Member-Poison
Canyon sandstone bed
11: redistributed ore along north-trending fault, 3-12 ft thick
13: Sandstone
14: mined 1959-1962, 1980, last operator-Koppen, connects to
Section 8 (13N.9W.8.114)
15: Anderson, O.J. (1980); Green and others (1980c, #216);
Santos (1970); Holmquist (1970, p. 33); Hilpert (1969, p.
33, #42); Rapaport (1963); USAEC files (1963)

1: 13N.8W.7,18
2: Johnny M (Ranchers)
3: 7, 18 T13N R8W 35°21'45"N 107°43'20"W
4: San Mateo 7-1/2 Elevation 7,200 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, Mo, Cu, Se, As
7: 1,380 ft shaft
8: 431,000 lbs produced 1977, 1.5 mill lbs produced 1978;
3.5 mill lbs reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 6-25 ft thick, 2 horizons, many small parallel ore bodies,
some roll-type deposits
12: 0.05-8.0% U_3O_8
13: Sandstone-primary tabular, roll-type
14: mined 1976-1982, discovered in 1968; mine ore bodies in
Sections 7 and 18
15: Falkowski (1980a,b); Green and others (1980c, #99); Fitch
(1980); Chapman, Wood, and Griswold, Inc. (1979, #15);
Perkins (1979); NMBMMR files (1975); CRIB (1981)

1: 13N.5W.32
2: Juan Tafoya-Marquez Grant (Bokum-S.E. ore body)
3: 32 T13N R5W (unsurveyed) 35°18'25"N 107°17'05"W
4: Marquez 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: ore body delineated by drilling-1,600 ft depth
8: no production
9: 751,000 lbs U_3O_8 in reserve
10: Jurassic Morrison Formation-Westwater Canyon Member
11: ore zones in paleochannels associated with humates
12: coffinite, uraninite
13: Sandstone
14: part of orebody in Sandoval County
15: Hatchell and Wentz (1981); Livingston, B.A., Jr. (1980); Green and others (1980c, #58); Chenoweth and Holen (1980, p. 18-19, #29); Chapman, Wood, and Griswold, Inc. (1979, #E)

1: 14N.13W.14.222
2: June (Reynolds Prospects)
3: NE1/4 NE1/4 NE1/4 14 T14N R13W 35°27'2"N 108°10'37"N
4: Thoreau 7-1/2 Elevation 7,835 ft
5: Smith Lake subdistrict - Grants uranium district
6: U
7: 4 adits (2 are 15-ft long, 2 are unknown length), 5th shaft reported - total drift length of 245-ft
8: no production
9: bkgd 20 cps, high 150 cps
10: Jurassic Morrison Formation-Recapture Member
11: mineralization associated with organic-rich gray lense in upper sandstone (pinkish to buff-colored), grades of 0.08-0.10% U_3O_8 reported but not verified
13: Sandstone
14: Navajo Indian Allotment
15: FN 5/19/82; Green and others (1980b, #137); PRR unnumbered (1958); USAEC files (1970)

1: 13N.10W.4.223
2: Junior
3: NE1/4 4 T13N R10W 35°23'11"N 107°53'45"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open cuts
8: production included with Pat Mine (13N.10W.4.244)
9: bkgd 50 cps, high 200 cps (Anderson, 1980)
10: Cretaceous Dakota Sandstone
11: mineralized zone in carbonaceous sandstone
13: Sandstone
14: mined in 1953
15: Green and others (1980c, #188, 318); Anderson, O.J. (1980); Hilpert (1969, p. 36); Thaden and others (1966)

1: 17N.10W.27
2: Koreger #1
3: 27 T17N R10W
4: Laguna Castillo 7-1/2
5: San Juan Basin area
6: U
7:
8: no production reported in USDOE files
10: Jurassic Morrison Formation-Westwater Member
13: Sandstone
15: Green and others (1980c, #329)

1: 14N.13W.14.114
2: Largo (Unnamed)
3: NW1/4 NW1/4 14 T14N R13W
4: Thoreau 7-1/2 Elevation 7,460 ft
5: Smith Lake subdistrict-Grants uranium district
6: 2-3 ft deep, 300-ft long pit
8: no production
9: bkgd 10-20 cps, high 110 cps
10: Jurassic Todilto Limestone
11: spotty and discontinuous mineralization along bedding planes in crinkly member
12: carnotite, barite, fluorite
13: Limestone
14: Navajo Indian Allotment
15: FN 5/19/82; Green and others (1980b, #82); Hackman and Olson (1977); U.S. Atomic Energy Commission (1970, p. 82); Hilpert (1969, p. 42)

1: 14N.14W.2.123
2: Last Chance #2
3: NW1/4 2 T14N R14W 35°28'42"N 108°17'35"W
4: Continental Divide 7-1/2 Elevation 7,880 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings-occurrence
8: no production
10: Jurassic Morrison Formation-Recapture Member
12: yellow uranium minerals
13: Sandstone
14: examined by Green and others (1980b)
15: Green and others (1980b, #77); Hackman and Olson (1977); Green (1976); Hilpert (1969, p. 42); PRR DEB-248 (1951); USAEC files (1960)

1: 13N.8W.17.223
2: Lee Mine (Roca Honda-Kerr-McGee)
3: NE1/4 17 T13N R8W 35°21'35"N 107°42'12"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 1,675 ft shaft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 8-16 ft thick, 2 horizons
13: Sandstone
14: shaft is completed to depth--no other development, mine is currently on standby
15: Hatchell and Wentz (1981); Chapman, Wood, and Griswold, Inc. (1979); USDOE files (1978)

1: 13N.10W.33.320
2: Little Joe and Rimrock claims
3: SW1/4 33 T13N R10W 35°18'30"N 107°53'45"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: location could not be verified
15: Green and others (1980c, #306)

1: 14N.11W.35.120
2: Lost Mine (Section 35 Strip, Berryhill-Elkins)
3: NW1/4 35 T14N R11W 35°24'15"N 107°58'30"W
4: Goat Mountain 7-1/2 Elevation 7,100 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 400-ft bench cut (stripping - 100-ft depth)
8: 10 tons ore yielding 4 lbs U_3O_8 (.02%), 4 lbs V_2O_5 (.02%)
10: Cretaceous Dakota Sandstone
11: zone of multiple carbonaceous beds, 2-3 ft thick
13: Sandstone
14: mined first quarter 1954 by Berryhill and Elkins; leased to Shirley and Gunther
15: Anderson, O.J. (1980); Green and others (1980c, #320); U.S. Atomic Energy Commission (1970, p. 84); Thaden and others (1966); PRR DEB-237 (1951); USAEC files (1957)

1: 15N.14W.12.423
2: Mac #1 (United Nuclear-Homestake)
3: NE1/4 SE1/4 12 T15N R14W 35°32'34"N 108°16'00"W
4: Mariano Lake 7-1/2 Elevation 7,445 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: 515-ft vertical shaft with 2 levels (363-386 ft depth)
8: 60,109 tons ore yielding 289,125 lbs U_3O_8 (0.24%) until 1970
10: Jurassic Morrison Formation-Brushy Basin Member
11: deposit at base of channel sandstone in contact with shale, 2 horizons (8-13 ft thick)
12: highest grade 1.5% U_3O_8, uraninite, coffinite, carnotite
13: Sandstone
14: mined 1959-1970, 1976-1978, 1980; examined by Green and others (1980b)
15: Green and others (1980b, #69); Anderson, O.J. (1980); Perkins (1979, p. 68); Chapman, Wood, and Griswold, Inc. (1979); Green (1975); Holmquist (1970, p. 19); USAEC files (1971)

1: 15N.13W.18.442
2: Mac #2
3: NE1/4 SE1/4 SE1/4 18 T15N R13W 35°31'40"N 108°14'47"W
4: Hosta Butte 7-1/2 Elevation 7,450 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: 288-ft shaft with drifts-backfilling, now concreted over
8: 39,144 tons ore yielding 109,009 lbs U_3O_8 (0.14%)
9: bkgd 50 cps; high on dumps 1,100 cps (Anderson, O.J., 1980)
10: Jurassic Morrison Formation-Brushy Basin Member
11: roll-front ore deposit in oxidized "A" sandstone
13: Sandstone
14: mined 1968-1970; examined by Green and others (1980b)
15: Anderson, O.J. (1980); Green and others (1980b, #71); Chenoweth and Holen (1980, p. 18-19, #15); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979); Hackman and Olson (1977); Robertson and Jackson (1975); Holmquist (1970, p. 21); USAEC files (1970)

1: 13N.9W.20.144
2: Malpais Raise (Mesa Top Mine)
3: N1/2 20 T13N R9W 35°20'32"N 107°48'55"W
4: Dos Lomas 7-1/2 Elevation 7,080 ft
5: Ambrosia Lake subdistrict-Grant uranium district
6: U
7: 200-ft shaft (raise) - open stope and random pillar
8: 42,070 tons ore yielding 198,492 lbs U_3O_8 (0.24%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: cluster of tabular deposits and local stack ore along N10°W-trending fractures
13: Sandstone-primary, stack
14: mined 1958-1961, some ore mined through Mesa Top Mine and Dog Mine
15: Anderson, O.J. (1980); Green and others (1980c, #223); Holmquist (1970, p. 38); Hilpert (1969, p. 34, #57); Rapaport (1963, p. 126); USAEC files (1961)

1: 16N.16W.7.331
2: Mancos-Section 7 (United Nuclear Corp.)
3: SW1/4 7 T16N R16W 35°37'40"N 108°34'50"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings-drill hole (360-1,020 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons up to 8-ft thick
13: Sandstone
14; orebody continues into Section 12 T16N R17W, discovered in 1967
15: Chenoweth and Holen (1980); USAEC files (1967)

1: 16N.17W.12.444
2: Mancos-Section 12 (United Nuclear Corp.)
3: 12 T16N R17 W 35°37'40"N 108°35'00"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (360-1,020 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: extension of ore body in SW1/4 7 T16N R16W, discovered in 1967
15: Green and others (1980b, #36); Chenoweth and Holen (1980); Hackman and Olson (1977)

1: 15N.14W.12.134
2: Mariano Lake (Gulf)
3: NW1/4 12 T15N R14W 35°32'48"N 108°16'40"W
4: Mariano Lake 7-1/2 Elevation 7,440 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V, Mo
7: 519-ft shaft
8: reserves 3.5 mill lbs U_3O_8, production confidential
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized lower channel sandstone associated with organic material
12: noncrystalline uranium, coffinite(?), average grade 0.24% U_3O_8
13: Sandstone
14: produced 1977-1982; mine maps by Fishman (1981)
15: Rosenberg and Hooper (1982); Fishman and Reynolds (1982); Fishman (1981); Green and others (1980b, #68); Jenkins and Cunningham (1980); Sachdev (1980); Place and others (1980); Thompson (1980); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979); Hackman and Olson (1977)

1: 13N.5W.25.400
2: Marquez Canyon Mine (Bokum)
3: 25 T13N R5W (unsurveyed) 35°19'10"N 107°18'30"W
4: Marquez 7-1/2 Elevation 7,000 ft
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: shaft completed to 1,835 ft; target depth 2,100 ft
8: no production
9: 10.7 mill lbs U_3O_8 reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 3 ore zones in paleochannel sandstones, associated with humates
12: coffinite, uraninite
13: Sandstone
14: suspended operations, mine currently flooded
15: FN 3/4/82; Hatchell and Wentz (1981); Livingston, B.A. (1980); Green and others (1980c, #62); Chapman, Wood, and Griswold, Inc. (1979, #E); Perkins (1979); Siemers and Austin (1979)

1: 13N.5W.25.100
2: Marquez Canyon (Kerr-McGee)
3: 25 T13N R5W (unsurveyed) 35°19'28"N 107°19'58"W
4: Marquez 7-1/2 Elevation 7,160 ft
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: proposed 1,950-ft shaft
8: no production
9: 6.8 mill lbs U_3O_8 reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: in partnership with T.V.A.
15: Green and others (1980c, #61); Chapman, Wood, and Griswold, Inc. (1979, #F); Tennessee Valley Authority (WC, 9/11/81)

1: 13N.9W.23.233
2: Marquez Mine (Marcus on topographic map, Calumet Mine)
3: C 23 T13N R9W 35°20'35"N 107°45'30"W
4: Dos Lomas 7-1/2 Elevation 6,800 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 1,875-ft 10° decline shaft
8: 723,032 tons ore yielding 3,757,847 lbs U_3O_8 (0.26%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon Sandstone
11: cluster of deposits in sandstone beneath disconformity, associated with carbonaceous debris, 6-12 ft thick
13: Sandstone
14: mined 1958-66, controlled by United Nuclear; mine map by Weege (1963) and Johnston (1963)
15: Anderson, O.J. (1980); Green and others (1980c, #228); Chapman, Wood, and Griswold, Inc. (1979, #14); Holmquist (1970, p. 44); Santos (1970); Hilpert (1969, p. 34, #58); Rapaport (1963, p. 131); Weege (1963); Johnston (1963, p. 256); U.S. Atomic Energy Commission (1959a, p. 55); USAEC files (1966); CRIB (1976)

1: 14N.10W.11.112
2: Mary #1 (Section 11 NWQ, Dysart #3)
3: NW1/4 11 T14N R10W 35°27'45"N 107°52'18"W
4: Ambrosia Lake 7-1/2 Elevation 7,110 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 630-ft vertical shaft - room and pillar (328-454 ft deep)
8: 357,262 tons ore yielding 794,063 lbs U_3O_8 (0.11%)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: large deposits in several horizons, largely fracture-controlled, 6-21 ft thick
13: Sandstone-redistributed
14: mined 1959-1965, Homestake using shaft for ventilation
15: FN 4/5/82; Anderson, O.J. (1980); Green and others (1980b, #122; 1980c, #128); Perkins (1979, p. 71); Santos (1970); Holmquist (1970, p. 55); Hilpert (1969, p. 39, #59); U.S. Atomic Energy Commission (1959a, p. 51); USAEC files (1965)

1: 13N.9W.20.321
2: Mesa Top Mine (Mesa Top #5)
3: SW1/4 20 T13N R9W 35°20'30"N 107°49'00"N
4: Dos Lomas 7-1/2 Elevation 7,118 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 200-ft 45° decline shaft - open stope and random pillar
8: 108,261 tons ore yielding 512,965 lbs U_3O_8 (0.24%); 144,610 lbs V_2O_5
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: 2-6 ft thick orebodies
13: Sandstone
14: mined 1954-1961, 1967-1968
15: Santos (1970); Hilpert (1969, p. 34, #61); U.S. Atomic Energy Commission (1959a, p. 48); USAEC files (1968)

1: 15N.6W.4.140,8.420
2: Miquel Creek Dome
3: SE1/4 NW1/4, NE1/4 SW1/4 8 T15N R6W (unsurveyed)
4: Mesa Cortada 7-1/2
5: San Juan Basin area
6: U, Th, Ti
7: trenches, pits
8: no production
10: Cretaceous Crevasse Canyon Formation-Dalton Sandstone Member
11: 200-ft long, 100-ft wide
12: 0.04% ZrO_2, 4.0% TiO_2, 17.2% Fe, 0.03% ThO_2 (USBM files)
13: Beach-placer Sandstone
14: center of dome
15: Chenoweth (1957b); USBM files (1958); CRIB (1972)

1: 17N.12W.28.144
2: Monument (Mobil/TVA)
3: NW1/4 28 T17N R12W 35°40'38"N 108°7'8"W
4: Heart Rock 7-1/2 Elevation 6,810 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes - plans for in-situ leaching at depth 1,900-2,000 ft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: lease includes all or parts of Sec. 20-22, 26-28, 33, 35
15: Holen (1982); Green and others (1980b, #66); Conine (1980); Chapman, Wood, and Griswold, Inc. (1979)

1: 13N.7W.30.100
2: Mount Taylor (Gulf)
3: NW1/4 30 T13N R7W 35°19'25"N 107°42'25"W
4: Cerro Pelon 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: mined through Mount Taylor shafts (13N.8W.24.433 in Cibola County) - 3,344-4,100 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons, 16-ft thick
13: Sandstone
15: Green and others (1980c, #94); Riese and others (1980); Riese and Brookins (1980); Chapman, Wood, and Griswold, Inc. (1979, #37)

1: 17N.14W.2
2: Narrow Canyon (Standing Rock, Pioneer Nuclear)
3: 2 T17N R14W
4: Dalton Pass 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes - 1-3 shafts 2,450 ft deep planned
8: no production - 6.9 mill lbs U308 reserves; 1,400 TPD planned (Perkins, 1979)
10: Jurassic Morrison Formation-Brushy Basin and Westwater Canyon Members
11: average grade 0.12% U_3O_8
13: Sandstone
14: discovered in mid-1970's, plans suspended
15: Holen (1982); Chenoweth and Holen (1980, #4); Green and others (1980b, #60); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979)

1: 17N.16W.35.200
2: N.E. Church Rock #1
3: NE1/4 35 T17N R16W (unsurveyed) 35°40'00"N 108°30'5"W
4: Hard Ground Flats 7-1/2 Elevation 7,112 ft
5: Church Rock subdistrict-Grants uranium district
6: U, Mo
7: 1,851-ft shaft pumping 700 tons of mine water, room and pillar, track equipment
8: 1,000 TPD; production is confidential; average grade 0.20%; reserves estimated to be 2,868,700 tons of 0.247% U_3O_8
10: Jurassic Morrison Formation-Westwater Canyon Member
11: multilayered, flat-lying, primary tabular trend deposits in reduced sandstones, deposits 8-ft thick, 100-500 ft long, 50-250-ft wide
12: coffinite
13: Sandstone-primary tabular
14: mined August, 1976-present by Kerr-McGee
15: Fischman and Reynolds (1983); Ludwig and others (1982); Green and others (1980b, #25); Siemers and Austin (1979); Perkins (1979); Hoppe (1978); Chapman, Wood, and Griswold, Inc. (1979, #44); Hackman and Olson (1977); Chenoweth (1977); Proposed Changes Church Rock I Mine, Kerr McGee Corp. (unpublished report, December, 1975); CRIB (1981)

1: 17N.16W.36.100
2: N.E. Church Rock #1-East
3: NW1/4 36 T17N R16W (unsurveyed) 35°39'55"N 108°29'50"W
4: Oak Spring 7-1/2 Elevation 7,110 ft
5: Church Rock subdistrict-Grants uranium district
6: U, Mo
7: 1,635-ft shaft, track equipment
8: production company confidential (average grade 0.17%)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: multilayered, flat-lying primary tabular trend deposits in reduced sandstones, 8-15 ft thick
12: coffinite
13: Sandstone-primary tabular
14: mined Octobr, 1979-present by Kerr-McGee
15: Fishman and Reynolds (1983); Siemers and Austin (1979); Perkins (1979, p. 77); Chapman, Wood, and Griswold, Inc. (1979, #44); Hoppe (1978)

1: 17N,16W.27.200
2: N.E. Church Rock #2
3: NE1/4 27 T17N R16W (unsurveyed) 35°40'45"N 108°31'40"W
4: Hard Ground Flats 7-1/2 Elevation 7,350 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: proposed shaft to 2,300 ft (four compartment shaft)
8: 15 mill lbs U_3O_8 (0.19%) in reserves, 900 tpd planned (Perkins, 1979)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: multilayered, flat-lying, primary tabular trend deposits in reduced sandstones
12: coffinite, average grade 0.19% U_3O_8
13: Sandstone-primary tabular
14: planning stages 1978-1982 by Kerr-McGee
15: Green and others (1980b, #136); Perkins (1979, p. 87); Chapman, Wood, and Griswold, Inc. (1979, #Z); Chenoweth (1977); Proposed plan of mining and reclamation Church Rock No. 2 underground mine, Kerr-McGee Corp. (unpublished report, December, 1975)

1: 17N.16W.21.210
2: N.E. Church Rock #3
3: NE1/4 21 T17N R16W (unsurveyed) 35°41'50"N 108°32'45"W
4: Hard Ground Flats 7-1/2 Elevation 7,180 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: proposed 2,550-ft shaft
8: 21 mill lbs U_3O_8 in reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
11: multilayered, flat-lying, primary tabular trend deposits in reduced sandstones at approximately 2,200 ft depth
12: average grade less than 0.20% U_3O_8, coffinite
13: Sandstone-primary tabular
14: planning stages, Kerr-McGee
15: Green and others (1980b, #24); Chenoweth (1977); Chapman, Wood, and Griswold, Inc. (1979, #Z); Hackman and Olson (1977); Proposed plan of mining and reclamation Church Rock No. 3 mine, Kerr-McGee Corp. (unpublished report, October, 1975)

1: 17N.15W.31.100
2: N.E. Church Rock-Section 31
3: N1/2 31 T17N R15W (unsurveyed)
4: Oak Spring 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: mined from Church Rock 1E(?)-1,500-1,700 ft deep
8: production, if any, confidential
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 5 horizons, 6-12 ft thick
13: Sandstone
14: Kerr-McGee
15: USDOE files (1981)

1: 17N.16W.35.200
2: N.E. Church Rock (United Nuclear)
3: NE1/4 35 T17N R16W (unsurveyed) 35°39'30"N 108°30'30"W
4: Hard Ground Flats 7-1/2 Elevation 7,040 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: 1,793-ft shaft, 2nd shaft, water flow 2,000 gpm, track equipment
8: 15 mill lbs U_3O_8 (0.15%) in reserve (Hazlett, 1969)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: redistributed or "stack" ore deposit downdip from and adjacent to oxidized sandstone, fracture and fault related in a N45°E pattern, 9-26 ft thick, 2 horizons
12: coffinite, 0.20% U_3O_8 average grade (Hazlett, 1969)
13: Sandstone-redistributed
14: mined 1972-1982 by United Nuclear Corp.
15: Ludwig and others (1982); Green and others (1980b, #26); Siemers and Austin (1979); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979, #45); Hackman and Olson (1977); Chenoweth (1977); Holmquist (1970, p. 17); Hazlett (1969); Chenoweth and Laverty (1964; CRIB (1981)

1: 15N.14W.26.423
2: Nicholson-Brown (Midas Claims)
3: SE1/4 26 T15N R14W 35°29'25"N 108°17'7"W
4: Continental Divide 7-1/2 Elevation 8,000 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: 3 drill hole sites - no other workings
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
12: probably uraninite
13: Sandstone
14: claims 4/7/77 by Melvin Richards, examined by Green and others (1980)
15: Green and others (1980b, #76); Hackman and Olson (1977); Green (1976); Hilpert (1969, p. 42)

1: 19N.11W.10
2: Nose Rock
3: 10 T19N R11W
4: Seven Lakes NW 7-1/2
5: Nose Rock area-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Holen (1982); Perkins (1979, p. 83)

1: 19N.11W.31.133
2: Nose Rock #1 (Phillips)
3: 31 T19N R11W 35°50'8"N 108°3'19"W
4: Becenti Lake 7-1/2
5: Nose Rock area-Grants uranium district
6: U, Mo
7: 2 shafts-3,295 and 3,215 ft - suspended in July, 1981
8: no produciton - 25 mill lbs U_3O_8 reserves (Clark, 1980)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: roll-type deposits in unoxidized sandstons associated with organic debris
12: average grade of 0.10-0.15% U_3O_8, primary mineral is coffinite
13: Sandstone - roll-type
14: oroe at depth of 3,100 ft
15: Holen (1982); Clark (1980); Rhett (1980, 1979); Green and others (1980b, #63); Chenoweth and Holen (1980, #12); Chapman, Wood, and Griswold, Inc. (1979); Perkins (1979)

1: 19N.12W.32
2: Nose Rock (Phillips)
3: 32 T19N R12W
4: Antelope Lookout Mesa 7-1/2
5: Nose Rock area-Grants uranium district
6: U
7: drill holes (3,400-3,700 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: submitted a plan for in-situ leaching project in 1980.
15: Holen (1982); Hatchell and Wentz (1981)

1: 19N.12W.36.414
2: Nose Rock (Phillips)
3: 36 T19N R12W
4: Becenti Lake 7-1/2
5: Nose Rock area-Grants uranium district
6: U, Mo
7: mined through Nose Rock #1 - suspended in July, 1981
8: no production - 25 mill lbs U_3O_8 in reserves (Clark, 1980)
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - roll-type
15: Holen (1982); Clark (1980); Rhett (1980); Green and others (1980b, #63)

1: 13N.10W.4.244
2: Pat (Dakota Mine, Gossett, Black Rock, Section 4, Martinez Lease)
3: SE1/4 NE1/4 4 T13N R10W 35°23'10"N 107°53'35"W
4: Goat Mountain 7-1/2 Elevation 7,200 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 600-ft declined adit, 2 short adits (500-ft workings)
8: 5,069 tons ore yielding 12,645 lbs U_3O_8 (0.12%); 2,478 lbs V_2O_5
10: Jurassic Morrison Formation-Westwater Canyon Member
11: several lenses of ore in upper part of channel sandstone
12: carnotite, tyuyamunite
13: sandstone
14: mined 1952-1963, includes production from Dakota (13N.10W.4.243) and Junior (13N.10W.4.223); mine map by Konigsmark (1958)
15: Green and others (1980c, #180); Anderson, O.J. (1980); Holmquist (1970, p. 30); Hilpert (1969, p. 36); Konigsmark (1958, p. 21); PRR GJEB-R-191 (1952); GGJEB-R-188 (1952); USAEC files (1963)

1: 16N.17W.13.411
2: Unknown-Section 13 (Phillips Petroleum Co.)
3: C 13 T16N R17W 35°37'00"N 108°35'25"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (675 ft deep) - tested for in-situ leaching (push-pull) in 1980
8: no production

10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2-12 ft thick ore body in 5 horizons
13: Sandstone-redistributed
15: Green and others (1980b, #41); Peterson (1980); Hatchell and Wentz (1981); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.17W.14.100
2: Unknown-Section 14 (Phillips)
3: NW1/4 14 T16N R17W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (862 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 6-12 ft thick
13: Sandstone
14: Kerr-McGee
15: Green and others (1980b, #43); Hackman and Olson (1977); Hilpert (1969, p. 44); USAEC files (1960)

1: 16N.17W.24.200
2: Unknown-Section 24
3: NE1/4 24 T16N R17W 35°36'24"N 108°35'25"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #42); Hilpert (1969, p. 44)

1: 16N.17W.25.241
2: Unknown-Section 25
3: N1/2 25 T16N R17W 35°35'25"N 108°35'00"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (81-88 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: 5-7 ft thick ore body in bleached sandstone
13: Sandstone-redistributed
14: United Nuclear Corp.
15: Green and others (1980b, #44); Hackman and Olson (1977); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.17W.31.224
2: Unknown-White Cliffs
3: SE1/4 NE1/4 NE1/4 31 T16N R17W 35°34'25"N 108°40'35"W
4: Gallup East 7-1/2 Elevation 7,000 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
9: bkgd 50 cps; high 1,700 cps
10: Jurassic Morrison Formation-Westwater Canyon Member (upper)
11: radioactive humate horizons at boundary of shale and overlying sandstone
12: 0.18% U_3O_8 (NMBMMR chem lab, 11/30/81, #1531)
13: Sandstone
15: FN 7/23/81; Christine Turner-Peterson (PC, 7/23/81)

1: 17N.14W.27.300
2: Unknown (Dalton Pass)
3: SW1/4 27 T17N R14W 35°40'21"N 108°19'1"W
4: Dalton Pass 7-1/2 Elevation 7,420 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation-Gibson Coal
11: at contact of crossbedded sandstone and organic-rich sandstone with poor porosity
12: 4-152 ppm U (Green and others, 1980b)
13: Sandstone
14: examined by Green and others (1980b)
15: Green and others (1980b, #135)

1: 13N.9W.34.343
2: Vallejo (Double Jerry, Section 34, Farris 1)
3: SW1/4 34 T13N R9W, NW1/4 3 T12N R9W 35°18'30"N 107°47'00"W
4: Dos Lomas 7-1/2 Elevation 6,980 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 600-ft 20° decline (140-210 ft deep)
8: 6,458 tons ore yielding 21,733 lbs U_3O_8 (0.17%); 394 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several deposits associated with a set of intraformational

folds (1-9 ft thick)
13: Limestone
14: portal in Sec. 34 extends into sec. 3, T. 12 N., R. 9 W., Cibola County; mined 1957-1963
15: Green and others (198Øc, #283, #1Ø2); Anderson, O.J. (198Ø); Holmquist (197Ø, p. 118); Hilpert (1969, p. 58, #9); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 46); USAEC files (1963)

1: 13N.1ØW.26.222
2: Vanadium #1
3: 25, 26 se Rock #1 - suspended in July, 1981
8: no production - 25 mill lbs U_3O_8 in reserves (Clark, 198Ø)
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - roll-type
15: Holen (1982); Clark (198Ø); Rhett (198Ø); Green and others (198Øb, #63)

1: 13N.1ØW.4.244
2: Pat (Dakota Mine, Gossett, Black Rock, Section 4, Martinez Lease)
3: SE1/4 NE1/4 4 T13N R1ØW 35°23'1Ø"N 1Ø7°53'35"W
4: Goat Mountain 7-1/2 Elevation 7,22Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 6ØØ-ft declined adit, 2 short adits (5ØØ-ft workings)
8: 5,Ø69 tons ore yielding 12,645 lbs U_3O_8 (Ø.12%); 2,478 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: several lenses of ore in upper part of channel sandstone
12: carnotite, tyuyamunite
13: Sandstone
14: mined 1952-1963, includes production from Dakota (13N.1ØW.4.243) and Junior (13N.1ØW.4.223); mine map by Konigsmark (1958)
15: Green and others (198Øc, #189); Anderson, O.J. (198Ø); Holmquist (197Ø, p. 3Ø); Hilpert (1969, p. 36); Konigsmark (1958, p. 21); PRR GJEB-R-191 (1952); GJEB-R-188 (1952); USAEC files (1963)

1: 13N.9W.30.143
2: Piedra Trieste (Unknown)
3: SE1/4 NE1/4 30 T13N R9W 35°19'35"N 107°50'00"W
4: Dos Lomas 7-1/2 Elevation 6,880 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 1,000-ft decline
8: produced 1979-80 at approximate grade of 0.4-0.5% U_3O_8 (production unknown)
9: bkgd 20-30 cps, high on dumps 500 cps
10: Jurassic Todilto Limestone
11: mineralization associated with intraformational folds parallel to Poison Canyon fault at the base of the Todilto, associated with organic material
12: carnotite, fluorite, barite, sulfides, uraninite
13: Limestone
14: 1979-1981 by Todilto Exp. and Dev. Corp.
15: FN 4/6/82; Green and others (1980c, #335); Hilpert (1969, p. 35) Toren Olson (geologist, Todilto Exp. and Dev. Corp., PC, 5/21/82)

1: 13N.9W.19.420
2: Poison Canyon (Moe No. 1 - connects to Beacon Hill-Gosset)
3: E1/2 19 T13N R9W 35°20'35"N 107°49'35"W
4: Dos Lomas 7-1/2 Elevation 7,050 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pits, 3,500-ft adit
8: 217,066 tons ore yielding 1,004,594 lbs U_3O_8 (0.23%); 338,094 lbs V_2O_5 until 1970
9: bkgd 50-100 cps, high off scale (excess of 10,000 cps)
10: Jurassic Morrison Formation-Brushy Basin Member- Poison Canyon sandstone bed
11: tabular, stringlike deposits associated with fossil logs and organic debris, trend and redistributed ore
12: coffinite, carnotite, tyuyamunite, grades range up to 0.67% U_3O_8
13: Sandstone-primary and redistributed ore
14: mined intermittently 1952-1980, first sandstone uranium discovery in Grants district in 1951; geologic map by Dodd (1956a,b)
15: FN 4/12/81, 7/22/81; Green and others (1980c, #222); Tessendorf (1980); Siemers and Austin (1979); Chapman, Wood, and Griswold, Inc. (1979, #1); Holmquist (1970, p. 36, p. 120); Santos (1970); Hilpert (1969, p. 34, #66); Rapaport (1963); Hilpert and Moench (1960, p. 454-455); Bates and O'Neill (1960, p. 40, #5, 6); U.S. Atomic Energy Commission (1959a, p. 49); Dodd (1956a,b); Mathewson (1953a); Evans (1951); USAEC files (1963); CRIB (1976)

1: 16N.16W.22
2: Pyramid Group
3: 22 T16N R16W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Anderson, E.C. (1955)

1: 16N.16W.32.440
2: Pyramid Group (Pyramid Rock)
3: SE1/4 SE1/4 32 T16N R16W 35°33'10"N 108°33'5"W
4: Church Rock 7-1/2 Elevation 7,300 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: drilling
8: no production
9: no anomalous radiometric readings
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 5-6 ft thick ore zone in sandstone
12: yellow uranium minerals reported
13: Sandstone
15: FN 7/22/82; Green and others (1980b, #56); Hilpert and Corey (1955); Sharp (1954); Bachman and others (1953); USAEC files (1960)

1: 14N.11W.28.113
2: Red Cap Group (T Group, T#1-10, Section 21 and 28)
3: NW1/4 NW1/4 28 T14N R11W 35°25'5"N 108°1'00"W
4: Thoreau NE 7-1/2 Elevation 7,000 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: 0-10 ft deep open pit (no workings found by Anderson, O.J., 1980)
8: 195 tons ore yielding 497 lbs U_3O_8 (0.13%), 951 lbs V_2O_5
10: Jurassic Todilto Limestone
11: 2-ft thick carnotite ore
13: Limestone
14: mined 1952-1953
15: Anderson, O.J. (1980); Green and others (1980b, #108, 109); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1965; 1969, p. 42, #45, 46); Anderson, E.C. (1955); PFR CEB-20 (1950); USAEC files (1960)

1: 13N.11W.10.110
2: Redco (Charles Zuni)
3: NW1/4 10 T13N R11W 35°22'25"N 107°59'50"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: stripping
8: no production
10: Jurassic Todilto Limestone
11: small deposit
13: Limestone
15: Green and others (1980c, #177); Hilpert (1969, p. 37); USAEC files

1: 13N.10W.16.134
2: Red Point Lode (R.M. Shaw)
3: NW1/4 16 T13N R10W 35°21'25"N 107°54'15"W
4: Bluewater 7-1/2 Elevation 7,025 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pits (deepest 6 ft)
8: 482 tons ore yielding 1,223 lbs U_3O_8 (0.13%); 746 lbs V_2O_5
10: Jurassic Todilto Limestone
11: deposit in lower units associated with eastward trending intraformation anticlinal fold, 1-ft thick
13: Limestone
14: mined 1952-1955 by R.M. Shaw
15: Anderson, O.J. (1980); Green and others (1980c, #194); Hilpert (1969, p. 36, #28); McLaughlin (1963); Anderson, E.C. (1955); USAEC files (1955)

1: 13N.10W.24.444
2: Red Rock Claims #3 and 4 (Tag Claims)
3: SE1/4 SE1/4 24 T13N R10W 35°20'10"N 107°50'55"W
4: Dos Lomas 7-1/2 Elevation 6,960 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings, drill holes (depth of ore at 300 ft)
8: no production
10: Jurassic Todilto Limestone
11: 4 small orebodies, 75-100 ft long and 25-30 ft wide
13: Limestone
15: FN 4/6/82; Green and others (1980c, #207); Hilpert (1969, p. 37); McLaughlin (1963); USBM files (1955)

1: 14N.11W.18.340
2: Red Top #1 and #2 (Unknown, Andrews, Bottoms)
3: SE1/4 SW1/4 18 T14N R11W 35°26"10"N 108°2'45"W
4: Thoreau NE 7-1/2 Elevation 7,000 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: surface stripping-outcrop
8: production, if any, included with Red Top Mines (Sec. 20)
9: bkgd 20 cps; high on outcrop 1,200 cps
10: Jurassic Todilto Limestone
11: mineralized micrite
12: carnotite, uraninite(?), fluorite; 0.089% U_3O_8 (NMBMMR cham lab, 7/82, #2299)
13: Limestone
15: FN 5/20/82; Green and others (1980b, #97, 98); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1969, p. 41); Smith, C.T. (1954); PRR CEB-18 (1950); USAEC files (1955)

1: 14N.11W.20.144
2: Red Top Mines
3: SE1/4 SE1/4 NW1/4 20 T14N R11W 35°25'40"N 108°1'35"W
4: Thoreau NE 7-1/2 Elevation 7,015 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: several open pits-shallow
8: 165 ton ore yielding 390 lbs U_3O_8 (0.12%); 1,287 lbs V_2O_5
9: bkgd 20-30 cps, high 300 cps
10: Jurassic Todilto Limestone
11: up to 6 inches thick ore zones
13: Limestone
14: may include production from Red Top #1 and 2 (Section 18), mined 1955 by Red Top Uranium Mining Co.
15: FN 5/20/82; Anderson, O.J. (1980); Green and Pierson (1971); Smith, C.T. (1954); USAEC files (1955)

1: 13N.8W.9.300
2: Roca Honda
3: SW1/4 9 T13N R8W 35°21'55"N 107°41'45"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes-1,500 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1 horizon, 11 ft thick
13: Sandstone
15: Green and others (1980c, #250); Hilpert (1969, p. 33); USAEC files (1970)

1: 13N.8W.8.400
2: Roca Honda (Lee-Kerr-McGee)
3: S1/2 8 T13N R8W 35°21'25"N 107°42'15"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (1,700 ft deep)-mined through Lee Mine
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 8-16 ft thick, 2 horizons
13: Sandstone
15: Green and others (1980c, #98); Chapman, Wood, and Griswold, Inc. (1979, #W)

1: 13N.9W.30.323
2: Roundy Mine (Rimrock #1, Manol, Section 30, H-H-50, Mano #1)
3: N1/2 SW1/4 30 T13N R9W 35°19'29"N 107°50'00"W
4: Dos Lomas 7-1/2 Elevation 6,860 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit, 115-ft shaft, modified room and pillar
8: production included in Section 30 (Manol Lease)
10: Jurassic Todilto Limestone
13: Limestone
14: mined 1955-60 by Four Corners Expl. Co. and Rimrock Mining Co.
15: Anderson, O.J. (1980); Green and others (1980c, #240, 324, 239); Holmquist (1970, p. 113); Hilpert (1969, p. 35, #29); U.S. Atomic Energy Commission (1959a, p. 60); Anderson, E.C. (1955); USAEC files (1960)

1: 15N.13W.21.142
2: Ruby #1 and #2 decline (Section 21, Tidewater Oil Co.)
3: NE1/4 SW1/4 NW1/2 21 T15N R13W 35°31'5"N 108°13'28"W
4: Hosta Butte 7-1/2 Elevation 7,520 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: 2,000-ft 14° decline with haulage drifts (300-ft depth), room and pillar-retreat mining, trackless equipment
8: 1.4 mill lbs U_3O_8 produced
9: bkgd 50 cps; dump 300-500 cps; rear portal 2,000-4,000 cps
10: Jurassic Morrison Formation-Brushy Basin Member
11: oxidized roll-front orebody rear oxidation boundary in poorly sorted, fine- to medium-grained lower "A" sandstone
12: average grade 0.17% U_3O_8; 0.512% U_3O_8 selected sample from ore pile (NMBMMR chem lab, 3/3/83, #3148)
13: Sandstone - roll-type
14: mined November, 1975-September, 1981 by Western Nuclear, 85% ore recovery
15: FN 7/21/82;; Hatchell and Wentz (1981); Ristorcelli (1980); Green and others (1980b, #73, 74); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979); Hackman and Olson (1977); Robertson and Jackson (1975); Hilpert (1969, p. 42); Keith Rosvold and R.G. Peets (Western Nuclear, PC, 7/21/82)

1: 15N.13W.27.120
2: Ruby #2 orebody (Ruby Well #2)
3: NW1/4 27 T15N R13W 35°30'28"N 108°12'12"W
4: Hosta Butte 7-1/2 Elevation 7,700 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: access through Ruby #1 and #2 decline, haulage drift (300-ft depth)
8: see Ruby #1 and #2
10: Jurassic Morrison Formation-Brushy Basin Member
11: oxidized roll-front orebody rear oxidation boundary in poorly sorted, fine- to medium-grained lower "A" sand
12: average grade 0.17% U_3O_8
13: Sandstone - roll-type
14: mined April, 1979-November, 1981 by Western Nuclear
15: see Ruby #1 and #2; Green and others (1980b, #75)

1: 15N.13W.25.224
2: Ruby #3 and #4 decline (Western Nuclear)
3: SW1/4 NE1/4 NE1/4 25 T15N R13W 35°30'20"N 108°09'35"W
4: Hosta Butte 7-1/2 Elevation 7,595 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: 2,000-ft 11° decline with haulage drifts (300-ft depth), room and pillar - retreat mining, trackless equipment
8: 500,000 lbs U_3O_8 produced
10: Jurassic Morrison Formation-Brushy Basin Member
11: oxidized roll-front orebody in "A" sandsatone (Ruby #4) and primary trend ore deposit in upper "B" sandstone (Ruby #3)
13: Sandstone - roll-type, primary tabular, 7-22 ft thick
14: mined December, 1980-July, 1982 (standby status) by Western Nuclear, Ruby #4 finished development (no production)
15: FN 7/21/82; ; Hatchell and Wentz (1981); Ristorcelli (1980); Green and others (1980b, #78); Chapman, Wood, and Griswold, Inc. (1979); Hackman and Olson (1977); Robertson and Jackson (1975); Keith Rosvold and R.G. Peets (Western Nuclear, PC, 7/21/82)

1: 15N.13W.26.200,400
2: Ruby #4 orebody
3: E1/4 26 T15N R13W 35°30'10"N 108°10'50"W
4: Hosta Butte 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: access through ruby #3 and #4 decline by haulage drift (300-ft depth), room and pillar - retreat mining, some water in entry haulage
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: oxidized roll-front ore body in lower "A" sandston
13: Sandstone - roll-type
14: intersected ore bed May, 1982, started development, no production (standby status)
15: see Ruby #3 and #4 decline

1: 14N.9W.34.424; 14N.9W.34.141
2: Sandstone (Section 34) and John Billy Shaft
3: SE1/4 34, NW1/4 34 T14N R9W 35°23'45"N 107°46'10"W
4: Ambrosia Lake 7-1/2 Elevation 7,025 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 980-ft vertical shaft, 2nd shaft
8: 1,034,255 tons ore yielding 3,540,829 lbs U_3O_8 (0.17%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 5 ore zones average 6-ft thick up to 0.56% U_3O_8
13: Sandstone-primary tabular
14: mined 1959-1970, 1974-1980
15: FN 4/5/82; Green and others (1980c, #171); Foster and Quintanar (1980); Siemers and Austin (1979); Chapman, Wood, and Griswold, Inc. (1979, #18); Holmquist (1970, p. 87); Hilpert (1969, p. 39, #75); Harmon and Taylor (1963); U.S. Atomic Energy Commission (1959a, p. 63); USAEC files (1970)

1: 13N.9W.19.134
2: Santa Fe Railroad (Unknown)
3: NW1/4 19 T13N R9W 35°20'31"N 107°50'5"W
4: Dos Lomas 7-1/2 Elevation 7,120 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings - outcrop anomaly
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
12: 0.02% U_3O_8 (Mathewson, 1953b, fig. 2)
13: Sandstone
15: Green and others (1980c, #295); Mathewson (1953b)

1: 13N.9W.1.200
2: Section 1
3: NE1/4 1 T13N R9W 35°23'15"N 107°44'15"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 1,400 ft deep; mined through Cliffside
8: 148,066 tons ore yielding 1,699,137 lbs U_3O_8 (0.57%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2-20 ft thick
13: Sandstone
14: mined 1967-1981, extension of Cliffside ore body
15: Green and others (1980c, #247); Chapman, Wood, and Griswold, Inc. (1979); USAEC files (1971); CRIB (1981)

1: 13N.11W.1.412
2: Section 1
3: SW1/4 1 T13N R11W 35°23'00"N 107°47'25"W
4: Goat Mountain 7-1/2 Elevation 7,200 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U(?)
7: 300-ft bench cut
8: no production
9: no anomalous readings above background (Anderson, 1980)
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone/Shale
15: Anderson, O.J. (1980)

1: 14N.11W.1.100
2: Section 1
3: NW1/4 1 T14N R11W 35°28'28"N 107°57'35"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings-drill holes (612-740 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: mineralized horizon 5-9 ft thick
13: Sandstone
15: Green and others (1980c, #123); Hilpert (1969, p. 41); USAEC files (1957)

1: 14N.11W.1.333
2: Section 1 (United Nuclear)
3: SW1/4 1, NW/4 12 T14N R11W 35°27'55"N 107°57'45"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 752-758 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1-3 ft thick
13: Sandstone
14: extension of Sec. 2 deposit (14N.11W.2.444)
15: Holen (1982); Green and others (1980c, #124); Chapman, Wood, and Griswold, Inc. (1969, #P); Hilpert (1969, p. 41); USAEC files (1957)

1: 13N.9W.2.143
2: Section 2
3: C W1/2 2 T13N R9W 35°23'00"N 107°45'45"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone-primary tabular
15: Green and others (1980c, #213); Hilpert (1969, p. 33)

1: 13N.9W.2.233
2: Section 2
3: NE1/4 2 T13N R9W 35°23'05"N 107°45'30"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
15: Green and others (1980c, #212); Hilpert (1969, p. 33)

1: 13N.9W.2.313
2: Section 2
3: SW1/2 2 T13N R9W 35°22'45"N 107°46'00"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: USAEC files (1960)

1: 13N.9W.2.411
2: Section 2
3: SE1/2 2 T13N R9W 35°23'00"N 107°45'25"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
15: Green and others (1980c, #211); Hilpert (1969, p. 33)

1: 13N.11W.2.124
2: Section 2 (Group Claims)
3: C N1/2 2 T13N R11W 35°23'20"N 107°58'20"W
4: Goat Mountain 7-1/2 Elevation 7,200-7,300 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 350-ft long bench cut
8: no production
9: bkgd 50 cps; high 90 cps (Anderson, O.J., 1980)
10: Cretaceous Dakota Sandstone-black shale
11: slightly radioactive black shale
12: does not exceed 0.04% U_3O_8 (USBM files)
13: Shale
15: Anderson, O.J. (1980); USBM files (1954)

1: 14N.10W.2,3
2: Sections 2 and 3 (Homestake)
3: 2, 3 T14N R10W 35°28'25"N 107°52'30"W
4: Ambrosia Lake 7-1/2, Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole (887-ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: 7.7-ft thick
13: Sandstone
15: Green and others (1980c, #126); Hilpert (1969, p. 39); USBM files; USAEC files (1958)

1: 14N.11W.2.444
2: Section 2
3: SE1/4 2 T14N R11W 35°27'55"N 107°57'50"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 600-614 ft deep
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: 5-6 ft thick
13: Sandstone
15: Green and others (1980c, #125); Hilpert (1969, p. 41); USAEC files (1960)

1: 13N.10W.3
2: Section 3
3: N1/2 3 T13N R10W 35°23'16"N 107°53'7"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #186); Hilpert (1969, p. 35)

1: 15N.16W.3.332
2: Section 3 (Santa Fe-Christensen, Rats Nest, Rimrock #1)
3: SW1/4 3 T15N R16W 35°33'20"N 108°31'35"W
4: Church Rock 7-1/2 Elevation 7,500 ft
5: Church Rock subdistrict-Grants uranium district
6: U, V, coal
7: 60-ft adit, 15-ft adit (100-ft deep)
8: 324 tons ore yielding 1,836 lbs U_3O_8 (0.28%); 404 lbs V_2O_5
9: bkgd 50 cps; high 3,100 cps (Anderson, O.J., 1980)
10: Cretaceous Dakota Sandstone
11: 3-ft thick in coaly, carbonaceous shale or liguite
12: yellow-green uranium minerals
13: Coal/Shale
14: mined 1957-1958
15: Anderson, O.J. (1980); Green and others (1980b, #54); Pierson and Green (1977); Hackman and Olson (1977); Holmquist (1970, p. 12); Hilpert (1969, p. 42); Mirsky (1953); USEC files (1958)

1: 13N.10W.4.134
2: Section 4 (Pat?)
3: W1/2 E1/2 4 T13N R10W 35°23'5'N 107°53'55"W
4: Goat Mountain 7-1/2 Elevation 7,200 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: stripping
8: production included with Pat Mine (13N.10W.4.244)
10: Jurassic Morrison Formation-Westwater Canyon or Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #187); Hilpert (1969, p. 35)

1: 14N.10W.4.110, 130
2: Section 4 (T.C. Davis, Willcoxson Ranch)
3: W1/2 NW1/4 4 T14N R10W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Chenoweth and Holen (1982); NMBMMR files (1974)

1: 14N.10W.4.220, 240
2: Section 4 (T.C. Davis, Willcoxson Ranch)
3: E1/2 NE1/4 5 T14N R10W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Chenoweth and Holen (1982); NMBMMR files (1974)

1: 13N.9W.5.222
2: Section 5
3: NE1/4 5 T13N R9W 35°23'25"N 107°48'10"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone - primary tabular
15: Green and others (1980c, #214); Hilpert (1969, p. 33)

1: 13N.1ØW.5.144
2: Section 5 (Westvaco, Febco, Los Tres Mosqueteros)
3: C 5 T13N R1ØW 35°23'1Ø"N 1Ø7°55'1Ø"W
4: Goat Mountain 7-1/2 Elevation 7,2ØØ ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: greater than 6Ø-ft adit
8: 23 tons ore yielding 54 lbs U_3O_8 (Ø.12%)
9: bkgd 5Ø cps; high 8ØØ cps (Anderson, O.J., 198Ø)
1Ø: Cretaceous Dakota Sandstone
13: Sandstone
14: mined 1958 by Westvaco; United Nuclear drilled in area
15: Anderson, O.J. (198Ø); Green and others (198Øc, #19Ø); Hilpert (1969, p. 36, #6); U.S. Atomic Energy Commission (1959a, p. 49); USAEC files (1958)

1: 13N.9W.6.322
2: Section 6
3: SW1/4 6 T13N R9W 35°23'15"N 1Ø7°49'58"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 393-428 ft deep
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: 4-38 ft thick ore zones, 2 horizons
13: Sandstone - primary tabular
15: Green and others (198Øc, #215); Hilpert (1969, p. 33); USBM files; USAEC files (196Ø)

1: 14N.1ØW.6.424
2: Section 6 (T.C. Davis, Willcoxson Ranch)
3: 6 T14N R1ØW 35°28'1Ø"N 1Ø7°55'45"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 26 drill holes (all but 1 mineralized)
8: no production
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: NMBMMR files (1974)

1: 13N.8W.7.120
2: Section 7
3: NW1/4 7 T13N R8W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - mined through Johnny M
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Fitch (1980); USAEC files (1969)

1: 13N.9W.8.114
2: Section 8 (Spencer Shaft, Centennial, State #1-27 claims)
3: NW1/4 NW1/4 8 T13N R9W 35°22'20"N 107°40'10"W
4: Dos Lomas 7-1/2 Elevation 6,955 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 261-ft vertical shaft with 2,000-ft of drifts; modified room and pillar mining
8: 47,808 tons ore yielding 165,319 lbs U_3O_8 (0.17%)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: continuous orebody in single horizon
12: uraninite, tyuyamunite
13: Sandstone
14: mined 1958-1966, Kerr-McGee began testing for leaching in 1970, Koppen reopened and mined 1978-1980 at 100-150 TPD at a grade of 0.09% U_3O_8, reserves remain
15: Anderson, O.J. (1980); Green and others (1980c, #217); Perkins (1979); Hilpert (1969, p. 33, #77); U.S. Atomic Energy Commission (1959a, p. 50); USAEC files (1967); USBM files (1955)

1: 14N.10W.8.100
2: Section 8 (T.C. Davis, Willcoxsen Ranch)
3: NW1/4 8 T14N R10W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (1,170-1,200 ft deep)
8: orebody partially delineated-no production
10: Jurassic Morrison Formation-Westwater Canyon or Brushy Basin Member
11: 8-18 ft thick indicated mineralization in 1 horizon
12: average grade 0.30% U_3O_8
13: Sandstone
14: drilling by T.C. Davis in 1970's
15: Holen (1982); Green and others (1980c, #151); Chapman, Wood, and Griswold, Inc. (1979, #N); NMBMMR files (1974); USAEC files (1960)

1: 13N.10W.10
2: Sections 10 and 11
3: 10, 11 T13N R10W 35°22'15N 107°52'35"W
4: Bluewater, Dos Lo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin and Westwater Canyon Members
13: Sandstone
15: Green and others (1980c, #191); Hilpert (1969, p. 36)

1: 14N.10W.10.244
2: Section 10
3: E 1/2 10 T14N R10W 35°27'20"N 107°52'35"W
4: Goat Mountain 7-1/2 Elevation 7,115 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 476-ft vertical shaft
8: 130,767 tons ore yielding 510,935 lbs U_3O_8 (0.20%)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: cluster of one or more layers
13: Sandstone - primary tabular
14: mined 1957 by Kerr-McGee, 1980 by Cobb; westerly extension of Dysart #1 orebody, 1964
15: Green and others (1980c, #127); Anderson, O.J. (1980); Holmquist (1970); Santos (1970); Hilpert (1969, p. 39, #78); USAEC files (1964)

1: 13N.9W.12
2: Section 12 (13N-9W, East Claims)
3: 12 T13N R9W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 970 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: one 3-ft thick mineralized horizon in one or more drill holes
13: Sandstone
14: 33 holes drilled by Liberty Orland Uranium Co. and Entrada Corp. in late 1950's; no orebodies delineated
15: USAEC files (1960)

1: 13N.1ØW.12, 13
2: Section 12 and 13
3: 12, 13 T13N R1ØW 35°21'5Ø"N 1Ø7°5Ø'55"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes only
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin and Westwater Canyon Members
11: mineralized drill hole
13: Sandsone
15: Green and others (198Øc, #192); Hilpert (1969, p. 36)

1: 14N.1ØW.12.411
2: Section 12 (Dysart Group, Tana and Alto)
3: SE1/4 12 T14N R1ØW 35°27'1Ø"N 1Ø7°5Ø'55"W
4: Ambrosia Lake 7-1/2 Elevation 7,12Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 694-ft shaft; also mined through Dysart #2
8: 74,975 tons ore yielding 211,873 lbs U_3O_8 (Ø.14%) until 1963
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons, 5-23 ft thick tabular ore
13: Sandstone - primary tabular
14: mined 1961-1963, 1978-1981
15: FN 4/5/82; Green and others (198Øc, #131); Perkins (1979); Holmquist (197Ø); Hilpert (1969, p. 39); U.S. Atomic Energy Commission (1959a, p. 51); USAEC files (1963); USBM files (1956)

1: 13N.9W.13.4ØØ
2: Section 13
3: S1/2 13 T13N R9W 35°21'3Ø"N 1Ø7°44'3Ø"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (438-917 ft deep)
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon Sandstone
11: several small, scattered orebodies, 3-17 ft thick
13: Sandstone
15: Green and others (198Øc, #218); Hilpert (1964, p. 33); USAEC files (1956)

1: 14N.10W.13.243
2: Section 13 (Westwater Corp.)
3: NE1/4 13 T14N R10W 35°26'40"N 107°50'40"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Section 13 shaft (530 ft deep)
8: production confidential
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
15: Green and others (1980c, #132); Hilpert (1969, p. 39); U.S. Atomic Energy Commission (1959a, p. 52); USBM files (1956); USAEC files (1963)

1: 14N.10W.13.413
2: Section 13 (Homestake-Sapin)
3: S1/2 13 T14N R10W 35°26'17"N 107°50'54"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 618-ft shaft - modified room and pillar
8: production confidential
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: mined 1979-1981
15: FN 4/5/82; Green and others (1980c, #133); Siemers and Austin (1979); Chapman, Wood, and Griswold, Inc. (1979, #28); Perkins (1979); Hilpert (1969, p. 39); Santos and Thaden (1966); USBM files (1955); USAEC files (1963); CRIB (1981)

1: 13N.10W.14.220
2: Section 14
3: NE1/4 14 T13N R10W 35°21'35"N 107°51'45"W
4: Dos Lomas 7-1/2 Elevation 7,400 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop occurrence
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone bed
11: mineralized sandstone and fossil logs
12: 0.01-0.07% U_3O_8 (Mathewson, 1953b, fig. 2)
13: Sandstone
15: Green and others (1980c, #193); Hilpert (1969, p. 36); Mathewson (1953b, p. 11); USAEC files (1963)

1: 14N.10W.15.441
2: Section 15 (Homestake-Sapin)
3: SE1/4 14 T14N R10W 35°26'11"N 107°52'40"W
4: Goat Mountain 7-1/2 Elevation 7,080 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, Se, Bi, Mo
7: 623-ft vertical shaft, decline shaft subsequently sank
8: 1,213,814 tons ore yielding 3,625,924 lbs U_3O_8 (0.15%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: multilayered deposit 1,500-ft by 50-ft thick, both trend and stack ore (4-100 ft thick)
13: Sandstone - primary tabular, redistributed ore
14: 1958-1973, 1976, 1979-1980; now owned by Homestake
15: Green and others (1980c, #135); Chapman, Wood, and Griswold, Inc. (1979, #33); Siemers and Austin (1979); Santos (1970); Holmquist (1970); Thaden and others (1966a); Gould and others (1963); U.S. Atomic Energy Commission (1959a, p. 52); USAEC files (1971); USBM files (1955); CRIB (1981)

1: 13N.9W.16.333
2: Section 16
3: SW1/4 16 T13N R9W 35°20'55"N 107°48'12"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (186-309 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: small scattered deposits, 3-7 ft thick
13: Sandstone
15: Hilpert (1969, p. 33); USAEC files (1959)

1: 13N.9W.16.441
2: Section 16
3: SE1/4 15 T13N R9W 35°21'5"N 107°47'20"W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Dog-Flea Mines
8: unknown production in 1973 by United Nuclear Homestake
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
13: Sandstone
15: Green and others (1980c, #220); Hilpert (1969, p. 33); USAEC files (1959)

1: 13N.9W.17.311
2: Section 17 (Westvaco)
3: NW1/2 SW1/4 17 T13N R9W 35°21'8"N 107°49'14"W
4: Dos Lomas 7-1/2 Elevation 7,030 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes-175 ft deep; mined through Dog-Flea mines
8: unknown production 1972-1975 by United Nuclear-Homestake
10: Jurassic Morrison Formation-Brushy Basin and Westwater Canyon Members
11: 6 ft thick
13: Sandstone
15: USBM files (1958); USAEC files (1960)

1: 13N.10W.17.110
2: Section 17
3: NW1/4 17 T13N R10W 35°21'35"N 107°55'25"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #195); Hilpert (1969, p. 36); McLaughlin (1963, p. 146)

1: 13N.10W.17.330
2: Section 17
3: SW1/4 17 T13N R10W 35°21'20"N 107°55'7"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #196); Hilpert (1969, p. 36)

1: 14N.9W.17.100
2: Section 17
3: N1/2 17 T14N R9W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: mined through section 17 (14N.9W.17.323)
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
15: Green and others (1980c, #156); Holmquist (1970); Hilpert (1969, p. 37)

1: 14N.9W.17.323
2: Section 17 (Jerry Wayne, Carter and others)
3: SW1/4 17 T14N R9W (unsurveyed) 35°26'22"N 107°49'3"W
4: Ambrosia Lake 7-1/2 Elevation 7,120 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 918-ft vertical shaft - modified room and pillar
8: 544,164 tons ore yielding 2,315,182 lbs U_3O_8 (0.21%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 10-ft thick, 20- to 300-ft wide orebodies
13: Sandstone - primary tabular
14: mined 1960-1980 by Kerr-McGee; orebody extends into sections 19 and 20; stand-by status in 1982
15: FN 4/5/82; Green and others (1980c, #157); Chapman, Wood, and Griswold, Inc. (1979, #24); Siemers and Austin (1979); Holmquist (1970); Hilpert (1969, p. 37, #80); Santos and Thaden (1966); Granger (1963a); U.S. Atomic Energy Commission (1959a, p. 53); USAEC files (1971); USBM files (1956); CRIB (1981)

1: 14N.10W.17
2: Section 17 (Santa Fe Railroad)
3: 17 T14N R10W
4: Goat Mountain 7-1/2
5: Ambosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 823 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 4.7 ft thick
13: Sandstone
15: USAEC files (1957)

1: 13N.8W.18.331
2: Section 18 (Febco Lease)
3: SW1/4 18 T13N R8W 35°21'5"N 107°44'00"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (914-958 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison Canyon sandstone
11: 4-13 ft thick ore deposits
13: Sandstone
14: extension of Sec. 13 (13N.9W.13.400) deposit
15: Green and others (1980c, #251); Hilpert (1969, p. 33); USAEC files (1958)

1: 13N.8W.18.244
2: Section 18 (Palo Verde Group)
3: NE1/4 18 T13N R8W 35°21'25"N 107°43'5"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - mined through Johnny M (1,100-1,400 ft)
8: no production
10: Jurassic Morrison Formation
11: 6-10 ft thick ore deposits
13: Sandstone
15: USAEC files (1958)

1: 13N.10W.18.233
2: Section 18 NEQ
3: NE1/4 18 T13N R10W 35°21'25"N 107°55'55"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #197); Hilpert (1969, p. 36)

1: 13N.10W.18.341
2: Section 18 (Williams and Thompson, Brown Vandever)
3: SW1/4 18 T13N R10W 35°21'2"N 107°56'25"W
4: Bluewater 7-1/2 Elevation 7,140 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 200-ft inclined shaft, open pits, 2nd shaft
8: 25,796 tons ore yielding 98,175 lbs U_3O_8 (0.19%); 75,342 lbs V_2O_5
10: Jurassic Todilto Limestone
11: 4-5 ft thick orebodies
12: pitchblende, barite
13: Limestone
14: mined 1952-1953, 1955-1959, 1963-1964, 1966
15: Green and others (1980c, #198, 327); Holmquist (1970, p. 105); Hilpert (1969, #32, p. 36); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 53); Anderson, E.C. (1955); PRR CEB-10 (1950); USAEC files (1971); USBM files (1955)

1: 13N.10W.18.430
2: Section 18 SEQ (Williams)
3: SE1/4 18 T13N R10@ 35°21'00"N 107°56'00"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit
8: production included with Section 18 (13N.10W.18.341)
10: Jurassic Todilto Limestone
13: Limestone
14: mined 1953
15: Green and others (1980c, #199); Hilpert (1969, #33, p. 36); USAEC files (1971)

1: 14N.9W.18.420
2: Section 18 (Shale #1-36)
3: 18 T14N R9W 35°26'25"N 107°49'25"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Westwater Canyon Member
6: U
7: mined through Section 17 (14N.9W.17.323)
8: 501,946 tons ore yielding 1,586,447 lbs U_3O_8 (0.16%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: several deposits locally in two horizons
13: Sandstone - primarily tabular
14: mined 1962-1967, 1973-1980 by Kerr-McGee
15: Green and others (1980c, #158); Holmquist (1970, p. 71); Hilpert (1969, p. 37); USAEC files (1971)

1: 14N.10W.18.230
2: Section 18 (T.C. Davis, Willcoxson Ranch)
3: C N1/2 18 T14N R10W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (1,170-1,200 ft deep)
8: orebodies indicated by drilling - no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 8-17 ft ore horizon
13: Sandstone
14: drilling by T.C. Davis in 1970's
15: Holen (1982); Green and others (1980c, #152); Chapman, Wood, and Griswold, Inc. (1979, #O); NMBMMR files (1974); USAEC files (1971)

1: 14N.9W.19.411
2: Section 19
3: NW1/4 SE1/4 19 T14N R9W (unsurveyed) 35°25'35"N 107°49'40"W
4: Ambrosia Lake 7-1/2 Elevation 6,995 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 784-ft vertical shaft with haulage drifts - modified room and pillar
8: production confidential
9: average grade 0.15%, high 0.3%
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 ore horizons occurring as tabular, roll front, and redistributed bodies associated with organic material
12: jordisite, coffinite, secondary uranium minerals; 1.60% U_3O_8, 149 ppm Se (NMBMMR chem lab, 7/82, #2303)
13: Sandstone - primary tabular
14: 1976 to present by Kerr-McGee
15: FN 4/5/82; Green and others (1980c, #175); Siemers and Austin (1979); Chapman, Wood, and Griswold, Inc. (1979, #25); Holmquist (1970, p. 77)

1: 14N.11W.19.244
2: Section 19 (Maddox and Teague, Billy the Kid)
3: SE1/4 NE1/4 19 T14N R11W 35°25'45"N 108°02'28"W
4: Thoreau NE 7-1/2 Elevation 7,040 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: numerous small open pits up to 15-ft deep
8: production included in Billy the Kid, Greer, Warren, and McCormack
9: bkgd 20 cps; high 600 cps
10: Jurassic Todilto Limestone
13: Limestone
14: mined in 1953
15: FN 5/20/82; Anderson, O.J. (1980); Green and others (1980b, #99); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1969, p. 41); Anderson, E.C. (1955); Smith, C.T. (1954); USAEC files (1964)

1: 14N.9W.20.114
2: Section 20
3: NW1/4 20 T14N R9W 35°26'00"N 107°49'00"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Section 17 (14N.9W.17.323)
8: 486,375 tons ore yielding 2,223,977 lbs U_3O_8 (0.23%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: Kerr-McGee, extension of Sec. 17 orebody
15: Green and others (1980c, #159); Holmquist (1970, p. 71); Hilpert (1969, p. 37); USAEC files (1960)

1: 14N.9W.20.333
2: Section 20
3: SW1/4 20 T14N R9W 35°25'20"N 107°49'10"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Section 19 (14N.9W.19.411)
8: production confidential
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: Kerr-McGee
15: Green and others (1980c, #160); Hilpert (1969, p. 37)

1: 15N.13W.20.223
2: Section 20 (Phillips orebody, House Lake Project)
3: SW1/4 NE1/4 NE1/4 20 T14N R13W 35°31'15"N 108°14'00"W
4: Hosta Butte 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: deposit defined by drilling, no development
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: oxidized roll-front orebody in lower "A" sandstone
13: Sandstone - roll-front
14: Phillips
15: Green and others (1980b, #72); Hackman and Olson (1977)

1: 14N.10W.21.222
2: Section 21
3: E1/2 21 T14N R10W 35°25'35"N 107°53'45"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole (611-ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon and Brushy Basin Members
11: 9.0-ft thick
13: Sandstone - primary tabular
15: Green and others (1980c, #136); Hilpert (1969, p. 40); USAEC files (1970)

1: 13N.1ØW.22.232
2: Section 22 (Hanosh and Mollico, Indian Allotment)
3: NE1/4 22 T13N R1ØW 35°2Ø'45"N 1Ø7°52'5Ø"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit
8: no production
1Ø: Jurassic Todilto Limestone
11: orebodies in crinkly Member
13: Limestone
15: Green and others (198Øc, #2Ø2); Hilpert (1969, p. 36); McLaughlin (1963, p. 146); Anderson, E.C. (1955); USAEC files (1971)

1: 14N.1ØW.22.223
2: Section 22
3: E1/2 22 T14N R1ØW 35°25'55"N 1Ø7°52'35"W
4: Goat Mountain 7-1/2 Elevation 7,Ø9Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 826-ft vertical shaft
8: 3,189,Ø51 tons ore yielding 11,6Ø5,672 lbs U_3O_8 (Ø.18%) plus 38,1Ø5 lbs U_3O_8 (heap leach) until 197Ø
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: stack ore along major fault
13: Sandstone - redistributed ore
14: 1958-198Ø by Kerr-McGee, standby status
15: FN 4/5/82; Green and others (198Øc, #138); Chapman, Wood, and Griswold, Inc. (1979, #34); Santos (197Ø); Holmquist (197Ø, p. 53); Hilpert (1969, p. 4Ø, #82); U.S. Atomic Energy Commission (1959a, p. 54); USAEC files (1971)

1: 13N.1ØW.23.444
2: Section 23, 26
3: SE1/4 23, NE1/4 26 T13N R1ØW 35°2Ø'1Ø"N 1Ø7°51'5Ø"W
4: Dos Lomas 7-1/2 Elevation 7,Ø2Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit (1Ø-2Ø ft deep)
8: 21,826 tons ore yielding 138,541 lbs U_3O_8 (Ø.32%); 1Ø,256 lbs V_2O_5
1Ø: Jurassic Todilto Limestone
11: cluster of several small deposits 8-17 ft thick trending east-west
13: Limestone
14: mined 1957-1958, westward extension of Hanosh Mine
15: Anderson, O.J. (198Ø); Green and others (198Øc, #2Ø3); Hilpert (1969, p. 36); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 55); USAEC files (1966)

1: 14N.1ØW.23.134
2: Section 23
3: NW1/4 23 T14N R1ØW 35°25'47"N 1Ø7°52'17"W
4: Ambrosia Lake 7-1/2 Elevation 7,Ø4Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo, Se, V
7: 83Ø-ft vertical shaft - modified room and pillar
8: 2,528,797 tons ore yielding 9,679,773 lbs U_3O_8 (Ø.19%) until 197Ø
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: large multilayered deposit consisting of tabular, trend ore, and stack or fault ore (6-11Ø ft deep)
12: coffinite
13: Sandstone - primary tabular, redistributed
14: mined 1959-presently by Homestake
15: FN 4/5/82; Granger and Santos (1982); Green and others (198Øc, #139); Chapin, Wood, and Griswold, Inc. (1979); Siemers and Austin (1979); Schottler (1971); Holmquist (197Ø, p. 64); Santos (197Ø); Hilpert (1969, p. 4Ø, #83); Santos and Thaden (1966); Gould and others (1963, p. 66); U.S. Atomic Energy Commission (1959a, p. 56); USAEC files (1971); CRIB (1981)

1: 16N.17W.23.221
2: Section 23-Grace Nuclear
3: NW1/4 23 T15N R17W 35°36'3Ø"N 1Ø8°34'12"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes - in-situ leach test (6 injection wells, 2 production wells)
8: production, company confidential
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 orebodies, Ø.Ø6% U_3O_8 average grades
13: Sandstone
14: miend 1975
15: USAEC files (1975)

1: 13N.9W.24.121
2: Section 24 (Chill Wills, Rialto, Section 13)
3: NW1/4 24, SW1/4 13 T13N R9W 35°20'50"N 107°44'50"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 88-ft shaft (caved and abandoned), 450-ft production shaft
8: 10,950 tons ore yielding 37,693 lbs U_3O_8 (0.17%)
9: bkgd 50 cps; high 1,500 cps (Anderson, O.J., 1980)
10: Jurassic Morrison Formation-Brushy Basin Member-Poison
Canyon sandstone
13: Sandstone
14: mined 1960-1963 by Febco Mines, Inc.; presently owned by
Conoco
15: Anderson, O.J. (1980); Green and others (1980c, #229, 230);
Perkins (1979, p. 70); Holmquist (1970, p. 43); Hilpert
(1969, p. 34); Rapaport (1963, p. 131); USAEC files (1963)

1: 13N.9W.24.220
2: Section 24 (Treeline)
3: NE1/4 24 T13N R9W 35°20'40"N 107°44'15"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison
Canyon sandstone
11: several orebodies
13: Sandstone
15: Chapman, Wood, and Griswold, INc. (1979, G); USAEC files
(1963)

1: 13N.9W.24.300,400
2: Section 24 (W.F. Marquez)
3: S1/2 24 T13N R9W 35°20'12"N 107°44'40"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (356-384 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Poison
Canyon sandstone
11: several scattered, small orebodies 3-16 ft thick
13: Sandstone
15: Green and others (1980c, #231); Hilpert (1969, p. 35);
Rapaport (1963); USAEC files (1963)

1: 13N.11W.24.222
2: Section 24 (Indian Allotment, Nan-A-Bah, Glen and Edith)
3: NE1/4 24 T13N R11W
4: Bluewater 7-1/2 Elevation 7,110 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit (15-20 ft deep)
8: 24,638 tons ore yielding 115,075 lbs U_3O_8 (0.22%); 85,545 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several orebodies, largest was 640-ft long and 100-145 ft wide, related to northwest trending folds
13: Limestone
14: mined 1952-1957
15: Green and others (1980c, #185); Anderson, O.J. (1980); Holmquist (1970, p. 106); Hilpert (1969); McLaughlin (1963); Anderson, E.C. (1955); USAEC files (1957)

1: 14N.10W.24.332
2: Section 24 (Section 24 and 26)
3: SW1/4 24, NE1/4 25 T14N R10W 35°25'21"N 107°51'9"W
4: Ambrosia Lake 7-1/2 Elevation 7,010 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 848-ft vertical shaft
8: 1,904,582 tons ore yielding 7,071,564 lbs U_3O_8 (0.19%) plus 579 lbs U_3O_8 by heap leach unti 11970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 4 horizons, 8-67 ft thick
13: Sandstone - primary tabular
14: mined 1959-1980 by Kerr-McGee; some ore locally in lower Brushy Basin Member; on standby status in 1982
15: FN4/5/82; Green and others (1980c, #140); Chapman, Wood, and Griswold, Inc. (1979, #30); Siemers and Austin (1979); Holmquist (1970, p. 66); Hilpert (1969, p. 40, 69, #84); Santos and Thaden (1966); U.S. Atomic Energy Commission (1959a, p. 56); USAEC files (1971); NMBMMR files (1964); CRIB (1981)

1: 13N.1ØW.25.122
2: Section 25 Shaft
3: C N1/2 N1/2 25 T13N R1ØW 35°2Ø'ØØ"N 1Ø7°5Ø'52"W
4: Dos Lomas 7-1/2 Elevation 6,93Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, limestone
7: 12Ø-ft(?) shaft (head frame still standing)
8: see Section 25 SEQ for total production
9: bkgd 2Ø-3Ø cps; high on dumps 3,2ØØ cps
1Ø: Jurassic Todilto Limestone
12: carnotite, tyuyamunite, barite; 1.35% U_3O_8 (NMBMMR chem lab, 5/2Ø/82, #2179)
13: Limestone
15: FN 4/7/82; Anderson, O.J. (198Ø); Holmquist (197Ø, p. 1Ø7); Hilpert (1969, p. 37, #4Ø); McLaughlin (1963)

1: 13N.1ØW.25.212
2: Section 25-Divide Claim
3: CS1/2 24, NW1/4 NE1/4 25 T13N R1ØW 35°2Ø'ØØ"N 1Ø7°5Ø'4Ø"W
4: Dos Lomas 7-1/2 Elevation 6,995 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, limestone
7: shaft (plugged)
8: see Section 25 SEQ for total production; may never have produced
9: bkgd 2Ø-3Ø cps; high on limestone boulders 3ØØ-35Ø cps
1Ø: Jurassic Todilto Limestone
13: Limestone
15: FN 4/7//82; Green and others (198Øc, #2Ø6); Hilpert (1969, p. 37); McLaughlin (1963, p. 146)

1: 13N.1ØW.25.221
2: Section 25 Decline-Red Rock Claims (Tag Claims)
3: SE1/4 SE1/4 24, NE1/4 Ne1/4 25 T13N R1ØW 35°2Ø'ØØ"N 1Ø7°5Ø'52"W
4: Dos Lomas 7-1/2 Elevation 6,93Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 22° decline (caved), numerous drill holes
8: see Section 25 SEQ for total production; may never have produced
9: bkgd 2Ø-3Ø cps; high on boulder 4ØØ cps
1Ø: Jurassic Todilto Limestone
12: carnotite
13: Limestone
15: FN 4/6/82; Green and others (198Øc, #2Ø7); Holmquist (197Ø, p. 1Ø7); Hilpert (1969, p. 37)

1: 13N.10W.25.411
2: Section 25 SEQ-Desiderio (Amiran, Operation Haystack)
3: SE1/4 25 T13N R10W 35°19'50"N 107°50'50"W
4: Dos Lomas 7-1/2 Elevation 6,890-7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: several open pits, trenches (depth to ore 10-150 ft)
8: 235,156 tons ore yielding 958,058 U_3O_8 (0.20%); 153,657 lbs V_2O_5
9: bkgd 20-30 cps; high off scale (excess of 10,000 cps)
10: Jurassic Todilto Limestone
11: 2-17.5-ft thick orebodies
12: uraninite, tyuyamunite, uranophane; 0.86% U_3O_8 (NMBMMR chem lab 5/20/82, #2180)
13: Limestone
14: mined 1952-1964 by Haystack Mtn. Dev. Co., 1980-1981 by Amiran
15: FN 4/7/82; Green and others (1980c, #208); Anderson, O.J. (1980); Holmquist (1970, p. 107); Hilpert (1969, p. 37); McLaughlin (1963, p. 146); U.S. Atomic Energy Commission (1959a); Anderson, E.C. (1955); PRR unnumbered (1956); USAEC files (1971
16: figure 15

1: 13N.10W.25.114
2: Section 25 Open-pit
3: NW1/4 NW1/4 25 T13N R10W 35°20'00"N 107°51'8"W
4: Dos Lomas 7-1/2 Elevation 6,900-7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pit, 155-ft decline (depth ot ore 10-250 ft), 22-ft shaft
8: see Section 25 SEQ for production
9: bkgd 20-30 cps; high 3,500 cps
10: Jurassic Todilto Limestone, Entrada Sandstone
11: 2-17.5-ft thick orebodies in limestone and sandstone
12: carnotite, tyuyamunite, barite, fluorite; 0.90% U_3O_8 (NMBMMR chem lab, 5/20/82, #2172)
13: Limestone
14: mined 1952-1964 by Haystack Mtn. Dev. Co.
15: FN 4/7/82; Green and others (1980c, #302); Anderson, O.J. (1980); Holmquist (1970, p. 107); McLaughlin (1963, p. 146); U.S. Atomic Energy Commission (1957, p. 57); PRR CEB-8 (1950)

1: 14N.10W.25.144
2: Section 25
3: C 25 T14N R10W 35°24'53"N 107°51'2"W
4: Ambrosia Lake 7-1/2 Elevation 6,976 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 811-ft vertical shaft - modified room and pillar
8: 1,791,048 tons ore yielding 6,444,889 lbs U_3O_8 (0.18%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: series of lenses and pods of ore near base of Westwater, up to 100-ft thick
13: Sandstone - primary tabular and redistributed (stack)
14: mined 1959-presently by Homestake
15: FN 4/5/82; Green and others (1980c, #141); Siemers and Austin (1979); Chapman, Wood, and Griswold, Inc. (1979, #29); Holmquist (1970, p. 68); Santos (1970); Hilpert (1969, p. 40, #85); Santos and Thaden (1966); Gould and others (1963); U.S. Atomic Energy Commission (1959, p. 57); USAEC files (1971); CRIB (1981)

1: 13N.10W.26.221
2: Section 26 (Hanosh, Indian Allotment)
3: NE1/4 26 T13N R10W 35°20'00"N 107°51'30"W
4: Dos Lomas 7-1/2 Elevation 7,020 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 155-ft decline, open pit
8: 11,110 tons ore yielding 83,752 lbs U_3O_8 (0.38%); 17,518 lbs V_2O_5
10: Jurassic Todilto Limestone
11: associated with minor intraformational folds
12: fluorite veins common, urahophane, carnotite, tyuyamunite
13: Limestone
14: mined 1952-1957
15: Anderson, O.J. (1980); Green and others (1980c, #209, 303); Hilpert (1969, p. 37, #15); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 57); Anderson, E.C. (1955); PRR CEB (1950)

1: 14N.9W.26.332
2: Section 26 (Rio de Oro, Ike, Elizabeth #1-8)
3: SW1/4 26 T14N R9W 35°24'30"N 107°45'55"W
4: Ambrosia Lake 7-1/2 Elevation 7,140 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: incompleted shaft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1,200-ft long, 200-ft wide orebody up to 7-ft thick, two to three horizons
13: Sandstone - primary tabular
15: Green and others (1980c, #162); Santos (1970); Hilpert (1969, p. 38); Hazlett and Kreek (1963, p. 83); U.S. Atomic Energy Commission (1959a); USAEC files (1971)

1: 14N.9W.26.430
2: Section 26
3: SE1/4 26 T14N R9W 35°24'28"N 107°45'25"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings-drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
15: Green and others (1980c, #163); Hilpert (1969, p 38); Hazlett and Kreek (1963, p. 83)

1: 14N.10W.26.220
2: Section 26
3: NE1/4 26 T14N R10W 35°25'5"N 35°25'5"N 107°51'30"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Section 24 (14N.10W.24.332)
8: 362,110 tons ore yielding 1,189,696 lbs U_3O_8 (0.17%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 5-6 ft thick orebodies
13: Sandstone - primary tabular
14: mined by Kerr-McGee, extension of Sec. 26 orebody
15: Green and others (1980, #142); Hilpert (1969, p. 40); U.S. Atomic Energy Commission (1959a)

1: 14N.9W.27.310
2: Section 27
3: SW1/4 27 T14N R9W 35°24'40"N 107°47'00"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Ann Lee
8: 285,057 tons ore yielding 1,275,695 lbs U_3O_8 (0.22%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: orebody west of fault cutting Section 27 mined through Ann Lee Shaft, ore east of fault mined through Section 27
13: Sandstone - primary tabular
14: mined 1967-1970 by United Nuclear; mine plan map by Kendall (1972)
15: Green and others (1980c, #164); Chapman, Wood, and Griswold, Inc. (1979, #19); Kendall (1972); Holmquist (1970, p. 70); Hazlett and Kreek (1963); USAEC files (1970)

1: 14N.9W.27.324
2: Section 27 (United Nuclear)
3: S1/2 27 T14N R9W 35°24'40"N 107°46'40"W
4: Ambrosia Lake 7-1/2 Elevation 7,040 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 860-ft shaft, 2nd shaft, 1,000-ft east
8: 553,732 tons ore yielding 2,442,885 lbs U3O8 (0.22%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: two horizons, extends into Sections 26 and 28, faulting displaced orebodies
13: Sandstone - primary tabular
14: mined 1967-1974 United Nuclear, connects to Sandstone mine; mine plan map by Kendall (1972)
15: Green and others (1980c, #165); Chapman, Wood, and Griswold, Inc. (1979, #20); Kendall (1972); Santos (1970); Holmsquist (1970, p. 90); Hilpert (1969, p. 38); Hazlett and Kreek (1963); U.S. Atomic Energy Commission (1959a, p. 58); USAEC files (1970)

1: 14N.10W.27.110
2: Section 27
3: NW1/4 27 T14N R10W 35°25'5"N 107°53'25"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole (483-ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 4.7-ft thick
13: Sandstone
15: Green and others (1980c, #143); Hilpert (1969, p. 40); USAEC files (1968)

1: 15N.11W.27.412
2: Section 27
3: SE1/4 27 T15N R11W 35°29'45"N 107°59'10"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #261); Hilpert (1969, p. 42); USAEC files (1972)

1: 14N.10W.28.211
2: Section 28 (Teton)
3: NE1/4 28 T14N R10W 35°25'5"N 107°54'5"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon and Brushy Basin Member
11: remnant primary ore and redistributed ore associated with organic material
12: grades in excess of 2% U_3O_8
13: Sandstone - primary tabular
15: Green and others (1980c, #144); Smith, D.A. and Peterson (1980); Hilpert (1969, p. 40); USAEC files (1959)

1: 15N.17W.28.132
2: Section 28-Becenti
3: NW1/4 28 T15N R17W
4: Gallup East 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: open pit, incline
8: 846 tons ore yielding 3,350 lbs U_3O_8 (0.24%); 1,981 lbs V_2O_5
9: bkgd 50 cps; high 1,500 cps (Anderson, O.J., 1980)
10: Cretaceous Dakota Sandstone
11: deposit in crossbedded scour-filled sandstone
12: meta-antunite, uranophane
13: Sandstone
14: northward extension of Diamond #2 on Navajo Reservation, mined 1952-1959; examined by Green and others (1980b)
15: Anderson, O.J. (1980); Green and others (1980b, #21); Pierson and Green (1977); Hackman and Olson (1977); Green and Jackson (1976); Hilpert (1969, p. 43, #1); Chenoweth and Laverty (1964); Ruzycki (1957); Ryan and Berkoff (1956); Gabelman (1956a); Gruner and others (1954); Mirsky (1953); CRIB (1976); USAEC files (1960)

1: 14N.9W.29.100
2: Section 29 (Mining Unit 30)
3: NW1/4 29 T14N R9W 35°25'00"N 107°49'00"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: mined through Section 30 shaft (14N.9W.30.232)
8: 318,361 tons ore yielding 1,401,003 lbs U_3O_8 (0.22%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 6 horizons 3-10 ft thick at 563-607 ft depth
13: Sandstone - primary tabular
14: mined 1966-1981 by Kerr-McGee
15: Green and others (1980c, #167); Santos (1970); Hilpert (1969, p. 38, #86); Clary and others (1963); U.S. Atomic Energy Commission (1959a); USAEC files (1970)

1: 14N.9W.29.300
2: Section 29
3: SW1/4 29 T14N R9W 35°24'30"N 107°49'00"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: mined through Section 32 shaft (14N.9W.32.122)
8: 390,511 tons ore yielding 1,999,236 lbs U_3O_8 (0.26%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 3 horizons 3-10 ft thick at 563-607 ft depth
13: Sandstone - primary tabular
14: mined 1961-1970 by Kerr-McGee through United Nuclear-Homestake's Section 32 shaft
15: USAEC files (1971)

1: 14N.9W.29.400
2: Section 29
3: SE1/4 29 T14N R9W 35°24'30"N 107°48'30"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: mined through Sec. 33 shaft
8: 641,918 tons ore yielding 1,936,819 lbs U_3O_8 (0.15%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: mined 1963 Kerr-McGee
15: USAEC files (1970)

1: 14N.10W.29.244
2: Section 29
3: E1/2 29 T14N R10W 35°24'50"N 107°54'50"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980c, #145); Hilpert (1969, p. 42)

1: 13N.9W.30.333
2: Section 30 (Manol, F. Manol, Roundy Lease, Rimrock #3)
3: SW1/4 30 T13N R9W 35°19'20"N 107°50'11"W
4: Dos Lomas 7-1/2 Elevation 6,840-6,880 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: numerous open pits
8: 91,513 tons ore yielding 464,810 lbs U_3O_8 (0.25%); 76,565 lbs V_2O_5
9: bkgd 20-30 cps; high on dumps 500-600 cps
10: Jurassic Todilto Limestone
12: carnotite, fluorite
13: Limestone
14: mined 1952-1964 by Rimrock Mining Co.; production from T-20, Roundy Mine, and X-C included
15: FN 4/6/82; Anderson, O.J. (1980); Green and others (1980c, #297, 239); Hilpert (1969, p. 35, #22); U.S. Atomic Energy Commission (1959a); Chew (1956); Anderson, E.C. (1955); Fincher (1953); Hadfield and others (1951); USBM files (1957)

1: 14N.9W.30.141
2: Section 30 West
3: NW1/4 30 T14N R9W 35°24'54"N 107°50'5"W
4: Ambrosia Lake 7-1/2 Elevation 6,970 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 802-ft vertical shaft
8: 68,895 tons ore yielding 282,714 lbs U_3O_8 (0.21%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: mined 1969-presently by Kerr-McGee; deposits in most of Sec. 30
15: FN 4/5/82; Green and others (1980c, #176); Chapman, Wood, and Griswold, Inc. (1979, #27); Clary and others (1963); USAEC files (1971)

1: 14N.9W.3Ø.232
2: Section 3Ø
3: E1/2 3Ø T14N R9W 35°24'54"N 1Ø7°49'27"W
4: Ambrosia Lake 7-1/2 Elevation 6,99Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 75Ø-ft vertical shaft
8: 2,855,164 tons ore yielding 15,Ø64,956 lbs U_3O_8 (Ø.26%) until 197Ø
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: mined 1959-presently by Kerr-McGee
15: FN 4/5/82; Green and others (198Øc, #168); Chapman, Wood, and Griswold, Inc. (1979, #26); Siemers and Austin (1979); Santos (197Ø); Hilpert (1969, p. 38, #87); Santos and Thaden (1966); Clary and others (1963); U.S. Atomic Energy Commission (1959a, p. 61); USAEC files (1971); CRIB (1981)

1: 13N.9W.31.113
2: Section 31 NWQ
3: NW1/4 NW1/4 31 T13N R9W 35°18'59"N 1Ø7°5Ø'15"W
4: Dos Lomas 7-1/2 Elevation 6,9ØØ ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: several pits
8: production included in Section 31 Strip
1Ø: Jurassic Todilto Limestone
11: spotty and discontinuous ore associated with intraformation folds in crinkly bed
12: carnotite; Ø.12% U_3O_8 (NMBMMR chem lab, 5/2Ø/82, #2176)
13: Limestone
14: mined out by Haystack Mt. Dev. Co.
15: FN 4/6/82; Green and others (198Øc); PRR CEB-14 (195Ø)

1: 14N.8W.31.13Ø
2: Section 31 (Ox Group, Frosty Group, Enerdyne)
3: C W1/2 31 T14N R8W 35°23'12"N 1Ø7°43'45"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes-1,56Ø ft deep
8: no production
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons, 6-33 ft thick
13: Sandstone
14: extension of Sec. 36 (14N.9W.36.422) orebody
15: Green and others (198Øc, #263); Hilpert (1969, p. 37); USAEC files (1964)

1: 13N.9W.31.120
2: Section 31 Strip
3: NE1/4 NW1/4 31 T13N R9W 35°18'59"N 107°50'00"W
4: Dos Lomas 7-1/2 Elevation 6,940 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, limestone
7: several shallow open pits and trenches (2-10 ft deep)
8: 15,736 tons ore yielding 77,121 lbs U_3O_8 (0.25%); 21,628 lbs V_2O_5
9: bkgd 20-30 cps; high on dump 150 cps
10: Jurassic Todilto Limestone
11: spotty and discontinuous ore associated with intraformational folds in crinkly bed
12: carnotite
13: Limestone
14: ore mined out 1953-1963 by Haystack Mt. Dev. Co.
15: FN 4/6/82; Anderson, O.J. (1980); Green and others (1980c, #242); Hilpert (1969); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p. 61); Chew (1956); Anderson, E.C. (1955); Rapaport and others (1951)

1: 14N.9W.31.222
2: Section 31
3: 31 T14N R9W 35°24'20"N 107°49'18"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: mined from Section 32 shaft (14N.9W.32.122)
8: 3,469 tons ore yielding 17,999 lbs U_3O_8 (0.26%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 365-610 ft deep
13: Sandstone - primary tabular
14: mined 1970-1973 by Kerr-McGee through United Nuclear-Homestake's Section 32 shaft
15: USAEC files (1971)

1: 13N.9W.32.111
2: Section 32 Quarry
3: NW1/4 NW1/4 32 T13N R9W 35°19'5"N 107°49'13"W
4: Dos Lomas 7-1/2 Elevation 6,775 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit
8: production unknown
9: bkgd 20-30 cps; high on outcrop 1,000 cps
10: Jurassic Todilto Limestone
11: ore associated with organic material in intraformational folds
12: carnotite; 0.50% U_3O_8 (NMBMMR chem lab, 5/20/82, #2177)
13: Limestone
15: FN 4/6/82; Green and others (1980c, #243); Hilpert (1969, p. 35)

1: 13N.9W.32.144
2: Section 32 (Moe #4)
3: C 32 T13N R9W 35°18'45"N 107°48'45"W
4: Dos Lomas 7-1/2 Elevation 6,719 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, limestone
7: 520-ft 26° decline (caved along its length, head frame standing)
8: 2,407 tons ore yielding 9,746 lbs U_3O_8 (0.20%)
9: bkgd 20-30 cps; high on dump 3,500 cps
10: Jurassic Todilto Limestone
11: 1 horizon, 3-16 ft thick
12: carnotite, barite; 1.96% U_3O_8, 5.5 ppm Se (NMBMMR chem lab, 5/20/82, #2178)
13: Limestone
14: mined 2nd quarter 1963 by L. Sutton and E.P. Moe, pumped 100 gpm water
15: FN 4/7/82; Green and others (1980c, #245); Anderson, O.J. (1980); Holmquist (1970, p. 119); Hilpert (1969, p. 35)

1: 13N.9W.32.321
2: Section 32 (Flat Claims?)
3: 32 T13N R9W 35°18'50"N 107°48'40"W
4: Dos Lomas 7-1/2 Elevation 6,730 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Todilto Limestone
11: several ore deposits
13: Limestone
15: Green and others (1980c, #244); Hilpert (1969, p. 35); USBM files (1957)

1: 14N.8W.32.340
2: Section 32 (Yucca, Melrich, San Mateo Dome)
3: SW1/4 32 T14N R8W 35°23'40"N 107°42'35"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes-1,884 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 6-ft thick orebodies
13: Sandstone
14: owned by Homestake
15: Green and others (1980c, #100, 264); Chapman, Wood, and Griswold, Inc. (1979, #J); Hilpert (1969, p. 37); U.S. Atomic Energy Commission (1959a, p. 61); USAEC files (1960); USBM files (1957)

1: 14N.9W.32.122
2: Section 32
3: C N1/2 32 T14N R9W 35°24'17"N 107°48'53"W
4: Ambrosia Lake 7-1/2 Elevation 6,945 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 651-ft vertical shaft
8: 488,031 tons ore yielding 1,927,388 lbs U_3O_8 (0.20%) until 1970
10: Jurassic Morrison Formation-Westwater Canyon Member
11: multilayered ore bodies
13: Sandstone - primary tabular
14: mined 1958-1979, presently owned by Homestake, state land
15: FN 4/5/82; Anderson, O.J. (1980); Green and others (1930c, #169); Chapman, Wood, and Griswold, Inc. (1979, #23); Siemers and Austin (1979); Santos (1970); Holmquist (1970, p. 78); Hilpert (1969, p. 38, #89); Granger (1963a); U.S. Atomic Energy Commission (1959a, p. 62); USAEC files (1971); USBM files (1959); CRIB (1981)

1: 15N.11W.32.224
2: Section 32, 33 (West Ranch, Moe No. 5, Old Moe)
3: NE1/4 32 NW1/4 33 (near section line) T15N R11W 35°29'25"N 108°00'58"W
4: Thoreau NE 7-1/2 Elevation 7,030 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: 850-ft 20° decline in section 33
8: 33,459 tons ore yielding 146,210 lbs U_3O_8 (0.22%) until 1969
9: bkgd 30 cps; high on dump 1,000 cps
10: Jurassic Morrison Formation-Westwater Canyon Member
11: mineralized black medium-grained, interbedded sandstone, associated with organic material, 5-12 thick zones
12: 1.22% U_3O_8 (NMBMMR chem lab, 7/82, #2302)
13: Sandstone - tabular, roll-type
14: mined 1960-1969, in 1977-1980 produced by Cobb Nuclear Corp., currently inactive
15: FN 5/20/82; Green and others (1980b, #90, 91); Perkins (1979); Hackman and Olson (1977); Green and Pierson (1971); Holmquist (1970, p. 24); Hilpert (1969, p. 42, #90); USAEC files (1969); NMBMMR files (1980)

1: 14N.9W.33.213
2: Section 33-Branson (Mining Unit 33)
3: 33 T14N R9W 35°24'5"N 107°47'35"W
4: Ambrosia Lake 7-1/2 Elevation 6,970 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 848-ft vertical shaft
8: 960,007 tons ore yielding 3,222,939 lbs U_3O_8 (0.16%)
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 3 horizons 6-19 ft thick
13: Sandstone - primary tabular
14: mine 1959-1979 by Kerr-McGee; standby status in 1982
15: Green and others (1980c, #170); Chapman, Wood, and Griswold, Inc. (1979, #23); Holmquist (1970, p. 84); Santos (1970); Hilpert (1969, p. 38, #91); U.S. Atomic Energy Commission (1959a, p. 63); USAEC files (1968)

1: 14N.11W.34.223
2: Section 34
3: NE1/4 34 T14N R11W 35°24'15"N 107°59'5"W
4: Goat Mountain 7-1/2 Elevation 7,100 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: adit, rim cut
8: production, if any, included with Lost Mine (14N.11W.35.120)
10: Cretaceous Dakota Sandstone
13: Sandstone
15: Anderson, O.J. (1980); USAEC files (1960)

1: 14N.9W.35.233
2: Section 35 (Elizabeth)
3: NE1/4 35 T14N R9W 35°24'00"N 107°45'30"W
4: Ambrosia Lake 7-1/2 Elevation 7,090 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, Mo
7: 1,398-ft vertical shaft
8: production confidential
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
14: 1971-presently by Kerr-McGee
15: Green and others (1980c, #172); Chapman, Wood, and Griswold, Inc. (1979, #17); Holmquist (1970); Santos (1970); U.S. Atomic Energy Commission (1959a, p. 64)

1: 15N.11W.35.200
2: Section 35 (A. Berryhill)
3: NE1/4 35 T15N R11W 35°29'20"N 107°58'10"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake 7-1/2
6: U
7: drill holes (956-1,036 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin membr
11: 2 horizons 4-60 ft thick
13: Sandstone
15: Green and others (1980c, #262); Hilpert (1969, p. 42)

1: 13N.10W.36.224
2: Section 36 (Rimrock, Homer Scriven, Red Bluff #1)
3: NE1/4 NE1/4 36 T13N R10W 35°19'00"N 107°50'30"W
4: Dos Lomas 7-1/2 Elevation 6,900 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: several open pits, trenches
8: 1,435 tons ore yielding 3,770 lbs U_3O_8 (0.13%); 2,698 lbs V_2O_5 (0.19%)
9: bkgd 20-30 cps; high 100 cps
10: Jurassic Todilto Limestone
11: spotty and discontinuous ore in crinkly zone associated with intraformational folds
12: carnotite, tyuyumite; 0.02% U_3O_8 (NMBMMR chem lab, 5/20/82, #2174)
13: Limestone
14: mined 1952-1962
15: FN 4/6/82; Anderson, O.J. (1980); Green and others (1980c, #210,300, 308,305); Hilpert (1969, p. 37); Hadfield and others (1951); PRR CEB-14 (1950); USAEC files (1962)

1: 14N.9W.36.422
2: Section 36 (Phillips)
3: C E1/2 36 T14N R9W 35°23'50"N 107°44'05"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes - 1,370-1,430 ft deep
8: no production known
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: now Kerr-McGee owns property
15: Green and others (1980c, #174); Chapman, Wood, and Griswold, Inc. (1979); Santos (1970); Hilpert (1969, p. 39); USAEC files (1959)

1: 14N.1ØW.36.13Ø
2: Section 36
3: NW1/4 36 T14N R1ØW 35°24'8"N 1Ø7°51'3Ø"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: several mineralized drill holes
13: Sandstone
14: drill holes by San Jacinto Petroleum Co.
15: Green and others (198Øc, #149); Hilpert (1969, p. 41)

1: 14N.1ØW.36.222
2: Section 36 (J and M, United Wester, Lease 6Ø-167)
3: NE1/4 36 T14N R1ØW 35°24'2Ø"N 1Ø7°5Ø'25"W
4: Ambrosia Lake 7-1/2 Elevation 6,96Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 4Ø7-ft vertical shaft
8: 5,249 tons ore yielding 53,349 lbs U_3O_8 (Ø.51%); 45,95Ø lbs of V_2O_5
1Ø: Jurassic Morrison Formation-Westwater Canyon Member and Brushy Basin Member-Poison Canyon sandstone
11: several small high-grade deposits
13: Sandstone
14: mined 1957-1959 by VCA and United Western; State of New Mexico land
15; Anderson, O.J. (198Ø); Green and others (198Øc, #15Ø); Holmquist (197Ø, p. 7Ø); U.S. Atomic Energy Commission (1959a, p. 64); USAEC files (1969)

1: 13N.1ØW.24.222
2: Shirley and Gunther Co. (Unknown)
3: NE1/4 24 T13N R1ØW 35°2Ø'55"N 1Ø7°5Ø'2Ø"W
4: Dos Lomas 7-1/2 Elevation 7,28Ø ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: outcrop only
8: no production
1Ø: Jurassic Morrison Formation-Westwater Canyon Member
11: up to 2 ft thick zones in sandstone
12: carnotite; Ø.Ø2% U_3O_8 (Mathewson, 1953b)
13: Sandstone
15: Green and others (198Øc, #31Ø); U.S. Atomic Energy Commission (197Ø, p. 81); Mathewson (1953b)

1: 14N.12W.10.200
2: Silver Bit #7
3: NE1/4 10 T14N R12W 35°27'45"N 108°5'30"W
4: Thoreau NE 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: open pit
8: production, if any, included in Silver Bit #18
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: ined 1955-1957
15: Green and others (1980b, #86); Hackman and Olson (1977);
Hilpert (1969, p. 42, #95); CRIB (1976)

1: 14N.12W.10.200
2: Silver Bit (unnamed)
3: NE1/4 10 T14N R12W 35°27'25"N 108°5'15"W
4: Thoreau NE 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
10: Jurassic Morrison Formation-Recapture Member
12: yellow uranium minerals
13: Sandstone
15: Green and others (1980b, #88); Hackman and Olson (1977);
Hilpert (1969, p. 42)

1: 14N.12W.10.233
2: Silver Bit #15
3: SW1/4 NE1/4 10 T14N R12W 35°27'30"N 108°5'40"W
4: Thoreau NE 7-1/2 Elevation 7,410 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: open pit
8: production, if any, included with Silver Bit #18
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: mined 1955-1957
15: Green and others (1980b, #87); Hackman and Olson (1977);
Hilpert (1969, p. 42, #96)

1: 14N.12W.1Ø.243
2: Silver Bit #18
3: SE1/4 NE1/4 1Ø T14N R12W 35°27'35"N 1Ø8°5'15"W
4: Thoreau NE 7-1/2 Elevation 7,6ØØ ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: open cut, adit
8: 293 tons ore yielding 3,181 lbs U_3O_8 (Ø.54%); 3,34Ø lbs V_2O_5
1Ø: Jurassic Morrison Formation-Brushy Basin Member; Cretaceous Dakota Sandstone
13: Sandstone
14: mined 1955-1957
15: Green and others (198Øb, #89); Hackman and Olson (1977); Hilpert (1969, p. 42, #97)

1: 14N.1ØW.31.334
2: Silver Spur Group (Silver Spur #1-5, Berryhill/Elkins, Small Stake)
3: SW1/4 31 T14N R1ØW 35°23'4Ø"N 1Ø7° 1Ø7°56'3Ø"W
4: Goat Mountain 7-1/2 Elevation 7,2ØØ ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: several adits
8: 5,938 ton of ore yielding 29,454 lbs U_3O_8 (Ø.25%); 17,935 lbs V_2O_5
1Ø: Cretaceous Dakota Sandstone
11: disseminated ore in scour-filled channel sandstone associated with plant debris, 1-15 ft thick
12: metatyuyamunite
13: Sandstone
14: mined 1952-1966, mined from Silver Spur pits and Febco (Small Stake)
15: Anderson, O.J. (198Ø); Green and others (198Øc, #147); Pierson and Green (1977); Holmquist (197Ø, p. 29); Hilpert (1969, p. 4Ø, #8); U.S. Atomic Energy Commission (1959a, p. 65); Gableman (1956a); Mirsky (1953); PRR DEB-251 (1952); USAEC files (1966); CRIB (1976); USBM files (1955)

1: 14N.10W.31.233
2: Silver Spur Pits (Febco, Silver Spur #5)
3: NE1/4 31 T14N R10W 35°24'00"N 107°55'57"W
4: Goat Mountain 7-1/2 Elevaion 7,200 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: open pits (0-80 ft deep)
8: production included with Silver Spur Group (14N.10W.31.334)
10: Cretaceous Dakota Sandstone
11: disseminated ore in basal sandstone unit associated with abundant plant debris (1-5 ft thick)
12: yellow uranium minerals (metatyuyamunite)
13: Sandstone
14: mined 1955-1958
15: Anderson, O.J. (1980); Green and others (1980c, #146); Pierson and Green (1977); Hilpert (1969, p. 40, #7); Gableman (1956a); Gruner and others (1954); Mirsky (1953a); USAEC files (1958); USBM files (1955); CRIB (1976)

1: 15N.13W.25.440
2: South-Pod ore body
3: SE1/4 SE1/4 25 T15N R13W 35°29'55"N 108°09'42"W
4: Thoreau 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: access through Ruby #3 and #4 decline by haulage drift. room and pillar-retreat mining, depth 300 ft
8: see Ruby #3 and #4 (15N.13W.25.224)
10: Jurassic Morrison Formation-Brushy Basin Member
11: relict ore deposit in oxidized sandstone, calcite cemented, lower "A" sandstone
13: Sandstone-relict
14: completed primary development May, 1982 standby status July, 1982, reserves present, Western Nuclear
15: See Ruby #3 and #4
16: figure 17

1: 18N.14W.35.300
2: Standing Rock (Unknown)
3: SW1/4 35 T18N R14W (unsurveyed) 35°40'20"N 108°29'2"W
4: Dalton Pass 7-1/2 Elevation 6,840 ft
5: Church Rock subdistrict-Grants uranium district
6: U, Th, Ti, REE, gravel, Zr
7: shallow pit
8: no uranium production-road metal produced
10: Cretaceous Point Lookout Sandstone
11: 2 segments of black sandstone (radioactive), separated by erosion; 4,200 ft long
12: monazite(?); 4.3% TiO_2, 0.3% ZrO_2, 27.1% Fe, 0.06% ThO_2 (Dow and Batty, 1961)
13: Beach-placer Sandstone
14: examined by Green and others (1980b)
15: Green and others (1980b, #133, 134); Brookins (1977); Dow and Batty (1961); Chenoweth (1957b); PRR ED-R-620 (1956); USBM files (1958); CRIB (1972)

1: 13N.10W.15.133
2: Summit Group
3: NW1/4 15 T13N R10W 35°21'20"N 107°53'40"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings-drill holes
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #309); USAEC files (1960)

1: 14N.10W.34.441
2: Tanny Uranium deposit (Section 34)
3: 34 T14N R10W 35°23'40"N 107°52'45"W
4: Goat Mountain 7-1/2 Elevation 7,220 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (25 on 1,000-ft grid pattern, 100-500 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 7 mineralized drill holes
12: average grade 0.15% U_3O_8
13: Sandstone - primary tabular
14: drilled by New Jersey Zinc Co.
15: USBM files (1957)

1: 13N.9W.30.414
2: T-20 Shaft (T-9 orebody, Rimrock #2)
3: C SE1/4 30 T13N R9W 35°19'20"N 107°49'40"W
4: Dos Lomas 7-1/2 Elevation 6,825 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 115-ft shaft
8: production included with Sec. 30 Mine
10: Jurassic Todilto Limestone
13: Limestone
14: mined 1960-63 by Rimrock Mining Co. (may include some production from X-C)
15: Anderson, O.J. (1980); Holmquist (1970, p. 113); Hilpert (1969, p. 35)

1: 14N.13W.8
2: Tietjen-Lewis No. 2
3: N1/2 8 T14N R13W
4: Thoreau 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: no production
7: no workings-outcrop anomaly
8: no production
10: Jurassic Morrison Formation-Recapture Member
11: spotty, low grade mineralization
12: carnotite, schroeshingerite
13: Sandstone
14: could not locate on 5/19/82
15: FN 5/19/82; PRR DEB-249 (1951)

1: 15N.16W.4.414
2: U Mine (Christensen Mine, Rimrock #2, #1-20, Claim #16)
3: SE1/4 4 T15N R16W 35°33'27"N 108°31'46"W
4: Church Rock 7-1/2 Elevation 7,560 ft
5: Church Rock subdistrict-Grants uranium district
6: U, V
7: 500-ft adit, 80-ft adit, 40-ft adit, 60-ft adit, 50-ft adit
8: 2,560 tons ore yielding 8,460 lbs U_3O_8 (0.17%); 4,075 lbs V_2O_5
9: bkgd 50 cps; up to 6,100 cps (Anderson, 1980)
10: Cretaceous Dakota Sandstone
11: cluster of deposits in carbonaceous zones in scour-filled channel sandstones
12: tyuyamunite, carnotite
13: Sandstone
14: mined 1953-1955, 1957-1958
15: Anderson, O.J. (1980); Green and others (1980b, #53); Hackman and Olson (1977); Pierson and Green (1977); Holmquist (1970, p. 11); Hilpert (1969, p. 43, #2); Reimer (1969); Gabelman (1956a); Mirsky (1953); PRR ED-R-234 (1953); USAEC files (1958)

1: 9N.17W.4
2: Unknown-Zuni Indian Reservation
3: 4 T9N R17W
4: Horsehead Canyon 7-1/2
5: Zuni Mountains
6: U
7: no workings
8: no production
10: Tertiary(?) andesite plug intruded Cretaceous Mancos Shale
11: slightly radioactive plug
12: calcite veins (not radioactive)
13: Orthomagmatic
15: PRR RR-207 (1951)

1: 13N.8W.5
2: Unnamed
3: W1/2 5 T13N R8W 35°23'00"N 107°42'40"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980c, #248); Hilpert (1969, p. 33)

1: 13N.8W.6
2: Unnamed
3: 6 T13N R8W 35°23'00"N 107°43'28"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980c, #249); Hilpert (1969, p. 33)

1: 13N.8W.16
2: Unknown
3: C W1/2 16 T13N R8W
4: Dos Lomas 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings-drill hole
8: no production
10: Jurassic Morrison Formation-Westwater Canyon member
13: Sandstone
15: Hilpert (1969, p. 59)

1: 13N.8W.16.133
2: Unknown
3: C W1/2 16 T13N R8W 35°21'20"N 107°41'45"W
4: San Mateo 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes-1,557 ft deep
8: no production - estimated that lease contains 6 mill lbs U_3O_8
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 5.5 ft thick
13: Sandstone
14: State land leased to Western Nuclear, 1979
15: Green and others (1980c, #92); Hilpert (1969, p. 59); USAEC files (1960)

1: 13N.9W.30.114
2: Unknown (Santa Fe Railroad)
3: NW1/4 31 T13N R9W 35°18'59"N 107°50'8"W
4: Dos Lomas 7-1/2 Elevation 6,800 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V, limestone
7: no workings-outcrop occurrence
8: no production
10: Jurassic Todilto Limestone
12: carnotite
13: Limestone
15: USAEC files (1959)

1: 13N.9W.31.214
2: Unknown quarry (Santa Fe Railroad, Henri Dole)
3: C NE1/4 31 T13N R9W 35°19'00"N 107°49'30"W
4: Dos Lomas 7-1/2 Elevation 6,820 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, limestone
7: open pit
8: production, if any, included with Section 31 Strip
9: bkgd 20-30 cps, high on outcrop 150 cps
10: Jurassic Todilto Limestone, Entrada Sandstone
11: spotty and discontinuous ore along bedding planes
12: carnotite
13: Limestone
14: mined out
15: FN 4/6/82; Green and others (1980c, #298); Hilpert (1959, p. 35); USAEC files (1960)

1: 13N.10W.19.120
2: Unknown (Hutton-Titchen Group)
3: 18, 19 T13N R10W 35°21'00"N 107°55'40"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #307, 331)

1: 13N.10W.22.240
2: Unknown (G. Hanash, Indian Allotment)
3: 22 T13N R10W 35°20'00"N 107°53'00"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
12: tyuyamunite
13: Limestone
15: Green and others (1980c, #311); USAEC files (1960)

1: 13N.10W.34
2: Unknown (Santa Fe Railroad)
3: 34 T13N R10W 35°18'50"N 107°47'40"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: location could not be verified
15: Green and others (1980c, #296)

1: 13N.11W.10.200
2: Unknown (Esta Cho)
3: NE1/4 10 T13N R11W 35°21'30"N 107°59'10"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: stripping
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #312); USAEC files (1960)

1: 13N.11W.11.144
2: Unknown (Ross Fitch)
3: S1/2 NW1/4 11 T13N R11W 35°22'15"N 107°58'10"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole, outcrop anomaly
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #178, 180); Hilpert (1969, p. 37); USAEC files (1960)

1: 13N.11W.12.333
2: Unknown
3: SW1/4 SW1/4 12 T13N R11W 35°21'55"N 107°57'50"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #179); Hilpert (1969, p. 37); USAEC files (1960)

1: 13N.11W.12.344
2: Unknown
3: SW1/4 SE1/4 12 T13N R11W 35°21'55"N 107°57'20"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #181); Hilpert (1969); USAEC files (1960)

1: 13N.11W.13.120
2: Unknown
3: NE1/4 NW1/4 13 T13N R11W 35°21'35"N 107°57'25"W
4: Bluewater 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #182); Hilpert (1969, p. 37); USAEC files (1960)

1: 13N.11W.21
2: Unknown-Prewitt
3: 21 T13N R11W
4: Prewitt 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U, limestone (aggregate)
7: open pits
8: no uranium production
10: Jurassic Todilto Limestone
13: Limestone
15: U.S. Atomic Energy Commission (1970, p. 85)

1: 13N.19W.32
2: Unknown
3: 32 T13N R19W 35°19'10"N 108°52'20"W
4: Vander Wagon, Jones Ranch School 7-1/2
5: Grants uranium district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980b, #121)

1: 14N.8W.30.100
2: Unnamed-Enerdyne
3: NW1/4 30 T14N R8W 35°24'5"N 107°43'45"W
4: San Lucas Dam 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: owned by Enerdyne
15: Green and others (1980c, #101); Chapman, Wood, and Griswold, Inc. (1979, #K); USAEC files (1970)

1: 14N.9W.14
2: Unknown
3: N1/2 14 T14N R9W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation-Gibson Coal
13: Coal
15: Green and others (1980c, #282); Hilpert and Corey (1955)

1: 14N.10W.11.232
2: Unknown (Mid-Continent)
3: NE1/4 11 T14N R10W 35°27'00"N 108°51'30"W
4: Ambrosia Lake 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Dysart #2
8: see Dysart #2
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone - primary tabular
15: Green and others (1980b, #122)

1: 14N.11W.1.334
2: Unnamed-United Nuclear
3: SW1/4 1 T14N R11W 35°27'50"N 107°57'45"W
4: Goat Mountain 7-1/2
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: drill holes (600-614 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon or Brushy Basin Member
11: indicated mineralization, 5-6 ft thick, several ore bodies
13: Sandstone
15: Holen (1982); Green and others (1980c, #153); Chapman, Wood, and Griswold, Inc. (1979, #P); Hilpert (1969, p. 41)

1: 14N.11W.4.100
2: Unknown-Section 4
3: NW1/4 4 T14N R11W 35°28'30"N 108°00'55"W
4: Thoreau NE 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980b, #92); Hackman and Olson (1977); Hilpert (1969, p. 41)

1: 14N.11W.4.200
2: Unknown
3: E1/2 W1/2 4 T14N R11W 35°18'10"N 108°00'35"W
4: Thoreau NE 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin and Westwater Canyon Members
13: Sandstone
15: Green and others (1980b, #114); Hilpert (1969, p. 41)

1: 14N.11W.17.234
2: Unknown
3: SE1/4 SW1/4 NE1/4 17 T14N R11W 35°26'35"N 108°01'15"W
4: Thoreau NE 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Morrison Formation-Recapture Member
12: yellow uranium minerals
13: Sandstone
15: Green and others (1980b, #96); Hackman and Olson (1977); Hilpert (1969, p. 41)

1: 14N.11W.19.232
2: Unknown
3: 19 T14N R11W 35°25'45"N 108°02'20"W
4: Thoreau NE 7-1/2 Elevation 7,000 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980b, #123)

1: 14N.11W.19.414
2: Unknown (Andrews)
3: 19 T14N R11W 35°25'40"N 108°2'15"W
4: Thoreau NE 7-1/2 Elevation 7,100 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
10: Jurassic Todilto Limestone
12: chip samaple 0.20% U_3O_8 reported
13: Limestone
15: Green and others (1980b, #125); PRR CEB-19 (1950)

1: 14N.11W.19.423
2: Unknown
3: 19 T14N R11W 35°25'40"N 108°2'8"W
4: Thoreau NE 7-1/2 Elevation 7,100 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980b, #124)

1: 14N.11W.20.444
2: Unknown
3: SE1/4 20 T14N R11W 35°25'30"N 108°1'35"W
4: Thoreau NE 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: trenching
8: no production
9: no anomalous radioactive readings on 5/20/82
10: Jurassic Todilto Limestone
13: Limestone
15: FN 5/20/82; Green and others (1980b, #105); Hackman and Olson (1977)

1: 14N.16W.30.111
2: Unknown (Wingate)
3: NW1/4 30 T14N R16W (unsurveyed) 35°28'30"N 108°26'00"W
4: Ciniza 7-1/2 Elevation 7,410 ft
5: Grants uranium district
6: U
7: no workings
8: no production
10: Triassic Chinle Formation
11: radioactive black shale, 3-5 ft thick
13: Shale
14: examined by Green and others (1980b)
15: Green and others (1980b, #132); USAEC files (1969)

1: 15N.9W.21
2: Unknown
3: 21 T15N R9W (unsurveyed) 35°30'30"N 107°47'30"W
4: Mesa de los Tores 7-1/2
5: Grants uranium district
6: U
7: drill holes(?)
8: no production
10: Jurassic Todilto Limestone
13: Limestone
14: no other information available
15: Green and others (1980c, #286)

1: 15N.12W.23.220
2: Unknown (Tidewater)
3: NE1/4 NE1/4 23 T15N R12W
4: Casamero Lake 7-1/2
5: South Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #85); Hilpert (1969, p. 42)

1: 15N.12W.24
2: Unknown
3: 24 T15N R12W
4: Casamero Lake 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill holes (430-465 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 6-20 ft thick mineralized zone
13: Sandstone
15: USDOE files (1980)

1: 15N.13W.11.200
2: Unknown (Western Nuclear)
3: E1/2 11 T15N R13W
4: Hosta Butte 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation
11: 2 horizons, 8 ft thick
13: Sandstone
15: USDOE files (1979)

1: 15N.13W.13.220
2: Unknown-Section 13 (Tidewater)
3: NE1/4 NE1/4 13 T15N R13W 35°32'10"N 108°09'41"W
4: Hosta Butte 7-1/2 Elevation 7,340 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill holes-420 ft depth to ore
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #80); Hackman and Olson (1977); Robertson and Jackson (1975); Hilpert (1969, p. 42)

1: 15N.13W.13.400
2: Unknown-Section 13 (Tidewater Drill Hole)
3: N1/2 SE1/4 13 T15N R13W 35°31'43"N 108°09'53"W
4: Hosta Butte 7-1/2 Elevation 7,360 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: drill hole-370 ft depth to ore
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #79); Hackman and Olson (1977); Robertson and Jackson (1975); Hilpert (1969, p. 42)

1: 15N.14W.2
2: Unknown
3: 2 T15N R14W
4: Mariano Lake 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member(?)
13: Sandstone
14: unconfirmed mineralized drill hole
15: Neil Fishman (USGS, WC, 2/11/83)

1: 15N.14W.3
2: Unknown
3: 3 T15N R14W
4: Mariano Lake 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member(?)
13: Sandstone
14: unconfirmed mineralized drill hole
15: Neil Fishman (USGS, WC, 2/11/83)

1: 15N.16W.2.323
2: Unknown-Section 2
3: SE1/4 2 T15N R16W 35°33'20"N 108°30'25"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
12: 0.05% U_3O_8, 0.26% V_2O_5 (Sharp, 1954)
13: Sandstone
14: found by USAEC
15: Sharp (1954)

1: 15N.16W.6.221
2: Unknown-Section 6
3: NE1/4 NE1/4 6 T15N R16W 35°33'59"N 108°34'2"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: outcrop anomaly
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: greenish-yellow uranium mineral on green mudstone overlying arkosic sandstone
12: 0.10% U_3O_8 reported
13: Sandstone
15: Sharp (1955, p. 9; 1954)

1: 15N.16W.15
2: Unknown (Anaconda)
3: 15 T15N R16W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
13: Sandstone
14: weak aerial radiometric anomaly
15: USAEC files (1960)

1: 16N.9W.9
2: Unknown
3: 9 T16N R9W (unsurveyed) 35°37'30"N 107°47'30"W
4: Mesa de los Toros 7-1/2
5: Grants uranium district
6: U
7: drill hole(?)
8: no production
10: Jurassic Morrison Formation(?)
13: Sandstone(?)
14: no other information is available
15: Green and others (1980c, #317)

1: 16N.12W.32.234
2: Unknown
3: C E1/2 32 T16N R12W 35°34'25"N 108°7'35"W
4: Hosta Butte 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U, coal
7: no workings-outcrop anomaly
8: no production
10: Cretaceous Crevasse Canyon Formation-Gibson Coal
12: 0.019% U reported
13: Coal
15: Green and others (1980b, #67); Hackman and Olson (1977); Hilpert (1969, p. 44); Bachman and others (1953)

1: 16N.13W.5.300
2: Unknown
3: SW1/4 5 T16N R13W 35°38'15"N 108°14'20"W
4: Crownpoint 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation-Gibson Coal
13: Shale/Coal
15: Green and others (1980b, #118); Hilpert and Corey (1955)

1: 16N.13W.14
2: Unknown (Western Nuclear)
3: 14 T16N R13W
4: Hosta Butte 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill holes (1,780-2,100 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 1 horizon, 8-23 ft thick
13: Sandstone
15: USDOE files (1979)

1: 16N.13W.26.300
2: Unknown
3: SW1/4 26 T16N R13W 35°34'53"N 108°11'25"W
4: Hosta Butte 7-1/2 Elevation 8,200 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, coal
7: no workings-outcrop anomaly
8: no production
10: Cretaceous Crevasse Canyon-Gibson coal
11: radioactivity associated with sandstone in interlayered sandstone-coal-shale seams
12: yellow uranium mineral
13: Sandstone
15: Green and others (1980b, #119); Hilpert and Corey (1955)

1: 16N.14W.2.100
2: Unknown
3: NW1/4 2 T16N R14W 35°38'50"N 108°17'55"W
4: Dalton Pass 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation
13: Sandstone(?)
15: Green and others (1980b, #117); Hilpert and Corey (1955)

1: 16N.14W.34
2: Unknown
3: 34 T16N R14W
4: Mariano Lake 7-1/2
5: Smith Lake subdistrict-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member(?)
13: Sandstone
14: unconfirmed mineralized drill hole
15: Neil Fishman (USGS, WC, 2/11/83)

1: 16N.15W.21.300
2: Unknown-Section 21 (Tidewater Oil Co.)
3: SW1/4 21 T16N R15W 35°36'00"N 108°26'10"W
4: Pinedale 7-1/2
5: Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980b, #57); Hackman and Olson (1977); Hilpert (1969, p. 44)

1: 16N.16W.3.222
2: Unknown
3: NE1/4 3 T16N R16W 35°39'5"N 108°31'10"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (1,558-1,660 ft deep)
8: production, if any, confidential
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 3 horizons, 6-10 ft thick
13: Sandstone
14: mined through United Nuclear Corp., Northeast Church Rock mine
15: Green and others (1980b, #27); Hackman and Olson (1977); USAEC files (1971)

1: 16N.16W.4.400
2: Unknown
3: SE1/4 4 T16N R16W 35°38'20"N 108°32'00"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #28); Hackman and Olson (1977)

1: 16N.16W.7.132
2: Unknown-Section 7
3: NW1/4 7 T16N R16W 35°38'00"N 108°34'45"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants urnium district
6: U
7: no workings-drill hole
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: USAEC files (1960)

1: 16N.16W.8.422
2: Unknown-Section 8
3: SE1/4 8 T16N R16W 35°37'45"N 108°33'8"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: haulage drifts connecting to Church Rock Mine (16N.16W.17.212)
8: production, if any, confidential
10: Jurassic Morrison Formation-Westwater Canyon and Brushy Basin Members
11: 800-870 ft deep, 5-36 ft thick ore body, 6 horizons covering the entire thickness of the Westwater Canyon, most continuous ore body is 2-10 ft thick in middle of Westwater Canyon
13: Sandstone
14: mined by United Nuclear Corp.
15: Green and others (1980b, #30); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.16W.8.443
2: Unknown-Section 8
3: SE1/4 8 T16N R16W 35°37'35"N 108°33'8"W
4: Hand Ground Flats 7-1/2
5: Church Rock subdistrict-Westwater Canyon Member
6: U
7: haulage drifts connecting to Church Rock mine (16N.16W.17.212)
8: production, if any, confidential
10: Jurassic Morrison Formation-Westwater Canyon member
13: Sandstone
14: mined by United Nuclear Corp.
15: USAEC files (1960)

1: 16N.16W.9.400
2: Unknown-Section 9 (Phillips Petroleum Co.)
3: SE1/4 9 T16N R16W 35°37'35"N 108°32'00"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (320-480 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member, Cretaceous Dakota Sandstone
11: mineralized Dakota channel
13: Sandstone
14: extends into Sec. 16 T16N R16W
15: Green and others (1980b, #35); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964)

1: 16N.16W.9.411
2: Unknown
3: C 9 T16N R16W 35°37'50"N 108°32'20"W
4: Hard Ground Flats 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (360-1,020 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 horizons up to 8 ft thick
13: Sandstone
14: United Nuclear Corp.
15: Green and others (1980b, #29); Hackman and Olson (1977); USAEC files (1971)

1: 16N.16W.16.110
2: Unknown-Section 16 (Tidewater Oil Co.)
3: W1/2 16 T16N R16W 35°37'15"N 108°32'55"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (319-721 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member; Cretaceous Dakota Sandstone
11: 5-11 ft thick horizon, 320-480 ft deep in Dakota Sandstone
13: Sandstone
15: Green and others (1980b, #34); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964)

1: 16N.16W.16.200
2: Unknown
3: NE1/4 16 T16N R16W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (319-712 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #31); Hackman and Olson (1977); Hilpert (1969, p. 44)

1: 16N.16W.17.100
2: Unknown
3: NW1/4 17 T16N R16W 35°37'5"N 108°33'35"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: top of Westwater Canyon
13: Sandstone
15: Green and others (1980b, #33); Hackman and Olson (1977); Hilpert (1969, p. 44)

1: 16N.16W.18.111
2: Unknown-Section 18 (Phillips Petroleum Co.)
3: NW1/4 18 T16N R16W 35°37'25"N 108°34'50"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (800 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: deposit delineated by drilling, 6-11 ft thick, lower Westwater Canyon
13: Sandstone-redistributed ore
15: Green and others (1980b, #37); Hilpert (1969, p. 44); Chenoweth and Laverty (1964)

1: 16N.16W.18.113
2: Unknown-Section 18 (Phillips Petroleum Co.)
3: NW1/4 18 T16N R16W 35°37'16"N 108°34'50"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (800 ft long)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: ore body delineated by drilling, 6-11 ft thick, lower Westwater Canyon
13: Sandstone-redistributed
15: Green and others (1980b, #38); Hilpert (1969, p. 44); Chenoweth and Laverty (1964)

1: 16N.16W.18.332
2: Unknown-Section 18 (Phillips Petroleum Co.)
3: SW1/4 18 T16N R16W 35°36'40"N 108°34'45"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: deposit delineated by drilling, upper Westwater Canyon
13: Sandstone
15: Green and others (1980b, #39); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964)

1: 16N.16W.19.132
2: Unknown-Section 19 (Phillips Petroleum Co.)
3: NW1/4 19 T16N R16W 35°36'15"N 108°34'50"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8:
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized zone in bleached sandstone
13: Sandstone-redistributed
15: Green and others (1980b, #40); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964)

1: 16N.16W.22.200
2: Unknown-Section 22
3: NE1/4 22 T16N R16W 35°36'20"N 108°31'10"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #47); Hackman and Olson (1977); Hilpert (1969, p. 44)

1: 16N.16W.23.210
2: Unknown-Section 23 (Phillips Petroleum Co.)
3: NW1/4 NE1/4 23 T16N R16W 35°36'30"N 108°30'10"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (459-494 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 8-23 ft thick deposit that lies along a N-S fracture system, 3 ore bodies
13: Sandstone
15: Green and others (1980b, #48); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.17W.13.323
2: Unknown-Section 13
3: SW1/4 13 T16N R17W 35°36'50"N 108°35'40"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (675 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2-12 ft thick ore body in 5 horizons
13: Sandstone-redistributed
15: Peterson (1980); Hilpert (1969, p. 44); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.17W.13.411
2: Unknown-Section 13 (Phillips Petroleum Co.)
3: C 13 T16N R17W 35°37'00"N 108°35'25"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (675 ft deep) - tested for in-situ leaching (push-pull) in 1980
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2-12 ft thick ore body in 5 horizons
13: Sandstone-redistributed
15: Green and others (1980b, #41); Peterson (1980); Hatchell and Wentz (1981); Hackman and Olson (1977); Hilpert (1969, p. 44); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.17W.14.100
2: Unknown-Section 14 (Phillips)
3: NW1/4 14 T16N R17W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (862 ft deep)
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 6-12 ft thick
13: Sandstone
14: Kerr-McGee
15: Green and others (1980b, #43); Hackman and Olson (1977); Hilpert (1969, p. 44); USAEC files (1960)

1: 16N.17W.24.200
2: Unknown-Section 24
3: NE1/4 24 T16N R17W 35°36'24"N 108°35'25"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
15: Green and others (1980b, #42); Hilpert (1969, p. 44)

1: 16N.17W.25.241
2: Unknown-Section 25
3: N1/2 25 T16N R17W 35°35'25"N 108°35'00"W
4: Church Rock 7-1/2
5: Church Rock subdistrict-Grants uranium district
6: U
7: drill holes (81-88 ft deep)
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: 5-7 ft thick ore body in bleached sandstone
13: Sandstone-redistributed
14: United Nuclear Corp.
15: Green and others (1980b, #44); Hackman and Olson (1977); Chenoweth and Laverty (1964); USAEC files (1960)

1: 16N.17W.31.224
2: Unknown-White Cliffs
3: SE1/4 NE1/4 NE1/4 31 T16N R17W 35°34'25"N 108°40'35"W
4: Gallup East 7-1/2 Elevation 7,000 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings-outcrop
8: no production
9: bkgd 50 cps; high 1,700 cps
10: Jurassic Morrison Formation-Westwater Canyon Member (upper)
11: radioactive humate horizons at boundary of shale and overlying sandstone
12: 0.18% U_3O_8 (NMBMMR chem lab, 11/30/81, #1531)
13: Sandstone
15: FN 7/23/81; Christine Turner-Peterson (PC, 7/23/81)

1: 17N.14W.27.300
2: Unknown (Dalton Pass)
3: SW1/4 27 T17N R14W 35°40'21"N 108°19'1"W
4: Dalton Pass 7-1/2 Elevation 7,420 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: no workings
8: no production
10: Cretaceous Crevasse Canyon Formation-Gibson Coal
11: at contact of crossbedded sandstone and organic-rich sandstone with poor porosity
12: 4-152 ppm U (Green and others, 1980b)
13: Sandstone
14: examined by Green and others (1980b)
15: Green and others (1980b, #135)

1: 13N.9W.34.343
2: Vallejo (Double Jerry, Section 34, Farris 1)
3: SW1/4 34 T13N R9W, NW1/4 3 T12N R9W 35°18'30"N 107°47'00"W
4: Dos Lomas 7-1/2 Elevation 6,980 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U, V
7: 600-ft 20° decline (140-210 ft deep)
8: 6,458 tons ore yielding 21,733 lbs U_3O_8 (0.17%); 394 lbs V_2O_5
10: Jurassic Todilto Limestone
11: several deposits associated with a set of intraformational folds (1-9 ft thick)
13: Limestone
14: portal in Sec. 34 extends into sec. 3, T. 12 N., R. 9 W., Cibola County; mined 1957-1963
15: Green and others (1980c, #283, #102); Anderson, O.J. (1980); Holmquist (1970, p. 118); Hilpert (1969, p. 58, #9); McLaughlin (1963); U.S. Atomic Energy Commission (1959a, p.

46); USAEC files (1963)

1: 13N.10W.26.222
2: Vanadium #1
3: 25, 26 T13N R10W 35°19'55"N 107°51'28"W
4: Dos Lomas 7-1/2 Elevation 7,000 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: open pit
8: production included with Section 26
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980c, #325)

1: 14N.13W.24.234
2: West Eagle 1-3
3: NE1/4 24 T14N R13W 35°26'00"N 108°9'45"W
4: Thoreau 7-1/2 Elevation 7,580 ft
5: Smith Lake subdistrict-Grants uranium district
6: U
7: open pit
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980b, #84); Hilpert and Corey (1955)

1: 15N.10W.17.300
2: West Largo (Gulf, Santa Fe Industries)
3: SW1/4 17 T15N R10W 35°31'25"N 107°55'35"W
4: Borrego Pass 7-1/2
5: West Largo-Hospah area-Grants uranium district
6: U
7: drill holes - depth of 2,000-2,600 ft
8: no production-7.5 mill lbs U_3O_8 reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 8-23 ft thick orebody
12: 0.35% U_3O_8 grade
13: Sandstone
14: discovered in 1969
15: Holen (1982); Chenoweth and Holen (1980); Green and others (1980c, #154); Chapman, Wood, and Griswold, Inc. (1979, #M); Grants Beacon (10/29/80); USDOE files (1980)

1: 15N.16W.2.442
2: Westwater #1 (Green Hornet)
3: SE1/4 2 T15N R16W 35°33'35"N 108°29'45"W
4: Pinedale 7-1/2 Elevation 7,640 ft
5: Grants uranium district
6: U
7: open cuts, 2 short adits (350 ft total - 164-165 ft deep)
8: 4,713 tons ore yielding 26,571 lbs U_3O_8 (0.78%); 27,134 lbs V_2O_5
9: 3-10 times background (Green and others, 1980b)
10: Jurassic Morrison Formation-Westwater Canyon Member
12: 2,890 ppm U (Green and others, 1980b)
13: Sandstone
14: examined by Green and others (1980b); mined 1957-1960
15: Green and others (1980b, #55); Anderson, O.J. (1980); Hackman and Olson (1977); Holmquist (1970); Hilpert (1969, Sharp (1954); USAEC files (1960); CRIB (1976)

1: 13N.9W.30.123
2: Whitecap (Dalco, Dalco #2)
3: C NW1/4 30 T13N R9W 35°19'50"N 107°50'5"W
4: Dos Lomas 7-1/2 Elevation 6,900 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: mined through Dalco #1 shaft or X-C shaft
8: 11,953 tons ore yielding 41,631 lbs U_3O_8 (0.17%)
10: Jurassic Todilto Limestone
13: Limestone
14: mined 1959-1960 by Mid-Continent Uranium Corp.
15: Green and others (1980c, #234, 238, 299); Holmquist (1970, p. 109-111); Hilpert (1969, p. 35, #51); USEC files (1968)

1: 15N.16W.4.441
2: Williams and Reynolds Mine (Christenson, Rimrock #2, Claim 16)
3: C E1/2 SW1/4 4 T15N R16W 35°33'25"N 108°32'25"W
4: Church Rock 7-1/2 Elevation 7,680 ft
5: Church Rock subdistrict-Grants uranium district
6: U
7: 125 ft long trench, 20 ft deep
8: production, if any, included with U Mine
9: bkgd 50 cps; high on dump 900 cps
10: Cretaceous Dakota Sandstone
11: thin black streaks within coarse-grained sandstone to conglomerate, hematitic alteration, overlain and underlain by carbonaceous shales
12: yellow uranium minerals; 0.258% U_3O_8, 60 ppm Se (NMBMMR chem lab, 11/15/82, #2388); 6 ppm Th (NMBMMR XRF lab, 2/83, #2388)
13: Sandstone
14: part of the U Mine or Christenson Group
15: FN 7/22/82; Anderson, O.J. (1980); Sharp (1954); USAEC files (1960)

1: 13N.9W.30.233
2: X-C (30-C, Bailey and Fife, Q-32, Rimrock #3)
3: SW1/4 NE1/4 30 T13N R9W 35°14'45"N 107°49'50"W
4: Dos Lomas 7-1/2 Elevation 6,880 ft
5: Ambrosia Lake subdistrict-Grants uranium district
6: U
7: 235-ft shaft (head frame still standing)
8: some production included with T-20 and Roundy Mines
9: bkgd 20-30 cps; around shaft 700 cps; high on dump 1,030 cps
10: Jurassic Todilto Limestone
11: ore associated with intraformation folds
12: carnotite
13: Limestone
14: mined intermittently 1963-1964 by Rimrock Mining Co.
15: FN 4/6/82; Green and others (1980c, #235); Anderson, O.J. (1980); Holmquist (1970, p. 114); Hilpert (1969, p. 35)

1: 14N.11W.28.134
2: Yucca #2 (Unknown, T-2, T-10)
3: W1/2 W1/2 28 T14N R11W 35°24'50"N 108°01'00"W
4: Thoreau NE 7-1/2 Elevation 7,120 ft
5: Smith Lake subdistrict-Grants uranium district
6: U, V
7: 4-ft deep open pit (100 x 230 ft)
8: production, if any, included with Red Cap Group
9: bkgd 20-40 cps; average 750-800 cps; high 950 cps (Anderson, O.J., 1980)
10: Jurassic Todilto Limestone
11: mineralized crinkly limestone
13: Limestone
14: miend 1952-1953, may be extension of Red Cap Group
15: Anderson, O.J. (1980); Green and others (1980b, #107); Hackman and Olson (1977); Green and Pierson (1971); Hilpert (1969, p. 42)

MORA COUNTY

Alphabetical (12 occurrences)

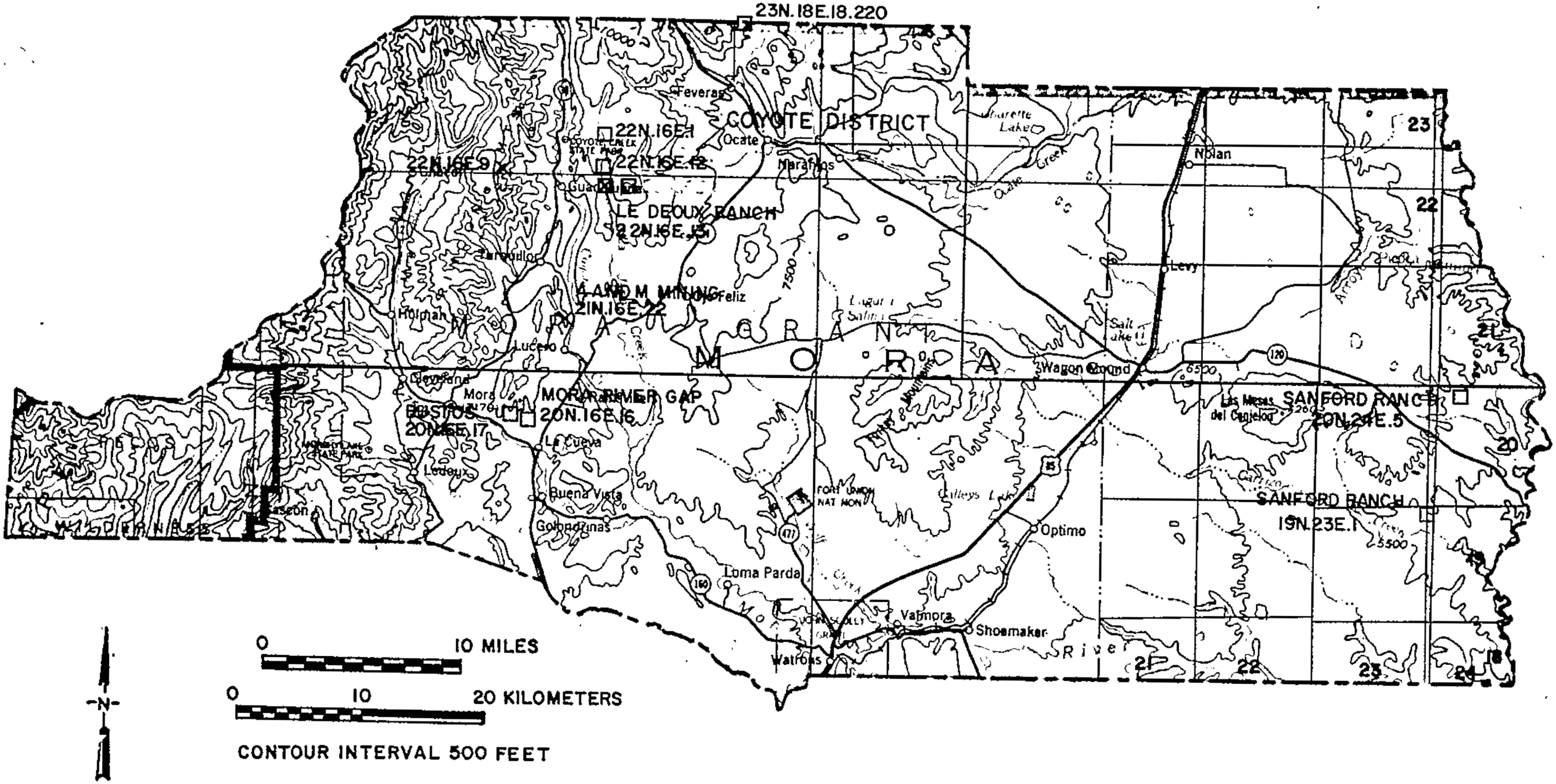
A and M Mining	21N.16E.22
Blas Medina	22N.16E.1
Bustos	20N.16E.17
Coyote Creek Misc. prospects	22N.17E, 21N.16E.
Le Deoux Ranch	22N.16E.13
Lulu Ann	22N.16E.12
Mora River Gap	20N.16E.16
Sanford Ranch	19N.23E.1
Sanford Ranch	20N.24E.5
Unknown-Mora Grant	22N.16E.9
Unknown-Ocate section	23N.18E.18.220
William Atkins	22N.16E.1

Alias	Name	Number
Airborne Anomaly	Williams Atkins	22N.17E.1
Anomaly #6	Unknown	22N.16E.9
Anomaly #9	Le Deoux Ranch	22N.16E.13
Area A	William Atkins	22N.16E.1
Area B	Blas Medina	22N.16E.1
Area D	Lulu Ann	22N.16E.12
Area F	Le Deoux Ranch	22N.16E.13
Arturo Le Deoux	Le Deoux Ranch	22N.16E.13
John Hayes	Le Deoux Ranch	22N.16E.13
Lucero	Coyote Creek	22N.17E.,21N.16E
Romero	A and M Mining	21N.16E.22
United Development Co.	Coyote Creek	22N.17E.,21N.16E.

Numerical

19N.23E.1	Sanford Ranch
20N.16E.16	Mora River Gap
20N.16E.17	Bustos
20N.24E.5	Sanford Ranch
21N.16E.22	A and M Mining
22N.16E.1	Blas Medina
22N.16E.1	William Atkins
22N.16E.12	Lulu Ann
22N.16E.9	Unknown-Mora Grant
22N.16E.13	Le Deoux Ranch
22N.17E.21N.16E	Coyote Creek
23N.18E.18.220	Unknown-Ocate section

FIGURE 1-20 - RADIOACTIVE OCCURRENCES IN MORA COUNTY, NEW MEXICO



1: 21N.16E.22
2: A and M Mining (Romero)
3: 22(?) T21N R16E (unsurveyed)
4: Comanche Peak 7-1/2
5: Rincorn Mountains
6: Mica, U
7: 2 pits
8: no uranium production, unknown amount of sericite produced
10: Precambrian pegmatite intruding metasediments
11: radioactive fractured pegmatite
13: Pegmatite
14: location uncertain
15: U.S. Atomic Energy Commission (1970, p. 90); PRR ASO-93 (1955); USBM files (1958)

1: 22N.16E.1
2: Blas Medina (Area B)
3: 1 T22N R16E (unsurveyed) 36°07'25"N 105°12'45"W
4: Lucero 7-1/2 Elevation 7,600-7,700 ft
5: Coyote district-Mora Grant
6: U, Cu, V
7: trenches, pits
8: no uranium production
10: Pennsylvanian-Permian Sangre de Cristo Formation
11: mineralized arkosic sandstone
12: up to 247 ppm U_3O_8, 0.1% Cu (May and others, 1977, #4)
13: Sandstone
14: maps by Tschanz and others (1954)
15: Reid and others (1980a, #10); May and others (1977); Finch, W.I. (1972, #15); Tschanz and others (1958; 1954); USAEC files (1960)

1: 20N.16E.17
2: Bustos
3: 17 T20N R16E (unsurveyed) 35°57'5"N 105°15'43"W
4: Mora 7-1/2 Elevation 7,200 ft
5: Mora Grant
6: U, Cu
7: pit
8: no production
10: Pennsylvanian-Permian Sangre de Cristo Formation-lower member
11: mineralized zone in bleached siltstone associated with carbonaceous material
13: Sandstone
14: 700-ft up arroyo from old adobe house; examined by Reid and others (1980b)
15: Reid and others (1980b, #6); May and others (1977)

1: 22N.17E, 21N.16E
2: Coyote Creek Mesa prospects (United Development Co., Lucero)
3: T21N R16E, T22N R17E (unsurveyed) 36°5'N 105°13'W
4: Lucero 7-1/2 Elevation 7,300-7,400 ft
5: Coyote district-Mora Grant
6: U, Cu, V
7: trenches, pits, shafts
8: production from Le Deoux Ranch Lease only (22N.16E.13)
10: Pennsylvanian-Permian Sangre de Cristo Formation
11: mineralized sandstones, siltstones, and shales for about seven miles along Coyote Creek
13: Sandstone/Shale
14: maps by Tschanz and others (1954); examined by Reid and others (1980a)
15: Reid and others (1980a, #10); Elevatorski (1979); May and others (1977); Finch, W.I. (1972, #15); U.S. Atomic Energy Commission (1970, p. 87-89; 1966, p. 38); Tschanz and others (1958; 1954); Soulè (1956, p. 31); Zeller, H.D. and Baltz (1954; 1953; 1952); Bachman and Read (1952b); Gott and Erickson (1951, #11, 12); PRR D-243 (1951); ED-R-1138 (1953); ASO-92 (1955); D-244 (1951); ASO-66 (1955); ASO-67 (1955); USAEC files (1960); USBM files(1943)

1: 22N.16E.13
2: Le Deoux Ranch Lease (Anomaly #9, John Hays, Area F, Arturo Le Deoux)
3: 13 T22N R16E (unsurveyed) 36°5'15"N 105°13'40"W
4: Lucero 7-1/2 Elevation 7,380 ft
5: Coyote district-Mora Grant
6: U, Cu, V
7: trenches, pits, shafts
8: 11 tons ore yielding 9 lbs U_3O_8 (0.04%), 81 lbs V_2O_5
10: Pennsylvanian-Permian Sangre de Cristo Formation
11: mineralized pink arkosic sandstone
12: meta tyuyamunite, up to 0.20% U (Tschanz and others, 1954)
13: Sandstone
14: maps by Tschanz and others (1954); mined 1954 by Galisteo Mining Co.
15: Reid and others (1980a, #10); May and others (1977); Finch, W.I. (1972, #15); U.S. Atomic Energy Commission (1970, p. 91; 1966, p. 38); Tschanz and others (1958; 1954); Soulè (1956, p. 31); Zeller, H.D. and Baltz (1954; 1953; 1952); Bachman and Read (1952b); PRR ED-R-1138 (1953); DAO-O-P-41491 (1953); USAEC files (1960); USBM files (1943); MILS (1981)

1: 22N.16E.12
2: Lulu Ann (Area D)
3: 12 T22N R16E (unsurveyed) 36°6'3Ø"N 1Ø5°13'2Ø"W
4: Lucero 7-1/2 Elevation 7,54Ø ft
5: Coyote district-Mora Grant
6: U, Cu, V
7: trenches, pits, shafts
8: no production
1Ø: Pennsylvanian-Permian Sangre de Cristo Formation
11: mineralized sandstones
13: Sandstone
14: maps by Tschanz and others (1954)
15: Anderson, O.J. (198Ø); Reid and others (198Øa, #1Ø); May and others (1977); Finch (1972, #15); Tschanz and others (1958; 1954)

1: 2ØN.16E.16
2: Mora River Gap
3: 16 T2ØN R16E (unsurveyed) 35°56'35"N 1Ø5°15'5"W
4: Mora 7-1/2 Elevation 7,Ø4Ø ft
5: Mora Grant
6: U, V
7: no workings-road cut (Highway 3)
8: no production
1Ø: Pennsylvanian-Permian Sangre de Cristo Formation
11: bleached siltstone
12: 148 ppm U_3O_8, Ø.22% C (May and others, 1977)
13: Sandstone
15: Elevatorski (1979); May and others (1977, p. 21, #7)

1: 19N.23E.1
2: Sanford Ranch
3: 1 T19N R23E
4: Canyon las Cuevas 7-1/2
5: Great Plains
6: U
8: no production
1Ø: Jurassic Morrison Formation-upper member
11: radioactive carbon trash and wood zone in sandstone at shale contact
13: Sandstone
15: U.S. Atomic Energy Commission (197Ø, p. 86); PRR ASO-65 (1955)

1: 20N.24E.5
2: Sanford Ranch
3: 5 T20N R24E
4: Canyon las Cuevas 7-1/2
5: Great Plains
6: U
8: no production
10: Jurassic Morrison Formation-upper member
11: radioactive carbon trash and wood zone in sandstone at shale contact
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 86); PRR ASO-65 (1955)

1: 22N.16E.9
2: Unknown-Mora Grant (Anomaly #6)
3: 9 T22N R16E (unsurveyed) 36°8'18"N 105°14'32"W
4: Guadalupita 7-1/2 Elevation 7,900 ft
5: Coyote district-Mora Grant
6: U
7: no workings
8: no production
10: Precambrian aplite
11: slightly radioactive aplite
13: Orthomagmatic
15: U.S. Atomic Energy Commission (1966, p. 38); PRR ED-R-1135 (1953)

1: 22N.16E.1
2: William Atkins (Area A, Airbourne Anomaly)
3: 1 T22N R16E (unsurveyed) 36°8'15"N 105°13'1"W
4: Guadalupita 7-1/2 Elevation 7,700 ft
5: Coyote district-Mora Grant
6: U, Cu
7: trenches, pits, drilling
8: no uranium production
10: Pennsylvanian-Permian Sangre de Cristo Formation-upper member
11: uraniferous sandstones, siltstone, and shale beds up to 3-1/2 ft thick
12: up to 0.029% U, 0.15% Cu (Tschanz and others, 1954)
13: Shale/Sandstone
14: maps by Tschanz and others (1954)
15: Reid and others (1980a, #10); May and others (1977); Finch, W.I. (1972, #15); U.S. Atomic Energy Commission (1970, p. 92; 1966, p. 38); Tschanz and others (1958; 1954); Zeller, H.D. and Baltz (1954; 1953, 1952); Bachman and Read (1952b); USAEC files (1960); USBM files (1943); MILS (1981); PRR ASO-64 (1955)

1: 23N.18E.18.22Ø
2: Unknown-Ocate section
3: NE1/4 NE1/4 18 T23N R18E
4: Ocate 7-1/2
5: Mora Grant
6: U
7: no workings
8: no production
1Ø: Pennsylvanian-Permian Sangre de Cristo
12: 345 ppm U_3O_8
13: Sandstone
15: May and others (1977, #3)

OTERO COUNTY

Alphabetical (13 occurrences)

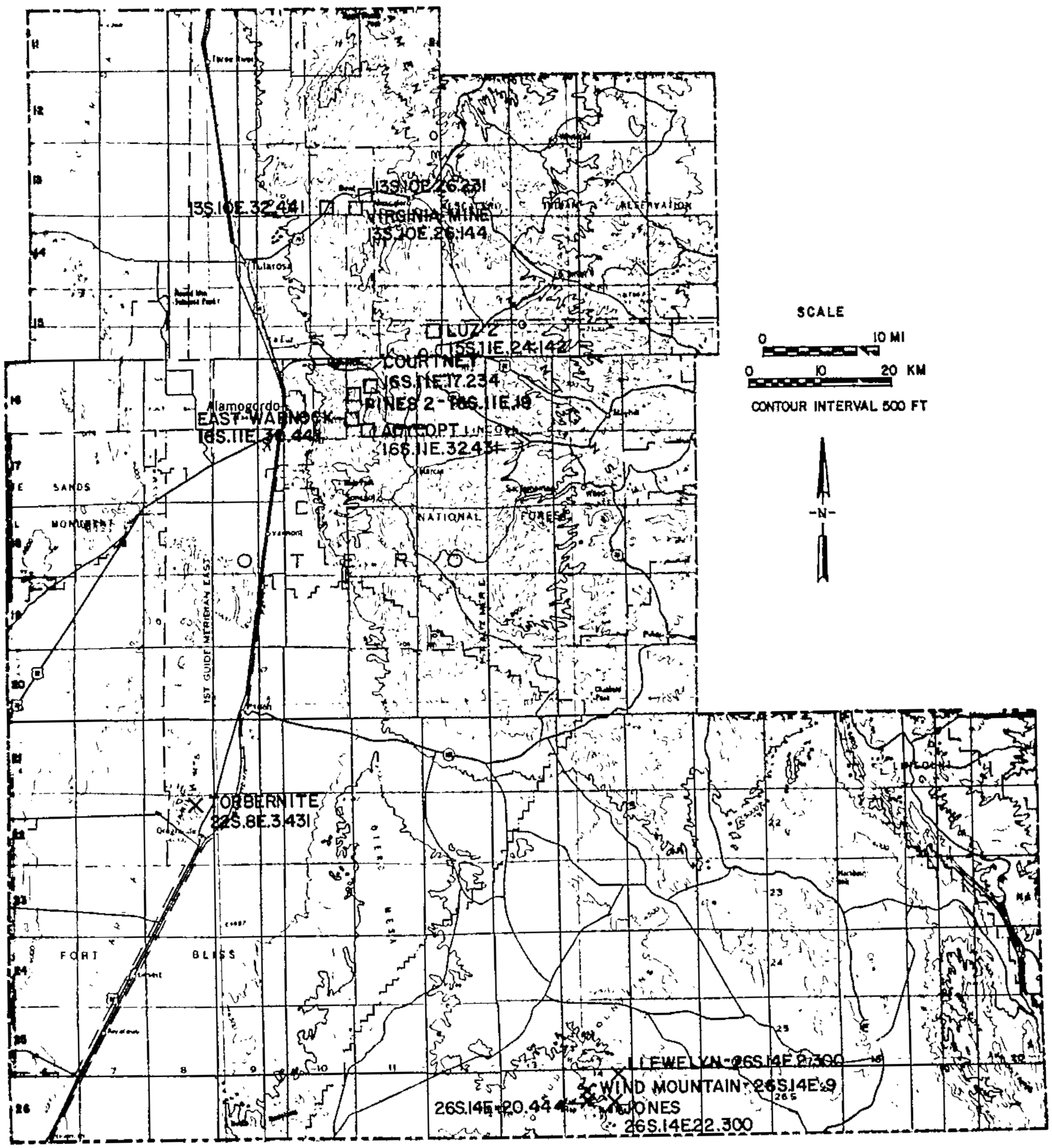
Adycopt (Ady)	16S.11E.32.431
Courtney Mine (Grandview)	16S.11E.17.234
East Warnock (Holmes Alamo Extension)	16S.11E.30.441
Jones Prospect	26S.14E.22.300
Llewellyn Prospect	26S.14E.2.300
Luz #2(?) (Red Hill area)	15S.11E.24.142
Pines No. 2 Claim	16S.11E.19
Torbernite Claim	22S.8E.3.431
Unknown-Section 26	13S.10E.26.231
Unknown-Section 32	13S.10E.32.441
Virginia Mine	13S.10E.26.144
Wind Mountain	26S.14E.9
Wind Mountain	26S.14E.20.444

Alias	Name	Number
Ady	Adycopt	16S.11E.32.431
Alamo Extension	East Warnock	16S.11E.30.441
Grandview	Courtney	16S.11E.17.234
Holmes	East Warnock	16S.11E.30.441
Red Hill area	Luz #2(?)	15S.11E.24.142

Numerical

13S.10E.26.144	Virginia Mine
13S.10E.26.231	Unknown-Section 26
13S.10E.32.441	Unknown-Section 32
15S.11E.24.142	Luz #2
16S.11E.17.234	Courtney Mine
16S.11E.19	Pines No. 2 Claim
16S.11E.30.441	East Warnock
16S.11E.32.431	Adycopt
22S.8E.3.431	Torbernite Claim
26S.14E.2.300	Llewellyn Prospect
26S.14E.9	Wind Mountain
26S.14E.9	Wind Mountain
26S.14E.22.300	Jones Prospect

FIGURE 1-21- RADIOACTIVE OCCURRENCES IN OTERO COUNTY, NEW MEXICO



1: 16S.11E.32.431
2: Adycopt (Ady)
3: SE1/4 32 T16S R11E 32°52'00"N 105°50'00"W
4: Sacramento Peak 7-1/2, Alamogordo 15 Elevation 7,450 ft
5: Sacramento district-High Rolls area
6: Cu, U
7: shaft; adits; pits; 1,800-ft adit
8: copper produced, no uranium production
9: bkgd 40-60 cps, high 250 cps
10: Permian Abo Formation
11: radioactivity associated with copper mineralization and organic debris
12: copper oxides; 0.008% U_3O_8, 0.02% Pb, 9.45% Cu (NMBMMR Chem lab, 3/17/83, #3286)
13: Sandstone-tabular
15: FN 8/5/80; Jerome and others (1965); Soulè (1956); Gibson (1952)

1: 16S.11E.17.234
2: Courtney Mine (Grandview)
3: NE1/4 17 T16S R11E 32°54'50"N 105°49'58"W
4: High Rolls 7-1/2, Alamogordo 15 Elevation 7,500 ft
5: Sacramento district-High Rolls area
6: Cu, Ag, U
7: pit, 100-ft shaft
8: 59 tons copper and silver ore produced, no uranium production
9: bkgd 40-50 cps, high 200 cps
10: Permian Abo Formation
11: radioactivity with copper mineralization and organic debris
12: copper oxides; 0.01% U_3O_8, 6.45% Cu, 0.01% Pb (NMBMMR chem lab, 3/17/83, #3289)
13: Sandstone-tabular
15: FN 8/5/80; Jerome and others (1965); Anderson, E.C. (1957); Soulè (1956); Gibson (1952); PRR RG 9-51 (1951)

1: 16S.11E.30.441
2: East Warnock (Holmes, Alamo Extension)
3: SE1/4 30 T16S R11E 32°52'55"N 105°50'55"W
4: High Rolls 7-1/2, Alamogordo 15 Elevation 7,300 ft
5: Sacramento district-High Rolls area
6: Cu, Pb, U
7: adits, cuts
8: 2,055 tons copper and lead ore produced, no uranium production
9: bkgd 50-70 cps, high 120 cps
10: Permian Abo Formation
11: radioactivity associated with copper mineralization and organic debris
13: Sandstone-tabular
14: mine map by Jerome and others (1965)
15: FN 8/5/80; Jerome and others (1965); Anderson, E.C. (1955); PRR RG-13-51 (1951)

1: 26S.14E.22.300
2: Jones Prospect
3: S1/2 22 T26S R14E
4: Cornudas Mountain 7-1/2, Alamo Mountains 15
5: Cornudas Mountains
6: U, Th, Be
7: no workings
8: no production
10: Permian Hueco Formation intruded by eudealyte-nepheline-syenite aplite dike
11: radioactive dike
13: Orthomagmatic
15: Holser (1959a); Collins (1958); Zapp (1941)

1: 26S.14E.2.300
2: Llewellyn Prospect
3: SW1/4 2 T25S R14E
4: McVeigh Hills 7-1/2
5: Cornudas Mountains
6: U, Th, Be, Nb
7: 25-ft adit
8: no production
10: Permian Hueco Formation intruded by Wind Mountain laccolith and syenite sills
11: mineralized zone along syenite sill; veins of eudealyte-nepheline-syenite
12: 0.03% U_3O_8, 0.07% Th, 0.7% Nb (Collins, 1958)
13: Hydrothermal-vein
15: Collins (1958); Zapp (1941)

1: 15S.11E.24.142
2: Luz #2 (?) (Red Hill area)
3: NW1/4 24 T15S R11E 32°59'58"N 105°49'45"W
4: High Rolls 7-1/2, Alamogordo 15 Elevation 6,500 ft
5: Sacramento district-High Rolls area
6: U, Cu, Pb
7: shallow pits
8: no production
9: bkgd 40-80 cps; high 500 cps
10: Permian Abo Formation
11: radioactivity associated with copper mineralization and organic debris
12: 0.03% U_3O_8 (NMBMMR chem lab, 10/20/80, #9608)
13: Sandstone-tabular
15: FN 8/5/80; U.S. Atomic Energy Commission (1970, p. 94); Jerome and others (1965)

1: 16S.11E.19
2: Pines No. 2 Claim
3: 19 T16S R11E 32°53'49"N 105°51'19"W
4: High Rolls 7-1/2, Alamogordo 15
5: Sacramento distict-High Rolls area
6: U, V, Cu(?)
8: no production
10: Permian Abo Formation
13: Sandstone-tabular
14: listed in MILS and State Mine Inspector's files of uranium mines in New Mexico
15: Jerome and others (1965); MILS (1981)

1: 22S.8E.3.431
2: Torbernite Claim
3: 3 T22S R8E 32°24'50"N 106°6'30"W
4: Orogrande North 7-1/2
5: Orogrande district
6: Cu, U
7: pits, adit, shallow shafts
8: no uranium production
9: bkgd 30-50 cps, high 100 cps
10: Pennsylvanian Gobbler Formation
11: thin radioactive veins of copper (turquoise) minerals
13: Hydrothermal-vein
15: FN 11/14/82; Bloom (1975); Schmidt and Craddock (1964); PRR DEB-RRA-1106 (1953); MILS (1981)

1: 13S.10E.26.231
2: Unknown-Sec. 26
3: NE1/4 26 T13S R10E 33°9'40"N 105°56'50"W
4: Cat Mountain 7-1/2, Mescalero 15 Elevation 4,975 ft
5: Tularosa district-Sacramento Mountains
6: Cu, U
7: no workings
8: no production
9: bkgd 30 cps, high 60-70 cps
10: Permian Abo Formation intruded by Tertiary diorite dike
11: radioactive zone along intrusive contact trending N60°W
13: Sandstone-red beds
15: FN 8/4/80

1: 13S.10E.32.441
2: Unknown-Sec. 32
3: SE1/4 32 T13S R10E 33°8'15"N 105°59'45"W
4: Cat Mountain 7-1/2, Mescalero 15 Elevation 4,750 ft
5: Tularosa district-Sacramento Mountains
6: Cu, U
7: adit (caved)
8: no production
9: bkgd 30-40 cps, dump 70-80 cps
10: Permian Abo Formation
13: Sandstone
15: FN 8/4/80; Soulè (1956); Baltz (1954b); Lindgren and others (1910); PRR RG-10-51 (1951);

1: 13S.10E.26.144
2: Virginia Mine
3: NW1/4 26 T13S R10E 33°9'30"N 105°50'30"W
4: Mescalero 7-1/2, Mescalero 15 Elevation 6,000 ft
5: Tularosa district-Sacramento Mountains
6: Cu, U (occurrence only)
7: adits, inclines forming large stoped cave
8: no uranium production
9: bkgd 30-40 cps, high 60 cps
10: Permian Abo Formation intruded by Tertiary diorite
12: copper oxides
13: Sandstone
14: anomalous radioactivity reported associated with copper minerals
15: FN 8/4/80; Baltz (1954)

1: 26S.14E.9
2: Wind Mountain
3: 9 T26S R14E
4: Cornudas Mountain 7-1/2
5: Cornudas Mountains
6: U, Th, Be
7: pits
8: no production
10: Permian Bone Springs Limestone intruded by a cluster of syenitic dikes
11: radioactive dikes and dikelets
12: 0.03% Th (Collins, 1958); 0.008% BeO (Warner and others, 1956)
13: Orthomagmatic
15: Collins (1958); Warner and others (1956); Slaughter and Clabough (1945, p. 16); Zapp (1941)

1: 26S.14E.20.444
2: Wind Mountain
3: SE1/4 20 T26S R14E
4: Cornudas Mountain 7-1/2, Alamo Mountain 15
5: Cornudas Mountains
6: U, Th, Be
7: pits
8: no production
10: Permian Hueco Formation intruded by nepheline-syenite dikes
13: Orthomagmatic/Hydrothermal-vein
15: Holser (1959a)

Alphabetical (29 occurrences)

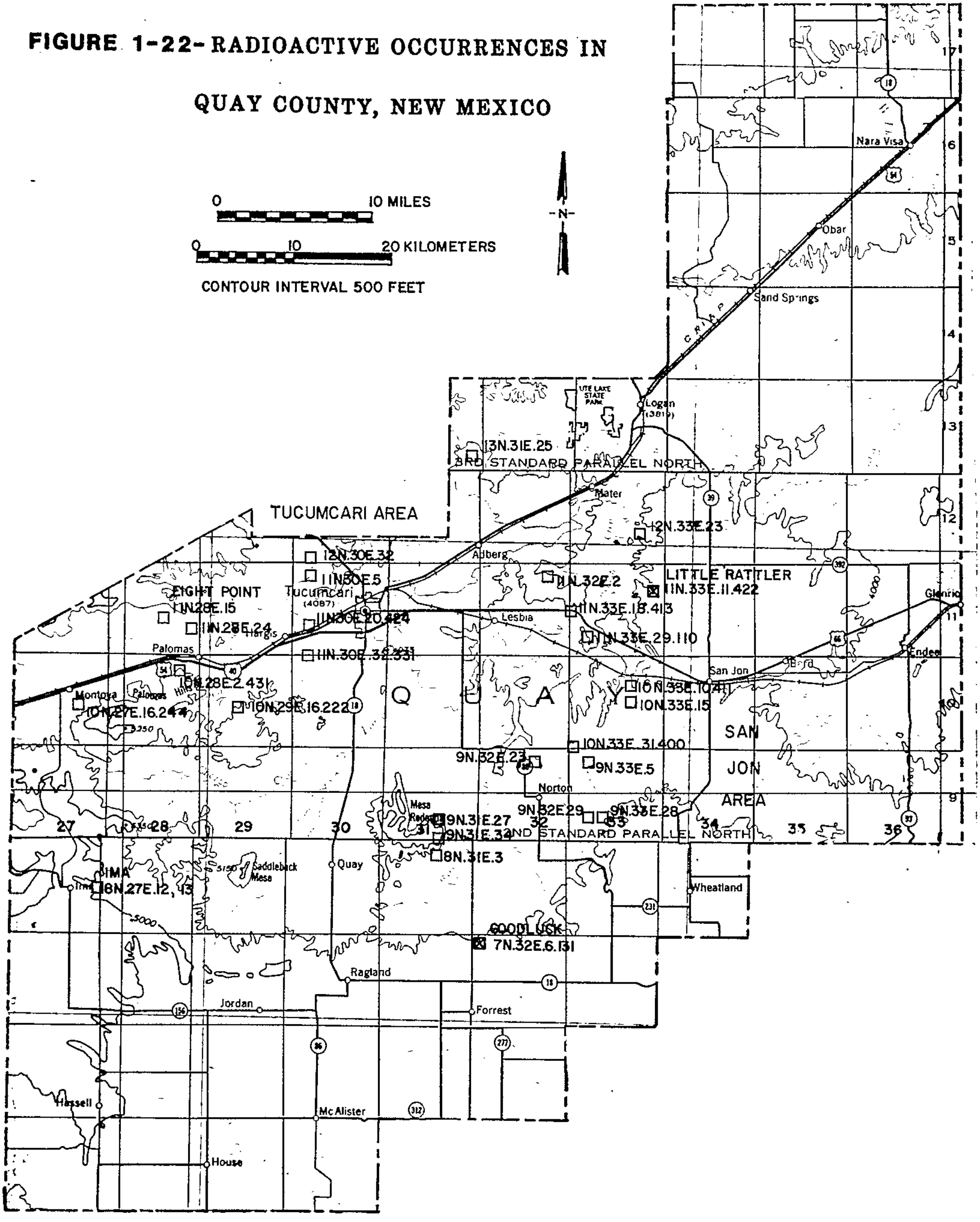
Airbourne Anomaly No. 1	13N.31E.25.21Ø
Airbourne Anomaly No. 2	13N.31E.25.24Ø
Airbourne Anomaly No. 3	11N.3ØE.32.331
Airbourne Anomaly No. 4	1ØN.29E.16.222
Anomaly	1ØN.33E.1Ø.411
Airbourne Anomaly No. 5	1ØN.33E.15.411
Airbourne Anomaly No. 6	1ØN.33E.15.23Ø
Beasley Brothers	1ØN.27E.16.244
Bel Aro	11N.28E.24
Breen Prospect	11N.3ØE.5
Eight Point (8 point)	11N.28E.15
Fife Prospects	8N.31E.3
J.R. Fife	9N.31E.27
J.R. Fife (Edgemont Mining Corp.)	9N.31E.34
Gilstrap and Trusdal Claim	11N.33E.29.11Ø
Good Luck	7N.32E.6.131
Ima Lode Claims	8N.27E.12,13
Little Rattler	11N.33E.11.422
Payne Claims	11N.33E.18.413
Red Peak Mining Co.	9N.33E.28
Richardson Ranch	1ØN.28E.2.431
Frank Smith	12N.33E.23
Strawn Prospect	12N.3ØE.32
Troutman Ranch	11N.32E.2
Unknown	11N.3ØE.2Ø.424
Wallace Lease	9N.33E.29
Wallace Lease	1ØN.33E.31.4ØØ
Wallace Ranch, north	9N.33E.5
William Wallace	9N.32E.2,3

Alias	Name	Number
Anomaly #7	Richardson Ranch	1ØN.28E.2.431
Anomaly #9	Airbourne Anomaly No. 3	11N.3ØE.32.331
Bell Brown	Breen Prospect	11N.3ØE.5
Ben and Goldie Bell Ranch	Bel Aro	11N.28E.24
Bill Wallace	Wallace Ranch	9N.33E.5
Edgemont Mining	Good Luck	7N.32E.6.131
Edgemont Mining Corp.	J.R. Fife	9N.31E.34
Gopher #1, 2	Good Luck	7N.32E.6.131
Guy Troutman Ranch	Troutman Ranch	11N.32E.2
L.C. Strawn	Strawn Prospect	12N.3ØE.32
Little Rattlesnake Co.	Little Rattler	11N.33E.11.422
Lucky Find #15	Anomaly No. 6	1ØN.33E.15.23Ø
Lucky Group	Good Luck	7N.32E.6.131
Moreland and Cloverweiden	Airbourne Anomaly No. 6	1ØN.33E.15.23Ø
Rattlesnake No. 1	Breen Prospect	11N.3ØE.5
Reel Peak Area	Wallace Lease	9N.33E.29
Section 11 and 12	Little Rattler	11N.33E.11.422
Smith Ranch	Frank Smith	12N.33E.23
Wallace Ranch	Red Peak Mining Co.	9N.33E.28
Yutes Ranch	Good Luck	7N.32E.6.131

Numerical

7N.32E.6.131	Good Luck
8N.27E.12,13	Ima Lode Claims #1-6
8N.31E.3	Fife Prospects
9N.31E.27	J.R. Fife
9N.31E.34	J.R. Fife (Edgemont Mining Corp.)
9N.32E.2,3	William Wallace
9N.33E.5	Wallace Ranch, north
9N.33E.28	Red Peak Mining Co.
9N.33E.29	Wallace Lease
1ØN.27E.16.244	Beasley Brothers
1ØN.28E.2.431	Richardson Ranch
1ØN.29E.16.222	Airbourne Anomaly No. 4
1ØN.33E.1Ø.411	Anomaly
1ØN.33E.15.23Ø	Anomaly No. 6
1ØN.33E.15.411	Anomaly No. 5
1ØN.33E.31.4ØØ	Wallace Lease
11N.28E.15	Eight Point (8 point)
11N.28E.24	Bel Aro
11N.3ØE.5	Breen Prospect
11N.3ØE.2Ø.424	Unknown-Tucumcari
11N.3ØE.32.331	Airbourne Anomaly No. 3
11N.32E.2	Troutman Ranch
11N.33E.11.422	Little Rattler
11N.33E.18.413	Payne Claims
11N.33E.29.11Ø	Gilstrap and Trusdal Claim
12N.3ØE.32	Strawn Prospect
12N.33E.23	Frank Smith
13N.31E.25.21Ø	Airbourne Anomaly No. 1
13N.31E.25.24Ø	Airbourne Anomaly No. 2

FIGURE 1-22- RADIOACTIVE OCCURRENCES IN QUAY COUNTY, NEW MEXICO



QUAY COUNTY

1: 13N.31E.25.21Ø
2: Airbourne Anomaly No. 1
3: NE1/4 25 T13N R31E
4: Hudson 7-1/2
5: Great Plains-Tucumcari area
6: U, V
7: no workings
8: no production
1Ø: Triassic Chinle Formation-middle member
11: associated with carbonaceous trash
12: Ø.Ø4% U_3O_8
13: Sandstone
15: Finch, W.I. (1972, #25); U.S. Atomic Energy Commission (197Ø, p. 115); PRR R-DEB-P-4-2356 (1954)

1: 13N.31E.25.24Ø
2: Airbourne Anomaly No. 2
3: NE1/4 25 T13N R31E
4: Hudson 7-1/2
5: Great Plains-Tucumcari area
6: U, V
7: no workings
8: no production
1Ø: Triassic Chinle Formation-middle member
12: Ø.Ø2% U_3O_8
13: Sandstone
15: Finch, W.I. (1972); U.S. Atomic Energy Commission (197Ø, p. 116); PRR-R-DEB-P-4-2357 (1954)

1: 11N.3ØE.32.331
2: Airbourne Anomaly No. 3 (Anomaly #9)
3: SW1/4 32 T11N R3ØE 35°7'5Ø"N 1Ø3°47'25"W
4: Liberty Mesa 7-1/2
5: Great Plains-Tucumcari area
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-middle member
13: Sandstone
15: U.S. Atomic Energy Commission (197Ø, p. 117); PRR ED-R-1158 (1953)

1: 1ØN.29E.16.222
2: Airbourne Anomaly No. 4
3: NE1/4 16 T1ØN R29E 35°5'55"N 1Ø3°51'45"W
4: Briscoe Ranch 7-1/2
5: Great Plains-Tucumcari area
6: U, V
8: no production
1Ø: Jurassic Morrison Formation
13: Shale/Sandstone
15: U.S. Atomic Energy Commission (197Ø, p. 118)

1: 1ØN.33E.15.411
2: Anomaly No. 5
3: SE1/4 15 T1ØN R33E 35°5'3Ø"N 1Ø3°25'4Ø"W
4: Bedford Hill 7-1/2
5: Great Plains-San Jon area
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation
12: Ø.Ø4-Ø.1Ø% U_3O_8
13: Sandstone
15: U.S. Atomic Energy Commission (197Ø, p. 114; 1966, p. 57)

1: 1ØN.33E.15.23Ø
2: Anomaly No. 6 (Lucky Find #15, Moreland and Cloverweiden)
3: NE1/4 15 T1ØN R33E
4: Bedford Hills 7-1/2
5: Great Plains-San Jon area
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation
12: yellow uranium minerals
13: Sandstone
15: Finch, W.I. (1972, #2Ø); U.S. Atomic Energy Commission 197Ø, p. 111-113)

1: 1ØN.33E.1Ø.411
2: Anomaly
3: C 1Ø T1ØN R33E
4: Bedford Hill 7-1/2
5: Great Plains-San Jon area
6: U
8: no production
1Ø: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 57)

1: 10N.27E.16.244
2: Beasley Brothers
3: E1/2 16 T10N R27E 35°5'37"N 104°4'18"W
4: Montoya 7-1/2 Elevation 4,360 ft
5: Great Plains-Tucumcari area
6: U
7: no workings - road cut
8: no production
9: 4 times background (Reid and others, 1980b)
10: Triassic Chinle Formation-lower member
11: mineralized zones in carbonaceous fine-grained arenite
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #41); U.S. Atomic Energy Commission (1970, p. 100-101)

1: 11N.28E.24
2: Bel Aro (Ben and Goldie Bell Ranch)
3: 24 T11N R28E
4: Cow Canyon 7-1/2
5: Great Plains-Tucumcari area
6: U
7: open pit
8: 30 tons of siliceous uraniferous logs reportedly produced (Finch, 1972), but not confirmed by USAEC records
10: Jurassic Morrison Formation-basal member
11: minerlized channel sandstone
12: yellow uranium minerals
13: Sandstone
14: geologic map by Griggs (1955)
15: Finch, W.I. (1972, #28); Foster and others (1970, p. 36); U.S. Atomic Energy Commission (1970, p. 102-103); Griggs (1955, p. 195)

1: 11N.30E.5
2: Breen prospect (Rattlesnake #1, Bill Brown)
3: 5 T11N R30E
4: Liberty Mesa 7-1/2
5: Great Plains-Tucumcari area
6: U, V
8: no production
10: Jurassic Morrison Formation-middle member
11: radioactive bone and wood fossils
12: 0.04% U_3O_8 (Finch, 1972)
13: Sandstone
15: Finch, W.I. (1972, #26); PRR DEB-RRA-1422 (1954)

1: 11N.28E.15
2: Eight Point (8 Point)
3: 15 T11N R28E
4: Cow Canyon 7-1/2
5: Great Plains-Tucumcari area
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-basal member
11: radioactive green shale with carbonaceous trash
13: Shale/Sandstone
15: Finch, W.I. (1972, #28); U.S. Atomic Energy Commission (1970, p. 104)

1: 8N.31E.3
2: Fife Prospects
3: 3 T8N R31E
4: Mesa Redonda 7-1/2
5: Great Plains-Tucumcari area
6: U
8: no production
10: Triassic Redonda Formation
11: mineralized pale yellowish-green, calcareous sandstone
12: 0.001% U_3O_8 (Finch, 1972)
13: Sandstone
15: Finch, W.I. (1972, #17)

1: 9N.31E.27
2: J.R. Fife
3: 27 T9N R31E
4: Mesa Redonda 7-1/2
5: Great Plains-Tucumcari area
6: U
8: no production
10: Triassic Redonda Formation
13: Sandstone
14: PRR gives incorrect location
15: Finch, W.I. (1972, p. 14); U.S. Atomic Energy Commission (1970, p. 96-97)

1: 9N.31E.34
2: J.R. Fife (Edgemont Mining Corp.)
3: 34 T9N R31E
4: Mesa Redonda 7-1/2
5: Great Plains-Tucumcari area
6: U
8: no production
10: Triassic Redonda Formation
12: carnotite
13: Sandstone
15: Finch, W.I. (1972, p. 14); U.S. Atomic Energy Commission (1970, p. 96-97)

1: 11N.33E.29.110
2: Gilstrap and Trusdel Claim
3: NW1/4 29 T11N R33E
4: San Jon NW 7-1/2
5: Great Plains-San Jon area
6: U
7: several prospect pits
8: no production
10: Triassic Chinle Formation-middle member
11: mineralized conglomeratic sandstone
13: Sandstone
15: Finch, W.I. (1972, #23); PRR DEB-RRA-1435 (1954)

1: 7N.32E.6.131
2: Good Luck (Edgemont Mining, Lucky Group, Yates Ranch, Gopher #1, 2)
3: NW1/4 6 T7N R32E, NE1/4 1 T7N R31E 34°51'55"N 103°36'5"W
4: Forrest 7-1/2 Elevation 4,350 ft
5: Great Plains-Forrest area
6: U, V
7: trench cut
8: 24 tons ore yielding 50 lbs U_3O_8 (0.10%); 38 lbs V_2O_5 (0.12%)
10: Triassic Chinle Formation-middle member
11: uranium mineralization at base of gray conglomerate
13: Sandstone
14: mined 1955, 1957; one shipment of 8 tons ore assayed 0.22% U_3O_8; the other shipment of 16 tons ore assayed 0.04% U_3O_8 (no pay ore); State land; geologic map by Griggs (1955)
15: Anderson, O.J. (1980); Dickinson and others (1977, #22); Finch, W.I. (1972, #16); U.S. Atomic Energy Commission (1970, p. 110); Foster and others (1970, p. 36); Griggs (1955, p. 193); PRR-ASO-74 (1955); MILS (1981); USAEC files (1960)

1: 8N.27E.12, 13
2: Ima Lode Claims #1-6
3: 12, 13 T8N R27E
4: Ima 7-1/2
5: Great Plains-Tucumcari area
6: U
7: no workings
8: no production
10: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 105); PRR unnumbered (1957)

1: 11N.33E.11.422
2: Little Rattler (Section 11 and 12, Little Ratlesnake Co.)
3: C W1/2 W1/2 12, C E1/2 E1/2 11 (line) T11N R33E 35°11'35"N 103°24'8"W
4: San Jon NW 7-1/2 Elevation 3,930 ft
5: Great Plains-San Jon area
6: U, V
7: open cut and pits
8: 59 tons ore yielding 41 lbs U_3O_8 (0.03%); 44 lbs V_2O_5
10: Triassic Chinle Formation-middle member
13: Sandstone
14: mined 1955-1956 by Rattler Uranium Co.; 1958 by Highland Dev. Co., Inc.
15: Anderson, O.J. (1980); Finch, W.I. (1972, #21); PRR DEB-F-4-1458 (1955); USAEC files (1960); MILS (1981); CRIB (1976)

1: 11N.33E.18.413
2: Payne claims
3: NW1/4 SE1/4 S1/2 18 T11N R33E
4: San Jon NW 7-1/2
5: Great Plains-San Jon area
6: U
8: no production
10: Triassic Chinle Formation-middle member
13: Sandstone
14: incorrect location given in PRR
15: Finch, W.I. (1972, #23); U.S. Atomic Energy Commission (1970, p. 98-99); PRR ASO-40 (1955)

1: 9N.33E.28
2: Red Peak Mining Co. (Wallace Ranch)
3: W1/2 28 T9N R33E
4: Apache Canyon 7-1/2
5: Great Plains-San Jon area
6: U, Cu, V
8: no production
10: Triassic Chinle Formation-upper member
11: mineralized nodules in shale and sandstone
12: torbernite, 0.12% U_3O_8, 10% Cu, 0.07% V, 0.003% Ag, 1.5% As, 0.003% Se (Finch, 1972)
13: Sandstone
15: Finch, W.I. (1972, #18); PRR DEB-RRA-574 (1953); USAEC files (1960)

1: 10N.28E.2.431
2: Richardson Ranch (Anomaly #7)
3: 2 T10N R28E 35°7'5"N 103°56'15"W
4: Quemado Hills 7-1/2
5: Great Plains-Tucumcari area
6: U
8: no production
10: Jurassic Morrison Formation-upper member
11: radioactive fossil logs
12: carnotite
13: Sandstone
15: Finch, W.I. (1972a, #27); U.S. Atomic Energy Commission (1970, p. 109; 1966a, p. 62)

1: 12N.33E.23
2: Frank Smith (Smith Ranch)
3: 23 T12N R33E
4: San Jon NW 7-1/2, Logan 15
5: Great Plains-San Jon area
6: U
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: Finch, W.I. (1972, #22); U.S. Atomic Energy Commission (1970, p. 108)

1: 12N.30E.32
2: Strawn Prospect (L.C. Strawn)
3: E1/2 32 T12N R30E
4: Liberty Mesa 7-1/2
5: Great Plains-Tucumcari area
6: U
7: bulldozer cut
8: no production
10: Jurassic Morrison Formation-middle member
13: Sandstone
15: Finch, W.I. (1972, #26); PRR DEB-RRA-1436 (1954)

1: 11N.32E.2
2: Troutman Ranch (Guy Troutman Ranch)
3: E1/2 2 T11N R32E
4: Lesbia 7-1/2
5: Great Plains-Tucumcari area
6: U
7: several prospect pits
8: no production
10: Triassic Chinle Formation-middle member
11: roll-like body of disseminated uranium
12: 0.06% U_3O_8
13: Sandstone
15: Finch, W.I. (1972, #24); PRR-DEB-RRA-1426 (1954)

1: 11N.30E.20.424
2: Unknown-Tucumcari
3: 20 T11N R30E 35°9'45"N 103°46'25"W
4: Liberty Mesa 7-1/2
5: Great Plains-Tucumcari area
6: U(?), gravel
7: pits
8: no production
10: Recent gravel deposits
13: Sandstone
14: 3 times background radioactivity reported; suggested due to fallout from nuclear test
15: U.S. Atomic Energy Commission (1970, p. 107)

1: 9N.33E.29
2: Wallace Lease (Red Peak area)
3: E1/2 29 T9N R33E
4: Apache Canyon 7-1/2
5: Great Plains-San Jon area
6: U, Cu, V
7: shaft
8: no uranium production
10: Triassic Chinle Formation-upper member
12: 0.153% U_3O_8, 1.35% V_2O_5
13: Sandstone
15: USAEC files (1954)

1: 1ØN.33E.31.4ØØ
2: Wallace Lease-Boulder #1Ø
3: SE1/4 31 T1ØN R33E
4: Bedford Hills 7-1/2
5: Great Plains-San Jon area
6: U
8: no production
1Ø: Triassic Chinle Formation(?)
13: Sandstone
15: USAEC files (1954)

1: 9N.33E.5
2: Wallace Ranch-north (Bill Wallace)
3: E1/2 5 T9N R33E
4: Bedford Hill 7-1/2
5: Great Plains-San Jon area
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation-middle member
13: Sandstoe
15: Finch, W.I. (1972, #19); PRR DEB-582 (1953)

1: 9N.32E.2, 3
2: William Wallace
3: 2, 3 T9N R32E
4: Tucumcari SE 7-1/2
5: Great Plains-Tucumcari area
6: U, Cu, V
8: no production
1Ø: Triassic Chinle Formation
12: Ø.Ø9% U_3O_8, Ø.Ø3% V_2O_5
13: Sandstone
15: PRR ED-R-1159 (1953)

Alphabetical (148 occurrences)

Abbey Group	25N.2E.19,30
Airbourne Anomaly No. 1	28N.1E.3.311
Airbourne Anomaly No. 2	28N.1E.3.323
Airbourne Anomaly No. 3	27N.1E.2.420
Alamos	26N.8E.25.312
Alex #3, 5, and 8	22N.3E.22.200
Alex #51, 52	25N.3E.31.133
Alma	27N.8E.26.144
Alto	26N.8E.25.112
Anomaly No. 1	24N.3E.19.300
Anomaly NA-17	24N.1W.36.222
Anomaly #15	25N.9E.3.413
Anomaly #19	25N.7E.5,6
Apache	26N.8E.12.123
Baird	21N.2E.15.200
Bluebird	26N.9E.7.232
Box Canyon	23N.4E.28.224
Buena Vista	27N.8E.11.332
Canary Bird	17N.8E.25.312
Capitan	26N.9E.18.332
Carbon and Log	25N.1W.11.220
Carmelita	26N.8E.36.233
Cebolla No. 2	26N.2E.27.242
Commanche	25N.5E.34.330
Conquistador	26N.8E.1.322
Consolation	26N.8E.1.221
Copper City Group	21N.1E.27
Coy C. Claims	25N.1E.30.320
Coyote Hill	22N.3E.8.121
Cribenville	26N.9E.18.331
Doe Group	24N.5E.1
E and B No. 1	23N.1E.29.144
El Camino	26N.9E.6.143
El C-B and Maxine Groups	25N.2E.7.421
El Contento	27N.8E.36.323
El Floto	26N.9E.30.342
Erma	21N.2E.14.441
Eureka	27N.8E.24.344
Eureka Mine	21N.1E.32.200
Fridlund	26N.8E.18.113
Gabalon	26N.9E.18.110
Gallina	23N.1E.32.114
George and Fido Claims	27N.5E
Globe	26N.8E.36.221
Guadalupe	26N.8E.36.314
Heart No. 3	26N.2E.26.343
Herrera	22N.3E.5.341
Hillside	26N.8E.25.120
Hornet	25N.5E.20.100
Horny Toad	25N.5E.32.114
Jaramillo-Montoya	22N.4E.4.100
Jarosa Prospects	21N.2E.12.411
J.C. Roybal	23N.5E.17.200
Joe	21N.2E.1.143
J.O.L.	28N.7E.24.140
Joseph	24N.8E.11.442
Keystone-Western	26N.8E.1.432
Kiawa, South Kiawa	27N.8E.11.311
La Jarita	27N.8E.25.334
Las Minas de Pedro	24N.6E.19.322
La Paloma	26N.9E.30.211
Little Julia	26N.8E.24.130
Lola	22N.2E.34.300
Lonesome	27N.8E.26.332
Lucky Dog No. 1	25N.5E.32.121
Lucky Seven Claim	26N.8E.25,26
Lucky Strike	22N.2E.1.223
Manuel Berella	23N.2E.36
Mary #1 and #2	27N.8E.36.444
Master #1	27N.8E.24.230
Master #5	27N.9E.19.330
Max Jacque and Yellow Bird #2	23N.1E.30.141
Meadow	27N.8E.25.130
Mesa Alta	23N.3E.19.122
Midcontinent #1	22N.3E.10
Miller Group	26N.9E.6.110
Mining Mountains Claim	21N.2E.31.233
Mining Mountains Claim	21N.2E.33.123
Mining Mountains Claim	21N.2E.34.123
Moran, Sawyer and McLind Claims	28N.7E.24.320
Nambe	26N.9E.18.334
North Star	27N.9E.31.333
O'Brien No. 1	23N.1E.28.411
Pajarito Azul	23N.1E.31.120
Paradise	23N.1E.32.300
Phillips Drilling Area	28N.7E.24.211
Pineapple	26N.9E.30.233
Pino Verde	26N.9E.18.133
Pivot Rock	24N.3E.4.310
Poso Springs	26N.2E.30.200
Princess Claims	26N.1W.33.330
RA #1	21N.2E.11.144
RA #2	21N.2E.11
Rancho AAA	27N.8E.10.422
Red	26N.8E.25.444
Red Head Claims	22N.3E.8.214
Red Head #2	22N.3E.8.232
Resurrection	23N.3E.31.332
Rey and Lou Claims	22N.3E.27.210
St. Joseph	26N.8E.1.122
St. Jude	21N.2E.11.424
Sandoval	26N.8E.12.121
Section 10	25N.5E.10.100,200
Section 12	21N.2E.12.143
Silver Plate	26N.8E.11.212
Silver Spur	27N.8E.25.222
Star Mine	24N.8E.12.341
State Lease	23N.1W.16.340
Sunnyside	26N.8E.25.323
Teakettle Rock	21N.2E.14.424
TJ BD #1	23N.1E.29.340
Trejo and Sanches No. 1	24N.6E.30.433
Tusas East Slope #5	28N.7E.24.224
Unnamed	21N.2E.14.200
Unknown	21N.2E.15.100
Unknown	21N.2E.22
Unknown	21N.2E.23.100
Unknown	23N.2E.31.300
Unknown	23N.2W.15
Unknown	24N.8E.11.121
Unnamed	24N.8E.12.343
Unknown-Section 3	25N.5E.3.200
Unknown-Section 4	25N.5E.4.344
Unknown-Section 4	25N.5E.4.420
Unknown-Section 8	25N.5E.8.200
Unknown	26N.4E.29.444
Unknown	27N.7E.24.124
Unknown	27N.7E.24.242
Unknown	27N.8E.11.141
Unknown	28N.7E.13.333
Unknown	28N.7E.13.433
Unknown	28N.7E.14.442
Unknown	28N.7E.23.222
Unknown shaft	28N.7E.23.241
Unknown	28N.7E.24.222
Unknown	28N.7E.24.223
Unknown	28N.7E.24.241
Unknown	28N.7E.24.422
Unknown	28N.8E.19.111
Unknown	28N.8E.20.331
Vargas-Jaramillo	25N.8E.11.432
Vestguard	27N.8E.24.143
White	26N.8E.25.212
White Flo #1	23N.1E.19.333
Williams Hill	26N.7E.4.314
Williamson Claim	23N.2E.22
Wyoming	26N.8E.1.411
Young Prospect	25N.1W.19

Alias	Name	Number
Abiquiu	Las Minas de Pedro	24N.6E.19.322
Abby	Abbey Group	25N.2E.19,30
Ajax	Cribenville	26N.9E.18.331
Alamos	Alto	26N.8E.25.112
Apache No. 2	Apache	26N.8E.12.123
Apache No. 2	Sandoval	26N.8E.12.121
Apex #3, 5, and 8	Alex #3, 5, and 8	22N.3E.22.200
Arroyo del Agua	Red Head Claims	22N.3E.8.214
Augusta	Conquistador	26N.8E.1.322
Beryl?	Lonesome	27N.8E.36.332
B Group	E and B No. 1	23N.1E.29.144
Blackhorse #3	Resurrection	23N.3E.31.332
Blowout	Apache	26N.8E.12.123
Blue Eagle No. 1	Fridlund	26N.8E.18.113
Bridges	Coyote Hill	22N.3E.8.121
Chama Basin	Anomaly No. 1	24N.3E.19.300
Collins Claim	Heart No. 3	26N.2E.26.343
Cooperative Mine	Mary #1 and #2	27N.8E.36.444
Cooperative	North Star	27N.9E.31.333
Coral #3 Claim	White Flo #1	23N.1E.19.333
Coyote Hill #1	Red Head #2	22N.3E.8.232
Desert Treasure Inc.	Abby Group	25N.2E.19,30
Dianne #1	William Hill	26N.7E.4.31
Discovery Pit #1	Unknown	28N.2E.23.222
E and B No. 3	E and B No. 1	23N.1E.29.144
El C-13	El C-B and Maxine Groups	25N.2E.7.421
El Capitan	Cribenville	26N.9E.18.331
Emma	Teakettle	21N.2E.14.424
Erma	Unknown	21N.2E.23.100
Etter	Miller Group	26N.9E.6.110
Francis #2	White	26N.8E.25.212
Gallina	Paradise	23N.1E.32.300
Gavilon	Gabilon	26N.9E.18.110
Green Peak	Rancho AAA	27N.8E.10.422
Hillfoot	Red Head #2	22N.3E.8.232
Hillfoot #1	Coyote Hill	22N.3E.8.121
Hoyt-Seward	Silver Spur	27N.8E.25.222
Jicarilla Reservation	Airbourne Anomaly No. 1	28N.1E.3.311
Jicarilla Reservation	Airbourne Anomaly No. 2	28N.1E.3.323
Jicarilla Reservation	Airbourne Anomaly No. 3	27N.1E.2.420
Joseph Mike Prospect	Joseph	24N.8E.11.442
Kentucky	Sandoval	26N.8E.12.121
La Blanca	White	26N.8E.25.212
La Reina	Pajarito Azul	23N.1E.31.120
Las Minas Jimmie	Trejo and Sancho No. 1	24N.6E.30.433
Lee Williamson	Williamson Claim	25N.2E.22
Little Prospect	State Lease	23N.1W.16.340
Loma	Eureka	27N.8E.24.340
Luna	Pino Verde	26N.9E.18.133
Lyons	White	26N.8E.25.212
Martinez	Section 10	25N.5E.10.100,200
MFQ-184	Unknown	28N.7E.23.222
MFQ-187	Unknown	28N.7E.13.333
MFQ-189	Unknown	28N.7E.14.442
MFQ-190	Unknown	27N.7E.24.124
MFQ-194	Unknown	28N.7E.13.433
MFQ-195	Unknown	28N.7E.13.433
MFQ-196	Phillips Drilling Area	28N.7E.24.211
MFQ-197	Phillips Drilling Area	28N.7E.24.211
MFQ-198	Unknown	28N.7E.24.223
MFQ-199	Unknown	28N.7E.24.241
MFQ-801	J.O.L.	28N.7E.24.140

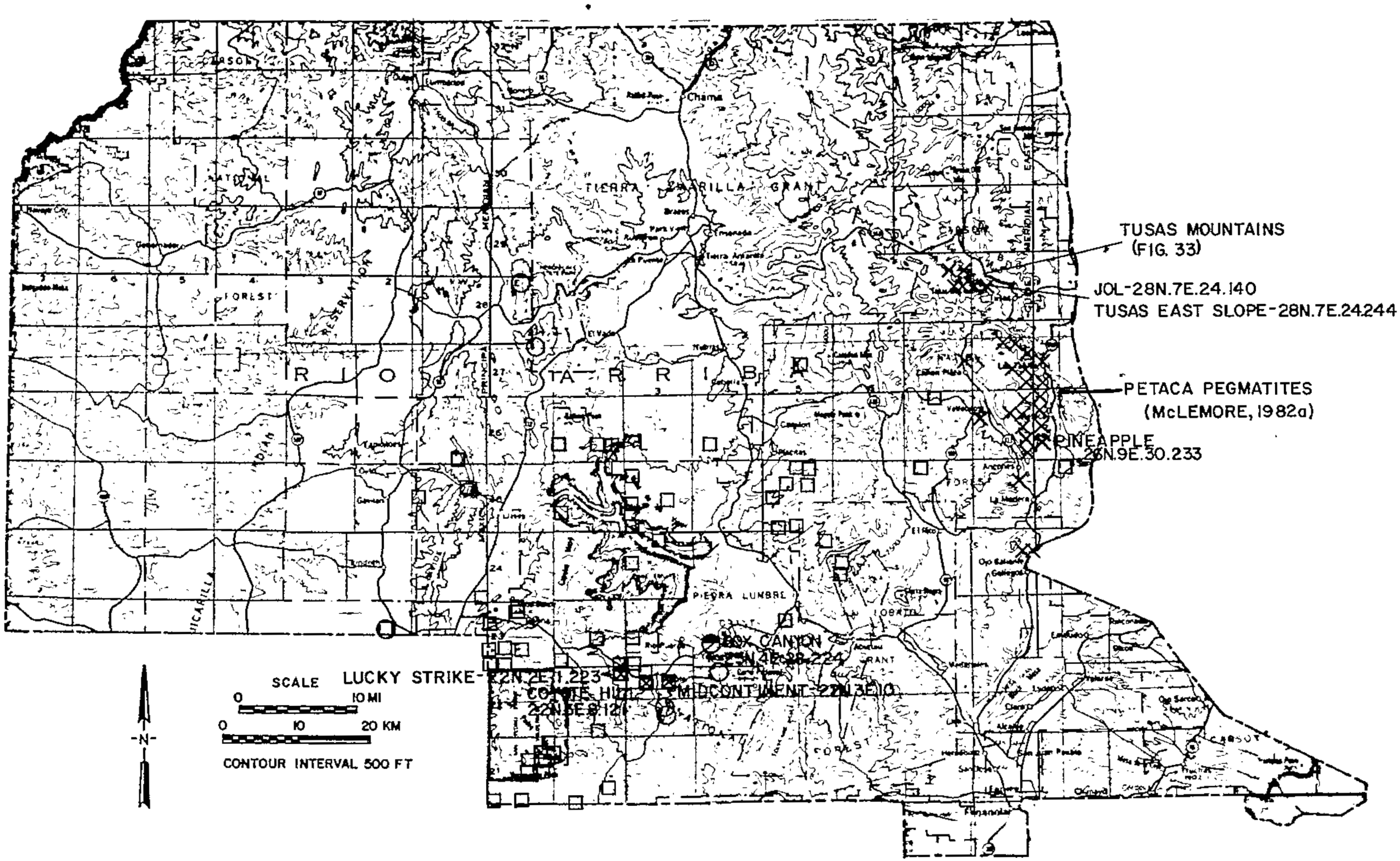
Alias	Name	Number
MFQ-802	J.O.L.	28N.7E.24.140
MFQ-803	J.O.L.	28N.7E.24.140
MFQ-804	Unknown Shaft	28N.7E.23.241
MFQ-805	Unknown	27N.7E.24.242
MFQ-806	Unknown	28N.7E.24.222
MFQ-807	Unknown	28N.7E.24.222
MFQ-808	Unknown	28N.8E.20.331
MFQ-809	Unknown	28N.8E.20.331
MFQ-811	Unknown	28N.8E.19.111
Mica Lode	Consolation	26N.8E.1.221
Microblue	Vestguard	27N.8E.24.143
Miller Group	El Camino	26N.9E.6.143
Miller Group	North Star	27N.9E.31.333
MIR 042	Unknown	28N.7E.13.333
MIR 043	Unknown	28N.7E.13.433
MIR 046	Unknown	27N.8E.11.141
Moran	Tusas East Slope #5	28N.7E.24.224
Morton/Powell	Lucky Dog No. 1	25N.5E.32.121
Nacimiento Mine	Eureka Mine	21N.1E.32.200
New Cribenville	Cribenville	26N.9E.18.331
No. 6	Unnamed	24N.8E.11.121
No. 8	Unnamed	24N.8E.12.343
Old Eureka	Silver Spur	27N.8E.25.222
Onego	Lucky Dog No. 1	25N.5E.32.121
Pajaro Azul	Pajarito Azul	23N.1E.31.120
Pajaro Colorado	Pajarito Azul	23N.1E.31.120
Parker	Alamosa	26N.8E.25.312
Parker	Rancho AAA	27N.8E.10.422
Peacock	Red	26N.8E.25.444
Porter	Apache	26N.8E.12.123
Prospect No. 2	Unknown	28N.7E.13.333
Prospect Pit No. 3	Unknown	28N.7E.24.422
Redbird adit	Red Head No. 2	22N.3E.8.232
Reynolds Electrical and Eng. Corp.	Rey and Lou Claims	22N.3E.27.210
Romney Shaft	La Paloma	26N.9E.30.211
Rough and Ready	Tusas East Slope	28N.7E.24.224
Royal	J.O.L.	28N.7E.24.140
Section 32	Gallina	23N.1E.32.114
Sefrina	Gallina	23N.1E.32.114
Sefrina	Paradise	23N.1E.32.300
Serrano	Coyote Hill	22N.3E.8.121
Stinking Lake	Airbourne Anomaly No. 1	28N.1E.3.311
Stinking Lake	Airbourne Anomaly No. 2	28N.1E.3.323
St. Jude	Unknown	21N.2E.15.100
Tinney #2	Red Head #2	22N.3E.8.232
Trujillo Property	Herrera	22N.3E.5.341
Turkey Track	Nambe	26N.9E.18.334
Tusas	Tusas East Slope #5	28N.7E.24.224
Unknown	Gallina	23N.1E.32.114
Unknown	Mining Mountain Claims	21N.2E.34.123
Unknown	St. Jude	21N.2E.114.424
Unnamed	Anomaly NA-17	24N.1W.36.222
Unnamed	Teakettle Rock	21N.2E.14.424
Vallelitos	William Hill	26N.7E.4.314
Washburn	Rancho AAA	27N.8E.10.422
Wasson	Box Canyon	23N.4E.28.224
Welch and Royal	Tusas East Slope #5	28N.7E.24.224
Werner	Miller Group	26N.9E.6.110
White Flow #1	White Flo #1	23N.1E.19.333
Wilmeth	Rancho AAA	27N.8E.10.422
Z.O. Young	Coy C. Claims	25N.1E.30.320

Numerical

17N.8E.25.312	Canary Bird
21N.1E.27	Copper City
21N.1E.32.200	Eureka Mine
21N.2E.1.143	Joe
21N.2E.11	RA #2
21N.2E.11.144	RA #1
21N.2E.11.424	St. Jude
21N.2E.12.143	Section 12
21N.2E.12.411	Jarosa Prospects
21N.2E.14.200	Unnamed
21N.2E.14.424	Teakettle Rock
21N.2E.14.441	Erma
21N.2E.15.100	Unknown
21N.2E.22	Unknown
21N.2E.23.100	Unknown
21N.2E.31.233	Mining Mountains Claim
21N.2E.33.123	Mining Mountains Claim
22N.2E.1.223	Lucky Strike
22N.2E.34.300	Lola
22N.3E.5.341	Herrera
22N.3E.8.121	Coyote Hill
22N.3E.8.214	Red Hill Claims
22N.3E.8.232	Red Head #2
22N.3E.10	Midcontinent #1
22N.3E.22.200	Alex #3, 5, and 8
22N.3E.27.210	Rey and Lou Claims
22N.4E.4.100	Jaramillo-Montoya
23N.1W.16.340	State Lease
23N.1E.19.333	White Flo #1
23N.1E.28.411	O'Brien No. 1
23N.1E.29.144	E and B No. 1
23N.1E.29.340	T J B D #1
23N.1E.30.141	Max Jacques and Yellow Bird #2
23N.1E.31.120	Pajarito Azul
23N.1E.32.114	Gallina
23N.1E.32.300	Paradise
23N.2W.15	Unknown
23N.2E.22	Williamson Claim
23N.2E.31.300	Unknown
23N.2E.36	Manuel Berella
23N.3E.19.122	Mesa Alta
23N.3E.31.332	Resurrection
23N.4E.28.224	Box Canyon
23N.5E.17.200	J.C. Roybal
24N.1W.36.222	Anomaly NA-17
24N.3E.4.310	Pivot Rock
24N.3E.19.300	Anomaly No. 1
24N.5E.1	Doe Group
24N.6E.19.322	Las Minas de Pedro
24N.6E.30.433	Trejo and Sanches No. 1
24N.8E.11.121	Unknown
24N.8E.11.442	Joseph
24N.8E.12.341	Star Mine
24N.8E.12.343	Unnamed
25N.1W.11.220	Carbon and Log
25N.1W.19	Young Prospect
25N.1E.30.320	Coy Claims
25N.2E.7.421	ELC-B and Maxine Groups
25N.2E.19,30	Abbey Group
25N.2E.22	Williamson Claim
25N.3E.31.133	Alex #51, 52
25N.5E.3.200	Unknown-Section 3
25N.5E.4.344	Unknown-Section 4
25N.5E.4.420	Unknown-Section 4
25N.5E.8.200	Unknown-Section 8
25N.5E.10.100,200	Section 10
25N.5E.20.100	Hornet
25N.5E.32.114	Horney Toad
25N.5E.32.121	Lucky Dog No. 1
25N.5E.34.330	Commanche
25N.7E.5,6	Anomaly #19
25N.8E.11.432	Vargas-Jaramillo
25N.9E.3.413	Anomaly #15
26N.1W.33.330	Princess Claims
26N.2E.26.343	Heart No. 3

26N.2E.27.242	Cebolla No. 2
26N.2E.30.200	Poso Springs
26N.4E.29.444	Unknown
26N.7E.4.314	William Hill
26N.8E.1.122	St. Joseph
26N.8E.1.221	Consolation
26N.8E.1.322	Conquistador
26N.8E.1.411	Wyoming
26N.8E.1.432	Keystone Western
26N.8E.11.212	Silver Plate
26N.8E.12.121	Sandoval
26N.8E.12.123	Apache
26N.8E.18.113	Fridlund
26N.8E.18.332	Nambe
26N.8E.24.130	Little Julia
26N.8E.25,26	Lucky Seven
26N.8E.25.112	Alto
26N.8E.25.120	Hillside
26N.8E.25.212	White
26N.8E.25.312	Alamos
26N.8E.25.323	Sunnyside
26N.8E.25.444	Red
26N.8E.36.221	Globe
26N.8E.36.233	Carmelita
26N.8E.36.314	Guadalupe
26N.9E.6.110	Miller Group
26N.9E.6.143	El Camino
26N.9E.7.232	Bluebird
26N.9E.18.110	Gabalon
26N.9E.18.133	Pino Verde
26N.9E.18.331	Cribenville
26N.9E.18.332	Capitan
26N.9E.18.334	Nambe
26N.9E.30.211	La Paloma
26N.9E.30.233	Pineapple
26N.9E.30.342	El Floto
27N.1E.2.420	Airbourne Anomaly No. 3
27N.5E.	George and Fidc Claims
27N.7E.24.124	Unknown
27N.7E.24.242	Unknown
27N.8E.10.422	Rancho AAA
27N.8E.11.141	Unknown
27N.8E.11.311	Kiawa, South Kiawa
27N.8E.11.332	Buena Vista
27N.8E.24.143	Vestguard
27N.8E.24.230	Master #1
27N.8E.24.344	Eureka
27N.8E.25.130	Meadow
27N.8E.25.222	Silver Spur
27N.8E.25.334	La Jarita
27N.8E.26.144	Alma
27N.8E.36.323	El Contento
27N.8E.36.332	Lonesome
27N.8E.36.444	Mary #1 and #2
27N.9E.19.336	Master #5
27N.9E.31.333	North Star
28N.1E.3.311	Airbourne Anomaly No. 1
28N.1E.3.323	Airbourne Anomaly No. 2
28N.7E.13.333	Unknown
28N.7E.13.433	Unknown
28N.7E.14.442	Unknown
28N.7E.23.222	Unknown
28N.7E.23.241	Unknown Shaft
28N.7E.24.140	J.O.L.
28N.7E.24.211	Phillips Drilling Area
28N.7E.24.222	Unknown
28N.7E.24.223	Unknown
28N.7E.24.241	Unknown
28N.7E.24.244	Tusas East Slope
28N.7E.24.320	Moran, Sawyer, and McLind Claims
28N.7E.24.422	Unknown
28N.8E.19.111	Unknown
28N.8E.20.331	Unknown

FIGURE 1-23- RADIOACTIVE OCCURRENCES IN RIO ARRIBA COUNTY, NEW MEXICO



RIO ARRIBA COUNTY

1: 25N.2E.19.30
2: Abbey Group (Abby, Desert Treasure Inc.)
3: 19, 30 T25N R2E
4: Llaves 15
5: Chama Basin area
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation
13: Sandstone
14: radiometric anomaly discovered by airbourne survey
15: Green and others (1980a, #5); Chenoweth (1974b); PRR ED-R-757 (1955); USBM files (1954)

1: 28N.1E.3.311
2: Airbourne Anomaly No. 1 (Stinking Lake, Jicarilla Reservation)
3: NW1/4 SW1/4 3 T28N R1E
4: Boulder Lake 15
5:
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
11: 700-ft long, 5-ft thick reddish brown sandstone
12: 0.01% U_3O_8 (PRR)
13: Beach-placer Sandstone
15: Bingler (1968); Chenoweth (1957a, c); PRR ED-R-604 (1956)

1: 28N.1E.3.323
2: Airbourne Anomaly No. 2 (Stinking Lake, Jicarilla Reservation)
3: E1/2 SW1/4 3 T28N R1E
4: Boulder Lake 15
5:
6: U, Th, Ti
7: no workings
8: no production-5,000,000 tons of ore in reserve
10: Cretaceous Point Lookout Sandstone
11: 300-ft long; 5-ft thick red-brown sandstone deposit
12: 5.73% TiO_2
13: Beach-placer Sandstone
15: Bingler (1968); Chenoweth (1957a, c); PRR ED-R-606 (1956)

1: 27N.1E.2.420
2: Airbourne Anomaly No. 3
3: NE1/4 SE1/4 2 T27N R1E
4: Boulder Lake 15
5:
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
11: 1,000-ft long; 5-ft thick
13: Beach-placer Sandstone
14: inaccessible on 9/1/81
15: Bingler (1968); Chenoweth (1957a,c); PRR ED-R-606 (1956)

1: 22N.3E.22.200
2: Alex #3, 5 and 8 (Apex #3, 5 and 8)
3: NE1/4 22 T22N R3E 36°07'45"N 106°35'55"W
4: Youngsville 7-1/2
5: Coyote area
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980a, #66); Hilpert and Corey (1955)

1: 25N.3E.31.133
2: Alex #51, 52
3: NW1/4 31 T25N R3E 36°21'30"N 106°40'5"W
4: Laguna Peak 7-1/2
5: Chama Basin area
6: U
7: no workings
8: no production
9: no radioactive anomalies found by Light (1982)
10: Jurassic Todilto Limestone
11: mineralized limestone float reported
13: Limestone
14: no mineralization found by Light (1982) or Green and others (1980a)
15: Light (1982); Green and others (1980a, #9); Chenoweth (1974b); Saucier (1974); Hilpert (1969); Hilpert and Corey (1955)

1: 26N.8E.25.312
2: Alamos (Parker)
3: NE1/4 SW1/4 25 T26N R8E
4: La Madera 7-1/2 Elevation 7,700 ft
5: Petaca district-La Madera area
6: mica, U, Th, REE
7: open cuts, decline, adit, stopes and drifts
8: no uranium production, mica produced
10: Precambrian pegmatite
11: irregular 355-ft long pegmatite, up to 25-ft thick
12: samarskite, monazite
13: Pegmatite
15: McLemore (1982a, #51); Redmon (1961); Jahns (1946, p. 223)

1: 27N.8E.26.144
2: Alma (Kansas City)
3: C26 T27N R8E 36°32'50"N 106°3'50"W
4: Las Tablas 7-1/2 Elevation 8,540 ft
5: Petaca district-Las Tablas area
6: Mica, feldspar, beryl, U, Th, REE
7: open cut, cross cut, raise (30 ft)
8: no uranium production, mica and beryl produced
10: Precambrian pegmatite intruding micaceous quartzite
11: sill-like pegmatite body
12: samarskite, monazite
13: Pegmatite
15: McLemore (1982a, #85); Redmon (1961); Jahns (1946, p. 125)

1: 26N.8E.25.112
2: Alto (Alamos)
3: NE1/4 NW1/4 NW1/4 25 T26N R8E 36°27'50"N 106°3'2"W
4: La Madera 7-1/2 Elevation 7,770 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE (occurrence)
7: open cuts, 25-ft adit
8: no uranium production
9: bkgd 40-50 cps; high on monazite vein 2,200 cps
10: Precambrian pegmatite intruding muscovite schist
11: several dikes up to 12-ft thick, striking N80°W to N80°E, up to 1-1/2 ft thick monazite vein (zone) within pegmatite, associated with muscovite and albite
12: samarskite, monazite, purple fluorite, 0.003% U_3O_8 (NMBMMR chem lab, 11/15/82, #2389); 64 ppm Th (NMBMMR XRF lab, 2/83, #2389)
13: Pegmatite
15: FN 7/13/82; Redmon (1961, p. 38); Jahns (1946, p. 217); Apsouri (1944, p. 37)

1: 24N.3E.19.300
2: Anomaly No. 1 (Chama Basin)
3: SE1/4 19 T24N R3E (unsurveyed) 36°17'30"N 106°39'30"W
4: Laguna Peak 7-1/2
5: Chama Basin area
6: U
7: no workings
8: no production
10: Cretaceous Burro Canyon Formation (Dakota Sandstone)
11: radioactive siltstone and conglomerate
13: Sandstone
14: basal unit of Dakota Sandstone correlated with Burro Canyon Formation in this area (Saucier, 1974)
15: Saucier (1974); U.S. Atomic Energy Commission (1966a, p. 67); Stehle (1955); PRR ED-R-548 (1955)

1: 24N.1W.36.222
2: Anomaly NA-17 (Unnamed)
3: NE1/4 NE1/4 36 T24N R1W
4: Llaves 15
5: Llaves area
6: U
7: no workings
8: no production
10: Eocene Ojo Alamo Sandstone(?) or Nacimiento Formation(?)
11: radioactive zone in coarse sandstone with wood fragments
12: 0.02% U_3O_8 (PRR)
13: Sandstone
15: Green and others (1980a, #15); Vizcaino and O'Neill (1977); Chenoweth (1974b; 1957b, p. 15-16); Hilpert (1969, p. 46); Easton (1955b); PRR ED-R-1465 (1954)

1: 25N.9E.3.413
2: Anomaly #15
3: C 3 T25N R9E
4: Servilleta Plaza 7-1/2
5: Petaca district
6: U
7: no workings
8: no production
10: Cretaceous Dakota Sandstone (?)
12: 0.01% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 124); Collins and Freeland (1956); PRR ED-R-1558 (1954)

1: 23N.7E.5, 6
2: Anomaly No. 19
3: 5, 6 T23N R7E (unsurveyed)
4: Medanales 7-1/2, El Rito 7-1/2
5:
6: U
7: no workings
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: Easton (1955b, p. 33); PRR ED-R-443 (1955)

1: 26N.8E.12.123
2: Apache (Porter, Blue, Blowout, Apache No. 2)
3: NW1/4 12 T26N R8E 36°30'25"N 106°03'00"W
4: Las Tablas 7-1/2 Elevation 7,940 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE (occurrence)
7: cuts, adits (3), 75-ft shaft
8: no uranium production, mica produced
9: 2 times background reported
10: Precambrian pegmatite intruding Petaca Schist and Burned Mountain granite
11: 1,400-ft long pegmatite
12: columbite, monazite, samarskite, carnotite; 0.006-0.20% U_3O_8 reported (PRR)
13: Pegmatite
14: examined by Green and others (1980a)
15: McLemore (1982a, #66); Green and others (1980a, #72); Redmon (1961); Barker (1958); Jahns (1946, p. 165); Apsouri (1944); PRR DEB-RRA-1415 (1954)

1: 21N.2E.15.200
2: Baird
3: NE1/4 15 T21N R2E
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7:
8: no uranium production
10: Permian Abo Formation
13: Sandstone
15: Green and others (1980a, #39); Woodward, L.A. and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974b)

1: 26N.9E.7.232
2: Bluebird
3: SW1/4 NE1/4 7 T26N R9E 36°30'15"N 106°2'20"W
4: Las Tablas 7-1/2 Elevation 7,480 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE (occurrence)
7: open pits
8: no uranium production, mica produced
10: Precambrian pegmatite intruding micaceous quartzite
11: 150-ft long, 30-ft wide pegmatite striking N30°W
12: monazite, samarskite, columbite
13: Pegmatite
15: McLemore (1982, #65); Green and others (1980a, #74); Woodward, L.A. and others (1974); Redmon (1961); Jahns (1946); Apsouri (1944); PRR DEB-RRA-1417; USBM files (1955)

1: 23N.4E.28.224
2: Box Canyon (Wasson)
3: E1/2 NE1/4 28 T23N R4E 36°12'5"N 106°30'25"W
4: Youngsville 7-1/2 Elevation 7,080 ft
5: Chama Basin area
6: U, V (U:V ratio 1:1)
7: open pit (260-ft x 50-ft x 30-ft deep)
8: 132 tons ore yielding 253 lbs U_3O_8 (0.10%), 212 lbs V_2O_5
9: 34 times background radioactivity (Anderson, O.J., 1980)
10: Jurassic Todilto Limestone
11: mineralized zone associated with an intraformational fold similar to Todilto deposits in Grants district
12: 189 ppm U_3O_8 (Green and others, 1980a)
13: Limestone
14: mined 1957 by Box Canyon Mining Co.; examined by Green and others (1980a)
15: Anderson, O.J. (1980); Green and others (1980a, #18); Chenoweth (1974b); Hilpert (1969, p. 46); PRR-ED-R-633 (1952); USAEC files (1960); CRIB (undated)

1: 27N.8E.11.332
2: Buena Vista
3: SW1/4 SW1/4 11 T27N R8E 36°35'5"N 106°4'5"W
4: Las Tablas 7-1/2 Elevation 8,400 ft
5: Petaca district-Kiowa Mountain
6: mica, feldspar, U, Th, REE
7: cuts, pits
8: no uranium production
10: Precambrian pegmatite intruding Kiowa Mountain Formation
11: 2 pegmatites
12: samarskite, monazite
13: Pegmatite
15: Redmon (1961); Jahns (1946)

1: 27N.8E.25.312
2: Canary Bird
3: NW1/4 SW1/4 25 T27N R8E 36°32'40"N 106°3'5"W
4: Las Tablas 7-1/2 Elevation 8,330 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: 3 shallow pits
8: production unknown
10: Precambrian pegmatite
11: zoned pegmatite
12: samarskite, monazite
13: Pegmatite
15: Jahns (1946, p. 123)

1: 26N.9E.18.332
2: Capitan
3: NE1/4 SW1/4 SW1/4 18 T26N R9E 36°29'00"N 106°2'1"W
4: La Madera 7-1/2 Elevation 7,800 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE, beryl (occurrence)
7: open cut, adit, declines, 30-ft shaft
8: no uranium production, mica produced
9: bkgd 30-40 cps, high with monazite 250-300 cps
10: Precambrian pegmatite intruding muscovite schist
12: monazite, samarskite, fluorite
13: Pegmatite
15: FN 7/14/82; McLemore (1982a, #60); Jahns (1946, p. 190)

1: 25N.1W.11.220
2: Carbon and Log
3: N1/2 NE1/4 11 T25N R1W (unsurveyed) 36°25'5"N 106°54'25"W
4: Llaves 15 Elevation 7,600 ft
5: Llaves area
6: U
7: no workings
8: no production
10: Eocene San Jose Formation-Llaves Member
11: radioactive lignite zones in channel sandstone
12: 62.8 ppm U_3O_8 (Green and others, 1980a)
13: Sandstone/Coal
14: examined by Green and others (1980a); PRR incorrectly locates this prospect in R1E
15: Green and others (1980a, #7); Vizcaino and O'Neil (1977); Chenoweth (1974b; 1957b, p. 15-16); Hilpert (1969, p. 47); PRR ED-R-619 (1956)

1: 26N.8E.36.233
2: Carmelita
3: SW1/4 SW1/4 NE1/4 36 T26N R8E 36°26'40"N 106°2'45"W
4: La Madera 7-1/2 Elevation 7,495 ft
5: Petaca district-La Madera area
6: mica, feldspar, beryl, U, Th, REE (occurrence)
7: open cut, trenches, 40-ft decline
8: no uranium production
10: Precambrian pegmatite intruding micaceous quartzite
11: 10-20 ft thick pegmatite striking N80°W
12: columbite, monazite, samarskite reported: 0.685% U_3O_8 reported (U.S. Atomic Energy Comm. files)
13: Pegmatite
14: no uranium potential
15: McLemore (1982a, #46); Redmond (1961); Jahns (1946, p. 242); USBM files (1945); USAEC files (1960)

1: 26N.2E.27.242
2: Cebolla No. 2
3: NE1/4 27 T26N R2E (unsurveyed)
4: Navajo Peak 7-1/2
5: Chama Basin area
6: U
7: 250-ft adit
8: no production
10: Jurassic Morrison Formation
11: radioactive fossil bones in Morrison Sandstone
12: less than 0.001% U_3O_8 (Light, 1982)
13: Sandstone
14: mine plan by Light (1982)
15: Light (1982); Green and others (1980a, #2); Chenoweth (1974b); Hilpert (1969, p. 27); PRR GJEB-R-184 (1952)

1: 25N.5E.34.330
2: Commanche
3: SW1/4 34 T25N R5E
4: Ghost Ranch 7-1/2
5: Chama Basin
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation
13: Sandstone
15: Green and others (1980a, #14); Chenoweth (1974b); Smith, C.T., Budding, and Pitrat (1961, pl. 5)

1: 26N.8E.1.322
2: Conquistador (Augusta)
3: NE1/4 SW1/4 1 T26N R8E 36°30'50"N 106°2'50"W
4: Las Tablas 7-1/2 Elevation 8,020 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: 20-ft decline, pits
8: no uranium production, mica produced
10: Precambrian pegmatite
11: irregular pegmatite trending N75°W
12: samarskite, monazite
13: Pegmatite
15: Redmon (1961); Jahns (1946, p. 152)

1: 26N.8E.1.221
2: Consolation (Mica Lode)
3: N1/2 NE1/4 1 T26N R8E 36°31'16"N 106°2'29"W
4: Las Tablas 7-1/2 Elevation 7,999 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: 200-ft cut
8: production unknown
10: Precambrian pegmatite
11: 2-15 ft thick, zoned pegmatite striking N20°W
12: samarskite in albite-rich zone
13: Pegmatite
15: Redmon (1961, p. 22)

1: 21N.1E.27
2: Copper City Group
3: 27 T21N R1E (unsurveyed) 36°1'30"N 106°49'10"W
4: Nacimiento Peak 7-1/2
5: Nacimiento Mountains district
6: U, Cu
7:
8: no uranium production
10: Triassic Chinle Formation--Aguas Zarca Sandstone
13: Sandstone
15: Santos and others (1975); Woodward, L.A., McLellard, Douglas, and Kaufman (1974); Hilpert and Corey (1955)

1: 25N.1E.30.320
2: Coy Claims (Z.O. Young)
3: NE1/4 SW1/4 30 T25N R1E
4: Llaves 15
5: Llaves area
6: U
7:
8: no production
10: Eocene San Jose Formation--Llaves Member
11: radioactive zone in sandstone
12: 0.04% U_3O_8 (Chenoweth, 1957b)
13: Sandstone
14: occurrence could not be located by Green and others (1980a)
15: Green and others (1980a, #8); Vizcaino and O'Neill (1977); Chenoweth (1974b; 1957b, p. 15-17); Hilpert (1969, p. 47); PRR ED-R-623 (1956); ED-R-602 (1956)

1: 22N.3E.8.121
2: Coyote Hill (Serrano, Hillfoot #1, Bridges)
3: NE1/4 NW1/4 8 T22N R3E 36°9'48"N 106°38'45"W
4: Arroyo del Agua 7-1/2 Elevation 6,810 ft
5: Coyote area
6: U, Cu
7: 200-ft open cut
8: 28 tons ore yielding 56 lbs U_3O_8 (0.10%), 55 lbs V_2O_5
10: Permian Cutler Formation
11: mineralized zone at base of channel conglomeratic sandstone
13: Sandstone
14: mined 1954 by F.T. Bridges; examined by Green and others (1980a)
15: Anderson, O.J. (1980); Green and others (1980a, #25); Vizcaino and others (1978); Chenoweth (1974b; 1957, p. 15-16); Hilpert (1969, p. 45, #1); PRR ED-624 (1956)

1: 26N.9E.18.331
2: Cribenville (New Cribenville, El Capitan, Ajax)
3: SW1/4 SW1/4 18 T26N R9E 36°29'00"N 106°2'20"W
4: La Madera 7-1/2 Elevation 7,870-7,970 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE
7: cuts, pits, adits
8: no uranium production
10: Precambrian pegmatite
11: two dikes
12: samarskite, monazite
13: Pegmatite
15: McLemore (1982a, #61); Green and others (1980a, #78); Fedmon (1961); Jahns (1946, p. 195); PRR DEB-RRA-1417 (1954)

1: 24N.5E.1
2: Doe Group
3: W1/2 1 T24N R5E (unsurveyed) 36°21'10"N 106°21'30"W (approximate)
4: Canjilon SE 7-1/2
5: Chama Basin
6: U
7:
8: no production
10: Jurassic Morrison Formation
13: Sandstone
15: Elevatorski (1979)

1: 23N.1E.29.144
2: E and B No. 1 (E and B No 3; D.B. Group?)
3: NW1/4 29 T23N R1E 36°11'43"N 106°51'30"W
4: Gallina 7-1/2 Elevation 8,140 ft
5: Vegitas Cluster area-San Pedro Mountains
6: U, Cu
7: several pits and trenches
8: no uranium production
9: bkgd 30 cps, high 60 cps
10: Permian Abo Formation
13: Sandstone
14: examined by Green and others (1980a)
15: FN 7/31/82; Green and others (1980a, #31); Woodward, L.A., Gibson, and McLelland (1976); Santos and others (1975); Chenoweth (1974b); Hilpert (1969, p. 46); Brown, H.G. (1955); PRR ED-R-513 (1954)

1: 26N.9E.6.143
2: El Camino (Miller Group)
3: S1/2 NW1/4 6 T26N R9E 36°31'5"N 106°1'58"W
4: Las Tablas 7-1/2
5: Petaca district-Las Tablas area
6: mica, feldspar
7: 2 pits, 2 shafts
8: no uranium production, mica produced
10: Precambrian pegmatite
11: 200-ft long pegmatite trending S70°W, 150-ft long dike
12: samarskite
13: Pegmatite
15: Redmon (1961, p. 29); USBM files (1955)

1: 25N.2E.7.421
2: El C-B and Maxine Groups (El C-13)
3: SE1/4 7 T25N R2E 36°24'45"N 106°45'50"W
4: Llaves 15
5: Gallina Mountain area
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-basal member
11: radioactive bones
13: Sandstone
14: Light (1982) could not located described occurrence
15: Light (1982); Green and others (1980a, #4); Chenoweth (1974b); Hilpert (1969, p. 47); PRR ED-R-757 (1952)

1: 27N.8E.36.323
2: El Contento
3: CSW1/4 36 T27N R8E 36°31'40"N 106°3'00"W
4: Las Tablas 7-1/2 Elevation 8,100 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, beryl, U, Th, REE
7: cuts, pits
8: no uranium produced; mica, feldspar, beryl produced
10: Precambrian pegmatite
12: samarskite, monazite
13: Pegmatite
15: Redmon (1961); Jahns (1946)

1: 26N.9E.30.342
2: El Floto
3: NE1/4 SE1/4 SW1/4 30 T26N R9E 36°27'20"N 106°1'45"W
4: La Madera 7-1/2 Elevation 7,320 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE (occurrence)
7: 24-ft shaft with drifts, pits
8: no uranium production, mica produced
9: bkgd 30-40 cps, high 60 cps
10: Precambrian pegmatite intruding muscovite schist
12: columbite, monazite, samarskite reported
13: Pegmatite
15: FN 7/14/82; McLemore (1982a, #55); Redmon (1961, p. 47); Jahns (1946, p. 250)

1: 21N.2E.14.441
2: Erma
3: SE1/4 14 T21N R2E 36°2'45"N 106°41'30"W
4: Jarosa 7-1/2 Elevation 8,700 ft
5: Gallina district-San Pedro Mountains
6: U, Cu
7: large bulldozed area, several small ore piles
8: copper production, if any, unknown; no uranium production
9: bkgd 30 cps, high 100-150 cps
10: Permian Abo Formation
11: copper and uranium minerals replacing organic material in white to gray arkosic sandstone and conglomerate
13: Sandstone
15: FN 8/1/82; Green and others (1980a, #40); Woodward, L.A. and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974a); Hilpert (1969, p. 45); Soulè (1956, p. 55); PRR ED-R-508 (1954)

1: 27N.8E.24.344
2: Eureka (Loma)
3: SE1/4 SE1/4 SW1/4 24 T27N R8E 36°33'15"N 106°2'55"W
4: Las Tablas 7-1/2 Elevation 8,295 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: caved shaft, pits, open cut
8: mica produced, no uranium production
10: Precambrian pegmatite intruding quartzite and schist
11: wedge-shaped pegmatite
12: monazite
13: Pegmatite
15: McLemore (1982a, #86); Adams, J.W. and others (1980); Jahns (1946, p. 120); USBM files (1945)

1: 21N.1E.32.200
2: Eureka Mine (Nacimiento Mine)
3: NE1/4 32 T21N R1E (unsurveyed) 36°00'35"N 106°51'10"W
4: Nacimiento Peak 7-1/2 Elevation 9,080 ft
5: Nacimiento Mountains district
6: U, Cu, Ag
7: pits, 5 adits
8: no uranium production
10: Triassic Chinle Formation--Agua Zarca Sandstone
13: Sandstone
14: examined by Green and others (1980a); owned by Earth Resources Co.
15: Green and others (1980a, #61); Santos and others (1975); Woodward, L.A., McLelland, Douglas, and Kaufman (1974); Soulè (1956); Hilpert and Corey (1955); Gott and Erickson (1952a,b; 1951); PRR unnumbered (1951)

1: 26N.8E.18.113
2: Fridlund (Blue Eagle No. 1)
3: NW1/4 NW1/4 18 T26N R8E 36°29'32"N 106°2'15"W
4: La Madera 7-1/2 Elevation 7,950 ft
5: Petaca district-La Madera area
6: mica, feldspar, Ta, REE, Th, U
7: open pits, 2 adits, small cuts
8: 5,000 lbs columbite, samarskite, and monazite produced
9: bkgd 30-40 cps, high 100 cps
10: Precambrian pegmatite
11: 200-ft long zoned pegmatite
12: columbite, monazite, samarskite, uraninite, fergusonite reported; samarskite analyzed 1.88% U_3O_8 and 1.10% ThO_2 (Hess and Wells, 1930).
13: Pegmatite
15: FN 7/14/62; McLemore (1982a, #63); Bingler (1968); Jahns (1946, p. 180); Apsouri (1944, p. 24); Hess and Wells (1930)

1: 26N.9E.18.11
2: Gabalon (Gavilon)
3: NW1/4 NW1/4 18 T26N R9E 36°29'40"N 106°2'10"W
4: La Madera 7-1/2 Elevation 7,800 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, Ree (occurrence)
7: pits, drift, stopes
8: no uranium production
10: Precambrian pegmatite
11: 30- to 65-ft thick pegmatite striking N80° to 88°E
12: samarskite, monazite
13: Pegmatite
15: McLemore (1982a, #64); Green and others (1980a, #80); Jahns (1946, p. 179); Apsouri (1944, p. 26)

1: 23N.1E.32.114
2: Gallina (Sefrina, Unknown, Section 32)
3: NW1/4 32 T23N R1E 36°11'5"N 106°51'50"W
4: Gallina 7-1/2 Elevation 8,320 ft
5: Vegitas Cluster area-San Pedro Mountains
6: Cu, U
7: bulldozed area, 2 pits
8: minor copper production, no uranium production
9: bkgd 30 cps, small ore pile 60 cps
10: Pennsylvanian Madera Formation
11: copper and uranium mineralization in bleached white to gray, coarse-grained fluvial sandstone
13: Sandstone
15: FN 7/31/82; Green and others (1980a, #73); Woodward, L.A. and others (1976); Santos and others (1975, p. 17); Hilpert (1969, p. 47); Soulè (1956, p. 52); Hilpert and Corey (1955); Brown, H.G. (1955, p. 10)

1: 27N.5E
2: George and Fido Claims
3: T27N R5E
4: Cebolla 15
5:
6: U, Be(?)
7: pits
8: no production
10: Cretaceous Mancos Formation
11: slightly radioactive shale
13: Shale
14: potential for U and Be poor
15: PRR GJEB-R-183 (1952)

1: 26N.8E.36.221
2: Globe
3: NE1/4 NE1/4 36 T26N R8E 36°27'00"N 106°2'25"W
4: La Madera 7-1/2 Elevation 7,470 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE (occurrence)
7: 25° decline 155-ft long with drifts, shafts, pits, cuts
8: no uranium production; 5,000 lbs of columbite; mica produced
9: bkgd 50-60 cps; high with columbite 250-300 cps; high with monazite 1,500-2,000 cps
10: Precambrian pegmatite intruding muscovite schist
11: pegmatite 645-ft long, up to 60-ft wide, striking N85°W
12: monazite, columbite present; samarskite reported; 0.029, 0.062% U_3O_8 (NMBMMR chem lab, 11/15/82, #2385, 2386); 0, 1.03% Th (NMBMMR XRF lab, 2/83, #2385, 2386)
13: Pegmatite
15: FN 7/13/82; McLemore (1982a, #47); Redmon (1961, p. 42); Wright, L.A. (1948); Jahns (1946, p. 233); Apsouri (1944, p. 30); Just (1937, p. 64)

1: 26N.8E.36.314
2: Guadalupe
3: SE1/4 NW1/4 SW1/4 36 T26N R8E 36°26'30"N 106°2'30"W
4: La Madera 7-1/2 Elevation 7,310 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE (occurrence)
7: at least fifteen cuts, 2 pits, small stopes (adits)
8: no uranium production, mica production
9: bkgd 30 cps, high 70 cps
10: Precambrian pegmatite intruding mica schist
11: several subparallel dikes 3-20 ft wide, striking N65°-85°W
12: samarskite and monazite reported
13: Pegmatite
14: no uranium potential
15: FN 7/13/82; McLemore (1982a, #45); Redmond (1961, p. 46); Jahns (1946, p. 244)

1: 26N.2E.26.343
2: Heart No. 3 (Collins Claim)
3: SW1/4 26 T26N R2E 36°27'5"N 106°41'55"W
4: Navajo Peak 7-1/2
5: Chama Basin area
6: U
7: 2 pits reported by Saucier (1974) but not found by Light (1982)
8: no production
10: Jurassic Morrison Formation, Todilto Limestone
11: mineralized zone at contact of Todilto gypsum and overlying sandstone (Morrison)
13: Sandstone
14: sandstone unit may be equivalent of Summerville Formation; no mineralization found by Light (1982) or Green and others (1980)
15: Light (1982); Green and others (1980a, #2, 77); Chenoweth (1974b); Saucier (1974); Hilpert (1969, p. 47); PRR-GJEB-R-184 (1952)

1: 22N.3E.5.341
2: Herrera (Trujillo property)
3: SW1/4 5 T22N R3E 36°9'50"N 106°38'45"W
4: Arroyo del Agua 7-1/2
5: Coyote area
6: U, Cu
7: no workings
8: no production
10: Permian Cutler Formation
11: mineralized conglomerate
12: carnotite reported (USAEC files)
13: Sandstone
15: Green and others (1980a, #45); Hilpert (1969, p. 45); USAEC files (1960)

1: 26N.8E.25.120
2: Hillside
3: NE1/4 NW1/4 25 T26N R8E 36°27'45"N 106°2'45"W
4: La Madera 7-1/2 Elevation 7,800 ft
5: Petaca district-La Madera area
6: mica, feldspar, beryl, U, Th, Ree (occurrence)
7: cuts, pits, shaft, decline
8: no uranium production
10: Precambrian pegmatite
11: 550-ft long pegmatite striking N80°E
12: columbite, samarskite, monazite
13: Pegmatite
15: McLemore (1982a, #54); Redmon (1961); Jahns (1946, p. 218)

1: 25N.5E.20.100
2: Hornet
3: NW1/4 20 T24N R5E
4: Canjilon 7-1/2
5: Chama Basin area
6: U
7: pits
8: no production
10: Cretaceous Burro Canyon Formation, Jurassic Morrison Formation
11: mineralized zone in sandstone at top of Morrison
13: Sandstone
15: Green and others (1980a, #11); Saucier (1974); Hilpert (1969, p. 47); Smith, C.T., Budding, and Pitrat (1961, pl. 2)

1: 25N.5E.32.114
2: Horny Toad
3: NW1/4 32 T24N R5E 36°21'32"N 106°26'02"W
4: Ghost Ranch 7-1/2 Elevation 7,640 ft
5: Chama Basin area
6: U
7: pit
8: no production
9: up to ten times background radioactivity (Green and others, 1980a)
10: Cretaceous Dakota Sandstone
13: Sandstone
14: examined by Green and others (1980a)
15: Green and others (1980a, #13); Saucier (1974); Chenoweth (1974b); Hilpert (1969, p. 47); Smith, C.T., Budding and Pitrat (1961, pl. 5); Brown, H.G. (1954); PRR ED-R-509 (1954); USAEC files (1960)

1: 22N.4E.4.100
2: Jaramillo-Montoya
3: NW1/4 4 T22N R4E
4: Youngsville 7-1/2
5: Chama Basin area
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980a, #19); Chenoweth (1974b); Hilpert (1969, p. 45); PRR ED-R-633 (1956)

1: 21N.2E.12.411
2: Jarosa prospects
3: NW1/4 SE1/4 12 T21N R2E 36°03'45"N 106°40'30"W
4: Jarosa 7-1/2 Elevation 8,630 ft, 8,700 ft
5: Gallina district-San Pedro Mountains
6: Cu, U
7: prospect pit (50-ft long, 5-ft wide, 3-ft deep), 35-ft adit
8: copper production, if any, unknown; no uranium production
9: bkgd 30 cps, high 500 cps (pit)
10: Permian Abo Formation
11: uranium and copper mineralization in and above red-brown hematitic altered lense in white to gray, coarse-grained, arkosic sandstone
12: 0.06% U_3O_8, 0.22% Cu (NMBMMR chem lab, 10/6/82, #2852)
13: Sandstone
15: FN 8/1/82; Woodward, L.A. and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974b); Bachman and Read (1951, p. 17); PRR-ED-R-616 (1956)

1: 23N.5E.17.200
2: J.C. Roybal
3: NE1/4 17 T23N R5E
4: Canones 7-1/2
5: Chama Basin area
6: U
7:
8: no production
10: Permian Abo Formation
13: Sandstone
15: Green and others (1980a, #60); Elevatorski (1979)

1: 21N.2E.1.143
2: Joe
3: SE1/4 NW1/4 1 T21N R2E 36°04'55"N 106°40'45"W
4: Jarosa 7-1/2 Elevation 8,630 ft
5: Gallina district-San Pedro Mountains
6: Cu, U(?)
7: pit
8: no production
9: bkgd 30 cps; high 40 cps
10: Permian Abo Formation
11: copper and uranium(?) minerals disseminated in white to gray, coarse-grained arkosic sandstone
13: Sandstone
14: no uranium potential, however, may be indicative of additional mineralization in the area
15: FN 8/1/82; Green and others (1980a, #62); Woodward, L.A., and Timmer (1979); Vizcaino and others (1978); Soulè (1956, p. 55); Hilpert and Corey (1955)

1: 28N.7E.24.140
2: J.O.L. (Royal, MFQ 801, 802, 803)
3: SE1/4 NW1/4 24 T28N R7E 36°38'50"N 106°8'35"W
4: Burned Mountain 7-1/2 Elevation 9,840 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite
7: 30-ft caved adit, pits 25-ft deep
8: 8 tons ore yielding 6 lbs U_3O_8 (0.04% U_3O_8), 5 lbs V_2O_5
9: bkgd 50 cps, outcrop 500-1,000 cps, ore dump 4,000 cps
10: Precambrian Petaca Schist and Tres Piedras Granite
11: radioactive fluorite veins in shear zone between roof pendant of schist (1-ft thick) and granite
12: 0.036% U_3O_8, 197 ppm eTh, 98 ppm Nb (Goodknight and Dexter, 1982); 0.015% U_3O_8 (NMBMMR chem lab, 3/3/83, #3145)
13: Hydrothermal-vein/Anatectic
14: mined 1956 by Arriba Uranium Co.
15: FN 11/11/81; Kent (1980); Anderson, O.J. (1980); Green and others (1980a, #54); Hilpert (1969, p. 48); Bingler (1968); USAEC files (1960); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/29/82)
16: figure 33

1: 24N.8E.11.442
2: Joseph (Joseph Mike prospect)
3: SE1/4 NE1/4 SE1/4 11 T24N R8E 36°19'44"N 106°3'15"W
4: Ojo Caliente 7-1/2 Elevation 6,580 ft
5: Ojo Caliente district
6: mica, feldspar, U, Th (occurrence)
7: 300-ft trench (once an adit), 3 short adits at face
8: no uranium production, mica produced
9: bkgd 30-40 cps, average on pegmatite 60 cps, high 100 cps
10: Precambrian pegmatite intruding chlorite hornblende schist
11: 250-ft long, 80-ft wide pegmatite trending N80°-85°E
12: samarskite reported; columbite, fluorite
13: Pegmatite
14: no uranium potential
15: FN 7/13/82; McLemore (1982a, #42); U.S. Atomic Energy Commission (1970, p. 120); Redmon (1961, p. 52); Jahns (1946, p. 271); Apsouri (1944, p. 54); Just (1937, p. 65)

1: 26N.8E.1.432
2: Keystone-Western
3: SW1/4 SE1/4 1 T26N R8E 36°30'40"N 106°2'45"W
4: Las Tablas 7-1/2 Elevation 8,020 ft
5: Petaco district-Las Tablas area
6: mica, feldspar, fluorite, U, Th, REE
7: 30-ft decline, drifts, shaft
8: no uranium produced, mica produced
10: Precambrian pegmatite
12: samarskite
13: Pegmatite
15: Jahns (1946)

1: 27N.8E.11.311
2: Kiawa, South Kiawa
3: W1/2 11 T27N R8E 36°35'20"N 106°4'15"W
4: Las Tablas 7-1/2 Elevation 8,250 ft
5: Petaca district-Kiawa Mountain
6: mica, feldspar, U, Th, REE
7: 3 adits (water filled), numerous pits, trenches, shaft
8: 100 lbs samarskite produced, mica produced
9: bkgd 20-40 cps, high 70 cps
10: Precambrian pegmatite intruding Kiawa Mountain Formation
11: 125-ft long, 60-ft wide pegmatite striking N45°E
12: samarskite, monazite, purple fluorite; samarskite contains 4.64% Th
13: Pegmatite
14: under active claims - T-Lucky Claims
15: FN 7/14/82; McLemore (1982a, #88); Green and others (1980a, #51); Hilpert (1969, p. 47); Bingler (1968); Gresens (1967); Redmon (1961); Barker (1958); Jahns (1946, p. 106); Apsouri (1944); Just (1937); USBM files (1945)

1: 27N.8E.25.334
2: La Jarita
3: SW1/4 SW1/4 25 T27N R8E 36°32'20"N 106°3'00"W
4: Las Tablas 7-1/2 Elevation 8,200 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, fluorite, U, Th, REE
7: trenches, cuts, shafts
8: no uranium production
10: Precambrian pegmatite
12: samarskite, monazite
13: Pegmatite
14: geological map sketch by Jahns (1955, p. 1,093)
15: Redmon (1961); Jahns (1946, 1955)

1: 24N.6E.19.322
2: Las Minas de Pedro (Abiquiu)
3: 19 T24N R6E (unsurveyed) 36°17'58"N 106°20'5"W
4: Canjilon SE 7-1/2
5: Chama Basin-Abiquiu
6: U, Cu
7: 6 adits (25-ft long), pits
8: no uranium production
10: Triassic Chinle Formation and Permian Abo Formation
11: mineralized coal lense within conglomeratic sandstone at contact of Chinle and Abo
13: Sandstone
15: Green and others (1980a, #56); Bingler (1968, p. 101); Smith, C.T., Budding, and Pitrat (1961); Soulè (1956, p. 57); Hilpert and Corey (1955); Easton (1955a); Gott and Erickson (1951); PRR unnumbered (1951)

1: 26N.9E.30.211
2: La Paloma (Romney shaft)
3: NW1/4 NW1/4 NE1/4 30 T26N R9E 36°27'50"N 106°1'40"W
4: La Madera 7-1/2 Elevation 7,500 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE, beryl
7: see Pineapple for uranium production, mica produced
8: 50-ft shaft (water filled), pits, open cuts, trenches
9: bkgd 40 cps, high 60-70 cps
10: Precambrian pegmatite intruding quartzite and schist
11: 5 pegmatites striking N6° to 70°W, 15-30-ft wide, 250-ft long
12: samarskite, columbite, and monazite reported
13: Pegmatite
14: some ore may have been produced with Pineapple; mine map NMBMMR files
15: FN 7/14/82; McLemore (1982a, #57); Anderson, O.J. (1983); Elevatorski (1979); Chenoweth (1974); U.S. Atomic Energy Commission (1970, p. 119); Bingler (1968); Redmond (1961, p. 46); Jahns (1946, p. 246); USAEC files (1960); NMBMMR files (undated)

1: 26N.8E.24.130
2: Little Julia
3: NW1/4 SW1/4 24 T26N R8E 36°28'13"N 106°3'15"W
4: La Madera 7-1/2 Elevation 7,990 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE (occurrence)
7: cuts, pits, 40-ft shaft
8: no uranium production, mica produced
10: Precambrian pegmatite
11: 1,200-ft long; 35-ft thick pegmatite dike striking N75°E
12: samarskite, monazite
13: Pegmatite
15: McLemore (1982a, #58); Redmon (1961); Jahns (1946, p. 214)

1: 22N.2E.34.300
2: Lola
3: SE1/4 34 T22N R2E
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7:
8: no uranium production
10: Permian Abo Formation
11: mineralized carbonaceous material in sandstone
12: 0.07% U (Hilpert, 1964)
13: Sandstone
15: Green and others (1980a, #35); Woodward, L.A., and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974b); Hilpert (1969, p. 45)

1: 26N.8E.36.332
2: Lonesone (Beryl?)
3: SW1/4 SW1/4 36 T27N R8E 36°31'30"N 106°3'10"W
4: Las Tablas 7-1/2 Elevation 8,250 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE, beryl
7: cuts, 78-ft decline, 2nd shaft
8: 12 lbs samarskite-monazite produced, mica produced
9: bkgd 30 cps, high 50 cps
10: Precambrian pegmatite intruding Petaca Schist
12: samarskite, monazite, uraninite
13: Pegmatite
15: FN 7/14/82; McLemore (1982a, #78); Green and others (1980a, #48); Elevatorski (1979, p. 56); Hilpert (1969); Bingler (1968); Redmon (1961); Jahns (1946)

1: 25N.5E.32.121
2: Lucky Dog No. 1 (Onego, Morton/Powell)
3: SW1/4 29, NW1/4 32 (line) T25N R5E 36°21'50"N 106°26'00"W
4: Ghost Ranch 7-1/2 Elevation 7,800 ft
5: Chama Basin area
6: U
7: 10-ft adit, pits
8: no production
9: 18 times background radioactivity (Anderson, O.J., 1980)
10: Cretaceous Dakota Sandstone
11: mineralization associated with carbonaceous material
12: carnotite; 400 ppm U_3O_8
13: Sandstone
15: Anderson, O.J. (1980); Green and others (1980a, #12); Saucier (1974); Chenoweth (1974b); Hilpert (1969, p. 47); Smith, C.T., Budding, and Pitrat (1961, pl. 5); Brown, H.G. (1954); PRR ED-R-509 (1954); USAEC files (1960)

1: 26N.8E.25, 26
2: Lucky Seven Claim
3: 25, 26 T26N R8E 36°27'29"N 106°3'10"W
4: La Madera 7-1/2 Elevation 7,700 ft
5: Petaca district-La Madera area
6: U, Cu
7: 20-ft trench
8: no production
10: Precambrian schist
11: radioactive shear zone in schist associated with copper oxides near pegmatite dikes
12: 0.021% U_3O_8 reported
13: Hydrothermal-vein
15: McLemore (1982a, #50); U.S. Atomic Energy Commision (1970, p. 121)

1: 22N.2E.1.223
2: Lucky Strike
3: NE1/4 NE1/4 1 T22N R2E 36°10'20"N 106°40'20"W
4: Arroyo del Agua 7-1/2 Elevation 7,040 ft
5: Coyote area
6: U, Cu
7: 2 rim cuts
8: 3 tons ore yielding 4 lbs U_3O_8 (0.06%); 20 lbs V_2O_5
10: Triassic Chinle Formation-Agua Zarca Sandstone Member
11: mineralized bodies at contact of Cutler and Chinle Formations
13: Sandstone
14: mined 1957 by Arroyo del Agua
15: Anderson, O.J. (1980); Green and others (1980a, #20); Vizcaino and others (1978); Chenoweth (1974b); Hilpert (1969, p. 45); USAEC files (1960)

1: 23N.2E.36
2: Manuel Berella
3: E1/2 36 T23N R2E
4: Arroyo del Agua 7-1/2
5: Coyote area
6: U, Cu
7: no workings
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: Green and others (1980a, #59); Hilpert and Corey (1955)

1: 27N.8E.36.444
2: Mary #1 and #2 (Cooperative Mine)
3: SE1/4 36 T27N R8E, SW1/4 31 T27N R9E 36°31'26"N 106°2'15"W
4: Las Tablas 7-1/2
5: Petaca district-Las Tablas area
6: mica, feldspar, Nb, Ta, U, Th, REE, beryl
7: open pits, cuts, 15-ft adit
8: no uranium production, mica and columbite produced
9: 6 times background reported (Green and others, 1980a)
10: Precambrian pegmatite
11: 525-ft and 300-ft long dikes striking N65°W
12: columbite, samarskite, monazite
13: Pegmatite
14: examined by Green and others (1980a)
15: Green and others (1980a, #55); Redmon (1961, p. 23); Barker, F. (1958); Hilpert and Corey (1955); Jahns (1946, p. 146); PRR DEB-RRA-763 (1953); USBM files (1945)

1: 27N.8E.24.230
2: Master #1
3: SW1/4 NE1/4 24 T27N R8E 36°33'40"N 106°2'35"W
4: Las Tablas 7-1/2 Elevation 7,980 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: cuts, pits
8: no production
10: Precambrian pegmatite intruding quartzite
11: unzoned 300-ft long, 40-ft wide pegmatite striking N10°W
12: samarskite
13: Pegmatite
15: Redmon (1961, p. 11); USBM files (1955)

1: 27N.9E.19.330
2: Master #5
3: SW1/4 SW1/4 19 T27N R9E 36°33'15"N 106°2'8"W
4: Las Tablas 7-1/2 Elevation 7,750 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: 3 pits
8: no production
10: Precambrian pegmatite intruding quartz-mica schist
11: unzoned concordant pegmatite striking N10°W, 500-ft long
12: monazite, samarskite
13: Pegmatite
15: Redmon (1961); USBM files (1955)

1: 23N.1E.30.141
2: Max Jacque and Yellow Bird #2
3: NW1/4 30 T23N R1E 36°11'55"N 106°52'45"W
4: Regina 7-1/2 Elevation 8,070 ft
5: Gallina district-San Pedro Mountains
6: U, Cu
7: large bench cut (300-ft long, 30-ft high)
8: no production known
9: bkgd 30 cps, average 30-120 cps, high on dump 250 cps
10: Permian Abo Formation
11: discontinuous and spotty mineralization in fluvial sandstones and conglomerates
12: 0.05% U_3O_8, 0.26% Cu, 0.3 oz/ton Ag; 0.05% U_3O_8, no Au, Ag, or Cu (NMBMMR chem lab, 10/6/82, #2850, 2853)
13: Sandstone
15: FN 7/31/82; Merrick and Woodward , L.A. (1982); Green and others (1980a, #30, #57); Santos and others (1975, p. 17); Hilpert (1969, p. 46); Hilpert and Corey (1955); Brown, H.G. (1955)

1: 27N.8E.25.130
2: Meadow
3: SW1/4 NW1/4 25 T27N R8E 36°32'55"N 106°3'12"W
4: Las Tablas 7-1/2 Elevation 8,370 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, beryl, U, Th, REE
7: 4 cuts
8: no production
10: Precambrian pegmatite intruding quartzite
11: unzoned 150-ft long pegmatite striking N12°W
12: columbite, samarskite
13: Pegmatite
15: Redmon (1961); Jahns (1946, p. 124); USBM files (1945)

1: 23N.3E.19.122
2: Mesa Alta
3: NW1/4 19 T23N R3E 36°13'15"N 106°39'40"W
4: Arroyo del Agua 7-1/2
5: Chama Basin area-Gallina district
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone, Morrison Formation
11: mineralized breccia pod at top of Todilto at contact with Morrison Formation
12: 0.05% U_3O_8 (Light, 1982)
13: Limestone
15: Light (1982); Green and others (1980, #22); Chenoweth (1974b); Hilpert (1969, p. 46); PRR-ED-R-634 (1956)

1: 22N.3E.10
2: Midcontinent #1
3: °10 T22N R3E
4: Youngsville 7-1/2
5: Coyote area
6: U, Cu
7: rim cuts
8: 1 ton ore yielding 1 lb U_3O_8 (0.06%)
10: Triassic Chinle Formation-Agua Zarca Sandstone
11: mineralized carbon seams and log in lower Agua Zarca
13: Sandstone
14: mined by Midcontinent Exploration Co. in 1955
15: Chenoweth (1974b); USAEC files (1955)

1: 26N.9E.6.110
2: Miller Group (Werner, Etter)
3: NW1/4 NW1/4 6 T26N R9E SE1/4 36 T27N R8E 36°31'15"N 106°2'10"W
4: Las Tablas 7-1/2 Elevation 8,100 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: shafts, pits, 25-ft adit
8: no uranium production, mica produced
9: bkgd 30-40 cps, high near monazite 250-300 cps
10: Precambrian pegmatite intruding Petaca Schist
11: several pegmatites
12: samarskite, monazite; 0.022% U_3O_8 (NMBMMR chem lab, 11/15/82, #2384); 279 ppm Th (NMBMMR XRF lab, 2/83, #2384)
13: Pegmatite
14: now claimed under T-Lucky (American Uranium Corp.)
15: FN 7/14/82; McLemore (1982a, #75); Green and others (1980a, #75); Redmon (1961); Jahns (1946); Apsouri (1944); PRR DEB-RRA-1417 (1951)

1: 21N.2E.31.233
2: Mining Mountain Claims
3: NE1/4 31 T21N R2E 36°00'28"N 106°45'58"W
4: Nacimiento Peak 7-1/2 Elevation 8,700 ft
5: Gallina district-San Pedro Mountains
6: U
7: no workings
8: no production
10: Pennsylvanian Madera Formation
11: mineralized limestone and sandstone
13: Limestone/Sandstone
14: examined by Green and others (1980a)
15: Green and others (1980a, #43); Vizcaino and others (1978); Chenoweth (1974b); Woodward, L.A., McLelland, Douglas, and Kaufman (1974); PRR ED-R-755 (1955); ED-R-758 (1955)

1: 21N.2E.33.123
2: Mining Mountain Claims
3: 33 T21N R2E 36°1'00"N 106°44'5"W
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7: pit
8: no uranium production
10: Permian Abo Formation
13: Sandstone
15: Green and others (1980a, #43); Hill (1980); Woodward, L.A. and Timmer (1979); Chenoweth (1974b); PRR ED-R-755 (1955), ED-R-758 (1955)

1: 21N.2E.34.123
2: Mining Mountain Claims (Unknown)
3: NW1/4 34 T21N R2E 36°00'58"N 106°42'58"W
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7: pit
8: no uranium production
10: Permian Abo Formation
13: Sandstone
15: Green and others (1980a, #42); Woodward, L.A. and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974b); PRR ED-R-755 (1955); ED-R-758 (1955)

1: 28N.7E.24.320
2: Moran, Sawyer, and McLind Claims (confused with JOL and Tusas East Slope)
3: NE1/4 SW1/4 24 T28N R7E 36°38'40"N 106°8'45"W
4: Burned Mountain 7-1/2 Elevation 9,480; 9,640 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite, Cu
7: pit, adit
8: no production
9: bkgd 50 cps, adit 200 cps, high along contact 300-400 cps
10: Precambrian Hopewell Series-Moppin Schist and Tusas granite
11: radioactive zones along contact between schist and granite
12: 49ppm U, 95 ppm eTh, 572 Nb (Goodknight and Dexter, 1982)
13: Hydrothermal-vein/Contact-metasomatic
15: FN 11/11/81; Green and others (1980a, #81); Kent (1983); PRR DEB-RRA-1431 (1954); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 26N.9E.18.334
2: Nambe (Turkey Track)
3: SE1/4 SW1/4 SW1/4 18 T26N R9E 36°28'50"N 106°2'00"W
4: La Madera 7-1/2 Elevation 7,680 ft
5: Petaca district-La Madera area
6: mica, feldspar, Cl, Th, REE (occurrence)
7: trench, pit, 25-ft adit, 65-ft shaft
8: no uranium production
9: bkgd 30-40 cps, high with monazite 120 cps
10: Precambrian pegmatite intruding muscovite schist
11: large pegmatite dike striking N85°W, 130-ft long
12: monazite, columbite, samarskite; 0.131% U_3O_8 (NMBMMR chem lab, 11/15/82, #2383); 610 ppm Th (NMBMMR XRF lab, 2/83, #2383)
13: Pegmatite
15: FN 7/14/82; McLemore (1982a, #59); Green and others (1980a, #80); Jahns (1946, p. 208); Apsouri (1944, p. 27); PRR DEB-RRA-1417 (1955)
16: figure 39

1: 27N.9E.31.333
2: North Star (Miller Group; Cooperative Mine)
3: SW1/4 SW1/4 31 T27N R9E, SE1/4 SE1/4 36 T27N R8E 36°31'35"N 106°2'15"W
4: Las Tablas 7-1/2 Elevation 8,120 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, fluorite, U, Th, REE
7: open cuts, pits, short adits
8: reported some uranium was produced; no record of produciton with AEC
9: 30 times background reported
10: Precambrian pegmatite intruding Petaca Schist
11: long sinous pegmatite trending N65°W
12: samarskite, monazite
13: Pegmatite
14: examined by Green and others (1980a)
15: Green and others (1980a, #52, #55); Hilpert (1969, p. 47); Barker, F. (1958); Jahns (1946); USBM files (1945)

1: 23N.1E.28.411
2: O'Brien No. 1
3: SE1/4 28 T23N R1E 36°11'40"N 106°50'00"W
4: Gallina 7-1/2 Elevation 8,410 ft
5: Vegitas Cluster area-San Pedro Mountains
6: U, Cu
7: no workings
8: no production
10: Permian Abo Formation
12: 85 ppm U_3O_8 (Green and others, 1980a)
13: Sandstone
14: examined by Green and others (1980a)
15: Green and others (1980a, #33); Vizcaino and others (1978); Woodward, L.A., Gibson, and McLelland (1976); Santos and others (1975); Chenoweth (1974b); Hilpert (1969, p. 46); Brown, H.G. (1955)

1: 23N.1E.31.120
2: Pajarito Azul (La Reina, Pajaro Colorado, Pajaro Azul)
3: 30, 31 T23N R1E 36°11'15"N 106°52'45"W
4: Regina 7-1/2 Elevation 8,400 ft
5: Vegitas Cluster area-San Pedro Mountains
6: U, V, Cu
7: 4 prospect pits
8: no production
10: Permian Abo Formation and Pennsylvanian Madera Formation
13: Sandstone
15: Merrick, and Woodward, L.A. (1982); Green and others (1980a, #34, 73); Vizcaino and others (1975); Chenoweth (1974b); Brown, H.G. (1955); USBM files (1945)

1: 23N.1E.32.300
2: Paradise (Sefrina, Gallina)
3: SW1/4 32 T23N R1E 36°10'35"N 106°51'35"W
4: Gallina 7-1/2
5: Vegitas Cluster area-San Pedro Mountains
6: U, Cu
7: no workings found on 7/31/82
8: no production
9: bkgd 30 cps, high on ore pile 60 cps
10: Permian Abo Formation and Pennsylvanian Madera Formation
12: copper oxides
13: Sandstone
14: small ore pile found in NW1/4 32 T23N R1E on 7/31/82, no workings found in area
15: FN 7/31/82; Green and others (1980a, #67); Woodward, L.A., Gibson, and McLelland (1976); Santos and others (1975); Chenoweth (1974b); Hilpert (1969, p. 46); Brown, H.G. (1955)

1: 28N.7E.24.211
2: Phillips drilling area (MFQ 196-197)
3: NW1/4 NE1/4 24 T28N R7E 36°39'10"N 106°08'16"W
4: Burned Mountain 7-1/2 Elevation 9,920 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, Th, Nb
7: 50x10-ft pit
8: no production
9: bkgd 50-100 cps; average 300-400 cps; high 800 cps
10: Precambrian Tusas granite
11: radioactive shear zone associated with quartz veins in Tusas granite
12: 164 ppm U, 250 ppm eTh, 79 ppm Nb (Goodknight and Dexter, 1982), 0.008% U_3O_8, trace Au (NMBMMR chem lab, 6/22/83, #3735)
13: Hydrothermal-vein
15: FN 11/10/81; Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 26N.9E.30.233
2: Pineapple
3: SW1/4 SW1/4 NE1/4 30 T26N R9E 36°27'35"N 106°01'32"W
4: La Madera 7-1/2 Elevation 7,460 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, V, Th
7: bulldozer scrapings, cuts, pits
8: 4 tons ore yielding 2 lbs U_3O_8 (0.03%), 1 lb V_2O_5; (may include ore from La Paloma)
9: bkgd 40 cps, high 90 cps
10: Precambrian pegmatite intruding muscovite schist
11: several pegmatites
12: ore shipped probably contained samarskite, monazite, and trace amounts of uraninite
13: Pegmatite
14: mined 1954 by S.H. Wells
15: FN 7/14/82; McLemore (1982a, #56); Anderson, O.J. (1980); Chenoweth (1974); U.S. Atomic Energy Commission (1970, p. 119); USAEC files (1960)

1: 26N.9E.18.133
2: Pino Verde (Luna)
3: SW1/4 NW1/4 18 T26N R9E 36°29'15N 106°02'10"W
4: La Madera 7-1/2 Elevation 8,000 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE
7: 5 prospect pits
8: few hundred pounds of monazite and bismutite; mica produced
10: Precambrian pegmatite
11: 75-ft long, 20-ft wide pegmatite
12: uraninite, samarskite, monazite in albite-rich zone
13: Pegmatite
14: examined by Green and others (1980a)
15: McLemore (1982a, #62); Green and others (1980a, #49); Hilpert (1969, p. 47); Bingler (1968, p. 68); Jahns (1946, p. 183)

1: 24N.3E.4.310
2: Pivot Rock
3: SW1/4 4 T24N R3E (unsurveyed) 36°20'30"N 106°37'40"W
4: Laguna Peak 7-1/2
5: Chama Basin area
6: U
7: 3 trenches
8: no production
10: Triassic Chinle Formation-Agua Zarca Sandstone Member
11: scattered mineralized zones around fossil logs and carbonaceous material in sandstone and conglomerate
12: 0.40% U_3O_8 (Light, 1982)
13: Sandstone
14: mine plan by Light (1982)
15: Light (1982); Green and others (1980a, #10); Chenoweth (1974b); Saucier (1974); Hilpert (1969, p. 47); PRR ED-R-611 (1956); PRR PHK (1956)

1: 26N.2E.30.200
2: Poso Springs
3: NE1/4 30 T26N R2E (unsurveyed)
4: Llaves 15
5: Gallina Mountain area
6: U, Cu
7: no workings
8: no production
10: Triassic Chinle Formation-Poleo Sandstone Lentil
11: mineralized sandstone associated with organic debris
13: Sandstone
15: Green and others (1980a, #3); Chenoweth (1974b)

1: 26N.1W.33.330
2: Princess Claims
3: SW1/4 SW1/4 33 T26N R1W
4: Llaves 15
5: Llaves area
6: U
7: no workings
8: no production
10: Eocene San Jose Formation-Llaves Member
11: radioactive zone at base of sandstone
13: Sandstone
14: Green and others (1980a) could not locate described occurrence; PRR incorrectly locates occurrence in Section 31
15: Green and others (1980a, #6); Vizcaino and O'Neill (1977); Chenoweth (1974b; 1957b, p. 15-16); PRR ED-R-622 (1956)

1: 21N.2E.11.144
2: RA #1
3: SE1/4 NW1/4 11 T21N R2E 36°4'5"N 106°41'50"W
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7: small prospect pit
8: no uranium production
10: Permian Abo Formation
12: 74 ppm U_3O_8 (Green and others, 1980a)
13: Sandstone
14: examined by Green and others (1980a)
15: Green and others (1980a, #36); Woodward, L.A. and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974b); Hilpert (1969, p. 45)

1: 21N.2E.11
2: RA #2
3: 11 T21N R2E
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7: caved shaft
8: no uranium production
10: Permian Abo Formation
12: 0.023% U (Hilpert, 1969)
13: Sandstone
15: Woodward, L.A. and Timmer (1979); Hilpert (1969, p. 45)

1: 27N.8E.10.422
2: Rancho AAA (Green Peak; Parker, Wilmeth, Washburn)
3: NE1/4 NE1/4 SE1/4 10 T27N R8E 36°35'20"N 106°05'00"W
4: Las Tablas 7-1/2
5: Petaca district-Kiowa Mountain
6: mica, Cu, U
7: 35-40-ft adit, pits, trenches
8: no production
9: bkgd 20-40 cps, high with copper vein 80-110 cps
10: Precambrian pegmatite intruding Kiowa Mountain Formation
11: radioactive copper vein inturding pegmatite
12: monazite in pegmatite; 0.010% U_3O_8, 3.00% Cu (NMBMMR chem lab, 11/15/82, #2382)
13: Hydrothermal-vein/Pegmatite
14: see Unknown-MIR 046
15: FN 7/14/82; McLemore (1982a, #89); Green and others (1980a, #50); Hilpert (1969, p. 48); Jahns (1946, p. 105); PRR ED-R-201 (1952)

1: 26N.8E.25.444
2: Red (Peacock)
3: SE1/4 SE1/4 25 T26N R8E 36°27'10"N 106°2'25"W
4: La Madera 7-1/2 Elevation 7,460 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th (occurrence)
7: trenches, pits, caved shaft
8: no uranium production, mica produced
10: Precambrian pegmatite
11: 250-ft long, 65-ft wide dike
12: columbite, samarskite, monazite reported
13: Pegmatite
15: McLemore (1982a, #48); Redmon (1961); Jahns (1946, p. 228)

1: 22N.3E.8.214
2: Red Head Claims (Arroyo del Agua)
3: NE1/4 8 T22N R3E 36°9'30"N 106°38'20"W
4: Arroyo del Agua 7-1/2
5: Coyote area
6: U, Cu
7: open cut reported but not found on 8/1/82
8: production, if any, included in Red Head #2
9: no anomalous radioactivity
10: Permian Cutler Formation
13: Sandstone
15: FN 8/1/82; Green and others (1980a, #27, 83); Hilpert (1969, p. 45, #3); PRR ED-R-209 (1952); USAEC files (1960)

1: 22N.3E.8.232
2: Red Head #2 (Redbird adit, Hillfoot, Tinney #2, Coyote Hill #1)
3: SW1/4 NE1/4 8 T22N R3E 36°9'28"N 106°38'25"W
4: Arroyo del Agua 7-1/2 Elevation 6,850 ft
5: Coyote area
6: U, Cu
7: 50-ft adit with drifts
8: 39 tons ore yielding 121 lbs U_3O_8 (0.16%), 124 lbs V_2O_5
10: Permian Cutler Formation
13: Sandstone
14: mined 1955 by Bolivor Uranium Co.; examined by Green and others (1980a)
15: Anderson, O.J. (1980); Green and others (1980a, #26); Vizcaino and others (1978); Hilpert (1969, p. 45, #23); PRR ED-R-737 (1957); USAEC files (1960); CRIB (undated)

1: 23N.3E.31.332
2: Resurrection (Blackhorse #3)
3: S1/2 SW1/4 31 T23N R3E 36°10'40"N 106°39'55"W
4: Arroyo del Agua 7-1/2
5: Coyote area
6: U, Cu
7: pits
8: no production
10: Permian Cutler Formation
11: small deposits in siltstone at the base of a scour
13: Sandstone
15: Green and others (1980a, #23); Vizcaino and others (1978); Chenoweth (1974b; 1957); Hilpert (1969, p. 46); PRR ED-R-756 (1957)

1: 22N.3E.27.210
2: Rey and Lou Claims (Reynolds Electrical and Eng. Corp.)
3: W1/2 NE1/4 27 T22N R3E
4: Cerro del Grant 7-1/2
5: Gallina district-San Pedro Mountains
6: U
7: pit
8: no production
10: Jurassic Todilto Limestone
11: mineralization associated with intraformational folds
12: 0.02% U_3O_8 (Hilpert, 1969)
13: Limestone
14: similar to Todilto deposits in the Grants district
15: Green and others (1980a, #21); Chenoweth (1974b); Hilpert (1969, p. 45); PRR ED-R-754 (1955); ED-R-759 (1955)

1: 26N.8E.1.122
2: St. Joseph
3: CN1/2 1 T26N R8E, 36 T27N R8E 36°31'26"N 106°03'00"W
4: Las Tablas 7-1/2 Elevation 8,120 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE, beryl
7: 5 shallow cuts
8: few pounds mica, beryl, columbite-tantalite, samarskite produced
10: Precambrian pegmatites
11: 2 pegmatites striking N50°-60°W
12: samarskite in quartz zone
13: Pegmatite
15: Jahns (1946, p. 136)

1: 21N.2E.11.424
2: St. Jude (Unknown)
3: NE1/4 SE1/4 11 T21N R2E 36°3'45"N 106°41'15"W
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7: pits, trenches
8: no uranium production
10: Permian Abo Formation
11: 2-3 ft mineralized zone at base of sandstone
12: 158 ppm U_3O_8 (Green and others, 1980a)
13: Sandstone
14: examined by Green and others (1980a)
15: Green and others (1980a, #37, 86); Woodward, L.A. and Timmer (1979); Vizcaino and others (1978); Chenoweth (1974b); Hilpert (1969, p. 45); PRR ED-R-615 (1956)

1: 26N.8E.12.121
2: Sandoval (Apaches #2, Old Black Horse, Kentucky)
3: NE1/2 NW1/4 12 T26N R8E 36°30'30"N 106°3'00"W
4: Las Tablas 7-1/2 Elevation 7,950 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE (occurrence)
7: cuts, pits, 2 shafts, one decline
8: no uranium production, mica produced
9: bkgd 30-40 cps, high near monazite 250-300 cps
10: Precambrian pegmatite
11: 3 separate pegmatite bodies
12: monazite, samarskite
13: Pegmatite
15: FN 7/14/82; Jahns (1946, p. 161)

1: 25N.5E.10.100, 200
2: Section 10 (Martinez)
3: N1/2 10 T25N R5E 36°25'00"N 106°23'20"W
4: Canjilon 7-1/2
5: Chama Basin area
6: U
7: closely spaced drill holes--195-230 ft deep
8: no production
10: Cretaceous Burro Canyon Formation-upper member
11: 6-15 ft thick mineralized horizon at top of Burro Canyon, low-grade orebodies
13: Sandstone--roll-front
14: drilled by Atlantic Richfield Corp. (Anaconda) in 1979
15: Holen (1982); Saucier (1974); USAEC files (1960)

1: 21N.2E.12.143
2: Section 12
3: NW1/4 12 T21N R2E 36°4'00"N 106°40'50"W
4: Jarosa 7-1/2 Elevation 8,500 ft
5: Gallina district-San Pedro Mountains
6: U, Cu
7: several trenches, shallow pits
8: copper production, if any, unknown; no uranium production
9: bkgd 30 cps, average 50-100 cps, high 500 cps
10: Permian Abo Formation
11: spotty and discontinuous copper and uranium mineralization in white to gray, coarse-grained arkosic sandstone
12: 0.14% U_3O_8, 35.4% Cu, 20.5 oz/ton Ag, 0.00 oz/ton Au (NMBMMR chem lab 10/6/82, #2851)
13: Sandstone
15: FN 8/1/82; Woodward, L.A. and Timmer (1979)

1: 26N.8E.11.212
2: Silver Plate
3: NW1/4 NE1/4 11 T26N R8E 36°30'30"N 106°3'40"W
4: Las Tablas 7-1/2 Elevation 8,040 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U,Th, REE, beryl (occurrence)
7: 90-ft adit, several cuts
8: no uranium production, mica produced
10: Precambrian pegmatite
11: large dike trending N60° to 70°E
12: monazite, columbite, samarskite
13: Pegmatite
15: McLemore (1982a, #68); Jahns (1946, p. 158)

1: 27N.8E.25.222
2: Silver Spur (Old Eureka, Hoyt-Seward)
3: NE1/4 NE1/4 25 T27N R8E 36°33'3"N 106°2'16"W
4: Las Tablas 7-1/2 Elevation 8,160 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: several cuts, shafts, declines, 30-ft adit, 60-70-ft shaft
8: no uranium production, mica produced
10: Precambrian pegmatite intruding quartzite
11: 400-ft and 150-ft long pegmatites striking N20°-40°W
12: monazite, samarskite
13: Pegmatite
15: Redmon (1961); Jahns (1946); USBM files (1945)

1: 24N.8E.12.341
2: Star Mine
3: NW1/4 SE1/4 SW1/4 12 T24N R8E 36°19'51"N 106°2'58"W
4: Ojo Caliente 7-1/2 Elevation 6,520 ft
5: Ojo Caliente district
6: mica, feldspar, U, Th (occurrence)
7: 70-ft adit, 22-ft stope, cuts and trenches
8: no uranium production, mica produced
9: bkgd 30-40 cps, high 90 cps
10: Precambrian pegmatite intruding chlorite hornblende schist
11: pegmatite strikes S80°W, 200-ft long, 20-ft wide
12: microcline, samarskite reported
13: Pegmatite
14: no uranium potential
15: FN 7/13/82; McLemore (1982a, #43); Redmon (1961, p. 53); Jahns (1946, p. 270)

1: 23N.1W.16.340
2: State Lease (Little Prospect)
3: SE1/4 SW1/4 16 T23N R1W 36°13'00"N 106°56'47"W
4: Regina 7-1/2 Elevation 7,550 ft
5: west of Gallina district-San Pedro Mountains
6: U
7: no workings
8: no production
9: 7 times background reported
10: Tertiary San Jose Formation
11: mineralized gray sandstone and mudstone
12: 0.08% U_3O_8 (Chenoweth, 1957b)
13: Sandstone
14: could not locate on 7/31/82; examined by Green and others (1980a)
15: FN 7/31/82; Green and others (1980a, #16); Chenoweth (1974a; 1957b); Hilpert (1969); PRR ED-R-492 (1954)

1: 26N.8E.25.323
2: Sunnyside
3: NE1/4 SW1/4 25 T26N R8E 36°27'15"N 106°2'50"W
4: La Madera 7-1/2 Elevation 7,680 ft
5: Petaca district-La Madera area
6: mica, beryl, feldspar, U, Th, REE (occurrence)
7: 40° decline, pits
8: no uranium production; fluorite, beryl, mica produced
10: Precambrian pegmatite intruding quartz-mica schist
12: samarskite, beryl, monazite
13: pegmatite
14: cross-section sketch by Jahns (1955, p. 1,069)
15: McLemore (1982, #49); Adams, J.W. and others (1980); Redmon (1961); Jahns (1955; 1946, p. 226)

1: 21N.2E.14.424
2: Teakettle Rock (Unnamed, Erma)
3: SE1/4 14 T21N R2E 36°2'50"N 106°41'18"W
4: Jarosa 7-1/2 Elevation 8,670 ft
5: Gallina district-San Pedro Mountains
6: U, Cu
7: Teakettle Rock (outcrop), small pit north of Teakettle Rock
8: no production
9: bkgd 30 cps, high (Teakettle Rock) 270 cps, pit 80 cps
10: Permian Abo Formation
11: spotty and discontinous copper and uranium mineralization in arkosic sandstone and conglomerate
13: Sandstone
14: no uranium potential but may be indicative of additional mineralization
15: FN 8/1/82; Green and others (1980a, #38); Woodward, L.A. and Timmer (1979); Chenoweth (1974a); Hilpert (1969, p. 45); Baltz (1955a, p. 11)
16: figure 20

1: 23N.1E.29.340
2: TJBD #1
3: SW1/4 29 T23N R1E 36°11'25"N 106°51'35"W
4: Gallina 7-1/2
5: Vegitas Cluster area-San Pedro Mountains
6: U, Cu
7: no workings found on 7/31/82
8: no production
9: no anomalous radioactivity found on 7/31/82
10: Permian Abo Formation
12: 0.15% U_3O_8 (Hilpert, 1969)
13: Sandstone
15: FN 7/31/82; Green and others (1980a, #32); Vizcaino and others (1978); Woodward, L.A., Gibson, and McLelland (1976); Santos and others (1975); Chenoweth (1974b); Hilpert (1969, p. 46); Brown, H.G. (1955)

1: 24N.6E.30.433
2: Trejo and Sanches No. 1 (Copper Cañon Group, Las Minas Jimmie)
3: 30, 31 T24N R6E (unsurveyed) 36°16'35"N 106°20'3"W
4: Canjilon SE 7-1/2
5: Chama Basin-Abiquiu
6: U, Cu
7: pit, 2 adits
8: no uranium production
10: Permian Abo Formation and Triassic Chinle Formation-Poleo Sandstone Member
11: mineralized lense in conglomeratic sandstones at the contact of the Abo and Chinle Formations
12: 0.18% U_3O_8 (Hilpert, 1969)
13: Sandstone
15: Green and others (1980a, #17); Chenoweth (1974b); Hilpert (1969, p. 47); Bingler (1968, p. 101); Smith, C.T., Budding, and Pitrat (1961); Soulè (1956, p. 57); PRR ED-R-512 (1954); PR unnumbered (1951)

1: 28N.7E.24.224

2: Tusas East Slope #5 (Welch and Royal, Moran, Rough and Ready, Tusas)

3: NE1/4 NE1/4 24 T28N R7E 36°39'5"N 106°8'5"W

4: Burned Mountain 7-1/2 Elevation 9,610 ft

5: Bromide No. 2 district-Tusas Mountains

6: U, fluorite

7: bulldozer cuts; 5-ft deep pits

8: 8 tons ore yielding 6 lbs U_3O_8 (0.04%), 5 lbs V_2O_5

9: bkgd 50 cps; high 2,000 cps

10: Precambrian Petaca Schist and Maquinita Granodiorite

11: radioactive fluorite veins in roof penducts of biotite-rich gneiss containing abundant garnet (2 ft thick)

12: 0.014% U_3O_8 (Goodknight and Dexter, 1982), 0.011% U_3O_8 (NMBMMR chem lab, 6/22/83, #3746)

13: Hydrothermal-vein/Anatectic

15: FN 11/10/81; Kent (1980); Anderson, O.J. (1980); Green and others (1980a, #53); Hilpert (1969, p. 48); USAEC files; Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/29/82)

16: figure 33

1: 21N.2E.14.200

2: Unnamed

3: NE1/4 14 T21N R2E

4: Jarosa 7-1/2

5: Gallina district-San Pedro Mountains

6: U, Cu

7: shallow prospect pit

8: no production

9: bkgd 30 cps, high 60 cps

10: Permian Abo Formation

11: thin lenses of radioactive sandstone and shale

13: Sandstone

15: FN 8/1/82; Woodward, L.A. and Timmer (1979); Hilpert (1969, p. 45); USAEC files (1960)

1: 21N.2E.15.100

2: Unknown (St. Jude)

3: NE1/4 15 T21N R2E

4: Jarosa 7-1/2

5: Gallina district-San Pedro Mountains

6: U, Cu

7:

8: no uranium production

10: Permian Abo Formation

13: Sandstone

15: Green and others (1980a, #37); Woodward, L.A. and Timmer (1979); Chenoweth (1974b)

1: 21N.2E.22
2: Unknown
3: C 22 T21N R2E
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U, Cu
7:
8: no uranium production
10: Permian Abo Formation
13: Sandstone
15: Green and others (1980a, #41); Woodard, L.A. and Timmer
(1979); Vizcaino and others (1978); Chenoweth (1974b)

1: 21N.2E.23.100
2: Unknown (Erma)
3: NW1/4 23 T21N R2E 36°02'25"N 106°42'00"W
4: Jarosa 7-1/2
5: Gallina district-San Pedro Mountains
6: U
7:
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: Green and others (1980a, #63); Woodward, L.A. and Timmer
(1974); Hilpert and Corey (1955)

1: 23N.2E.31.300
2: Unknown
3: SW1/4 31 T23N R2E
4: Gallina 7-1/2
5: San Pedro Mountains
6: U, V
7: no workings
8: no production
10: Triassic Chinle Formation-Poleo Sandstone Member
13: Sandstone
15: Green and others (1980a, #58); Woodward, L.A., Gibson, and
McLelland (1976); Hilpert and Corey (1955)

1: 23N.2W.15
2: Unknown
3: 15 T23N R2W (unsurveyed)
4: Five Lakes Canyon NE 7-1/2
5:
6: U
7: no workings
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: Green and others (1980a, #65); Hilpert and Corey (1955)

1: 24N.8E.11.121
2: Unnamed (#6)
3: NW1/4 NE1/4 11 T24N R8E 36°20'5"N 106°3'50"W
4: Ojo Caliente 7-1/2 Elevation 6,980 ft
5: Ojo Caliente district
6: mica, feldspar, U, Th, REE (occurrence)
7: open cuts
8: no production
10: Precambrian pegmatite
11: pegmatite trending N70°-80°E
12: fluorite, samarskite, monazite reported
13: Pegmatite
14: no uranium potential
15: McLemore (1982a, #44); Jahns (1946, p. 272)

1: 24N.8E.12.343
2: Unnamed (#8)
3: SE1/4 SW1/4 12 T24N R8E 36°'45"N 106°2'58"W
4: Ojo Caliente 7-1/2 Elevation 6,440 ft
5: Ojo Caliente district
6: mica, feldspar, beryl, U, Th, REE (occurrence)
7: pits
8: no production
10: Precambrian pegmatite
12: columbite, samarskite
13: Pegmatite
14: no uranium potential
15: Jahns (1946, p. 274)

1: 25N.5E.3.200
2: Unknown-Section 3
3: NE1/4 3 T25N R5E 36°25'50"N 106°23'25"W
4: Canjilon 7-1/2
5: Chama Basin area
6: U
7: drill holes--200-300 feet deep
8: no production
10: Cretaceous Burro Canyon Formation-upper member
11: small, low-grade orebodies
13: Sandstone--roll-front
15: Holen (1982);Green and others (1980a, #71); Saucier (1974)

1: 25N.5E.4.344
2: Unknown-Section 4
3: S1/2 4 T25N R5E 36°25'25"N 106°24'40"W
4: Canjilon 7-1/2
5: Chama Basin area
6: U
7: closely spaced drill holes--300-400 ft deep
8: no production
10: Cretaceous Burro Canyon Formation-lower member
11: low-grade mineralization
13: Sandstone--roll-front
15: Saucier (1974)

1: 25N.5E.4.420
2: Unknown-Section 4
3: SE1/4 4 T25N R5E 36°25'35"N 106°24'10"W
4: Canjilon 7-1/2
5: Chama Basin area
6: U
7: closely spaced drill holes--300-400 ft deep
8: no production
10: Cretaceous Burro Canyon Formation
11: small, low-grade ore bodies
13: Sandstone--roll-front
15: Saucier (1974)

1: 25N.5E.8.200
2: Unknown-Section 8
3: NE1/4 8 T25N R5E 36°25'5"N 106°25'30"W
4: Canjilon 7-1/2
5: Chama Basin area
6: U
7: closely spaced drill holes--300-400 ft deep
8: no production
10: Cretaceous Burro Canyon Formation-lower member
11: low-grade mineralization
13: Sandstone--roll-front
15: Saucier (1974)

1: 26N.4E.29.444
2: Unknown
3: 28, 29 T26N R4E 36°27'5"N 106°31'40"W
4: Alire 7-1/2
5: Chama Basin area
6: U
7: closely spaced drill holes
8: no production
10: Cretaceous Burro Canyon Formation-lower member
11: low-grade, reduced mineralization
13: Sandstone
15: Saucier (1974)

1: 27N.7E.24.124
2: Unknown (MFQ-19Ø)
3: NE1/4 NW1/4 24 T27N R7E 36°39'3"N 1Ø6°9'4"W
4: Burned Mountain 7-1/2 Elevation 1Ø,Ø2Ø ft
5: Bromide No. 2 district-Tusas Mountains
6: U
7: no workings-outcrop
8: no production
1Ø: Precambrian Moppin Schist and Tusas granite
11: radioactive inclusions in granite
12: Ø.Ø47% U_3O_8, 141 ppm eTh, 83 ppm Nb
13: Hydrothermal-vein/Anatectic
15: Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 27N.7E.24.242
2: Unknown (MFQ-8Ø5)
3: SE1/4 NW1/4 24 T27N R7E 36°39'1"N 1Ø6°9'1"W
4: Burned Mountain 7-1/2 Elevation 1Ø,1ØØ ft
5: Bromide No. 2 district-Tusas Mountains
6: U, Th, REE
7: no workings-outcrop
8: no production
1Ø: Precambrian Moppin Schist and Tusas granite
11: radioactive biotite-rich inclusion in granite
12: Ø.Ø26% U_3O_8, 279 ppm eTh, thorium-rare-earth elements minerals
13: Hydrothermal-vein/Anatectic
15: Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 27N.8E.11.141
2: Unknown-MIR-Ø46 (part of Rancho AAA?)
3: SE1/4 NW1/4 11 T27N R8E 36°35'24"N 1Ø6°4'8"W
4: Las Tablas 7-1/2 Elevation 8,525
5: Petaca district-Kiowa Mountain
6: U, Th, Nb, REE
7: no development-outcrop sample, pits nearby
8: no production
9: bkgd 1ØØ cps; high 1,ØØØ cps (Craig Goodknight)
1Ø: Precambrian Vadito Formation
11: radioactive muscovite quartzite containing magnetite in zone 3-5-ft thick
12: 432 ppm U, 267 ppm eTh, 732 ppm Nb; trace minerals include monazite and titanium yttrium niobate (Nb, Ti, Y, U, Fe)
13: Hydrothermal-vein
15: FN 11/7/8Ø; Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82); PRR ED-2Ø1 (1952)

1: 28N.7E.13.333
2: Unknown (Prospect #2, Moran, MIR-042, MFQ-187)
3: SW1/4 SW1/4 13 T28N R7E 36°39'17"N 106°8'55"W
4: Burned Mountain 7-1/2 Elevation 9,760 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite
7: 2 shallow pits, 20-ft shaft, large open cut
8: no production
9: bkgd 50-100 cps; average 300 cps; high along open cut 8,000 cps
10: Precambrian Moppin Schist and Tusas granite
11: radioactive zone along contact between granite and schist
12: 0.171% U_3O_8, 2% Th (Goodknight and Dexter, 1982), 0.04%, 0.066% U_3O_8 (NMBMMR chem lab, 2/10/82, #1785, 6/22/83, #3739), unidentified uranium-thorium silicate mineral, uranothorite
13: Hydrothermal-vein/Contact-metasomatic
15: FN11/10/81; Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 28N.7E.13.433
2: Unknown (MFQ-194, 195, MIR-43)
3: SW1/4 SE1/4 13 T28N R7E 36°39'16"N 106°8'20"W
4: Burned Mountain 7-1/2 Elevation 9,780 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite
7: no workings
8: no production
10: Precambrian Moppin Schist and Tusas granite
11: radioactive zone along contact between fluorite-rich biotite schist and granite
12: 0.03% U_3O_8; 1,940 ppm eTh
13: Hydrothermal-vein/Contact-metasomatic
15: Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 28N.7E.14.442
2: Unknown (MFQ-189)
3: SE1/4 SE1/4 14 T28N R7E 36°39'30"N 106°39'8"W
4: Burned Mountain 7-1/2 Elevation 9,650 ft
5: Bromide No. 2 district-Tusas Mountains
6: U
7: no workings-outcrop
8: no production
10: Precambrian Tusas granite
11: radioactive outcrop of isolated granite
12: 79 ppm U_3O_8
13: Hydrothermal-vein
15: Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 28N.7E.23.222
2: Unknown (Discovery pit #1, MFQ-184)
3: NE1/4 NE1/4 23 T28N R7E 36°39'12"N 106°09'10"W
4: Burned Mountain 7-1/2 Elevation 9,770 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite
7: shallow pit
8: no production
9: bkgd 50 cps, average 100-300 cps, high 300-400 cps
10: Precambrian Moppin Schist and Tusas granite
11: radioactive zone along contact between gneiss and granite
12: 0.045% U_3O_8, 2,270 ppm eTh, unidentified U and Th minerlas (Goodknight and Dexter, 1982)
13: Hydrothermal-vein/Contact-metasomatic
15: FN 11/10/81; Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/29/82)
16: figure 33

1: 28N.7E.23.241
2: Unknown shaft (MFQ-804)
3: SE1/4 NE1/4 23 T28N R7E 36°39'00"N 106°09'15"W
4: Burned Mountain 7-1/2 Elevation 9,680 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, Au(?)
7: shaft
8: no uranium production
10: Precambrian Moppin Schist
11: radioactive dump material of hornblendite
12: 0.010% U_3O_8, 1,310 ppm eTh
13: Hydrothermal-vein
15: Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/29/82)
16: figure 33

1: 28N.7E.24.222
2: Unknown (MFQ-806, 807)
3: NE1/4 NE1/4 24 T28N R7E 36°39'10"N 106°08'00"N
4: Burned Mountain 7-1/2 Elevation 9,410 ft
5: Bromide No. 2 district-Tusas Mountains
6: U
7: no workings-outcrop
8: no production
10: Precambrian Tusas granite
11: radioactive magnetite and bectite-rich zones in granite
12: 0.054% U_3O_8, 310 ppm eTh, 720 ppm Nb
13: Hydrothermal-vein/Anatectic
15: Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 28N.7E.24.223
2: Unknown (MFQ-198)
3: NE1/4 NE1/4 24 T28N R7E 36°39'5"N 106°8'7"W
4: Burned Mountain 7-1/2 Elevation 9,680 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite
7: no workings-outcrop
8: no production
10: Precambrian Petaca Schist and Tusas Granite
11: radioactive fluorite veins in roof pendents of biotite-rich gneiss
12: 0.061% U_3O_8, 310 ppm Nb
13: Hydrothermal-vein/Anatectic
15: Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 28N.7E.24.241
2: Unknown (MFQ-199)
3: SE1/4 NE1/4 24 T28N R7E 36°39'4"N 106°8'9"W
4: Burned Mountain 7-1/2 Elevation 9,780 ft
5: Bromide No. 2 district-Tusas Mountains
6: U, fluorite
7: no workings-outcrop
8: no production
10: Precambrian Petaca Schist and Maquinita Granodiorite
11: radioactive fluorite veins in roof pendants of biotite-rich gneiss
12: 0.034% U_3O_8, 139 ppm eTh
13: Hydrothermal-vein/Anatectic
15: Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 28N.7E.24.422
2: Unknown (Prospect Pit #3)
3: 24 T28N R7E, 19 T28N R8E 36°38'48"N 106°7'59"W
4: Burned Mountain 7-1/2
5: Bromide No. 2 district-Tusas Mountains
6: U
7: trench or open cut, pits
8: no production
9: bkgd 50-100 cps; average 400-600 cps; high 2,000 cps
10: Precambrian Moppin Schist, Tusas Granite
11: radioactive mafic inclusions along fractures in granite, several hundred yards long, trending N40°-50°W
13: Hydrothermal-vein/Contact-metasomatic
15: FN 11/10/81
16: figure 33

1: 28N.8E.19.111
2: Unknown (MFQ-811)
3: NW1/4 NW1/4 19 T28N R8E 36°39'10"N 106°7'58"W
4: Burned Mountain 7-1/2 Elevation 9,400 ft
5: Bromide No. 2 district-Tusas Mountains
6: U
7: no workings-outcrop
8: no production
10: Precambrian Tusas granite
11: radioactive zone of mafic inclusions in granite
12: 0.031% U_3O_8, 447 ppm eTh, 170 ppm Nb
13: Hydrothermal-vein/Anatectic
15: Kent (1980); Craig Goodknight and Jim Dexter (Bendix Field Corp., WC, 4/24/82)
16: figure 33

1: 28N.8E.20.331
2: Unknown (MFQ-808, 809)
3: SW1/4 SW1/4 20 T28N R8E 36°38'40"N 106°7'25"W
4: Mule Canyon 7-1/2 Elevation 9,560 ft
5: Bromide No. 2 district-Tusas Mountains
6: Cu, Au, U
7: shaft
8: no uranium production
10: Precambrian Tusas granite
11: radioactive copper-gold veins in granite
12; 47 ppm U_3O_8, 860 ppm Cu, uraninite present in trace amounts
13: Hydrothermal-vein
15: Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., WC, 4/24/82)
16: figure 33

1: 25N.8E.11.432
2: Vargas-Jarmillo
3: SE1/4 11 T25N R8E 36°24'33"N 106°3'34"W
4: La Madera 7-1/2 Elevation 6,600 ft
5: Petaca district-La Madera area
6: U
7: pit, trench, 45-ft adit
8: production reported but not confirmed by AEC records
9: up to 30 times background radioactivity reported (Green and others, 1980a)
10: Tertiary Santa Fe Formation
12: 69 ppm U_3O_8 (Green and others, 1980a)
13: Sandstone
14: examined by Green and others (1980a)
15: Green and others (1980a, #47); Hilpert (1969, p. 47); PRR DEB-P-4-1471 (1956)

1: 27N.8E.24.143
2: Vestguard (Microblue)
3: W1/2 36 T27N R8E 36°31'55"N 106°03'00"W
4: Las Tablas 7-1/2 Elevation 8,020 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE, beryl
7: cuts, pits, trenches
8: no uranium production
9: bkgd 30-40 cps, high 80-100 cps
10: Precambrian pegmatite
11: several irregular pegmatites
12: samarskite in albite-rich zone
13: Pegmatite
15: Redmon (1961); Jahns (1946); PRR DEB-P-4-1471 (1956)

1: 26N.8E.25.212
2: White (La Blanca, Lyons, Frances #2)
3: SW1/4 NE1/4 25 T26N R8E 36°27'40"N 106°2'40"W
4: La Madera 7-1/2 Elevation 7,650 ft
5: Petaca district-La Madera area
6: mica, feldspar, U, Th, REE (occurrence)
7: open cuts, 65-ft decline, adit, stopes
8: no uranium production, mica produced
10: Precambrian pegmatite
11: zoned pegmatite, 220 ft long, 50 ft wide
12: samarskite, monazite, columbite
13: Pegmatite
14: no uranium potential
15: McLemore (1982a, #52, 53); Green and others (1980a, #76); Redmon (1961); Jahns (1946, p. 219); PRR DEB-RRA-1417

1: 23N.1E.19.333
2: White Flo #1 (White Flow #1, Corral #3 claim)
3: SW1/4 SW1/4 19 T23N R1E 36°12'15"N 106°53'00"W
4: Regina 7-1/2 Elevation 8,100 ft
5: Vegitas Cluster area-San Pedro Mountains
6: U, Cu, V
7: 125-ft long trench
8: 4 tons ore yielding 7 lbs U_3O_8 (0.08%), 43 lbs V_2O_5
9: up to 4 times background radioactivity (Anderson, O.J., 1980)
10: Permian Abo Formation
13: Sandstone
14: on the Corral #3 claim; examined by Green and others (1980a)
15: Merrick and Woodward, L.A. (1982); Green and others (1980a, #29); Anderson, O.J. (1980); Vizcaino and others (1978); Santos and others (1975); Woodward, L.A. Kaufman, Talbott, L.W., and Schumacher (1974); Chenoweth (1974b); Hutson (1958); Brown, H.G. (1955); PRR-ED-R-610 (1956); USAEC files (1960)

1: 26N.7E.4.314
2: William Hill (Dianne #1, Vallecitos)
3: SW1/4 4 T26N R7E 36°30'45"N 106°12'5"W
4: Cañon Playa 7-1/2
5: Tusas Mountains
6: U
7: no workings
8: no production
10: Tertiary Carson Conglomerate
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 122-123)

1: 25N.2E.22
2: Williamson claim (Lee Williamson)
3: 22 T25N R2E
4: Navajo Peak 7-1/2
5: Chama Basin area
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation(?)
13: Sandstone
15: PRR-ED-R-757 (1952)

1: 26N.8E.1.411
2: Wyoming
3: NW1/4 SE1/4 1 T26N R8E 36°30'55"N 106°2'40"W
4: Las Tablas 7-1/2 Elevation 8,120 ft
5: Petaca district-Las Tablas area
6: mica, feldspar, U, Th, REE
7: pits, cuts
8: no production
10: Precambrian pegmatite
11: 500-ft long pegmatite striking N80°-85°E
12: samarskite
13: Pegmatite
15: Jahns (1946, p. 155)

1: 25N.1W.19
2: Young prospect
3: 19 T25N R1W
4: Llaves 15
5: Llaves area
6: U
7: no workings
8: no production
10: Eocene San Jose Formation
12: 0.04% U_3O_8 (Hilpert, 1969)
13: Sandstone
15: Hilpert (1969, p. 47)

ROOSEVELT COUNTY

No occurrences

Alphabetical (121 occurrences)

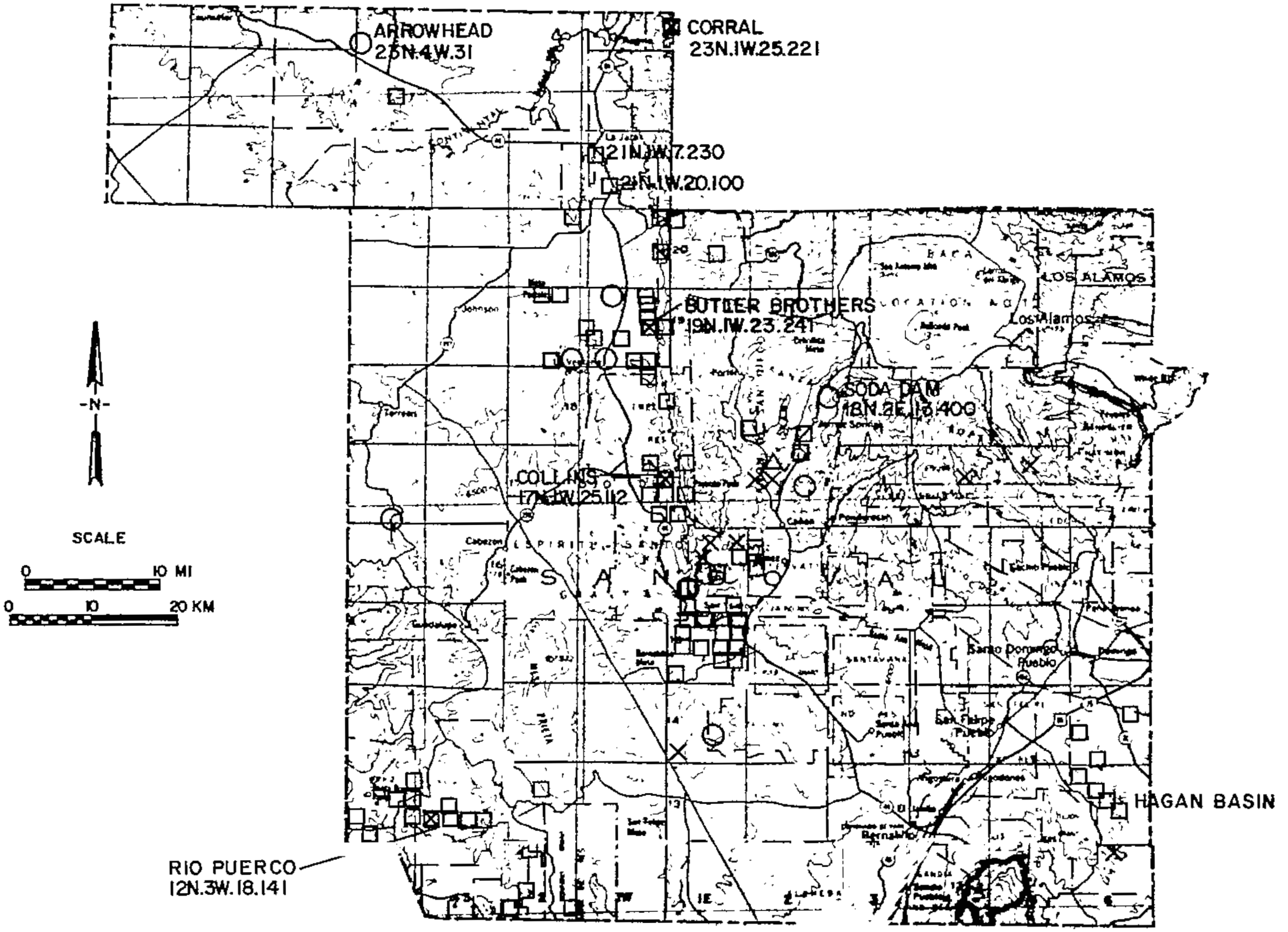
Anomaly No. 1	16N.1E.12.110
Anomaly No. 2	13N.2W.9.132
Anomaly #2	16N.1E.8.300
Anomaly #2-Jemez Reservation	16N.1E.17.214
Anomaly #3	15N.1E.17.414
Anomaly #3-Jemez Reservation	16N.1E.21.233
Anomaly #4	16N.1E.20.412
Anomaly #5	15N.1E.26.110
Anomaly #5-Jemez Reservation	16N.1E.21.123
Anomaly #5	17N.1W.14
Anomalies #6-10-Jemez Reservation	16N.1E.13.400
Anomaly #6	17N.1W.35.240
Anomaly No. 6	17N.2E.18.100
Anomaly No. 7	17N.2E.8
Anomaly No. 8	17N.2E.17
Anomaly No. 9	17N.2E.21,22
Anomaly No. 10	16N.1E.29.123
Anomaly #11	16N.1E.29.133
Anomaly #11-Jemez Reservation	16N.2E.18.212
Anomaly #12	16N.1E.29.130
Arrowhead Claims	23N.4W.31
B and G	12N.3W.15.440
Bernabe	12N.2W.35.200
Betty	12N.3W.17.323
Black Rose	19N.1W.4.110
Blackshere	14N.6E.10
Bluebird	20N.1W.12.330
B.P. Hovey Ranch	17N.4W.34.332
Brookhaven	12N.3W.16.300
Burcar	17N.1W.12.220
Butler	19N.1W.23.241
Cleary	19N.1W.14.233
Cliff	20N.1E.6.114
Collier	17N.1W.25.113
Collins	17N.1W.25.112
Collins prospect	17N.1W.23.411
Corral #3	23N.1W.25.221
Corral #6	23N.1W.25.212
Coyote No. 1-10	13N.6E.22.320
Cuba #13	19N.2W.35
Deer Creek	18N.1E.35.144
Dennison-Bunn	19N.1W.11.440
Dial Exploration Co.	14N.6E.19
Dial Exploration Claims	13N.6E.9,10
Diamond Tail	13N.6E.16.124
Dory	12N.3W.8.122
Garcia fault zone	14N.1E.31
Goodner-Section 11	17N.1W.11.300
Herrera Ranch-Anaconda	12N.2W.31.420
Houston	19N.2W.3.340
Jewell	20N.1E.15.300
Lone Star Mining and Dev. Corp.	15N.1E.27.200
Lone Wolf Group	15N.1W.10.444
Lone Wolf Group	15N.1W.11.321
Lone Wolf Group	15N.1W.11.414
Manganese Prospect	22N.4W.21
Marquez Grant	13N.4W.32.300
Mauldian	19N.1W.2.244
Mesa Portales	19N.2W.4
Mimi #1-4	12N.6E.3.413
Morris Peters #17	15N.1E.17
Morris-Peters #20	15N.1E.20.441
Morris-Peters #21	15N.1E.21.441
Nacimiento Mine	20N.1W.1.141
North Blackshere Ranch	13N.13E.6.400
North Butte	19N.1W.28.300
Northeast of Soda Dam	18N.2E.13.200
Peralta Canyon	17N.4E.10,15
Peralta Canyon(?)	17N.5E.9.410
Polka Dot Uranium Group	15N.1W.15.124
Polka Dot Uranium Group	15N.1W.15.223
Rambler No. 2	19N.1W.35.120
Rattlesnake Group	15N.1W.14.400
Rio Puerco	12N.3W.18.141
San Miguel Mine	19N.1W.24.100
Section 13	12N.4W.13.200
Section 36	17N.1W.36.300
Soda Dam	18N.2E.13.400
South Butte	19N.1W.34.300
Spanish Queen	17N.2E.3.400
Spanish Queen West	17N.2E.3.340
Tex-N	18N.2E.34
Unknown	12N.2W.5.322
Unknown	12N.2W.6.221
Unknown	12N.2W.29.111
Unknown	12N.2W.31.441
Unknown	12N.4W.1.200
Unknown	12N.4W.12.143
Unknown	12N.4W.23.411
Unknown	13N.4W.25
Unknown	14N.1E.27.400
Unknown	15N.1E.22.144
Unknown	15N.1E.31
Unknown	15N.1W.8.223
Unknown	15N.1W.9.441
Unknown	15N.1W.10.210
Unknown	15N.1W.21.441
Unknown	15N.1W.22.441
Unknown	15N.1W.23.400
Unknown	16N.1E.29.413
Unknown	16N.1E.32.211
Unknown	16N.2E.7.100
Unknown	17N.1W.15.211
Unknown	17N.1W.25.420
Unknown	17N.1W.27.222
Unknown	17N.1W.36.323
Unknown	18N.1W.2.341
Unknown	18N.1W.12.300
Unknown	19N.1W.19.230
Unknown	19N.1W.30.221
Unknown	19N.1W.30.322
Unknown	19N.1W.32.232
Unknown	19N.2W.36.223
Unknown	20N.1E.6.300
Unknown	20N.2W.1.100
Unknown	21N.1W.7.230
Unknown	21N.1W.20.100
J. Walker #1	17N.1W.26
We Hope #4	13N.6E.4,5
We(e) Hope, Rabac, DEC Claims	14N.6E.32
Yellow Cliffs Group	15N.1W.21.214

Alias	Name	Number
A-1 Lode	Peralta Canyon	17N.4E.10,15
Anomaly #1	Dory	12N.3W.8,122
Anomaly #4	Morris-Peters #20	15N.1E.20.441
Anomaly #4	Unknown	17N.1W.27.222
Anomaly #3 and 7	Section 36	17N.1W.36.300
Anomaly #7	Anomaly #2	13N.2W.9.132
Babacka	Coyote No. 1-10	13N.6E.22.320
Base Metals	Unknown	12N.4W.1.200
Blackshere Ranch	Dial Exploration Claims	13N.6E.9,10
Bokum Resources	Marquez Grant	13N.4W.32.300
Burke-Goodner Lease	Collins	17N.1W.25.112
Burnett	Spanish Queen	17N.2E.3.400
Collins Prospect	Morris Prospect #20	15N.1E.20.441
Conoco— Barnabe Montana	Bernabe	12N.2W.35.200
Copper City	Nacimiento Mine	20N.1W.1.141
Copper Prospect	Peralta Canyon	17N.5E.9.410
Corral #1	Corral #3	23N.1W.25.221
D. Dial Exp.	North Blackshere	13N.13E.6.400
DEC Claims	We(e) Hope	14N.6E.32
Dedos Gordos	Unknown	18N.1W.12.300
Diamond Tail	Coyote No. 1-10	13N.6E.22.320
Doerrie	Dory	12N.3W.8.122
Don No. 11	Cliff	20N.1E.6.114
Dorie	Dory	12N.3W.8.122
East	Spanish Queen	17N.2E.3.400
G. Adir/Witax	Cuba #13	19N.2W.35
Georgie Claims	Dennison-Bunn	19N.1W.11.440
Goodner	Collins	17N.1W.28.112
Jemez	Anomaly #7	17N.2E.8
Jemez	Anomaly #6	17N.2E.18.100
J. Walker No. 1	Collins	17N.1W.25.112
Kerr-McGee	Rio Puerco	12N.3W.18.141
Kroeger #1	Unknown	17N.1W.25.420
La Ventana Mesa	North Butte	19N.1W.28.300
La Ventana Mesa	South Butte	19N.1W.34.300
Lib Claims	Dial Exploration Co.	14N.6E.19
Lonestar Mining and Dev. Corp.	Anomaly #5	15N.1E.26.110
Morris-Peters #17	Anomaly #3	15N.1E.17.414
Nacimiento	Unknown	15N.1W.10.210
New Cinch	Mesa Portales	19N.2W.4
North Blackshere Ranch	We(e) Hope	14N.6E.32
O.B.S.	Peralta Canyon	17N.4E.10,15
Ojo del Espirito Santo Grant	Anomaly #5	17N.1W.14
Ojo del Espirito Santo Grant	Burcar	17N.1W.12.220
Ojo del Espirito Santo Grant	Unknown	17N.1W.15.211
Ojo del Espirito Santo Grant	Unknown	7N.1W.27.222
Peralta Lion Group	Peralta Canyon	17N.4E.10,15
Perry Robb	Soda Dam	18N.2E.13.400
Polka Dot	Unknown	15N.1W.10.210
Portal Claims	Mesa Portales	19N.2W.4
Rabac	We(e) Hope	14N.6E.32
Roadrunner Claims	Mimi #1-4	12N.8E.3.413
Section 25	Collier	17N.1W.25.113
S. Houston	Houston	19N.2W.3.340
Sla-Tex	Corral #3	23N.1W.25.221
South Butte	Unknown	18N.1W.2.341
Tex-M	Tex-N	18N.2E.34
Torrean Wash area	B.P. Hovey Ranch	17N.4W.34.332
UN	Section 13	12N.4W.13.200
Union Carbide	Diamond Tail	13N.6E.16.124
Unknown	Lone Wolf Group	15N.1W.10.444
Unknown	Lone Wolf Group	15N.1W.11.321
Unknown	Lone Wolf Group	15N.1W.11.414
Unknown	Rattlesnake Group	15N.1W.14.400
Unknown	Polka Dot Uranium Group	15N.1W.15.223
Unknown	Burcar	17N.1W.12.220
Unknown	Houston	19N.2W.3.340
Unknown	Jewell	20N.1E.15.300
Warm Springs	Collins	17N.1W.25.112
Westvaco	Section 13	12N.4W.13.200

Numerical

12N.2W.5.322	Unknown
12N.2W.6.221	Unknown
12N.2W.29.111	Unknown
12N.2W.31.420	Herrera Ranch
12N.2W.31.441	Unknown
12N.2W.35.200	Bernabe
12N.3W.8.122	Dory
12N.3W.15.440	B and G
12N.3W.16.300	Brookhaven
12N.3W.17.323	Betty
12N.3W.18.141	Rio Puerco
12N.4W.1.200	Unknown
12N.4W.12.143	Unknown
12N.4W.13.200	Section 30
12N.4W.23.411	Unknown
12N.6E.3.413	Mimi #1-4
13N.2W.9.132	Anomaly #2
13N.4W.25	Unknown
13N.4W.32.300	Marquez Grant
13N.6E.4,5	We Hope #4
13N.6E.9,10	Dial Exploration Claims
13N.6E.16.124	Diamond Tail
13N.6E.22.320	Coyote No. 1-10
13N.13E.6.400	North Blackshere Ranch
14N.1E.27	Unknown
14N.1E.31	Garcia fault zone
14N.6E.10	Blackshere
14N.6E.19	Dial Exploration Co.
14N.6E.32	We(e) Hope
15N.1W.8.223	Unknown
15N.1W.9.441	Unknown
15N.1W.10.210	Unknown
15N.1W.10.444	Lone Wolf Group
15N.1W.11.321	Lone Wolf Group
15N.1W.11.414	Lone Wolf Group
15N.1W.14.400	Rattlesnake Group
15N.1W.15.223	Polka Dot Uranium Group
15N.1W.15.124	Polka Dot Uranium Group
15N.1W.17.414	Anomaly #3
15N.1E.17	Morris-Peters #17
15N.1E.20.441	Morris-Peters #20
15N.1W.21.214	Yellow Cliffs Group
15N.1E.21.441	Morris-Peters #21
15N.1W.21.441	Unknown
15N.1E.22.144	Unknown
15N.1W.22.441	Unknown
15N.1W.23.400	Unknown
15N.1E.26.110	Anomaly #5
15N.1E.27.200	Lone Star Mining and Dev. Corp.
15N.1E.31	Unknown
16N.1E.8.300	Anomaly No. 2
16N.1E.12.110	Anomaly No. 1
16N.1E.13.400	Anomalies #6-10-Jemez Reservation
16N.1E.17.214	Anomaly #2-Jemez Reservation
16N.1E.20.412	Anomaly #4-Jemez Reservation
16N.1E.21.123	Anomaly #5-Jemez Reservation
16N.1E.21.233	Anomaly #3-Jemez Reservation
16N.1E.29.123	Anomaly #10-Jemez Reservation
16N.1E.29.130	Anomaly #12-Jemez Reservation
16N.1E.29.133	Anomaly #11
16N.1E.29.413	Unknown
16N.1E.32.211	Unknown
16N.2E.7.100	Unknown
16N.2E.18.212	Anomaly #11-Jemez Reservation
17N.1W.11.300	Goodner-Section 11
17N.1W.12.220	Burcar
17N.1W.14	Anomaly #5
17N.1W.15.211	Unknown
17N.1W.23.411	Collins Prospect
17N.1W.25.112	Collins
17N.1W.25.113	Collier
17N.1W.25.420	Unknown-Collier Lease
17N.1W.26	J. Walker #1
17N.1W.27.222	Unknown
17N.1W.35.240	Anomaly #6
17N.1W.36.300	Section 36
17N.1W.36.323	Unknown
17N.2E.3.340	Spanish Queen West
17N.2E.3.400	Spanish Queen
17N.2E.8	Anomaly #7
17N.2E.17	Anomaly #8
17N.2E.18.100	Anomaly #6
17N.2E.21,22	Anomaly #9
17N.4E.10,15	Peralta Canyon
17N.4W.34.332	B.P. Hovey Ranch
17N.5E.9.410	Peralta Canyon(?)
18N.1W.2.341	Unknown
18N.1W.12.300	Unknown
18N.1E.35.144	Deer Creek
18N.2E.13.200	Northeast of Soda Dam
18N.2E.13.400	Soda Dam
18N.2E.34	Tex-N
19N.1W.2.244	Mauldian
19N.1W.4.110	Black Rose
19N.1W.11.440	Dennison-Bunn
19N.1W.14.233	Cleary
19N.1W.19.230	Unknown
19N.1W.23.241	Butler Brothers
19N.1W.24.100	San Miguel Mine
19N.1W.28.300	North Butte
19N.1W.30.221	Unknown
19N.1W.30.322	Unknown
19N.1W.32.232	Unknown
19N.1W.34.300	South Butte
19N.1W.35.120	Rambler No. 2
19N.2W.3.340	Houston
19N.2W.4	Mesa Portales
19N.2W.35	Cuba #13
19N.2W.36.223	Unknown
20N.1W.1.141	Nacimiento Mine
20N.1E.6.114	Cliff
20N.1E.6.300	Unknown
20N.1W.12.330	Blue Bird
20N.1E.15.300	Jewell
20N.2W.1.100	Unknown
21N.1W.7.230	Unknown
21N.1W.20.100	Unknown
22N.4W.21	Manganese Prospect
23N.1W.25.212	Corral #6
23N.1W.25.221	Corral #3
23N.4W.31	Arrowhead Claims

FIGURE 1-24-RADIOACTIVE OCCURRENCES IN SANDOVAL COUNTY, NEW MEXICO



SANDOVAL COUNTY

1: 16N.1E.12.110
2: Anomaly No. 1
3: NW1/4 12 T16N R1E
4: Gilman 7-1/2
5: Nacimiento Mountains
6: U(?)
7: no workings reported
8: no production
10: Precambrian granite or syenite
13: Hydrothermal-vein? (fault-zone) or Orthomagmatic
14: Jemez Indian Reservation
15: Holen (1982); Green and others (1980c, #256); Woodward, L.A., DuChene, and Martinez (1977); Easton (1955b); PRR ED-R-410 (1954)

1: 13N.2W.9.132
2: Anomaly #2 (Anomaly #7)
3: NW1/4 9 T13N R2W 35°22'25"N 107°3'30"W
4: Puerco Dam 7-1/2
5: Majors Ranch area
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: radioactive asphaltite in thin sandstone near NE-trending fault
13: Sandstone
15: Santos (1975a); Kittleman (1957, p. 41, #7); USAEC files (late 1950's)

1: 16N.1E.8.300
2: Anomaly #2
3: 8 T16N R1E 35°37'30"N 106°51'30"W
4: Gilman 7-1/2
5: Nacimiento Mountains
6: U(?)
7: no workings reported
8: no production
10: Precambrian granite
13: Hydrothermal-vein? (fault-zone)
14: Jemez Indian Reservation
15: Green and others (1980c, #321); Woodward, L.A., DuChene, and Martinez (1977); Easton (1955b); PRR ED-R-411 (1954)

1: 16N.1E.17.214
2: Anomaly #2-Jemez Reservation
3: N1/2 17 T16N R1E
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Precambrian granite
13: Orthomagmatic(?)
14: no commercial interest
15: Brassfield (1956)

1: 16N.1E.21.233
2: Anomaly #3-Jemez Reservation
3: C 21 T16N R1E 35°36'25"N 106°50'20"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U(?)
7: no workings
8: no production
10: Triassic Chinle Formation-Agua Zarca Sandstone
13: Sandstone
14: this anomaly was not field checked by Brassfield (1956)
15: Brassfield (1956)

1: 15N.1E.17.414
2: Anomaly #3 (Morris-Peters #17)
3: SE1/4 17 T15N R1E 35°31'45"N 106°51'14"W
4: San Ysidro 7-1/2 Elevation 5,700 ft
5: White Mesa district-Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized lenses in faulted sandstone around mud galls
13: Sandstone-tabular
15: Green and others (1980c, #45); Woodward, L.A. and Ruetschilling (1976); Santos (1975a); Hilpert (1969, p. 48); Easton (1955b); PRR ED-R-382 (1954); ED-R-412 (1954); ED-R-287 (1954)

1: 16N.1E.20.412
2: Anomaly #4-Jemez Reservation
3: E1/2 20 T16N R1E 35°36'25"N 106°51'20"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U, travertine
7: no workings
8: no production
10: Quaternary Hot Springs deposits
11: radioactive travertine
13: Hot Springs Deposits
14: no uranium potential
15: Woodward, L.A. and Ruetschilling (1976); Brassfield (1956)

1: 16N.1E.21.123
2: Anomaly #5-Jemez Reservation
3: NW1/4 21 T16N R1E 35°36'30"N 106°50'40"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U, travertine
7: no workings
8: no production
10: Quaternary Hot Springs deposit
11: radioactive travertine
13: Hot Springs deposit
14: no uranium potential
15: Woodward, L.A. and Ruetschilling (1976); Brassfield (1956)

1: 15N.1E.26.110
2: Anomaly #5 (Lone Star Mining and Dev. Corp.)
3: NW1/4 NW1/4 26 T15N R1E 35°30'14"N 106°48'46"W
4: San Ysidro 7-1/2
5: White Mesa district (San Ysidro)
6: Coal, U
7: pits, ore dumps, drilling
8: no uranium production
9: bkgd 30 cps, high 40 cps
10: Cretaceous Dakota Sandstone, Jurassic Morrison Formation (at depth)
13: Coal/Shale/Sandstone
15: FN 9/4/82; Holen (1982); Green and others (1980c, #255); Kittleman (1956, p. 42, #5); Lovering (1956); PRR ED-R-599 (1956); USAEC files (late 1950's)

1: 17N.1W.14
2: Anomaly #5 (Ojo del Espirito Santo Grant)
3: 14 T17N R1W
4: Holy Ghost Spring 7-1/2
5: Nacimiento Mountains
6: U
7: no workings-outcrop anomaly
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: slight radioactive anomaly at contact between argillite and sandstone
12: 0.02% U_3O_8 (PRR, 1954)
13: Sandstone
15: Woodward, L.A. and Martinez (1974); Siapno (1955); PRR ED-R-518 (1955); ED-R-413 (1954); ED-R-1540 (1954)

1: 17N.2E.18.100
2: Anomaly #6 (Jemez Reservation)
3: NW1/4 18 T17N R2E
4: Gilman 7-1/2
5: Nacimiento Mountains
6: U(?)
7: no workings
8: no production
10: Tertiary volcanics
11: radioactive zone in tuffaceous pumice along Jemez fault
13: Hydrothermal-vein/Volcanogenic
14: examined by Green and others (1980c)
15: Green and others (1980c, #322); Woodward, L.A., DuChene, and Martinez (1977); Easton (1955b); PRR-ED-R-1541 (1954); ED-R-414 (1954)

1: 17N.1W.35.240
2: Anomaly No. 6
3: NE1/4 35 T17N R1W
4: Holy Ghost Springs 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: radioactive zone in fine- to medium-grained, orange sandstone
13: Sandstone
14: Zia Indian Reservation
15: Siapno, W.D. (1955); PRR ED-R-519 (1955); USAEC files (late 1950's)

1: 16N.1E.13.400
2: Anomalies #6-10-Jemez Reservation
3: S1/2 13 T16N R1E 35°36'55"N 106°47'00"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: Cu, U
7: 2 pits
8: no production
10: Permian Abo Formation
11: discontinuous mineralized zone for about 1/2 mile
12: up to 4.36% U_3O_8, 10.32% Cu (Brassfield, 1956)
13: Sandstone
15: Woodward, L.A. and Ruetschilling (1976); Chenoweth (1974b); Brassfield (1956)

1: 17N.2E.8
2: Anomaly #7 (Jemez)
3: 8 T17N R2E (unsurveyed) 35°43'15"N 106°45'15"W
4: Gilman 7-1/2
5: Nacimiento Mountains
6: U(?), travertine
7: no workings
8: no production
10: Quaternary lava flow
11: radioactive pumice
13: Volcanogenic
14: no uranium potential
15: Woodward, L.A., DuChene, and Martinez (1977); U.S. Atomic Energy Commission (1966a, p. 48, 54); Easton (1955b); PRR ED-R-1542 (1954); ED-R-415 (1954)

1: 17N.2E.17
2: Anomaly #8
3: 17 T17N R2E (unsurveyed) 35°42'30"N 106°45'15"W
4: Gilman 7-1/2
5: Nacimiento Mountains
6: U(?)
7: no workings
8: no production
10: Quaternary lava-flow
11: radioactive pumice
13: Volcanogenic
14: no uranium potential
15: Woodward, L.A., DuChene, and Martinez (1977); U.S. Atomic Energy Commission (1966a, p. 48, 54); Easton (1955b); PRR ED-R-1543 (1954)

1: 17N.2E.21, 22
2: Anomaly #9
3: 21, 22 T17N R2E
4: Ponderosa 7-1/2
5: Nacimiento Mountains
6: U(?)
7: no workings
8: no production
10: Quaternary lava flow
11: radioactive pumice
13: Volcanogenic
14: no uranium potential
15: U.S. Atomic Energy Commission (1966a, p. 48); Easton (1955b); PRR ED-R-1544 (1954); ED-R-417 (1954)

1: 16N.1E.29.123
2: Anomaly #10
3: NW1/4 29 T16N R1E (unsurveyed)
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U(?), travertine
7: no workings-hot springs deposit
8: no production
10: Quaternary Hot Springs deposits
11: radioactive travertine adjacent to hot springs
12: 0.005% U_3O_8 (Easton, 1955b)
13: Hot springs deposit
14: no uranium potential
15: Woodard, L.A., and Ruetschilling (1976); Easton (1955b); PRR ED-R-418 (1954); ED-R-1545 (1954); USAEC files (late 1950's)

1: 16N.2E.18.212
2: Anomaly #11-Jemez Reservation
3: NE1/4 18 T16N R2E
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: Cu, U
7: no workings
8: no production
10: Permian Abo Formation
11: radioactive copper sandstone deposit
12: 0.42% U_3O_8, 3.67% Cu (Brassfield, 1956)
13: Sandstone
15: Woodward, L.A., and Ruetschilling (1976); Chenoweth (1974b); Brassfield (1956)

1: 16N.1E.29.133
2: Anomaly #11
3: W1/2 29 T16N R1E (unsurveyed)
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U(?), travertine
7: no workings-hot springs deposit
8: no production
10: Quaternary hot springs deposit
11: radioactive travertine
12: 0.006% U_3O_8 (Easton, 1955b)
13: Hot springs deposit
14: no uranium potential
15: Woodward, L.A., and Ruetschilling (1976); Easton (1955b);
PRR ED-R-419 (1954); ED-R-1546 (1954)

1: 16N.1E.29.130
2: Anomaly #12
3: W1/2 29 T16N R1E (unsurveyed)
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U(?), travertine
7: no workings-hot springs deposit
8: no production
10: Quaternary hot springs deposits
11: radioactive travertine
12: 0.005% U_3O_8 (Easton, 1955b)
13: Hot springs deposit
14: no uranium potential
15: Woodward, L.A. and Ruetschilling (1976); Easton (1955b); PRR
ED-R-1547 (1954); ED-R-420 (1954)

1: 23N.4W.31
2: Arrowhead Claims
3: 31 T23N R4W (unsurveyed) 36°10'30"N 107°17'45"W
4: Tancosa Windmill 7-1/2 Elevation 6,840 ft
5: Jicarilla Apache Indian Reservation-San Juan Basin
6: U
7: pits
8: no production
10: Jurassic Todilto Limestone
13: Limestone
15: PRR ED-R-633 (1956)

1: 12N.3W.15.440
2: B and G
3: SW1/4 15 T12N R3W 35°15'50"N 107°8'55"W
4: La Gotera 7-1/2 Elevation 6,180 ft
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: no workings-drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone bed
13: Sandstone
14: examined by Green and others (1980c)
15: McLemore (1982b, #9); Green and others (1980c, #52); Hilpert (1969, p. 48)

1: 12N.2W.35.200
2: Bernabe (Conoco--Bernabe Montaño)
3: NE1/4 35 T12N R2W (unsurveyed) 35°13'45"N 107°00'40"W
4: Herrera 7-1/2, Arch Mesa 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: drill holes (over 2,000), 2 shafts planned (1,966-ft; 1,926-ft deep)
8: no production, 10-20 million pounds of U_3O_8 in reserve
9: radioactive gamma-log anomalies
10: Jurassic Morrison Formation-Westwater Canyon Member
11: mineralization associated with organic material (humate); ore trend 8,000 ft long; 500-2,000 ft wide; up to 80 ft thick
12: uraniferous humates, grades vary from trace-excess of 1% U_3O_8, coffinite
13: Sandstone-tabular (stacked)
14: discovered in 1971, Laguna Indian Reservation
15: McLemore (1982b, #42); Holen (1982); Green and others (1980c, #55); Kozusko and Saucier (1980); Perkins (1979); Chapman, Wood, and Griswold, Inc. (1979, #A)

1: 12N.3W.17.323
2: Betty
3: SW1/4 17 T12N R3W 35°16'10"N 107°10'45"W
4: La Gotera 7-1/2 Elevation 6,420 ft
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: 50-ft 10° decline, shaft (250-270 ft deep)
8: no production
9: bkgd 20-30 cps, high 75 cps
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
11: 2 horizons, 4-13 ft thick
12: now owned by Kerr-McGee
13: Sandstone
15: FN 3/19/82; Anderson, O.J. (1980)

1: 19N.1W.4.110
2: Black Rose
3: 2 NE1/4 4 T19N R1W 35°54'30"N 106°56'40"W
4: San Pablo 7-1/2
5: La Ventana district-Naciemento Mountains
6: U, Coal
7: adits, shafts
8: no uranium production
9: bkgd 30-40 cps, no higher radiometric readings observed
10: Cretaceous Mesaverde Group-Menefee Formation
12: less than 0.005% U_3O_8 reported by USBM
13: Coal
14: uranium mineralization reported to USBM but no mineralization was found (USBM)
15: FN 9/6/82; Woodward, L.A., Anderson, Kaufman, and Reed (1973); USBM files (1952); CRIB (1978)

1: 14N.6E.10
2: Blackshere
3: 10 T14N R6E 35°27'6"N 106°17'6"W
4: San Felipe Pueblo NE 7-1/2
5: Hagan Basin
6: U(?)
7: no workings
8: no production
10: Tertiary Santa Fe Group
11: mineralization along bedding planes with carbonized fossil logs
13: Sandstone
15: Green and others (1980c, #13); Hilpert (1969, p. 48)

1: 20N.1W.12.330
2: Bluebird
3: SW1/4 12 T20N R1W
4: San Pablo 7-1/2
5: Nacimiento Mountains district
6: U, Cu
7: prospect pits
8: no production
10: Triassic Chinle Formation-Agua Zarca Sandstone
13: Sandstone
15: Chenoweth (1974b); Woodward, L.A., Anderson, Kaufman, and Reed (1973); MILS (1978)

1: 17N.4W.34.332
2: B.P. Hovey Ranch (Torreon Wash area)
3: SW1/4 34 T17N R4W 35°39'42"N 107°14'57"W
4: Canada Callandita 7-1/2, Arroyo Empedrado 7-1/2 Elevation 6,100 ft
5: San Juan Basin
6: U, Th, Ti, REE
7: no workings
8: no production
9: bkgd 50 cps, average 300-400 cps, high in middle sandstone 600 cps
10: Cretaceous Point Lookout Sandstone
11: 300 ft long, 2-4 ft thick "black sandstone" deposit
12: 0.013% U_3O_8 (NMBMMR chem lab, 5/20/82, #2131); 225 ppm Th (NMBMMR XRF lab, , 2/83, #2131)
13: Beach-placer Sandstone
14: may extend locally throughout area in Point Lookout
15: FN 9/1/81; Green and others (1980c, #330); Tabet and Frost (1979a, 1979b); Chenoweth (1957b); Kittleman (1957, p. 42, #3); PR ED-R-552 (1956); ED-R-554 (1956); USAEC files (late 1950's)
16: figure 26

1: 12N.3W.16.300
2: Brookhaven
3: SW1/4 16T12N R3W 35°16'11"N 107°9'48"W
4: La Gotera 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: no workings found on 3/19/82
8: no production
10: Jurassic Morrision Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: FN 3/19/82; McLemore (1982b, #10); Green and others (1980c, #53); Hilpert (1969, p. 48)

1: 17N.1W.12.220
2: Burcar (Unknown, Ojo-Del Espirito Grant)
3: NE1/4 12 T17N R1W 35°43'30"N 106°53'5"W
4: Holy Ghost Spring 7-1/2
5: Nacimiento Mountains
6: U
7: no workings-outcrop
8: no production
10: Cretaceous Dakota Sandstone
11: radioactive bands and pods up to 1 ft thick around mud galls
12: carnotite, 0.04% U reported
13: Sandstone
14: Zia Indian Reservation
15: Green and others (1980c, #31); Santos (1975a); Woodward and Martinez (1974); Hilpert (1969, p. 48); PRR ED-R-197 (1952); ED-R-459 (1955)

1: 19N.1W.23.241
2: Butler Brothers
3: NE1/4 23 T19N R1W 35°51'50"N 106°54'10"W
4: La Ventana 7-1/2 Elevation 7,600 ft
5: La Ventana district-Naciemento Mountains
6: U, coal, V
7: 15-ft adit, 100-ft cut
8: 23 tons ore yielding 290 lbs U_3O_8 (0.63%), 56 lbs V_2O_5
10: Cretaceous Dakota Sandstone
12: up to 1.4% U_3O_8 (Gabelman, 1956a)
13: Sandstone/Coal
14: mined 1954-1957 by Butler Brothers; examined by Green and others (1980c); geologic map by Gabelman (1956a)
15: Green and others (1980c, #23); Anderson, O.J. (1980); Santos (1975a); Chenoweth (1974b); Hilpert (1969, p. 49); Elston (1967); Gabelman (1956a); PRR ED-R-404 (1954); USAEC files (1957); CRIB (1976)

1: 19N.1W.14.233
2: Cleary
3: E1/2 14 T19N R1W 35°52'40"N 106°54'22"W
4: San Pablo 7-1/2 Elevation 7,100 ft
5: La Ventana district-Nacimiento Mountains
6: U
7: 15-ft adit
8: no production
9: bkgd 30-40 cps, high 800 cps, average along zone 150-250 cps
10: Cretaceous Dakota Sandstone
11: mineralized carbonaceous shale and coal seams up to 6 inches thick in brown sandstone
12: 0.038% U_3O_8 (NMBMMR chem lab, 3/3/82, #3146)
13: Shale/sandstone
15: FN 9/6/82; Green and others (1980c, #22); Santos (1975a); Woodward, L.A., Anderson, Kaufman, and Reed (1973); Hilpert (1969, p. 49); Vine and others (1953); Read (1952); PRR ED-R-239 (1953)

1: 20N.1E.6.114
2: Cliff (Don No. 11)
3: NW1/4 6 T20N R1E
4: San Pablo 7-1/2
5: Nacimiento Mountains district
6: U, Cu
7: adit
8: no uranium production
10: Triassic Chinle Formation-Agua Zarca Sandstone
11: radioactive copper sandstone deposit
13: Sandstone
15: Woodward, L.A., Anderson, Kaufman, and Reed (1973); Elston (1967); Soulè (1956); PRR ED-R-506 (1954); MILS (1978)

1: 17N.1W.25.113
2: Collier (Section 25)
3: NW1/4 25 T17N R1W (unsurveyed) 35°40'35"N 106°54'00"W
4: Holy Ghost Springs 7-1/2 Elevation 6,430 ft
5: Nacimiento Mountains
6: U, V
7: 125-ft trench
8: production included with Collins (17N.1W.25.112)
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone-tabular
14: Zia Indian Reservation
15: Anderson, O.J. (1980); Green and others (1980c, #33, 34); Woodward and Martinez (1974); Chenoweth (1974b); Hilpert (1969, p. 49); Kittleman and Chenoweth (1957); PRR ED-R-208 (1953); USAEC files (1959)

1: 17N.1W.25.112
2: Collins (Warm Springs, Burke-Goodner Lease, Goodner, J. Walker No. 1)
3: NW1/4 25 T17N R1W (unsurveyed) 35°40'45"N 106°53'45"W
4: Holy Ghost Springs 7-1/2 Elevation 6,560 ft
5: Nacimiento Mountains
6: U, V
7: 100-ft trench, short adit
8: 395 tons ore yielding 989 lbs U_3O_8 (0.12%), 116 lbs V_2O_5
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone-tabular
14: mined 1957-59; Zia Indian Reservation; production included from Collier and Collins prospect (sec. 23)
15: Anderson, O.J. (1980); Green and others (1980c, #32); Santos (1975a); Woodward, L.A., and Martinez (1974); Chenoweth (1974b); Hilpert (1969, p. 48); Kittleman and Chenoweth (1957); Siapno (1955); PRR ED-R-460 (1955); ED-R-208 (1953); ED-R-474 (1955); USAEC files (late 1950's); CRIB (1976)

1: 17N.1W.23.411
2: Collins prospect
3: 23 T17N R1W (unsurveyed) 35°41'25"N 106°54'55"N
4: Holy Ghost Springs 7-1/2 Elevation 6,520 ft
5: Nacimiento Mountains
6: U, V
7: pit
8: production included with Collins
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone-tabular
14: Zia Indian Reservation
15: Chenoweth (1974b); Kittleman and Chenoweth (1957); Siapno (1955); USAEC files (1959)

1: 23N.1W.25.221
2: Corral #3 (Corral #1, Sla-Tex)
3: NE1/4 25 T23N R1W 36°12'5"N 106°53'10"W
4: Regina 7-1/2
5: Vegitas Cluster area-San Pedro Mountains
6: U, Cu, V
7: 260-ft long trench
8: 20 tons ore yielding 12 lbs U_3O_8 (0.03%), 24 lbs V_2O_5
9: bkgd 30 cps, high 120 cps
10: Permian Abo Formation
11: spotty uranium mineralization in shale and sandstone related to organic material
13: Sandstone
14: mined 1956 by Sla-Tex Ventures; examined by Green and others (1980a)
15: FN 7/31/82; Merrick and Woodward (1982); Anderson, O.J. (1980); Green and others (1980a, #29, 44); Vizcaino and others (1978); Santos and others (1975); Chenoweth (1974b); Woodward, L.A., Kaufman, and Schumacher (1974); Hilpert (1969, p. 46); Brown, H.G. (1955); PRR ED-R-610 (1956); USAEC files (1956)

1: 23N.1W.25.212
2: Corral No. 6
3: NE1/4 25 T23N R1W 36°12'00"N 106°53'23"W
4: Regina 7-1/2 Elevation 8,260 ft
5: Vegitas Cluster area-San Pedro Mountains
6: U, V, Cu
7: blasting at outcrop
8: no production
9: up to 32 times background radioactivity reported by Green and others (1980a)
10: Permian Abo Formation
12: 1.14% U_3O_8 (Green and others, 1980a)
13: Sandstone
14: examined by Green and others (1980a)
15: Merrick and Woodward, L.A. (1982); Green and others (1980a, #85); Santos and others (1975); Chenoweth (1974b); Brown, H.G. (1955)

1: 13N.6E.22.32Ø
2: Coyote No. 1-1Ø (Babacka, Diamond Tail)
3: SW1/4 22 T13N R6E 35°2Ø'5"N 1Ø6°17'4Ø"W (approximate)
4: Hagan 7-1/2 Elevation approximately 5,9ØØ ft
5: Hagan Basin area
6: U, Se, V
7: shallow open pit reported
8: no production
9: 4-6 times background radioactivity reported
1Ø: Eocene Galisteo Formation
11: uranium minerals associated with organic material in claystone lense in upper sandstone member
12: yellow-green uranium minerals, Ø.24% U_3O_8 reported
13: Sandstone
14: no workings found 2/24/82
15: FN 2/24/82; PRR unnumbered (6/29/58); DEB-RRA-698 (1953)

1: 19N.2W.35
2: Cuba #13 (G. Adair/Wilcox)
3: 35 T19N R2W
4: Headcut Reservoir 7-1/2
5: La Ventana district
6: U
7:
8: no production
1Ø: Tertiary Ojo Alamo Sandstone
11: radioactive zone in calcareous sandstone
13: Sandstone
15: Green and others (198Øc, #2Ø); Hilpert (1969, p. 5Ø); PRR ED-R-51Ø (1954)

1: 18N.1E.35.144
2: Deer Creek
3: C 35 T18N R1E (unsurveyed) 35°45'ØØ"N 1Ø6°48'15"W
4: Gilman 7-1/2 San Miguel Mountain 7-1/2 Elevation 7,29Ø ft
5: Gilman area-Nacimiento Mountians
6: U, Cu, Ag, Au
7: 2 adits (caved and inaccessible)
8: no uranium production
9: bkgd 3Ø-5Ø cps; average and on dump 25Ø cps; high 2,5ØØ cps
1Ø: Permian Abo Formation
11: mineralized gray to black carbonaceous shale lense interbedded with mineralized orange sandstone
12: chalcopyrite, azurite, malachite; Ø.144% U_3O_8, 5.92% Cu (NMBMMR chem lab, 3/3/83, #3147)
13: Sandstone
14: mine plan included with PRR
15: FN 9/4/82; Green and others (198Øc, #29); Hilpert (1969, p. 49); PRR ED-R-612 (1956)

1: 19N.1W.11.440
2: Dennison-Bunn (Georgie Claims)
3: E1/2 SE1/2 11 T19N R1W 35°53'15"N 106°54'25"W
4: San Pablo 7-1/2 Elevation 7,400 ft
5: La Ventana district-Nacimiento Mountains
6: U
7: road work exposing mineralized sandstones
8: no production
9: bkgd 30-50 cps, high 400 cps
10: Jurassic Morrison Formation-Westwater Canyon Member
11: thin mineralized lenses in gray to white sandstones and conglomeratic sandstones, at least three horizons
12: 0.082, 0.044% U_3O_8 (NMBMMR chem lab, 3/3/83, #3152, 3161)
13: Sandstone - roll-type
15: FN 9/6/82; Green and others (1980c, #337); Ridgley (1980; 1979); Chenoweth (1974b); Woodward, L.A., Anderson, Kaufman, and Reed (1973)

1: 14N.6E.19
2: Dial Exploration Co. (Lib Claims)
3: 19 T14N R6E 35°25'36"N 106°20'38"W
4: San Felipe Pueblo NE 7-1/2
5: Hagan Basin area
6: U
7: drill holes
8: no production
10: Eocene Galisteo Formation
13: Sandstone
15: PRR DEB-P-4-1475 (1956); USBM files (1955)

1: 13N.6E.9,10
2: Dial Exploration Claims (Blackshere Ranch)
3: 9, 10 T13N R6E 35°22'15"N 106°13'20"W
4: Hagan 7-1/2, San Felipe Pueblo 15 Elevation 5,800 ft
5: Hagan Basin area
6: U, Se, Mo, V
7: numerous drill holes, deposit defined by Union Carbide
8: no production
9: no mineralization found on surface
10: Eocene Galisteo Formation
11: two bleached channel sandstones
12: uraninite, coffinite associated with organic material
13: Sandstone-modified roll-type
14: on the Blackshere and Diamond Tail Ranches
15: FN 2/24/82; McLemore (1982b, #51); Green and others (1980c, #15); Moore, J.C. (1979); Perkins (1979); Chenoweth (1979); Hilpert (1969, p. 48); PRR DEB-P-4-1475 (1956)

1: 13N.6E.16.124
2: Diamond Tail (Union Carbide)
3: NE1/4 16 T13N R6E 35°21'35"N 106°18'45"W
4: Hagan 7-1/2, San Felipe Pueblo 15 Elevation 5,810 ft
5: Hagan Basin area
6: U, Se, Mo, V
7: numerous drill holes, deposit defined by Union Carbide, 250-ft 19° decline
8: no production, 0.9 mill lbs U_3O_8 reserves
9: bkgd 30-50 cps; adit 600 cps; high on dumps 1,200 cps
10: Eocene Galisteo Formation
11: two bleached gray, channel sandstones
12: uraninite, coffinite, uranophane, average grade 0.09% U_3O_8; 0.064% U_3O_8, trace Se (NMBMMR chem lab, 5/2/82, #2129)
13: Sandstone-modified roll-type
14: on the Diamond Tail Ranch
15: FN 2/24/82; 3/9/82; McLemore (1982b, #52); Green and others (1980c, #284); Moore, J.C. (1979); Chenoweth (1979); Perkins (1979); Kelley, V.C., and Northrop (1975)

1: 12N.3W.8.122
2: Dory (Dorie, Doerrie, Anomaly #1)
3: NE1/4 8 T12N R3W (unsurveyed) 35°17'27"N 107°10'38"W
4: La Gotera 7-1/2 Elevation 6,240 ft
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: adit
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: small pod of mineralized, carbonaceous sandstone with asphalite and clay galls along bedding planes
13: Sandstone
15: Green and others (1980c, #51); Hilpert (1969, p. 48); Kittleman (1957, #1); Mathewson (1954); PRR ED-R-384 (1956)

1: 14N.1E.31
2: Garcia fault zone
3: 31 T14 R1E
4: Sky Village NE 7-1/2, Sky Village NW 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation
11: friable sandstone with fractures
13: Sandstone-tabular
15: Kittleman (1957, p. 39, #2); USAEC files (late 1950's)

1: 17N.1W.11.300
2: Goodner-Section 11
3: 11 T17N R1W (unsurveyed) 35°43'15"N 106°55'00"W
4: Holy Ghost Spring 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Chenoweth (1974b); Santos (1975)

1: 12N.2W.31.420
2: Herrera Ranch-Anaconda
3: NE1/4 SE1/4 31 T12N R2W
4: Herrera 7-1/2
5: San Juan Basin
6: U, Th, REE
7: pits
8: no production
10: Cretaceous Gallup Sandstone
11: buff to gray "black sandstone deposit", 200 ft long, 12-14 inches thick
12: 0.01% U_3O_8 (PRR)
13: Beach-placer Sandstone
14: no tresspassing sign on gate on 9/2/81, inaccessible
15: FN 9/2/81; Chenoweth (1957b); PRR ED-R-661 (1956); USAEC files (late 1950's)

1: 19N.2W.3.340
2: Houston (S. Houston, Unknown)
3: E1/2 SW1/4 3 T19N R2W 35°54'40"N 107°02'20"W
4: Mesa Portales 7-1/2
5: Cuba area
6: U
7: 25-ft adit reported (could not be found by Chenoweth in 1955)
8: no production
10: Tertiary Ojo Alamo Sandstone
11: radioactive zone with organic material in conglomeratic sandstone
12: 54 ppm U_3O_8 (Green and others, 1980c)
13: Sandstone
14: claimed by New Cinch Uranium in 1970's; area examined by Green and others (1980c)
15: Green and others (1980c, #19); Vizcaino and O'Neill (1977); Hilpert (1969, p. 50); Chenoweth (1957b, p. 15); PRR ED-R-244 (1953); MILS (1981)

1: 20N.1E.15.300
2: Jewell (Unknown)
3: SW1/4 15 T20N R1E
4: Rancho del Chaparral 7-1/2
5: Nacimiento Mountains district
6: U, Cu
7:
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: Holen (1982); Green and others (1980c, #259); Vizcaino, O'Neill, and Dotterrer (1978); Chenoweth (1974b)

1: 15N.1E.27.200
2: Lone Star Mining and Dev. Corp.
3: NE1/4 27 T15N R1E 35°30'16"N 106°48'50"W
4: San Ysidro 7-1/2
5: White Mesa district (San Ysidro)
6: Coal, U
7: pits, dumps, drilling
8: no uranium production
9: bkgd 30 cps, high 40 cps (dumps only)
10: Jurassic Morrison Formation, Cretaeous Dakota Formation
13: Sandstone
15: FN 9/4/82; Chenoweth (1974b); PRR ED-R-599 (1956)

1: 15N.1W.10.444
2: Lone Wolf Group (Unknown)
3: SE1/4 10 T15N R1W 35°32'20"N 106°55'15"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill holes-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #38); Flesch (1974); Flesch and Wilson (1974); Hilpert (1969, p. 48)

1: 15N.1W.11.321
2: Lone Wolf Group (Unknown)
3: SW1/4 11 T15N R1W 35°32'35"N 106°54'59"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill holes-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Flesch (1974); Flesch and Wilson (1974)

1: 15N.1W.11.414
2: Lone Wolf Group (Unknown)
3: SE1/4 11 T15N R1W 35°32'25"N 106°54'30"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #39); Santos (1975a); Flesch (1974); Flesch and Wilson (1974); Hilpert (1969, p. 48); MILS (1981)

1: 22N.4W.21
2: Manganese Prospect
3: 21 T22N R4W (unsurveyed) 36°7'15"N 107°16'5"W
4: Deer Mesa 7-1/2 Elevation 6,410 ft
5: Jicarilla Apache Indian Reservation-San Juan Basin
6: Mn, U (occurrence)
7: large open pit
8: no uranium production, manganese produced
9: bkgd 30 cps, high 40 cps
10: Tertiary San Jose Formation
11: slightly radioactive psilomelane in basal part of gray to white sandstone
13: Sandstone
15: FN 7/6/82; Chenoweth (1957b); PRR ED-R-614 (1956)

1: 13N.4W.32.300
2: Marquez Grant (Bokum Resources)
3: SW1/4 32 T13N R4W 35°18'25"N 107°17'5"W
4: Marquez 7-1/2
5: Marquez-Bernabe-Montaño area-Grants uranium district
6: U
7: drill holes (1,600 ft depth)
8: no production; 751,000 lbs U_3O_8 in reserves
10: Jurassic Morrison Formation-Westwater Canyon Member
11: ore zone in paleochannel sandstones, associated with humates
12: coffinite, uraninite
13: Sandstone-primary tabular
15: McLemore (1982b, #3); Hatchell, B., and Wentz (1981); Livingston, B.A. (1980); Green and others (1980c, #58); Chapman, Wood, and Griswold, Inc. (1979, #E)

1: 19N.1W.2.244
2: Mauldian
3: NE1/4 2 T19N R1W 35°54'18"N 106°53'45"W
4: San Pablo 7-1/2 Elevation 7,120 ft
5: La Ventana district-Nacimiento Mountains
6: U
7: no workings reported
8: no production
10: Cretaceous Dakota Sandstone
13: Sandstone/Shale
15: Green and others (1980c, #21); Santos (1975a); Woodward, L.A., Anderson, Kaufman, and Reed (1973);Hilpert (1969, p. 49)

1: 19N.2W.4
2: Mesa Portales (Portal Claims, New Cinch)
3: 33, 34 T20N R2W, 4, 3, 9, 10 T19N R2W
4: Mesa Portales 7-1/2
5: Cuba area
6: U
7: deposit defined by drilling
8: no production
10: Tertiary Ojo Alamo Sandstone
11: radioactive zones in two or more limonite-stained channel sandstones, associated with organic trash, clay galls, and green shale beds; blanket-like geometry
12: low-grade deposit - up to 0.05% U_3O_8 in drill hole sample
13: Sandstone
15: Green and others (1980c); NMBMMR files (1979)

1: 12N.6E.3.413
2: Mimi #1-4 (Roadrunner Claims)
3: E1/2 5, SE1/4 4, SW1/4 3, T12N R6E 35°18'00"N 106°17'50"W
4: Hagan 7-1/2 Elevation 5,920-6,100 ft
5: Hagan Basin area-Placitas district
6: U
7: blasting, dog holes
8: no production
9: bkgd 50 cps, dikes 100-200 cps, high 550 cps
10: Tertiary latitic dikes and sills intruding Cretaceous Mesaverde Group
11: radioactive fractured gray latite dikes and sills
12: autunite reported; 0.018% U_3O_8 (NMBMMR chem lab, 5/20/82, #2134); 171 ppm Th (NMBMMR XRF lab, 2/83, #2134)
13: Hydrothermal-vein or Orthomagmatic
14: numerous dikes and sills in area-Diamond Tail Ranch
15: FN 3/9/82; McLemore (1982b, #53); Green and others (1980c, #16); Kelley, V.C., and Northrop (1975); Hilpert (1969, p. 48); Bachman and others (1953); PRR DEB-P-4-1444 (1955)

1: 15N.1E.17
2: Morris-Peters #17
3: 17 T15N.R1E
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation
13: Sandstone-tabular
15: Green and others (1980c, #45)

1: 15N.1E.20.441
2: Morris-Peters #20 (Collins prospect, Anomaly #4)
3: SE1/4 20 T15N R1E 35°30'45"N 106°51'14"W
4: San Ysidro 7-1/2 Elevation 5,740 ft
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized lenses in faulted sandstone
13: Sandstone-tabular
15: Green and others (1980c, #46); Woodward, L.A., and Ruetschilling (1976); Santos (1975a); Chenoweth (1974b); Hilpert (1969, p. 48); PRR ED-R-287 (1954); ED-R-382 (1954); USAEC files (late 1950's)

1: 15N.1E.21.441
2: Morris-Peters #21
3: SE1/4 21 T15N R1E 35°30'45"N 106°50'00"W
4: San Ysidro 7-1/2 Elevation 5,880 ft
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized lenses in faulted sandstone around mud galls
13: Sandstone-tabular
15: Green and others (1980c, #47); Woodward, L.A., and Ruetschilling (1976); Santos (1975a); Hilpert (1969, p. 48); PRR ED-R-382 (1954)

1: 20N.1W.1.141
2: Nacimiento Mine (Copper City)
3: NW1/4 1 T20N R1W 35°59'39"N 106°53'49"W
4: San Pablo 7-1/2
5: Nacimiento Mountains district
6: U, Cu
7: open pits (1,200 ft x 1,000 ft)
8: no uranium production, copper produced
9: no anomalous radioactivity (Green and others, 1980c)
10: Triassic Chinle Formation-Agua Zara Sandstone
11: radioactive copper sandstone deposit
13: Sandstone
14: examined by Green and others (1980c)
15; Green and others (1980c, #280); LaPoint (1976); Woodward, L.A., Anderson, Kaufman, and Reed (1973); Elston (1967); Soulè (1956); Hilpert and Corey (1955); Gott and Erickson (1951, #1; 1952); PRR unnumbered (1951)

1: 13N.6E.6.400
2: North Blackshere Ranch (D. Dial Exp.)
3: S1/2 6 T13N R6E 35°22'43"N 106°20'30"W
4: San Felipe Pueblo NE 7-1/2
5: Hagan Basin area
6: U
7: no workings
8: no production
10: Cretaceous Mesaverde Group
12: 0.54% eU_3O_8 reported
13: Sandstone
15: Green and others (1980c, #14); Hilpert (1969, p. 48); PRR DEB:P-4-1475 (1955)

1: 19N.1W.28.300
2: North Butte (La Ventana Mesa)
3: SE1/4 29, S1/2 28, NE1/4 32, NW1/4 33 T19N R1W 35°50'35"N 106°57'00"W
4: La Ventana 7-1/2 Elevation 7,600 ft
5: La Ventana district-Nacimiento Mountains
6: U, Coal
7: pits, drill holes
8: no uranium production
10: Cretaceous Mesaverde Group-La Ventana Tongue of Cliff House Sandstone
11: radioactive coal around most of mesa in 3 horizons
12: up to 0.62% U (Vine and others, 1953), coffinite
13: Coal
14: geologic and assay map by Vine and others (1953)
15: Green and others (1980c, #24); Santos (1975a); Woodward, L.A. and Schumacher (1973); Hilpert (1969, p. 49); Bachman and others (1959); Hilpert and Corey (1955); Vine and others (1953); MILS (1981); USAEC files (1960)

1: 18N.2E.13.200
2: Northeast of Soda Dam
3: NE1/4 13 T18N R2E (unsurveyed)
4: Jemez Springs 7-1/2
5: Jemez Springs district-Jemez Mountains
6: Cu, U
7: no workings-outcrop anomaly
8: no production
10: Permian Abo Formation-basal sandstone
11: small discontinuous lense of copper-uranium mineralization in sandstone
12: 97 ppm U_3O_8 (Green and others, 1980c)
13: Sandstone
14: access denied (private property) on 9/5/82
15: FN 5/9/82; Green and others (1980c, #27); Hilpert (1969, p. 49); PRR ED-R-608 (1956)

1: 17N.4E.10, 15
2: Peralta Canyon (A-1 Lode, O.B.S., Peralta Lion Group)
3: 10, 15 T17N R4E (unsurveyed) 35°42'30"N 106°30'5"W
4: Bear Springs Peak 7-1/2
5: Cochiti district
6: Au, Ag, U(?), V(?)
7: 126-ft adit, 55-ft adit (A-1), 46-ft adit (Peralta Lion #1), 206-ft adit (Peralta Lion #2)
8: no uranium production
10: Tertiary volcanics
11: gold-silver veins and breccia-fillings containing secondary yelow uranium minerals
13: Hydrothermal-vein/Volcanogenic
15: Chenoweth (1974); Elston (1967); Lindgren and others (1910)

1: 17N.5E.9.410
2: Peralta Canyon(?)-Copper Prospect
3: E1/2 9 T17N R5E (unsurveyed) 35°43'00"N 106°24'40"W
4: Cañada 7-1/2
5: Cochiti district
6: Cu, U(?)
7: adit, shaft
8: no production
9: 2-1/2 times background radioactivity (Green and others, 1980c)
10: Tertiary Lapilli tuff (rhyolite)
11: copper oxides filling fractures and fault zones
13: Hydrothermal-vein/Volcanogenic
14: worked by Benham and Sayer prior to 1910; examined by Green and others (1980c)
15: Green and others (1980c, #12); Chenoweth (1974b); Hilpert (1969, p. 49); Lindgren and others (1910, p. 162)

1: 15N.1W.15.124
2: Polka Dot Uranium Group
3: NW1/4 15 T15N R1W 35°32'ØØ"N 1Ø6°55'5Ø"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole-mineralized outcrop
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: NMBMMR files (1979)

1: 15N.1W.15.223
2: Polka Dot Uranium Group (Unknown)
3: NE1/4 15 T15N R1W 35°32'ØØ"N 1Ø6°55'25"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole-mineralized outcrop
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (198Øc, #41); Santos (1975a); Hilpert (1969, p. 48)

1: 19N.1W.35.12Ø
2: Rambler No. 2
3: NE1/4 NW1/4 35 T19N R1W 35°5Ø'25"N 1Ø6°54'45"W
4: La Ventana 7-1/2 Elevation 7,1ØØ ft
5: La Ventana district-Nacimiento Mountains
6: U, Coal
7: pits
8: no production
1Ø: Cretaceous Mesaverde Group-Menefee Formation
11: radioactive coal, sandstone, and carbonaceous shale
12: Ø.Ø65% U_3O_8 reported (Vine and others, 1953)
13: Coal/Sandstone
15: Anderson, O.J. (198Ø); Green and others (198Øc, #26); Santos (1975b, #77); Chenoweth (1974); Hilpert (1969, p. 49); Bachman and others (1959, #77); Hilpert and Corey (1955); Vine and others (1953); Read (1952); MILS (1978)

1: 15N.1W.14.400
2: Rattlesnake Group (Unknown)
3: SE1/4 14 T15N R1W 35°31'35"N 106°54'40"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill holes-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #40); Santos (1975a); Hilpert (1969, p. 48); MILS (1981); NMBMMR files (1979)

1: 12N.3W.18.141
2: Rio Puerco (Kerr-McGee)
3: N1/2 18 T12N R3W 35°16'15"N 107°10'35"W
4: La Gotera 7-1/2 Elevation 6,410 ft
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: 810-ft mine shaft
8: 3.2 million pounds U_3O_8 reserves--production unknown
10: Jurassic Morrison Formation-Westwater Canyon Member
11: ore body 6,000 ft long; 1,000 ft wide (several bodies); 2 horizons, 4-13 ft thick
12: average grade 0.16%
13: Sandstone
14: located on 3/4/8--locked gates; mined 1979-1980
15: FN 3/4/82; Green and others (1980c, #56, 57); Perkins (1979); Siemers and Austin (1979); Chapman, Wood, and Griswold, Inc. (1979, #12, 13); CRIB (1981)

1: 19N.1W.24.100
2: San Miguel Mine
3: NE1/4 24 T19N R1W 35°52'00"N 106°53'15"W
4: La Ventana 7-1/2
5: La Ventana district-Nacimiento Mountains
6: U, Cu, V, Mo
7: pits, one shaft
8: no uranium production, copper produced
10: Triassic Chinle Formation-Agua Zarca Sandstone
11: radioactive copper-sandstone deposit
12: 300 ppm Mo, 300 ppm V (CRIB, 1974)
13: Sandstone
14: inaccessible on 9/6/82 (road washed out); mine map by Soulè (1956); examined by Green and others (1980c)
15: FN 9/6/82; Green and others (1980c, #281); Woodward, L.A. and Schumacher (1973); Elston (1967); Soulè (1956); Hilpert and Corey (1955); PRR unnumbered (1951); CRIB (1974)

1: 12N.4W.13.200
2: Section 13 (UN, Westvaco)
3: NE1/4 13 T12N R4W 35°16'10"N 107°12'40"W
4: La Gotera 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6; U
7: drill hole (366-400 ft deep) .
8: no production
10: Jurassic Morrision Formation-Brushy Basin Member
11: one horizon, 6-12 ft thick
13: Sandstone
15: Green and others (1980c, #49); Hilpert (1969, p. 48); USAEC files (late 1950's)

1: 17N.1W.36.300
2: Section 36 (Anomaly #3 and 7)
3: SW1/4 36 T17N R1W 35°39'30"N 106°54'00"W
4: Holy Ghost Spring 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
13: Sandstone
14: incorrect location given in PRR
15: Green and others (1980c, #35); Chenoweth (1974b); Hilpert (1969, p. 49); Siapno (1955); PRR ED-R-520 (1955)

1: 18N.2E.13.400
2: Soda Dam (Perry Robb)
3: 13 T18N R2E (unsurveyed) 35°47'30"N 106°41'20"W
4: Jemez Springs 7-1/2 Elevation 6,460 ft
5: Jemez Springs district-Jemez Mountains
6: U
7: no workings-natural dam and caves
8: no production
9: bkgd 30-50 cps; average 300-500 cps; high 1,100 cps
10: Recent Hot Springs deposit (Tufa)
11: radioactive calcite tufa deposit forming a natural dam 50 ft wide, 50 ft high, 300 ft long
12: 0.001% U_3O_8, 35.9% Ca (NMBMMR chem lab, 3/3/83, #3160)
13: Quaternary hot springs deposit
14: shown on Jemez Springs topographic map
15: FN 5/9/82; PRR unnumbered (1951)

1: 19N.1W.34.300
2: South Butte (La Ventana Mesa)
3: E1/2 33, S1/2 34 T19N R1W, NE1/4 3, W1/2 2 T18N R1W
35°49'58"N 106°55'55"W
4: La Ventana 7-1/2 Elevation 7,560 ft
5: La Ventana district-Nacimiento Mountains
6: U, Coal
7: pits, drill holes
8: no uranium production
10: Cretaceous Mesaverde Group-La Ventana Tongue of Cliff House Sandstone
11: radioactive coal around most of mesa
12: up to 0.42% U (Vine and others, 1953)
13: Coal
14: geologic and assay map by Vine and others (1953)
15: Green and others (1980c, #25); Santos (1975a); Woodward, L.A. and Schumacher (1973); Bachman and others (1959); Hilpert and Corey (1955); Vine and others (1953); USAEC files (late 1950's)

1: 17N.2E.3.400
2: Spanish Queen (East, Burnett)
3: 3 T17N R2E (unsurveyed) 35°43'55"N 106°42'33"W
4: Ponderosa 7-1/2 Elevation 6,050 ft
5: Jemez Springs district-Jemez Mountains
6: Ag, Au, Cu, U
7: 2 adits with 2 shafts and interconnecting drifts
8: no uranium production, Cu-Ag-Au production (Elston, 1967, p. 24)
9: bkgd 50 cps, dump 50-80 cps, high 150 cps
10: Permian Abo Formation
11: discontinuous lenses of ore associated with woody material in black to gray shale interbedded with bleached sandstone, several horizons
12: malachite, azurite, chalcocite; 0.018% U_3O_8, 4.90% Cu (NMBMMR chem lab, 3/3/83, #3150)
13: Sandstone-tabular
14: mine map by Bachman and Read (1951)
15: FN 9/5/82; Holen (1982); Green and others (1980c, #258); Elston (1967); Soulè (1956); Gott and Erickson (1952; 1951, #6); Bachman and Read (1951); PRR unnumbered (1951); USBM files (1943)

1: 17N.2E.3.340
2: Spanish Queen West
3: 3 T17N R2E (unsurveyed) 35°43'45"N 106°42'55"W
4: Ponderosa 7-1/2 Elevation 6,050 ft
5: Jemez Springs 7-1/2-Jemez Mountains
6: Ag, Au, Cu, U
7: 1 adit (now caved and inaccessible)
8: no uranium production, Cu-Ag-Au production unknown
9: bkgd 50 cps, adit 150 cps, high on outcrop 200 cps
10: Permian Abo Formation
11: discontinuous ore zone associated with carbonaceous material in gray shale interbedded with orange to buff sandstone
12: chalcocite, malacite, azurite; 0.006% U_3O_8, 3.49% Cu, 1.06 oz/ton Ag (NMBMMR chem lab, 3/3/83, #3144)
13: Sandstone-tabular
14: mine map by Bachman and Read (1951)
15: FN 9/5/82; Soulè (1956); Gott and Erickson (1951, #7); Bachman and Read (1951)

1: 18N.2E.34
2: Tex-N (Tex M)
3: C 34 T18N R2E 35°45'00"N 106°42'55"W (approximate)
4: Ponderosa 7-1/2, Jemez Springs 7-1/2
5: Jemez Springs district-Jemez Mountains
6: Cu, U
7: 1 short adit
8: no uranium produciton, unknown copper production
10: Permian Abo Formation
11: mineralized zone along carbonaceous seams in sandstone and shale
12: 0.07% U_3O_8, 5.76% Cu reported
13: Sandstone
14: could not locate 9/5/82
15: FN 9/5/82; Green and others (1980c, #28); Hilpert (1969, p. 49); PRR unnumbered (1955); ED-R-609 (1955)

1: 12N.2W.5.322
2: Unknown
3: C 5 T12N R2W 35°17'50"N 107°4'30"W
4: Puerco Dam 7-1/2
5: Majors Ranch area
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation
13: Sandstone
14: Bolivar Uranium Corp.
15: Santos (1975a)

1: 12N.2W.6.221
2: Unknown
3: NE1/4 6 T12N R2W 35°18'15"N 107°5'10"W
4: Puerco Dam 7-1/2
5: Majors Ranch area
6: U
7: no workings-drill holes
8: no production
10: Jurassic Morrison Formation
13: Sandstone
14: Bolivar Uranium Corp.
15: Santos (1975a)

1: 12N.2W.29.111
2: Unknown
3: NE1/4 29 T12N R2W 35°20'00"N 107°3'58"W
4: Puerco Dam 7-1/2
5: Majors Ranch area
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation
13: Sandstone
14: Bolivar Uranium Corp.
15: Green and others (1980c, #253); Santos (1975a)

1: 12N.2W.31.441
2: Unknown
3: SE1/4 31 T12N R2W 35°18'35"N 107°5'00"W
4: Puerco Dam 7-1/2
5: Majors Ranch area
6: U
7: no workings-drill holes
8: no producetion
10: Jurassic Morrison Formation
13: Sandstone
14: Bolivar Uranium Corp.
15: Santos (1975a)

1: 12N.4W.1.200
2: Unknown (Base Metals)
3: NE1/4 1 T12N R4W 35°17'55"N 107°12'25"W
4: La Gotera 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone-tabular
14: 4 mineralized drill holes
15: Green and others (1980c, #48); Hilpert (1969, p. 48); USAEC files (late 1950's)

1: 12N.4W.12.143
2: Unknown
3: C W1/2 12 T12N R4W 35°16'52"N 107°13'00"W
4: La Gotera 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Green and others (1980c, #50); Hilpert (1969, p.48)

1: 12N.4W.23.411
2: Unknown
3: C 23 T12N R4W
4: La Gotera 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: drill holes
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
14: Anaconda-Laguna Indian Reservation
15: Green and others (1980c, #54); USAEC files (late 1950's)

1: 13N.4W.25
2: Unknown
3: E1/2 25 T13N R4W
4: La Gotera 7-1/2
5: Marquez-Bernabe Montaño area-Grants uranium district
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member-Jackpile sandstone
13: Sandstone
15: Hilpert (1969, p. 48)

1: 14N.1E.27.400
2: Unknown
3: SE1/4 27 T14N R1E 35°29'55"N 106°49'1"W
4: Sky Village NE 7-1/2
5: Nacimiento Mountains
6: U
7: trench
8: no production
9: 2 times background radioactivity (Green and others, 1980c)
10: Cretaceous Mancos Shale
13: Marine Shale
14: no uranium potential; examined by Green and others (1980c); incorrect location given on table by Green and others (1980c)
15: Green and others (1980c, #254)

1: 15N.1E.22.144
2: Unknown
3: C 22 T15N R1E 35°31'00"N 106°49'28"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U
7: pit
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Chenoweth (1974b); Woodward, L.A., and Ruetschilling (1976)

1: 15N.1E.31
2: Unknown
3: 31 T15N R1E 35°29'13"N 106°52'30"W
4: Sky Village NE 7-1/2, Sky Village NW 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
11: slighty radioactive coal and sandstone
13: Sandstone/Coal
14: examined by Green and others (1980c)
15: Green and others (1980c, #275); Hilpert and Corey (1955); Bachman and Read (1951)

1: 15N.1W.8.223
2: Unknown
3: NE1/4 8 T15N R1W 35°32'50"N 106°57'30"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: Nacimiento Uranium Mining Corp.
15: Green and others (1980c, #36); Santos (1975a); Hilpert (1969, p. 48)

1: 15N.1W.9.441
2: Unknown
3: SE1/4 9 T15N R1W 35°32'25"N 106°56'30"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized sandstone in drill hole
13: Sandstone
14: Nacimiento Uranium Mining Corp.
15: Green and others (1980c, #37); Santos (1975a); Hilpert (1969, p. 48)

1: 15N.1W.10.210
2: Unknown (Nacimiento, Polka Dot)
3: NE1/4 10 T15N R1W 35°32'45"N 106°55'30"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill holes-anomalous radioactivity over outcrops
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: Nacimiento Uranium Mining Corp.
15: Chenoweth (1974b); NMBMMR files (1979)

1: 15N.1W.21.441
2: Unknown
3: SE1/4 21 T15N R1W 35°30'40"N 106°56'30"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: Nacimiento Uranium Mining Corp.
15: Green and others (1980c, #42); Santos (1975a); Hilpert (1969, p. 48)

1: 15N.1W.22.441
2: Unknown
3: SE1/4 22 T15N R1W 35°30'45"N 106°55'25'W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole-mineralized outcrop
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: Nacimiento Uranium Mining Corp.
15: Green and others (1980c, #43); Santos (1975a); Hilpert (1969, p. 48); MILS (1981)

1: 15N.1W.23.400
2: Unknown
3: SE/14 23 T15N R1W 35°30'35"N 106°54'25"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill hole
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: Nacimiento Uranium Mining Corp.
15: Green and others (1980c, #44); Hilpert (1969, p. 48)

1: 16N.1E.29.413
2: Unknown
3: S1/2 29 T16N R1E 35°35'8"N 106°51'30"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Summerville or Entrada Formation
13: Sandstone
15: Santos (1975a); U.S. Atomic Energy Commission (1966a, p. 54)

1: 16N.1E.32.211
2: Unknown
3: NE1/4 32 T16N R1E 35°34'50"N 106°51'30"W
4: San Ysidro 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Summerville or Entrada Formation
13: Sandstone
15: Santos (1975a); U.S. Atomic Energy Commission (1966a, p. 54)

1: 16N.2E.7.100
2: Unknown
3: NW1/4 7 T16N R2E 35°38'2"N 106°46'20"W
4: Gilman 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Pennsylvanian Madera Formation (?)
13: Sandstone (?)
15: Holen (1982); Green and others (1980c, #257); Woodward, L.A., DuChene, and Martinez (1977)

1: 17N.1W.15.211
2: Unknown (Ojo del Espirito Santo Grant)
3: N1/2 15 T17N R1W (unsurveyed)
4: Holy Ghost Spring 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Siapno (1955)

1: 17N.1W.25.420
2: Unknown-Collins Lease (Kroeger #1)
3: SW1/4 25 T17N R1W (unsurveyed) 35°40'15"N 106°53'15"W
4: Holy Ghost Springs 7-1/2 Elevation 6,400 ft
5: Nacimiento Mountains
6: U, V
7: no workings-drill holes, outcrop anomalies
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
14: Zia Indian Reservation, similar to Collins prospect
15: Kittleman and Chenoweth (1957); Siapno (1955, p. 15, #1); PRR ED-R-520 (1955), ED-R-475 (1955)

1: 17N.1W.27.222
2: Unknown (Anomaly #4, Ojo del Espirato Santo Grant)
3: NE1/4 27 T17N R1W (unsurveyed)
4: Holy Ghost Spring 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
13: Sandstone
15: Chenoweth (1974b); Siapno (1955)

1: 17N.1W.36.323
2: Unknown
3: 36 T17N R1W (unsurveyed) 35°39'29"N 106°53'35"W
4: Holy Ghost Springs 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Jurassic Entrada Sandstone
11: mineralized 1 to 1-1/2 ft sandstone along 0.2 mile of outcrop
12: yellow uranium mineral
13: Sandstone
15: Santos (1975a, p. 18)

1: 18N.1W.2.341
2: Unknown (South Butte)
3: SW1/4 2 T18N R1W 35°49'00"N 106°54'40"W
4: La Ventana 7-1/2 Elevation 7,240 ft
5: La Ventana district-Nacimiento Mountains
6: U, Coal
7: no workings
8: no uranium production
10: Cretacoeus Mesaverde Group-La Ventana Tongue of Cliff House Sandstone, Menefee Formation
12: 0.003% U (Vine and others, 1953)
13: Coal
15: Bachman and others (1959); Vine and others (1953)

1: 18N.1W.12.300
2: Unknown (de dos Gordos)
3: SW1/4 12 T18N R1W (unsurveyed) 35°47'15"N 106°34'00"W
4: La Ventana 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
11: radioactive shale
12: 0.002% U
13: Sandstone/Shale
15: Green and others (1980c, #30); Santos (1975a); Chenoweth (1974b); Hilpert (1969, p. 49); Bachman and others (1959); Vine and others (1953); Read (1952); MILS (1981)

1: 19N.1W.19.230
2: Unknown
3: NE1/4 19 T19N R1W 35°53'55"N 106°58'40"W
4: La Ventana 7-1/2
5: La Ventana district- Nacimiento Mountains
6: U, Coal
7: no workings
8: no production
10: Cretaceous Mesaverde Group-La Ventana Tongue of Cliff House Sandstone-Menefee Formation
11: radioactive bone in coal
12: 0.002% U (Vine and others, 1953)
13: Coal
15: Woodward, L.A., and Shumacher (1973); Bachman and others (1959); Vine and others (1953)

1: 19N.1W.30.221
2: Unknown
3: NE1/4 30 T19N R1W 35°51'15"N 106°58'30"W
4: La Ventana 7-1/2
5: La Ventana district-Nacimiento Mountains
6: U, Coal
7: no workings
8: no production
10: Cretaceous Mesaverde Group-La Ventana Tongue of Cliff House Sandstone, Menefee Formation
11: radioactive coal and bones
12: 0.002% U (Vine and others, 1953)
13: Coal
14: examined by Green and others (1980c)
15: Green and others (1980c, #323); Santos (1975b); Woodward, L.A. and Schumacher (1973); Bachman and others (1959); Vine and others (1953)

1: 19N.1W.3Ø.322
2: Unknown
3: C 3Ø T19N R1W 35°5Ø'5Ø"N 1Ø6°58'5Ø"W
4: La Ventana 7-1/2
5: La Ventana district-Nacimiento Mountains
6: U
7: no workings
8: no production
1Ø: Cretaceous Mesaverde Group-La Ventana Tongue of Cliff House Sandstone, Menefee Formation
11: radioactive clinker bed and natural ash bed
12: Ø.ØØ9% U (Vine and others, 1953)
13: Sandstone
15: Woodward and Schumacher (1973); Bachman and others (1959); Vine and others (1953)

1: 19N.1W.32.232
2: Unknown
3: NE1/4 32 T19N R1W 35°5Ø'1Ø"N 1Ø6°57'35"W
4: La Ventana 7-1/2
5: La Ventana district-Nacimiento Mountains
6: U, Coal
7: pit
8: coal produced, no uranium production
1Ø: Cretaceous Mesaverde Group-Menefee Formation
11: radioactive coal
12: Ø.ØØ1% U (Vine and others, 1953)
13: Coal
15: Bachman and others (1959); Vine and others (1953)

1: 19N.2W.36.223
2: Unknown
3: NE1/4 36 T19N R2W 35°5Ø'2Ø"N 1Ø6°59'3Ø"W
4: La Ventana 7-1/2
5: La Ventana district-Nacimiento Mountains
6: U, coal
7: no workings
8: no production
1Ø: Cretaceous Mesaverde Group-La Ventana Tongue of Cliff House Sandstone, Menefee Formation
11: radioactive 2-ft coal bed
12: Ø.ØØ4% U (Vine and others, 1953)
13: Coal
15: Bachman and others (1959); Vine and others (1953)

1: 20N.1E.6.300
2: Unknown
3: SW1/4 6 T20N R1E 35°59'10"N 106°52'35"W
4: Rancho del Chaparral 7-1/2
5: Nacimiento Mountains district
6: U, Cu
7:
8: no production
10: Permian Abo Formatin
13: Sandstone
15: Holen (1982); Green and others (1980c, #260); Woodward, L.A., Kaufman, and Reed (1973)

1: 20N.2W.1.100
2: Unknown-Rio Puerco
3: NW1/4 1 T20N R2W
4: Mesa Portales 7-1/2
5: Cuba area
6: U
7: no workings
8: no production
9: 4 times background radioactivity (Green and others, 1980c)
10: Eocene San Jose Formation-Yegua Canyon facies-Cuba Mesa sandstone
12: 0.003% U_3O_8 (Chenoweth, 1957b)
13: Sandstone
14: examined by Green and others (1980c)
15: Green and others (1980c, 267); Chenoweth (1957b, p. 16-17); Bachman and others (1953)

1: 21N.1W.7.230
2: Unknown
3: NE1/4 SW1/4 7 T21N R1W
4: Cuba 7-1/2
5: Nacimiento Mountains-Cuba area
6: U
7: no workings
8: no production
10: Eocene San Jose Formation-Yegua Canyon facies-Cuba Mesa sandstone
11: radioactive fossil wood
13: Sandstone
15: Chenoweth (1957b, p. 16-17)

1: 21N.1W.2Ø.1ØØ
2: Unknown
3: NW1/4 2Ø T21N R1W
4: Cuba 7-1/2
5: Nacimiento Mountains-Cuba area
6: U
7: no workings
8: no production
1Ø: Eocene San Jose Formation-Yegua Canyon facies-Cuba Mesa sandstone
11: radioactive fossil wood in shale and siltstone
12: Ø.ØØ2% U (Chenoweth, 1957b)
13: Sandstone
15: Green and others (198Øa, #64); Woodward, L.A., McLelland, Anderson, and Kaufman (1972); Chenoweth (1957b, p. 16-17); Hilpert and Corey (1955)

1: 17N.1W.26
2: J. Walker #1
3: 26 T17N R1W
4: Holy Ghost Springs 7-1/2
5: Nacimiento Mountains
6: U
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Brushy Basin member
13: Sandstone
15: PRR ED-R-474 (1955)

1: 13N.6E.4,5
2: We Hope #4
3: 4, 5 T13N R6E 35°23'15"N 1Ø6°19'ØØ"W
4: San Felipe Pueblo NE 7-1/2, San Felipe Pueblo Pueblo 15' Elevation 5,7ØØ ft
5: Hagan Basin area
6: U, Se, Mo, V
7: numerous drill holes, deposit defined by Union Carbide
8: no production
9: no mineralization found on surface
1Ø: Eocene Galisteo Formation
11: two bleached channel sandstones
12: uraninite, coffinite, uranophene
13: Sandstone-modified roll-type
14: on the Blackshire Ranch
15: FN 2/24/82; McLemore (1982b, #5Ø); Green and others (198Øc, #15); Moore, J.C. (1979); Chenoweth (1979); U.S. Atomic Energy Commission (197Ø, p. 125); Hilpert (1969, p. 48)

1: 14N.6E.32
2: We(e) Hope, Rabac, DEC claims (North Blackshere Ranch)
3: 32 T14N R6E, 4, 5, 6 T13N R6E 35°23'00"N 106°19'00"W
4: San Felipe Pueblo NE 7-1/2, San Felipe Pueblo 15 Elevation 5,700 ft
5: Hagan Basin area
6: U, Se, Mo, V
7: numerous drill holes (170 ft deep), deposit defined by Union Carbide
8: no production
9: no mineralization found on surface
10: Eocene Galisteo Formation
11: two bleached channel sandstones
12: uraninite, coffinite
13: Sandstone-modified roll-type
14: Blackshire Ranch
15: FN 2/24/82; McLemore (1982b, #49); Green and others (1980c, #14); Moore, J.C. (1979); Chenoweth (1979); U.S. Atomic Energy Commission (1970, p. 125); Hilpert (1969, p. 48)

1: 15N.1W.21.214
2: Yellow Cliffs Group
3: C NW1/4 NE1/4 21 T15N R1W 35°31'12"N 106°56'41"W
4: Ojito Spring 7-1/2
5:
6: U
7: drill holes(?)
8: no production
10: Jurassic Morrison Formation
13: Sandstone
15: NMBMMR files (1979)

Alphabetical (124 occurrences)

Airbourne Anomaly #3	28N.16W.21.114
Airbourne Anomaly #4	31N.14W.13
Airbourne Anomaly #5	3ØN.16W.32
Airbourne Anomaly #6	3ØN.16W.1Ø.34Ø
Airbourne Anomaly #7	31N.16W.24
Airbourne Anomaly #8 and 9	31N.15W.3Ø
Airbourne Anomaly #1Ø and 11	31N.15W.3Ø
Airbourne Anomaly #12	31N.15W.3Ø
Airbourne Anomaly #13, 14, and 15	31N.15W.19.4ØØ
Airbourne Anomaly #16, 17, and 18	31N.16W.14
Airbourne Anomaly #19 and 2Ø	31N.16W.15
Airbourne Anomaly #21	31N.16W.3.1ØØ
Anomalous area near Airbourne Anomaly #21	31N.16W.3.2ØØ
Airbourne Anomaly #22 and #23	32N.16W.28
Outcrop SE of Airbourne Anomaly No. 23	32N.16W.28
Airbourne Anomaly #24	32N.16W.29
Airbourne Anomaly #32	32N.17W.27
Airbourne Anomaly #33	32N.17W.15
Airbourne Anomaly #34	32N.17W.27
Airbourne Anomaly #35	32N.17W.22,27
Airbourne Anomaly #36	31N.16W.15,16
Airbourne Anomaly #37	31N.16W.1Ø
Airbourne Anomaly #46	28N.17W.13
A.L. Cook	3ØN.18W.24.3ØØ
Alfred Talk	25N.2ØW.6.113
Alongo	29N.21W.24.441
Barton and Lee	3ØN.21W.26.3ØØ
Beclabito Lease	3ØN.21W.23.11Ø
Begay #1	29N.21W.24.333
Begay #2	29N.21W.23.221
Begay Incline	29N.21W.23.224
C. Bekis No.1	3ØN.21W.27
Benall and Shorty	29N.21W.24.22Ø
Boyd	3ØN.15W.3.14Ø
Canyon #1	3ØN.21W.24.42Ø
Canyon View	29N.21W.24.443
Carl Yazzi #1	25N.2ØW.17.114
Carrizo #1	29N.21.23.424
Castle Tsosie	26N.21W.36.444
Chaco Canyon-Drill Hole CC-8	21N.9W.31.412
Chaco Canyon-Drill Hole CC-12	21N.1ØW.32.344
Claim #14	A
Coal Mine	32N.13W.15.444
Cottonwood Butte	3ØN.21W.35.13Ø
David Kee	26N.21W.36.314
Deneh Nez #1 & 2	25N.2ØW.5.214
Deneh Nez #3	25N.2ØW.5.411
Deposit #2	32N.16W.19
Deposit x-y	3ØN.15W.6
Dodge Brothers	23N.19W.5.1ØØ
Dodge Brothers	24N.19W.7.11Ø
Dodge and Begay	23N.19W.8,17
Dodge and Begay	23N.19W.16.3ØØ
Dodge and Begay	23N.2ØW.1
East Carrizo Area	29N.21W.35
East Reservation Lease Plot 3	29N.21W.14
East Side diatreme	29N.21W.14.342
E.L. Chilton and Sons	32N.1ØW.29.1ØØ
Enos Johnson #1-4	25N.2ØW.7,8
Enos Johnson #3	25N.2ØW.8.311
Franks Point	29N.21W.11.333
Hazel	19N.21W.3
H.B. Roy	25N.2ØW.18.441
H.B. Roy #1	26N.2ØW.3Ø.1ØØ
Hogback Claim	3ØN.16W.15.323
Horace Ben #1	25N.2ØW.8.442
Horse Mesa South	29N.21W.26.323
Horse Mesa North	29N.21W.26.134
Joe Ben #1	25N.2ØW.6.141
Joe Ben #2	25N.2ØW.6.231
Joe Ben #3	25N.2ØW.8.131
John Joe #1	25N.2ØW.8.11Ø
John Joe #2	26N.2ØW.31.334
John John #1	3ØN.21W.22.42Ø
Junction	29N.21W.24.243
Kee and Tohne	26N.2ØW.31.313
King #2	3ØN.21W.26.12Ø
King #6	3ØN.21W.14.433
King Tutt #1	29N.21W.24.323
King Tutt #2	29N.21W.12,13
King Tutt Point	29N.21W.23.42Ø
Lone Star	32N.9W.32.3ØØ
Lone Star	3ØN.21W.35.31Ø
Lookout Point-Sunnyside	29N.21W.14.344
Lookout Point Incline	29N.21W.23.122
Lower Canyon	29N.21W.2
Lower Oak Creek	29N.21W.14.122
Lower Salt Rock	29N.21W.14.122
Nelson Point	29N.21W.23.41Ø
Rattlesnake #6	29N.21W
Red Wash Point	29N.21W.24.323
Reed Henderson	25N.2ØW.19.344
Rocky Flats #1	3ØN.21W.24.12Ø
Rocky Flats #2	3ØN.21W.26.122
Rocky Spring	27N.21W.35
Salt Canyon	29N.21W.13,14
Salt Rock	29N.21W.11.334
Sanostee	26N.19W.31
Section 8 adit	25N.2ØW.8.213
Shadyside	29N.21W.23.124
Shadyside #1-Plot 3	29N.21W.23
Shadyside #2	29N.21W.23.212
Shiprock diatreme	29N.19W.34
Tent	29N.21W.23.142
Toadlena	23N.19W.14
Tyler	25N.2ØW.6.131
Unknown	23N.1ØW.26.322
Unknown-Exxon	25N.18W
Unknown	25N.2ØW.4.331
Unknown	25N.2ØW.5.42Ø
Unknown	25N.2ØW.6.134
Unknown	25N.2ØW.8.331
Unknown	25N.2ØW.8.334
Unknown	25N.2ØW.17.231
Unknown	25N.2ØW.18.444
Unknown	26N.21W.36.2ØØ
Unknown	29N.21W.11.124
Unknown	29N.21W.24.423
Unknown	29N.21W.25.3ØØ
Unknown	29N.21W.27.222
Unknown	3ØN.21W.11.333
Unknown	3ØN.21W.14.3ØØ
Weillack & Hamilton	29N.12W.17
Williams Point	29N.21W.14.32Ø

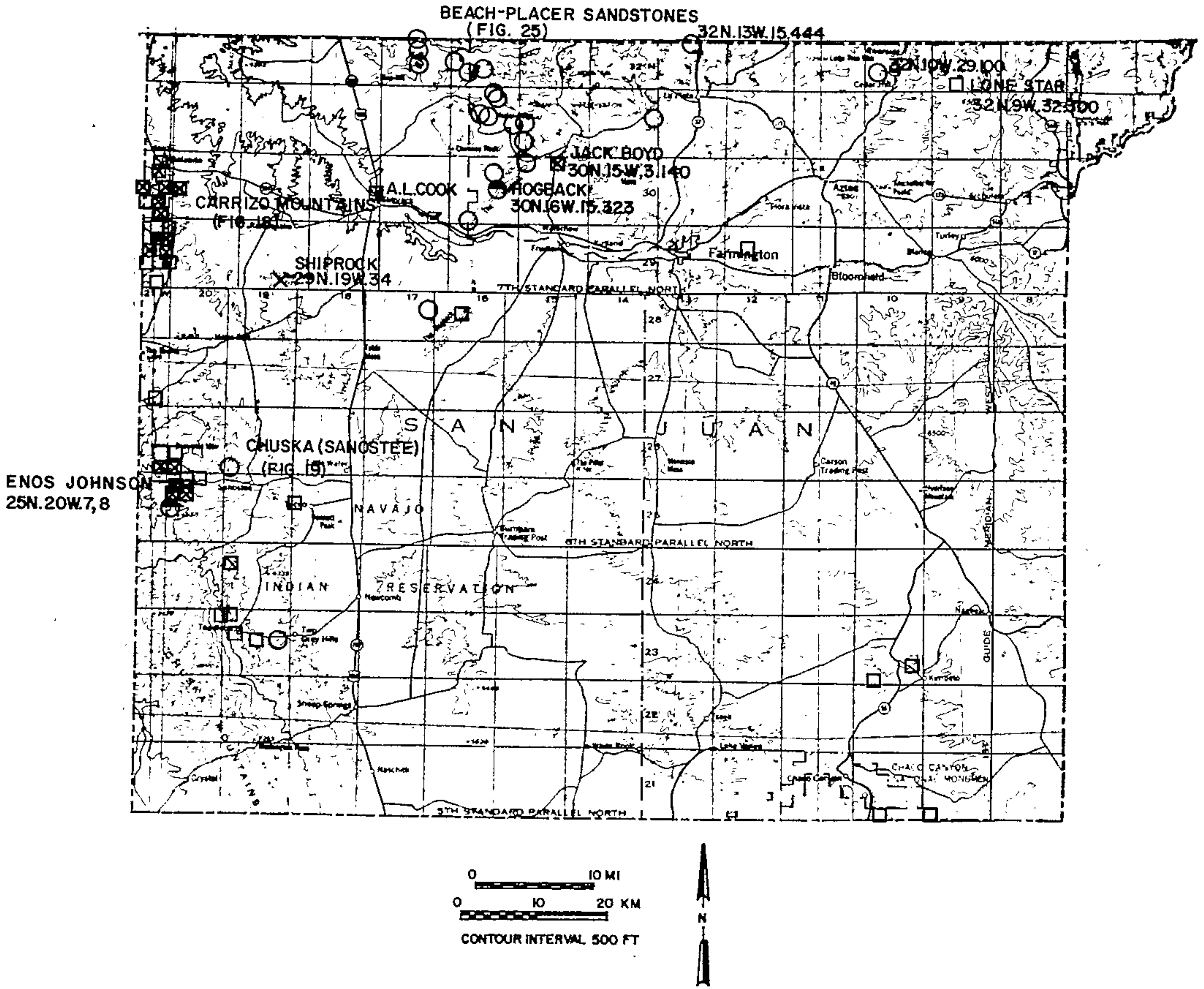
Alias	Name	Number
Adee Bitnay Dodge and B. Tommy Toosee Begay	Dodge and Begay	23N.19W.8,17
Adee Bitnay Dodge and B. Tommy Toosee Begay	Dodge and Begay	23N.20W.1
AEC and Navajo Tribe	East Carrizo Area	29N.21W.35
Airbourne Anomaly #1	Dodge Brothers	23N.19W.5.100
Airbourne Anomaly #2	Dodge Brothers	24N.19W.7.110
Barker Dome	Airbourne Anomaly #4	31N.14W.13
BB	Beclabito Lease	30N.21W.23.110
BBB	Beclabito Lease	30N.21W.23.110
Bear Creek Canyon area	H.B. Roy #1	26N.20W.30.100
B'Cla' B'to	Beclabito Lease	30N.21W.23.110
Begay #1	Begay Incline	29N.21W.23.224
Burton #1	Begay Incline	29N.21W.23.224
Burton and Begay	Beclabito Lease	30N.21W.23.110
Canyon #2	Lower Canyon	29N.21W.2
Carl Yazzie Claim	Unknown	25N.20W.17.231
Cato Sells	Lower Canyon	29N.21W.2
Chilton Prospect	E.L. Chilton and Sons	32N.10W.29.100
Dalton Prospect	E.L. Chilton and Sons	32N.10W.29.100
Denneh Nez Claim	Unknown	25N.20W.5.420
Dennet Nez	Deneh Nez #1 and 2	25N.20W.5.214
Dennet Nezz #3	Deneh Nez #3	25N.20W.5.411
Dennet Nezz	Deneh Nez #1 and 2	25N.20W.5.214
Elmer Davidson	Hogback Claim	30N.16W.15.323
Enos Johnson	Unknown	25N.20W.5.420
Enos Johnson Claim(?)	Unknown	25N.20W.4.331
George Tutt	Salt Canyon	29N.21W.13,14
H.B. Roy	Unknown	25N.20W.18.444
H.B. Roy #2	H.B. Roy	25N.20W.18.441
Horse Mesa	Unknown	29N.21W.27.222
Hoskey Burton	Beclabito Lease	30N.21W.23.110
Jack Boyd	Boyd	30N.15W.3.140
J. Chee	Rocky Spring	27N.21W.35
Jimmy King #2	King #2	30N.21W.26.120
Jimmy King #6	King #6	30N.21W.14.433
Joe Ben #5 Claim	Unknown	25N.20W.8.331
Kee and Tohne Bee Sho Shee Mine	Kee and Tohe	26N.20W.31.313
King #6	Unknown-Troy Rose(?)	30N.21W.11.300
Kunde-Yatte	Benall and Shorty	29N.21W.24.220
E. Lauppe	Hazel	29N.21W.3
Lewis Barton	Beclabito	30N.21W.23.110
Lookout Point	Begay #2	29N.21W.23.221
Meadows Mine #4	Claim #4	A
MP-4	Salt Canyon	29N.21W.13,14
MP-6	King Tutt #2	29N.21W.12,13
MP-30	Barton and Lee	30N.21W.26.300
MP-35	Beclabito Lease	30N.21W.23.110
MP-69	Salt Rock	29N.21W.11.334
MP-292	King #6	30N.21W.14.433
MP-334	John John #1	30N.21W.22.420
MP-336	Alongo	29N.21W.24.441
MP-362	Benall and Shorty	29N.21W.24.220
MP-430	Hazel	29N.21W.3
Nakai Chee Begay Lease	Begay #1	29N.21W.24.333
Oak Springs	Lower Oak Creek	29N.21W.14.122
Plot 2	King Tutt Point	29N.21W.23.420
Plot 3	Lookout Point Incline	29N.21W.23.122
Plot 3	Lookout Point-Sunnyside	29N.21W.14.344
Plot 3	Nelson Point	29N.21W.23.410
Plot 4	Williams Point	29N.21W.14.320
Plot 6	Franks Point	29N.21W.11.333
Plot 7	Lower Oak Creek	29N.21W.14.122
Plot 8-#5705	Cottonwood Butte	30N.21W.35.130
Red Rock	Horse Mesa North	29N.21W.26.134
Red Rock	Horse Mesa South	29N.21W.26.323
Rocky Mine #2	Rocky Flats #2	30N.21W.26.122
Salt Creek Wash	Airbourne Anomaly #22 & 23	32N.16W.28
Sam Point	Red Wash Point	29N.21W.24.323
Sanostee Mine	Enos Johnson #1-4	25N.20W.7,8
A. Senutor Pitch	Dodge & Begay	23N.19W.8,17
Shadyside Incline	Shadyside Plot 3	29N.21W.23.124
South Peak Mine	Enos Johnson #1-4	25N.20W.7,8
South Peak Mine	Enos Johnson #3	25N.20W.8.311
Troy Rose	C. Bekis No. 1	30N.21W.27
Troy Rose	King #6	30N.21W.14.433
Unknown	Begay #1	29N.21W.24.333
Unknown	Joe Ben #2	25N.20W.6.231
Unknown	Lookout Point-Sunnyside	29N.21W.14.344
Unknown	Lower Oak Creek	29N.21W.14.122
Unknown	Rocky Flats #2	30N.21W.26.122
Unknown	Salt Canyon	29N.21W.13,14
Unnamed	Franks Point	29N.21W.11.333
Upper and Lower Salt Rock	Salt Rock	29N.21W.11.334
Upper Red Wash	Begay #2	29N.21W.23.224
VCA Plot 9	Lone Star	30N.21W.35.310

SAN JUAN COUNTY (continued)

Numerical

21N.9W.31.412	Chaco Canyon-Drill Hole CC-8
21N.10W.32.344	Chaco Canyon-Drill Hole CC-12
23N.10W.26.322	Unknown prospect near Kimbeto T.P.
23N.19W.5.100	Dodge Brothers
23N.19W.8,17	Dodge and Begay
23N.19W.14	Toadlena
23N.19W.16.300	Dodge-Begay
24N.19W.7.110	Dodge Brothers
25N.18W	Unknown-Exxon
25N.20W.4.331	Unknown
25N.20W.5.214	Deneh Nez #1 and 2
25N.20W.5.411	Deneh Nez #3
25N.20W.5.420	Unknown
23N.20W.1	Dodge and Begay
25N.20W.6.131	Tyler
25N.20W.6.134	Unknown
25N.20W.6.141	Joe Ben #1
25N.20W.6.231	Joe Ben #2
25N.20W.7,8	Enos Johnson (#1-4)
25N.20W.8.110	John Joe #1
25N.20W.6.113	Alfred Talk
25N.20W.8.213	Section 8 adit
25N.20W.8.311	Enos Johnson #3
25N.20W.8.331	Unknown
25N.20W.8.334	Unknown
25N.20W.8.442	Horace Ben
25N.20W.17.114	Carl Yazzie #1
25N.20W.8.131	Joe Ben #5
25N.20W.18.441	H.B. Roy
25N.20W.18.444	Unknown
25N.20W.19.344	Reed Henderson
26N.19W.31	Sanostee
26N.20W.30.100	H. B. Roy #1
26N.20W.31.313	Kee and Tohe
25N.20W.17.231	Unknown
26N.21W.36.100	Unknown
26N.21W.36.314	David Kee
26N.21W.36.444	Castle Tsosie
27N.21W.35.35	Rocky Spring
26N.20W.31.334	John Joe #2
28N.17W.13	Airbourne Anomaly #46
29N.12W.17	Weillack and Hamilton
29N.19W.34	Shiprock diatreme
29N.21W	Rattlesnake #6
29N.21W.2	Lower Canyon
29N.21W.3	Hazel
29N.21W.11.124	Unknown
29N.21W.11.333	Franks Point
29N.21W.11.334	Salt Rock
29N.21W.12,13	King Tutt #2
29N.21W.13,14	Salt Canyon
29N.21W.14	East Reservation Lease-Plot 3
29N.21W.14.122	Lower Oak Creek
29N.21W.14.122	Lower Salt Rock
29N.21W.14.320	Williams Point
29N.21W.14.342	East Side diatreme
28N.16W.21.114	Airbourne Anomaly #3
29N.21W.14.344	Lookout Point-Sunnyside
29N.21W.23	Shadyside #1-Plot 3
29N.21W.23.122	Lookout Point Incline
29N.21W.23.124	Shadyside-Plot 3
29N.21W.23.142	Tent
29N.21W.23.212	Shadyside #2-Plot 3
29N.21W.23.221	Begay #2
29N.21W.23.224	Begay Incline
29N.21W.23.410	Nelson Point
29N.21W.23.420	King Tutt Point
29N.21W.23.424	Carrizo #1
29N.21W.24.220	Benall and Shorty
29N.21W.24.243	Junction
29N.21W.24.323	King Tutt #1
29N.21W.24.323	Red Wash Point
29N.21W.24.423	Unknown
29N.21W.24.333	Begay #1
29N.21W.24.441	Alongo
29N.21W.24.443	Canyon View
29N.21W.25.332	Unknown
29N.21W.26.134	Horse Mesa North
29N.21W.26.323	Horse Mesa South
29N.21W.27.222	Unknown
29N.21W.35	East Carrizo Area
30N.15W.3.140	Boyd
30N.15W.6	Deposit x-y
30N.16W.10.340	Airbourne Anomaly #6
30N.16W.15.323	Hogback Claim
30N.16W.32	Airbourne Anomaly #5
30N.18W.24.300	A.L. Cook
30N.21W.11.333	Unknown-Troy Rose?
30N.21W.14.300	Unknown-Troy Rose?
30N.21W.14.433	King #6
30N.21W.22.420	John John #1
30N.21W.23.110	Beclabito Lease
30N.21W.24.120	Rocky Flats #1
30N.21W.26.120	King #2
30N.21W.26.122	Rocky Flats #2
30N.21W.24.420	Canyon #1
30N.21W.26.300	Barton and Lee
30N.21W.27	C. Bekis No. 1
30N.21W.35.130	Cottonwood Butte
30N.21W.35.310	Lone Star
31N.14W.13	Airbourne Anomaly #4
31N.15W.19.400	Airbourne Anomaly #13, 14, and 15
31N.15W.30	Airbourne Anomaly #8 and 9
31N.15W.30	Airbourne Anomaly #10 and 11
31N.15W.30	Airbourne Anomaly #12
31N.16W.3.100	Airbourne Anomaly #21
31N.16W.3.200	Anomalous area near Airbourne Anomaly #21
31N.16W.10	Airbourne Anomaly #37
31N.16W.14	Airbourne Anomaly #16, 17, and 18
31N.16W.15	Airbourne Anomaly #19 and 20
31N.16W.15,16	Airbourne Anomaly #36
31N.16W.24	Airbourne Anomaly #7
32N.9W.32.300	Lone Star
32N.10W.29.100	E.L. Chilton and Sons
32N.13W.15.444	Coal Mine
32N.16W.19	Deposit #2
32N.16W.28	Airbourne Anomaly #22 and 23
32N.16W.28	Outcrop SE of Airbourne Anomaly #23
32N.16W.29	Airbourne Anomaly #24
32N.17W.15	Airbourne Anomaly #33
32N.17W.22,27	Airbourne Anomaly #35
32N.17W.27	Airbourne Anomaly #32
32N.17W.27	Airbourne Anomaly #34
(No number)	Claim #14

FIGURE 1-25-RADIOACTIVE OCCURRENCES IN SAN JUAN COUNTY, NEW MEXICO



1: 28N.16W.21.114
2: Airborne Anomaly #3
3: NW1/4 21 T28N R16W (unsurveyed) 36°43'1"N 108°2'10"W
4: The Hogback North 7-1/2
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Cliff House Sandstone
11: associated with a red "clinker" coal bed
13: Sandstone/Coal
15: PRR ED-R-485 (1955)

1: 31N.14W.13
2: Airborne Anomaly #4 (Barker Dome)
3: 13 T31N R14W (unsurveyed)
4: Purgatory Canyon 7-1/2
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Pictured Cliffs Sandstone
13: Beach-Placer Sandstone
15: Chenoweth (1957b); PRR ED-R-413 (1955)

1: 30N.16W.32
2: Airborne Anomaly #5
3: 32 T30N R16W (unsurveyed)
4: Chimney Rock SE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
9: bkgd 30 cps, high 320 cps
10: Cretaceous Point Lookout Sandstone
11: resistive purple-brown sandstone, 2-4 in thick bands, 50-ft diameter
12: 0.01% U_3O_8
13: Beach-Placer Sandstone
14: incorrect location given on PRR ED-R-449 (1955), Navajo Indian Reservation
15: FN 8/17/83; Chenoweth (1957b); PRR ED-R-449 (1955); ED-R-432 (1955); USBM files (1958)

1: 30N.16W.10.340
2: Airborne Anomaly #6
3: SW1/4 10 T30N R16W
4: Chimney Rock SE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
12: 0.004-0.006% U_3O_8
13: Beach-Placer Sandstone
14: incorrect location given in PRR ED-R-450 (1955)
15: U.S. Atomic Energy Commission (1966, p. 63); Chenoweth (1957b); PRR ED-R-445 (1955); ED-R-450 (1955); USBM files (1958)

1: 31N.16W.24
2: Airborne Anomaly #7
3: 24 T31N R16W (unsurveyed)
4: Heifer Point 7-1/2
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
12: 0.01% U_3O_8
13: Beach-Placer Sandstone
15: Chenoweth (1957b); PRR ED-R-435 (1955)

1: 31N.15W.30
2: Airborne Anomalies #8 and 9
3: 30 T31N R15W
4: Waterflow 7-1/2
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation
15: Chenoweth (1957b); PRR ED-R-433 (1955); USBM files (1958)

1: 31N.15W.30
2: Airborne Anomalies #10 and 11
3: 30 T31N R15W
4: Waterflow 7-1/2
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
12: 0.01% U_3O_8
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation
15: Chenoweth (1957b); PRR ED-R-434 (1955); USBM files (1958)

1: 31N.15W.30
2: Airborne Anomaly #12
3: S1/2 30 T31N R15W
4: Waterflow 7-1/2
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone, Menefee Formation
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation
15: Chenoweth (1955); PRR ED-R-436 (1955); USBM files (1958)

1: 31N.15W.19.400
2: Airborne Anomaly #13, 14, and 15
3: SE1/4 19 T31N R15W (unsurveyed) 36°53'19"N 108°27'32"W
4: Heifer Point 7-1/2 Elevation 5,580 ft
5: San Juan Basin
6: U, Th, Ti
7: no workings
8: no production
9: 2 times background reported
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation; examined by Green and others (1980d)
15: Green and others (1980d, #2); Hilpert (1969, p. 53); Chenoweth (1955); PRR ED-R-451 (1955); ED-R-452 (1955); ED-R-453 (1955); USBM files (1958)

1: 31N.16W.14
2: Airborne Anomaly #16, 17 and 18
3: S1/2 14 T31N R16W
4: Heifer Point 7-1/2
5: San Juan Basin
6: U, Ti, Zr
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation
15: PRR ED-R-437 (1955); USBM files (1958)

1: 31N.16W.15
2: Airborne Anomaly #19 and 20
3: 15 T31N R16W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation
15: Chenoweth (1957b); PRR ED-R-438 (1955); USBM files (1958)

1: 31N.16W.3.100
2: Airborne Anomaly #21
3: 3 T31N R16W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
12: 21.5% TiO_2, 0.01% U_3O_8; 1.80% ZrO_2
13: Beach-Placer Sandstone
14: Ute Mountain Indian Reservation
15: Chenoweth (1957b); PRR ED-R-439 (1955); USBM files (1958)

1: 31N.16W.3.200
2: Anomalous area near Airborne Anomaly #21
3: NE1/4 3 T31N R16W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti, Zr
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
12: uraniferous zircon
13: Beach-Placer Sandstone
15: Chenoweth (1957b); PRR ED-R-473 (1955), ED-R-437 (1955)

1: 32N.16W.28
2: Airborne Anomaly #22 and #23 (Salt Creek Wash)
3: 28 T32N R16W (unsurveyed) 36°57'14"N 108°31'49"W
4: Chimney Rock NE 7-1/2, Chimney Rock 15 Elevation 5,600 ft
5: San Juan Basin
6: U, Th, Ti
7: no workings
8: no production
9: two times background reported
10: Cretaceous Point Lookout Sandstone
13: Beach Placer Sandstone
14: examined by Green and others (1980d); Ute Mountain Indian Reservation
15: Green and others (1980d, #332); Houston and Murphy (1977); Dow and Batty (1961); Chenoweth (1957b); PRR ED-R-454 (1955); ED-R-455 (1955); USBM files (1958)

1: 32N.16W.28
2: Outcrop SE of Airborne Anomaly No. 23
3: 28 T32N R16W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach Placer Sandstone
15: PRR ED-R-472 (1955)

1: 32N.16W.29
2: Airborne Anomaly #24
3: 29 T32N R16W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Th, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Navajo Indian Reservation
15: Chenoweth (1957b); PRR ED-R-486 (1955); USBM files (1958)

1: 32N.17W.27
2: Airborne Anomaly #32
3: 27 T32N R17W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Navajo Indian Reservation
15: PRR ED-R-487 (1955); USBM files (1958)

1: 32N.17W.15
2: Airborne Anomaly #33
3: 15 T32N R17W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
12: 4.9% TiO_2; 1.1% ZrO_2
13: Beach-Placer Sandstone
14: Navajo Indian Reservation
15: Chenoweth (1957b); PRR ED-R-488 (1955); USBM files (1958)

1: 32N.17W.27
2: Airborne Anomaly #34
3: 27 T32N R17W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Navajo Indian Reservation
15: Chenoweth (1957b); PRR ED-R-489 (1955); USBM files (1958)

1: 32N.17W.22, 27
2: Airborne Anomaly #35
3: 22, 27 T32N R17W
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Navajo Indian Reservation
15: Chenoweth (1957b); PRR ED-R-490 (1955); USBM files (1958)

1: 31N.16W.15, 16
2: Airborne Anomaly #36
3: 15, 16 T31N R16W
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
15: PRR ED-R-440 (1955)

1: 31N.16W.10
2: Airborne Anomaly #37
3: 10 T31N R16W
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
15: Chenoweth (1957b); PRR ED-R-441 (1955)

1: 28N.17W.13
2: Airborne Anomaly #46
3: 13 T28N R17W (unsurveyed)
4: The Hogback North 7-1/2
5: San Juan Basin
6: U
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
15: PRR ED-R-491 (1955)

1: 29N.21W.24.441
2: Alongo (MP-336)
3: SE1/4 24 T29N R21W (unsurveyed) 36°42'25"N 109°0'30"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,580 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:1)
7: 2 adits (220-ft apart), 110- and 72-ft long
8: 27 tons ore yielding 76 lbs U_3O_8 (0.14%), 76 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1956 by E.J. Alonzo
15: Anderson, O.J. (1980); Green and others (1980d, #51); Chenoweth (1980; 1973); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 52, #1); O'Sullivan and Beckman (1963); USAEC files (1960); MILS (1981)
16: figure 18

1: 30N.18W.24.300
2: A.L. Cook
3: SE1/4 24 T30N R18W
4: Chimney Rock SW 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U(?)
7: no workings
8: no production
10: Recent Gravel Sands
13: none
14: later determined that ore material spilled from an ore truck--no deposit occurrence (W.L. Chenoweth, PC, 11/1982)
15: PRR ED-R-482 (1955); MILS (1981)

1: 25N.20W.6.113
2: Alfred Talk
3: NW1/4 6 T25N R20W (unsurveyed) 36°26'10"N 109°1'16"W
4: Sonsala Butte 1 NE 7-1/2, Lukachukai 15 Elevation 7,200 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: pit(?)
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
11: small deposit
12: 1-ft channel sample 0.22% U_3O_8
13: Sandstone
15: Green and others (1980d, #88); Hilpert (1969, p. 50); Blagbrough and others (1959); PRR ED-R 405 (1954); MILS (1981)
16: figure 19

1: 30N.21W.26.300
2: Barton and Lee (MP-30)
3: 26 T30N R21W (unsurveyed) 36°46'50"N 109°2'10"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: USAEC files (1960)
16: figure 18

1: 30N.21W.23.110
2: Beclabito Lease (BB, BBB, Barton and Begay; Barton, Begay, and Beyale; MP-35, Lewis Barton, B'Cla'B'to)
3: 23 T30N R21W (unsurveyed) 36°48'15"N 109°1'15"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: 50-ft rim cut, 12-ft adit, pits, rim cuts
8: 254 tons ore yielding 740 lbs U_3O_8 (0.15%); 11,311 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1950-1951, 1953
15: Anderson, O.J. (1980); Green and others (1980d, #7, 8, 9); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 52, #4, 5); U.S. Atomic Energy Commission (1951, p. 20); PRR ED-R-260 (1954); MILS (1981); USAEC files (1960)
16: figure 18

1: 29N.21W.24.333
2: Begay #1 (MP-24, Unknown)
3: SW1/4 24 T29N R21W (unsurveyed) 36°42'31"N 109°1'20"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,550 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: adit
8: 3,921 tons ore yielding 16,491 lbs U_3O_8 (0.21%); 127,499 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1953-1954, 1966-1967
15: Anderson, O.J. (1980); Green and others (1980d, #49, 100); Chenoweth (1980; 1973); Chenoweth and Learned (1980); Chenoweth and Malon (1973); Hilpert (1969, p. 52, #7)
16: figure 18

1: 29N.21W.23.224
2: Begay #2 (MP-24, Lookout Point, Upper Red Wash)
3: NE1/4 23 T29N R21W (unsurveyed) 36°43'10"N 109°1'30"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,670 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:5)
7: 1 decline, pits
8: 4,515 tons ore yielding 18,450 lbs U_3O_8 (0.20%); 190,638 lbs V_2O_5
9: bkgd 50 cps; high on dump 400 cps
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1962-1967
15: FN 8/16/83; Anderson, O.J. (1980); Green and others (1980d, #35); Chenoweth (1980; 1973); Chenoweth and Malan (1973); Hilpert (1969, p. 52)
16: figure 18

1: 29N.21W.23.224
2: Begay Incline (MP-24, Begay #1, Barton #1)
3: E1/2 23 T29N R21W (unsurveyed) 36°43'00"N 109°1'27"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,640 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: 1 decline
8: 655 tons ore yielding 3,475 lbs U_3O_8 (0.27%); 38,215 lbs V_2O_5
9: bkgd 50 cps; high on dump 300 cps; adit 200 cps
10: Jurassic Morrison Formation-Salt Wash Member
12: mineralized log 2,140 ppm (Green and others, 1980d)
13: Sandstone
14: mined 1955-1956; examined by Green and others (1980)
15: FN 8/16/83; Anderson, O.J. (1980); Green and others (1980d, #46); Chenoweth (1980; 1973); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969)
16: figure 18

1: 30N.21W.27
2: C. Bekis No. 1 (MP-41, Troy Rose)
3: 27 T30N R21W (unsurveyed) 36°47'30"N 109°2'40"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: rim stripping
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Scarborough (1981); USAEC files (1960)
16: figure 18

1: 29N.21W.24.220
2: Benall and Shorty (Kunde-Yette, MP-362)
3: 24 T29N R21W (unsurveyed) 36°43'20"N 108°0'30"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings, drill holes
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: USAEC files (1960)
16: figure 18

1: 30N.15W.3.140
2: Boyd (Jack Boyd, Claim #7)
3: N1/2 3 T30N R15W 36°50'45"N 108°24'15"W
4: Waterflow 7-1/2 Elevation 5,600 ft
5: San Juan Basin
6: U, V, coal
7: rim cuts, pits
8: 74 tons ore yielding 74 lbs U_3O_8 (0.05%), 74 lbs V_2C_5
9: bkgd 30 cps; average high 200-300 cps; high 1,000 cps
10: Cretaceous Fruitland Formation
11: radioactive zone at base of medium-grained arkosic sandstone and up to 2-ft thick, hematitic alteration
12: 0.182% U_3O_8 (NMBMMR chem lab, 3/3/83, #3164)
13: Sandstone
14: mined 1954-1955 by Victory Exploration Mining Co., claims now owed by San Juan Coal Company; one 10 ton shipment assayed 0.10% U_3O_8
15: FN 7/8/82; Green and others (1980d, #1); Fassett and Hinds (1971); Hilpert (1969, p. 52); Chenoweth (1958); PRR ED-R-274 (1954); ED-R-457 (1955); ED-R-246 (1954); USAEC files (1960); CRIB (1976)
16: figure 24

1: 3ØN.21W.24.42Ø
2: Canyon #1 (MP-44)
3: 24 T3ØN R21W (unsurveyed) 36°47'45"N 1Ø9°ØØ'1Ø"W
4: Pastora Peak SE 7-1/2 Elevation 5,52Ø ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: 85-ft adit, 12-ft adit, open cut
8: 111 tons ore yielding 237 lbs U_3O_8 (Ø.11%); 4,Ø39 lbs V_2O_5
9: bkgd 3Ø cps, high 5ØØ cps
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 195Ø, 1951 and 1953 by Pete Atcitty
15: FN 8/15/83; Anderson, O.J. (198Ø); Chenoweth and Learned (198Ø); Green and others (198Ød, #11, 12); Chenoweth and Malan (1978); Chenoweth (1973); O'Sullivan and Beckman (1963); Clinton and Carithers (1956); USAEC files (196Ø)
16: figure 18

1: 29N.21W.24.443
2: Canyon View (Red Wash)
3: SE1/4 24 T29N R21W (unsurveyed) 36°42'2Ø"N 1Ø9°ØØ'33"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,58Ø
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:6)
7: 1 adit 2,22Ø-ft south of Alongo (on Alongo plot)
8: 61 tons ore yielding 127 lbs U_3O_8 (Ø.37%); 636 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1952 by H.S. Begay; mine plan by Anderson, O.J. (198Ø)
15: Anderson, O.J. (198Ø); Green and others (198Ød, #52); Chenoweth (198Ø; 1973); Chenoweth and Learned (198Ø); Chenoweth and Malan (1973); Hilpert (1969, p. 53, #14); O'Sullivan and Beckman (1963)
16: figure 18

1: 25N.2ØW.17.114
2: Carl Yazzie #1
3: NW1/4 17 T25N R2ØW (unsurveyed) 36°24'2Ø"N 1Ø9°ØØ'5"W
4: Sonsala Butte 1 NE 7-1/2, Lukachukai 15 Elevation 6,98Ø ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V (U:V ratio 1:3)
7: 2Ø-ft adit, rim cut, 22-ft adit
8: 23 tons ore yielding 66 lbs U_3O_8 (Ø.15%), 347 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
11: several small deposits
13: Sandstone
14: mined 1954 by Bee Sho Shee Mining Co.
15: Anderson, O.J. (198Ø); Green and others (198Ød, #84); Hilpert (1969, p. 5Ø, #15); Blagbrough and others (1959); PRR ED-R-4ØØ (1954); ED-R-4Ø1 (1954); USAEC files (196Ø); MILS (1981)
16: figure 19

1: 26N.21W.36.444
2: Castle Tsosie
3: SE1/4 36 T26N R21W (unsurveyed) 36°26'25"N 109°1'40"W
4: Sonsala Butte 1 NE 7-1/2, Lukachukai 15 Elevation 7,200 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V (U:V ratio 1:3)
7: 100-ft rim cut
8: 12 tons ore yielding 60 lbs U_3O_8 (0.25%), 19 lbs V_2O_5
10: Jurassic Morrison Formation-Recapture Member
11: small deposit, 5-15 ft thick
13: Sandstone/Shale
14: USAEC reports the orebody is mined out
15: Green and others (1980d, #63); Hilpert (1969, p. 50, #17); Blagbrough and others (1959); PRR ED-R-399 (1954); USAEC files (1960)
16: figure 19

1: 29N.21W.23.424
2: Carrizo #1 (MP-24)
3: E1/2 23 T29N R21W 36°42'40"N 109°1'30"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,550 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:4)
7: 1, 12° decline which connects to Begay #1
8: 828 tons ore yielding 3,426 lbs U_3O_8 (0.21%); 21,917 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1956-1958 by Spafford and Sones
15: Anderson, O.J. (1980); Green and others (1980d, #40); Chenoweth (1980; 1973); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 52, #16); O'Sullivan and Beckman (1963); MILS (1981)
16: figure 18

1: 21N.9W.31.412
2: Chaco Canyon-Drill Hole CC-8
3: NE1/4 NW1/4 SE1/4 31 T21N R9W 36°00'30"N 107°49'45"W
4: Sargent Ranch 7-1/2 Elevation 6,265 ft
5: Chaco Canyon area
6: U
7: drill hole - 4,707 ft
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: 2 mineralized zones at 4,534-4,536 ft and 4,586-4,587 ft
12: 564 ppm U at 4,527 ft depth
13: Sandstone
15: Hicks and others (1980); Lease (1979); Brookins (1980)

1: 21N.10W.32.344
2: Chaco Canyon-Drill Hole CC-12
3: SE1/4 SE1/4 SW1/4 32 T21N R10W 36°00'12"N 107°55'30"W
4: Pueblo Bonito 7-1/2 Elevation 6,195 ft
5: Chaco Canyon area
6: U
7: drill hole - 4,422 ft deep
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: mineralized siltstone at 4,151-4,153 ft
13: Sandstone
15: Hicks and others (1980); Lease (1979); Brookins (1980)

1: A
2: Claim #14 (Meadows Mine #4?)
3: location unknown-east of Farmington
4: unknown
5: San Juan Basin area
6: U
7: open cut?
8: 22 tons ore yielding 48 lbs U_3O_8 (0.11%), 25 lbs V_2C_5 (0.06%)
10: Tertiary Ojo Alamo Sandstone(?)
13: Sandstone
14: mystery shipment from Farmington-Aztec area, mined June, 1954 by Meadow Mining Co.
15: USAEC files (1954)

1: 32N.13W.15.444
2: Coal Mine
3: 15, 22 T32N R13W (E corner) 36°58'45"N 108°11'3"W
4: La Plata 7-1/2 Elevation 6,100 ft
5: La Plata district-San Juan Basin
6: coal, U
7: rim cuts, 2 adits nearby
8: no uranium production, coal produced
9: bkgd 30 cps; high 80 cps
10: Cretaceous Fruitland Formation
11: coaly shale
12: 0.003% U reported
13: Shale/coal
15: FN 7/6/82; Baltz (1955, p. 11)

1: 30N.21W.35.130
2: Cottonwood Butte (Plot 8 - #5705)
3: 35 T30N R21W (unsurveyed) 36°46'16"N 109°01'20"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevation 5,800 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:8)
7: open cuts, 40-ft adit
8: 250 tons ore yielding 1,245 lbs U_3O_8 (0.25%); 15,013 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1949-1950, 1954
15: Anderson, O.J. (1980); Green and others (1980d, #22); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 52, #23); MILS (1981); USAEC files (1960);
16: figure 18

1: 25N.20W.5.214
2: Deneh Nez #1 and 2 (Dennett Nezz, Dennet Nez, Denez Nez)
3: NE1/4 5 T25N R20W (unsurveyed) 36°26'00"N 108°59'25"W
4: Sanostee West 7-1/2 Elevation 6,760 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: 25-ft adit, rim cuts
8: 312 tons ore yielding 1,036 lbs U_3O_8 (0.17%); 2,299 lbs V_2O_5
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
14: mined 1952-1955 by Rogers and Lons
15: Anderson, O.J. (1980); Green and others (1980d, #170, 74); Hilpert (1969, p. 50, #24, 25); Blagbough and others (1959); PRR ED-R-365 (1954); ED-R-393 (1954); D-550 (1953); MILS (1981); USAEC files (1960)
16: figure 19

1: 25N.20W.5.411
2: Deneh Nez #3 (Dennet Nezz #3, Denez Nez)
3: 5 T25N R20W (unsurveyed) 36°25'50"N 108°59'50"W
4: Sanostee West 7-1/2 Elevation 6,800 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings--possibly a rim cut now used as a road
8: production reported with Deneh Nez #1 and 2
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
15: Anderson, O.J. (1980); Green and others (1980d, #71); Hilpert (1969, p. 50, #26); PRR ED-R-365
16: figure 19

1: 32N.16W.19
2: Deposit #2
3: 19 T32N R16W (unsurveyed)
4: Chimney Rock NE 7-1/2, Chimney Rock 15
5: San Juan Basin
6: U, Ti, Th
7: no workings
8 no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
14: Navajo Indian Reservation
15: USBM files (1958)

1: 30N.15W.6
2: Deposit X-Y
3: 6 T30N R15W
4: Waterflow 7-1/2
5: San Juan Basin
7: no workings
8: no production
10: Cretaceous Point Lookout Sandstone
13: Beach-Placer Sandstone
15: USBM files (1958)

1: 23N.19W.16.300
2: Dodge-Begay
3: SW1/4 16 T23N R19W (unsurveyed) 36°13'35"N 108°52'10"W
4: Two Gray Hills 7-1/2
5: Shiprock district-Toadlena area
6: U, V
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
11: mineralized 1-2 ft thick bed; 2,500-ft long
13: Sandstone
15: Green and others (1980d, #92); Hilpert (1969, p. 50); PRR GJEB-R-185 (1952); MILS (1981)

1: 23N.19W.8,17
2: Dodge and Begay (A. Senutovitch, Adee Bitnay Dodge and B. Tommy Toosee Begay)
3: 8, 17 T23N R19W (unsurveyed)
4: Toadlena 7-1/2
5: Shiprock district-Toadlena area
6: U, V
7: no workings
8: no production
10: Cretaceous Dakota Sandstone
11: mineralized 1-2 ft thick bed; 2,500-ft long
13: Sandstone
15: Green and others (1980d, #333); Hilpert (1969, p. 50); PRR GJEB-R-185 (1952)

1: 23N.20W.1
2: Dodge and Begay (Adee Bitnay Dodge and B. Tommy Toosee Begay)
3: 1 T23N R20W (unsurveyed)
4: Old Pine Spring 7-1/2
5: Shiprock district-Toadlena area
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Brushy Basin Member
11: mineralized pocket in shale
13: Sandstone/Shale
15: PRr GJEB-R-185 (1952)

1: 23N.19W.5.100
2: Dodge Brothers (Airborne Anomaly #1)
3: NE1/4 5 T23N R19W (unsurveyed) 36°15'28"N 108°53'27"W
4: Old Pine Spring 7-1/2
5: Shiprock district-Toadlena area
6: U, V
7: open cut
8: no production
10: Cretaceous Gallup Sandstone
12: 5-ft zone of siltstone
13: Sandstone
15: Green and others (1980d, #91); Hilpert (1969, p. 50); PRR ED-R-483 (1955); MILS (1981)

1: 24N.19W.7.110
2: Dodge Brothers (Airborne Anomaly #2)
3: NW1/4 7 T24N R19W (unsurveyed) 36°20'10"N 108°54'55"W
4: Old Pine Spring 7-1/2
5: Shiprock district-Toadlena area
6: U, V
7:
8: no production
10: Cretaceous Gallup Sandstone
11: mineralized zone along carbonaceous shale-sandstone contact
13: Sandstone/Shale
15: Green and others (1980d, #90); Hilpert (1969, p. 50); PRR ED-R-484 (1955)

1: 29N.21W.35
2: East Carrizo Area (AEC and Navajo Tribe)
3: 35 T29N R21W (unsurveyed) 36°41'00"N 109°2'40"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (1980d, #340); Strobell (1952)

1: 29N.21W.14
2: East Reservation Lease-Plot 3 (Sunnyside)
3: 14 T29N R21W 36°43'10"N 109°2'15"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: numerous pits, adits
8: 6,578 tons ore yielding 29,786 lbs U_3O_8 (0.22%); 311,503 lbs V_2O_5 from 1948-1950; 10,216 tons ore of 2.43% V_2O_5 from 1942-1944 (including additional properties)
9: bkgd 30 cps, high 5,000 cps
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: FN 8/16/83; Anderson O.J. (1980); Chenoweth and Learned (1980); Chenoweth and Malan (1973); USAEC files (1960)
16: figure 18

1: 29N.21W.14.342
2: East Side diatreme (King Tutt diatreme)
3: SW1/4 14 T29N R21W (unsurveyed) 36°43'20"N 109°2'1"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Carrizo Mountains-Shiprock district
6: U, V
7: no workings
8: no production
10: Tertiary diatreme
11: uranium minerals impregnated sandstone dikes associated with diatreme
13: Diatreme
14: near Lookout Point-Sunnyside mine
15: Blagbrough and Brown (1955); Shoemaker (1956a)
16: figure 18

1: 32N.10W.29.100
2: E.L. Chilton and Sons (Dalton prospect, Chilton prospect)
3: NW1/4 29 T32N R10W 36°57'40"N 107°53'50"W
4: Aztec 15
5: San Juan Basin-Aztec area
6: U
7: pits reported
8: no production
9: no anomalous readings above background radioactivity on 7/7/82
10: Tertiary San Jose Formation(?)
12: 0.01-0.02% U_3O_8 reported in PRR
13: Sandstone
14: could not locate any workings on 7/7/82
15: FN 7/7/82; Green and others (1980a, #69); Chenoweth and Stehle (1957, p. 17); PRR ED-R-271 (1954)

1: 25N.20W.7,8
2: Enos Johnson #1-4 (South Peak Mine, Sanostee Mine)
3: 7, 8 T25N R20W (unsurveyed) 36°24'45"N 109°00'1"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,120 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: 2,700-3,000-ft decline (8-man operation in 1982)
8: 36,498 tons ore yielding 138,732 lbs U_3O_8 (0.19%); 94,288 lbs V_2O_5 until 1970
9: bkgd 30 cps, high 5,000 cps
10: Jurassic Morrison Formation-Salt Wash Member, Recapture Member
11: majority of orebodies in Recapture Member
12: two types of ore present: a black coffinite ore and red hematitic ore, grades presently average 0.06 to 0.08% U_3O_8
13: Sandstone
14: mined 1952-1956, 1958-1959, 1961-1972, 1976-1982
15: FN 8/17/83; Green and others (1980d, #77-80); Hilpert (1969, p. 50, #30, 33); O'Sullivan and Beckman (1963); Blagbrough and others (1959); U.S. Atomic Energy Commission (1959, p. 26); Drouillard and Jones (1951); PRR ED-R-402 (1954); CEB-R-42 (1951); MILS (1978); USAEC files (1970); New Mexico State Inspector of Mines files (1982)
16: figure 19

1: 25N.20W.8.311
2: Enos Johnson #3 (South Peak Mine)
3: W1/2 8 T25N R20W (unsurveyed) 36°24'45"N 109°00'15"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,200 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: adits
8: production included with Enos Johnson #1-4
10: Jurassic Morrison Formation-Recapture Member
12: up to 60,000 ppm U
13: Sandstone
14: examined by Green and others (1980d)
15: Green and others (1980d, #80); Hilpert (1969, p. 50, #33); Blagbrough and others (1959); USAEC files (1960)
16: figure 19

1: 29N.21W.3
2: E. Leuppe, MP-430
3: 2, 3 T29N R21W (unsurveyed) 36°45'30"N 109°2'35"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings, drill holes
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (1980d, #25); Chenoweth and Malan (1973); O'Sullivan and Beckman (1963)
16: figure 18

1: 29N.21W.14.322
2: Fissure-Plot 5
3: 14 T29N R21W
4: Redrock Valley NE 7-1/2
5: Shiprock district
6: U, V
7: no workings-outcrop
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
11: mineralized slump block of Salt Wash
13: Sandstone
15: USAEC files (1960); Coleman (1944)
16: figure 18

1: 29N.21W.11.333
2: Franks Point (Plot 6, Unnamed)
3: S1/2 11, N2 14 T29N R21W 36°44'00"N 109°2'25"W
4: Redrock Valley NE 1/2, Redrock Valley 15 Elevation 5,800 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: 100-ft long trench
8: produced in 1949 by VCA-part of East Reservation Lease
9: bkgd 60 cps; high 300 cps (Anderson, O.J., 1980)
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Anderson, O.J. (1980); Green and others (1980d, #31); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 51); O'Sullivan and Beckman (1963); U.S. Atomic Energy Commission (1959a); USAEC files (1960)
16: figure 18

1: 25N.20W.18.441
2: H.B. Roy (H.B. Roy #2)
3: SE1/4 18 T25N R20W (unsurveyed) 36°23'48"N 109°00'40"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,120 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: open bench cuts
8: 6 tons ore yielding 11 lbs U_3O_8 (0.10%); 31 lbs V_2O_5
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
14: mined 1954 by Bigler Johnson
15: Anderson, O.J. (1980); Green and others (1980d, #89); Blagbrough and others (1959); PRR ED-R-366 (1954); USAEC files (1960); MILS (1981)
16: figure 18

1: 26N.20W.30.100
2: H.B. Roy #1 (Bear Creek Canyon area)
3: NW1/4 30 T26N R20W (unsurveyed) 36°27'45"N 109°2'30"W
4: Sonsala Butte 1 NE 7-1/2
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: open pit?
8: no production
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
15: Hilpert (1969, p. 51, #40); Blagbrough and others (1959)
16: figure 19

1: 30N.16W.15.323
2: Hogback Claim (Willie Davidson)
3: SW1/4 15 T30N R16W 36°48'35"N 108°31'00"W
4: Chimney Rock SE 7-1/2, Chimney Rock 15 Elevation 5,380 ft
5: San Juan Basin
6: U, Th, Ti
7: small pits (5-ft x 5-ft x 3-ft)
8: 8 tons ore yielding 31 lbs U_3O_8 (0.02%), 23 lbs V_2O_5
10: Cretaceous Point Lookout Sandstone tongue in lower Menefee Formation
11: spotty radioactive zones in black sandstone
12: 0.01% U_3O_8 channel sample
13: Beach-Placer Sandstone
14: mine June, 1954, by Willie Davidson; examined by Green and others (1980d)
15: Anderson, O.J. (1980); Green and others (1980d, #3); Hilpert (1969, p. 52); Chenoweth (1957b); PRR ED-R-456 (1955); ED-R-273 (1954); MILS (1981); USAEC files (1960)

1: 25N.20W.8.442
2: Horace Ben #1
3: SE1/2 8 T25N R20W (unsurveyed) 36°24'35"N 108°59'25"W
4: Sanostee West 7-1/2 Elevaiton 7,200 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: 120-ft of adits, 300-ft rim stripping
8: 4 tons ore yielding 13 lbs U_3O_8 (0.17%); 18 lbs V_2O_5
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
14: mined 1952 by J.C. Cox and Grover Biggons
15: Green and others (1980d, #82); Hilpert (1969, p. 50, #41); O'Sullivan and Beckman (1963); Blaugbrough and cthers (1955); PRR ED-R-367 (1953); MILS (1978); USAEC files (1960)
16: figure 19

1: 29N.21W.26.134
2: Horse Mesa North (Red Rock)
3: CW1/2 26 T29N R21W (unsurveyed) 36°41'55"N 109°2'20"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: pits, rim cuts
8: King reports some production which is not verified by AEC production records
9: bkgd 30 cps, high 300 cps
10: Jurassic Morrison Formation-Salt Wash Member
11: several small deposits along Horse Mesa, high V, 2-5 ft thick
13: Sandstone
15: FN 8/17/83; Green and others (1980d, #54); Hilpert (1969, p. 52); O'Sullivan and Beckman (1963); King (1952); MILS (1981)
16: figure 18

1: 29N.21W.26.323
2: Horse Mesa South (Red Rock)
3: C W1/2 26 T29N R21W (unsurveyed) 36°41'45"N 109°2'16"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,640 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: pit, 4 ft adit
8: no production
9: bkgd 30 cps, high 900 cps
10: Jurassic Morrison Formation-Salt Wash Member
11: 150 ft long ore zone, 1-2 ft thick
13: Sandstone
15: FN 8/17/83; Green and others (1980d, #56); Hilpert (1969, p. 52); King (1952); MILS (1981)
16: figure 18

1: 25N.20W.6.141
2: Joe Ben #1
3: NW1/4 6 T25N R20W (unsurveyed) 36°25'30"N 109°00'50"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,400 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V (U:V ratio•2:1)
7: rim cuts, 3 short adits reported but not found by Anderson, O.J. (1980)
8: 6 tons ore yielding 41 lbs U_3O_8 (0.34%); 41 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
11: several small deposits
13: Sandstone
14: mined 1952
15: Anderson, O.J. (1980); Green and others (1980d, #68); Hilpert (1969, p. 50, #44); O'Sullivan and Beckman (1963); Blagbrough and others (1959); PRR ED-R-299 (1954); MILS (1981); USAEC files (1960)
16: figure 19

1: 25N.20W.6.231
2: Joe Ben #2 (Unknown)
3: NE1/4 6 T25N R20W (unsurveyed) 36°25'55"N 109°00'25"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,000 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: rim cuts
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
11: several small deposits
13: Sandstone
15: Anderson, O.J. (1980); Green and others (1980d, #69); Hilpert (1969); Blagbrough and others (1959); MILS (1981); USAEC files (1960)
16: figure 19

1: 25N.2ØW.8.131
2: Joe Ben #3
3: NW1/4 8 T25N R2ØW (unsurveyed) 36°25'5"N 1Ø9°ØØ'15"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 6,96Ø ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V (U:V ratio 1:2.5)
7: open cut, adits reported
8: 225 tons ore yielding 927 lbs U_3O_8 (Ø.21%); 3,264 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1953, 1955 by Rogers and Sons; may be called Joe Ben #3
15: Anderson, O.J. (198Ø); Green and others (198Ød, #76); Hilpert (1969, p. 5Ø, #45); PRR ED-R-364 (1954); MILS (1981); USAEC files (196Ø)
16: figure 19

1: 25N.2ØW.8.11Ø
2: John Joe #1
3: NW1/4 8 T25N R2ØW (unsurveyed) 36°25'15"N 1Ø9°ØØ'1Ø"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 6,88Ø ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V (U:V ratio 1:2)
7: rim cuts
8: 94 tons ore yielding 243 lbs U_3O_8 (Ø.13%); 739 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1955 by Rogers and Sons; USAEC files indicate all or most of production is from John Joe #1 although some production may be from John Joe #2; Anderson, O.J. (198Ø) described some of the workings with Joe Ben #3
15: Anderson, O.J. (198Ø); Blagbrough and others (1959); MILS (1981); USAEC files (196Ø)
16: figure 19

1: 26N.2ØW.31.334
2: John Joe #2
3: 31 T26N R21W (unsurveyed) 36°26'15"N 1Ø9°1'12"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,2ØØ ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V (U:V ratio 1:2)
7: rim cuts
8: production, if any, included with John Joe #1
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: USAEC files indicate all or most of production from John Joe #1; Anderson, O.J. (198Ø) could not locate any workings; may be called John Joe #1
15: Anderson, O.J. (198Ø); Green and others (198Ød, #62); Hilpert (1969, p. 5Ø, #46); Blagbrough and others (1959); PRR ED-R-396 (1954); MILS (1981); USAEC files (196Ø)
16: figure 19

1: 3ØN.21W.22.42Ø
2: John John #1 (MP-334)
3: 22 T3ØN R21W (unsurveyed) 36°47'5Ø"N 1Ø9°2'4Ø"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevation 6,2ØØ ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:12)
7: 21-ft adit, 6Ø-ft adit, 6-ft adit, rim cut
8: 94 tons ore yielding 243 lbs U_3O_8 (Ø.13%); 739 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Anderson, O.J. (198Ø); Green and others (198Ød, #16);
Chenoweth and Learned (198Ø); Chenoweth and Malan (1973);
Chenoweth (1973); O'Sullivan and Beckman (1963); USAEC files
(196Ø)
16: figure 18

1: 29N.21W.24.243
2: Junction (MP-24)
3: NE1/4 24 T29N R21W 36°42'58"N 1Ø9°ØØ'3Ø"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,45Ø
ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:3)
7: bench cut, 25-ft adit
8: 18 tons ore yielding 38 lbs U_3O_8 (Ø.11%); 153 lbs V_2O_5
9: bkgd 5Ø cps; high 1,3ØØ cps (Anderson, O.J., 198Ø)
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined by Walter Duncan in 1953
15: Anderson, O.J. (198Ø); Chenoweth and Learned (198Ø); Green
and others (198Ød, #47); Chenoweth and Malan (1973);
Chenoweth (1973); Hilpert (1969, p. 52, #47)
16: figure 18

1: 26N.21W.36.314
2: David Kee
3: SE1/4 36 T26N R21W (unsurveyed) 36°26'3Ø"N 1Ø9°1'45"W
4: Sonsala Butte 1 NE 7-1/2, Lukachukai 15 Elevation 7,4ØØ ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Recapture Member
11: radioactive calcified fossil logs and adjacent sandstone
13: Sandstone
15: Green and others (198Ød, #64); Hilpert (1969, p. 5Ø);
O'Sullivan and Beckman (1963); Blagbrough and others (1959);
PRR ED-R-4Ø3 (1954); MILS (1981)
16: figure 19

1: 26N.20W.31.313
2: Kee and Tohe (Kee and Tohne, Bee Sho Shee Mine)
3: W1/2 31 T26N R20W (unsurveyed) 36°26'30"N 109°01'20"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,520 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: 300-ft rim stripping, 50 ft of adits
8: 47 tons ore yielding 90 lbs U_3O_8 (0.10%); 261 lbs V_2O_5
10: Jurassic Morrison Formation-Recapture Member
11: scattered small orebodies
13: Sandstone
14: mined 1954 by Bee Sho Shee Mining Co.
15: Anderson, O.J. (1980); Green and others (1980d, #61);
Hilpert (1969, p. 50); PRR ED-R-397 (1954); ED-R-398 (1954);
USAEC files (1960); MILS (1981)
16: figure 19

1: 30N.21W.26.120
2: King #2 (Jimmy King #2)
3: 26 T30N R21W (unsurveyed) 36°47'25"N 109°02'12"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevation 5,880 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:12)
7: 150-ft open cut
8: 557 tons ore yielding 1,761 lbs U_3O_8 (0.16%); 31,424 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1950-1954 by Jimmy King
15: Anderson, O.J. (1980); Green and others (1980d, #15);
Chenoweth and Learned (1980); Hilpert (1969, p. 53, #47);
MILS (1981); USAEC files (1960)
16: figure 18

1: 30N.21W.14.433
2: King #6 (Jimmy King #6, Troy Rose, MP-292)
3: 14 T30N R21W (unsurveyed) 36°48'25"N 109°01'58"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevation 5,920 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:5)
7: 12-ft adit, 30-ft adit
8: 54 tons or yielding 114 lbs U_3O_8 (0.11%); 773 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1955 and 1957 by Troy Rose Mining Co.
15: Anderson, O.J. (1980); Green and others (1980d, #6);
Chenoweth and Learned (1980); Chenoweth and Malan (1973);
Chenoweth (1973); Hilpert (1969, p. 52, #50); MILS (1978)
16: figure 18

1: 29N.21W.24.323

2: King Tutt #1 (MP-6)

3: W1/2 24 T29N R21W 36°42'42"N 109°01'00"W

4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,440 ft

5: Shiprock district-Carrizo Mountains

6: U, V (U:V ratio 1:5)

7: 75-ft adit, 150-ft decline, open cut

8: 290 tons ore yielding 1,060 lbs U_3O_8 (0.18%); 8,257 lbs V_2O_5

9: bkgd 50 cps; high in adit 8,000 cps; high in decline 7,000 cps (Anderson, O.J., 1980)

10: Jurassic Morrison Formation-Salt Wash Member

11: radioactive fossil logs in channel scour, elongated eastward

13: Sandstone

14: mined 1951, 1953, 1956, 1958; mine map by Anderson, O.J. (1980)

15: Anderson, O.J. (1980); Green and others (1980d, #43, 99); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973); King (1951); USAEC files (1960); MILS (1981)

16: figure 18

1: 29N.21W.12,13

2: King Tutt #2 (MP-6)

3: 12,13 T29N R21W 36°44'18"N 109°00'30"W

4: Redrock Valley NE 7-1/2, Redrock Valley 15

5: Shiprock district-Carrizo Mountains

6: U, V

7: no workings, drill holes

8: no production

10: Jurassic Morrison Formation-Salt Wash Member

13: Sandstone

14: leased to Sylvania Min. and Mill. Co.

15: Anderson, O.J. (1980); Chenoweth and Learned (1980); Green and others (1980d, #39); Chenoweth and Malan (1973); Chenoweth (1973); O'Sullivan and Beckman (1963)

16: figure 18

1: 29N.21W.23.420
2: King Tutt Point (Plot 2)
3: 24 T29N R21W (unsurveyed) 36°42'30"N 109°1'33"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,520 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:5)
7: 5 interconnecting adits (40-ft, 55-ft, 12-ft, 25-ft, 40-ft long)
8: 294 tons ore yielding 1,900 lbs U_3O_8 (0.32% U_3O_8); 15,222 lbs V_2O_5 (23.59%)
10: Jurassic Morrison Formation-Salt Wash Member
11: ore related to an erosional surface in Salt Wash sardstone
13: Sandstone
14: mined 1942, 1948-1956
15: Anderson, O.J. (1980); Chenoweth and Learned (1980); Green and others (1980d, #45); Chenoweth and Malan (1973); Hilpert (1969, p. 52, #53); Chenoweth (1963); O'Sullivan and Beckman (1963); King (1951); Coleman (1944)
16: figure 18

1: 32N.9W.32.300
2: Lone Star
3: SW1/4 32 T32N R9W 36°56'20"N 107°48'5"W
4: Aztec 15
5: San Juan Basin-Aztec area
6: U
7: no workings
8: no production
9: no anomalous readings above background radioactivity on 7/7/82
10: Tertiary San Jose Formation
11: mineralized channel sandstone
12: 0.01% U_3O_8 reported in PRR
13: Sandstone
14: could not locate described prospect on 7/7/82
15: FN 7/7/82; Holen (1982); Green and others (1980a, #70); Chenoweth and Stehle (1957, p. 17); PRR ED-R-501 (1955)

1: 3ØN.21W.35.31Ø
2: Lone Star (VCA Plot 9)
3: SW1/4 35 T3ØN R21W (unsurveyed) 36°46'8"N 1Ø9°2'35"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevation 6,12Ø ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:6)
7: 2Ø-ft adit
8: 276 tons ore yielding 1,814 lbs U_3O_8 (Ø.33%); 16,852 lbs V_2O_5 (3.Ø5%)
9: bkgd 5Ø cps; high 5,ØØØ cps
1Ø: Jurassic Morrison Formation-Salt Wash Member
11: one-ft thick ore zone
13: Sandstone
14: mined 195Ø-1952, 1962; mine plan by Swanson and Hatfield (1952); production prior to 1948 included with East Reservation Lease; Anderson (198Ø) described Lonestar working which are actually in Arizona
15: FN 8/16/83; Anderson, O.J. (198Ø); Green and others (198Ød, #17); Chenoweth and Learned (198Ø); Hilpert (1969, p. 53, #54); Swanson and Hatfield (1952); MILS (1981)
16: figure 18

1: 29N.21W.14.344
2: Lookout Point-Sunnyside (Plot 3, Unknown)
3: SW1/4 14, NW1/4 23 T29N R21W 36°43'14"N 1Ø9°2'11"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,64Ø ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: 1ØØ-ft adit
8: 2,556 tons ore yielding 16,327 lbs U_3O_8 (Ø.32%); 144,377 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mine plan by Duncan and Stokes (1942); mined 1942, 1948-195Ø, 1954, 1956, 1959
15: FN 8/16/83; Anderson, O.J. (198Ø); Green and others (198Ød, #37); Chenoweth and Learned (198Ø); Chenoweth and Malar (1973); Chenoweth (1973); Hilpert (1969, p. 51); O'Sullivan and Beckman (1963);; King (1951); Duncan and Stokes (1942)
16: figure 18

1: 29N.21W.23.122
2: Lookout Point West Side (Plot 3-Corey Mine, Lookout Point Incline)
3: NW1/4 23 T29N R21W (unsurveyed) 36°43'5"N 109°2'11"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,680 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: 100-ft decline, now caved
8: 506 tons ore yielding 2,713 lbs U_3O_8 (0.27%); 28,485 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
11: several small deposits
13: Sandstone
14: mined 1960-1961
15: FN 8/16/83; Anderson, O.J. (1980); Chenoweth and Learned (1980); Green and others (1980d, #44); Hilpert (1969, p. 51, #55); O'Sullivan and Beckman (1963)
16: figure 18

1: 29N.21W.2
2: Lower Canyon (MP-56, Canyon #2, Cato Sells)
3: 2 T29N R21W 36°45'30"N 109°2'30"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings on Lower Canyon permit, drill holes
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: Upper Canyon claim has produced U and V
15: Green and others (1980d, #23, 24); Chenoweth andd Learned (1980); Chenoweth and Malan (1973); Hilpert(1969, p. 51); PRR CEB-R-56 (1951); USAEC files (1960)
16: figure 18

1: 29N.21W.14.122
2: Lower Oak Creek (Oak Springs, Plot 7, Canyon View Mine, Lower Oak Springs, Unknown)
3: 11,14 T29N R21W (unsurveyed) 36°42'58"N 109°2'00"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,620 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:5)
7: 200-ft adit, open stopes, numerous adits and pits
8: 3,870 tons ore yielding 21,014 lbs U_3O_8 (0.27%); 149,295 lbs V_2O_5
9: bkgd 30 cps; high 5,000 cps
10: Jurassic Morrison Formation-Salt Wash Member
11: 1-2 ft thick ore zones in two stratigraphic levels
13: Sandstone
14: mined 1943-1944, 1948-1961
15: FN 8/16/83; Green and others (1980d, #26 27, 34, 36); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 52, #55); O'Sullivan and Beckman (1963); U.S. Atomic Energy Commission (1959, p. 153); PRR CEB-R54 (19**); USAEC files (1964)
16: figure 18

1: 29N.21W.14.122
2: Lower Salt Rock (MP-69)
3: 14 T29N R21W (unsurveyed) 36°43'50"N 109°2'5"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,600 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: small open cuts
8: see Salt Rock (29N.21W.14.121) for production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Anderson, O.J. (1980); Chenoweth and Learned (1980); Chenoweth and Malan (1973)
16: figure 18

1: 29N.21W.23.41Ø
2: Nelson Point (Plot 3)
3: 23 T29N R21W (unsurveyed) 36°42'5Ø"N 1Ø9°2'5"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,7ØØ ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:11)
7: 8ØØ-ft adit, open cuts
8: 2,684 tons ore yielding 13,364 lbs U_3O_8 (Ø.25%); 211,347 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
11: 1-2 ft thick ore zone, several small and medium deposits
12: tyuyamunite; 6,75Ø ppm U (Green and others, 198Ød)
13: Sandstone
14: mined 1942-1943, 1948-1958, 1961, 1965-1967; mine map by Corey (1958) and Hershey (1958); examined by Green and others (198Ød)
15: FN 8/16/83; Anderson, O.J. (198Ø); Chenoweth and Learned (198Ø); Green and others (198Ød, #41); Chenoweth (1973); Chenoweth and Malan (1973); Hilpert (1969, p. 51, #62); O'Sullivan and Beckman (1963); U.S. Atomic Energy Commission (1959, p. 51); Hershey (1958); Corey (1958); MILS (1978)
16: figure 18

1: 29N.21W
2: Rattlesnake #6
3: T29N R21W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:2)
7: workings in Arizona
8: production in Arizona
1Ø: Jurassic Morrison Formation-Salt Wash Member
11: small deposit
13: Sandstone
14: Hilpert (1969) states this mine is in New Mexico due to an erroneous entry in AEC records; this mine is actually in VCA West Reservation Plot 6, Apache County, Arizona)
15: Hilpert (1969, p. 52); MILS (1981)

1: 29N.21W.24.323
2: Red Wash Point-Plot 1 (Sam Point)
3: 24 T29N R21W (unsurveyed) 36°42'40"N 109°01'00"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,440 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:5)
7: 2 adits, open cuts
8: 305 tons ore yielding 2,244 lbs U_3O_8 (0.37%); 18,230 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1942, 1948-1952
15: Anderson, O.J. (1980); Green and others (1980d, #50); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973); Hilpert (1969, p. 52, #69, 74); O'Sullivan and Beckman (1963); MILS (1981)
16: figure 18

1: 25N.20W.19.344
2: Reed Henderson
3: 19 T25N R20W (unsurveyed) 36°22'45"N 109°00'58"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 8,000 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: 3 open pits reported by USAEC files; no workings found by Anderson, O.J. (1980)
8: 24 tons ore yielding 14 lbs U_3O_8 (0.03%); 52 lbs V_2O_5
10: Jurassic Todilto Limestone
11: associated with intraformational anticlinal folds
12: tyuyamunite, metatyuyomunite, cuprosklodowskite
13: Limestone
14: mined 1954 by Hancock and Hutchison
15: Anderson, O.J. (1980); Green and others (1980d, #87); Hilpert (1969, p. 51); Blagbrough and others (1959); Hilpert and Corey (1955, #120); Gruner and Smith (1955); PRF ED-R-259 (1954); USAEC files (1960)
16: figure 19

1: 30N.21W.24.120
2: Rocky Flats #1 (Barton and Lee, MP-30)
3: 24 T30N R21W (unsurveyed) 36°48'5"N 109°1'5"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevation 5,760 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:10)
7: 8-ft adit
8: 698 tons ore yielding 2,214 lbs U_3O_8 (0.16%); 34,154 lbs V_2O_5; includes ore from Rocky Flats #2
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1950-1953, 1955; majority of ore is from Rocky Flats #1
15: Anderson, O.J. (1980); Green and others (1980d, #10); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973); Hilpert (1969, p. 52, #70); PRR unnumbered (1955); MILS (1981); USAEC files (1960)
16: figure 18

1: 30N.21W.26.122
2: Rocky Flats #2 (MP-30, Rocky Mine #2, Unknown)
3: 26 T30N R21W (unsurveyed) 36°47'30"N 109°2'3"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15 Elevaiton 5,800 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:11)
7: 12-ft adit
8: production included with Rocky Flats #1
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Anderson, O.J. (1980); Green and others (1980d, #13, 14); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973); Hilpert (1969, p. 52, #71); O'Sullivan and Beckman (1963)
16: figure 18

1: 27N.21W.35
2: Rocky Spring (J. Chee)
3: 35 T27N R21W (unsurveyed) 36°40'15"N 109°00'29"W
4: Redrock Valley SE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: prospect pit
10: Jurassic Morrison Formation-Salt Wash Member
11: two mineralized zones less than one-foot thick exterding for 1,500-ft along outcrop
13: Sandstone
15: Green and others (1980d, #335); Chenoweth and Learned (1980); Hilpert (1969, p. 51); PRR ED-R-229 (1953)

1: 29N.21W.13,14
2: Salt Canyon (George Tutt, MP-4, Unknown)
3: 13,14 T29N R21W (unsurveyed) 36°43'30"N 109°01'30"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,760 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:9)
7: numerous shallow adits and rim cuts
8: 93 tons ore yielding 331 lbs U_3O_8 (0.18%); 4,473 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash member
13: Sandstone
14: mined 1950, 1953-1955
15: Anderson, O.J. (1980); Green and others (1980d, #30, 32); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Hilpert (1969, p. 51, #73); O'Sullivan and Beckman 91963)
16: figure 18

1: 29N.21W.11.334
2: Salt Rock (Upper and Lower Salt Rock, MP-69)
3: 14 T29N R21W (unsurveyed) 36°44'00"N 109°02'15"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,600 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: small open cuts, 25-ft adit, 20-ft shaft
8: 107 tons ore yielding 350 lbs U_3O_8 (0.17%); 4,122 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1950-1951, 1961-1962 from both Upper and Lower Salt Rock leases
15: Anderson, O.J. (1980); Green and others (1980d, #102); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973)
16: figure 18

1: 26N.19W.31
2: Sanostee
3: 31 T26N R19W (unsurveyed) 36°27'30"N 108°54'30"W
4: Sanostee West 7-1/2 Elevation 6,590 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, Th, Nb, REE, Ti, Fe, Zr
7: minor bulldozer scrappings reported
8: no production
10: Cretaceous Gallup Sandstone
11: brownish-gray "black-sandstone deposit", 1-1/2-mi x 450-ft x 12-ft
12: 15.6% TiO_2, 2.6% ZrO_2, 0.12% ThO_2 (USBM files)
13: Beach-Placer Sandstone
15: Bingler (1963); Chenoweth (1957a); PRR ED-R-621 (1956); USBM files (1958); USAEC files (1960); CRIB (1972)

1: 25N.2ØW.8.213
2: Section 8 adit (Enos Johnson claim)
3: 8 T25N R2ØW (unsurveyed) 36°25'5"N 1Ø8°59'55"W
4: Sanostee West 7-1/2 Elevation 7,1ØØ ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: 5Ø-ft adit
8: production, if any, included with Enos Johnson #1-4
1Ø: Jurassic Morrison Formation-Recapture Member
13: Sandstone
14: probably on the Enos Johnson claim
15: Anderson, O.J. (198Ø); Hilpert (1969, p. 51); USAEC files (196Ø)
16: figure 19

1: 29N.21W.23
2: Shadyside #1-Plot 3
3: 23 T29N R21W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: 6ØØ-ft adit
8: production included with Shadyside Incline
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1942, 1948-1953, 1956, 1964-1965
15: Anderson, O.J. (198Ø); Chenoweth and Learned (198Ø); Chenoweth and Malan (1973); Hilpert (1969, p. 51); King (1951); USAEC files (1961)
16: figure 18

1: 29N.21W.23.212
2: Shadyside #2-Plot 3
3: 23 T29N R21W (unsurveyed) 36°43'2"N 1Ø9°1'45"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:8)
7: 35Ø-ft adit, open pits
8: 8Ø9 tons ore yielding 6,183 lbs U_3O_8 (Ø.35%); 66,842 lbs V_2O_5
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1942, 1948-1951, 1953-1955, 1966
15: Anderson, O.J. (198Ø); Green and others (198Ød, #38); Chenoweth and Learned (198Ø); Chenoweth (1973); Hilpert (1969, p. 51, #94); O'Sullivan and Beckman (1963); King (1951); USAEC files (1966)
16: figure 18

1: 29N.21W.23.124
2: Shadyside Incline-Plot 3
3: 23 T29N R21W (unsurveyed) 36°42'55"N 109°2'00"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,600 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:8)
7: 280-ft declline, open pits
8: 1,728 tons ore yielding 8,841 lbs U_3O_8 (0.26%); 108589 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: mined 1942, 1948-1953, 1956, 1964-1965
15: Anderson, O.J. (1980); Green and others (1980d, #42); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973); Hilpert (1969, p. 51, #93); O'Sullivan and Beckman (1963); King (1951); MILS (1981); USAEC files (1961)
16: figure 18

1: 29N.19W.34
2: Shiprock diatreme
3: 34 T29N R19W (unsurveyed) 36°41'15"N 108°50'00"W
4: Shiprock 7-1/2, Shiprock 15
5: Shiprock district
6: U, V
7: no workings--state monument
8: no production
10: Tertiary diatreme
11: minette agglomerate
12: 0.002% U
13: Diatreme
15: Shoemaker (1956a)

1: 29N.21W.23.142
2: Tent (MP-573)
3: 23 T29N R21W (unsurveyed) 36°43'17"N 109°2'00"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,680 ft
5: Shiprock district-Carrizo Mountains
6: U, V (U:V ratio 1:7)
7: open cuts up to 120-ft long, 70-ft adit
8: 1,198 tons ore yielding 5,303 lbs U_3O_8 (0.22%); 54,156 lbs V_2O_5
10: Jurassic Morrison Formation-Salt Wash Member
11: several small deposits
13: Sandstone
14: mined 1955-1957, 1963
15: Anderson, O.J. (1980); Green and others (1980d, #101); Chenoweth and Learned (1980); Chenoweth and Malan (1973); Chenoweth (1973); Hilpert (1969, p. 51, #99); USAEC files (1963); MILS (1981)
16: figure 18

1: 23N.19W.14
2: Toadlena
3: 14 T23N R19W (unsurveyed)
4: Two Grey Hills 7-1/2
5: Shiprock district-Toadlena area
6: U, Th, REE, Ti
7: no workings
8: no production
10: Cretaceous Gallup Sandstone
11: olive-gray "black-sandstone deposit" 1, 750-ft long; 6-ft thick
12: 0.01% U_3O_8, 32% TiO_2
13: Beach-Placer Sandstone
14: map by Archer (1957)
15: Chenoweth (1957a); Archer (1957); USBM files (1958); CRIB (1972)

1: 25N.20W.6.131
2: Tyler
3: NW1/4 6 T25N R20W (unsurveyed)
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,080 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
10: Jurassic Todilto Limestone
11: associated with intraformation folds in coarsely crystalline limestone
12: tyuyamunite
13: Limestone
14: probably on the Alfred Talk claim
15: Green and others (1980d, #66); Hilpert (1969, p. 50); Blagbrough and others (1959); PRR ED-R-395 (1954)
16: figure 19

1: 23N.10W.26.322
2: Unknown prospect near Kimbeto T.P.
3: C 26 T23N R10W 36°11'55"N 107°51'45"W
4: Kimbeto 7-1/2 Elevation 6,600 ft
5: San Juan Basin
6: U reported but not found
7: no workings
8: no production
9: no anomalous readings above background radioactivity on 7/7/82
10: Tertiary Ojo Alamo Sandstone
11: radioactive zone 1-3 ft thick reported at base of yellow-gray conglomerate in gray to bluish-gray siltstone
13: Sandstone(?)
14: not found on 7/7/82; W.L. Chenoweth and Stehle (1957) believes this property was contaminated by foreign ore
15: FN 7/7/82; Green and others (1980a, #68); Chenoweth and Stehle (1957, p. 17); PRR ED-R-502 (1955); MILS (1981)

1: 25N.20W.4.331
2: Unknown (Enos Johnson claim?)
3: SW1/4 4 T25N R20W (unsurveyed) 36°25'30"N 108°59'15"W
4: Sanostee West 7-1/2 Elevation 7,200 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Recapture Member
11: several small orebodies
13: Sandstone
15: Green and others (1980d, #75); O'Sullivan and Beckman (1963); Blagbrough and others (1959)
16: figure 19

1: 25N.20W.5.420
2: Unknown (Enos Johnson or Deneh Nez claim)
3: SE1/4 5 T25N R20W (unsurveyed) 36°25'40"N 108°59'25"W
4: Sanostee West 7-1/2 Elevation 7,000 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Recapture Member
11: large orebody exposed at surface
13: Sandstone
15: Green and others (1980d, #72, 73); Hilpert (1969); Blagbrough and others (1959)
16: figure 19

1: 25N.18W
2: Unknown-Exxon
3: T25, 26N R18W
4: Sanostee 15
5: Shiprock district-Tocito dome
6: U, V
7: no workings-drill holes
8: no production
10: Jurassic Morrison Formation-Westwater Canyon Member
11: small- to medium-sized orebody
13: Sandstone
14: 4 or 5 holes drilled (18.26N.18W) in 1968 by International Geo-Marine Corp., Exxon Corp. drilled in late 1970's.
15: Uranium Newsletter (9/78)

1: 25N.2ØW.6.134
2: Unknown
3: NW1/4 6 T25N R2ØW (unsurveyed) 36°26'ØØ"N 1Ø9°1'12"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,2ØØ ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (198Ød, #67); Blagbrough and others (1959)
16: figure 19

1: 25N.2ØW.8.331
2: Unknown (Joe Ben #5 claim)
3: NW1/4 6 T25N R2ØW (unsurveyed) 36°24'4Ø"N 1Ø9°ØØ'15"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,2ØØ ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (198Ød, #81); Hilpert (1969); Blagbrough and others (1959)
16: figure 19

1: 25N.2ØW.8.334
2: Unknown
3: 8, 17 T25N R2ØW (unsurveyed) 36°24'3Ø"N 1Ø9°ØØ'ØØ"W
4: Sonsala Butte 1 NE 7-1/2, Sanostee West 7-1/2 Elevation 7,ØØØ ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Recapture Member
13: Sandstone
15: Green and others (198Ød, #83); Hilpert (1969); O'Sullivan and Beckman (1963); Blagbrough and others (1959)
16: figure 19

1: 25N.20W.17.231
2: Unknown (Carl Yazzie claim)
3: NE1/4 7 T25N R20W (unsurveyed) 36°23'48"N 108°59'36"W
4: Sanostee West 7-1/2 Elevation 7,200 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
15: Green and others (1980d, #85); Hilpert (1969); Blagbrough and others (1959)
16: figure 19

1: 25N.20W.18.444
2: Unknown (H.B. Roy)
3: SE1/4 18 T25N R20W (unsurveyed) 36°23'48"N 109°00'20"W
4: Sonsala Butte 1 NE 7-1/2 Elevation 7,280 ft
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Recapture Member
13: Sandstone
15: Green and others (1980d, #86); Blagbrough and others (1959)
16: figure 19

1: 26N.21W.36.200
2: Unknown
3: NE1/4 36 T26N R21W 36°25'48"N 109°1'50"W
4: Sonsala Butte 1 NE 7-1/2
5: Shiprock district-Chuska Mountains-Sanostee
6: U, V
7:
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (1980d, #65); O'Sullivan and Beckman (1963)
16: figure 19

1: 29N.21W.11.124
2: Unknown
3: NW1/4 11 T29N R21W (unsurveyed) 36°44'38"N 1Ø9°1'58"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Salt Wash Member
12: carnotite
13: Sandstone
15: Green and others (198Ød, #29); Hilpert (1969, p. 51);
Coleman (1944); MILS (1981)
16: figure 18

1: 29N.21W.24.44Ø
2: Unknown
3: E1/2 SE1/4 24 T29N R21W (unsurveyed) 36°42'25"N 1Ø9°1'1Ø"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (198Ød, #48); Hilpert (1969)
16: figure 18

1: 29N.21W.25.332
2: Unknown
3: SW1/4 25 T29N R21W (unsurveyed) 3Ø°41'45"N 1Ø9°1'ØØ"W
4: Redrock Valley NE 7-1/2, Redrock Valey 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
1Ø: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (198Ød, #53); O'Sullivan and Beckman
(1963); Coleman (1944)
16: figure 18

1: 29N.21W.27.222
2: Unknown (Horse Mesa)
3: E1/2 27 T29N R21W 36°41'50"N 109°2'25"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (1980d, #55); O'Sullivan and Beckman (1963)

1: 30N.21W.11.333
2: Unknown-Troy Rose?
3: SW1/4 11 T30N R21W 36°49'10"N 109°2'10"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7: no workings
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (1980d, #4); Coleman (1944)
16: figure 18

1: 30N.21W.14.300
2: Unknown
3: E1/2 SW1/4 14 T30N R21W 36°49'5"N 109°1'55"W
4: Pastora Peak SE 7-1/2, Pastora Peak 15
5: Shiprock district-Carrizo Mountains
6: U, V
7:
8: no production
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
15: Green and others (1980d, #5); Hilpert (1969); O'Sullivan and Beckman (1963)

1: 29N.12W.17
2: Weillack and Hamilton
3: 17 T29N R12W
4: Horn Canyon 7-1/2
5: San Juan Basin
6: U
7: no workings
8: no production
10: Tertiary Ojo Alamo Sandstone
13: Sandstone
15: PRR unnumbered (1954)

1: 29N.21W.14.320
2: Williams Point (Plot 4)
3: SW1/4 14 T29N R21W (unsurveyed) 36°43'32"N 109°01'50"W
4: Redrock Valley NE 7-1/2, Redrock Valley 15 Elevation 5,800 ft
5: Shiprock district-Carrizo Mountains
6: U, V
7: small open pits, short adits
8: mined 1949 by VCA - production included with East Reservation Lease
10: Jurassic Morrison Formation-Salt Wash Member
13: Sandstone
14: examined by Green and others (1980d)
15: Anderson, O.J. (1980); Green and others (1980d); O'Sullivan and Beckman (1963)
16: figure 18

Alphabetical (53 occurrences)

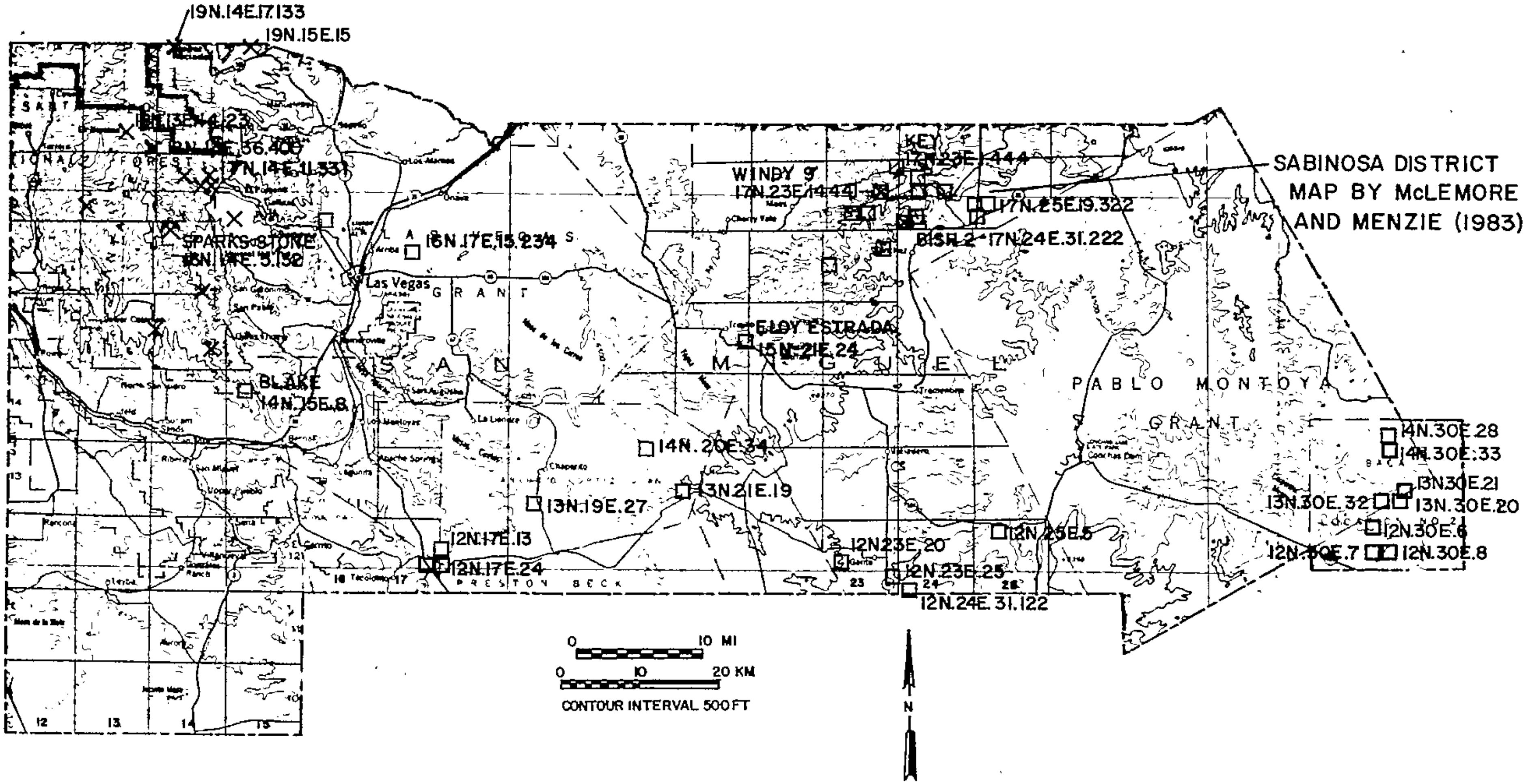
Anomaly No. 1	13N.30E.21
Anomaly No. 2	13N.30E.20
AEC Anomaly No. 3	17N.23E.28
Anomaly No. 3	14N.30E.33
Anomaly No. 4	14N.30E.28
Anomaly No. 5	13N.30E.32
Anomaly No. 6	12N.30E.8
Anomaly No. 7	12N.30E.7
Anomaly No. 8	12N.30E.6
AEC Anomaly No. 12	14W.20E.34
AEC Anomaly No. 13	12N.17E.13
Bish #2	17N.24E.31.222
Black Nugget No. 1	17N.14E.11.331
Blake Mine	14N.15E.8
Bookout Ranch	12N.23E.25
Bookout Ranch	12N.24E.31.122
Bryan Ranch	19N.15E.15
Cip Lujan	17N.24E.17.141
Conoco Leatherwood-Reed No. 1 Well	16N.17E.15.234
East Point Mesa Montosa	13N.21E.19
Elk Mountain (Kept Man)	18N.13E.14,23
Eloy Estrada	15N.21E.24
El Villa Claims	17N.25E.19.322
Guy No. 1	18N.13E.36.400
High Peak	17N.13E.30.223
Hunt Oil Co.	17N.24E.29.142
Key Claims	17N.23E.1.444
Las Vegas Grant	17N.15E.32
Locality #33	17N.14E.14.142
Locality #43	17N.24E.25.212
Los Vigiles	17N.16E.31
Lost Creek Claims	16N.14E.34.144
Lujan Cattle Co.	17N.24E.16.134
Lujan Ranch	17N.24E.25.211
Mars Claim	16N.23E.19
Mickie V Claims	17N.23E.27,28
Neafus Claims	12N.23E.20
Park Springs Ranch Anomaly	13N.19E.27
Pidlite Mine	19N.14E.17.133
Priest Mine	15N.14E.26.432
Quintana	15N.14E.18
Sabinoso Uranium Corp.	17N.24E.8.431
Sowell Ranch	12N.17E.24
Sparks-Stone	16N.14E.5.132
St. Anne Claims	12N.25E.5
T Claims	16N.23E.10,11
Unknown	12N.17E.23
Unknown-road cut	17N.24E.5.413
Unknown-road cut	17N.14E.8.323
Unknown-road cut	17N.14E.14.114
Unknown-road cut	17N.14E.14.144
Unknown-road cut	17N.14E.15.121
Windy #9	17N.23E.14.441

Alias	Name	Number
Anomaly #1	Los Vigiles	17N.16E.31
Anomaly #2	AEC Anomaly No. 12	14N.20E.34
Anomaly #4	T Claims	16N.23E.10,11
Anomaly #5	Sowell Ranch	12N.17E.24
Apache Springs	Sowell Ranch	12N.17E.24
Asco Mine	Sabinoso Uranium Corp.	17N.24E.8.431
Baker Gulch	Locality #33	17N.14E.14.142
Copper Mine	AEC Anomaly No. 12	14N.20E.34
Faith Minerals Claim	High Peak	17N.13E.30.223
Garfield Lester Ranch	AEC Anomaly No. 12	17N.22E.28
Garfield Lester Ranch	Mickie V Claims	17N.23E.27,28
Gonzales Lease	Key Claims	17N.23E.1.444
Kept Man	Elk Mountain	18N.13E.14,23
Key's Claims	Key Claims	17N.23E.1.444
Lester Ranch	Mickie V Claims	17N.23E.27,28
Lester's Cabin	Mickie V Claims	17N.23E.27,28
Locality #44	El Villa Claims	17N.25E.19.322
P. Lopez and Associates	Priest Mine	14N.26E.432
Lujan Ranch	El Villa Claims	17N.25E.19.322
Lujan Ranch	Sabinoso Uranium Corp.	17N.24E.8.431
Maez Ranch Claims	St. Anne Claims	12N.25E.5
Mesa Chupinas	Unknown	12N.17E.23
Mesita Colorado	El Villa Claims	17N.25E.19.322
MIQ-47	Unknown	17N.14E.14.114
MIQ-185	Unknown	17N.14E.14.144
MIQ-187	Unknown	17N.14E.14.114
MIQ-187, 188	Locality #33	17N.14E.14.142
Montezuma	Las Vegas Grant	17N.15E.32
No Name B	Unknown	12N.17E.23
Old Priest Mine	Priest Mine	15N.14E.26.432
Reed No. 1 Well	Conoco Leatherwood	16N.17E.15.234
Ribera	Priest Mine	15N.14E.26.432
Romero Mine	Key Claims	17N.23E.1.444
SAB	Hunt Oil	17N.24E.29.142
San Carlos Mining Co.	Windy #9	17N.23E.14.441
Santa Rosa Uranium Claim	Bookout Ranch	12N.24E.31.122
Sparks-Stone #1	Sparks Stone	16N.14E.5.132
Unknown	Mickie V Claims	17N.23E.27,28
Verde	Hunt Oil	17N.24E.29.142
Youngs Canyon	Unknown	17N.14E.8.323

Numerical

12N.17E.13	Anomaly No. 13
12N.17E.23	Unknown
12N.17E.24	Sowell Ranch
12N.23E.20	Neafus Claims
12N.23E.25	Bookout Ranch
12N.24E.31.122	Bookout Ranch
12N.25E.5	St. Anne Claims
12N.30E.6	Anomaly No. 8
12N.30E.7	Anomaly No. 7
12N.30E.8	Anomaly No. 6
13N.19E.27	Park Springs Ranch Anomaly
13N.21E.19	East Point Mesa Montosa
13N.30E.20	Anomaly No. 1
13N.30E.21	Anomaly No. 2
13N.30E.32	Anomaly No. 5
14N.15E.8	Blake Mine
14N.20E.34	AEC Anomaly No. 12
14N.30E.28	Anomaly No. 4
14N.30E.33	Anomaly No. 3
15N.14E.18	Quintana
15N.14E.26.432	Priest Mine
15N.21E.24	Eloy Estrada
16N.14E.5.132	Sparks-Stone
16N.14E.34.144	Lost Creek Claims
16N.17E.15.234	Conoco Leatherwood
16N.23E.10,11	T Claims
17N.13E.30.223	High Peak
17N.14E.5.413	Unknown
17N.14E.8.323	Unknown
17N.14E.11.331	Black Nugget No. 1
17N.14E.14.114	Unknown
17N.14E.14.142	Locality #33
17N.14E.14.144	Unknown
17N.14E.15.121	Unknown
17N.15E.32	Las Vegas Grant
17N.16E.31	Los Vigiles
17N.23E.1.444	Key Claims
17N.23E.14.441	Windy #9
17N.23E.27,28	Mickie V Claims
17N.23E.28	AEC Anomaly No. 3
17N.24E.8.431	Sabinoso Uranium Corp.
17N.24E.16.134	Lujan Cattle Co.
17N.24E.17.141	Cip Lujan
17N.24E.25.211	Lujan Ranch
17N.24E.25.212	Locality #43
17N.24E.29.142	Hunt Oil Co.
17N.24E.31.222	Bish #2
17N.25E.19.322	El Villa Claims
18N.13E.14,23	Elk Mountain
18N.13E.36.400	Guy No. 1
19N.14E.17.133	Pidlite
19N.15E.15	Bryan Ranch

FIGURE 1-26- RADIOACTIVE OCCURRENCES IN SAN MIGUEL COUNTY, NEW MEXICO



1: 13NØ.30ØE.21
2: Anomaly No. 1
3: 2Ø, 21 T13N R3ØE (unsurveyed) 35°2Ø'1Ø"N 1Ø3°43'4Ø"W (approximate)
4: Bascom Camp 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-115Ø (1953)

1: 13N.3ØE.2Ø
2: Anomaly No. 2
3: 2Ø, 21 T13N R3ØE (unsurveyed) 35°2Ø'ØØ"N 1Ø3°44'5Ø"W (approximate)
4: Bascom Camp 7-1/2
5: Great Plains-Baca #2 Grant
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-115Ø (1953)

1: 17N.23E.28
2: AEC Anomaly No. 3 (Garfield Lester Ranch)
3: 28 T17N R23E
4: Maes 7-1/2, Sabinoso 7-1/2
5: Sabinoso district
6: U
7: no workings-air anomaly
8: no production
1Ø: Triassic Chinle Formation-middle sandstone member
13: Sandstone-tabular
15: Finch, W.I. (1972, #32); PRR DEB-RRA-468 (1953); PRR ED-R-111Ø (1953)

1: 14N.3ØE.33
2: Anomaly No. 3
3: 33 T14N R3ØE (unsurveyed) 35°23'5Ø"N 1Ø3°45'25"W (approximate)
4: Medina Mesa 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-1151 (1953)

1: 14N.3ØE.28
2: Anomaly No. 4
3: 28 T14N R3ØE (unsurveyed) 35°24'2Ø"N 1Ø3°45'25"W (approximate)
4: Medina Mesa 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-1151 (1953)

1: 13N.3ØE.32
2: Anomaly No. 5
3: 32 T13N R3ØE (unsurveyed) 35°18'45"N 1Ø3°46'25"W (approximate)
4: Trinchera Creek 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
1Ø: Triassic Chinle Formation(?)
11: radioactive dinosaur bones in sandstone
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-1152 (1953)

1: 12N.30E.8
2: Anomaly No. 6
3: 8 T12N R30E (unsurveyed) 35°16'45"N 103°46'30"W (approximate)
4: Trinchera Creek 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
10: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-1152 (1953)

1: 12N.30E.7
2: Anomaly No. 7
3: 7 T12N R30E (unsurveyed) 35°16'55"N 103°47'00"W (approximate)
4: Trinchera Creek 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
10: Triassic Chinle Formation(?)
11: radioactive dinosaur bones in sandstone
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-1152 (1953)

1: 12N.30E.6
2: Anomaly No. 8
3: 6 T12N R30E (unsurveyed) 35°17'25"N 103°47'15"W (approximate)
4: Trinchera Creek 7-1/2
5: Great Plains-Baca Location #2 Grant
6: U
7: no workings
8: no production
10: Triassic Chinle Formation(?)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 39); PRR ED-R-1152 (1953)

1: 14W.20E.34
2: AEC Anomaly No. 12 (copper mine, Anomaly #2)
3: 34 T14N R20E (unsurveyed) 35°23'23"N 104°48'16"W
4: Flagstone Mountain 7-1/2 Elevation 5,400 ft
5: Great Plains-Ortiz Grant
6: U, Cu, V
7: portals of three adits now caved (15-ft, 15-ft, 30-ft long)
8: no uranium production
10: Triassic Chinle Formation-lower member
11: mineralized lense of gray, micaceons calcareous sandstone
12: tyuyamunite; 0.11% U_3O_8, 0.85% V_2O_5, 3.4% Cu (Finch, 1972)
13: Sandstone
14: no anomalous radioactivity found by Reid and others (1980b)
15: Reid and others (1980b, #21, 22); Finch, W.I. (1972, #39); U.S. Atomic Energy Commission (1966a, p. 40); PRR ED-R-1137 (1953) plus two supplements

1: 12N.17E.13
2: Anomaly #13
3: 13 T12N R17E (unsurveyed)
4: Apache Springs 15
5: Great Plains-Ortiz Grant
6: U
7: no workings
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: PRR ED-R-1139 (1953)

1: 17N.24E.31.222
2: Bish #2
3: NE1/4 31 T17N R24E 35°39'55"N 104°25'5"W
4: Sabinoso 7-1/2 Elevation 4,940 ft
5: Sabinoso district
6: U
7: 75-ft adit
8: 30 tons ore yielding 62 lbs U_3O_8 (0.10%), 27 lbs V_2O_5
9: bkgd 30 cps; portal of adit 3,000 cps; ore dump 1,000 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive gray conglomerate interbedded with gray sandstones and claystones up to 8-ft thick
12: 0.005 and 0.071% U_3O_8 (NMBMMR chem lab, 9/28/82, #2807, 2808)
13: Sandstone-tabular
15: FN 8/20/82; McLemore and Menzie (1983); Reid and others (1980b, #34); Anderson, O.J. (1980); Finch, W.I. (1972, #33); U.S. Atomic Energy Commission (1970, p. 136-137); U.S. Atomic Energy Commission (1966a, p. 37); USAEC files; PRR ASO-53 (1955); CRIB (undated)

1: 17N.14E.11.331
2: Black Nugget No. 1
3: SW1/4 11 T17N R14E $35^{\circ}42'53''$N $105^{\circ}26'24''$W
4: El Porvenir 7-1/2 Elevation 7,940 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U
7: 8 ft x 10 ft x 4 ft pit
8: no production
9: 30 times background
10: Precambrian granite
11: radioactive biotite-rich pod in granite
12: 383 ppm U_3O_8 (Reid and others, 1980b)
13: Orthomagmatic
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #9); U.S. Atomic Energy Commission (1970, p. 148); PRR ASO-133 (1956)

1: 14N.15E.8
2: Blake Mine(?)
3: 8 T14N R15E
4: Villanueva 15
5: Tecolote district
6: U, Cu
7: shaft
8: no uranium production
10: Pennsylvanian-Permian Sangre de Cristo Formation
11: radioactive sandstone copper deposit
12: 0.0004% U (Griggs, 1953)
13: Sandstone
14: Soulè (1956) describes a Blake Mine near Bernal (1 T13N R15E)
15: Griggs (1953, #26)

1: 12N.23E.25
2: Bookout Ranch
3: 25 T12N R23E
4: Mesita del Gato 7-1/2
5: Great Plains
6: U, V
8: no production
10: Triassic Chinle Formation-lower member
13: Sandstone
15: Finch, W.I. (1972, #37)

1: 12N.24E.31.122
2: Bookout Ranch (Santa Rosa Uranium claims)
3: 30,31 T12N R24E 35°13'49"N 104°25'55"W
4: Mesita del Gato 7-1/2
5: Great Plains
6: U, V
7: bulldozer cut, ore dumps
8: no production
9: 4 times background reported
10: Triassic Chinle Formation-middle member
11: mineralized zone on carbonaceous mudstone
12: 118 ppm U; 5,000 ppm V (Reid and others, 1980b)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #38); Finch, W.I. (1972, #37); U.S. Atomic Energy Commission (1970, p. 144); MILS (1981); PRR ASO-98 (1956)

1: 19N.15E.15
2: Bryan Ranch
3: 15 T19N R15E
4: Sapello 7-1/2
5: Mora Grant
6: U(?), mica
7: no workings
8: no production
10: Precambrian pegmatite intruding hornblende-quartz schist
11: slightly radioactive pegmatite
13: Pegmatite
15: PRR DEB-RRA-112 (1953)

1: 17N.24E.17.141
2: Cip Lujan
3: NW1/4 17 T17N R24E 35°42'13"N 104°24'55"W
4: Sabinoso 7-1/2 Elevation 4,700 ft
5: Sabinoso district
6: U
7: 10-ft adit, 10-12 ft adit
8: no produciton
9: bkgd 30 cps, south adit 200-250 cps, high 400 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive lenses associated with organic material in gray conglomeratic siltstones to shales
12: 0.02% U_3O_8 (NMBMMR chem lab, 9/28/82, #2817)
13: Sandstone-tabular
15: FN 8/18/82; McLemore and Menzie (1983); Reid and others (1980b, #28); Finch, W.I. (1972, #30); PRR DEB-A-514 (1953)

1: 16N.17E.15.234
2: Conoco Leatherwood-Reed No. 1 Well
3: 15 T15N R17E (unsurveyed) 35°31'50"N 105°07'30"W (approximate)
4: Las Vegas 7-1/2, Las Vegas SE 7-1/2
5: Great Plains-Las Vegas area
6: U
7: no workings-3,911-ft well (log anomaly)
8: no production
10: Permian-Pennsylvanian Sangre de Cristo Formation
11: radioactive zone in arkose; associated with black organic material at 2,855 to 2,885 feet depth
12: up to 0.1% U_3O_8, 700 ppm Au, 70 ppm Ag; clausthalite (PbSe mineral) reported (Finch, 1972)
13: Sandstone
14: original well drilled in 1954; American Minerals Co. (Frontier Resources, Inc.) drilled 2 additional holes in 1968
15: Reid and others (1980b, #17); Finch, W.I. (1972, #42); USAEC files; MILS

1: 13N.21E.19
2: East Point Mesa Montosa
3: 19 T13N R21E (unsurveyed) 35°20'11"N 104°44'53"W
4: Cobra Hill 7-1/2
5: Great Plains-Conchas Ranch
6: U, V
7: no workings
8: no production
9: 3 times background reported
10: Triassic Chinle Formation-lower member
11: radioactive zones in mudstones and sandstones
12: 178 ppm U_3O_8 (Reid and others, 1980b)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #23); Finch, W.I. (1972, #38); PRR DEB-A-513 (1953) plus 1 supplement

1: 18N.13E.14, 23
2: Elk Mountain (Kept Man)
3: 14, 23 T18N R13E (unsurveyed) 35°46'45"N 105°31'50"W
4: Elk Mountain 7-1/2 Elevation 10,480 ft
5: Elk Mountain district
6: mica, feldspar, U(?), Th(?)
7: trench, open cuts, 273-ft adit, pits
8: mica produced, no uranium production
9: no anomalous readings above background radioactivity
10: Precambrian pegmatite intruding metabasaltic amphibolite
11: several north-trending undulatory pegmatites
12: columbite, radioactive minerals reported from this district (may be confused with Guy No. 1 deposit)
13: Pegmatite
15: FN 7/15/82; U.S. Geological Survey and others (1980); Adams, J.W. and others (1980); Holmquist (1946); Jahns (1946)

1: 15N.21E.24
2: Eloy Estrada
3: 24 T15N R21E
4: Trujillo 7-1/2
5: Great Plains
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation-basal member
11: radioactive petrified log
12: carnotite(?)
13: Sandstone
14: could not locate on 8/18/82
15: FN 8/18/82; Reid and others (1980b, #24); Finch, W.I. (1972, #35); U.S. Atomic Energy Commission (1970, p. 130-131); MILS (1981); PRR ASO-42 (1955)

1: 17N.25E.19.322
2: El Villa Claims (Lujan Ranch, Locality #44, Mesita Colorado)
3: C 19 T17N R25E 35°41'16"N 104°19'22"W
4: Arroyo Alamocito 7-1/2 Elevation 4,800 ft
5: Sabinoso district
6: U, Cu
7: small shallow pit, outcrop anomaly, drill holes
8: no production
9: bkgd 30 cps; high in 10-ft diameter area 1,800 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive gray conglomeratic siltstone, 1/2 to 1 ft thick, just above a well-cemented unmineralized gray conglomerate
13: Sandstone-tabular
15: FN 8/18/82; McLemore and Menzie (1983); Reid and others (1980b, #30); Finch, W.I. (1972, #29); Baltz (1955a); PRR DEB-RRA-736 (1953); USAEC files (1960)

1: 18N.13E.36.400
2: Guy No. 1
3: SE1/4 36 T18N R13E (unsurveyed) 35°44'45"N 105°30'50"W
4: Honey Boy Ranch 7-1/2 Elevation 9,800 ft
5: Elk Mountain district-Sangre de Cristo Mountains
6: mica, Ta, Nb, U, REE
7: pit
8: 500 lbs, of Ta-U-REE shipped 1940-1942 mostly to Shattuck Chemical Co. (Jahns, 1946)
10: Precambrian pegmatite intruding amphibolite schist
12: samarskite, hatchettolite, monazite, uraninite reported
13: Pegmatite
15: Redmond (1961); Jahns (1946); USAEC files (1960)

1: 17N.13E.30.223
2: High Peak (Faith Minerals Claim)
3: NE1/4 30 T17N R13E 35°40'45"N 105°36'5"W
4: Honey Boy Ranch 7-1/2 Elevation 9,180 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th, REE
7: 100-ft cut, 15-ft adit, pits
8: no production
10: Precambrian pegmatite intruding pyroxenite and amphibolite schist
11: radioactive pegmatite
12: monazite, 746 ppm U_3O_8 (Reid and others, 1980b)
13: Pegmatite
14: examined by Reid and others (1980b)
15: Anderson, O.J. (1980); Reid and others (1980b, #7); U.S. Atomic Energy Commission (1970, p. 140, 147); Redmon (1961); Jahns (1946); PRR DEB-RRA-1423 (1954); PRR ASO-55 (1954)

1: 17N.24E.29.142
2: Hunt Oil Co. (SAB, Verde)
3: NW1/4 29 T17N R24E 35°40'28"N 104°24'43"W
4: Sabinoso 7-1/2 Elevation 4,800 ft
5: Sabinoso district
6: U, Cu, V
7: 15-ft adit
8: no production
9: bkgd 30 cps; high 8,000-9,500 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive gray to black claystone with abundant carbonacous material, claystone interfingers with crossbedded gray sandstone
12: 0.015 and 0.890% U_3O_8 (NMBMMR chem lab, 9/28/82, #2804, 2805)
13: Sandstone-tabular
15: FN 8/17/82; McLemore and Menzie (1983); Reid and others (1980b, #32); Anderson, O.J. (1980); Finch, W.I. (1972, #33); U.S. Atomic Energy Commission (1970, p. 142); Baltz (1955a, p. 25); PRR DEB-PR-468, 469 (1953); PRR ED-R-1109 (1953); ASO-79 (1955)

1: 17N.23E.1.444
2: Key Claims (Gonzales lease, Key's Claims #1-6, Romero Mine)
3: SE1/4 SE1/4 1 T17N R23E 35°43'21"N 104°26'20"W
4: Sabinoso 7-1/2 Elevation 4,740 ft
5: Sabinoso district
6: U
7: caved adit, ore dump
8: no production
9: 40 times background reported
10: Triassic Chinle Formation-middle sandstone member
11: radioactive lenses in gray, carbonaceous arenites
12: 0.39% U_3O_8 (USAEC files)
13: Sandstone-tabular
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #35); Finch, W.I. (1972, #31); U.S. Atomic Energy Commission (1970, p. 132); USAEC files (1960); PRR ASO-43 (1955)

1: 17N.15E.32
2: Las Vegas Grant (Montezuma)
3: 32 T17N R15E (unsurveyed)
4: Montezuma 7-1/2
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th, REE,Ta, Nb
7: pits
8: no production
10: Precambrian pegmatite
12: 1.10% U_3O_8 reported
13: Pegmatite
15: Reid and others (1980b, #13); PRR DEB-A-531 (1953)

1: 17N.14E.14.142
2: Locality #33 (Baker Gulch, MIQ-187, 188)
3: SE1/4 NW1/4 14 T17N R14E 35°42'22"N 105°26'4"W
4: El Porvenir 7-1/2 Elevation 7,620 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th, REE
7: no workings
8: no production
9: 50 cps background, high 150 cps
10: Precambrian quartz monzonite dike in biotite gneiss, pegmatite
11: radioactive pegmatites and quartz monzonite dike
12: 54 ppm U, 596 ppm eTh, 959 ppm La, ziron and monzaite (Goodknight, 4/24/82)
13: Pegmatite
15: FN 5/29/81; Reid and others (1980b, #10); Baltz (1972, 1955a, 1955b); U.S. Atomic Energy Commission (1970, p. 126); Craig Goodknight (Bendix Field Eng. Corp., W.C., 4/24/82)

1: 17N.24E.25.212
2: Locality #43
3: NE1/4 25 T17N R24E 35°40'45"N 104°20'18"W
4: Arroyo Alamocito 7-1/2 Elevation 4,790 ft
5: Sabinoso district
6: U, Cu
7: 10-ft cut with 10-ft long glory hole, drill holes
8: no production
9: bkgd 30 cps, high 600-700 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive claystone interbeds 1/2 to 1 ft thick in gray interbedded conglomerates and sandstones
12: 0.006 and 0.033% U_3O_8 (NMBMMR chem lab, 9/28/82, #2812, 2813)
13: Sandstone-tabular
15: FN 8/18/82; McLemore and Menzie (1983); Reid and others (1980b, #33); Finch, W.I. (1972, #29); Baltz (1955a); PRR DEB-RRA-735 (1953); USAEC files (1960)

1: 17N.16E.31
2: Los Vigiles (Anomaly No. 1?)
3: 31 T17N R16E (unsurveyed) 35°39'5"N 105°16'18"W
4: Montezuma 7-1/2
5: El Porvenir district-Sangre de Cristo Mountains
6: U
7: no workings-southern point on Dakota hogback
8: no production
9: 2-3 times background reported
10: Cretaceous Dakota Sandstone
11: radioactive carbonaceous siltstone between two quartz arenites, associated with organic material
12: 36.2 ppm U_3O_8 (Reid and others, 1980b)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #16); U.S. Atomic Energy Commission (1970, p. 146; PRR ED-R-1132 (1953)

1: 16N.14E.34.144
2: Lost Creek Claims
3: C 34 T16N R14E 35°34'30"N 105°26'43"W
4: San Geronimo 7-1/2 Elevation 7,480 ft
5: Tecolote district-Sangre de Cristo Mountains
6: U
7: bulldozer cuts
8: no production
9: 4-5 times background
10: Precambrian granite
11: radioactive zone along brecciated 15-ft wide fault zone
12: 7.3 ppm U_3O_8 (Reid and others, 1980b)
13: Hydrothermal-vein
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #14); U.S. Atomic Energy Commission (1970, p. 150)

1: 17N.24E.16.134
2: Lujan Cattle Co.
3: NW1/4 16 T17N R24E 35°42'7"N 104°23'57"W
4: Sabinoso 7-1/2 Elevation 4,660 ft
5: Sabinoso district
6; U
7: minor bench cut, bulldozed road
8: no production
9: bkgd 30 cps; average 100 cps; high 150 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive 4-in thick shale lense in gray sandstone
13: Sandstone-tabular
15: FN 8/16/82; McLemore and Menzie (1983); Reid and others (1980b, #29); Finch, W.I. (1972, #30); PRR DEB-A-527 (1933)

1: 17N.24E.25.211
2: Lujan Ranch
3: NE1/4 24 T17N R24E 35°40'45"N 104°20'28"W
4: Arroyo Alamocito 7-1/2 Elevation 4,800 ft
5: Sabinoso district
6: U, Cu
7: no workings-outcrop anomaly, drill holes
8: no production
9: bkgd 30 cps, average along outcrop 150 cps, high 600 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive conglomerate beds 1/2 to 2-ft thick in gray interbedded conglomerate and siltstones
12: 0.001, 0.023, and 0.054% U_3O_8 (NMBMMR chem lab, 9/28/82, #2814, 2815, 2816)
13: Sandstone-tabular
14: see Locality #43
15: FN 8/18/82; PRR DEB-RRA-735 (1953); USAEC files (1954)

1: 16N.23E.19
2: Mars Claim
3: 19 T16N R23E
4: Canon Olguin 7-1/2
5: Sabinoso 7-1/2
6: U
7: 2 small cuts
8: no production
10: Jurassic Morrison Formation
11: associated with carbonaceous seams and logs in 30-40 ft channel sandstones
12: 0.006% U_3O_8
13: Sandstone
15: McLemore and Menzie (1983); USBM files (1956)

1: 17N.23E.27, 28
2: Mickie V Claims (Garfield Lester Ranch, Unknown, Lester's cabin)
3: 27, 28 T17N R23E 35°40'16"N 104°28'57"W
4: Sabinoso 7-1/2
5: Sabinoso district
6: U, V, Cu
7: one shallow pit
8: no production
10: Triassic Chinle Formation-middle sandstone member
11: radioactive lense in gray conglomerate
12: carnotite reported, assay results-0.118% U_3O_8, 0.12% Cu, 4.55% V_2O_5
13: Sandstone-tabular
15: Reid and others (1980b, #31); Finch, W.I. (1972); U.S. Atomic Energy Commission (1970, p. 151; 1966a, p. 37)

1: 12N.23E.20
2: Neafus Claims
3: 20 T12N R23E (unsurveyed)
4: Cobra Hill 7-1/2
5: Great Plains-Conchas Ranch
6: U
7: no workings
8: no production
10: Triassic Chinle Formation-lower or middle member
11: mineralized shale and sandstone
13: Sandstone
15: Reid and others (1980b, #36); U.S. Atomic Energy Commission (1970, p. 138-139); MILS (1981); PRR ASO-56 (1955)

1: 13N.19E.27
2: Park Springs Ranch Anomaly
3: 27 T13N R19E (unsurveyed) 35°19'43"N 104°55'17"W
4: Chuperito 7-1/2 Elevation 5,350 ft
5: Great Plains-Ortiz Grant
6: U, V
7: no workings-outcrop on small knoll
8: no production
9: 2-6 times background radioactivity reported
10: Triassic Chinle Formation-lower member
11: radioactive zone associated with carbonaceous debris in fine-grained sandstone
12: 101 ppm U_3O_8, 500 ppm Mo (Reid and others, 1980b)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #20); Finch, W.I. (1972, #40); MILS (1981)

1: 19N.14E.17.133
2: Pidlite Mine
3: SW1/4 SW1/4 NW1/4 17 T19N R14E 35°52'14"N 105°29'23"W
4: Rociada 7-1/2 Elevation 9,210 ft
5: Rociada district-Sangre de Cristo Mountains
6: mica, feldspar, beryl(?), U,Th, REE, Li, Ta, Nb
7: pit, shaft (caved at 20-ft)
8: no uranium production, Li produced
9: bkgd 30 cps, high in pit adjacent to shaft 100 cps, shaft 60 cps
10: Precambrian pegmatite intruding metabasaltic amphibolite
11: several north-trending pegmatite dikes
12: rhabdophanite, microlite, monazite, betafite, columbite reported; ~0.001% U_3O_8 (NMBMMR chem lab, 11/15/82, #2331)
13: Pegmatite
14: plan map by Page (1950)
15: FN 7/15/82; McLemore (1982a, #7); U.S. Geological Survey and others (1980); Adams, J.W. and others (1980); Elevatorski (1979, p. 71); Redmon (1961, p. 71); Jahns (1953; 1946); Page (1950)

1: 15N.14E.26.432
2: Priest Mine (P. Lopez and associates, Ribera, Old Priest Mine)
3: 26(?) T15N R14E (unsurveyed) 35°29'45"N 105°25'25"W
4: Villanueva 15 Elevation 7,480 ft
5: Tecolote district-Sangre de Cristo Mountains
6: U, Be, mica, feldspar, Ta, REE, Th
7: large open pit
8: no uranium production
10: Precambrian pegmatite intruding quartz-biotite schist and gneissic granite
11: radioactive black mineral (tantalite-columbite?); tantalite contained 0.39% U_3O_8 and 0.95% ThO_2 (USBM files)
13: Pegmatite
14: mine map by Redmon (1961); first worked in 1914; radioactive minerals discovered in the 1950's
15: Redmon (1961); PRR ED-R-1141 (1953); USBM files (1960)

1: 15N.14E.18
2: Quintana
3: 18 T15N R14E
4: San Geronimo 7-1/2
5: Tecolote district-Sangre de Cristo Mountains
6: U
7: 3 shallow pits reported
8: no uranium production
10: Precambrian pegmatites intruding hornblende schist
12: uranophane, 0.1% U_3O_8 reported
13: Pegmatite
15: Reid and others (1980b, #15); U.S. Atomic Energy Commission (1970, p. 149)

1: 17N.24E.8.431
2: Sabinoso Uranium Corp. (Lujan Ranch, Asco Mine)
3: SW1/4 8 T17N R24E 35°42'40"N 104°24'30"W
4: Sabinoso 7-1/2 Elevation 4,800 ft
5: Sabinoso district
6: U
7: 38-ft adit, 30-ft bench cut
8: no production
9: bkgd 30 cps, high 400 cps
10: Triassic Chinle Formation-middle sandstone member
11: radioactive carbonaceous lenses in a 2-3 ft limey, pebble conglomeratic siltstone
12: 0.021% U_3O_8 (NMBMMR chem lab; 9/28/82, #2806)
13: Sandstone-tabular
15: FN 8/16/82; McLemore and Menzie (1983); Reid and others (1980b, #26); Anderson, O.J. (1980); Finch, W.I. (1972, #30); U.S. Atomic Energy Commission (1970, p. 136); Griggs (1955, p. 191); Baltz (1955a, 1955b); PRR unnumbered (1955)

1: 12N.17E.24
2: Sowell Ranch (Apache Springs, Anomaly #5)
3: 24 T12N R17E (unsurveyed) 35°14'53"N 105°5'39"W
4: Dilia 7-1/2 Elevation 5,600 ft
5: Great Plains-Chico Grant
6: U
7: no workings-outcrop
8: no production
9: 3-5 times background reported
10: Triassic Chinle Formation-lower member
11: radioactive zone associated with organic material in fine-grained lithicarenite
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #19); Finch, W.I. (1972, #41); PRR ED-R-1131 (1953); MILS (1981)

1: 16N.14E.5.132
2: Sparks-Stone (Sparks-Stone #1)
3: 5, 6 T16N R14E, 31, 32 T17N R14E
4: El Porvenir 7-1/2
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Nb, Ta
7: cuts, pits
8: 15 tons ore yielding 32 lbs U_3O_8 (0.11%), 13 lbs V_2O_5
10: Precambrian pegmatite
11: 5-6 ft thick pegmatite
12: euxenite, autunite, uranophane reported
13: Pegmatite
14: mined 1955-1956 by Sparks-Stone Mining Co.
15: Anderson, O.J. (1980); Adams, J.W. and others (1980); Reid and others (1980b, #12);U.S. Atomic Energy Commission (1970, p. 145); USAEC files (1956); CRIB (1975)

1: 12N.25E.5
2: St. Anne Claims (Maez Ranch Claims)
3: 5 T12N R25E
4: Bookout Ranch 7-1/2
5: Great Plains
6: U
7: no workings
8: no production
10: Triassic Chinle Formation
13: Sandstone
15: Reid and others (1980b, #37); Finch, W.I. (1972, #36); U.S. Atomic Energy Commission (1970, p. 128-129); PRR ASO-33 (1955)

1: 16N.23E.10, 11
2: T Claims, (Unknown, Anomaly #4)
3: 10, 11 T16N R23E
4: Sabinoso 7-1/2
5: Sabinoso district
6: U
7: one small pit-outcrop anomaly
8: no production
10: Triassic Chinle Formation-middle sandstone member
11: radioactive lenses in gray conglomerate
12: carnotite reported
13: Sandstone-tabular
14: could not locate on 8/20/82; air anomaly located in 1953
15: FN 8/20/82; Reid and others (1980b, #35); Finch, W.I. (1972, #34); U.S. Atomic Energy Commission (1970, p. 127; 1966a, p. 37); PRR Ed-R-1112 (1953); ASO-31 (1955)

1: 12N.17E.23
2: Unknown (Mesa Chupinas, No Name B)
3: 23 T12N R17E 35°15'13"N 105°6'16"W
4: Apache Springs 15
5: Great Plains
6: U, flagstone
7: open pits and cuts
8: no uranium production
9: 2-3 times background reported
10: Triassic Chinle Formation-middle member
11: radioactive zone in pebble conglomerate
12: 50.8 ppm U (Reid and others, 1980b)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #18); U.S. Atomic Energy Commission (1970, p. 152); PRR ASO-137 (1953)

1: 17N.14E.5.413
2: Unknown-roadcut
3: S1/2 5 T17N R14E 35°43'40"N 105°29'28"W
4: El Porvenir 7-1/2 Elevation 8,540 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th
7: no workings-roadcut
8: no production
9: bkgd 50 cps, high 100 cps
10: Precambrian pegmatite intruding schists and amphibolites
11: radioactive zone along contact of pegmatite
13: Pegmatite
15: FN 5/24/81; Baltz (1972)

1: 17N.14E.8.323
2: Unknown-roadcut (Youngs Canyon)
3: SW1/4 8 T17N R14E 35°43'00"N 105°29'27"W
4: El Porvenir 7-1/2 Elevation 8,360 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th
7: no workings-roadcut
8: no production
9: bkgd 50 cps, high 100 cps
10: Precambrian mafic dikes intruding alaskite
11: radioactive zones along fractures in alaskite and mafic dikes
13: Hydrothermal-vein
14: PRR incorrectly locates this property in Mora County
15: FN 5/29/81; Reid and others (1980b, #8); Baltz (1972); PRR M-1475 (1954)

1: 17N.14E.14.114
2: Unknown (MIQ-187, MIR-47)
3: NW1/4 14 T17N R14E 35°42'23"N 105°26'3"W
4: El Porvenir 7-1/2 Elevation 7,680 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th
7: no workings-roadcut
8: no production
10: Precambrian pegmatite intruding granite
11: radioactive zone along biotite-quartz layer near contact of pegmatite
12: 54 ppm U_3O_8, 596 ppm eTh, zircon, monazite in pegmatite, 78 ppm U_3O_8, 512 ppm eTh in gneissic granite
13: Pegmatite
15: Craig Goodknight (Bendix Field Eng. Corp., W.C., 4/24/82)

1: 17N.14E.14.144
2: Unknown (MIQ-185)
3: SE1/4 NW1/4 14 T17N R14E 35°42'15"N 105°25'59"W
4: El Porvenir 7-1/2 Elevation 7,580 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U, Th
7: no workings
8: no production
9: background 100 cps; high 1,700 cps
10: Precambrian biotite gneiss
11: radioactive coarse-grained biotite-rich lense in granitic rock
12: 72 ppm U, 329 eTh
13: Orthomagmatic
15: Craig Goodknight (Bendix Field Eng. Corp., W.C., 4/24/82)

1: 17N.14E.15.121
2: Unknown-adit
3: NW1/4 15 T17N R14E 35°42'29"N 105°27'27"W
4: El Porvenir 7-1/2 Elevation 7,800 ft
5: El Porvenir district-Sangre de Cristo Mountains
6: U
7: 15-ft adit
8: no production
9: bkgd 50 cps, high 200 cps
10: Precambrian biotite schist, altered granite, pegmatite
11: radioactive zones along fault between schist and granite, strike of fault N64°E
13: Hydrothermal-vein
15: FN 5/29/81; Baltz (1972)

1: 17N.23E.14.441
2: Windy #9 (San Carlos Mining Co.)
3: SE1/4 14 T17N R23E 35°41'45"N 104°27'30"W
4: Sabinoso 7-1/2 Elevation 4,900 ft
5: Sabinoso district
6: U, V
7: adit (75-ft underground workings)
8: 19 tons ore yielding 19 lbs U_3O_8 (0.05%), 147 lbs V_2O_5
9: bkgd 30 cps; dump 500 cps; average in adit 150-500 cps; high in adit 4,000 cps
10: Triassic Chinle Formation-middle sandstone member
11: mineralized gray calcareous mudstone, pebble conglomerates and sandstones
12: 0.031, 0.037, and 0.406% U_3O_8 (NMBMMR chem lab, 9/28/82, #2809, 2810, 2811)
13: Sandstone-tabular
14: mined 1956 by San Carlos Mining Co.
15: FN 8/19/82; McLemore and Menzie (1983); Anderson, O.J. (1980); Reid and others (1980b, #27); Finch, W.I. (1972, #31); U.S. Atomic Energy Commission (1970, p. 134, 153); USAEC files (1960); PRR ASO-44 (1955); CRIB (1976)

Alphabetical (37 occurrences)

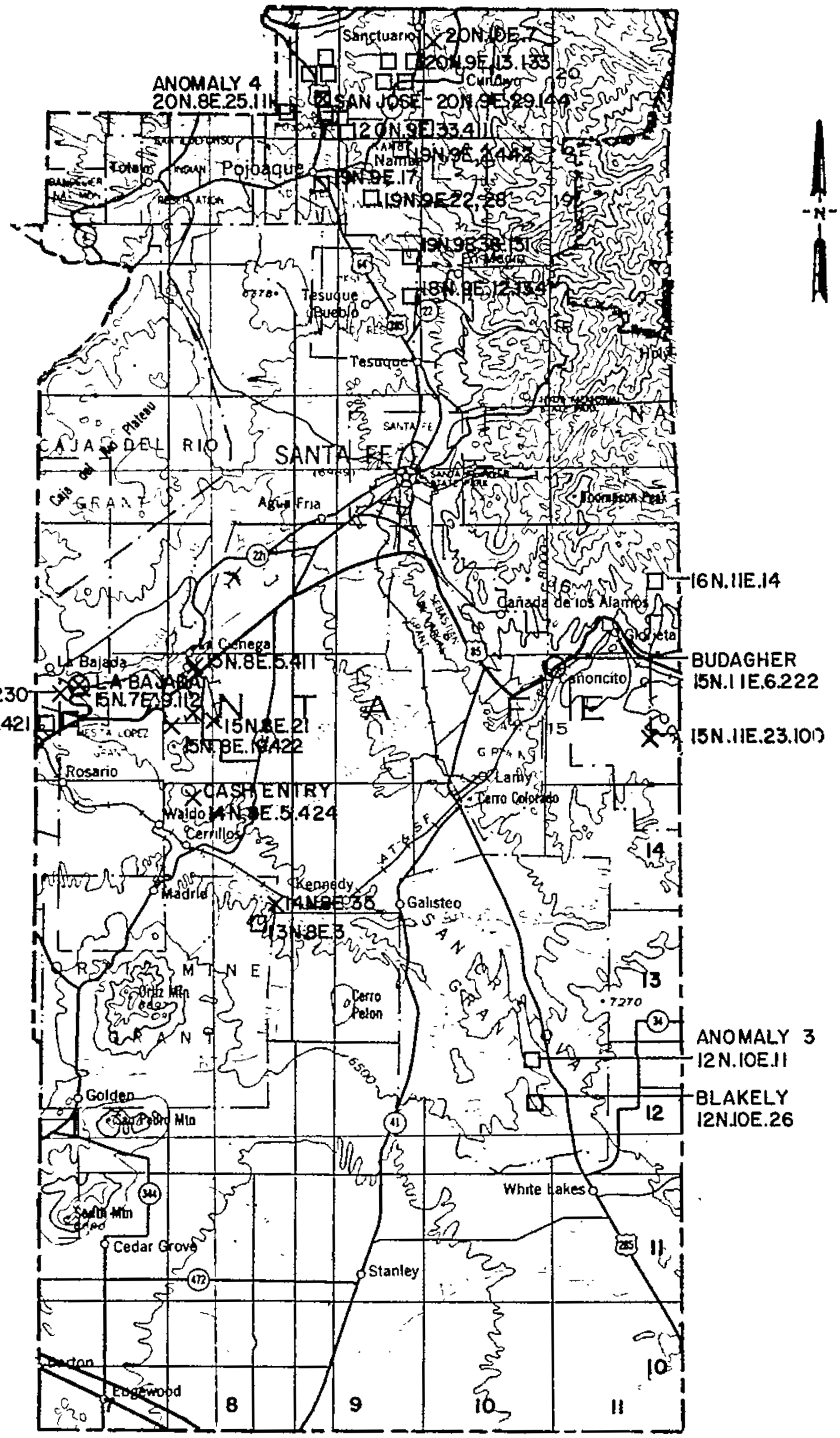
Anomaly No.1	15N.7E.19.421
Anomaly No. 1	20N.9E.32.322
Anomaly No. 2 and 3	20N.9E.33.411
Anomaly No. 3	12N.10E.11
Anomaly No. 4	20N.8E.25.111
Anomaly No. 5	20N.9E.13.133
Anomalies No. 6 and 7	20N.9E.22.430
Anomaly No. 8	19N.9E.17.443
Anomaly No. 9	19N.9E.17.434
Anomaly No. 10	19N.9E.2.442
Anomalies No. 11 and 12	19N.9E.22,28
Anomaly No. 13	19N.9E.36.131
Anomaly No. 14	18N.9E.12.134
Anomaly #B9-1	15N.7E.17
Blakely Ranch	12N.10E.26
Budagher	15N.11E.6.222
Cash Entry Mine	14N.8E.5.424
Evelyn	15N.8E.19.422
Gilliland Claims	20N.9E.23.341
Hiser-Moore #1	15N.7E.8.230
J.C. Roybal	20N.9E.19.200
Kennedy Mine	15N.11E.23.100
Kunklin Deposit	16N.11E.14
La Bajada	15N.7E.9.112
Marion	20N.10E.7.132
Ortiz Mine Grant	13N.8E.3
Ortiz Mine Grant	14N.8E.35
Rogers	20N.9E.17.144
Rogers	20N.9E.17.344
Rogers	20N.9E.20.123
Rogers	20N.9E.20.144
Rogers	20N.9E.20.322
San Jose Claims	20N.9E.29.144
Shaw No. 2	20N.10E.7.123
Turquoise Hill	15N.8E.5.411
Turquoise Hill Mine	15N.8E.21
Unknown-La Cienga	15N.8E.20.144

Alias	Name	Number
Anomaly #2	Blakely Ranch	12N.10E.26
Becky	Rogers	20N.9E.17.344
#BP-2	Blakely Ranch	12N.10E.26
#BP-3	Anomaly #3	12N.10E.11
Hubbard Prospect	Shaw No. 2	20N.10E.7.123
J.C. Roybal	San Jose Claims	20N.9E.29.144
Lone Star	La Bajada	15N.7E.9.112
Marshal Bonanza Mine	Unknown-La Cienga	15N.8E.20.144
Mt. Chalchihuith	Turquoise Mine	15N.8E.5.411
Paytiano	Budagher	15N.11E.6.222
Potter	Ortiz Mine Grant	13N.8E.3
Roger Claims	J.C. Roybal	20N.9E.19.200
Rogers	San Jose Claims	20N.9E.29.144
Salmar	Shaw No. 2	20N.10E.7.123
San Jose #13	San Jose Claims	20N.9E.29.144
Sawyer Ranch	Blakely Ranch	12N.10E.26
Shaw No. 2	Marion	20N.10E.7.132
Unknown	Budagher	15N.11E.6.222
Unknown	Kunklin Deposit	16N.11E.14
Unknown	Rogers	20N.9E.20.123
Unknown	San Jose Claims	20N.9E.29.144

Numerical

12N.10E.11	Anomaly #3
12N.10E.26	Blakely Ranch
13N.8E.3	Ortiz Mine Grant
14N.8E.5.424	Cash Entry Mine
14N.8E.35	Ortiz Mine Grant
15N.7E.8.230	Hiser-Moore #1
15N.7E.9.112	La Bajada
15N.7E.17	Anomaly #B9-1
15N.7E.19.421	Anomaly No. 1
15N.8E.5.411	Turquoise Mine
15N.8E.19.422	Evelyn
15N.8E.20.144	Unknown-La Cienga
15N.8E.21	Turquoise Hill Mine
15N.11E.6.222	Budagher
15N.11E.23.100	Kennedy Mine
16N.11E.14	Kunklin Deposit
18N.9E.12.134	Anomaly No. 14
19N.9E.2.442	Anomaly No. 10
19N.9E.17.434	Anomaly No. 9
19N.9E.17.443	Anomaly No. 8
19N.9E.22,28	Anomalies No. 11 and 12
19N.9E.36.131	Anomaly No. 13
20N.8E.25.111	Anomaly No. 4
20N.9E.13.133	Anomaly No. 5
20N.9E.17.144	Rogers
20N.9E.17.344	Rogers
20N.9E.19.200	J.C. Roybal
20N.9E.20.123	Rogers
20N.9E.20.144	Rogers
20N.9E.20.322	Rogers
20N.9E.22.430	Anomalies No. 6 and 7
20N.9E.23.341	Gilliland Claims
20N.9E.29.144	San Jose Claims
20N.9E.32.322	Anomaly No. 1
20N.9E.33.411	Anomaly No. 2 and 3
20N.10E.7.123	Shaw No. 2
20N.10E.7.132	Marion

F'GURE 1-27-RADIOACTIVE OCCURRENCES IN SANTA FE COUNTY, NEW MEXICO



0 10 MILES

0 10 20 KILOMETERS

CONTOUR INTERVAL 500 FEET

SANTA FE COUNTY

1: 20N.9E.32.322
2: Anomaly No. 1
3: SW1/4 32 T20N R9E 35°55'10"N 106°00'30"W
4: Espanola 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive limonite-stained, gray sandstone
12: 0.02% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: Green and others (1980c, #6); Chenoweth (1979); Hilpert (1964,, p. 54); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 9-10); PRR ED-R-1549 (1954)

1: 15N.7E.19.421
2: Anomaly No. 1
3: E1/2 19 T15N R7E 35°30'50"N 106°14'3"W
4: Tetilla Peak 7-1/2
5: Santo Domingo Pueblo
6: U, Cu
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive limonite and silica fills fracture in a sandstone bed
12: copper oxides, 0.05% U_3O_8 (PRR)
13: Sandstone
14: no uranium potential
15: Green and others (1980c, #11); Chenoweth (1979); Hilpert (1969, p. 53); U.S. Atomic Energy Commission (1966a, p. 45); PRR ED-R-1262 (1954)

1: 20N.9E.33.411
2: Anomaly No. 2 and 3
3: C 33 T20N R9E 35°55'15"N 105°59'30"W
4: Cundiyo 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive limonite-stained sandstone
12: 0.01% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 9-10); PRR ED-R-1550 (1954)

1: 12N.1ØE.11
2: Anomaly #3 (#B9-3)
3: 11 T12N R1ØE (unsurveyed)
4: Wild Horse Mesa 7-1/2
5: San Cristoval Grant
6: U
7: pits(?)
8: no production
1Ø: Triassic Chinle Formation
11: radioactive calcareous conglomerate
12: yellow-green uranium mineral
13: Sandstone
15: Reid and others (198Øb, #4); U.S. Atomic Energy Commission (1966a, p. 46); Jedlicka and Mallory (1955); PRR ED-R-1264 (1954); ED-R-1263 (1954)

1: 2ØN.8E.25.111
2: Anomaly No. 4
3: 24, 25 T2ØN R8E 35°56'35"N 1Ø6°2'25"W
4: Espanola 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
1Ø: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive opal disseminated in sandstones and conglomerates
12: Ø.Ø1% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: Green and others (198Øc, #268); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 9-1Ø); Hilpert and Corey (1955); PRR ED-R-1551 (1954)

1: 2ØN.9E.13.133
2: Anomaly No. 5
3: NW1/4 13 T2ØN R9E 35°58'ØØ"N 1Ø5°56'3Ø"W
4: Cundiyo 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
1Ø: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive opal in sandstone
12: Ø.Ø1% U_3O_8
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 1Ø-11); PRR ED-R-1552 (1954)

1: 20N.9E.22.430
2: Anomalies No. 6 and 7
3: SE1/4 22 T20N R9E 35°56'35"N 105°58'15"W
4: Cundiyo 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive calcareous material impregnated with opal within gray siltstones
12: 0.01% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 10-11); PRR-ED-R-1553 (1954)

1: 19N.9E.17.443
2: Anomaly No. 8
3: SE/14 17 T19N R9E 35°52'15"N 106°00'5"W
4: Horcado Ranch 7-1/2
5: Espanola area
6: U
7: no workings-roadcut
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive reddish-gray claystone and siltstone, about 100-feet long
12: 0.04% U_3O_8, yellow-green uranium minerals (Collins and Freeland, 1956)
13: Sandstone
15: Green and others (1980c, #7); Chenoweth (1979); Hilpert (1969, p. 53); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 11); PRR-ED-R-1554 (1954); M-1598 (1955)

1: 19N.9E.17.434
2: Anomaly No. 9
3: SE1/4 17 T19N R9E 35°52'15"N 106°00'10"W
4: Horcado Ranch 7-1/2
5: Espanola area
6: U
7: no workings-roadcut
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive limonite-stained carbonaceous pockets in gray siltstone and sandstone
12: 0.06% U_3O_8, yellow-green uranium minerals (Collins and Freeland, 1956)
13: Sandstone
15: Green and others (1980c, #8); Chenoweth (1979); Hilpert (1969, p. 53); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956); PRR ED-R-1554 (1954)

1: 19N.9E.2.442
2: Anomaly No. 10
3: SE1/4 2 T19N R9E 35°54'8"N 105°56'55"W
4: Cundiyo 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive opal in fault zone in sandstone
13: Sandstone/Hydrothermal-vein
14: U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 11); PRR ED-R-1555 (1954)

1: 19N.9E.22, 28
2: Anomalies No. 11 and 12
3: 22, 28 T19N R9E 35°51'20"N 105°59'00"W
4: Tesuque 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive reddish claystones and siltstones with radioactive opalized bone fragments (rhinoceros)
12: 0.25% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: Chenoweth (1979); Elevatorski (1979); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956); PRR ED-R-1556 (1954); ED-R-210 (1952)

1: 19N.9E.36.131
2: Anomaly No. 13
3: NW1/4 36 T19N R9E 35°50'10"N 105°56'30"W
4: Tesuque 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive zone in opalized conglomeratic arkose
12: 0.02% U_3O_8 (Collins and Freeland, 1956)
13: Sandstone
15: Chenoweth (1979); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956, p. 12-13); PRR ED-R-1557 (1954)

1: 18N.9E.12.134
2: Anomaly No. 14
3: W1/2 12 T18N R9E 35°48'25"N 105°56'30"W
4: Tesuque 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: weakly radioactive opal in arkosic sandstone
13: Sandstone
15: Chenoweth (1979); U.S. Atomic Energy Commission (1966a, p. 49); Collins and Freeland (1956); PRR ED-R-1557 (1954)

1: 15N.7E.17
2: Anomaly #B9-1
3: 17 T15N R7E
4: Tetilla Peak 7-1/2
5: Santo Domingo Pueblo
6: U, Cu
7: prospect pit
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
12: 0.01-0.05% U_3O_8 (Jedlicka and Mallory, 1955)
13: Sandstone
15: Jedlicka and Malory (1955)

1: 12N.10E.26
2: Blakely Ranch (Anomaly #2, Sawyer Ranch, #B9-2)
3: 26 T12N R10E (unsurveyed) 35°14'13"N 105°50'56"W
4: Stanley 15 Elevation 6,595 ft
5: SAn Cristoval Grant
6: U
7: 120-ft bulldozer cut (1-7 ft deep), 5 shallow pits
8: no production
9: 30-60 times background (Reid and others, 1980b)
10: Triassic Chinle Formation-lower member
11: radioactive zones in pebble conglomerate associated with organic debris
12: carnotite; 1,800-6,520 ppm U (Reid and others, 1980b)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #5); U.S. Atomic Energy Commission (1966a, p. 46); Jedlicka and Mallory (1955); PRR ED-R-1263 (1954); ED-R-1964 (1954); USAEC files (1960)

1: 15N.11E.6.222
2: Budagher (Unknown, Paytiamo)
3: NE1/4 6 T15N R11E 35°33'44"N 105°48'30"W
4: Glorieta 7-1/2
5: Glorieta district
6: U, Cu
7: bulldozer cuts
8: no production
9: 3-6 times background (Reid and others, 1980b)
10: Pennsylvanian-Permian Sangre de Cristo Formation
11: radioactive silty limestone in shale sequence
12: 128 ppm U (Reid and others, 1980b)
13: Limestone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #3); Elston (1967); Soulè (1956); PRR DEB-RRA-1177 (1954)

1: 14N.8E.5.424
2: Cash Entry Mine
3: SE1/4 5 T14N R8E 35°28'02"N 106°6'35"W
4: San Pedro 1 NE 7-1/2, Madrid 15
5: Cerrillos district
6: Cu, Ag, Pb, Au, Zn, U
7: 450-ft shaft, pits
8: no uranium production
10: Tertiary monzonite porphyry
11: vein trending N40°E in hornblende monzonite-porphyry, radioactivity associated with copper-turquoise deposits
12: 0.001% U (Griggs, 1953)
13: Hydrothermal-vein
14: mine map by Disbrow and Stoll (1957)
15: Disbrow and Stoll (1957, p. 59); Griggs (1953, #17); PRR DEB-RRA-1185 (1954)

1: 15N.8E.19.422
2: Evelyn Copper Mine
3: SE1/4 19 T15N R8E 35°30'40"N 106°7'35"W
4: Tetilla Peak 7-1/2
5: Cerrillos District
6: Cu, Au, Ag, Pb, Zn, U
7: 247-ft shaft, pits, cuts, adits
8: no uranium production
10: Tertiary monzonite
11: seven slightly radioactive veins trending N30°-60°E in augite-biotite monzonite
12: 0.0007% U (Griggs, 1953)
13: Hydrothermal-vein
15: Disbrow and Stoll (1957, p. 51); Griggs (1953, #21)

1: 20N.9E.23.341
2: Gilliland Claims
3: SW1/4 SE1/4 23 T20N R9E 35°56'42"N 105°57'16"W
4: Cundiyo 7-1/2 Elevation 6,200 ft
5: Espanola area
6: U
7: blasted outcrop face
8: no production
9: 24 times background (Reid and others, 1980b)
10: Tertiary Santa Fe Group-Tesuque Formation
11: radioactive mineral in buff-colored sandstone with opalitic quartz
12: uraninite(?)
13: Sandstone
14: examined by Reid and others (1980b)
15: Reid and others (1980b, #2); Chenoweth (1979); U.S. Atcmic Energy Commission (1970, p. 162); Collins and Freeland (1956)

1: 15N.7E.8.230
2: Hiser-Moore #1
3: E1/2 8 T15N R7E (unsurveyed) 35°32'35"N 106°13'5"W
4: Tetilla Peak 7-1/2
5: La Bajada district
6: U
7: pit-hole blasted into canyon wall
8: no production
10: Miocene Cienequilla Lumburgite, Espinaso Formation
11: uranium minerals impregnates limonite-stained fracture surfaces
12: 0.07-0.15% U_3O_8, autunite (Hilpert, 1969)
13: Hydrothermal-vein
14: examined by Reid and others (1980b)
15: Green and others (1980c, #9); U.S. Atomic Energy Commission (1970, p. 165); Hilpert (1969, p. 53); PRR DEB-RRA-1425 (1954) plus 2 supplements

1: 15N.11E.23.100
2: Kennedy Mine
3: NW1/4 23 T15N R11E
4: Pecos 7-1/2
5: Glorieta district
6: Fe, U
7: open cuts, shafts
8: no uranium production, iron ore produced
10: Permian San Andres Formation
11: slightly radioactive iron replacement deposit
12: 0.0005% U (Griggs, 1953)
13: Contact-metasmatic
15; Elston (1967); Griggs (1953, #24); Kelley, V.C. (1949)

1: 16N.11E.14
2: Kunklin(?) deposit (Unknown)
3: 14 T16N R11E
4: Pecos 7-1/2
5: Glorieta district
6: Cu, U, Ag
7: 2 adits (2Ø-ft, 8-ft)
8: no uranium production
1Ø: Pennsylvanian-Permian Sangre de Cristo Formation
11: 5-ft thick, 5Ø-ft wide radioactive sandstone copepr deposit
12: Ø.ØØØ4% U (Griggs, 1953)
13: Sandstone
14: mine map by Soulè (1956, p. 35)
15: Elston (1967); Soulè (1956); Griggs (1953, #23)

1: 2ØN.9E.19.2ØØ
2: J.C. Roybal (Rogers Claims?)
3: NE1/4 19 T2ØN R9E
4: Espanola 7-1/2, Espanola 15
5: Espanola area
6: U
8: no production
1Ø: Tertiary Santa Fe Group-Tesuque Formation
13: Sandstone
14: incorrect location given in Green and others (198Øc)
15: Green and others (198Øc, #334); Collins and Freeland (1956); Hilpert and Corey (1955)

1: 15N.7E.9.112
2: La Bajada (Lone Star)
3: NW1/4 9 T15N R7E (unsurveyed) 35°32'45"N 106°12'30"W
4: Tetilla Peak 7-1/2 Elevation 5,580 ft
5: La Bajada district
6: U, Ag, Cu, Fe, Ni, Co, Zn, Mo, Sn
7: 125-ft by 425-ft, 50-ft deep open pit (flooded), stripped over underground workings (200-ft shaft; 125 ft decline; 100-ft shaft; 150-ft adit originally)
8: 9,649 tons ore yielding 27,111 lbs U_3O_8 (0.14% U_3O_8), 42 lbs V_2O_5
9: bkgd 50 cps; high on dumps 500-1,500 cps
10: Miocene Cienequilla Lumburgite, Espinaso Formation
11: uranium associated with organic material in fault zone about 40-ft wide along with sulfide minerals
12: brannerite reported; 0.09% U_3O_8, 1.51% Cu (NMBMMR chem lab, 11/30/81, #1533); 19 ppm Th (NMBMMR XRF lab, 2/83, #1533)
13: Hydrothermal-vein
14: also produced 8 tons of 24-oz silver and 2,423 lbs copper; map and cross section by Chenoweth (1979); Lone Star Mining Corp. held claims until 1979 when USBLM suspended action on the lease renewal until a new Environmental Analysis Report could be prepared; reserves are probably present; mined 1956-1966
15: FN 5/28/81; Anderson, O.J. (1980); Green and others (1980c, #10); Chenoweth (1979); Hai-Vassilou and Kerr (1972); Elston (1967); Lustig (1958, 1959); PRR DEB-RRA-799 (1953); NMBMMR files (1979); USBM files (1957); USAEC files (1966); MILS (1981); CRIB (1976)

1: 20N.10E.7.132
2: Marion (Shaw No. 2)
3: C N1/2 7 T20N R10E 35°58'55"N 105°55'5"W
4: Cundiyo 7-1/2 Elevation 6,600 ft
5: Nambe district
6: Cu, U
7: bulldozer cuts
8: no uranium production
10: Precambrian biotite schist
13: Hydrothermal-vein
15: Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 158-159); MILS (1981)

1: 13N.8E.3
2: Ortiz Mine Grant (Potter)
3: 3 T13N8E 35°23'12"N 106°04'40"W
4: San Pedro 1 NE 7-1/2 Madrid 15
5: Cerrillos district
6: U
7: no workings
8: no production
10: Tertiary Galisteo Formation
13: Sandstone
15: Green and others (1980c, #333); PRR DEB-RRA-1411 (1954)

1: 14N.8E.35
2: Ortiz Mine Grant
3: 35 T14N R8E 35°24'00"N 106°30"W
4: Madrid 15, San Pedro 1 NE 7-1/2
5: Cerrillos district
6: Au, W, U
7: no workings
8: no uranium production
10: Tertiary monzonite dike in Galisteo Formation
12: 0.0024-0.0047% U_3O_8 (PRR)
13: Orthomagmatic
14: examined by Green and others (1980c)
15: Green and others (1980c, #266); U.S. Atomic Energy Commission (1970, p. 163-164); Hilpert and Corey (1955); PRR DEB-RRA-1411 (1954)

1: 20N.9E.17.144
2: Rogers
3: NW1/4 17 T20N R9E 35°57'55"N 106°00'50"W
4: Espanola 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
13: Sandstone
15: Green and others (1980c, #1); U.S. Atomic Energy Commission (1970, p. 166); Hilpert (1969, p. 53); PRR ASO-140 (1954)

1: 20N.9E.17.344
2: Rogers (Becky)
3: SW1/4 17 T20N R9E 35°57'30"N 106°00'50"W
4: Espanola 7-1/2 Elevation 5,805 ft
5: Espanola area
6: U
7: several bulldozer cuts
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: mineralized fracture zone in sandstone
12: 0.019-0.32% U_3O_8
13: Sandstone/Hydrothermal-vein
15: Anderson, O.J. (1980); Green and others (1980c, #3); Chenoweth (1979); Elevatorski (1979); U.S. Atomic Energy Commission (1970, p. 160); Hilpert (1969, p. 53); Collins and Freeland (1956); PRR ASO-140 (1954)

1: 20N.9E.20.123
2: Rogers (Unknown)
3: NW1/4 20 T20N R9E 35°57'20"N 106°00'50"W
4: Espanola 7-1/2
5: Espanola area
6: U
7: pits
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
11: mineralized fracture zone in sandstone
13: Sandstone
15: Green and others (1980c, #2); Chenoweth (1979); Elevatorski (1970); U.S. Atomic Energy Commission (1970, p. 166); Hilpert (1969, p. 53); Collins and Freeland (1956); PRR ASO-140 (1954)

1: 20N.9E.20.144
2: Rogers
3: C 20 T20N R9E
4: Espanola 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group-Tesuque Formation
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 166); Hilpert (1969, p. 54); Collins and Freeland (1956); PRR ASO-140 (1956)

1: 2ØN.9E.2Ø.322
2: Rogers
3: S1/2 2Ø T2ØN R9E 35°56'35"N 1Ø6°ØØ'5Ø"W
4: Espanola 7-1/2
5: Espanola area
6: U
7: no workings
8: no production
1Ø: Tertiary Santa Fe Group-Tesuque Formation
12: schroeckingerite reported
13: Sandstone
15: Green and others (198Øc, #4); U.S. Atomic Energy Commission (197Ø, p. 166); Hilpert (1969, p. 54); Collins and Freeland (1956); PRR ASO-14Ø (1954); MILS (1981)

1: 2ØN.9E.29.144
2: San Jose Claims (San Jose #13, Rogers, J.C. Roybal, Unknown)
3: NW1/4 29 T2ØN R9E 35°56'1Ø"N 1Ø6°ØØ'4Ø"W
4: Cundiyo 7-1/2
5: Espanola area
6: U
7: Ø-8 ft deep pit
8: 12 tons ore yielding 12 lbs U_3O_8 (Ø.Ø5%)
1Ø: Tertiary Santa Fe Group-Tesuque Formation
11: 1-ft thick horizon
12: carnotite, schroeckingerite, meta-autunite; Ø.27% U_3O_8 (Hilpert, 1969)
13: Sandstone
14: mined 1957 by J.C. Roybal
15: Green and others (198Øc, #5); Chenoweth (1979); U.S. Atomic Energy Commission (197Ø, p. 166); Hilpert (1969, p. 54); Collins and Freeland (1956); PRR ASO-14Ø (1954); USAEC files (196Ø); MILS (1981)

1: 2ØN.1ØE.7.123
2: Shaw No. 2 (Hubbard Prospect, Salmar)
3: NW1/4 7 T2ØN R1ØE 35°58'59"N 1Ø5°55'18"W
4: Cundiyo 7-1/2 Elevation 6,32Ø ft
5: Nambe district
6: Cu, U
7: bulldozer cuts, 6-1/2 ft adit, 25-ft adit
8: no production
9: 3Ø times background (Reid and others, 198Øb)
1Ø: Precambrian biotite schist intruded by granite dikes
11: radioactive breccia zone
12: Ø.44% U_3O_8 (PRR)
13: Hydrothermal-vein
14: examined by Reid and others (198Øb)
15: Reid and others (198Øb, #1); U.S. Atomic Energy Commission (197Ø, p. 156); MILS (1981)

1: 15N.8E.5.411
2: Turquoise Mine (Mt. Chalchihuitl)
3: 5 T15N R8E 35°28'8"N 106°6'40"W
4: San Pedro 1 NE 7-1/2, Madrid 15
5: Cerrillos district
6: Cu, turquoise, U
7: pits, shafts
8: no uranium production
10: Tertiary monzonite, Espinaso Formation
12: 0.0009% U (Griggs, 1953)
13: Hydrothermal-vein
15: Disbrow and Stoll (1957); Griggs (1953, #16)

1: 15N.8E.21
2: Turquoise Hill Mine
3: S1/2 21 T15N R8E 35°30'0"N 106°5'40"W
4: Turquoise Hill 7-1/2 Elevation 6,280 ft
5: Cerrillos district-Ortiz Mountains
6: Cu, U (occurrence)
7: small pits, shafts, adits
8: no uranium production
9: bkgd 50 cps, high 100 cps
10: Tertiary latite intrusive
11: radioactive zones along fractures and faults in altered and silicified latite, associated with copper minerals
12: 0.0085% U (Griggs, 1953)
13: Hydrothermal-vein
15: FN 6/15/82; Disbrow and Stoll (1957); Griggs (1953, #18); PRR DEB-RRA-1178 (1954)

1: 15N.8E.20.144
2: Unknown-La Cienega (Marshal Bonanza Mine?)
3: 20 T15N R8E 35°30'50"N 106°6'55"W
4: Turquoise Hill 7-1/2
5: Cerrillos district-Ortiz Mountains
6: U(?), Pb, Cu
7: 2 shafts, 2 pits
8: no uranium production
10: Oligocene granite and tuff
11: lead-copper veins slightly radioactive
13: Hydrothermal-vein
14: examined by Green and others (1980c)
15: Green and others (1980c, #265, 269, 270); Hilpert and Corey (1955)

Alphabetical (40 occurrences)

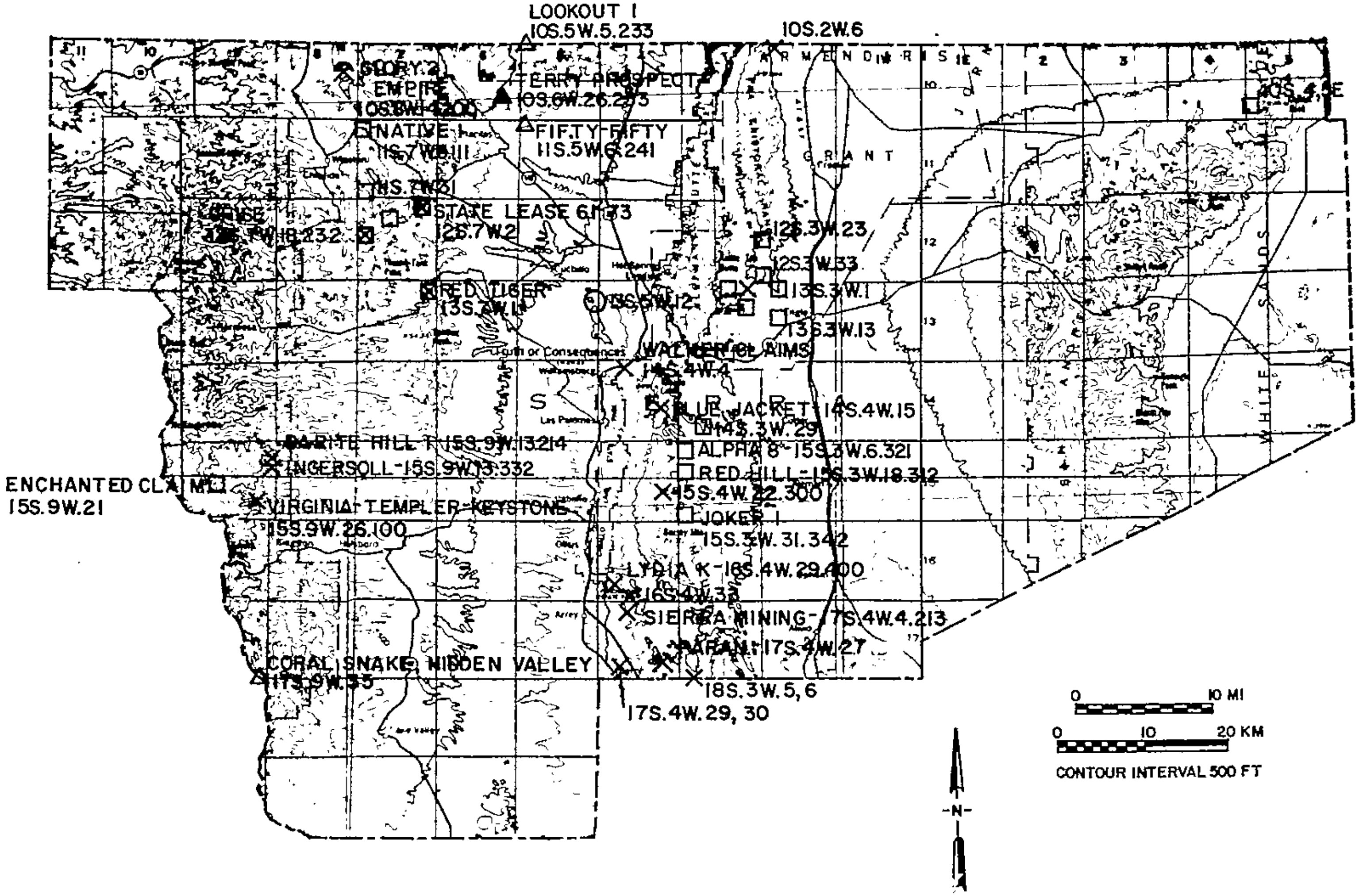
Alpha #8 Claim	15S.3W.6.321
Barite Hill No. 1	15S.9W.13.214
Blue Jacket 1 and 2	14S.4W.15
Chise	12S.7W.18.232
Coral Snake, Hidden Valley	17S.9W.35
Enchanted Claims	15S.9W.21
Fifty-fifty	11S.5W.6.241
Glory No. 2 and Empire Claims	10S.8W.14.200
Good Luck No. 1	12S.7W.9
Granite Wash	15S.4W.22.300
Hot Rock No. 2, 4	17S.4W.29,30
Ingersoll	15S.9W.13.332
Joker #1	15S.3W.31.342
Lookout No. 1	10S.5W.5.233
Lydia K Mine	16S.4W.29.400
Mitchell Price Prospect	13S.5W.12
Mocking Bird Claims	10S.4,5E
Native No. 1	11S.7W.6.111
Paran	17S.4W.27
Red Hill Claims	15S.3W.18.312
Red Rock No. 1	16S.4W.33.214
Red Rock No. 3	16S.4W.33.200
Red Rock Claims	16S.4W.33.300
Red Tiger	13S.7W.1
Sherry No. 3	11S.7W.31
Sierra Mining	17S.4W.4.213
State Mining Lease 61-73	12S.7W.2
Terry Prospect	10S.6W.26.233
Treasure U. Co.	18S.3W.5,6
Unknown	10S.2W.6
Unknown	12S.3W.23
Unknown	12S.3W.33
Unknown	13S.3W.1
Unknown	13S.3W.3
Unknown	13S.3W.4
Unknown	13S.3W.10
Unknown	13S.3W.13
Unknown	14S.3W.29
Virginia-Templar-Keystone Mines	15S.9W.26.100
Walker Claims	14S.4W.4

Alias	Name	Number
Alamo Mining Co	Red Tiger	13S.7W.1
Bobby Johnson	Red Tiger	13S.7W.1
Caballo Mountains	Granite Wash	15S.4W.22.300
Dumm	Ingersoll	15S.9W.13.332
Ejis	Terry Prospect	10S.6W.26.233
Evans, Davis and Murray	Red Hill Claims	15S.3W.18.312
Hanosh	Terry Prospect	10S.6W.26.233
Hope-Midnight	Barite Hill No. 1	15S.9W.13.214
Kooma-Geay	Terry Prospect	10S.6W.26.233
Jan	Terry Prospect	10S.6W.26.233
Last Chance	Red Tiger	13S.7W.1
Lost Mine No. 2	Ingersoll	15S.9W.13.332
Marjery	Ingersoll	15S.9W.13.332
Mitchell-Price #1-8	Chise	12S.7W.18.232
Perry	Paran	17S.4W.27
Pitchblende #1-4	Terry Prospect	10S.6W.26.233
Plainview #6	Sierra Mining	17S.4W.4.213
Questa Blanca Canyon	Fifty-fifty	11S.5W.6.241
Red Hill	Alpha #8 Claim	15S.3W.6.321
Red Hill	Native No. 1	11S.7W.6.111
Trujillo Lease	Chise	12S.7W.18.232

Numerical

10S.2W.6	Unknown
10S.4,5E	Mockingbird Claims
10S.5W.5.233	Lookout No. 1
10S.6W.26.233	Terry Prospect
10S.8W.14.200	Glory No. 2 and Empire Claims
11S.5W.6.241	Fifty-fifty
11S.7W.6.111	Native No. 1
11S.7W.31	Sherry No. 3
12S.3W.23	Unknown
12S.3W.33	Unknown
12S.7W.2	State Mining Lease
12S.7W.9	Good Luck No. 1
12S.7W.18.232	Chise
13S.3W.1	Unknown
13S.3W.3	Unknown
13S.3W.4	Unknown
13S.3W.10	Unknown
13S.3W.13	Unknown
13S.5W.12	Mitchell Price Prospect
13S.7W.1	Red Tiger
14S.3W.29	Unknown
14S.4W.4	Walker Claims
14S.4W.15	Blue Jacket 1 and 2
15S.3W.6.321	Alpha #8 Claim
15S.3W.18.312	Red Hill Claims
15S.3W.31.342	Joker #1
15S.4W.22.300	Granite Wash
15S.9W.13.214	Barite Hill No. 1
15S.9W.13.332	Ingersoll
15S.9W.21	Enchantment Claims
15S.9W.26.100	Virginia-Templar-Keystone Mines
16S.4W.29.400	Lydia K Mine
16S.4W.33.200	Red Rock
16S.4W.33.214	Red Rock #1
16S.4W.33.300	Red Rock Claims
17S.4W.4.213	Sierra Mining
17S.4W.27	Paran
17S.4W.29,30	Hot Rock No. 2,4
17S.9W.35	Coral Snake, Hidden Valley
18S.3W.5,6	Treasure U. Co.

FIGURE 1-28– RADIOACTIVE OCCURRENCES IN SIERRIA COUNTY, NEW MEXICO



1: 15S.3W.6.321
2: Alpha #8 Claim (Red Hill)
3: 6 T15S R3W 33°1'45"N 107°11'30"W
4: Engle 15 Elevation 5,120 ft
5: Caballo Mountains
6: U, Cu, barite
7: pits, shaft
8: no uranium production
9: bkgd 30 cps, high 70 cps
10: Permian Abo Formation
11: radioactive copper oxides and barite veins
12: 0.01% U_3O_8 (U.S. Atomic Energy Commission, 1970)
13: Sandstone
15: FN 7/10/80; U.S. Atomic Energy Commission (1970, p. 176); PRR DEB-RRA-543 (1953)

1: 15S.9W.13.214
2: Barite Hill No. 1 (Hope-Midnight)
3: NE1/4 13 T15S R9W (unsurveyed) 32°59'57"N 107°42'57"W
4: Apache Peak 7-1/2 Elevation 6,760 ft, 6,800 ft
5: Kingston district-Black Range
6: Pb, Au, Ag, U(?), Cu, Zn
7: pits
8: no uranium production
10: Precambrian or Tertiary granite
13: Hydrothermal-vein
15: Hedlund (1977); Embree H. Hale, Jr., owner (PC, 6/18/81); MILS (1980); CRIB (1981)

1: 14S.4W.15
2: Blue Jacket 1 and 2
3: 15 T14S R4W
4: Engle 15
5: Caballo Mountains
6: fluorite, Pb, U, Cu
7: 130-ft shaft
8: no uranium production
10: Precambrian granite, Cambrian Bliss Formation
12: uranophane reported
13: Hydrothermal-vein
15: Templain and Dotterrer (1978, p. 4, #10); PRR DEB-RRA-1434 (1954)

1: 12S.7W.18.232
2: Chise (Trujillo Lease, No Name, Mitchell-Price #1-8)
3: NE1/4 18 T12S R7W 33°16'49"N 107°35'33"W
4: Chise 7-1/2 Elevation 5,760 ft
5: Cuchillo Negro district-Sierra Cuchillo
6: U, Cu
7: open cut, pit (50 ft deep)
8: 14 tons ore yielding 10 lbs U_3O_8 (0.04%); 9 lbs V_2O_5 (0.03%)
10: Permian Abo Formation
11: mineralized zone in fine-grained arkose
12: uraninite reported (USAEC files)
13: Sandstone
14: owner of Ladder Ranch is Art Evans; mined 1955 by P. Buell
15: Anderson, O.J. (1980); Berry and others (1980, #7); U.S. Atomic Energy Commission (1970, p. 182, 183); PRR DEB-P-4-1451 (1955); USAEC files (1960); CRIB (1976)

1: 17S.9W.35
2: Coral Snake, Hidden Valley
3: 35 T17S R9W (unsurveyed)
4: San Lorenzo 15
5: Black Range
6: U, fluorite(?)
7: pit
8: no production
10: Tertiary Kneeling Nun Tuff
11: radioactive ones in altered tuff possibly with fluorite veins
13: Volcanogenic
15: Hedlund (1977); U.S. Atomic Energy Commission (1970, p. 179); PRR ASO-108 (1956)

1: 15S.9W.21
2: Enchantment Claims
3: 21 T15S R9W (unsurveyed)
4: San Lorenzo 15, Hillsboro 15
5: Kingston district-Black Range
6: U
7: pits, drill hole
8: no production
10: Permian Abo Formation
11: ore roll in sandstone
13: Sandstone
15: U.S. Atomic Energy Commission (1970, p. 187); PRR E (1956)

1: 11S.5W.6.241
2: Fifty-fifty (Questa Blanca Canyon)
3: NE1/4 6 T11S R5W 33°23'11"N 107°23'16"W
4: Monticello 7-1/2 Elevation 5,370 ft
5: San Mateo Mountains district
6: Au, U
7: 2 shafts (6 ft and 45 ft deep)
8: no uranium production
10: Tertiary breccia dike intruding Pennsylvanian Madera Formation
11: radioactive breccia dike
13: Volcanogenic
14: Nogal Canyon cauldera
15: Berry and others (1980, #11)

1: 10S.8W.14.200
2: Glory No. 2 and Empire Claims
3: 11, 12, 13, 14 T10S R8W 33°26'45"N 107°37'30"W
4: Iron Mountain 7-1/2, Jarolosa Mountain 7-1/2 Elevation 7,500 ft
5: Iron Mountain district
6: Cu, U, V, Au, Ag
7: trenches, adits, drill holes
8: 10 tons ore yielding 38 lbs U_3O_8 (0.18%)
9: bkgd 50 cps, high 400 cps
10: Permian Abo Formation intruded by Tertiary rhyolite dikes
11: copper and uranium mineralization in silicified siltstones and rhyolite dikes
12: uranophane, beta-uranophane, uraninite reported (Boyd, 1957)
13: Hydrothermal-vein and Sandstone (tabular)
14: mined 1955-1956 by Empire Mining Co.; geologic map by Boyd (1957)
15: FN 7/6/80; Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 178); Boyd (1957); Jahns (1955); PRR DEB-P-4-1459 (1955); USAEC files (1960)

1: 12S.7W.9
2: Good Luck No. 1
3: 9 T12S R7W
4: Chise 7-1/2
5: Cuchillo Negro district-Sierra Cuchillo
6: Cu, U
7: pit
8: no uranium production
10: Permian Abo Formation
13: Sandstone
15: PRR DEB-P-4-1450 (1955)

1: 15S.4W.22.300
2: Granite Wash (Caballo Mountains)
3: SW1/4 22 T15S R4W
4: Upham 15
5: Caballo Mountains
6: U, fluorite, Cu
7: 2 shafts, trenches
8: no uranium production
10: Precambrian granite, Cambrian El Paso Formation
11: fluorite vein along fault zone
13: Vein-type in sedimentary rocks
15: Templain and Dotterrer (1978, p. 4, #16); DEB-RRA-1110 (1953)

1: 17S.4W.29,30
2: Hot Rock No. 2, 4
3: 29, 30 T17S R4W
4: Garfield 7-1/2
5: Caballo Mountains
6: U
7: pits
8: no production
10: Pennsylvanian Magdalena Group
11: radioactive silicified zones along fault zone
13: Vein-type in sedimentary rocks
15: Melancon (1952)

1: 15S.9W.13.332
2: Ingersoll (Marjery, Dumm, Lost Mine No. 2)
3: SW1/4 13 T15S R9W (unsurveyed) 32°53'20"N 107°45'00"W
4: Hillsboro 15, Apache Peak 7-1/2 Elevation 6,920 ft
5: Kingston district-Black Range
6: Ag, Cu, Pb, Zn, Au, U
7: 464-ft adit (100-ft raise), 100-ft level 60° 130 ft, 4 ft levels
8: producing Ag and Au, no uranium production
9: bkgd 50-100 cps; adit 200-250 cps; vein 300-400 cps; high 1,500 cps
10: Precambrian or Tertiary granite
11: radioactivity in shear zones and quartz veins trending N90°W, 68-70°N
12: galina, sphalerite; 0.003% U_3O_8; 1.5% Pb, 0.05% Cu, Trace Au, 1.5 oz/ton Ag (NMBMMR chem lab, 3/17/83, #3291)
13: Hydrothermal-vein
14: owned and operated by E.H. Hale, Jr., PO Box 445, Hillsboro (88042), within the Emory cauldron
15: FN 6/18/81; Berry and others (1980, #4); Hedlund (1977); Elston and others (1975); Harley (1934); PRR DEB-P-4-1454 (1955); E.H. Hale, Jr. (PC, 6/18/81); MILS (1980); CRIB (1981)

1: 15S.3W.31.342
2: Joker #1
3: 30, 31 T15S R3W 33°2'20"N 107°11'30"W
4: Engle 15
5: Caballo Mountains
6: U, Cu
7: pits, drill holes
8: no production
9: bkgd 10-20 cps, high 30 cps
10: Permian Abo Formation
13: Sandstone
15: FN 7/10/80; U.S. Atomic Energy Commission (1970, p. 186);
PRR F (1955)

1: 10S.5W.5.233
2: Lookout No. 1
3: C 5 T10S R5W 33°28'18"N 107°22'43"W
4: Monticello 7-1/2 Elevation 6,300 ft
5: San Mateo Mountains district
6: Au, U
7: 3 adits, 1 shaft, pits
8: no uranium production
10: Tertiary volcanics
13: Volcangenic
14: Nogal Canyon cauldera
15: PRR DEB-RRA-1157 (1954)

1: 16S.4W.29.400
2: Lydia K Mine
3: SW1/4 29 T16S R4W 32°52'50"N 107°15'36"W
4: Caballo 7-1/2
5: Caballo district-Red Hills area
6: U, Pb, fluorite
7: shafts, pits, adit
8: no uranium production
9: bkgd 50 cps, high 130 cps
10: Precambrian granite
11: radioactive fluorite vein
13: Hydrothermal-vein
15: FN 7/9/80; McAnulty (1978); Staatz and others (1965);
Kelley, V.C., and Silver (1952); Harley (1934); PRR DEB-RR-451
(1952)

1: 13S.5W.12
2: Mitchell Price Prospect (#18)
3: N1/2 12 T13S R5W 35°11'40"N 107°18'25"W
4: Cuchillo 7-1/2
5: Hot Springs district-Mud Springs Mountains
6: U
7: 4x6x10 ft pit
8: no production
10: Mississippian Magdalena Formation
11: mineralized limestone bed
13: Limestone
14: Anderson (1980) could not locate any workings on 5/20/80
15: Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 177); PRR DEB-P-4-1451 (1955); CRIB (1976)

1: 10S.4,5E
2: Mocking Bird Claims
3: T10S R4 or 5E
4: Salinas Peak 15, Capitol Peak 15
5: Mocking Bird Gap district
6: U, Cu
7: open cut
8: no production
10: Permian Abo Formation
11: narrow vein-like zone of copper and uranium mineralization
12: 0.054% U_3O_8 (Gibson, 1952)
13: Sandstone/Hydrothermal-vein
14: White Sands Missile Range
15: Gibson (1952, p. 25)

1: 11S.7W.6,111
2: Native No. 1 (Red Hill)
3: 6 T11S R7W 33°22'57"N 107°36'3"W
4: Jaralosa Mountain 7-1/2
5: Cuchillo Negro district-Sierra Cuchillo
6: Cu, U
7: trenches, pit, 10-ft incline
8: no uranium production
10: Permian Abo Formation
11: uranium and copper minerals in 6-8 in seam with fossil log
12: 2,070 ppm U (Berry and others, 1980)
13: Sandstone
15: Berry and others (1980, #6); U.S. Atomic Energy Commission (1970, p. 181); PRR D (1954)

1: 17S.4W.27
2: Paran (Derry)
3: 27, 34 T17S R4W
4: Upham 15 Elevation 5,ØØØ ft
5: Caballo Mountains
6: U
7: 2 cuts - 1Ø ft deep
8: 7 tons ore yielding 9 lbs U_3O_8 (Ø.Ø7%); 1 lb V_2O_5 (Ø.Ø1%)
1Ø: Permian Abo Formation, Pennsylvanian Madera Formation
11: mineralized zones along Garfield fault, 1-2 ft thick
12: uranophane
13: Vein-type in sedimentary rocks
15: Anderson, O.J. (198Ø); Templain and Dotterrer (1978, p. 4, #13); U.S. Atomic Energy Commission (197Ø, p. 184, 191); USAEC files (196Ø); USBM files (1956)

1: 15S.3W.18.312
2: Red Hill Claims (Evans, Davis, and Murray)
3: S1/2 18 T15S R3W 33°Ø'5"N 1Ø7°11'4Ø"W
4: Engle 15
5: Caballo Mountains
6: U, Cu
7: pits
8: no production
9: bkgd 1Ø cps, high 35 cps
1Ø: Permian Abo Formation
11: mineralization along joint surfaces
13: Sandstone
15: FN 7/1Ø/8Ø; Templain and Dotterrer (1978, p. 4, #11); PRR DEB-RRA-1441 (1954); USAEC files (1959)

1: 16S.4W.33.214
2: Red Rock No. 1
3: NE1/4 33 T16S R4W 32°52'4Ø"N 1Ø7°15'17"W
4: Caballo 7-1/2
5: Caballo district-Red Hills area
6: U, Th, REE
7: pits, cuts (5Ø ft deep)
8: no production
9: bkgd 5Ø cps, high 5ØØ cps
1Ø: Precambrian syenite bodies in granite
11: 2-3 ft thick radioactive red syenite body
12: Ø.44% Th, Ø.Ø3% U (Staatz and others, 1965); Ø.ØØ5% U_3O_8 (NMBMMR chem lab, 1Ø/29/8Ø, #9666); 1Ø4 ppm Th (NMBMMR XRF lab, 2/83, #9666)
13: Contact-metasomatic/Anatectic
15: FN 7/9/8Ø; Anderson, O.J. (198Ø); Condie and Budding (1979); Templain and Dotterrer (1978, p. 4, #1Ø); U.S. Atomic Energy Commission (197Ø, p. 175 189); Staatz and others (1965); Boyd and Wolfe (1953); Kelley, V.C., and Silver (1952); Melancon (1952); PRR DAO-P4-1496 (1954); USAEC files (196Ø)

1: 16S.4W.33.200
2: Red Rock No. 3
3: NE1/4 33 T16S R4W 32°52'40"N 107°15'00"W
4: Garfield 7-1/2
5: Caballo district-Red Hills area
6: U
7: pits
8: no production
10: Cambrian Bliss Formation(?)
11: radioactive conglomeratic lenses
13: Sandstone
15: Melancon (1952)

1: 16S.4W.33.300
2: Red Rock Claims
3: S1/2 33 T16S R4W 32°52'15"N 107°15'28"W
4: Garfield 7-1/2
5: Caballo district-Red Hills area
6: U, Th
7: pits
8: no production
9: bkgd 50 cps, high 150 cps
10: Precambrian granite
11: radioactive syenite bodies
13: Contact-metasomatic/Anatectic
15: FN 7/8/80; Templain and Dotterrer (1978, p. 4, #12); Staatz and others (1965); PRR DEB-RRA-1441 (1954); USAEC files (1960)

1: 13S.7W.1
2: Red Tiger (Bobby Johnson, Last Chance, Alamo Mining Co.)
3: SE1/4 1 T13S R7W 33°12'5"N 107°30'58"W
4: Thumb Tank Peak 7-1/2 Elevation 5,340 ft
5: Cuchillo Negro district-Sierra Cuchillo
6: Cu, U
7: 0-10 ft deep pit, drill holes
8: 9 tons ore yielding 15 lbs U_3O_8 (0.08%)
10: Permian Abo Formation
11: 1/2-2 ft thick mineralized zone
12: beta-uranophane (USAEC files)
13: Sandstone
14: Ladder Ranch - Art Evans; mined 1957 by Alamo Mining and Exploration Co.
15: Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 188); PRR DAO-P-4-1495 (1956); USAEC files (1960)

1: 11S.7W.31
2: Sherry No. 3
3: 31 T11S R7W
4: Chise 7-1/2
5: Cuchillo Negro district-Sierra Cuchillo
6: Cu, U
7: pit
8: no uranium production
10: Permian Abo Formation
13: Sandstone
15: PRR DEB-P-4-1450 (1955)

1: 17S.4W.4.213
2: Sierra Mining (Plainview #6)
3: N1/2 4 T17S R4W 32°51'45"N 107°15'25"W
4: Garfield 7-1/2
5: Caballo district-Red Hills area
6: U, Th
7: pits, adit
8: no production
9: bkgd 50 cps; high 3,800 cps
10: Precambrian granite
11: radioactive syenite bodies
12: 0.086% Th, 0.07% U (Staatz and others, 1965)
13: Contact-metasomatic/Anatectic
15: FN 7/9/80; Anderson, O.J. (1980); Condie and Budding (1979); Staatz and others (1965); Boyd and Wolfe (1953); Kelley, V.C., and Silver (1952); PRR DEB-RR-451 (1952) plus 1 supplement; USAEC files (1959)

1: 12S.7W.2
2: State Mining Lease 61-73
3: 2 T12S R7W
4: Chise 7-1/2
5: Cuchillo Negro district-Sierra Cuchillo
6: U, Cu
7: open pit(?)
8: 7 tons ore yielding 22 lbs U_3O_8 (0.16%); 11 lbs V_2O_5 (0.08%)
10: Permian Abo Formation
13: Sandstone
14: mined 1957 by Robert Auquer
15: USAEC files (1957)

1: 10S.6W.26.233
2: Terry Prospect (Pitchblende #1-4, Hanosh, Ejes, Kooma-Gray, Jan)
3: 26 T10S R6W 33°24'45"N 107°25'36"W
4: Monticello 7-1/2 Elevation 5,710 ft
5: San Mateo Mountains district
6: U, fluorite
7: renches, pits, caved shaft (50 ft deep), open pit
8: 127 tons yielding 359 lbs U_3O_8 (0.14%); 27 lbs V_2O_5
9: bkgd 40-100 cps, high 3,500 cps
10: Tertiary andesite sill intruding Pennsylvanian Madera Formation
11: uranophane and gumite with purple fluorite in jasperoid breccia
12: 0.05% U_3O_8 (NMBMMR chem lab, 10/20/80, #9606)
13: Volcanogenic
14: Nogal Canyon cauldrons; mined 1955 and 1960 by McDaniel Investment Co.; mining ceased because mill could not handle fluorite-uranium ore (I. Rapaport, PC, 1983)
15: FN 7/6/80; Berry and others (1980, #2); Anderson, O.J. (1980); Page and others (1956); Lovering (1956); Bassett (1954); Wolfe (1953, p. 5); Boyd and Wolfe (1953); PRR DEB-RRA-453 (1952); USAEC files (1960); MILS (1980); CRIB (1981)

1: 18S.3W.5,6
2: Treasure U. Co.
3: 5,6 T18S R3W; 31 T17S R3W
4: Upham 15
5:
6: U
7:
8: no production
10: Pennsylvanian Magdalena Group
11: radioactive zone in limestone along Woolter fault (Garfield fault system)
12: yellow uranium minerals
13: Vein-type in sedimentary rocks
15: U.S. Atomic Energy Commission (1970, p. 180); PRR unnumbered (1958)

1: 10S.2W.6
2: Unknown
3: 6 T10S R2W
4: Lava 7-1/2
5: Fra Cristobal Mountains
6: U, Cu
7:
8: no production
10: Permian Abo Formation
11: mineralized fault zone
13: Vein-type in sedimentary rocks
15: Templain and Dotterer (1978, p. 4, #1)

1: 12S.3W.23
2: Unknown
3: 23 T12S R3W
4: Crocker 7-1/2
5: Fra Cristobal Mountains
6: U
7:
8: no production
10: Cretaceous Mesaverde Formation
11: mineralized coarse-grained sandstone and shale
13: Sandstone
15: Templain and Dotterrer (1978, p. 4, #2)

1: 12S.3W.33
2: Unknown
3: 33 T12S R3W
4: Engle 15
5: Fra Cristobal Mountains
6: U
7:
8: no production
10: Cretaceous McRae Formation-Jose Creek Member
11: mineralized siltstone
12: 0.02% U_3O_8
13: Sandstone
15: Templain and Dotterrer (1978, p. 4, #3)

1: 13S.3W.1
2: Unknown
3: 1 T13S R3W
4: Engle 15
5: Caballo Mountains
6: U
7:
8: no production
10: Tertiary McRae Formation-Hall Lake Member
11: mineralized sandstone and siltstone
12: 0.02% U_3O_8
13: Sandstone
15: Templain and Dotterrer (1978, p. 4, #7)

1: 13S.3W.3
2: Unknown
3: 3 T13S R3W
4: Elephant Butte 7-1/2 Engle 15
5: Caballo Mountains
6: U
7:
8: no production
1Ø: Tertiary McRae Formation-Hall Lake Member
11: mineralized fault zone
12: trace U_3O_8
13: Vein-type in sedimentary rocks
15: Templain and Dotterr (1978, p. 4, #5)

1: 13S.3W.4
2: Unknown
3: 4 T13S R3W
4: Elephant Butte 7-1/2 Engle 15
5: Caballo Mountains
6: U
7:
8: no production
1Ø: Cretaceous Mesaverde Formation
11: mineralized lenticular channel sandstone
13: Sandstone
15: Templain and Dotterrer (1978, p. 4, #4)

1: 13S.3W.1Ø
2: Unknown
3: 1Ø T13S R3W
4: Elephant Butte 7-1/2 Engle 15
5: Caballo Mountains
6: U
7:
8: no production
1Ø: Cretaceous-Tertiary McRae Formation-Jose Creek and Hall Lake Members
11: mineralized fault zone
12: trace U_3O_8
13: Vein-type in sedimentary rocks
15: Templain and Dotterrer (1978, p. 4, #6)

1: 13S.3W.13
2: Unknown
3: 13 T13S R3W
4: Engle 15
5: Caballo Mountains
6: U
7:
8: no production
10: Cretaceous McRae Formation-Jose Creek Member
11: mineralized sandstone, siltstone, and mudstone
13: Sandstone
15: Templain and Dotterrer (1978, p. 4, #8)

1: 14S.3W.29
2: Unknown
3: 29 T14S R3W
4: Engle 15
5: Caballo Mountains
6: U
7: pits, drill holes(?)
8: no production
9: bkgd 20 cps; high 40 cps
10: Cretaceous Dakota SAndstone
11: radioactive silty shale
13: Sandstone/Shale
15: FN 7/10/80; Templain and Dotterrer (1978, p. 15); PRR DEB-RRA-1140 (1953)

1: 15S.9W.26.100
2: Virginia-Templar-Keystone Mines
3: NE1/4 26 T15S R9W (unsurveyed) 32°58'50"N 107°44'00"W
4: Hillsboro 15 Elevation 7,000 ft
5: Kingston district-Black Range
6: Pb, Au, Ag, Zn, U(?)
7: 120 ft shaft or incline, 2 shafts
8: silver production, no uranium production
10: Precambrian or Tertiary granite, Paleozoic limestones
11: 4-5 ft vein striking due north
12: radioactive ilmenite found in float material (Bauer, 1950)
13: Hydrothermal-vein
14: within Emory cauldron
15: Hedlund (1977); Bauer (1950); Harley (1934); PRR D-687 (1953); CRIB (1981)

1: 14S.4W.4
2: Walker Claims
3: 4 T14S R4W
4: Williamsburg 7-1/2
5: Caballo Mountains
6: U
7:
8: no production
1Ø: Precambrian granite-siliceous dike
11: mineralized shear zone
12: brannerite, Ø.2Ø% U_3O_8
13: Hydrothermal-vein
15: Templain and Dotterrer (1978, p. 4, #9); U.S. Atomic Energy Commission (197Ø, p. 19Ø); USAEC files (196Ø)

Alphabetical (85 occurrences)

Alamito Canyon prospect	3N.2W.32.123
Alamosa Creek Valley	1N.5W.8
Alamosa Creek Valley	1N.5W.16
Anomaly #5	1N.5W.7.133
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Beall Claims	1N.6W.26
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Carter-Tolliver-Cook Claims	2S.1W.6,7
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Hust-McDonald-Brown	1N.6W.24.2ØØ
Jeter Mine	3N.2W.35.233
Juan Torres	2N.2W.18.422
King	1N.4W.4
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Little Davie	2S.2E.35.243
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Lucky Don	2S.2E.35.223
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Marie Prospect	1S.2E.1
Mill Site	2N.5E.4.214
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Parker Ranch	2N.4E.21
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Polvadera Mountain Claim-Four Jokers	1S.1W.19
Rayo Hills	1N.4E.4,9
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San Acacia Copper Mine	1S.2W.2.211
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San Lorenzo Canyon	1S.1W.18.132
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Silver Creek area	1N.2W.15.1ØØ
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Silver Hill Prospect	2S.4W.19.114
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Taylor Prospect	9S.7W.1Ø
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Unknown-San Acacia	1N.1W.21
Unknown-San Acacia	1N.1W.28
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Unknown	1N.6W.35
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Unknown	1S.6W.14
Unknown	1S.6W.23
Unknown-Scholle	2N.5E.4.314
Unknown-Tajo Granite	3S.1E.11.111
Unknown-Tajo Granite	3S.1E.14.232
Unknown-Tajo Granite	3S.1E.14.441
Unknown-Carthage	4S.3E.5.23Ø
Unknown-Carthage	4S.3E.6.332
Unknown	5S.1W.21
Unknown	5S.6E.16
Unknown	7S.1E.18.3ØØ
Unknown	7S.1W.24.4ØØ
Vicks Peak	9S.5W.11.4ØØ
Vulcan Claims	2S.1W.7.123
White Mule Canyon	7S.5W.27.4ØØ

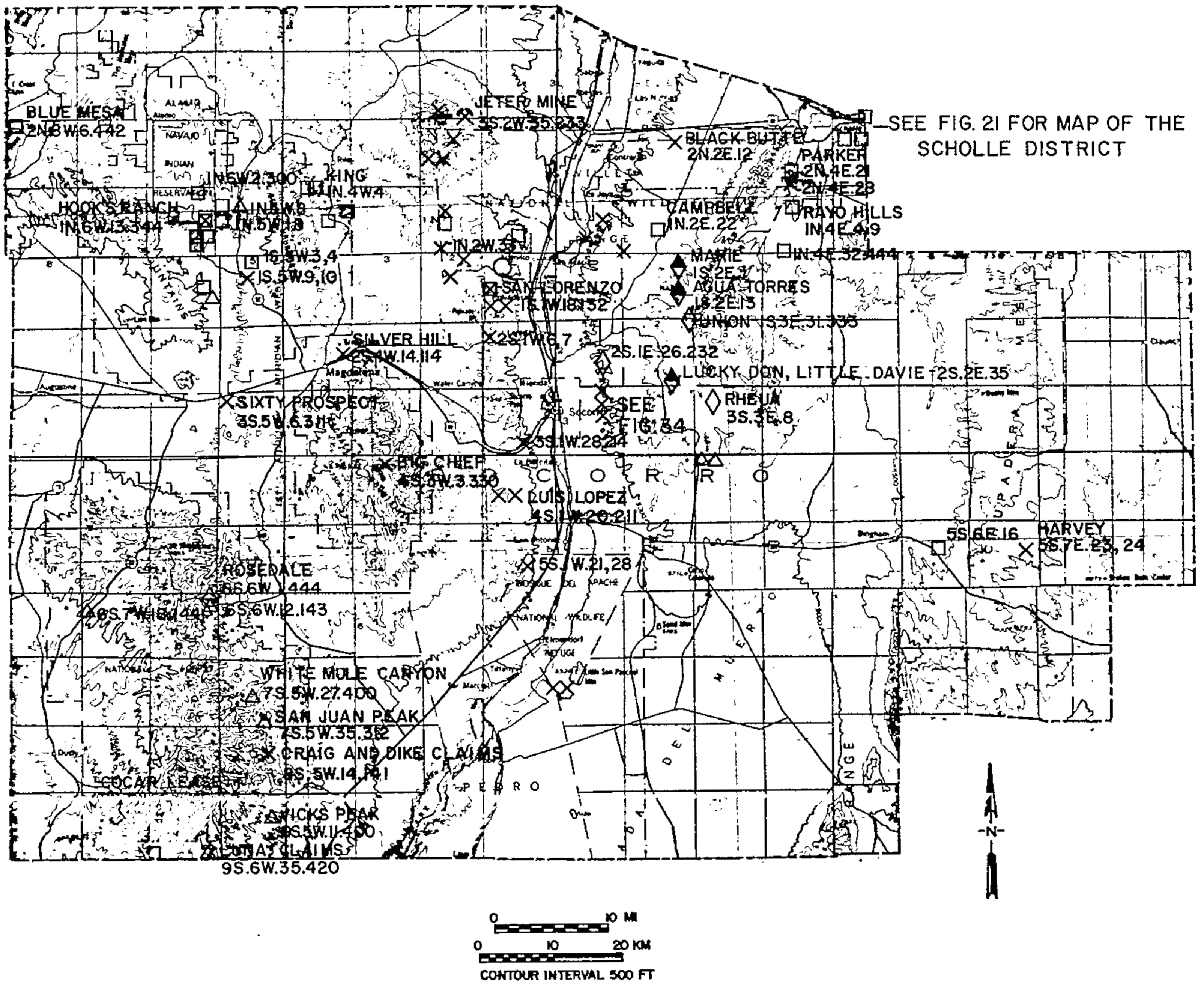
Alias	Name	Number
Air Anomalies #2, 3	Hogsett, Hust, Henderson Claim #1-4	1N.6W.24.121
Airbourne Anomaly #4	Hook Ranch Deposit	1N.6W.13.344
Antonio Sanchez Ranch Claim	Rayo Hills	1N.4E.4,9
Apache Warm Springs	Cocar Lease	9S.7W.5
Big Texas Mining Co.	Hook Ranch Deposit	1N.6W.13.344
Bonanza #1	Lucky Don	2S.2E.35.223
Cal K Claims	Big Chief Group	4S.3W.3.33Ø
Cambell Prospect	Granite Well Group	2N.2W.1Ø
Cambell Prospect	Rule Prospect	2N.2W.15
T.D. Campbell	Copper Prospect	1N.2W.33
T.D. Campbell	Marie Prospect	1S.2E.1
Charley #3	Jeter Mine	3N.2W.35.233
Cibola #1-2	Marie Prospect	1S.2E.1
Copper Belt Silver and Mining Co.	Silver Hill Propsect	2S.4W.19.114
Don Kilgore	Big Chief	4S.3W.3.33Ø
Duke	Minas del Chupadera	2S.1E.26.232
Dutchess	Minas del Chupadera	2S.1E.26.232
Gonzales	Minas del Chupadera	2S.1E.26.232
Fabian Gonzales	Gonzales	3S.1E.2.241
Hattie #2	Jeter Mine	3N.2W.35.233
Holly Uranium Co.	Lucky Don	2S.2E.35.223
Hook Ranch	Unknown	1N.5W.7
Hook Ranch	Hogsett, Hust, Henderson Claim #1-4	1N.6W.24.121
Hook Ranch	Beall Claims	1N.6W.26
Hook Ranch	Unknown	1S.6W.14
Hook Ranch	Unknown	1S.6W.23
Hot Spot	Hot Shot Mine	1N.5W.18.114
Jackpot	Carter-Tolliver-Cook Claims	2S.1W.6,7
Jaralosa	Hook Ranch Deposit	1N.6W.13.344
Jaralosa	Hogsett, Hust, Henderson Claim #1-4	1N.6W.24.121
Jerome Mine	San Lorenzo #1	1S.1W.18.132
Jeter & Hattie	Jeter Mine	3N.2W.35.233
La Questa	Luna Claims	9S.6W.35.42Ø
Locality #27	Rayo Hills	1N.4E.4,9
Luciel Claims	Disappointment #3	1N.4W.13.1ØØ
Malcomb-Reeves Group	Craig and Dike Claims	8S.5W.14.141
Maria #1	Marie Prospect	1S.2E.1
Mary Ball #1	Marie Prospect	1S.2E.1
May #1	Hook Ranch Deposit	1N.6W.13.344
Monticello Box	Cocar Lease	9S.7W.5
Rayborn Prospect	Blue Mesa #1	2N.8W.6.442
Riley Area	Luciel Claims	1N.4W.15.124
Section 13	Hook Ranch Deposit	1N.6W.13.344
Tajo ore pole	Unknown-Tajo Granite	3S.1E.11.111
Tajo #8	Unknown-Tajo Granite	3S.1E.14.232
Tajo #12	Unknown-Tajo Granite	3S.1E.14.441
Taylor Prospect	Cocar Lease	9S.7W.5
Texas #1-2	Minas del Chupadera	2S.1E.26.232
Timber Peak	Big Chief Group	4S.3W.3.33Ø
Unknown	Anomaly #5	1N.5W.7.133
Unknown	Hook Ranch Deposit	1N.6W.13.344
Unknown	Hust-McDonald-Brown	1N.6W.24.2ØØ
Unknown	San Acacia	1S.2W.2.221
Unknown	Council Rock	1S.5W.9,1Ø
Unknown	Black Butte	2N.2E.12
Unknown	Grefco Socorro Perlite	3S.1W.28.214
Unknown	Sixty Prospect	3S.5W.6.311

SOCORRO COUNTY (continued)

Numerical

1N.1E.23	Unknown-La Joyita	2N.2W.18.422	Juan Torres
1N.1W.21	Unknown-San Acacia	2N.4E.21	Parker Ranch
1N.1W.28	Unknown-San Acacia	2N.4E.28	Parker Ranch
1N.2E.31	Unknown-La Joyita	2N.5E.4.214	Mill Site
1N.2W.15.100	Silver Creek area	2N.5E.4.314	Unknown-Scholle
1N.2W.15.340	Silver Creek Prospect	2N.5E.5.234	Contreras Mining Co.
1N.2W.33	Copper Prospect	2N.8W.6.442	Blue Mesa #1
1N.4E.4,9	Rayo Hills	2S.1E.26.232	Minas del Chupadera
1N.4E.32.444	Unknown	2S.1W.6,7	Carter-Tolliver-Cook Claims
1N.4W.4	King	2S.1W.7.123	Vulcan Claims
1N.4W.13.100	Disappointment #3	2S.2E.35.223	Lucky Don
1N.4W.15.124	Luciel Claims #1-8	2S.2E.35.243	Little Davie
1N.5W.7	Unknown	2S.4W.19.114	Silver Hill Prospect
1N.5W.7.133	Anomaly #5	3N.2W.32.123	Alamito Canyon Prospect
1N.5W.8	Alamosa Creek Valley	3N.2W.35.233	Jeter Mine
1N.5W.18	Alamosa Creek Valley	3S.1E.2.241	Gonzales
1N.5W.18.114	Hot Shot Mine	3S.1E.11.111	Unknown-Tajo Granite
1S.1W.8.100	San Lorenzo Canyon	3S.1E.14.232	Unknown-Tajo Granite
1S.1W.18.132	San Lorenzo #1	3S.1E.14.441	Unknown-Tajo Granite
1S.1W.19	Polvadera Mountain Claim-Four Jokers	3S.1W.28.214	Grefco Socorro Perlite
1S.1W.29.124	Lemitar Carbonatites	3S.3E.8	Rheua No. 1
1S.1W.30.423	Lemitar Carbonatites	3S.5W.6.311	Sixty Prospect
1S.2E.1	Marie Prospect	4S.1W.19.120	Red Hills
1S.2E.13	Aqua Torres	4S.1W.20.211	Luis Lopez Mangnese
1S.2E.22	T.D. Campbell	4S.3E.5.230	Unknown-Carthage
1S.2W.2.122	Unknown-San Acacia	4S.3E.6.332	Unknown-Carthage
1S.2W.2.211	San Acacia Copper Mine	4S.3W.3.330	Big Chief Group
1S.2W.10.400	Shaft	5S.1W.21,28	Chupadera Carbonatites
1S.3E.31.333	Union #1	5S.1W.21	Unknown
1S.5W.3,4	Unknown	5S.6E.16	Unknown
1S.5W.9,10	Council Rock	5S.7E.23,24	Harvey Sheep and Cattle Co.
1N.6W.2.300	Nicolls-Higgens-Jones	6S.6W.1.441	Rose Dale Mine
1N.6W.13.344	Hook Ranch Deposit	6S.6W.12.143	Bell Mine
1N.6W.24.121	Hogsett, Hust, Henderson Claims #1-4	6S.7W.18.144	Bear Trap Canyon
1N.6W.24.200	Hust-McDonald-Brown	7S.1E.18.300	Unknown
1N.6W.26	Beall Claims	7S.1W.24.400	Unknown
1N.6W.26	Rusty Atom Claims #1-5	7S.5W.27.400	White Mule Canyon
1N.6W.35	Unknown	7S.5W.35.312	San Juan Peak
1S.6W.14	Unknown	8S.5W.14.141	Craig and Dike Claims
1S.6W.23	Unknown	9S.5W.11.400	Vicks Peak No. 1
2N.2E.12	Black Butte	9S.6W.35.420	Luna Claims
2N.2W.10	Granite Well Group	9S.7W.5	Cocar Lease
2N.2W.15	Rule Prospect	9S.7W.10	Taylor Prospect

FIGURE 1-29- RADIOACTIVE OCCURRENCES IN SOCORRO COUNTY, NEW MEXICO



1: 3N.2W.32.123
2: Alamito Canyon prospect
3: NW1/4 32 T3N R2W 34°26'46"N 107°04'30"W
4: Riley 15, Riley NE 7-1/2 Elevation 7,000 ft
5: Ladron Mountains district
6: U, Cu
7: 15-ft shaft
8: production, if any, unknown
9: no anomalous readings above background
10: Precambrian Torres Schist (argillaceous sandstone)
11: iron oxide gossan in schist, foliation N84°E/78°SE
12: 0.10% U, 0.07% Cu (Chamberlin and others, 1982)
13: Hydrothermal-vein(?)/Supergene
15: Chamberlin and others (1982, #LAD-64); Lodson (WC, 1982)

1: 1N.5W.8
2: Alamosa Creek Valley
3: 8 T1N R5W
4: Indian Spring Canyon 7-1/2
5: Abbey district-Bear Mountains
6: U, Cu
7:
8: no production
10: Tertiary volcanics
11: rhyolitic tuff
12: 0.001% U (Bachman and others, 1957, #215720)
13: Volcanogenic
15: Osburn, J.C. (1982); Bachman and others (1957, p. 22)

1: 1N.5W.18
2: Alamosa Creek Valley
3: 18 T1N R5W
4: Indian Spring Canyon 7-1/2
5: Abbey district-Bear Mountains
6: U
7: drill holes
8: no production
10: Eocene Baca Formation
11: white sandstone
12: 0.26% U, 0.10% V_2O_5 (Bachman and others, 1957, #215701)
13: Sandstone
15: Osburn, J.C. (1982); Bachman and others (1957, p. 22)

1: 1N.5W.7.133
2: Anomaly #5 (Unknown)
3: NW1/4 7 T1N R5W 34°19'30"N 107°24'30"W
4: Indian Spring Canyon 7-1/2
5: Abbey district-Bear Mountains
6: U
7:
8: no production
10: Cretaceous Crevasse Canyon Formation
12: 0.02% U (Hilpert, 1967)
13: Sandstone
15: Osburn, J.C. (1982); Hilpert (1969, p. 54); ED-R-1260 (1954)

1: 1S.2E.13
2: Aqua Torres
3: 13 T1S R2E (unsurveyed) 34°13'45"N 106°40'41"W
4: Sierra de la Cruz 7-1/2 Elevation 5,600 ft
5: Sevelleta Grant-Socorro Basin
6: U, V
7: 4 open cuts, 60 to 80 ft long
8: 149 tons ore yielding 325 lbs U_3O_8 (0.11%); 315 lbs V_2O_5
10: Pennsylvanian Madera Formation
11: mineralization along fractures in silicified breccia zone
in arkosic limestone
12: 581 ppm U, 160 ppm Th (Pierson and others, 1980)
13: Vein-type deposits in sedimentary rocks
14: mined 1955-1956, discovered in early 1955
15: Pierson and others (1981, #53); Hilpert (1969); USAEC files
(1960); USBLM files (1956); CRIB (1981)

1: 1N.6W.26
2: Beall Claims (Hook Ranch)
3: 26 T1N R6W
4: Indian Spring Canyon 7-1/2
5: Abbey district-Bear Mountains
6: U
7: pits
8: no production
10: Eocene Baca Formation
13: Sandstone
15: Osburn, J.C. (1982); U.S. Atomic Energy Commission (1970, p.
192)

1: 6S.7W.18.144
2: Bear Trap Canyon
3: NW1/4 18 T6S R7W 33°47'34"N 107°36'19"W
4: Bay Buck Peaks 7-1/2 Elevation 7,450 ft
5: San Mateo Mountains
6: U
7: no workings-outcrop
8: no production
9: bkgd 50 cps, high 150-200 cps
10: Tertiary Datil Group (volcanic agglomerates)
11: radioactive sediments between rhyolite flows
13: Volcanogenic
14: Mt. Whithington caldera
15: FN 8/29/81; Berry and others (1980, #8); Chapin and others (1979)

1: 6S.6W.12.143
2: Bell Mine
3: NW1/4 12 T6S R6W 33°48'10"N 107°25'10"W
4: Grassy Lookout 7-1/2 Elevation 7,400 ft
5: Rosedale district-San Mateo Mountains
6: Au, U
7: dogholes, adit
8: no uranium production
9: bkgd 80 cps, high 100-150 cps
10: Tertiary Potato Canyon rhyolite
11: radioactive gold veins in rhyolite
13: Volcanogenic
15: FN 6/29/80; Deal and Rhodes (1976); Lindgren and others (1910)

1: 4S.3W.3.330
2: Big Chief Group (C and K Claims, Timber Peak, Don Kilgore, South Magdalena Canyon)
3: SW1/4 3 T4S R3W (unsurveyed) 33°59'21"N 107°8'41"W
4: South Baldy 7-1/2 Elevation 8,520 ft
5: Water Canyon district
6: U, Fe, Au, Ag
7: 100-ft adit, caved drifts, caved shaft, 30-ft adit, pits
8: no uranium production reported in USAEC production reports; however, 15 tons ore stockpiled assayed 0.25% U_3O_8 and 80 tons ore stockpiled assayed 0.10% U_3O_8 (USAEC files, 1960; PRR)
10: Tertiary white rhyolite dikes intruding Hells Mesa Tuff
11: radioactive quartz veins within fault-fracture zones near rhyolite dikes
12: 621-1,035 ppm U (Berry and others, 1980); 0.007% U_3O_8 (Ellis, C.E. and Scott, 1982)
13: Hydrothermal-vein
14: mine maps by Ellis, C.E., and Scott (1982)
15: Ellis C.E. and Scott (1982); Anderson, O.J. (1980); Berry and others (1980, #5); Petty (1979); Lasky (1932); PRR unnumbered (1959); USAEC files (1960)

1: 2N.2E.12
2: Black Butte (Unknown)
3: 12 T2N R2E 34°24'30"N 106°40'50"W
4: Black Butte 7-1/2 Elevation 5,240 ft
5: Sevilleta National Wildlife Refuge-Socorro Basin
6: Mn, U (occurrence), road metal
7: open pit, trench
8: no uranium production, mined for road metal
9: bkgd 30-40 cps, high along fractures 100 cps, altered basalt-100-120 cps
10: Tertiary rhyolite tuff capped with basalt
12: yellow-green uranium minerals reported
13: Volcanogenic
15: FN 3/2/82; Pierson and others (1981, #54); PRR DEB-RRA-1412 (1954)

1: 2N.8W.6.442
2: Blue Mesa #1 (Rayborn prospect)
3: S1/2 6 T2N R8W 34°25'20"N 107°42'37"W
4: D-Cross Mountains 7-1/2 Elevation 7,550 ft
5: Datil Mountains district
6: U
7: open cut (100 yards long)
8: no production
10: Cretaceous Gallup Sandstone
11: associated with limonite and carbon trash
12: tyuyamonite
13: Sandstone
14: PRR and Pierson and others (1981) locate prospect in section 8 T2N R8W; however, description fits this location
15: Pierson and others (1981, #18, 19); Robinson (1980); U.S. Atomic Energy Commission (1970, p. 197); Hilpert (1969, p. 54); Collins (1957)

1: 1N.2E.22
2: T.D. Campbell
3: W1/2 22 T1N R2E (unsurveyed) 34°17'24"N 106°43'24"W
4: Becker SW 7-1/2
5: Sevelleta Grant-Socorro Basin
6: U
7: trenches(?)
8: no production
10: Triassic Chinle Formation
12: yellow-green uranium minerals
13: Sandstone
15: Pierson and others (1981, #51); U.S. Atomic Energy Commission (1970, p. 201); Hilpert (1969, p. 54)

1: 2S.1W.6,7
2: Carter-Tolliver-Cook Claims (Jackpot)
3: 6,7 T2S R1W 30,31 T1S R1W 34°14'52"N 106°59'4"W
4: Lemitar 7-1/2 Elevation 5,600 ft
5: Lemitar district
6: barite, U, fluorite, REE
7: numerous pits, adit, trenches
8: several carloads of barite, no uranium production
9: bkgd 100 cps; high 8,000 cps
10: Ordovician carbonatite dikes intruding Precambrian granites, gabbro, and metasediments
11: mineralization associated with dikes
12: 0.0019-0.08% U_3O_8 (McLemore, 1980a,b); up to 0.20% Th (Pierson and others, 1981)
13: Orthomagmatic
15: FN 1978-1980; McLemore (1982b; 1980a,b); Pierson and others (1981, #42, 43); Anderson, O.J. (1980); Hilpert (1969, p. 54); Anderson, E.C. (1955; 1952); PRR DEB-RRA-1410 (1954); USBM files (1955); MILS (1980)

1: 5S.1W.21,28
2: Chupadera carbonatites
3: 21,28 T5S R1W (unsurveyed) 35°51'45"N 106°57'30"W
4: Indian Well Wilderness 7-1/2, San Antonio 15 Elevation 5,200-5,600 ft
5: Pedro Armendaris Grant-Chupadera Mountains
6: U, REE, Cu
7: no development-outcrop
8: no production
9: bkgd 50 cps; average 100-150 cps; high 250 cps
10: Ordovician(?) carbonatites in Precambrian metasediments
11: radioactive carbonatite dikes
12: 0.0016, 0.0018% U_3O_8 (NMBMMR chem lab, 2/9/81, #33, 34); 27,119 ppm Th (NMBMMR XRF lab, 2/83, #33, 34)
13: Orthomagmatic
15: FN 10/7/80; McLemore (1983c); Kent (1982); USAEC files (1956)

1: 9S.7W.5
2: Cocar Lease (Monticello Box, Taylor Prospect, Apache Warm Springs)
3: 5 T9S R7W
4: Montoya Butte 7-1/2
5: Ojo Caliente No. 2 district-Sierra Cuchillo
6: U, Be, Cu, Pb, Zn, Ag, Bi
7: 100-ft shaft, adit
8: no uranium production recorded in AEC files; Hillard (1969) reports of one carload of ore in 1950's; however, no records of this shipment have been found.
10: Tertiary volcanics
13: Hydrothermal-vein/Volcanogenic
15: Correa (1980); U.S. Atomic Energy Commission (1970, p. 198); Hillard (1969); USBM (1963)

1: 2N.5E.5.234
2: Contreras Mining Co.
3: SW1/4 NE1/4 5 T2N R5E 34°25'40"N 106°26'25"W
4: Scholle 7-1/2 Elevation 5,830 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: 2 shallow pits, several dogholes
8: no uranium productin
9: bkgd 20-30 cps; pits 20-30 cps; doghole up to 130 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides and abundant organic debris in gray shale, siltstone and overlying sandstone
12: 0.009-0.013% U_3O_8 (Gibson, 1952)
13: Sandstone-tabular
15: FN 3/2/82; Pierson and others (1980, #57); Meyers (1977); Gibson (1952, p. 20)
16: figure 21

1: 1N.2W.33
2: Copper Prospect (T.D. Campbell)
3: 33 T1N R2W
4: Riley SE 7-1/2, Riley 15
5: Sevilleta Grant-Lemitar Mountains
6: U, Cu
7: shaft
8: no uranium production
10: Tertiary Popotosa Formation(?)
13: Hydrothermal-vein
15: PRR DEB-RRA-462 (1954); DEB-RR-462 (1953)

1: 1S.5W.9,10
2: Council Rock (Unknown)
3: 9,10 T1S R5W 34°11'10"N 107°28'00"W
4: Silver Hill 7-1/2
5: Magdalena district-Silver Hill area
6: U, Cu
7: pits
8: no production
10: Tertiary volcanics
12: 0.0035-0.0059% U_3O_8 (PRR)
13: Hydrothermal-vein
15: Pierson and others (1981, #24); PRR DEB-RRA-800 (1953) plus 1 supplement (1954)

1: 8S.5W.14.141
2: Craig and Dike Claims (Venture Group, Malcomb-Reeves Group)
3: NW1/4 14 T8S R5W 33°37'10"N 107°19'30"W
4: Steel Hill 7-1/2 Elevation 6,640 ft
5: Nogal-San Jose district-San Mateo Mountains
6: U, opal
7: pit
8: no production
9: bkgd 50 cps; high 500 cps
10: Tertiary Vicks Peak rhyolite
11: radioactive opal veins trending N10°W in rhyolite flow
12: 0.0016% U_3O_8 (NMBMMR chem lab, 2/9/81, #36); 18 ppm Th (NMBMMR XRF lab, 2/83, #36)
13: Volcanogenic
15: FN 6/29/80; Berry and others (1980, #1); Deal and Rhodes (1976); U.S. Atomic Energy Commission (1970, p. 199)

1: 1N.4W.13.100
2: Disappointment #3 (Luciel Claims)
3: NW1/4 13 T1N R4W 34°18'50"N 107°13'00"W
4: Riley SW 1/4, Riley 15
5: Riley area-Bear Mountains
6: U
7: no workings found on 11/12/82, drilling(?)
8: no production
9: no anomalous radioactivity on 11/12/82
10: Eocene Baca Formation
13: Sandstone
15: FN 11/12/82; Pierson and others (1981, #32); Collins and Smith (1956); PRR DAO-P4-1500 (1955)

1: 1N.4W.5
2: Fall Spring
3: SE1/4 5 T1N R4W
4: Mesa Cencerro 7-1/2
5: Riley area-Bear Mountains
6: U
7: no workings - drill holes
8: no production
9: no anomalous radioactivity found on 11/12/82
10: Eocene Baca Formation
13: Sandstone
15: FN 11/12/82; Chapin and others (1979)

1: 3S.1E.2.241
2: Gonzales (Fabian Gonzales)
3: C NE1/4 2 T3S R1E 34°4'50"N 106°48'25"W
4: Loma de las Cañas 7-1/2 Socorro 15' Elevation 5,120 ft
5: Chupadera district-Socorro basin
6: U, fluorite, barite, Pb, Zn
7: pits, 3 adits
8: no uranium production
9: bkgd 40-50 cps; high 300 cps
10: Precambrian Tajo grantie
11: radioactive hematitic altered zones around fractures in vicinity of fluorite-barite vein
13: Hydrothermal-vein
14: fluorite-barite vein is not radioactive
15: FN 7/3/80, 12/28/81; McAnulty (1979); Williams (1966); Collins and Mallory (1954, p. 11); Rothrock (1946); PRR DEB-A-533 (1950's)
16: figure 34

1: 2N.2W.10
2: Granite Well Group (Campbell Prospect)
3: 10 T2N R2W
4: Riley NE 7-1/2, Riley 15
5: Sevilleta Grant
6: U, Cu
7: pits
8: no production
10: Precambrian granite
13: Hydrothermal-vein
15: DEB-RRA-1440 (1954)

1: 3S.1W.28.214
2: Grefco Socorro Perlite (Unknown)
3: NE1/4 28 T3S R1W 34°01'30"N 106°56'30"W
4: Socorro 7-1/2, Socorro 15 Elevation 5,300 ft
5: Socorro Mountains
6: U, perlite
7: 2 shafts, open pit
8: no uranium production
10: Tertiary volcanics
11: radioactivity associatd with pumice and perlite
13: Volcanogenic
14: producing perlite mine-Grefco
15: Pierson and others (1981, #44); Collins and Malloy (1954b, p. 12, #8); CRIB (1982)

1: 5S.7E.23,24
2: Harvey Sheep and Cattle Co.
3: 23,24 T5S R7E
4: Broken Back Crater 15, Pink Peak 7-1/2
5:
6: Fe, Cu, U(?)
7: trenches
8: no production
10: Permian Chupadera Formation
13: Vein-type in sedimentary rocks
14: PRR reports no anomalous radioactivity
15: USGS and NMBMMR (1981); PRR DEB-RRA-762 (1953)

1: 1N.6W.24.121
2: Hogsett, Hust, Henderson Claim #1-4 (Air Anomalies #2, 3, Hook Ranch, Jaralosa)
3: NW1/4 24 T1N R6W 34°18'10"N 107°25'10"W
4: Indian Spring Canyon 7-1/2 Elevation 6,750 ft
5: Abbey district-Bear Mountains
6: U
7: several pits, adit
8: production included with Hooks Ranch
10: Eocene Baca Formation
11: radioactive minerals associated with asphaltic pods in iron-stained sandstone
12: 1.5% U_3O_8 (Hilpert, 1969)
13: Sandstone
14: mined 1959-1961; PRR lists incorrect location
15: Osburn, J.C. (1982); Pierson and others (1981, #24); Hilpert (1969); Bachman and others (1957, p. 23); PRR DEB-RRA-1176 (1954); ED-R-1261 (1954); MILS (1980)

1: 1N.6W.13.344
2: Hook Ranch deposit (Section 13, Mag 1, Airborne Anomaly #4, Jaralosa, Unknown, Big Texas Mining Co.)
3: SW1/4 13 T1N R6W 34°18'15"N 107°25'15"W
4: Indian Spring Canyon 7-1/2 Elevation 6,700 ft
5: Abbey district-Bear Mountains
6: U
7: open-pit mining - now covered and seeded (50-ft deep)
8: 87 tons ore yielding 305 lbs U_3O_8 (0.18%)
9: bkgd 40-60 cps; bulldozed area 600 cps; outcrop 3,000-7,500 cps
10: Eocene Baca Formation
11: mineralization associated with organic material
12: 0.016% U_3O_8, 264.5 ppm Se (NMBMMR chem lab, 11/30/80, #1529)
13: Sandstone
14: mined 1959-1961 by R.H. Lummus (Big Tex Mining Co.), M.P. Grace acquired the property in 1970's for an unsuccessful leaching operation
15: FN 2/7/81; Osburn, J.C. (1982); Pierson and others (1981, #23); Anderson, O.J. (1980); Mayerson (1979); Hilpert (1969, p. 54); Bachman and others (1957, p. 23); Anderson, E.C. (1955); Collins and Mallory (1954, #1, 2, 3, 4); PRR ED-R-1261 (1954); USAEC files (1961); MILS (1980)

1: 1N.5W.18.114
2: Hot Shot Mine (Hot Spot)
3: W1/2 NW1/4 18 T1N R5W 34°19'00"N 107°24'15"W
4: Indian Spring Canyon 7-1/1 Elevation 6,700 ft
5: Abbey district-Bear Mountains
6: U
7: 1 pit, drill holes
8: no uranium production
10: Eocene Baca Formation
12: 0.31% U (Hilpert, 1969)
13: Sandstone
14: east of Hot Spot coal adits
15: Osburn, J.C. (1982); Pierson and others (1981, #21); Mayerson (1979); Hilpert (1969, p. 54); PRR DEB-RRA-1406 (1954)

1: 1N.6W.24.200
2: Hust-McDonald-Brown (Unknown)
3: NE1/4 24 T1N R6W 34°17'40"N 107°25'15"W
4: Indian Spring Canyon 7-1/2 Elevation 6,800 ft
5: Abbey district-Bear Mountains
6: U
7:
8: no production
10: Eocene Baca Formation
11: radioactive conglomeratic sandstone
12: 0.19% U (Hilpert, 1969)
13: Sandstone
15: Osburn, J.C. (1982); Pierson and others (1981, #25); Hilpert (1969, p. 54); PRR ED-R-1261 (1954); DEB-RRA-1154 (1954)

1: 3N.2W.35.233
2: Jeter Mine (Charley #2, Jeter and Hattie, Hattie #2)
3: SW1/4 NE1/4 35 T3N R2W 34°26'20"N 107°1'00"W
4: Riley NE 7-1/2, Riley 15 Elevation 5,700 ft
5: Ladron Mountains district
6: U, V, Cu
7: 300 ft 25° decline shaft, trenches, open pit (150-300 ft)
8: 8,826 tons ore yielding 58,562 lbs U_3O_8 (0.33%); 3,202 lbs V_2O_5
9: bkgd 10-30 cps; high 175 cps
10: Precambrian Capirote Granite faulted with Tertiary Santa Fe Formation
11: oxidized uranium minerals in fault zone (Cerro Colorado fault)
12: carnotite, tyuyamunite, autunite, pitchblende; 0.01-0.2% U (Chamberlin and others, 1982); up to 0.04% U and 0.01% Th (Pierson and others, 1981)
13: Vein-type/Supergene
14: mined 1954-1958; no bolts or stalls in mine (I. Rapaport, PC, 1983)
15: FN 6/28/80; Chamberlin and others (1982, #LAD-23); Anderson, O.J. (1980); Pierson and others (1981, #33); Condie (1976); Hilpert (1969, p. 55); Collins and Smith (1956); Collins and Nye (1957a); Anderson, E.C. (1955); PRR ED-R-368 (1954); DEB-RRA-1430 (1954); USAEC files (1960); NMBMMR files (1960); MILS (1980); CRIB (1981)
16: figure 41

1: 2N.2W.18.422
2: Juan Torres
3: NE1/4 SE1/4 18 T2N R2W 34°23'28"N 107°4'32"W
4: Riley NE 7-1/2, Riley 15 Elevation 6,225 ft
5: Ladron Mountains district
6: U, Cu, fluorite
7: 25-ft caved shaft, 4 prospect pits
8: no uranium production
9: bkgd 50 cps; high 150-200 cps
10: Precambrian Capirote granite intruded by mafic dike
11: radioactive quartz-fluorite veins and altered zones along fractures in granite
12: fluorite, copper oxides
13: Hydrothermal-vein
15: FN 9/11/81; U.S. Atomic Energy Commission (1970, p. 193); Williams (1966); Lasky (1932)

1: 1N.4W.4
2: King
3: 4 T1N R4W 34°20'30"N 107°15'30"W
4: Mesa Cencerro 7-1/2
5: Riley area-Bear Mountains
6: U
7: no workings - numerous drill holes
8: no production
9: no anomalous radioactivity found on 11/12/82
10: Eocene Baca Formation
11: radioactive sandstone beds reported (PRR)
13: Sandstone
14: it is believed that Teton drilled in the area in 1979-1980
15: FN 11/12/82; Pierson and others (1981, #30); Hilpert (1969, p. 54); PRR DEB-RRA-1413 (1954)

1: 1S.1W.29.124
2: Lemitar carbonatites
3: NW1/4 29 T1S R1W 34°12'00"N 106°58'3"W
4: Lemitar 7-1/2 Elevation 5,500 ft
5: Lemitar district
6: U
7: no workings
8: no production
9: bkgd 30-60 cps; high 120 cps
10: Ordovician carbonatites intruding Precambrian granite
11: radioactive grantie adjacent to carbonatite
13: Contact-metasomatic
15: FN 1978-1980; McLemore (19182b, 1980a,b); USGS and NMBMMR (1981)

1: 1S.1W.3Ø.423
2: Lemitar Carbonatites
3: SE1/4 3Ø T1S R1W 34°11'3Ø"N 1Ø6°58'45"W
4: Lemitar 7-1/2 Elevation 6,Ø8Ø ft
5: Lemitar district
6: U
7: no workings
8: no production
9: bkgd 3Ø-6Ø cps; high 22Ø cps
1Ø: Ordovician carbonatites intruding Precambrian granite
11: radioactive carbonatite dike (Sovite dike)
12: Ø.ØØ3% U_3O_8 (McLemore, 1982c, LEM-81Ø)
13: Orthomagmatic
15: FN 1978-198Ø; McLemore (1982b, 198Øa,b); USGS and NMBMMR (1981)

1: 2S.2E.35.243
2: Little Davie
3: S1/2 NE1/4 35 T2S R2E 34°5'5Ø"N 1Ø6°42'ØØ"W
4: Bustos Well 7-1/2 Elevation 6,1ØØ ft
5: Socorro Basin
6: U, V
7: pits, cuts, 1 short adit (1Ø-ft deep)
8: 17 tons ore yielding 61 lbs U_3O_8 (Ø.18%); 71 lbs V_2O_5
9: bkgd 2Ø-5Ø cps; high 3,ØØØ cps
1Ø: Permian San Andres Limestone
11: mineralization along fault zone, fractures, and bedding planes
12: 1.4% U_3O_8 (NMBMMR chem lab, 1Ø/2Ø/8Ø, #96Ø4)
13: Vein-type of uncertain origin
14: mined 1955 by Holly Uranium Corp.
15: FN 8/31/8Ø; Pierson and others (1981, #48); Anderson, O.J. (198Ø); Hilpert (1969, p. 54, #2; 1965); USAEC files (1962); CRIB (1981)

1: 1N.4W.15.121
2: Luciel Claims
3: C N1/2 15 T1N R4W 34°18'55"N 1Ø7°12'95"W
4: Riley SW1/4 7-1/2, Riley 15
5: Riley area-Bear Mountains
6: U
7: open cut
8: no production
9: bkgd 5Ø cps; high 1ØØ cps
1Ø: Eocene Baca Formation
12: Ø.ØØ4% U_3O_8 (NMBMMR chem lab, 3/17/83, #3288)
13: Sandstone-tabular
15: FN 11/12/82; Potter (197Ø, p. 35)

1: 1N.4W.15.124
2: Luciel Claims #1-8 (Riley Area)
3: C N1/2 15 T1N R4W 34°18'50"N 07°13'00"W
4: Riley SW1/4 7-1/2, Riley 15 Elevation 6,080 ft
5: Riley area-Bear Mountains
6: U
7: drill holes, cuts, bulldozer trenches
8: no production
9: bkgd 40-50 cps, high along fractures 250-400 cps
10: Eocene Baca Formation
11: associated with thin organic-rich layers in permeable sandstone
12: 0.006%, 0.009% U_3O_8 (NMBMMR chem lab, 3/17/83, #3288; 11/30/82, #1532)
13: Sandstone-tabular
15: FN 2/7/81; 11/12/82; Pierson and others (1981, #31); U.S. Atomic Energy Commission (1970, p. 203); Potter (1970, p. 35); Collins and Smith (1956)

1: 2S.2E.35.223
2: Lucky Don (Bonanza #1, Holly Uranium Co.)
3: NE1/4 NE1/4 35 T2S R2E 34°5'55"N 106°42'00"W
4: Bustos Well 7-1/2 Elevation 6,035-6,105 ft
5: Socorro Basin
6: U, V
7: cuts, 6 stub adits (0-40 ft deep)
8: 965 tons ore yielding 4,168 lbs U_3O_8 (0.23); 3,309 lbs V_2O_5
9: bkgd 20-50 cps; high 3,000 cps
10: Permian San Andres Limestone
11: mineralization along fault zone, fractues, and bedding planes; up to 6 ft thick, 50 ft wide, 300-400 ft long
12: 0.38% U_3O_8 (NMBMMR chem lab, 10/20/80, #9612); 1.63% U, 0.69% Th (Pierson and others, 1981)
13: Vein-type of uncertain origin
14: mined 1955-1956, 1960, 1962-1963
15: FN 8/31/80; Pierson and others (1981, #47); Anderson, O.J. (1980); U.S. Atomic Energy Commission (1970, p. 202); Hilpert (1969, p. 54, #1); USAEC files (1962); USBM files (1955); CRIB (1981)

1: 4S.1W.20.211
2: Luis Lopez Manganese Mine
3: 16,17,20,21 T4S R1W 33°57'14"N 106°57'30"W
4: La Borcita 7-1/2, San Antonio 15 Elevation 5,300-5,372 ft
5: Luis Lopez manganese district-Chupadera Mountains
6: Mn, U, Pb, Ba, W
7: large quarry (open pit), several trenches, pits, adit
8: no uranium production, unknown Mn production
9: bkgd 50-70 cps; average 100 cps; high 150 cps
10: Tertiary volcanics
11: radioactive fractures and breccia fillings in fault zones with manganese oxides
12: psilomelane, white and black calcite
13: Hydrothermal-vein
14: no uranium minerals identified
15: FN 3/1/82; PRR DEB-RRA-1161 (1953); USBLM files (1979)

1: 9S.6W.35.420
2: Luna Claims (La Questa)
3: SE1/4 35 T9S R6W 33°28'59"N 107°25'13"W
4: Monticello 7-1/2 Elevation 6,440 ft
5: San Mateo Mountains district
6: U, Au, Ag
7: pits
8: no uranium production
10: Tertiary Vicks Peak Group (andesite porphyry dikes)
13: Volcanogenic
14: Vicks Peak-Nogal Canyon cauldron
15: Berry and others (1980, #9)

1: 1S.2E.1
2: Marie Prospect (Maria #1, T.D. Campbell, Mary Ball #1, Cibola #1-2)
3: 1 T1S R2E (unsurveyed) 34°14'40"N 106°40'40"W
4: Sierra de la Cruz 7-1/2 Elevation 5,620 ft
5: Sevelleta Grant
6: U
7: open pit
8: 46 tons ore yielding 125 lbs U_3O_8 (0.14%); 88 lbs V_2O_5 (0.10%)
10: Pennsylvanian Madera Formation, Permian Abo Formation
11: mineralized fault-zone between Abo and Madera beds
12: novacekite (USAEC files, 1955)
13: Vein-type deposits in sedimentary rocks
14: mined 1956 by Florida Minerals
15: Pierson and others (1981, #52); Hilpert (1969); PRR D (1955); USAEC files (1960)

1: 2N.5E.4.214
2: Mill Site
3: 4 T2N R5E
4: Scholle 7-1/2
5: Scholle district-Los Pinos Mountains
6: Cu, U
7: no workings - mill site, ore, and waste piles
8: no uranium production
9: bkgd 20-30 cps; high 300 cps (ore pile)
10: Permian Abo Formation
12: 0.017% U_3O_8, 0.03% Pb, 14.37% Cu (NMBMMR chem lab, 3/17/83, #3292)
13: Sandstone
14: copper leaching operation
15: FN 11/7/82
16: figure 21

1: 2S.1E.26.232
2: Minas del Chupadera (Duke, Dutchess, Texas #1-2, Gonzales)
3: C 26 T2S R1E 34°6'40"N 106°48'50"W
4: Loma das Cañas 7-1/2, Socorro 15 Elevation 5,100 ft
5: Chupadera district-Socorro Basin
6: U, Cu
7: pits, trenches, 40-ft adit, shaft
8: no uranium production, copper production unknown
9: bkgd 20 cps; high 80 cps
10: Mississippian Magdalena Group-Pennsylvanian Madera Formation
11: copper oxides in limestone
12: 3,000 ppm U; 770 ppm Th (Pierson and others, 1981)
13: Vein-type in sedimentary rocks
15: FN 7/3/80; Pierson and others (1981, #46); U.S. Atomic Energy Commission (1970, p. 194); Soulè (1956); Collins and Mallory (1954, p. 11); Gibson (1952, p. 27); Lasky (1932); RG-5-52 (1951)

1: 1N.6W.2.300
2: Nicolls-Higgins-Jones
3: SW1/4 2 T1N R6W 34°20'15"N 107°26'30"W
4: Indian Spring Canyon 7-1/2 Elevation 6,540 ft
5: Abbey district-Bear Mountains
6: U
7: pits
8: no production
10: Eocene Baca Formation
13: Sandstone
15: Osburn, J.C. (1982); Pierson and others (1981, #20); Mayerson (1979); U.S. Atomic Energy Commission (1970, p. 196)

1: 2N.4E.28
2: Parker Ranch
3: 28 T2N R4E
4: Cerro Montosa 7-1/2
5: Rayo Hills subdistrict-Scholle district-Los Pinos Mountains
6: U, Cu
7: pit
8: no production
10: Precambrian talc schist
11: copper oxides along schistose zones
13: Hydrothermal-vein
14: access denied by locked gate
15: FN 3/2/82; U.S. Atomic Energy Commission (1970, p. 216)

1: 2N.4E.21
2: Parker Ranch
3: 21 T2N R4E
4: Becker 7-1/2
5: Rayo Hills subdistrict-Scholle district-Los Pinos Mountains
6: U, Cu
7: pit
8: no production
10: Permian Abo Formation
12: carnotite, copper oxides
13: Sandstone-tabular
14: access denied by locked gate
15: FN 3/2/82; U.S. Atomic Energy Commission (1970, p. 215)

1: 1S.1W.19
2: Polvadera Mountain Claim-Four Jokers
3: S1/2 19 T1S R1W 34°12'00"N 106°59'00"W
4: Lemitar 7-1/2
5: Lemitar Mountains district
6: U
7: no workings
8: no production
10: Tertiary Popotosa Formation
11: mineralized sandstone above barren chert layer
13: Sandstone
15: Pierson and others (1981, #39, 40); Collins and Smith (1956)

1: 1N.4E.4,9
2: Rayo Hills (Antonio Sanchez Ranch Claim, Rayo and Scholle, Locality #27)
3: 4,9 T1N R4E 34°19'30"N 106°31'30"W
4: Cerro Montosa 7-1/2 Elevation 6,510 ft
5: Rayo Hills subdistrict-Scholle district-Los Pinos Mountains
6: Cu, U
7: open cuts, pits
8: no uranium production
9: bkgd 10-25 cps; high 30-35 cps
10: Permian Abo Formation
11: associated with copper oxides in channel sandstone in upper Abo Formation
13: Sandstone
14: copper mined out
15: FN 3/2/82; Pierson and others (1980, #55); Gibson (1952, #7); PRR RG-7-51 (1951)

1: 4S.1W.19.120
2: Red Hills
3: NW1/4 NE1/4 19 T4S R1W
4: La Borcita 7-1/2, San Antonio 15
5: Luis Lopez manganese district-Chupadera Mountains
6: Mn, Ba, U
7: open pit
8: no uranium production; 4,800 tons of Mn
9: bkgd 50-70 cps; high 150 cps
10: Tertiary volcanics
12: 0.33% U_3O_8 (USBLM files)
13: Hydrothermal-vein
15: FN 3/1/82; USBLM files (1979)

1: 3S.3E.8
2: Rheua No. 1
3: 8 T3S R3E
4: Bustos Well 7-1/2
5: Socorro Basin
6: U(?)
7: 15-ft shaft, pits and cuts scattered throughout section
8: no production
9: bkgd 20-40 cps; no anomalous radioactivity on 11/11/82
10: Permian Yeso Formation
12: 0.03-0.085% U_3O_8 reported in AEC files
13: Vein-type of certain origin(?)
14: mineralized material reported in AEC files was not located on 11/11/82, but probably resembled mineralization at Little Davie-Lucky Don area
15: FN 11/11/82; USAEC files (1955)

1: 6S.6W.1.444
2: Rosedale Mine
3: 1,12 T6S R6W 33°48'31"N 107°24'22"W
4: Grassy Lookout 7-1/2 Elevation 7,200 ft
5: Rosedale district-San Mateo Mountains
6: U, Au
7: shaft, adit
8: no uranium production
9: bkgd 80-100 cps; high 190 cps
10: Tertiary Potato Canyon rhyolite
11: radioactive gold veins in rhyolite
13: Volcanogenic
15: FN 6/29/80; Deal and Rhodes (1976); Lasky (1932); Lindgren and others (1910); PRR DEB-RRA-1172 (1954); MILS (1980); CRIB (1981)

1: 2N.2W.15
2: Rule Prospect (Campbell Prospect)
3: 15 T2N R2W (unsurveyed) 34°24'00"N 107°2'00"W
4: Riley NE1/4 7-1/2, Riley 15
5: Ladron Mountains district
6: U, Cu
7: outcrop anomaly
8: no production
9: bkgd 50-40 cps; high 100-120 cps in nearby occurrence in Precambrian granite
10: Precambrian granite, Tertiary Santa Fe Group
11: radioactivity associated with copper minerals in shear zone
13: Hydrothermal-vein
14: exact occurrence described by Lasky (1932) could not be found
15: FN 9/15/81; Chamberlin and others (1982); Lasky (1932); PRR DEB-RRA-1440 (1954)

1: 1N.6W.26
2: Rusty Atom Claims #1-5
3: 26 T1N R6W 34°16'45"N 107°26'00"W
4: Indian Springs Canyon 7-1/2 Elevation 6,900 ft
5: Abbey district-Bear Mountains
6: U
7: pits
8: no production
10: Eocene Baca Formation
12: 0.024% U (PRR)
13: Sandstone
15: Osburn, J.C. (1982); Pierson and others (1981, #26-27); PRR DEB-RRA-1407 (1954)

1: 1S.2W.2.211
2: San Acacia Copper Mine (Unknown)
3: NE1/4 2 T1S R2W (unsurveyed) 34°15'25"N 107°01'00"W
4: Riley SE1/4 7-1/2, Riley 15 Elevation 6,650 ft
5: San Acacia area-Lemitar Mountains
6: U, Cu
7: 15-ft shaft, short adit (caved), pits
8: no production
10: Tertiary volcanics
11: radioactivity associated with copper oxides in fracture zones of andesite
13: Hydrothermal-vein
14: Sevelleta Grant; examined by Pierson and others (1981)
15: Pierson and others (1981, #38); U.S. Atomic Energy Commission (1970, p. 200); Gott and Erickson (1951)

1: 7S.5W.35.312
2: San Juan Peak
3: C W1/2 35 T7S R5W 33°39'44"N 107°19'55"W
4: San Juan Peak 7-1/2 Elevation 8,090 ft
5: San Mateo Mountains district
6: U
7: no workings - drill holes
8: no production
10: Tertiary volcanics
12: 51-248 ppm U (Berry and others, 1980)
13: Volcanogenic
15: Berry and others (1980, #13)

1: 1S.1W.8.100
2: San Lorenzo Canyon
3: NW1/4 8 T1S R1W
4: Lemitar 7-1/2, Socorro 15 Elevation 5,350 ft
5: Lemitar Mountains district
6: U
7: no workings-outcrop
8: no production
10: Tertiary Popotosa Formation
11: mineralization in black mudstone above a chert bed and below an ashy sandstone and shale
12: chert analyses-33.7 ppm U; mudstone-125 ppm U; sandstone-16.8 ppm U
13: Shale
15: S. Asher-Bolinder (USGS, PC, 5/20/81)

1: 1S.1W.18.132
2: San Lorenzo #1 (Jerome mine?)
3: S1/2 NW1/4 18 T1S R1W 34°13'30"N 106°59'15"W
4: Lemitar 7-1/2 Elevation 5,350 ft
5: San Lorenzo district-Lemitar Mountains
6: U
7: 2 small pits (6-ft diameter), 1 15-ft decline (10°)
8: 14 tons ore yielding 6 lbs U_3O_8 (0.02%); 8 lbs V_2O_5 (1955)
9: background 50-60 cps; chert bed 100-120 cps
10: Tertiary Popotosa Formation
11: 6 inch thick chert and wood bed in conglomeratic sandstones and shales strike of bed N12°W, dip 55°E
13: Sandstone
14: mined 1955 by Fox and Weiler, previously reported incorrectly as Volcanogenic deposit (vein) by McLemore (1982a) and Pierson and others (1981)
15: FN 5/13/82; McLemore (1982a, #126); Pierson and others (1981, #41); Lovering (1956); Lindgren and others (1910); PRR DEB-RRA-1410 (1954); USAEC files (1960)

1: 1S.2W.10.400
2: Shaft
3: SE1/4 10 T1S R2W
4: Magdalena 15
5: San Lorenzo district-Lemitar Mountains
6: U, Cu
7: 40-ft shaft
8: no uranium production
10: Tertiary Popotosa Formation (andesite lava)
11: copper and radioactive minerals in shear zone
12: torbernite, carnotite, native copper, copper oxides; 0.026% U, 0.03% V_2O_5 (Gott and Erickson, 1951)
13: Hydrothermal-vein
14: could not locate on 7/13/81
15: FN 7/13/81; Hilpert (1969, p. 54); Gott and Erickson (1951, #16; 1952, p. 4, 13); PRR D-240 (1951)

1: 1N.2W.15.100
2: Silver Creek area
3: NW1/4 15 T1N R2W (unsurveyed) 34°18'45"N 107°02'00"W
4: Riley 15 Elevation 5,150 ft
5: Sevilleta Grant-Lemitar Mountains
6: U, Cu, Li
7: no workings-outcrop anomaly
8: no production
9: bkgd 30 cps; high 210 cps
10: Tertiary Popotosa Sandstone (ash beds)
11: uranium and copper minerals associated with organic debris
12: 0.021% U_3O_8 (NMBMMR chem lab, 10/29/80, #9669)
13: Sandstone-tabular
15: R.M. Chamberlin (NMBMMR) and S. Asher-Bolinder (USGS) PC, 10/6/80

1: 1N.2W.15.340
2: Silver Creek Prospect
3: SW1/4 15 T1N R2W (unsurveyed) 34°18'45"N 107°2'00"W
4: Riley SE1/4, Riley 15 Elevation 5,300 ft
5: Sevilleta Grant-Lemitar Mountains
6: U, Cu
7: short adit
8: no uranium production
10: Tertiary Popotosa Formation
11: uranium and copper mineralization in fractured andesite
13: Hydrothermal-vein
14: examined by Pierson and others (1981)
15: Pierson and others (1981, #34); Hilpert (1969)

1: 2S.4W.19.114
2: Silver Hill prospect (Copper Belt Silver and Mining Co.)
3: 19 T2S R4W 34°7'35"N 107°18'00"W
4: Silver Hill 7-1/2
5: Magdalena district-Silver Hill area
6: Ag, Cu, U
7: pits, shafts from 40 to 300 ft deep
8: no uranium production
10: Tertiary
11: slightly radioactive copper-silver veins in andesite
13: Hydrothermal-veins
15: USGS and NMBMMR (1981); PRR DEB-RRA-1171 (1954); USBM files (1943)

1: 3S.5W.6.311
2: Sixty Prospect (Unknown)
3: 6 T3S R5W, 1 T3S R6W 34°4'35"N 107°24'15"W
4: Tres Montosas 7-1/2 Elevation 7,230 ft
5: Cat Mountain district-Datil-Mogollon volcanic field
6: Cu, U, Ag, Pb
7: 50-ft shaft, pits, trenches
8: no uranium production; 356 tons of 3 oz/ton Ag; 0.81% Cu, 1.33% Pb
9: bkgd 30-50 cps; high 100-160 cps
10: Tertiary Spears Formation-Tuff of Nipple Mountain
11: radioactive zones associated with copper oxides in rhyolitic tuff
12: 0.002% U_3O_8, 1.1% Cu (NMBMMR chem lab, 3/3/83, #3165)
13: Hydrothermal-vein
14: geologic map and cross-section by Wilkenson (1971)
15: FN 4/7/81; Wilkenson (1976); PRR DEB-RRA-1174 (1954); CRIB (1981)

1: 9S.7W.10
2: Taylor Prospect (Apache Warm Springs, Monticello Box)
3: 10, 25 T9S R7W
4: Montoya Butte 7-1/2
5: Sierra Cuchillo
6: U, Be
7: 100-ft shaft, adit
8: no production
10: Tertiary volcanics
11: radioactive quartz vein
12: 78 ppm U
13: Volcanogenic
15: Correa (1980); Hillard (1969)

1: 1S.3E.31.333
2: Union #1
3: SW1/4 SW1/4 31 T1S R3E 34°10'25"N 106°40'40"W
4: Sierra de la Cruz 7-1/2 Elevation 5,900 ft
5: Socorro Basin
6: none - U at depth(?)
7: several pits, one 10-ft 50° decline shaft, trenches
8: no production
9: only slightly above background radioactivity (10-40 cps)
10: Permian Abo Formation
13: Sandstone/Vein-type in sedimentary rocks
14: no uranium or copper mineralization present, no visible organics; claim notice 1955 by Union-Gulf Oil and and Minerals, is registered as a uranium mine by State Mine Inspector
15: FN 3/1/82; Anderson, O.J. (1980)

1: 1N.1E.23
2: Unknown-La Joyita
3: 23 T1N R1E (unsurveyed) 34°17'30"N 106°48'45"W
4: La Joyita 7-1/2 Elevation 5,050 ft
5: Sevilleta Grant-Socorro Basin
6: U, Pb, barite, mica
7: inclined shafts, pits, adits
8: no uranium production
10: Pennsylvanian Madera Formation, Precambrian granite
13: Hydrothermal-vein
15: Pierson and others (1981, #49); Collins and Mallory (1954, p. 12, #7)

1: 1N.1W.21
2: Unknown-San Acacia
3: 21 T1N R1W 34°17'40"N 106°57'00"W
4: San Acacia 7-1/2
5: San Acacia area
6: U
7:
8: no production
10: Tertiary Santa Fe Group
13: Sandstone
15: Pierson and others (1981, #35); Bachman and others (1953)

1: 1N.1W.28
2: Unknown-San Acacia
3: 28 T1N R1W 34°17'00"N 106°56'30"W
4: San Acacia 7-1/2
5: San Acacia area
6: U
7:
8: no production
10: Tertiary Santa Fe Group
13: Sandstone
15: Pierson and others (1981, #36); Bachman and others (1953)

1: 1N.2E.31
2: Unknown-La Joyita
3: 31 T1N R2E 34°16'00"N 106°46'30"W
4: La Joyita 7-1/2 Elevation 5,200 ft
5: Sevilleta Grant-Basin and Range
6: U, Cu
7: pits, 2 short adits
8:
10: Precambrian granite, quartzite
12: copper oxides
13: Hydrothermal-vein
14: Bosque del Apache National Game Refuge
15: Pierson and others (1981, #50); Collins and Mallory (1954, p. 12, #6)

1: 1N.4E.32.444
2: Unknown
3: SE1/4 SE1/4 SE1/4 32 T1N R4E 34°15'40"N 106°32'28"W
4: Cerro Montoso 7-1/2
5: Rayo Hills subdistrict-Scholle district-Los Pinos Mountains
6: Cu, U
7: pits, trenches (largest 300 ft x 20 ft x 10 ft)
8: no uranium production
9: bkgd 20 cps; high 40 cps
10: Permian Yeso Formation-Mesa Blanca Member
11: mineralized pale-orange crossbedded quartz sandstone
13: Sandstone
14: copper mined out
15: FN 11/11/82; Don Meyers (USGS, PC, 11/9/82)

1: 1N.5W.7
2: Unknown (Hook Ranch)
3: S1/2 7 T1N R5W 34°19'15"N 107°24'20"W
4: Indian Spring Canyon 7-1/2
5: Abbey district-Bear Canyons
6: U
7:
8: no production
10: Cretaceous Crevasse Canyon Formation
11: radioactivity associated with wood fragments in bleached sandstone
13: Sandstone
15: Osburn, J.C. (1982); Pierson and others (1981, #22); Hilpert (1969, p. 54); Collins and Malloy (1954, p. 10, #4)

1: 1S.2W.2.122
2: Unknown-San Acacia
3: 2 T1S R2W 34°15'30"N 107°1'00"W
4: Riley SE1/4, Riley 15 Elevation 5,640 ft
5: San Acacia area-Lemitar Mountains
6: U, Cu
7: 20-ft shaft, pits
8: no production
10: Tertiary Popotosa Formation
11: radioactivity associated with copper oxides in fractured andesite
13: Hydrothermal-vein
14: Sevilleta Grant; examined by Pierson and others (1981)
15: Pierson and others (1981, #37); Gott and Erickson (1951)

1: 1S.5W.3,4
2: Unknown
3: 3,4 T1S R5W
4: Silver Hill 7-1/2, Mesa Cencerro 7-1/2
5: Magdalena district-Silver Hill area
6: U
7: no workings
8: no production
1Ø: Cretaceous Crevasse Canyon Formation
11: radioactive zones associated with carbonaceous matter
13: Sandstone
15: PRR DEB-RRA-845 (1953)

1: 1N.6W.35
2: Unknown
3: 35 T1N R6W
4: Indian Spring Canyon 7-1/2
5: Abbey district-Bear Mountains
6: U
7:
8: no production
1Ø: Eocene Baca Formation
12: Ø.Ø36% U, Ø.1Ø% V_2O_5 (Bachman and others, 1957, #2157Ø5)
13: Sandstone
15: Osburn, J.C. (1982); Hilpert (1969, p. 54); Bachman and others (1957, p. 23)

1: 1S.6W.14
2: Unknown (Hook Ranch)
3: 14 T1S R6W (unsurveyed) 34°13'2Ø"N 1Ø7°26'1Ø"W
4: Gallinas Peak 7-1/2 Elevation 7,4ØØ ft
5: Abbey district-Bear Mountains
6: U
7:
8: no production
1Ø: Cretaceous Crevasse Canyon Formation
13: Sandstone
15: Pierson and others (1981, #28); Laroche (198Ø); PRR DEB-RRA-845 (1953)

1: 1S.6W.23
2: Unknown (Hook Ranch)
3: 23 T1S R6W 34°11'1Ø"N 1Ø7°28'ØØ"W
4: Gallinas Peak 7-1/2
5: Abbey district-Bear Mountains
6: U
7:
8: no production
1Ø: Tertiary Datil Formation
13: Volcanogenic
14: PRR lists incorrect location
15: Pierson and others (1981, #29); PRR DEB-RRA-8ØØ (1953)

1: 2N.5E.4.314
2: Unknown-Scholle
3: W1/2 SW1/4 4 T1N R5E 34°25'30"N 106°25'50"W
4: Scholle 7-1/2 Elevation 5,800 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: 4-5 ft deep trenches, pits, dogholes
8: no uranium production
9: bkgd 20-30 cps; high 90 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides in bleached sandstone and siltstone
13: Sandstone-tabular
14: Pierson and others (1981) located incorrectly in Sec. 5 T2N R5E
15: FN 3/2/82; Pierson and others (1980, #58); Meyers (1977); PRR-RG-2-51 (1951)
16: figure 21

1: 3S.1E.11.111
2: Unknown-Tajo granite (Tajo ore pile)
3: NW1/4 NW1/4 NW1/4 11 T3S R1E 35°4'8"N 106°48'59"W
4: Loma de Las Cañas 7-1/2, Socorro 15 Elevation 5,000 f
5: Chupadera district-Socorro Basin
6: U
7: shallow pit, numerous drill holes
8: no production
9: bkgd 50-100 cps; in pit 400-500 cps; high on ore pile 7,000 cps
10: Precambrian Tajo granite
11: radioactive hematitic alteration zone along fractures trending N5-15°E, several zones
12: 0.019% U_3O_8 (ore pile sample-NMBMMR chem lab, 5/20/82, #2136; 45 ppm Th (NMBMMR XRF lab, 2/83, #2136)
13: Hydrothermal-vein
14: ore pile probably from above described pit
15: FN 2/21/82
16: figure 34

1: 3S.1E.14.232
2: Unknown-Tajo Granite (Tajo #8)
3: SW1/4 NE1/4 14 T3S R1E 35°3'5"N 106°48'15"W
4: Loma de Las Cañas 7-1/2, Socorro 15 Elevation 5,000 ft
5: Chupadero district-Socorro Basin
6: U
7: doghole, numerous drill holes-outcrop
8: no production
9: bkgd 50-100 cps; high 500 cps along fractures
10: Precambrian Tajo granite
11: radioactive hematitic alteration zone along fractures trending N25°E, up to 6 inches wide
12: 0.002% U_3O_8 (NMBMMR chem lab, 5/20/82, #2132)
13: Hydrothermal-vein
14: fluorite-barite veins to west (not radioactive)
15: FN 1/6/82; Condie and Budding (1979); Collins and Mallory (1954, p. 11, #3)
16: figure 34

1: 3S.1E.14.441
2: Unknown-Tajo Granite (Tajo #12)
3: C SE1/4 14 T3S R1E 35°2'35"N 106°48'10"W
4: Loma de Las Cañas 7-1/2, Socorro 15 Elevation 4,930 ft
5: Chupadero district-Socorro Basin
6: U
7: pit, drill holes
8: no production
9: bkgd 50-100 cps; high 1,000 cps
10: Precambrian Tajo granite
11: radioactive hematitic alteration zone along fractures trending N73°E, up to 6 inches wide, two zones
12: 0.005% U_3O_8 (NMBMMR chem lab, 5/20/82, #2133)
13: Hydrothermal-vein
14: fluorite-barite veins to the west (nonradioactive)
15: FN 2/21/82; Pierson and others (1981, #45); Condie and Budding (1979); Collins and Mallory (1954, p. 11, #3)
16: figure 34

1: 4S.3E.5.230
2: Unknown-Carthage
3: SW1/4 NE1/4 5 T4S R3E
4: Carthage 15
5: Jornada del Muerto
6: U (occurrence)
7: no workings - outcrop
8: no production
10: Tertiary Datil Formation
11: radioactive rhyolite flow
13: Volcanogenic
14: could not locate on 12/29/81
15: FN 12/29/81; Collins and Mallory (1954, p. 12, #5)

1: 4S.3E.6.332
2: Unknown-Carthage
3: SW1/4 6, NW1/4 7 T4S R3E 33°59'15"N 106°40'30"W
4: Carthage 15 Elevation 5,500-5,600 ft
5: Jornada del Muerto
6: U (occurrence)
7: no workings in lava flow; 2 pits in alluvium
8: no production
9: bkgd 60-70 cps; high 100-120 cps; high in pits 40 cps
10: Tertiary Datil Formation
11: rhyolitic lava flow trending N5°E,10°W
13: Volcanogenic
15: FN 12/29/81; Collins and Mallory (1954, #4)

1: 5S.1W.21
2: Unknown
3: E1/2 21 T5S R1W (unsurveyed) 33°51'31"N 106°56'27"W
4: Indian Well Wilderness 7-1/2, San Antonio 15
5: Pedro Armendaris Grant-Chupadera Mountains
6: Cu, U, Pb
7:
8: no production
10: Precambrian schist
11: mineralized fault zone
13: Hydrothermal-vein
15: Kent (1982); USBLM files (1979)

1: 7S.1W.24.400
2: Unknown
3: SE1/4 24 T7S R1W 33°41'32"N 106°53'27"W
4: Val Verde 15
5: Armendaris area-Socorro Basin
6: Cu, U
7:
8: no production
10: Permian Yeso Formation
11: mineralized fault zone
13: Vein-type in sedimentary rocks
15: USBLM files (1979)

1: 7S.1E.18.300
2: Unknown
3: SW1/4 18 T7S R1E 33°42'15"N 106°52'57"W
4: Val Verde 15
5: Armendares area-Socorro Basin
6: Cu, U
7:
8: no production
10: Permian Abo Formation
13: Sandstone
15: USBLM files (1979)

1: 5S.6E.16
2: Unknown
3: 16 T5S R6E
4: Bingham 15
5:
6: U(?)
7: road cuts - no workings
8: no production
10: Permian Abo Formation
13: Sandstone
15: PRR-DEB-RRA-1108 (1953)

1: 9S.5W.11.400
2: Vicks Peak No. 1
3: SE1/4 11 T9S R5W 33°32'22"N 107°25'8"W
4: Vicks Peak 7-1/2 Elevation 7,360 ft
5: Nogal Canyon district-San Mateo Mountains
6: U
7: no workings-road cut
8: no production
10: Tertiary volcanics
13: Volcanogenic
15: Berry and others (1980, #10)

1: 2S.1W.7.123
2: Vulcan Claims
3: 7 T2S R1W 34°9'20"N 106°59'00"W
4: Lemitar 7-1/2 Elevation 5,800 ft
5: Lemitar district
6: U, barite
7: pits
8: no uranium production
9: bkgd 100-110 cps; high 1,000 cps
10: Ordovician carbonatites intruding Precambrian granite
11: radioactive carbonatite dike
12: 181 ppm Th (Pierson and others, (1981)
13: Orthomagmatic
15: FN 1978-1980; McLemore (1982b, 1980a,b); Pierson and others (1981, #43); Anderson, O.J. (1980)

1: 7S.5W.27.400
2: White Mule Canyon
3: SE1/4 27 T7S R5W 33°40'22"N 107°20'35"W
4: San Juan Peak 7-1/2 Elevation 6,960 ft
5: Nogal Canyon district-San Mateo Mountains
6: U
7: cuts, drill holes
8: no uranium production
10: Tertiary volcanics
11: uraniferous opal in rhyolite tuff
13: Volcanogenic
15: Berry and others (1980, #12)

TAOS COUNTY

Alphabetical (16 occurrences)

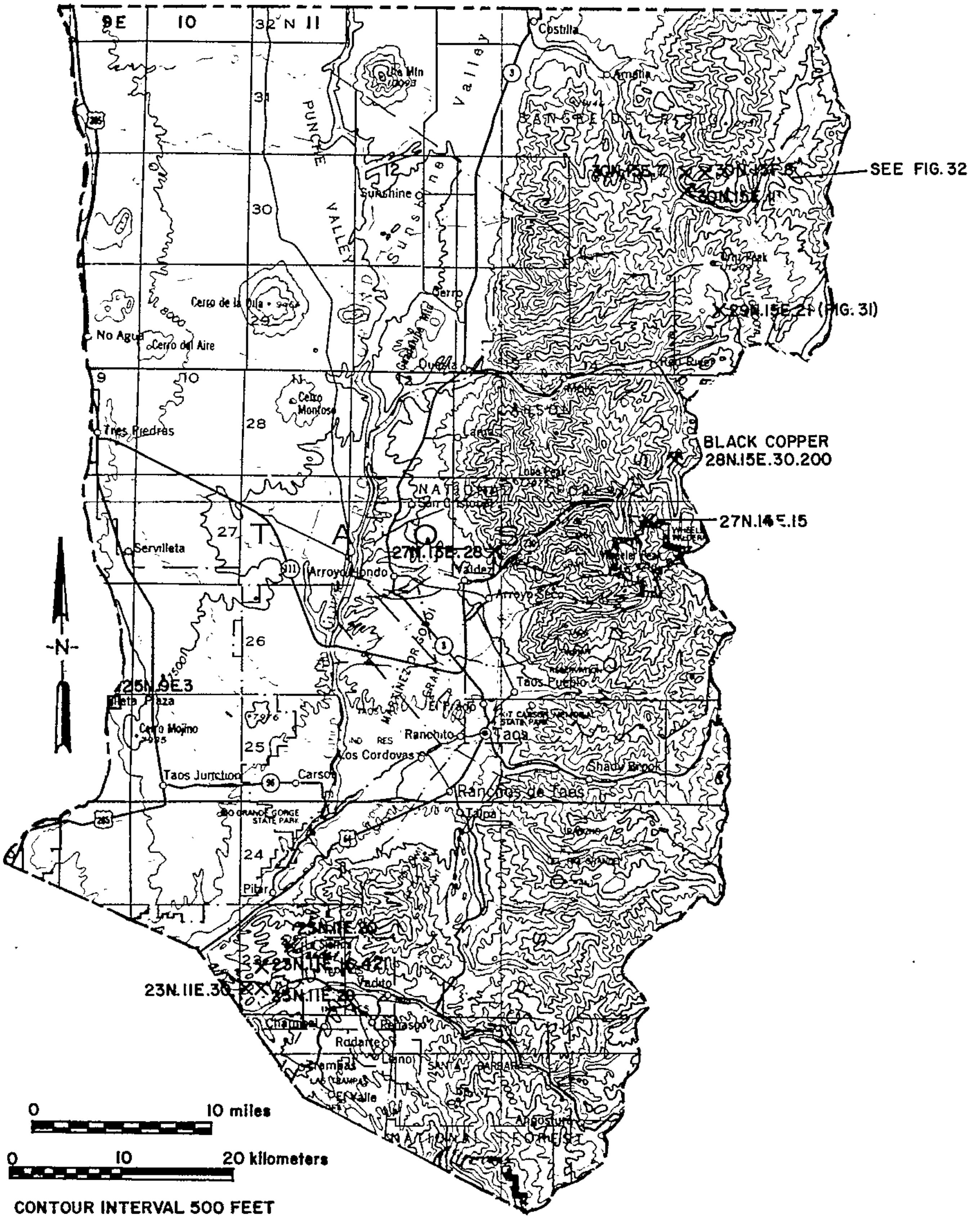
Billy Goat	3ØN.15E.7.311
Bitter Creek	29N.15E.21
Black Copper Mines	28N.15E.3Ø.2ØØ
Blue Feather Claims	23N.11E.3Ø
Copper Hill Claims	23N.11E.2Ø
Copper Hill	23N.11E.2Ø.21Ø
Costilla	3ØN.15E.7.321
Costilla	3ØN.15E.8.3ØØ
Harding Mine	23N.11E.29
Lake Fork	27N.14E.15
Latir	3ØN.15E.18
San Antonio Claims	27N.13E.28
Servillita Plaza	25N.9E.3
Unknown-Billy Goat pegmatites	3ØN.15E.7.143
Unknown	3ØN.15E.8.1ØØ
Wichita Mine (Tungsten Mine)	23N.11E.16.421

Alias	Name	Number
Anomaly #15	Servillita Plaza	25N.9E.3
Baldy Peak	Billy Goat	3ØN.15E.7.311
Billy Goat pegmatites	Unknown	3ØN.15E.7.143
Black Copper #2	Black Copper Mines	28N.15E.3Ø.2ØØ
Comanche Point	Unknown	3ØN.15E.8.1ØØ
Enderman prospect	Bitter Creek	29N.15E.21
MIQ-182	Copper Hill	23N.11E.2Ø.21Ø
Tungsten Mine	Wichita Mine	23N.11E.16.421

Numerical

23N.11E.16.421	Wichita Mine
23N.11E.2Ø	Copper Hill Claims
23N.11E.2Ø.21Ø	Copper Hill
23N.11E.29	Blue Feather Claims
23N.11E.3Ø	Harding Mine
25N.9E.3	Servillita Plaza
27N.14E.15	Lake Fork
27N.13E.28	San Antonio Claims
28N.15E.3Ø.2ØØ	Black Copper Mines
29N.15E.21	Bitter Creek
3ØN.15E.7.311	Billy Goat
3ØN.15E.7.321	Costilla
3ØN.15E.7.143	Unknown-Billy Goat Pegmatites
3ØN.15E.8.3ØØ	Costilla
3ØN.15E.8.1ØØ	Unknown
3ØN.15E.18	Latir

FIGURE 1-30- RADIOACTIVE OCCURRENCES IN TAOS COUNTY, NEW MEXICO



1: 3ØN.15E.7.311
2: Billy Goat (Baldy Peak)
3: 7 T3ØN R15E (unsurveyed) 36°51'45"N 1Ø5°23'4"W
4: Latir Peak 7-1/2 Elevation 8,8ØØ ft
5: Costilla Creek-Sangre de Cristo Grant
6: U
7: shallow pit in arroyo bottom
8: no production
1Ø: Precambrian Costilla Massif (granite)
11: 3Ø5 ppm U_3O_8 (Reid and others , 198Øa)
12: radioactive breccia zone in granite trending N74°W 6Ø°SW dip
13: Hydrothermal-vein
14: snow and ice prevented a close examination of workings
15: FN 11/9/81; Reid and others (198Øa, #1); U.S. Atomic Energy Commission (197Ø, p. 212); MILS (1981)

1: 29N.15E.21
2: Bitter Creek (unnamed, Enderman prospect)
3: 2Ø, 21, 29 T29N R15E (unsurveyed) 36°43'42"N 1Ø5°2Ø'15"W
4: Red River Pass 7-1/2 Elevation 9,39Ø ft
5: Anchor district-Sangre de Cristo Mountains
6: U, Th, Au
7: 5Ø-ft adit, 1ØØ-ft adit, 2 large open pits, several smaller pits
8: no uranium production
9: bkgd 5Ø-1ØØ cps; average 1ØØ-3ØØ cps; high 3,ØØØ-4,ØØØ cps
1Ø: Precambrian pegmatitic granite
11: limonitic-stained radioactive pegmatitic granite and shear zones in granite
12: Ø.Ø3, Ø.11% U_3O_8 (NMBMMR chem lab, 2/1Ø/82, #1786, 1787); 16 ppm, 47 ppm Th (NMBMMR chem lab, 2/83, #1786, 1787)
13: Hydrothermal-vein/Pegmatite
14: geologic mine map by Schilling, J.H. (196Ø, p. 7Ø)
15: FN 11/11/81; Reid and others (198Øb, #4); U.S. Atomic Energy Commission (197Ø, p. 213); Schilling, J.H. (196Ø, p. 69); MILS (1981)
16: figure 31

1: 28N.15E.30.200
2: Black Copper Mines (Black Copper #2)
3: NE1/4 30 T28N R15E (unsurveyed) 36°38'15"N 105°22'20"W
4: Red River Pass 7-1/2 Elevation 9,500 ft
5: Red River district-Sangre de Cristo Mountains
6: U, Au, Ag, Cu
7: 300-ft shaft, 3 adits (45 ft)
8: 5 tons ore yielding 3 lbs U_3O_8 (0.03%)
9: bkgd 40-50 cps; average in granite 50-60 cps; dump 50-100 cps
10: Precambrian granite
11: radioactive gold-silver vein in granite near fault contact with Tertiary volcanic rocks
12: pitchblende reported; 0.07 oz/ton Au (Brown, S.D., 1982)
13: Hydrothermal-vein
14: mined 1957 by Black Copper Mines
15: FN 6/16/82; Brown, S.D. (1981); Condie (1981); Anderson, O.J. (1980); Clark and Read (1971); U.S. Atomic Energy Commission (1970, p. 211); Schilling, J.H. (1960); USAEC files (1960); CRIB (1982)

1: 23N.11E.30
2: Blue Feather Claims
3: 19, 20, 21, 22, 27, 28, 29, 30 T23N R11E 36°12'20"N 105°47'00"W
4: Trampas 7-1/2 Elevation 7,200-7,700 ft
5: Picuris district-Sangre de Cristo Mountains
6: U, mica, Ta
7: several shallow open pits in area, only Harding Mine was developed, one adit found in section 19 (SE1/4)
8: no uranium production
9: bkgd 20-30 cps, average in pegmatite 50 cps
10: Precambrian Ortega and Vadito Formations intruded by pegmatites
11: slightly radioactive pegmatites trending north in southern part of claims and east-west in northern part intruding metamorphosed sediments
12: columbite-tantalite, copper oxides
13: Pegmatite
15: FN 6/17/82; U.S. Atomic Energy Commission (1970, p. 203); Miller, J.P. and others (1963)

1: 23N.11E.20
2: Copper Hill Claims
3: SE1/4 17, NE1/4 20 (section line) T23N R11E 36°13'5"N 105°47'25"W
4: Trampas 7-1/2 Elevation 7,800 ft
5: Picuris district-Sangre de Cristo Mountains
6: Cu, U
7: several open pits, shallow shafts, one 70-ft shaft, 50-ft decline with drift
8: no uranium production
9: bkdg 30 cps; average in pit 80 cps; high in decline 120 cps
10: Precambrian Ortega Formation (Lower Quartzite member)
11: radioactive quartz-copper veins along fractures in metamorphic rocks, fractures and veins trend N12°E
12: copper oxides; 196 ppm U_3O_8, 4.6% Cu (reported by Craig Goodknight)
13: Hydrothermal-vein
15: FN 6/17/82; Reid and others (1980a, #7); U.S. Atomic Energy Commission (1970, p. 210); Craig Goodknight (Bendix Field Eng. Corp., WC, 4/24/82)

1: 23N.11E.20.210
2: Copper Hill (MIQ-182)
3: NW1/4 NE1/4 20 T23N R11E 36°13'9"N 105°47'22"W
4: Trampas 7-1/2 Elevation 7,680 ft
5: Picuris district-Sangre de Cristo Mountains
6: U, Cu
7: pits in area-area of sample-outcrop only
8: no production
9: bkgd 100 cps, high 700 cps
10: Precambrian Ortega Quartzite
11: radioactive vein in quartzite on Copper Hill
12: 196 ppm U_3O_8, 0.46% Cu
13: Hydrothermal-vein
15: Craig Goodknight (Bendix Field Eng. Corp., WC, 4/24/82)

1: 30N.15E.7.321
2: Costilla
3: 7 T30N R15E (unsurveyed) 36°51'45"N 105°23'07"W
4: Latir Peak 7-1/2
5: Costilla Creek-Sangre de Cristo Mountains
6: U
7: no workings-outcrop
8: no production
9: bkgd 100 cps; high 3,000 cps
10: Precambrian Costilla Massif (pegmatites in granite)
11: radioactive pegmatite
12: 305 ppm U_3O_8 reported
13: Pegmatite
15: FN 11/9/81; Reid and others (1980a, #2); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., PC, 11/10/81)

1: 30N.15E.8.300
2: Costilla
3: 8 T20N R15E (unsurveyed) 36°51'27"N 105°22'9"W
4: Comanche Point 7-1/2 Elevation 9,080 ft
5: Costilla Creek-Sangre de Crist Grant
6: U
7: no workings-outcrop
8: no production
9: bkgd 150-200 cps; high 2,000 cps reported
10: Precambrian Costilla Massif (granite)
11: radioactive gneissic granite
12: 334 ppm U_3O_8 reported
13: Orthomagmatic
15: Reid and others (1980a)

1: 23N.11E.29
2: Harding Mine
3: CS1/2 29 T23N R11E 36°11'34"N 105°47'39"W
4: Trampas 7-1/2 Elevation 7,400 ft
5: Picuris district-Sangre de Cristo Mountains
6: Ta, Li, Be, U, Th, Nb, Sb
7: open pits-largest 250 ft x 60 ft x 35 ft, stopes, 5 adits
8: 12,000 tons Ta-Li ore; no uranium production
9: 2-10 times background radioactivity reported by Reid and others (1980)
10: Precambrian Vadito Formation (Schist member)
11: radioactive minerals in zoned pegmatite
12: U-bearing microlite, allanite, thorite, 1.63%-7.73% UO_3 in muscovite
13: Pegmatite
14: owned by University of New Mexico as a collector's laboratory
15: FN 5/14/81; Reid and others (1980a, #8); Jahns and Ewing (1976); Redmon (1961); Miller, J.P. and others (1963); Schilling, J.H. (1960); Berliner (1949); Hill (1945); Harden and Wyant (1944); Just (1937); PRR DEB-RRA-1428 (1954)

1: 27N.14E.15
2: Lake Fork
3: 15 T27N R14E (unsurveyed)
4: Wheeler Peak 7-1/2
5: Rio Hondo area
6: U
7: adits, shaft
8: no production
10: Precambrian granite(?)/Tertiary granite(?)
13: Hydrothermal vein(?)/Orthomagmatic(?)
14: exact location and nature of deposit unknown, high Mo-bearing stocks in area and base-metal veins
15: Brown, S.D. (1982); Briggs (1982b); Reed, J.C., Jr., and others (1981); Condie (1980); Elevatorski (1979)

1: 30N.15E.18
2: Latir
3: 18 T30N R15E (unsurveyed) 36°50'49"N 105°22'53"W
4: Latir Peak 7-1/2
5: Costilla Creek-Sangre de Cristo Grant
6: U
7: 4-5 ft open cut (adit)
8: no production
9: bkdg 100 cps, high 500 cps, average in cut 200-300 cps
10: Precambrian Costilla Massif (granite)
11: radioactive brecciated zone in granite along contact between granite and gabbro dike
13: Hydrothermal-vein/Contact-metasomatic
15: FN 11/9/81; Reid and others (1980a, #3); U.S. Atomic Energy Commission (1970, p. 212); MILS (1981)

1: 27N.13E.28
2: San Antonio Claims
3: 28 T27N R13E (unsurveyed) 36°33'2"N 105°33'30"W
4: Arroyo Seco 7-1/2 Elevation 8,600 ft
5: Arroyo Seco area
6: U, Th
7: 15-ft adit, 20-ft shaft, 75-ft lower adit
8: no production reported
9: 5-40 times background reported by Reid and others (1980, #5)
10: Precambrian pegmatite intruded into gneiss
12: radioactive minerals in simple, zoned pegmatite
13: Pegmatite
15: Briggs (1982b, p. 6); Reid and others (1980a, #5); U.S. Atomic Energy Commission (1970, p. 209)

1: 25N.9E.3
2: Servilleta Plaza (Anomaly #15)
3: 3 T25N R9E
4: Servilleta Plaza 7-1/2
5: Petaca district
6: U
7: no workings
8: no production
10: Tertiary Santa Fe Group
12: radioactive tones in limonitic, fine-grained sandstone
13: Sandstone
15: Reid and others (1980a, #6); U.S. Atomic Energy Commission (1970, p. 124); Hilpert (1955, p. 106, #13)

1: 30N.15E.7.143
2: Unknown-Billy Goat pegmatites
3: 7 T30N R15E (unsurveyed) 36°51'50"N 105°22'40"W
4: Latir Peak 7-1/2 Elevation 9,000 ft, 9,210 ft
5: Costilla Creek-Sangre de Cristo Grant
6: U
7: no workings-outcrops in arroyos (800-ft upstream from Costilla Creek)
8: no production
9: bkgd 100 cps; high along pegmatites 3,000 cps
10: Precambrian Costilla Massif (pegmatites in granite)
11: radioactive pegmatites trending northwest-southeast
13: Pegmatite
15: FN 11/9/81; PRR DEB-RRA-1429 (1954); Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., PC, 11/10/81)

1: 30N.15E.8.300
2: Unknown-Comanche Point
3: 8 T30N R15E (unsurveyed) 35°51'35"N 105°22'25"W
4: Comanche Point 7-1/2 Elevation 10,240 ft
5: Costilla Creek-Sangre de Cristo Grant
6: U
7: no workings-outcrop
8: no production
9: bkgd 150 cps; high 20,000 cps reported
10: Precambrian Costilla Massif (granite)
11: radioactive minerals along fractures in altered granite
12: secondary yellow-green uranium minerals
13: Orthomagmatic
15: Craig Goodknight and Jim Dexter (Bendix Field Eng. Corp., PC, 11/10/81)

1: 23N.11E.16.421
2: Wichita Mine (Tungsten Mine)
3: N1/2 SE1/4 16 T23N R11E 36°13'30"N 105°46'15"W
4: Trampas 7-1/2 Elevation 8,130 ft
5: Picuris district-Sangre de Cristo Mountains
6: Cu, W, U
7: 2 shafts, open pits (main shaft 100-ft deep)
8: no uranium production, some Cu and W produced
9: bkgd 30 cps, high 50 cps
10: Precambrian Ortega Formation (lower Quartzite Member)
11: radioactive quartz-copper-tungsten veins along fractures in metamorphic rocks
12: copper oxides, 61 ppm U_3O_8 (reported by Craig Goodknight)
13: Hydrothermal-vein
15: FN 6/17/82; Anderson, O.J. (1980); Schilling, J.H. (1960); Craig Goodknight (Bendix Field Eng. Corp., WC, 4/24/82)

Alphabetical (14 occurrences)

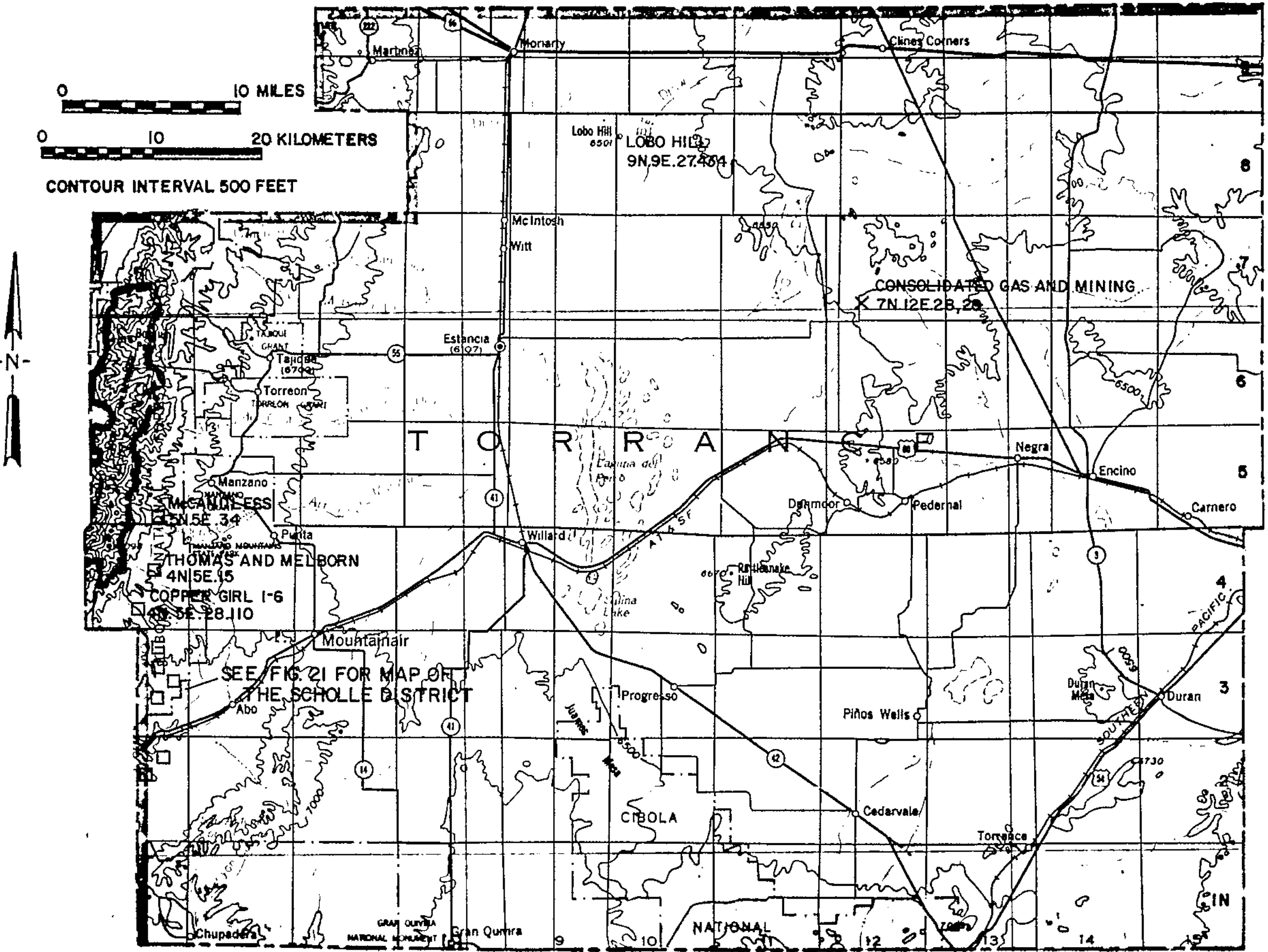
Abo Mine	2N.5E.3.414
Abo Mining Claims	3N.5E.23.111
Consolidated Gas and Mining	7N.12E.28,29
Copper Girl 1-6	4N.5E.28.110
Lobo Hill	9N.9E.27.434
McCandless Prospect	5N.5E.34
Old Abo Claims	3N.5E.27.200
Pioneer Mine	3N.5E.15.441
Rattlesnake #1-4	3N.5E.15.233
Scholle-1	3N.5E.10.312
Scholle	2N.5E.10
Thelma	3N.5E.15.423
Thomas and Melborne	4N.5E.15
Unknown	2N.5E.17
Unknown	3N.5E.10.314

Alias	Name	Number
Abel	Abo Mine	2N.5E.3.414
Abo	Thelma	3N.5E.15.423
Abo Claims	Old Abo Claims	3N.5E.27.200
Hannie	Pioneer Mine	3N.5E.15.441
Laurita	Scholle #1	3N.5E.10.312
McTerry	Thelma	3N.5E.15.423
Miners Dream	Thelma	3N.5E.15.423
Pioneer Copper Mine	Pioneer Mine	3N.5E.15.441
Prospect #17	Abo Mine	2N.5E.3.414
Sandstone Copper	Abo Mining Claims	3N.5E.23.111
Scholle	Abo Mine	2N.5E.3.414
Thelma-Ann	Thelma	3N.5E.15.423
Tom Arnett prospect	Abo Mine	2N.5E.3.414
Unknown	Pioneer Mine	3N.5E.15.441
Uranium prospect	Abo Mine	2N.5E.3.414

Numerical

2N.5E.3.414	Abo Mine
2N.5E.10	Scholle
2N.5E.17	Unknown
3N.5E.10.312	Scholle-1
3N.5E.10.314	Unknown
3N.5E.15.233	Rattlesnake #1-4
3N.5E.15.423	Thelma
3N.5E.15.441	Pioneer Mine
3N.5E.23.111	Abo Mining Claims
3N.5E.27.200	Old Abo Claims
4N.5E.15	Thomas and Melborne
4N.5E.28.110	Copper Girl 1-6
5N.5E.34	McCandless Prospect
7N.12E.28,29	Consolidated Gas and Mining
9N.9E.27.434	Lobo Hill

FIGURE 1-31- RADIOACTIVE OCCURRENCES IN TORRANCE COUNTY, NEW MEXICO



1: 2N.5E.3.414
2: Abo Mine (Prospect #17, Uranium prospect, Abel, Scholle, Tom Arnett Prospect)
3: SE1/4 3 T2N R5E 34°25'29"N 106°24'30"W
4: Scholle 7-1/2 Elevation 5,910 ft
5: Scholle district-Manzano Mountains
6: Cu, Ag, Au, U, V
7: 2 shafts (one 75-ft deep), dumps, open pit, 40-ft decline
8: no uranium production
9: bkgd 30 cps, high 200 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper minerals and organic debris in red and gray (bleached) sandstone
12: secondary uranium minerls reported, 0.014-0.107% U_3O_8 (Gibson, 1952)
13: Sandstone-tabular
14: site of mill and leaching operation
15: FN 7/2/80; Pierson and others (1981, #59); Myers (1977); U.S. Atomic Energy Commission (1970, p. 219); Hilpert (1969); Phillips (1960); Collins and Nye (1957b); Soulè (1956); Hilpert and Corey (1955, #84, 86); Gibson (1952, #2); Gott and Erickson (1952; 1951, #17, 18); PRR D-245 (1951); RG-1-51 (1951); USAEC files (1953)
16: figure 21

1: 3N.5E.23.111
2: Abo Mining Claims (Sandstone copper)
3: NE1/4 22, NW1/4 23 T3N R5E 34°28'30"N 106°24'00"W
4: Scholle 7-1/2 Elevation 6,240 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: 40-ft adit, open cut, dumps
8: radium ore shipped in 1916 (USBM), copper production
9: bkgd 30-50 cps, adit 50-100 cps, along face of outcrop 300-400 cps, along boulders in pit 700 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides and organic debris in red and bleached gray limey conglomerates
12: 0.001%, 0.002% U_3O_8; 6.36%, 11.11% Cu (NMBMMR chem lab, 11/30/81, #1527, 1528), 2-inch seam of 13% U_3O_8 reported
13: Sandstone-tabular
14: claim post south of workings-SW corner Abo #5
15: FN 6/24/81; Pierson and others (1981, #60, 62); Myers (1977); U.S. Atomic Energy Commission (1970, p. 215); Hilpert (1969); Hilpert and Corey (1955, #84); PRR DEB-RRA-569 (1955); DEB-RRA-1401 (1954), 1 supplement; NMBMMR files (1954); USBM files (1949)
16: figure 21

1: 7N.12E.28,29
2: Consolidated Gas and Mining
3: 28, 29 T7N R12E
4: Pedernal Mountain 7-1/2
5: Pedernal Hills
6: U
7: pits
8: no uranium production
9: bkgd 50 cps, high 150-200 cps
10: Paleozoic syenite intruding Precambrian schists
11: radioactive fracture zone, N 78 W
13: Hydrothermal-vein
15: FN 9/21/83; Loring and Armstrong (1980); U.S. Atomic Energy Commission (1970, p. 217)

1: 4N.5E.28.110
2: Copper Girl #1-6
3: NW1/4 28 T4N R5E 34°32'55"N 106°25'55"W
4: Torreon 15' Elevation 6,820 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: 2 open cuts (decline-adit), decline adit, 30- to 50-ft deep
8: no uranium production
9: bkgd 20-30 cps, high 150-225 cps, average 50-100 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides in fractured red and bleached bluff conglomerate and arkose, 1 to 2-ft thick
12: uraninite with chalcocite reported; 0.005% U_3O_8, 0.83% Cu (NMBMMR, chem lab, 11/30/81, #1526)
13: Sandstone-tabular
14: mine map fig. this report
15: FN 6/17/81, 6/26/81; Anderson, O.J. (1980); Pierson and others (1981, #65); Myers and McKay (1974); U.S. Atomic Energy Commission (1970, p. 218); Phillips (1960); Collins and Nye (1957b); Lovering (1956); USAEC files (1955)
16: figure 21, 22

1: 9N.9E.27.434
2: Lobo Hill
3: 27, 34 T9N R9E
4: Lobo Hill 15
5: Estancia Basin
6: U, Th
7: pits
8: no uranium production
9: bkgd 50 cps, high 1,000 cps
10: syenite intruding Precambrian schists
11: vein trending N40E
13: Hydrothermal-vein
15: FN 9/20/83; Loring and Armstrong, 1980

1: 5N.5E.34
2: McCandless Prospect
3: 34 T5N R5E
4: Scholle 7-1/2
5: Manzano district
6: Cu, U
7: no workings found, 3 ft x 4 ft x 3 ft pit reported
8: no production
9: no anomalous radioactivity on 7/2/80, twice background reported
10: Permian Abo Formation
12: malachite, azurite
13: Sandstone-tabular
14: could not locate on 7/2/80
15: FN 7/2/80; U.S. Atomic Energy Commission (1970, p. 214)
16: figure 21

1: 3N.5E.27.200
2: Old Abo Claims (Abo Claims)
3: NE1/4 27 T3N R5E 34°27'30"N
4: Scholle 7-1/2 Elevation 6,180 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: several shallow prospect pits, open stope
8: no production
9: no anomalous radioactivity found on 6/24/81
10: Permian Abo Formation
12: 0.046 - 13% U_3O_8 reported in PRR supplement
13: Sandstone-tabular
14: ore may occur at depth
15: FN 6/24/81; Myers (1977); U.S. Atomic Energy Commission (1970, p. 195) plus supplement (DEB-RRA-1401(1954)); Collins and Nye (1957b)
16: figure 21

1: 3N.5E.15.441
2: Pioneer Mine (Hannie, Pioneer Copper Mine, Unknown)
3: SE1/4 15 T5N R5E 34°29'10"N 106°24'00"W
4: Scholle 7-1/2 Elevation 6,200 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: 20-ft adit, pits
8: no uranium production
9: bkgd 30-50 cps, high 150 cps
10: Permian Abo Formation
11: uranium minerals associated with copper minerals and organic debris in bleached sandstones and conglomerates
12: carnotite or tyuyamunite reported, 0.002% U_3O_8, 4.18% Cu (NMBMMR chem lab, 11/30/81, #1525)
13: Sandstone-tabular
15: FN 6/24/81; Pierson and others (1981, #64); Myers (1977); Collins and Nye (1957b); PRR DEB-RRA-569 (1953); DEB-RF-464 (1953)
16: figure 21

1: 3N.5E.15.233
2: Rattlesnake #1-4
3: SW1/4 NE1/4 15 T3N R5E 34°29'10"N 106°24'30"W
4: Scholle 7-1/2 Elevation 6,090 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: pit, trench, dumps
8: no uranium production
9: bkgd 30-50 cps, high on dumps 130 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides in arkosic conglomerate (bleached)
12: yellow-green uranium mineral reported
13: Sandstone-tabular
15: FN 6/24/81; Pierson and others (1981, #63); Myers (1977); Hilpert (1969); Hilpert and Corey (1955, #84); PRR DEB-RRA-1180 (1954)
16: figure 21

1: 3N.5E.10.312
2: Scholle-1 (Laurita)
3: SW1/4 10 T3N R5E 34°30'00"N 106°24'55"W
4: Scholle 7-1/2 Elevation 5,900 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: pits, adits, tunnels (one reported to be 70-ft long)
8: no uranium production
9: bkgd 30 cps, high 80 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides and organic debris in bleached red-bed sandstones
13: Sandstone-tabular
14: north of claim post-SW corner Laurita
15: FN 7/2/80, 6/26/81; Pierson and others (1981, #56); Myers (1977); Phillips (1960); Soulè (1956); Lovering (1956); Gibson (1952, p. 28, #6); PRR RG-6-51 (1951)
16: figure 21

1: 2N.5E.10
2: Scholle
3: 10 T2N R5E 34°24'30"N 106°24'30"W
4: Scholle 7-1/2 Elevation 5,900 ft
5: Scholle district-Manzano Mountains
6: U, Cu
7: pits
8: no production
10: Permian Abo Formation (red beds)
12: 0.008% U reported
13: Sandstone-tabular
14: could not locate on 3/2/82
15: FN 3/2/82; Pierson and others (1981, #56); Bachman, Baltz, and O'Sullivan (1953)
16: figure 21

1: 3N.5E.15.423
2: Thelma (Miners Dream, McTerry, Thelma-Ann, Abo)
3: SE1/4 15, NE1/2 22 T3N R5E 34°29'00"N 16°24'10"W
4: Scholle 7-1/2 Elevation 6,400 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: 30-ft adit
8: no uranium production
9: bkgd 30-50 cps, adit walls 100 cps, high in fracture 150 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides in red and bleached gray arkose
13: Sandstone
14: north of claim post-SW corner Thelma
15: FN 6/24/81; Pierson and others (1981, #60, 61); Myers (1977); PRR DEB-RRA-569 (1953)
16: figure 21

1: 4N.5E.15
2: Thomas and Melbourn
3: 15 T4N R5E 34°34'20"N 106°24'30"W
4: Torreon 15'
5: Scholle district-Manzano Mountains
6: U, Cu, Au
7: no workings found
8: no production
9: no anomalous radioactivity
10: Permian Abo Formation
12: 2.15% U reported
13: Sandstone
14: could not be located on 6/17/81
15: FN 6/17/81; Pierson and others (1981, #66)
16: figure 21

1: 2N.5E.17
2: Unknown
3: 17 T2N R5E
4: Scholle 7-1/2
5: Scholle district-Los Pinos Mountains
6: Cu, U
7: pits
8: no production
10: Permian Abo Formation
11: radioactive carbonized woody hydrocarbon
12: 0.014% U reported
13: Sandstone
14: could not be located on 3/2/82
15: FN 3/2/82; Lovering (1956)
16: figure 21

1: 3N.5E.1Ø.314
2: Unknown
3: SW1/4 1Ø T3N R5E 34°2Ø'ØØ"N 1Ø6°24'55"W
4: Scholle 7-1/2
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: pits
8: no uranium production
9: bkgd 3Ø cps, high 8Ø cps
1Ø: Permian Abo Formation
13: Sandstone-tabular
15: FN 7/2/8Ø, 6/26/81; Myers (1977);Phillips (196Ø); Soulè (1956)
16: figure 21

UNION COUNTY

Alphabetical (5 occurrences)

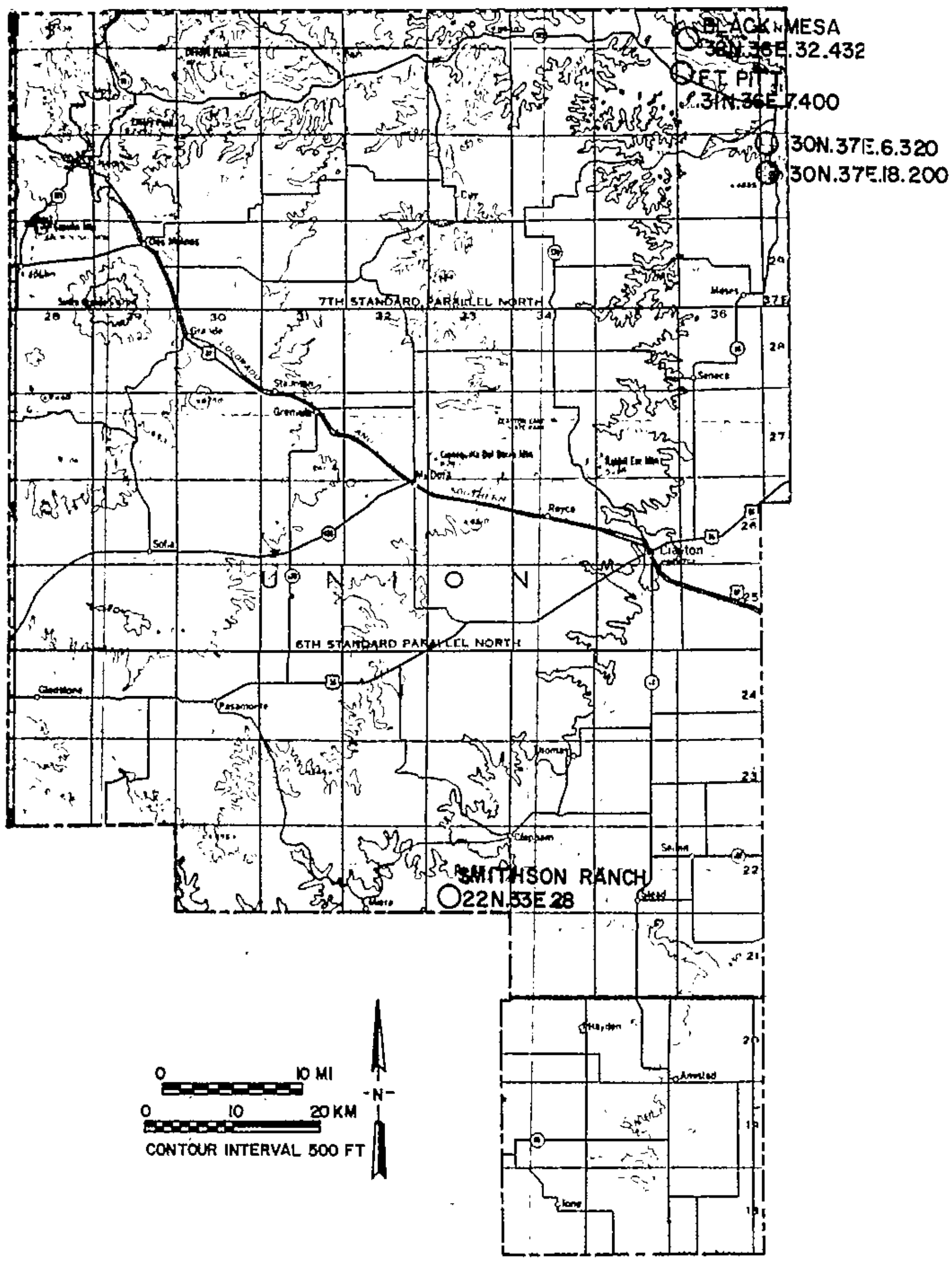
Black Mesa	32N.36E.32.432
Ft. Pitt Copper Co.	31N.36E.7.400
Smithson Ranch	22N.33E.28
Unknown	30N.37E.6.320
Unknown	30N.37E.18.200

Alias	Name	Number
Brown Ranch	Black Mesa	32N.36E.32.432
Sample #22	Unknown	30N.37E.18.200
Tramperos Creek	Smithson Ranch	22N.33E.28

Numerical

22N.33E.28	Smithson Ranch
30N.37E.6.320	Unknown
30N.37E.18.300	Unknown
31N.36E.7.400	Ft. Pitt Copper Co.
32N.36E.32.432	Black Mesa

FIGURE 1-32- RADIOACTIVE OCCURRENCES IN UNION COUNTY, NEW MEXICO



UNION COUNTY

1: 32N.36E.32.432
2: Black Mesa (Brown Ranch)
3: 32 T32N R36E 36°57'38"N 103°07'16"W
4: Goodson School 7-1/2
5: Black Mesa area
6: U
7: dozer cut
8: no production
10: Jurassic Morrison Formation
11: two radioactive marlstones separated by 10-20 ft of mudstones
12: 78-183 ppm U
13: Limestone
15: Consulting Professionals, Inc. (1980, #1); Abbott (1975); PRR DEB-RRA-546 (1953)

1: 31N.36E.7.400
2: Ft. Pitt Copper Co.
3: 12 T31N R35E, 7 T31N R36E
4: Wedding Cake Butte 7-1/2
5: Black Mesa area
6: U, Cu
7: shallow pits, 285-ft shaft
8: no uranium production
9: bkgd 30 cps, high 60 cps
10: clastic plug in Triassic Sheep Pen Sandstone
11: mineralized clastic plug
12: 0.004% U_3O_8, copper oxides
13: Breccia-pipe/Vein-type in sedimentary rocks
15: FN 8/5/83; Finch, W.I. (1972, #43); Baldwin and Muehlberger (1959, p. 43); Soulè (1956, p. 18); Parker (1933)

1: 22N.33E.28
2: Smithson Ranch (Tramperos Creek)
3: 23 T22N R33E 36°6'34"N 103°26'00"W
4: Pedernal Creek 7-1/2
5: Tramperos Creek area
6: U
7: pit
8: no production
10: Jurassic Morrison Formation
11: mineralized carbon trash pocket in marlstone
13: Limestone
15: Consulting Professionals, Inc. (1980, #3); Abbott (1975); U.S. Atomic Energy Commission (1970, p. 221)

1: 30N.37E.6.320
2: Unknown
3: 6 T30N R37E 30°51'56"N 103°01'42"W
4: Greendailey Canyon 7-1/2
5: Carrizozo Creek area
6: U
8: no production
10: Jurassic Morrison Formation
11: radioactive marlstone
12: 77-148 ppm U_3O_8
13: Limestone
15: Consulting Professionals, Inc. (1980, #15)

1: 30N.37E.18.200
2: Unknown (sample #22)
3: NE1/4 18 T30N R37E
4: Greendailey Canyon 7-1/2
5: Carrizozo Creek area
6: U
7: no workings
8: no production
10: Jurassic Morrison Formation
12: 260 ppm U
13: Limestone
15: Abbott (1975)

VALENCIA COUNTY

Alphabetical (4 occurrences)

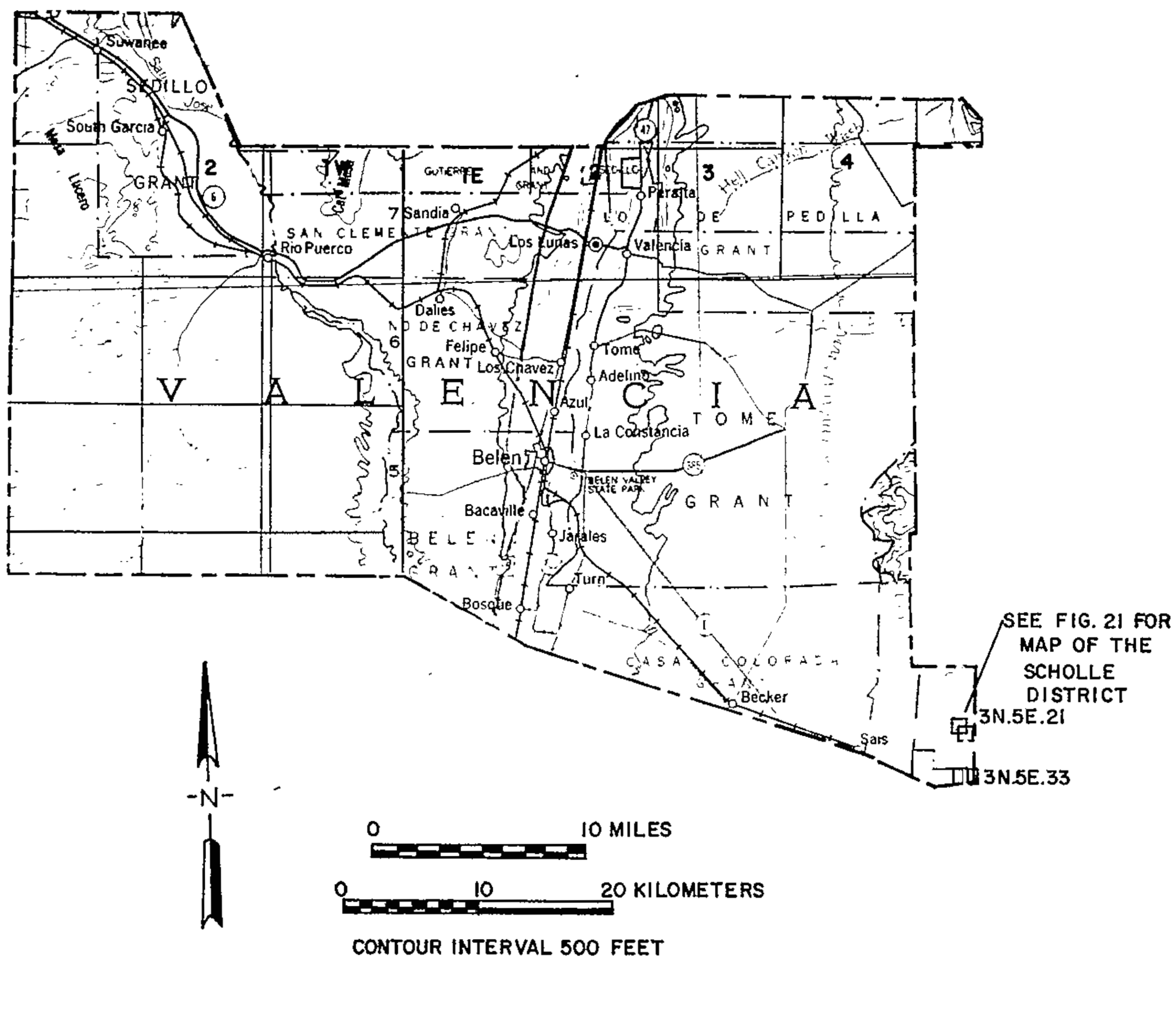
Abo Mining and Manufacture Co.	3N.5E.33.230
Abo Mining and Manufacture Co. Mill Site	3N.5E.33.431
Unknown-Scholle	3N.5E.21.340
Unknown-Gravel Pit	3N.5E.21.421

Alias	Name	Number
Blue Star	Abo Milling & Manufacture Co.	3N.5E.33.230
Colonel Richard	Abo Milling & Manufacture Co. Mill Site	3N.5E.33.431
Scholle	Unknown	3N.5E.21.340

Numerical

3N.5E.21.340	Unknown-Scholle
3N.5E.21.421	Unknown-Gravel pit
3N.5E.33.230	Abo Milling & Manufacture Co.
3N.5E.33.431	Abo Milling & Manufacture Co. Mill Site

FIGURE 1-33 -RADIOACTIVE OCCURRENCES IN VALENCIA COUNTY, NEW MEXICO



1: 3N.5E.33.23Ø
2: Abo Milling and Manufacture Co. (Blue Star)
3: NE1/4 33 T3N R5E 34°26'45"N 1Ø6°24'ØØ"W
4: Scholle 7-1/2 Elevation 5,86Ø ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: adit, 2Ø-ft shaft, pits, trenches
8: no uranium production
9: bkgd 3Ø cps, average on dumps 5Ø cps, high 1ØØ cps
1Ø: Permian Abo Formation
11: radioactive minerals associated with copper oxides in red and bleached gray arkose and limey conglomerates
13: Sandstone
14: private property owned by Clarence Pohl
15: FN 6/24/81; Myers (1977); Phillips (196Ø)
16: figure 21

1: 3N.5E.33.431
2: Abo Milling and Manufacture Co. Mill Site (Colonel Prichard)
3: SE1/4 33 T3N R5E 34°26'ØØ"N 1Ø6°24'ØØ"W
4: Scholle 7-1/2 Elevation 5,87Ø ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: small shallow pits, foundations of a mill
8: no uranium production
9: bkgd 3Ø cps, high on ore dump 6Ø-8Ø cps
1Ø: Permian Abo Formation
11: radioactive minerals associated with copper oxides in gray and red arkose
13: Sandstone-tabular
14: site of leaching operation which failed, private property owner Clarence Pohl
15: FN 6/24/81; Myers (1977); Gibson (1952, #4); PRR RG-4-51 (1951); Clarence Pohl, (PC, 6/24/81)
16: figure 21

1: 3N.5E.21.340
2: Unknown-Scholle
3: SW1/4 21 T3N R5E 34°28'00"N 106°26'00"W
4: Scholle 7-1/2 Elevation 5,800 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: numerous open cuts, trenches
8: no uranium production
9: bkgd 20-30 cps, average on dump 20-60 cps, high 150-200 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides in red and gray arkose and siltstone
13: Sandstone-tabular
15: FN 6/26/81; Myers (1977)
16: figure 21

1: 3N.5E.21.421
2: Unknown-Gravel Pit
3: CE1/2 21 T3N R5E 34°28'00"N 106°26'00"W
4: Scholle 7-1/2 Elevation 5,860 ft
5: Scholle district-Manzano Mountains
6: Cu, U, V
7: several shallow open cuts, trenches
8: no uranium production
9: bkgd 30 cps, high on dumps 60 cps
10: Permian Abo Formation
11: radioactive minerals associated with copper oxides and organic debris in arkose and siltstone
13: Sandstone-tabular
14: labeled as Gravel Pit on topographic map
15: FN 6/26/81; Myers (1977)
16: figure 21

Abby District - Bear Mountains (Socorro County) (15 occurrences)

Alamosa Creek Valley	1N.5W.8
Alamosa Creek	1N.5W.18
Anomaly #5	1N.5W.7.133
Beall Claims	1N.6W.26
Carter-Tolliver-Cook Claims	2S.7W.6,7
Hogsett, Hust, Henderson Claim #1-4	1N.6W.24.121
Hook Ranch Deposit	1N.6W.13.344
Hot Shot Mine	1N.5W.18.114
Hust-McDonald-Brown	1N.6W.4.200
Nicolls-Higgens-Jones	1N.6W.2.300
Rusty Atom Claims	1N.6W.26
Unknown	1N.5W.7
Unknown	1S.6W.14
Unknown	1S.6W.23
Unknown	1N.6W.35

Ambrosia Lake Subdistrict - Grants Uranium District (226 occurrences)

Ann Lee	14N.9W.28.144	McKinley County
Barbara J #1	13N.9W.30.213	McKinley County
Barbara J #2	13N.9W.30.141	McKinley County
Barbara J #3	13N.9W.30.221	McKinley County
Beacon Hill	13N.9W.19,20	McKinley County
Beacon Hill	13N.9W.20.133	McKinley County
Beacon Hill Gossett	13N.9W.18.444	McKinley County
B G Group	13N.9W.20.200	McKinley County
Black Hawk and Bunney Group	12N.9W.4.414	Cibola County
Blue Peak	13N.10W.24.234	McKinley County
Bobcat	13N.10W.24.144	McKinley County
Buckey	14N.10W.14.414	McKinley County
Canyon Mulatto	14N.9W.12.400	McKinley County
Canyon Mulatto	14N.9W.24.100	McKinley County
Cedar 1	11N.9W.20.414	Cibola County
C & H Claims	13N.9W.22	McKinley County
Charlotte	13N.9W.33.433	McKinley County
Christmas Day	12N.9W.4.243	Cibola County
Cliffside-Section 36	14N.9W.36.332	McKinley County
Dakota Mine	13N.10W.4.243	McKinley County
Dave Group	11N.9W.3.100	Cibola County
Davenport Incline	13N.9W.20.312	McKinley County
Dog Group	13N.9W.20.411	McKinley County
Doris Incline	13N.9W.21.324	McKinley County
Doris West Extension	13N.9W.21.332	McKinley County
Dysart #1	14N.10W.11.312	McKinley County
Dysart #2	14N.10W.11.424	McKinley County
East Malpais Lease	13N.9W.20.233	McKinley County
F-33 Mine	12N.9W.33.444	Cibola County
Faith Mine	13N.9W.29.141	McKinley County
Febco	14N.10W.31.344	McKinley County
Fernandez	13N.8W.15.444	McKinley County
Flat Top	13N.9W.30.442	McKinley County
Flea Mine	13N.9W.20.422	McKinley County
Forrest Group	12N.9W.34.430	Cibola County
Gay Eagle	12N.9W.4.432	Cibola County
Green Pick	14N.9W.4	McKinley County
Hardwork	13N.10W.16.100	McKinley County
Haystack Section 13	13N.11W.13.114	McKinley County
Haystack Section 13	13N.11W.13.314	McKinley County
Haystack Section 13	13N.11W.13.324	McKinley County
Haystack Section 13	13N.11W.13.444	McKinley County
Haystack Section 19	13N.10W.19.110	McKinley County
Hogan Mine	13N.9W.14.414	McKinley County
Hope Mine	13N.9W.19.323	McKinley County
Hutton-James Group	13N.11W.15.111	McKinley County
Isabella	13N.9W.7.221	McKinley County
Johnny M	13N.8W.7,18	McKinley County
Junior	13N.10W.4.223	McKinley County
LaJara #1-9	12N.9W.15.411	Cibola County
Last Chance	12N.9W.8.224	Cibola County
Lee Mine	13N.8W.17.222	McKinley County
Little Joe and Rimrock Claims	13N.10W.33.320	McKinley County
Lone Pine 3	11N.9W.8.214	Cibola County
Lost Mine	14N.11W.35.120	McKinley County
Malpais Raise	13N.9W.20.144	McKinley County
Marquez Mine	13N.9W.23.233	McKinley County
Mary #1	14N.10W.11.112	McKinley County
Mesa Top Mine	13N.9W.20.321	McKinley County
Mount Taylor	13N.7W.30.100	McKinley County
Mount Taylor	13N.8W.24.433	Cibola County
Pat	13N.10W.4.244	McKinley County
Piedra Trieste	13N.9W.30.143	McKinley County
Poison Canyon	13N.9W.19.420	McKinley County
Red Bluff #1	12N.9W.4.212	Cibola County
Red Bluff #2 & 4	12N.9W.4.221	Cibola County
Red Bluff # 3,5, & 9	12N.9W.4.214	Cibola County
Red Bluff #7	12N.9W.4.342	Cibola County
Red Bluff #8	12N.9W.4.433	Cibola County
Red Bluff #10	12N.9W.4.434	Cibola County
Redco	13N.11W.10.110	McKinley County
Red Point Lode	13N.10W.16.134	McKinley County
Red Rock Claims #3 & 4	13N.10W.24.444	McKinley County
Roca Honda	13N.8W.8.400	McKinley County
Roundy Mine	13N.9W.30.323	McKinley County
Sandstone	14N.9W.34.424	McKinley County
San Mateo	13N.8W.30.245	Cibola County
Santa Fe Railroad	13N.9W.19.134	McKinley County
Section 1	13N.9W.1.200	McKinley County
Section 1	13N.11W.1.412	McKinley County
Section 1	14N.11W.1.100	McKinley County
Section 1	14N.11W.1.333	McKinley County
Section 2	13N.9W.2.145	McKinley County
Section 2	13N.9W.2.233	McKinley County
Section 2	13N.9W.2.313	McKinley County
Section 2	13N.9W.2.411	McKinley County
Section 2	13N.11W.2.124	McKinley County
Section 2 & 3	14N.10W.2,3	McKinley County
Section 2	14N.11W.2.444	McKinley County
Section 3	12N.9W.3 .	Cibola County
Section 3	13N.10W.3	McKinley County
Section 4	12N.9W.4	Cibola County
Section 4	13N.10W.4.134	McKinley County
Section 4	14N.10W.4.110,130	McKinley County
Section 4	14N.10W.4.220,240	McKinley County
Section 5	13N.9W.5.222	McKinley County
Section 5	13N.10W.5.144	McKinley County
Section 6	13N.9W.6.322	McKinley County
Section 6	14N.10W.6.424	McKinley County
Section 7	13N.8W.7.120	McKinley County
Section 8	13N.9W.8.114	McKinley County
Section 8	14N.10W.8.100	McKinley County
Section 9 Mine	12N.9W.9.120	Cibola County
Section 9 Adit	12N.9W.9.131	Cibola County
Section 9	12N.9W.9.143	Cibola County
Section 9 NE	12N.9W.9.213	Cibola County
Section 10 & 11	13N.10W.10	McKinley County
Section 10	14N.10W.10.244	McKinley County
Section 12	13N.9W.12	McKinley County
Section 12 & 13	13N.10W.12,13	McKinley County
Section 12	14N.10W.12.411	McKinley County
Section 13	13N.9W.13.400	McKinley County
Section 13	14N.10W.13.243	McKinley County
Section 13	14N.10W.13.413	McKinley County
Section 14	13N.10W.14.220	McKinley County
Section 15	14N.10W.15.441	McKinley County
Section 16	13N.9W.16.333	McKinley County
Section 16	13N.9W.16.441	McKinley County
Section 17	13N.10W.17.110	McKinley County
Section 17	13N.10W.17.330	McKinley County
Section 17	14N.9W.17.100	McKinley County
Section 17	14N.9W.17.323	McKinley County
Section 17	14N.10W.17	McKinley County
Section 18	13N.8W.18.244	McKinley County
Section 18	13N.8W.331	McKinley County
Section 18	13N.10W.18.233	McKinley County
Section 18	13N.10W.18.341	McKinley County
Section 18 SEQ	13N.10W.18.430	McKinley County
Section 18	14N.9W.18.420	McKinley County
Section 18	14N.10W.18.230	McKinley County
Section 19	13N.8W.19.300	Cibola County
Section 19	14N.9W.19.411	McKinley County
Section 19	14N.11W.19.244	McKinley County
Section 20	14N.9W.20.114	McKinley County
Section 20	14N.9W.20.333	McKinley County
Section 20	15N.13W.20.223	McKinley County
Section 21	14N.10W.21.222	McKinley County
Section 22	12N.9W.22.200	Cibola County
Section 22	13N.10W.22.232	McKinley County
Section 22	14N.10W.22.223	McKinley County
Section 23,26	13N.10W.23.444	McKinley County
Section 23	14N.10W.231.134	McKinley County
Section 23	16N.17W.23.221	McKinley County
Section 24	13N.9W.24.121	McKinley County
Section 24	13N.9W.24.220	McKinley County
Section 24	13N.9W.24.300,400	McKinley County
Section 24	13N.11W.24.222	McKinley County
Section 24	14N.10W.24.332	McKinley County
Section 25 Shaft	13N.10W.24.122	McKinley County
Section 25-	13N.10W.25.212	McKinley County

Section 25 Decline-Red Rocks Claims	13N.10W.25.221	McKinley County	Section 36	14N.10W.36.222	McKinley County
			Shirley and Gunther	13N.10W.24.222	McKinley County
Section 25 SEQ-Desidario	13N.10W.25.411	McKinley County	Silver Spur Pits	14N.10W.31.233	McKinley County
			Silver Spur Group	14N.10W.31.334	McKinley County
Section 25 Open-pit	13N.10W.25.114	McKinley County	Summit Group	13N.10W.15.133	McKinley County
Section 25	14N.10W.25.144	McKinley County	Taffy	12N.9W.11.334	Cibola County
Section 26	13N.10W.26.221	McKinley County	Tanny Uranium	14N.10W.34.441	McKinley County
Section 26	14N.9W.26.332	McKinley County	T-20 Shaft	13N.9W.30.414	McKinley County
Section 26	14N.9W.26.430	McKinley County	Tom 13	11N.9W.4.411	Cibola County
Section 26	14N.10W.26.220	McKinley County	UDC #1-5	12N.9W.4.411	Cibola County
Section 27	14N.9W.27.310	McKinley County	Unknown	11N.9W.9	Cibola County
Section 27	14N.9W.27.324	McKinley County	Unknown	11N.9W.17	Cibola County
Section 27	14N.10W.27.144	McKinley County	Unknown	12N.9W.19	Cibola County
Section 27	15N.11W.27.412	McKinley County	Unknown	13N.8W.5	McKinley County
Section 28	14N.10W.28.211	McKinley County	Unknown	13N.8W.6	McKinley County
Section 28	15N.17W.28.132	McKinley County	Unknown	13N.8W.16.133	McKinley County
Section 29	14N.9W.29.100	McKinley County	Unknown	13N.9W.30.114	McKinley County
Section 29	14N.9W.29.300	McKinley County	Unknown	13N.9W.31.219	McKinley County
Section 29	14N.9W.29.400	McKinley County	Unknown	13N.10W.19.120	McKinley County
Section 29	14N.10W.29.244	McKinley County	Unknown	13N.10W.22.240	McKinley County
Section 30	13N.9W.30.333	McKinley County	Unknown	13N.10W.34	McKinley County
Section 30 West	14N.9W.30.141	McKinley County	Unknown	13N.11W.10.200	McKinley County
Section 30	14N.9W.30.232	McKinley County	Unknown	13N.11W.11.144	McKinley County
Section 31 NWQ.	13N.9W.31.113	McKinley County	Unknown	13N.11W.12.333	McKinley County
Section 31 Strip	13N.9W.31.120	McKinley County	Unknown	13N.11W.12.344	McKinley County
Section 31	14N.8W.31.130	McKinley County	Unknown	13N.11W.13.120	McKinley County
Section 31	14N.9W.31.222	McKinley County	Unnamed-Enerdyne	14N.8W.30.100	McKinley County
Section 32	13N.9W.32.111	McKinley County			
Section 32	13N.9W.32.144	McKinley County	Unknown	14N.9W.14	McKinley County
Section 32	13N.9W.32.321	McKinley County	Unknown	14N.10W.11.232	McKinley County
Section 32	14N.8W.32.340	McKinley County	Unknown-United Nuclear	14N.11W.1.334	McKinley County
Section 32	14N.9W.32.122	McKinley County			
Section 32,33	15N.11W.32.224	McKinley County	Vallejo	13N.9W.34.343	McKinley County
Section 33	14N.9W.33.213	McKinley County	Vanadium #1	12N.9W.33.333	Cibola County
Section 34	14N.11W.34.223	McKinley County	Vanadium #1	13N.10W.26.222	McKinley County
Section 35	14N.9W.35.233	McKinley County	Westvaco	13N.9W.17.311	McKinley County
Section 35	15N.11W.35.200	McKinley County	Whitecap	13N.9W.30.123	McKinley County
Section 36	13N.10W.36.224	McKinley County	X-C	13N.9W.30.233	McKinley County
Section 36	14N.9W.36.422	McKinley County	Zia Mine	12N.9W.15.323	Cibola County
Section 36	14N.10W.36.130	McKinley County			

Anchor District (Taos County) (1 occurrence)

Bitter Creek	29N.15E.21

Antelope Wells District (Hidalgo County) (1 occurrence)

Opportunity Claims	34S.15W.15.432

Apache No. 2 District (Hidalgo County) (1 occurrence)

Apache and Chapo Mines	28S.14W.24

Black Hawk District (Grant County) (7 occurrences)

Alhambra	18S.16W.21.331	Black Hawk Mine	18S.16W.16,21	Rose	18S.16W.29.242
Anomaly No.9	18S.16W.36.341	Osmer Silver	18S.16W.29.414	Silver King (Hobson)	18S.16W.21.223
Anomaly No.10	18S.16W.36.434				

Bishop Cap District (Dona Ana County) (1 occurrence)

Blue Star Claim	24S.3E.25.214

Bromide No. 2 District (Rio Arriba County) (17 occurrences)

J.O.L.	28N.7E.24.140	Unknown	27N.7E.24.242	Unknown	28N.7E.24.222
Moran, Sawyer, and McLind Claims	28N.7E.24.320	Unknown	28N.7E.13.333	Unknown	28N.7E.24.223
		Unknown	28N.7E.13.433	Unknown	28N.7E.24.241
Phillips Drilling Area	28N.7E.24.211	Unknown	28N.7E.14.442	Unknown	28N.7E.24.422
Tusas East Slope #5	28N.7E.24.224	Unknown	28N.7E.23.222	Unknown	28N.8E.19.111
Unknown	27N.7E.24.124	Unknown	28N.7E.23.241	Unknown	28N.8E.20.331

Burro Mountains District (Grant County) (13 occurrences)

Anomaly No.1	19S.15N.11.122	Apache Trail-Black Cat	20S.15N.2.242	Unknown	18S.15W.35.145
Anomaly No.2	19S.15W.2.344	Auston-Amazon Mine	19S.16W.35.220	Unknown	20S.15W.1.143
Anomaly No.15	21S.15W.31.100	Buckhorn-No.2 Claim	20S.15W.19.222	Unknown	20S.15W.13.214
Anomaly No.16	21S.15W.31.200	Copper King No.1	19S.15W.15	White Bull Pegmatites	20S.16W.23.131
Anomaly No.17	21S.15W.31.300				

Caballo Mountains District (Sierra County) (19 occurrences)

Alpha #8 Claim	15S.3W.6.321	Red Rock No.1	16S.4W.33.214	Unknown	13S.3W.4
Blue Jacket 1 & 2	14S.4W.15	Red Rock No.3	16S.4W.33.200	Unknown	13S.3W.10
Hot Rock No.2,4	17S.4W.29,30	Red Rock Claims	16S.4W.33.300	Unknown	13S.3W.13
Joker #1	15S.3W.31.342	Sierra Mining	17S.4W.4.213	Unknown	14S.3W.29
Lydia K Mine	16S.4W.29.400	Unknown	13S.3W.1	Unknown	15S.4W.22.300
Paran	17S.4W.27	Unknown	13S.3W.3	Walker Claims	14S.4W.4
Red Hill Claims	15S.3W.18.312				

Capitan District (Lincoln County) (17 occurrences)

Barlejon No.2	8S.15E.16.414	Fuzzy Nut #1-18	8S.15E.3	Piney	8S.15E.15.331
Bear Canyon Group	8S.17E.9.400	Hopeful Claims #1-19	8S.15E.17.433	San Pedro-Link-Nob Hill Claims	8S.17E.35.331
Capitan Uranium Co. No.14 & 18	7S.15E.33	King	8S.15E.323		
Copeland Canyon	8S.17E.17.200	Koprian Springs	8S.15E.11	Unknown	7S.14E.36.411
Drunzer	8S.15E.22.112	McCory Claims	8S.14E.1.141	Unknown	7S.15E.31.214
El Tigre	8S.15E.23.100	Monso Group	8S.15E.22.213	Wee Three No.1-3	8S.15E.22.124

Carrizalillo Hills District (Luna County) (1 occurrence)

Calumet Mine	29S.11W.14.121

Cat Mountain District (Socorro County) (1 occurence)

Sixty Prospect	3S.5W.6.311

Central District (Grant County) (2 occurrences)

Chino Mine (Santa Rosa Subdistrict)	17S.12W.35	Continental Mine (Fierro Hanover Subdistrict)	17S.12W.4,9

Cerrillos District (Santa Fe County) (6 occurrences)

Cash Entry Mine	14N.8E.5.424	Ortiz Mine Grant	14N.8E.35	Turquoise Hill Mine	15N.8E.21
Ortiz Mine Grant	13N.8E.3	Turquoise Mine	15N.8E.5.411	Unknown-La Cienga	15N.8E.20.144

Chico Hills Area (Colfax County) (6 occurrences)

Ace Construction	27N.25E.17.21	Langley Prospect	26N.27E.18	Laughlin Peak	27N.25E.12.443
Blasted Pine	27N.25E.1.411	Laughlin Peak	27N.25E.1.200	Shell Prospect	26N.25E.3.141

Chupadera District (Socorro County) (5 occurrences)

Gonzales	3S.1E.2.241	Unknown-Tajo Granite	3S.1E.11.111	Unknown-Tajo Granite	3S.1E.14.441
Minas del Chupedera	2S.1E.26.232	Unknown-Tajo Granite	3S.1E.14.232		

Church Rock Subdistrict - Grants Uranium District (McKinley County) (69 occurrences)

Anomaly	15N.17W.28.114	Last Chance #2	14N.14W.2.123	Unknown	16N.16W.4.400
Anomaly	15N.17W.33.422	Mancos-Section 7	16N.16W.7.331	Unknown	16N.16W.7.132
Anomaly	15N.17W.34.432	Mancos-Section 12	16N.17W.12.444	Unknown	16N.16W.8.422
Black rainbow	16N.18W.36.300	Monument	17N.12W.28.144	Unknown	16N.16W.8.443
Canyon	17N.13W.34	Narrow Canyon	17N.14W.2	Unknown	16N.16W.9.400
Car-Ball #13	16N.18W.26.220	Nicholson Brown	15N.14W.26.423	Unknown	16N.16W.9.411
C,D, and S	16N.17W.35.411	N.E. Churchrock-Section 31	17N.15W.31.100	Unknown	16N.16W.16.110
Church Rock	16N.16W.17.212			Unknown	16N.16W.16.200
Church Rock-8 & 2	17N.16W.9	N.E. Churchrock	17N.16W.35.200	Unknown	16N.16W.17.100
Crownpoint	17N.12W.19.312	N.E. Churchrock #1	17N.16W.35.200	Unknown	16N.16W.18.111
Crownpoint	17N.12W.29.212	N.E. Churchrock #1 East	17N.16W.36.100	Unknown	16N.16W.18.113
Crownpoint-Section 9	17N.13W.9.322	N.E. Churchrock #2	17N.16W.27.200	Unknown	16N.16W.18.332
Crownpoint-North Trend	17N.13W.4	N.E. Churchrock #3	17N.16W.21.210	Unknown	16N.16W.19.132
Crownpoint-South Trend	17N.13W.16	Pyramid Group	16N.16W.22	Unknown	16N.16W.22.200
Dalton Pass	17N.14W.28.400	Pyramid Group	16N.16W.32.440	Unknown	16N.16W.23.210
Dalton Pass-Section 30	17N.13W.30	Standing Rock	18N.14W.35.300	Unknown	16N.17W.13.323
Dalton Pass	17N.14W.24,25	U Mine	15N.16W.4.414	Unknown	16N.17W.13.411
Delter	16N.17W.36.114	Unknown	15N.16W.2.323	Unknown	16N.17W.14.100
Diamond No.2	15N.17W.33.214	Unknown	15N.16W.6.221	Unknown	16N.17W.24.200
Foutz #1	15N.16W.4.111	Unknown	15N.16W.15	Unknown	16N.17W.25.241
Foutz #2	15N.16W.5.222	Unknown	16N.13W.5.300	Unknown	16N.17W.31.224
Foutz #3	16N.16W.31.444	Unknown	16N.14W.2.100	Unknown	17N.14W.27.300
Gallup Titanium Deposit	15N.19W.32.432	Unknown	16N.16W.3.222	Williams & Reynolds	15N.16W.4.441
Hogback #3-5	15N.18W.12.244				

Cochiti District (Sandoval County) (2 occurrences)

Peralta Canyon	17N.4E.10,15	Peralta Canyon-Copper Prospect	17N.5E.9.210

Cooks Peak District (Luna County) (2 occurrences)

Cooks Peak Area	20S.8W.29	Lookout No.1-3	20S.9W.11

Costilla Creek Area (Taos County) (6 occurrences)

Billy Goat	30N.15E.7	Costilla	30N.15E.8	Unknown	30N.15E.7
Costilla	30N.15E.7	Latir	30N.15E.18	Unknown	30N.15E.8

Coyote Area (15 occurrences)

Alex #3,5, & 8	22N.3E.22.200	Rio Arriba County	Lulu Ann	22N.16E.12	Mora County
Blas Medina	22N.16E.1	Mora County	Manuel Berella	23N.2E.36	Rio Arriba County
Coyote Creek Mesa Prospects	22N.17E,21N.16E.	Mora County	Red Head Claims	22N.3E.8.214	Rio Arriba County
			Red Head #2	22N.3E.8.232	Rio Arriba County
Coyote Hill	22N.3E.8.121	Rio Arriba County	Resurrection	23N.3E.31.332	Rio Arriba County
Herrera	22N.3E.5.341	Rio Arriba County	Unknown	22N.3E.10	Rio Arriba County
Le Deoux Ranch Lease	22N.16E.13	Mora County	Unknown-Mora Grant	22N.16E.9	Mora County
Lucky Strike	22N.2E.1.223	Rio Arriba County	William Atkins	22N.16E.1	Mora County

Cuchillo Negro District (Sierra County) (6 occurrences)

Chise	12S.7W.18.232	Red Tiger	13S.7W.1	State Mining Lease 61-73	12S.7W.2
Good Luck No.1	12S.7W.9	Sherry No.3	11S.7W.31		
Native No.1	11S.7W.6.111				

Datil District (22 occurrences)

Blue Mesa	2N.8W.6.442	Socorro County	Unknown	2N.9W.33.100	Catron County
Drag A Ranch	2N.9W.31	Catron County	Unknown	2N.10W.9.100	Catron County
Federal Uranium ore	2N.10W.20.440	Catron County	Unnamed	2N.10W.27.444	Catron County
Hancock-Geotex	3N.11W.32.321	Catron County	Unknown	2N.10W.35.232	Catron County
McPhaul Adit	2N.11W.14.243	Catron County	Unknown-McPhaul Ranch	2N.11W.11.113	Catron County
Midnight Group	2N.11W.12.114	Catron County	Unknown	2N.11W.11.324	Catron County
Ox Spring Placer	2N.10W.27.231	Catron County	Unknown-McPhaul Ranch	2N.11W.11.421	Catron County
Red Basin Claims	2N.10W.19.121	Catron County	Unknown	2N.11W.13.112	Catron County
Red Basin #1	2N.10W.19.244	Catron County	Unknown-Adit	2N.11W.13.321	Catron County
Red Basin #2	2N.10W.20.131	Catron County	Unnamed-McPhaul Adit	2N.11W.14.224	Catron County
Southwest Minerals Property	2N.10W.36.444	Catron County	Yequa Claims	2N.10W.27.222	Catron County

Elk Mountain District (San Miguel County) (2 occurrences)

Elk Mountain	18N.13E.14,23	Guy No.1	18N.13E.36.400

El Porvenir District (San Miguel County) (11 occurrences)

Black Nugget No.1	17N.14E.11.331	Los Vigiles	17N.16E.31	Unknown	17N.14E.14.114
High Peak	17N.13E.30.223	Sparks-Stone	16N.14E.5.132	Unknown	17N.14E.14.144
Las Vegas Grant	17N.15E.32	Unknown-Road Cut	17N.14E.5.413	Unknown-Adit	17N.14E.15.121
Locality #33	17N.14E.14.142	Unknown-Road Cut	17N.14E.8.323		

Elizabethtown District (Colfax County) (1 occurrence)

President Mine	28N.16E.15

Gallina District (Rio Arriba County) (21 occurrences)

Baird	21N.2E.15.200	Mining Mountains Claim	21N.2E.31.233	Section 12	21N.2E.12.143
ELC-B and Maxine Groups	25N.2E.7.421	Mining Mountains Claim	21N.2E.33.123	State Lease	23N.1W.16.340
		Mining Mountains Claim	21N.2E.34.123	Teakettle Rock	21N.2E.14.424
Erma	21N.2E.14.441	RA #1	21N.2E.11.144	Unnamed	21N.2E.14.200
Jarosa Prospects	21N.2E.12.411	RA #2	21N.2E.11	Unknown	21N.2E.15.100
Joe	21N.2E.1.143	Rey and Lou Claims	22N.3E.27.210	Unknown	21N.2E.22
Lola	22N.2E.34.300	St. Jude	21N.2E.11.424	Unknown	21N.2E.23.100
Max Jacque and Yellow Bird #2	23N.1E.30.141				

Gallinas Mountains District (Lincoln County) (14 occurrences)

All American	1S.11E.23.211	Hoosier Girl	1S.12E.19.331	Red Cloud Mine	1S.11E.25.200
American	1S.11E.22.241	Last Chance	1S.12E.19.114	Rio Tinto	1S.11E.25.421
Bottleneck Prospect	1S.11E.24.423	Little Wonder	1S.12E.19.320	Sky High	1S.11E.14.411
Congress Prospect	1S.12E.19.313	Pride No.2	1S.11E.27.414	Summit	1S.12E.19.334
Eagle Nest	1S.11E.24.421	Rare Metals	1S.11E.22.413		

Gila District (Grant County) (1 occurrence)

Clum, Aguiler Mines	14S.16W.28,33

Gilman Area - Nacimiento Mountains (Sandoval County) (1 occurrence)

Deer Creek	18N.1E.35.144

Glorieta District (Santa Fe County) (4 occurrences)

Budagher	15N.11E.6.222	Kennedy Mine	15N.11E.23.100	Kunklin Deposit	16N.11E.14
Evelyn Copper Mine	15N.8E.19.422				

Gold Hill District (8 occurrences)

Co-op Mine Ore	21S.16W.29.422	Grant County	Unknown	21S.16W.4.333	Grant County
Grand View Group	22S.16W.17	Grant County	Unknown	21S.16W.6.423	Grant County
North and South Pegmatites	21S.16W.29.244	Grant County	Unknown	22S.17W.9,10	Hidalgo County
			White Top Hill	21S.16W.27.134	Grant County
Rhoda #1-8	21S.17W.1,12	Hidalgo County			

Grants Uranium District (7 occurrences)

Unknown	13N.19W.32	McKinley County	Unknown	16N.15W.21.300	McKinley County
Unknown	14N.16W.30.111	McKinley County	Westwater #1	15N.16W.2.442	McKinley County
Unknown	15N.9W.21	McKinley County	Wilcox Ranch	10N.15W.14.200	Cibola County
Unknown	16N.9W.9	McKinley County			

Hagan Basin Area (Sandoval County) (9 occurrences)

Blackshire	14N.6E.10	Dial Exploration Co.	14N.6E.19	We Hope #4	13N.6E.4,5
Coyote No.1-10	13N.6E.22.320	Diamond Trail	13N.6E.16.124	We(e) Hope, Rabac, DEC Claims	14N.6E.32
Dial Exploration Claims	14N.6E.9,10	Mimi #1-4	12N.8E.3.413		
		North Blackshire Ranch	13N.13E.6.400		

Hatchila - Sierra Rica District (1 occurrence)

Napane	29S.14W.25.442

Hot Springs District (Sierra County) (1 occurrence)

Mitchell Price Prospect	13S.5W.12

Iron Mountain District (Sierra County) (1 occurrence)

Glory No.2 and Empire Claims	10S.8W.14.200

Jemez Springs (Sandoval County) (5 occurrence)

Northeast of Soda Dam	18N.2E.13.200	Spanish Queen	17N.2E.3.400	Tex-N	18N.2E.34
Soda Dam	18N.2E.13.400	Spanish Queen West	17N.2E.3.340		

Jicarilla District (Lincoln County) (7 occurrences)

Alaskan #1 Lode	5S.12E.14	Lone Claim	5S.12E.25.131	Unknown	4S.12E.29.322
Iron Rail and Iron Contact	5S.12E.11.344	Old Jack-Jack #1	5S.12E.35.424	Unknown	5S.10E.25
		Smokey Mine	6S.14E.10.441		

Kingston District (Sierra County) (4 occurrences)

Barite Hill No.1	15S.9W.13.214	Virginia-Templar-Keystone Mines	15S.9W.26.100
Enchantment Claims	15S.9W.21		
Ingersoll	15S.9W.13.332		

La Bajada District (Santa Fe County) (2 occurrences)

Hiser-Moore #1	15N.7E.8.230	La Bajada	15N.7E.9.112

Ladron Mountains District (Socorro County) (4 occurrences)

Alamito Canyon Prospect	3N.2W.32.123	Juan Torres	2N.2W.18.422	Rule Prospect	2N.2W.15
Jeter Mine	3N.2W.35.233				

Laguna Subdistrict - Grants Uranium District (Cibola County) (40 occurrences)

Acoma Reservation	9N.7W.26.100	Saint Anthony Mine	11N.4W.30.240	Unknown	10N.3W.34.200
Alpine Test	10N.5W.2.120	Saint Anthony-Underground	11N.5W.24.411	Unknown	10N.5W.14.110
Bibo	11N.4W.29.313			Unknown	11N.4W.7.333
H-1	10N.5W.2.410	Section 4	10N.3W.4.412	Unknown	11N.4W.18.300
NJ-45	11N.5W.35.220	South Paguate Orebody	10N.5W.16.210	Unknown	11N.4W.20.332
P-9-2	10N.5W.4.440	Unknown-Laguna Reservation	8N.5W.6.100	Unknown	11N.4W.31.410
P-9-3	10N.5W.4.440			Unknown	11N.5W.24.340
P-10	10N.5W.4.300	Unnamed	8N.6W.5.111	Unknown	11N.5W.25.200
P-11	10N.5W.4.440	Unnamed	8N.6W.5.131	Unknown	12N.4W.23
P-13	10N.5W.4.400	Unnamed	8N.6W.5.133	Unknown	12N.4W.30
PW 2 and 3	11N.5W.33.342	Unnamed	8N.6W.10.333	Unknown	12N.4W.30.400
Parjae	9N.6W.17.114	Unnamed	8N.6W.11.323	Unknown	12N.5W.35
Saint Anthony-Open Pit	11N.4W.19.300	Unknown	10N.3W.27	Unknown	12N.5W.36
Saint Anthony Mine	11N.4W.30.110	Unknown	10N.3W.34.100	Wind Whip Mine	11N.5W.35.100

Langford District (Grant County) (1 occurrence)

Langford Fluorspar	22S.16W.25

La Plata (San Juan County) (1 occurrence)

Coal Mine	32N.13W.15.444

La Ventana District (Sandoval County) (16 occurrences)

Black Rose	19N.1W.4.110	North Butte	19N.1W.28.300	Unknown	19N.1W.19.230
Butler Brothers	19N.1W.23.241	Rambler No.2	19N.1W.35.120	Unknown	19N.1W.30.221
Cleary	19N.1W.14.233	San Miguel Mine	19N.1W.24.100	Unknown	19N.1W.30.322
Cuba #13	19N.2W.35	South Butte	19N.1W.34.300	Unknown	19N.1W.32.232
Dennison-Bunn	19N.1W.11.440	Unknown	18N.1W.2.341	Unknown	19N.2W.36.223
Mauldian	19N.1W.2.244				

Lemitar District (Socorro County) (5 occurrences)

Lemitar Carbonatites	1S.1W.29.124	Polvadera Mountain Claim-Four Jokes	1S.1W.19	San Lorenzo Canyon	1S.1W.8.100
Lemitar Carbonatites	1S.1W.30.423			Vulcan Claims	2S.1W.7.123

Little Burro Mountains District (Grant County) (4 occurrences)

Section 21	18S.15W.21.44	Tunoco Mining Claims	18S.15W.28.243	Unknown	18S.15W.28.211
Tunoco Mining Claims	18S.15W.28.231				

Little Hatchet Mountains district (Grant County) (1 occurrence)

Unknown-Hatchita	25S.16W.36.333

Lordsburg District (Hidalgo County) (1 occurrence)

Unknown-Section 34	22S.19N.34

Luis Lopez Managanese District (Socorro County) (2 occurrences)

Luis Lopez Manganese Mine	4S.1W.20.211	Red Hills	4S.1W.19.120

Magdalena District - Silver Hill Area (Socorro County) (3 occurrences)

Council Rock	1S.5W.9,10	Silver Hill Prospect	2S.4W.19.114	Unknown	1S.5W.3,4

Majors Ranch Area (Sandoval County) (5 occurrences)

Anomaly #2	13N.2W.9.132	Unknown	12N.2W.6.221	Unknown	12N.2W.31.441
Unknown	12N.2W.5.322	Unknown	12N.2W.29.111		

Malone District (Grant County) (3 occurrences)

Pitman Claims	20S.16W.19.211	Unknown (Little Cookie #1)	20S.16W.18.142	Unknown	20S.16W.30.441

Manzano District (Torrence County) (1 occurrence)

McCandless Prospect	5N.5E.34

Marquez - Bernabe Montaño Area - Grants Uranium District (14 occurrences)

B and G	12N.3W.15.440	Sandoval County	Marquez Canyon	13N.5W.25.100	McKinley County
Bernabe	12N.2W.35.200	Sandoval County	Marquez Grant	13N.4W.32.300	Sandoval County
Betty 12N. 3W. 13. 215	~~12N.2W.35.200~~	Sandoval County	Rio Puerco	12N.3W.18.141	Sandoval County
Brookhaven	12N.3W.16.300	Sandoval County	Section 13	12N.4W.13.200	Sandoval County
Dory	12N.3W.8.122	Sandoval County	Unknown	12N.4W.1.200	Sandoval County
Juan Tafoya-Marquez Grant	13N.5W.52	McKinley County	Unknown	12N.4W.12.143	Sandoval County
Marquez Canyon Mine	13N.5W.25.400	McKinley County	Unknown	13N.4W.25	Sandoval County

Mockingbird Gap District (Sierra County) (1 occurrence)

Mocking Bird Claims	10S.4,5E.

Mogollon District (Catron County) (2 occurrences)

Baby Mine	10S.19W.20.341	Evelyn No.1 & 2	11S.19W.5

Nacimiento Mountains District (7 occurrences)

Bluebird	20N.1W.12.330	Sandoval County	Jewell	20N.1E.15.300	Sandoval County
Cliff	20N.1E.6.114	Sandoval County	Nacimiento Mine	20N.1W.1.141	Sandoval County
Copper City Group	21N.1E.27	Rio Arriba County	Unknown	20N.1E.6.300	Sandoval County
Eureka Mine	21N.1E.32.200	Rio Arriba County			

Nambe District (Santa Fe County) (2 occurrences)

Marion	20N.10E.7.132	Shaw No.2	20N.10E.7.123

Nogal District (Lincoln County) (8 occurrences)

Bonita Claims	10S.11E.9.211	Silver Plume	10S.13E.31.242	Unknown	9S.11E.19.414
Maud Mine	10S.11E.3.324	Spur Adit	10S.11E.3.411	Unknown	9S.11E.27.233
Richardson Claims	9S.11E.15.100	Unknown	9S.11E.13.112		

Nogal Canyon District - San Mateo Mountains (Socorro County) (2 occurrences)

Vicks Peak No.1	9S.5W.11.400	White Mule Canyon	7S.5W.27.400

Nogal - San Jose District - San Mateo Mountains (Socorro County) (1 occurrence)

Craig and Dike Claims	8S.5W.14.141

Nose Rock Area - Grants Uranium District (McKinley County) (4 occurrences)

Nose Rock	19N.11W.10	Nose Rock	19N.12W.32	Nose Rock	19N.12W.36.414
Nose Rock #1	19N.11W.31.133				

Ojo Caliente District (Rio Arriba County) (4 occurrences)

Joseph	24N.8E.11.442	Unnamed (#6)	24N.8E.11.121	Unnamed (#8)	24N.8E.12.343
Star Mine	24N.8E.12.341				

Ojo Caliente No. 2 District - Sierra Cuchillo (Socorro County) (1 occurrence)

Cocar Lease	9S.7W.5

Oro Grande District (Otero County) (1 occurrence)

Torbenite Claim	22S.8E.3.431

Petaca District and Kiowa Mountains (6 occurrences)

Anomaly #15	25N.9E.3.413	Rio Arriba County	Rancho AAA	27N.8E.10.422	Rio Arriba County
Buena Vista	27N.8E.11.332	Rio Arriba County	Servilleta Plaza	25N.9E.3	Taos County
Kiawa, South Kiawa	27N.8E.11.311	Rio Arriba County	Unknown-MIR-046	27N.8E.11.141	Rio Arriba County

Petaca District - La Madera Area (Rio Arriba County) (21 occurrences)

Alamos	26N.8E.25.312	Gabalon	26N.9E.18.11	Nambe	26N.9E.18.334
Alto	26N.8E.25.112	Globe	26N.8E.36.221	Pineapple	26N.9E.30.233
Capitan	26N.9E.18.332	Guadalupe	26N.8E.36.314	Pino Verde	26N.9E.18.133
Carmelita	26N.8E.36.233	Hillside	26N.8E.25.120	Red	26N.8E.25.444
Cribenville	26N.9E.18.331	La Dalora	26N.9E.30.211	Sunnyside	26N.8E.25.323
El Floto	26N.9E.30.342	Little Julia	26N.8E.24.130	Vargas-Jaramillo	25N.8E.11.432
Fridlund	26N.8E.18.113	Lucky Seven Claim	26N.8E.25,26	White	26N.8E.25.212

Petaca District - Las Tablas Area (Rio Arriba County) (16 occurrences)

Alma	27N.8E.26.144	Eureka	27N.8E.24.344	Miller Group	26N.9E.6.110
Apache	26N.8E.12.123	Keystone-Western	26N.8E.1.432	North Star	27N.9E.31.333
Bluebird	26N.9E.7.232	La Jarita	27N.8E.25.334	St. Joseph	26N.8E.1.122
Canary Bird	27N.8E.25.312	Lonesome	27N.8E.36.332	Sandoval	26N.8E.12.121
Conquestador	26N.8E.1.322	Mary #1 & #2	27N.8E.36.444	Silver Plate	26N.8E.11.212
Consolation	26N.8E.1.221	Master #1	27N.8E.24.230	Silver Spur	27N.8E.25.222
El Camino	26N.9E.6.143	Master #5	27N.9E.19.330	Vestguard	27N.8E.24.143
El Contento	27N.8E.36.323	Meadow	27N.8E.25.130	Wyoming	26N.8E.1.411

Picuris District (Taos County) (5 occurrences)

Blue Feather	23N.11E.30	Copper Hill	23N.11E.20.210	Wichita Mine	23N.11E.16.421
Copper Hill Claims	23N.11E.20	Harding Mine	23N.11E.29		

Pinos Altos District (Grant County) (1 occurrence)

Jay Hawk Claims	17S.13W.7,8

Quemado Area (Cibola County) (1 occurrence)

Unnamed - Quamado	4N.19W.332

Red River District (Taos County) (1 occurrence)

Black Copper Mine	28N.15E.30.200

Riley Area - Bear Mountains (Socorro County) (3 occurrences)

Disappointment #3	1N.4W.13.100	King	1N.4W.4	Luciel Claims #1-8	1N.4W.15.124

Rociada District (San Miguel County) (1 occurrence)

Pidlite Mine	19N.14E.17.133

Rosedale District - San Mateo Mountains (Socorro County) (2 occurrences)

Bill Mine	6S.6W.12.143	Rosedale Mine	6S.6W.1.444

Sabinoso District (San Miguel County) (13 occurrences)

AEC Anomaly No.3	17N.23E.28	Key Claims	17N.23E.1.444	Mickie V Claims	17N.23E.27,28
Bish #	17N.24E.31.222	Locality #43	17N.24E.25	Sabinoso Uranium Corp.	17N.24E.8.431
Cip Lujan	17N.24E.17.141	Lujan Cattle Co.	17N.24E.16.134	T Claims	16N.23E.10,11
El Villa Claims	17N.25E.19.322	Lujan Ranch	17N.24E.25.211	Windy #9	17N.23E.14.441
Hunt Oil Co.	17N.24E.29.142				

Sacramento District (Otero County) (5 occurrences)

Adycopt	16S.11E.32.431	East Warnock	16S.11E.30.441	Pines No.2 Claim	16S.11E.19
Courtney Mine	16S.11E.17.234	Luz #2	15S.11E.24.142		

San Lorenzo District (Socorro County) (2 occurrences)

San Lorenzo #1	1S.1W.18.132	Shaft	1S.2W.10.400

San Mateo Mountains District (6 occurrences)

Bear Trap Canyon	6S.7W.18.144	Socorro County	Luna Claims	9S.6W.35.420	Socorro County
Fifty-fifty	11S.5W.6.241	Sierra County	San Juan Peak	7S.5W.35.312	Socorro County
Lookout	10S.5W.5.233	Sierra County	Terry Prospect	10S.6W.26.233	Sierra County

Scholle District (23 occurrences)

Abo Milling and Manufacture Co.	3N.5E.33.230	Valencia County	Pioneer Mine	3N.5E.15.441	Torrence County
			Rattlesnake #1-4	3N.5E.15.233	Torrence County
Abo Milling and Manufacture Co. Mill Site	3N.5E.33.431	Valencia County	Rayo Hills	1N.4E.4,9	Socorro County
			Scholle-1	3N.5E.10.312	Torrence County
			Scholle	2N.5E.10	Torrence County
Abo Mine	2N.5E.3.414	Torrence County	Thelma	3N.5E.15.423	Torrence County
Abo Mining Claims	3N.5E.23.111	Torrence County	Thomas and Melbourn	4N.5E.15	Torrence County
Contreras Mining Co.	2N.5E.5.234	Socorro County	Unknown	1N.4E.32.444	Socorro County
Copper Girl 1-6	4N.5E.28.110	Torrence County	Unknown	2N.5E.4.314	Socorro County
Mill Site	2N.5E.4.214	Socorro County	Unknown	2N.5E.17	Torrence County
Old Abo Claims	3N.5E.27.200	Torrence County	Unknown	3N.5E.10.312	Torrence County
Parker Ranch	2N.4E.21	Socorro County	Unknown	3N.5E.21.340	Valencia County
Parker Ranch	2N.4E.28	Socorro County	Unknown	3N.5E.21.421	Valencia County

Sevelleta Grant (Socorro County) (9 occurrences)

Aqua Torres	1S.2E.13	Granite Will Group	2N.2W.10	Silver Creek Prospect	1N.2W.15.340
J.D. Campbell	1N.2E.22	Marie Prospect	1S.2E.1	Unknown-La Joyita	1N.1E.23
Copper Prospect	1N.2W.33	Silver Creek Area	1N.2W.15.100	Unknown-La Joyita	1N.1E.23

Shiprock District - Carrizo Mountains (San Juan County) (47 occurrences)

Alongo	29N.21W.24.441	Horse Mesa South	29N.21W.26.323	Nelson Point	29N.21W.23.410
Barton and Lee	30N.21W.26.300	John John #1	30N.21W.22.420	Red Wash Point	29N.21W.24.323
Beclabito Lease	30N.21W.24.110	Junction	29N.21W.24.243	Rattlesnake #6	29N.21W.
Begay #1	29N.21W.24.333	King #2	30N.21W.26.120	Rocky Flats #1	30N.21W.24.120
Begay #2	29N.21W.23.224	King #6	30N.21W.14.433	Rocky Flats #2	30N.21W.26.122
Begay Incline	29N.21W.23.221	King Tutt #1	29N.21W.24.323	Salt Canyon	29N.21W.13,14
C.Bekes No.1	30N.21W.27	King Tutt #2	29N.21W.12,13	Salt Rock	29N.21W.14.121
Benall and Shorty	29N.21W.24.220	King Tutt Point	29N.21W.24.420	Shadyside	29N.21W.23.124
Canyon #1	30N.20W.19.310	Lone Star	30N.21W.35.310	Shadyside #2	29N.21W.23.212
Canyon View	29N.21W.24.443	Lookout Point- Sunnyside	29N.21W.14.344	Tent	29N.21W.23.142
Carrizo #1	29N.21W.23.424			Unknown	29N.21W.11.100
Cottonwood Butte	30N.21W.35.130	Lookout Point- Incline	29N.21W.23.122	Unknown	29N.21W.24.330
East Carrizo Area	29N.21W.35			Unknown	29N.21W.25.300
East Reservation Lease	29N.21W.14	Lower Canyon	29N.21W.2	Unknown	29N.21W.27.222
Franks Point	29N.21W.14.112	Lower Oak Creek	29N.21W.14.122	Unknown	30N.21W.11.300
Hazel	29N.21W.3	Lower Salt Rock	29N.21W.14.122	Williams Point	29N.21W.14.320
Horse Mesa North	29N.21W.26.134				

Shiprock District - Chuska Mountains - Sanostee (San Juan County) (30 occurrences)

Alfred Talk	25N.20W.6.113	Horace Ben #1	25N.20W.8.442	Section 8 Adit	25N.20W.8.213
Carl Yazzee #1	25N.20W.17.114	Joe Ben #1	25N.20W.6.141	Tyler	25N.20W.6.131
Castle Tsosie	26N.21W.36.444	Joe Ben #2	25N.20W.6.231	Unknown	25N.20W.4.331
David Kee	26N.21W.36.314	Joe Ben #5	25N.20W.7.131	Unknown	25N.20W.5.420
Deneh Nez #1 & 2	25N.20W.5.214	John Joe	25N.20W.8.110	Unknown	25N.20W.6.134
Deneh Nez #3	25N.20W.5.411	John Joe #2	26N.20W.31.334	Unknown	25N.20W.8.331
Enos Johnson #1-4 (South Peak Mine)	25N.20W.7,8	Kee and Johe	26N.20W.31.313	Unknown	24N.20W.8.334
		Reed Henderson	25N.20W.19.344	Unknown	25N.20W.17.231
Enos Johnson #3	25N.20W.8.311	Rocky Spring	27N.21W.35	Unknown	25N.20W.18.444
H.B. Roy	25N.20W.18.441	Sanostee	26N.19W.31	Unknown	26N.21W.36.200
H.B. Roy #1	26N.20W.30.100				

Shiprock District - Toadlena Area (San Juan County) (6 occurrences)

Dodge Brothers	23N.19W.5.100	Dodge and Begay	23N.19W.8,17	Dodge and Begay	23N.20W.1
Dodge Brothers	24N.19W.7.110	Dodge and Begay	23N.19W.16.300	Toadlena	23N.19W.14

Smith Lake Subdistrict - Grants Uranium District (McKinley County) (51 occurrences)

Alpha	14N.13W.12.333	Mariano Lake	15N.14W.12.134	Unknown	14N.11W.17.234
Alta (AnaConda)	14N.11W.5.313	Red Cap Group	14N.11W.28.113	Unknown	14N.11W.19.232
Billy the Kid	14N.11W.19.220	Red Top #1 & 2	14N.11W.18.340	Unknown	14N.11W.19.414
Black Jack No.1	15N.13W.12.322	Red Top Mines	14N.11W.20.144	Unknown	14N.11W.19.423
Black Jack No.2	15N.13W.18.223	Ruby #1 & #2 Decline	15N.13W.21.142	Unknown	14N.11W.20.444
Eagle #1-6	14N.12W.18.430	Ruby #2	15N.13W.27.120	Unknown	15N.12W.23.220
Elkins Claims	14N.12W.24.243	Ruby #3 & #4 Decline	15N.13W.25.224	Unknown	15N.12W.24
Elkins Claims	14N.12W.24.414	Ruby #4	15N.13W.26.200,400	Unknown	15N.13W.11.200
Elkins Claims	14N.12W.24.421	Silver Bit #7	14N.12W.10.200	Unknown	15N.13W.13.220
Evelyln	14N.11W.9.214	Silver Bit	14N.12W.10.200	Unknown	15N.13W.13.400
Francis	14N.11W.8.213	Silver Bit #15	14N.12W.10.233	Unknown	15N.14W.2
Grover Claims	14N.11W.20.133	Silver Bit #18	14N.12W.10.243	Unknown	15N.14W.3
Haven	14N.11W.21.313	South-Pod Ore Body	15N.13W.25.440	Unknown	16N.12W.32.234
June	14N.13W.14.222	Tietjen-Lewis No.2	14N.13W.8	Unknown	16N.13W.14
Largo	14N.13W.14.114	Unknown-Prewitt	13N.11W.21	Unknown	16N.14W.34
Mac #1	15N.14W.12.423	Unknown-Section 4	14N.11W.4.100	West Eagle 1-3	14N.13W.24.234
Mac #2	15N.13W.18.442	Unknown	14N.11W.4.200	Yucca #2	14N.11W.28.134

Socorro Basin (Socorro County) (4 occurrences)

Little Daire	2S.2E.35.243	Rhena No.1	3S.3E.8	Union #1	1S.3E.31.333
Lucky Don	2S.2E.35.223				

Steeple Rock District (Grant County) (1 occurrence)

Carlisle Claims	17S.21W.1,12

Tecolote District (San Miguel County) (3 occurrences)

Blake Mine	14N.15E.8	Lost Creek Claims	16N.14E.34.144	Quintana	15N.14E.18

Tecolote Iron District (Lincoln County) (3 occurrences)

Bond #4	3S.12E.10.424	Elda	3S.12E.11.331	Tecolote Peaks Iron Claim	3S.12E.10.423

Telegraph District (Grant County) (12 occurrences)

May Day 1 & 2	18S.17W.2.122	Purple Rock Mine	18S.18N.22.233	Springfield Claim	18S.17W.9.412
Prince Albert #1	18S.17W.2.421	Rambling Ruby	18S.17W.1.144	Union Hill Claims	18S.17W.10.242
Prince Albert #2	18S.17W.2.244	Reed Mine	18S.17W.2.142	W.F. Claims	18S.17W.12.121
Purple Heart Mine	18S.17W.3.423	Sandy Group	18S.18W.15.433	Yukon Group	17S.17W.35.344

Tijeras Canyon District (Bernalillo County) (4 occurrences)

Cerro Pelon	9N.5E.6,7	Tijera Canyon	9N.5E.2	Unknown	10N.5E.22,23
Lucky Strike Claim	10N.4E.25				

Tres Hermanas District (Luna County) (6 occurrences)

Section 2	28S.9N.2.224	Section 35	27S.9W.35.432	Unknown	27S.8W.31.314
Section 24	28S.9W.24.442	Unknown	27S.8W.31.133	Zumwalt	28S.8W.6.124

Tularosa District (Otero County) (3 occurrences)

Unknown-Section 26	13S.10E.26.231	Unknown-Section 32	13S.10E.32.441	Virginia Mine	13S.10E.26.144

Tyrone District (Grant County) (4 occurrences)

Tyrone	19S.15W.14	Unknown	19S.15W.28.334	Unknown	19S.15W.32.242
Unknown	19S.15W.27.414				

Vegitas Cluster Area - San Pedro Mountains (9 occurrences)

Corral No.3	23N.1W.25.221	Sandoval County	Pajarito Azul	23N.1E.31.120	Rio Arriba County
Corral No.6	23N.1W.25.212	Sandoval County	Paradise	23N.1E.32.300	Rio Arriba County
E and B No.1	23N.1E.29.144	Rio Arriba County	TUBD #1	23N.1E.29.340	Rio Arriba County
Gallina	23N.1E.32.114	Rio Arriba County	White Flo #1	23N.1E.19.333	Rio Arriba County
O'Brien No.1	23N.1E.28.411	Rio Arriba County			

Victoria Mountains District (Luna County) (1 occurrence)

Tungsten Hill, Irish Rose	24S.12W.29.412

Water Canyon District (Socorro County) (1 occurrence)

Big Chief Group	4S.3W.3.330

West Largo - Hospah Area - Grants Uranium District (McKinley County) (2 occurrences)

Borrego Pass	16N.10W.7,18	West Largo	15N.10W.17.300

White Mesa District (Sandoval County) (3 occurrences)

Anomaly #3	15N.1E.17.414	Anomaly #5	15N.1E.26.110	Lone Star Mining and Dev. Corp.	15N.1E.27.200

White Oaks District (Lincoln County) (7 occurrences)

Black Night-Good Night	6S.11E.24.131	Little Mac	6S.11E.25.114	Unknown	7S.11E.2.222
Eagle Nest No.1 & 2	6S.11E.21.274	Prince Mine	6S.11E.14.223	Yellow Jacket	6S.11E.22.411
Ferro	6S.11E.16.422				

White Signal District (Grant County) (62 occurrences)

Acme-Utah-California	20S.15W.22.421
Alhambra #1	20S.15W.21.231
Anomaly No.6	20S.14N.19.441
Anomaly #7	20S.15W.36.400
Arrowhead Claim	20S.15W.22.342
Banner (Unknown)	20S.15W.26.113
Bisbee	20S.14W.27.400
Black Beauty Claims	20S.15W.35.123
Blue Jay	20S.15W.26.122
Bouncing Bet	20S.15W.24.421
Calamity	20S.15W.23.432
Chapman Turquoise Mine	20S.15W.25.244
Combination	20S.15W.23.213
Copper Glance	20S.15W.23.100
Edmonds Shaft	20S.15W.34.144
Edwards No.5 Claim	20S.15W.27.441
Eugenie	20S.15W.26.223
Floyd Collins	20S.15W.22.311
Golden Eagle (Unknown)	20S.15W.14.223
High Noon No.1 Claim	20S.15W.17.443
Hines-Werney (Werney Hills)	21S.14W.34.223
Inez-Hummer (Good Luck)	20S.15W.24.313
Lettie Mae	20S.15W.22.212
Little Cockie #1	20S.15W.18
Lone Jack	20S.15W.24.321
Lost Glove pegmatite	20S.16W.2.434
Merry Widow	20S.15W.22.324
Miss Virginia	19S.15W.36.414
Monarch No.2	20S.15W.19.330
New Years Gift	20S.15W.23.311
Paddy Ford	20S.15W.23.421
Paymaster-Silver Lode	20S.15W.28.114
Pegmatites (Unknown)	20S.15W.28.113
Red Bird	20S.15W.23.334
Red Dodson	20S.15W.14.244
Red Hill Turquoise Mine	20S.15W.16.124
Shamrock	20S.15W.23.330
Summit	20S.16W.23.233
Tullock Peak	20S.15W.25.223
Tunnel Site No.1	20S.15W.26.244
Uncle Sam and Adjacent Property	20S.14W.32.233
Unknown	19S.15W.36.132
Unknown	19S.15W.36.133
Unknown	19S.15W.36.332
Unknown	20S.14W.23.233
Unknown	20S.14W.29.342
Unknown-White Signal	20S.14W.30.332
Unknown	20S.14W.30.431
Unknown	20S.14W.30.441
Unknown	20S.14W.31.122
Unknown	20S.15W.14.142
Unknown	20S.15W.14.231
Unknown	20S.15W.23.222
Unknown	20S.15W.26.221
Unknown	20S.15W.26.422
Unknown	20S.15W.26.442
Unknown	20S.15W.27.332
Unknown	20S.15W.28.321
Unknown	20S.16W.14.142
Unknown	20S.16W.26.222
Unknown-Pegmatites	20S.14W.30.313
Wisconsin Group	20S.15W.24.143

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Radioactive Occurrences in the Albuquerque 1- by 2-degree Quadrangle

Alpine Test	10N.5W.2.120	Cibola County
Angell	11N.1W.30	Bernalillo County
Angell	11N.2W.25	Bernalillo County
Ann Lee	14N.9W.28.144	McKinley County
Anomaly No.1	15N.7E.19.421	Santa Fe County
Anomaly #1	16N.1E.12.110	Sandoval County
Anomaly #1	20N.9E.32.322	Santa Fe County
Anomaly No.2	13N.2W.9.132	Sandoval County
Anomaly #2	16N.1E.8.300	Sandoval County
Anomaly #2 Jemez Reservation	16N.1E.17.214	Sandoval County
Anomaly #3	15N.1E.17.414	Sandoval County
Anomaly #3 Jemez Reservation	16N.1E.21.233	Sandoval County
Anomaly #4	16N.1E.20.412	Sandoval County
Anomaly #4	20N.8E.25.111	Santa Fe County
Anomaly #5	15N.1E.26.110	Sandoval County
Anomaly #5 Jemez Reservation	16N.1E.21.123	Sandoval County
Anomaly #5	17N.1W.14	Sandoval County
Anomaly #6-10 Jemez Reservation	16N.1E.13.400	Sandoval County
Anomaly #6	17N.1W.35.240	Sandoval County
Anomaly No.6	17N.2E.18.100	Sandoval County
Anomaly No.7	17N.2E.8	Sandoval County
Anomaly No.8	17N.2E.17	Sandoval County
Anomaly No.8	19N.9E.17.443	Santa Fe County
Anomaly No.9	17N.2E.21,22	Sandoval County
Anomaly No.9	17N.9E.17.434	Santa Fe County
Anomaly No.9	19N.9E.17.434	Santa Fe County
Anomaly #B9-1	15N.7E.17	Santa Fe County
Anomaly No.10	16N.1E.29.123	Sandoval County
Anomaly #11	16N.1E.29.133	Sandoval County
Anomaly #11 Jemez Reservation	16N.2E.18.212	Sandoval County
Anomaly #12	16N.1E.21.130	Sandoval County
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Barbara J #1	13N.9W.30.213	McKinley County
Barbara J #2-Whitecap	13N.9W.30.141	McKinley County
Barbara J #3	13N.9W.30.221	McKinley County
Beacon Hill Claims	13N.9W.20.131	McKinley County
Beacon Hill #18-23	13N.9W.20.133	McKinley County
Beacon Hill Gossett	13N.9W.18.444	McKinley County
Bernabe	12N.2W.35.200	Sandoval County
Betty	12N.3W.17.323	Sandoval County
BG Group	13N.9W.20.200	McKinley County
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Black Hawk & Bunny Groups	12N.9W.4.414	Cibola County
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Blackshire	14N.6E.10	Sandoval County
Bluebird	20N.1W.12.330	Sandoval County
Blue Peak	13N.10W.24.234	McKinley County
Bobcat	13N.10W.24.144	McKinley County
Borrego Pass	16N.10W.7,18	McKinley County
B.P. Hovey Ranch	17N.4W.34.332	Sandoval County
Brockhaven	12N.3W.16.300	Sandoval County
Buckey-Section 14	14N.10W.14.414	McKinley County
Burcar	17N.1W.12.220	Sandoval County
Butler	19N.1W.13.241	Sandoval County
Canary Bird	17N.8E.25.312	Rio Arriba County
Canyon Mulatto	14N.9W.12.400	McKinley County
Canyon Mulatto	14N.9W.24.100	McKinley County
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Cerro Pelon	9N.5E.6,7	Bernalillo County
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Chaco Canyon-Drill Hole CC-3	20N.9W.9.222	McKinley County
Chaco Canyon-Drill Hole CC-15	20N.10W.16.441	McKinley County
Charlotte	13N.9W.33.433	McKinley County
Chavez Mine	10N.3W.22.400	Cibola County
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Cleary	19N.1W.14.233	Sandoval County
Cliff	20N.1E.6.114	Sandoval County
Cliffside	14N.9W.36.332	McKinley County
Collins	17N.1W.25.112	Sandoval County
Collins prospect	17N.1W.23.411	Sandoval County
Collier	17N.1W.25.113	Sandoval County
Coyote No.1-10	13N.6E.22.320	Sandoval County
Cuba #13	19N.2W.35	Sandoval County
Dakota Mine	13N.10W.4.243	McKinley County
Dave Group	11N.9W.3.100	Cibola County
Davenport Incline	13N.9W.20.312	McKinley County
Deer Creek	18N.1E.35.144	Sandoval County
Dennison-Bunn	19N.1W.11.440	Sandoval County
Dial Exploration Co.	14N.6E.19	Sandoval County
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Doris West Extension	13N.9W.21.332	McKinley County
Dory	12N.3W.8.122	Sandoval County
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Dysart #2	14N.10W.11.424	McKinley County
East Malpais Lease	13N.9W.20.233	McKinley County
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Evelyn Copper Mine	15N.8E.19.422	Santa Fe County
F-33 Mine	12N.9W.33.444	Cibola County
Faith Mine	13N.9W.29.141	McKinley County
Farr Ranch	19N.6W.13,14	McKinley County
Farr Ranch	19N.6W.15.340	McKinley County
Farr Ranch	19N.6W.23.344	McKinley County
Farr Ranch	19N.6W.25,26	McKinley County
Febco	14N.10W.31.344	McKinley County
Fernadez-Main Ranch	13N.8W.15.444	McKinley County
Flat Top Mine	13N.9W.30.442	McKinley County
Flea Mine	13N.9W.20.422	McKinley County
Forrest Group	12N.9W.34.430	Cibola County
Garcia Fault Zone	14N.1E.31	Sandoval County
Gay Eagle	12N.9W.4.432	Cibola County
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Goodner-Section 1	17N.1W.11.300	Sandoval County
H-1	10N.5W.2.410	Cibola County
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Haystack-Section 13 RLLW Pit	13N.11W.13.114	McKinley County
Haystack-Section 13 Pit	13N.11W.13.314	McKinley County
Haystack-Section 13	13N.11W.13.324	McKinley County
Haystack-Section 13	13N.11W.13.444	McKinley County
Haystack-Section 19 Open-pit complex	13N.10W.19.110	McKinley County
Herrera Ranch	11N.2W.16.200	Bernalillo County
Herrera Ranch-Anaconda	12N.2W.31.420	Sandoval County
Hiser Moore #1	15N.7E.8.230	Santa Fe County
Hogan	13N.9W.14.414	McKinley County
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J.C. Roybel	20N.9E.19.200	Santa Fe County
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Juan Tafoya-Marquez Grant	13N.5W.32	McKinley LCounty
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Kroeger	17N.10W.27	McKinley County
La Bajada	15N.7E.9.112	Santa Fe County
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Lone Wolf Group	15N.1W.11.321	Sandoval County
Lone Wolf Group	15N.1W.11.414	Sandoval County
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Marquez Canyon	13N.9W.23.233	McKinley County
Marquez Grant	13N.4W.32.300	Sandoval County
Mary #1	14N.10W.11.112	McKinley County
Mauldian	19N.1W.2.244	Sandoval County
Mesa Portales	19N.2W.4	Sandoval County
Mesa Top Mine	13N.9W.20.321	McKinley County
Miguel Creek Dome	15N.6W.4.140,8.420	McKinley County
Mimi #1-4	12N.6E.3.413	McKinley County
Monte Large Carbonatite	11N.6E.16.300	Bernalillo County
Morris Peters #17	15N.1E.17	Sandoval County
Morris Peters #20	15N.1E.20.441	Sandoval County
Morris Peters #21	15N.1E.21.441	Sandoval County
Mount Taylor	13N.7W.30.100	McKinley County
Mt. Taylor	13N.8W.24.433	Cibola County
Nacimiento Mine	20N.1W.1.141	Sandoval County
NJ-45	11N.5W.35.220	Cibola County
Blackshire Ranch	13N.13E.6.400	Sandoval County

Radioactive Occurrences in the Albuquerque 1- by 2-degree Quadrangle (continued)

North Butte	19N.1W.28.300	Sandoval County
Northeast of Soda Dam	18N.2E.13.200	Sandoval County
Nose Rock	19N.11W.10	McKinley County
Oak Creek Canyon	10N.5W.11.140	Cibola County
Ortiz Mine Grant	13N.8E.3	Santa Fe County
Oritz Mine Grant	14N.8E.35	Santa Fe County
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P-9-3	10N.5W.4.440	Cibola County
P-10	10N.5W.4.300	Cibola County
P-11	10N.5W.4.440	Cibola County
P-13	10N.5W.4.400	Cibola County
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Paguate Mine	10N.5W.4,5; 11N.5W.33	Cibola County
Parjae	9N.6W.17.114	Cibola County
Pat	13N.10W.4.244	McKinley County
Peralta Canyon	17N.4E.10,15	Sandoval County
Peralta Canyon(?)	17N.5E.9.410	Sandoval County
Piedra Trieste	13N.9W.30.143	McKinley County
Poison Canyon	13N.9W.19.420	McKinley County
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Polka Dot Uranium Group	15N.1W.15.223	Sandoval County
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Red Bluff #2 & 4	12N.9W.4.221	Cibola County
Red Bluff #3,5 & 9	12N.9W.4.214	Cibola County
Red Bluff #7	12N.9W.4.342	Cibola County
Red Bluff #8	12N.9W.4.433	Cibola County
Red Bluff #10	12N.9W.4.434	Cibola County
Redco	13N.11W.10.110	McKinley County
Red Point Lode	13N.10W.16.134	McKinley County
Red Rock Claims	13N.10W.24.444	McKinley County
Rio Puerco	12N.3W.18.141	Sandoval County
Roca Honda	13N.8W.8.400	McKinley County
Roca Honda	13N.8W.9.300	McKinley County
Rogers	20N.9E.17.144	Santa Fe County
Rogers	20N.9E.17.344	Santa Fe County
Rogers	20N.9E.20.123	Santa Fe County
Rogers	20N.9E.20.144	Santa Fe County
Rogers	20N.9E.20.322	Santa Fe County
Roundy Mine	13N.9W.30.323	McKinley County
Saint Anthony	11N.4W.19.300	Cibola County
Saint Anthony Mine	11N.4W.30.110	Cibola County
Saint Anthony Mine	11N.4W.30.240	Cibola County
Saint Anthony	11N.5W.24.411	Cibola County
San Antonio Valley	12N.4W.15,22	Cibola County
San Antonio Valley	12N.4W.4.300	Cibola County
San Antonio Valley	12N.4W.21.100	Cibola County
Sandstone	14N.9W.4.424	McKinley County
San Jose Claims	20N.9E.29.144	Santa Fe County
Sandy Mine	9N.5W.27.211	Cibola County
San Mateo	13N.8W.30.243	Cibola County
San Miguel Mine	19N.1W.24.100	Sandoval County
Santa Fe Railroad	13N.9W.19.134	McKinley County
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Section 1	13N.11W.1.412	McKinley County
Section 1	14N.11W.1.100	McKinley County
Section 1	14N.11W.1.333	McKinley County
Section 2	13N.9W.2.143	McKinley County
Section 2	13N.9W.2.233	McKinley County
Section 2	13N.9W.2.313	McKinley County
Section 2	13N.9W.2.411	McKinley County
Section 2	13N.11W.2.124	McKinley County
Section 2 & 3	14N.10W.2,3	McKinley County
Section 2	14N.11W.2.444	McKinley County
Section 3	12N.9W.3	Cibola County
Section 3	13N.10W.3	McKinley County
Section 4	10N.3W.4.412	Cibola County
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Section 4	13N.10W.4.434	McKinley County
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Section 4	14N.10W.220,240	McKinley County
Section 5	13N.9W.5.222	McKinley County
Section 5	13N.10W.5.144	McKinley County
Section 6	13N.9W.6.322	McKinley County
Section 6	14N.10W.6	McKinley County
Section 7	13N.8W.7.120	McKinley County
Section 8	13N.9W.8.114	McKinley County
Section 8	14N.10W.8.100	McKinley County
Section 9 Mine	12N.9W.9.120	Cibola County
Section 9 Adit	12N.9W.9.131	Cibola County
Section 9	12N.9W.9.143	Cibola County
Section 9 NE	12N.9W.9.213	Cibola County
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Section 12	13N.9W.12	McKinley County
Section 12 & 13	13N.10W.12,13	McKinley County
Section 12	14N.10W.12.411	McKinley County
Section 13	12N.4W.13.200	Sandoval County
Section 13	13N.9W.13.400	McKinley County
Section 13	14N.10W.13.243	McKinley County

Section 13	14N.10W.13.413	McKinley County
Section 14	13N.10W.14.220	McKinley County
Section 15	14N.10W.15.441	McKinley County
Section 16	13N.9W.16.333	McKinley County
Section 16	13N.9W.16.441	McKinley County
Section 17	13N.9W.17.311	McKinley County
Section 17	13N.10W.17.110	McKinley County
Section 17	13N.10W.17.330	McKinley County
Section 17	14N.9W.17.100	McKinley County
Section 17	14N.9W.17.323	McKinley County
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Section 18	13N.10W.18.341	McKinley County
Section 18 SEQ	13N.10W.18.430	McKinley County
Section 18	14N.9W.18.420	McKinley County
Section 18	14N.10W.18.124	McKinley County
Section 19	13N.8W.19.300	Cibola County
Section 19	14N.9W.1.9.411	McKinley County
Section 20	14N.9W.20.114	McKinley County
Section 20	14N.9W.20.333	McKinley County
Section 21	14N.10W.21.222	McKinley County
Section 22 Linear Trenches	12N.9W.22.200	Cibola County
Section 22	13N.10W.22.232	McKinley County
Section 22	14N.10W.22.223	McKinley County
Section 23,26	13N.10W.23.444	McKinley County
Section 23	14N.10W.23.134	McKinley County
Section 24	13N.9W.24.121	McKinley County
Section 24	13N.9W.24.220	McKinley County
Section 24	13N.9W.24.300,400	McKinley County
Section 24	13N.11W.24.222	McKinley County
Section 24	14N.10W.24.332	McKinley County
Section 25 Shaft	13N.10W.25.122	McKinley County
Section 25- Divide Claims	13N.10W.25.212	McKinley County
Section 25-Decline- Red Rocks Claims	13N.10W.24.221	McKinley County
Section 25-SEQ- Desiderio	13N.10W.25.411	McKinley County
Section 25 Open Pit	13N.10W.25.114	McKinley County
Section 25	14N.10W.25.144	McKinley County
Section 26	13N.10W.26.221	McKinley County
Section 26	14N.9W.26.332	McKinley County
Section 26	14N.9W.26.430	McKinley County
Section 26	14N.10W.26.220	McKinley County
Section 27	14N.9W.27.310	McKinley County
Section 27	14N.9W.27.324	McKinley County
Section 27	14N.10W.27.110	McKinley County
Section 27	15N.11W.27.434	McKinley County
Section 28	14N.10W.28.211	McKinley County
Section 29	14N.9W.29.100	McKinley County
Section 29	14N.9W.29.300	McKinley County
Section 29	14N.9W.29.400	McKinley County
Section 29	14N.10W.29.244	McKinley County
Section 30	13N.9W.30.333	McKinley County
Section 30 West	14N.9W.30.141	McKinley County
Section 30	14N.9W.30.232	McKinley County
Section 31 NWQ	13N.9W.31.113	McKinley County
Section 31 Strip	13N.9W.31.120	McKinley County
Section 31	14N.8W.31.130	McKinley County
Section 31	14N.9W.31.222	McKinley County
Section 32 Quarry	13N.9W.32.111	McKinley County
Section 32	13N.9W.32.144	McKinley County
Section 32	13N.9W.32.321	McKinley County
Section 32	14N.8W.32.340	McKinley County
Section 32	14N.9W.32.122	McKinley County
Section 33-Branson	14N.9W.33.213	McKinley County
Section 34	14N.11W.34.223	McKinley County
Section 35	14N.9W.35.233	McKinley County
Section 35	14N.11W.35.140	McKinley County
Section 35	15N.11W.35.200	McKinley County
Section 36	13N.10W.36.224	McKinley County
Section 36	14N.9W.36.422	McKinley County
Section 36	14N.10W.36.130	McKinley County
Section 36	14N.10W.36.222	McKinley County
Section 36	17N.1W.36.300	Sandoval County
Shirley and Gunther Co.	13N.10W.24.222	McKinley County
Silver Spur Group	14N.10W.31.334	McKinley County
Silver Spur Pits	14N.10W.31.233	McKinley County
Soda Dam	18N.2E.13.400	Sandoval County
Sonora 1-4 Claims	7N.5W.12.220	Cibola County
South Butte	19N.1W.34.300	Sandoval County
South Paguate Orebody	10N.5W.16.210	Cibola County
Spanish Queen	17N.2E.3.400	Sandoval County
Spanish Queen West	17N.2E.3.340	Sandoval County
Summit Group	13N.10W.15.133	McKinley County
T-20 Shaft	13N.9W.30.414	McKinley County
Taffy	12N.9W.11.334	Cibola County
Tanny Uranium Deposit	14N.10W.34.441	McKinley County

Radioactive Occurrences in the Albuquerque 1 x 2 - Degree quadrangle (continued)

Tex-N	18N.2E.34	Sandoval County	Unknown	14N.1E.27.400	Sandoval County
Tijeras Canyon	9N.5E.2	Bernalillo County	Unamed	14N.8W.30.100	McKinley County
Tom 13	11N.9W.4.411	Cibola County	Unknown	14N.9W.14	McKinley County
Turquoise Hill	15N.8E.5.411	Santa Fe County	Unknown	14N.10W.11.232	McKinley County
Turquoise Hill Mine	15N.8E.21	Santa Fe County	Unamed-United Nuclear	14N.11W.1.334	McKinley County
UDC #1-5	12N.9W.4.442	Cibola County	Unknown-Section 4	14N.11W.4.100	McKinley County
Unknown	10N.3W.27	Cibola County	Unknown	14N.11W.4.200	McKinley County
Unknown	10N.3W.34.100	Cibola County	Unknown	15N.1E.22.144	Sandoval County
Unknown	10N.3W.34.200	Cibola County	Unknown	15N.1E.31	Sandoval County
Unknown	10N.5E.22,23	Bernalillo County	Unknown	15N.1W.8.223	Sandoval County
Unknown	10N.5W.14.110	Cibola County	Unknown	15N.1W.9.441	Sandoval County
Unknown	11N.4W.7.333	Cibola County	Unknown	15N.1W.10.210	Sandoval County
Unknown	11N.4W.300	Cibola County	Unknown	15N.1W.21.441	Sandoval County
Unknown	11N.4W.20.332	Cibola County	Unknown	15N.1W.22.441	Sandoval County
Unknown	11N.4W.31.410	Cibola County	Unknown	15N.1W.23.400	Sandoval County
Unknown	11N.5W.24.340	Cibola County	Unknown-Cienga	15N.8E.20.144	Santa Fe County
Unknown	11N.5W.25.200	Cibola County	Unknown	15N.9W.21	McKinley County
Unknown	11N.9W.9	Cibola County	Unknown	16N.1E.29.413	Sandoval County
Unknown	11N.9W.17	Cibola County	Unknown	16N.1E.32.211	Sandoval County
Unknown	12N.2W.5.322	Sandoval County	Unknown	16N.2E.7.100	Sandoval County
Unknown	12N.2W.6.221	Sandoval County	Unknown	16N.9W.9	McKinley County
Unknown	12N.2W.29.111	Sandoval County	Unknown	17N.1W.15.211	Sandoval County
Unknown	12N.2W.31.441	Sandoval County	Unknown	17N.1W.25.420	Sandoval County
Unknown	12N.4W.1.200	Sandoval County	Unknown	17N.1W.27.222	Sandoval County
Unknown	12N.4W.12.143	Sandoval County	Unknown	17N.1W.36.323	Sandoval County
Unknown	12N.4W.23	Cibola County	Unknown	18N.1W.2.341	Sandoval County
Unknown	12N.4W.23.411	Sandoval County	Unknown	18N.1W.12.300	Sandoval County
Unknown	12N.4W.30	Cibola County	Unknown	19N.1W.19.230	Sandoval County
Unknown	12N.4W.30.400	Cibola County	Unknown	19N.1W.30.221	Sandoval County
Unknown	12N.5W.35	Cibola County	Unknown	19N.1W.30.322	Sandoval County
Unknown	12N.5W.36	Cibola County	Unknown	19N.1W.32.232	Sandoval County
Unknown	12N.9W.19	Cibola County	Unknown	19N.2W.36.223	Sandoval County
Unknown	12N.9W.33.333	Cibola County	Unknown	20N.1E.6.300	Sandoval County
Unknown	13N.4W.25	Sandoval County	Unknown	20N.2W.1.100	Sandoval County
Unamed	13N.8W.5	McKinley County	Vallego	13N.9W.34.343	McKinley County
Unamed	13N.8W.6	McKinley County	Vanadium #1	13N.10W.26.222	McKinley County
Unknown	13N.8W.16	Cibola County	J. Walker #1	17N.1W.26	Sandoval County
Unknown	13N.8W.16.133	McKinley County	We Hope #4	13N.6E.4,5	Sandoval County
Unknown	13N.9W.30.114	McKinley County	We(e) Hope, Rabac,		
Unknown	13N.9W.31.214	McKinley County	DEC Claims	14N.6E.32	Sandoval County
Unknown	13N.10W.19.120	McKinley County	West Largo	15N.10W.17.300	McKinley County
Unknown	13N.10W.22.240	McKinley County	White Cap	13N.9W.30.123	McKinley County
Unknown	13N.10W.34	McKinley County	White Lovelace Claims	9N.1W.11,12	Bernalillo County
Unknown	13N.11W.10.200	McKinley County	Windwhip Mine	11N.5W.35.100	Cibola County
Unknown	13N.11W.11.144	McKinley County	Woodrow Mine	11N.5W.36.443	Cibola County
Unknown	13N.11W.12.333	McKinley County	X-C	13N.9W.30.233	McKinley County
Unknown	13N.11W.12.344	McKinley County	Yellow Cliffs Group	15N.1W.21.214	Sandoval County
Unknown	13N.11W.13.120	McKinley County	Yucca #2	14N.11W.28.134	McKinley County
Unknown-Prewitt	13N.11W.21	McKinley County	Zia Mine	12N.9W.15.323	Cibola County

Radioactive Occurrences in the Aztec 1- by 2-degree Quadrangle

Abbey Group	25N.2E.19,30	Rio Arriba County	E.L. Chilton & Sons	32N.10W.29.100	San Juan County
Airbourne Anomaly No.1	28N.1E.3.311	Rio Arriba County	El Contento	27N.8E.36.323	Rio Arriba County
Airbourne Anomaly No.2	28N.1E.3.323	Rio Arriba County	El Floto	26N.9E.30.342	Rio Arriba County
Airbourne Anomaly No.3	27N.1E.2.420	Rio Arriba County	Erma	21N.2E.14.441	Rio Arriba County
Alamos	26N.8E.25.312	Rio Arriba County	Eureka	27N.8E.24.344	Rio Arriba County
Alex #3,5, & 8	22N.3E.22.200	Rio Arriba County	Eureka Mine	21N.1E.32.200	Rio Arriba County
Alex #51,52	25N.3E.31.133	Rio Arriba County	Fridlund	26N.8E.18.113	Rio Arriba County
Alma	27N.8E.26.144	Rio Arriba County	Gabalon	26N.9E.18.110	Rio Arriba County
Alto	26N.8E.25.112	Rio Arriba County	Gallina	23N.1E.32.114	Rio Arriba County
Anomaly No.1	24N.3E.19.300	Rio Arriba County	George and Fido Claims	27N.5E	Rio Arriba County
Anomaly NA-17	24N.1W.36.222	Rio Arriba County	Globe	26N.8E.36.221	Rio Arriba County
Anomaly #19	25N.7E.5,6	Rio Arriba County	Guadalupe	26N.8E.36.314	Rio Arriba County
Apache	26N.8E.12.123	Rio Arriba County	Heart No.3	26N.2E.26.343	Rio Arriba County
Arrowhead Claims	23N.4W.31	Sandoval County	Herrera	22N.3E.5.341	Rio Arriba County
Baird	21N.2E.15.200	Rio Arriba County	Hillside	26N.8E.25.120	Rio Arriba County
Bluebird	26N.9E.7.232	Rio Arriba County	Hornet	25N.5E.20.100	Rio Arriba County
Box Canyon	23N.4E.28.224	Rio Arriba County	Horny Toad	25N.5E.32.114	Rio Arriba County
Buena Vista	27N.8E.11.332	Rio Arriba County	Jaramillo-Montoya	22N.4E.4.100	Rio Arriba County
Capitan	26N.9E.18.332	Rio Arriba County	Jarosa Prospects	21N.2E.12.411	Rio Arriba County
Carbon and Log	25N.1W.11.220	Rio Arriba County	J.C. Roybal	23N.5E.17.200	Rio Arriba County
Carmelita	26N.8E.36.233	Rio Arriba County	Joe	21N.2E.1.143	Rio Arriba County
Cebolla No.2	26N.2E.27.242	Rio Arriba County	J.O.L.	28N.7E.24.140	Rio Arriba County
Chaco Canyon Drill Hole CC-81	21N.9W.31.412	San Juan County	Joseph	24N.8E.11.442	Rio Arriba County
			Keystone-Western	26N.8E.1.432	Rio Arriba County
Chaco Canyon Drill Hole CC-12	21N.10W.32.344	San Juan County	Kiawa, South Kiawa	27N.8E.11.311	Rio Arriba County
			La Jarita	27N.8E.25.334	Rio Arriba County
Commanche	25N.5E.34.330	Rio Arriba County	Las Minas de Pedro	24N.6E.19.322	Rio Arriba County
Conquistador	26N.8E.1.322	Rio Arriba County	La Paloma	26N.9E.30.211	Rio Arriba County
Consolation	26N.8E.1.221	Rio Arriba County	Little Julia	26N.8E.24.130	Rio Arriba County
Copper City Group	21N.1E.27	Rio Arriba County	Lola	22N.2E.34.300	Rio Arriba County
Corral #3	23N.1W.25.221	Sandoval County	Lonesome	27N.8E.26.332	Rio Arriba County
Corral #6	23N.1W.25.212	Sandoval County	Lone Star	32N.9W.32.300	San Juan County
Coy C. Claims	25N.1E.30.320	Rio Arriba County	Lucky Dog No.1	25N.5E.32.121	Rio Arriba County
Coyote Hill	22N.3E.8.121	Rio Arriba County	Lucky Seven Claim	26N.8E.25,26	Rio Arriba County
Cribenville	26N.9E.18.331	Rio Arriba County	Lucky Strike	22N.2E.1.223	Rio Arriba County
Doe Group	24N.5E.1	Rio Arriba County	Manganese Prospect	22N.4W.21	Sandoval County
E and B No.1	23N.1E.29.144	Rio Arriba County	Manuel Berella	23N.2E.36	Rio Arriba County
El Camino	26N.9E.6.143	Rio Arriba County	Mary #1 and #2	27N.8E.36.444	Rio Arriba County
El C-B and Maxine Groups	25N.2E.7.421	Rio Arriba County	Master #1	27N.8E.24.230	Rio Arriba County

Radioactive Occurrences in the Aztec 1- by 2-degree Quadrangle (continued)

Master #5	27N.9E.19.330	Rio Arriba County	Trejo and Sanchez No.1	24N.6E.30.433	Rio Arriba County
Max Jacque and Yellow Bird #2	23N.1E.30.141	Rio Arriba County	Tusas East Slope #5	28N.7E.24.224	Rio Arriba County
Meadow	27N.8E.25.130	Rio Arriba County	Unknown	21N.1W.7.230	Sandoval County
Mesa Alta	23N.3E.19.122	Rio Arriba County	Unknown	21N.1W.20.100	Sandoval County
Midcontinent	22N.3E.10	Rio Arriba County	Unnamed	21N.2E.14.200	Rio Arriba County
Miller Group	26N.9E.6.110	Rio Arriba County	Unknown	21N.2E.15.100	Rio Arriba County
Mining Mountains Claim	21N.2E.31.233	Rio Arriba County	Unknown	21N.2E.22	Rio Arriba County
Mining Mountains Claim	21N.2E.33.123	Rio Arriba County	Unknown	21N.2E.23.100	Rio Arriba County
Mining Mountains Claim	21N.2E.34.123	Rio Arriba County	Unknown	22N.3E.10	Rio Arriba County
Moran, Sawyer and McLind Claims	28N.7E.24.320	Rio Arriba County	Unknown	23N.2E.31.300	Rio Arriba County
Nambe	26N.9E.18.334	Rio Arriba County	Unknown	23N.2W.15	Rio Arriba County
North Star	27N.9E.31.333	Rio Arriba County	Unknown	23N.10W.26.322	San Juan County
O'Brien No.1	23N.1E.28.411	Rio Arriba County	Unknown	24N.8E.11.121	Rio Arriba County
Pajarita Azul	23N.1E.31.120	Rio Arriba County	Unnamed	24N.8E.12.343	Rio Arriba County
Paradise	23N.1E.32.300	Rio Arriba County	Unknown-Section 3	25N.5E.3.200	Rio Arriba County
Phillips Drilling Area	28N.7E.24.211	Rio Arriba County	Unknown-Section 4	25N.5E.4.344	Rio Arriba County
Pineapple	26N.9E.30.233	Rio Arriba County	Unknown-Section 4	25N.5E.4.420	Rio Arriba County
Pino Verde	26N.9E.18.133	Rio Arriba County	Unknown-Section 8	25N.5E.8.200	Rio Arriba County
Pivot Rock	24N.3E.4.310	Rio Arriba County	Unknown	26N.4E.29.444	Rio Arriba County
Poso Springs	26N.2E.30.200	Rio Arriba County	Unknown	27N.7E.24.124	Rio Arriba County
Princess Claims	26N.1W.33.330	Rio Arriba County	Unknown	27N.7E.24.242	Rio Arriba County
RA #1	21N.2E.11.144	Rio Arriba County	Unknown	27N.8E.11.141	Rio Arriba County
RA #2	21N.2E.11	Rio Arriba County	Unknown	28N.7E.13.333	Rio Arriba County
Rancho AAA	27N.8E.10.422	Rio Arriba County	Unknown	28N.7E.13.433	Rio Arriba County
Red	26N.8E.25.444	Rio Arriba County	Unknown	28N.7E.14.442	Rio Arriba County
Red Head Claims	22N.3E.8.214	Rio Arriba County	Unknown	28N.7E.23.222	Rio Arriba County
Red Head #2	22N.3E.8.232	Rio Arriba County	Unknown Shaft	28N.7E.23.241	Rio Arriba County
Resurrection	23N.3E.31.332	Rio Arriba County	Unknown	28N.7E.24.222	Rio Arriba County
Rey and Lee Claims	22N.3E.27.210	Rio Arriba County	Unknown	28N.7E.24.223	Rio Arriba County
St. Joseph	26N.8E.1.122	Rio Arriba County	Unknown	28N.7E.24.241	Rio Arriba County
St. Jude	21N.2E.11.424	Rio Arriba County	Unknown	28N.7E.24.422	Rio Arriba County
Sandoval	26N.8E.12.121	Rio Arriba County	Unknown	28N.8E.19.111	Rio Arriba County
Section 10	25N.5E.10.100,200	Rio Arriba County	Unknown	28N.8E.20.331	Rio Arriba County
Section 12	21N.2E.12.143	Rio Arriba County	Unknown	28N.8E.24.143	Rio Arriba County
Silver Plate	26N.8E.11.212	Rio Arriba County	Vargas-Jaramillo	25N.8E.11.432	Rio Arriba County
Silver Spur	27N.8E.25.222	Rio Arriba County	Vestguard	27N.8E.24.143	Rio Arriba County
Star Mine	24N.8E.12.341	Rio Arriba County	White	26N.8E.25.212	Rio Arriba County
State Lease	23N.1W.16.340	Rio Arriba County	White Flo #1	23N.1E.19.333	Rio Arriba County
Sunnyside	26N.8E.25.323	Rio Arriba County	Williams Hill	26N.7E.4.314	Rio Arriba County
Teakettle Rock	21N.2E.14.424	Rio Arriba County	Williamson Claim	23N.2E.22	Rio Arriba County
TJ ED #1	23N.1E.29.340	Rio Arriba County	Wyoming	26N.8E.1.411	Rio Arriba County
			Young Prospect	25N.1W.19	Rio Arriba County

New Mexico Portion of the Brownfield 1- by 2-degree Quadrangle (Chavez County)

Hoffacker Test Hole	9S.30E	Stoltz Test Hole	14S.29E.1

Radioactive Occurrences in the Carlsbad 1- by 2-degree Quadrangle

Adycopt	16S.11E.32.431	Otero County	Rocky Arroyo Prospect	21S.24E.26.432	Eddy County
Courtney Mine	16S.11E.17.234	Otero County	Tungsten Hill	24S.12W.29.412	Luna County
East Warhock	16S.11E.30.441	Otero County	Unknown-Roadcut	21S.25E.24.241	Eddy County
Golden Eagle	21S.25E.14.312	Eddy County	W.H. Shaffer Ranch	21S.24E.27	Eddy County
Little Walt Mine	22S.24E.2	Eddy County	Wind Mountain	26S.14E.9	Otero County
Luz #2	15S.11E.24.142	Otero County	Wind Mountain	26S.14E.20.444	Otero County
Pines No.2 Claims	16S.11E.19	Otero County			

Radioactive Occurrences in the New Mexico Portion of the Clifton 1- by 2-degree Quadrangle

Baby Mine	10S.19W.20.341	Catron County	Frank Owen	9S.20W.5,6,7	Catron County
Clum, Aquilar Mines	14S.16W.28,33	Grant County	Mogollon	9S.16W.7,8	Catron County
Coal Creek	14S.21W.7.412	Grant County	Quarry	8S.17W.27.332	Catron County
Evelyn #1 and 2	11S.19W.5	Catron County			

Radioactive Occurrences in the New Mexico Portion of the Clovis 1- by 2-degree Quadrangle (Quay County)

Fife Prospects	8N.31E.3	J.R. Fife	9N.31E.34	Red Peak Mining Co.	9N.33E.28
J.R. Fife	9N.31E.27	Goodluck	7N.32E.6.131	Wallace Lease	9N.33E.29

Radioactive Occurrences in the New Mexico Portion of the Dalhart 1- by 2-degree Quadrangle

Black Mesa	32N.36E.32.432	Union County	Smithson Ranch	22N.33E.28	Union County
Ft. Pitt Copper Co.	31N.36E.7.400	Union County	Unknown	30N.37E.6.320	Union County
Gallagher Brothers	21N.30E.4	Harding County	Unknown	30N.37E.18.200	Union County

Radioactive Occurrences in the New Mexico Portion of the Douglas 1- by 2-degree Quadrangle (Hidalgo County)

Anomaly #12	30S.15W.31.311	Bold Uranium Prospect	34S.17W.8	Radioactive High	24S.22W.6
Anomaly #13	32S.14W.20.222	Bug House Claim		Unknown	22S.19W.34.134
Anomaly #14	34S.16W.14.121	Napane	29S.14W.25.442	Unknown	27S.20W.32
Apache and Chapo Mines	28S.14W.24	Opportunity Claims	34S.15W.15.432	Unknown	29S.21W.8,9

Radioactive Occurrences in the New Mexico Portion of the El Paso 1- by 2-degree Quadrangle (Luna County)

Calumet Mine	29S.11W.14.121
Section 2	28S.9W.2.224
Section 24	28S.9W.24.442
Section 35	27S.9W.35.432
Unknown-Middle Sister Peak	27S.8W.31.133
Unknown-Middle Sister Peak	27S.8W.31.314
Zumwalt	28S.8W.6.124

Radioactive Occurrences in the Fort Sumner 1- by 2-degree Quadrangle

All American	1S.11E.23.211	Lincoln County
American	1S.11E.22.241	Lincoln County
American Uranium Prospect	7N.19E.4	Guadalupe County
Bond #4	3S.12E.10.424	Lincoln County
Bottleneck Prospect	1S.11E.24	Lincoln County
Cebola Creek	1S.26E.11	De Baca County
Congress Prospect	1S.12E.19.313	Lincoln County
Consolidated Gas and Mining	7N.12E.28,29	Torrence County
Eagle Nest	1S.11E.24.421	Lincoln County
Elda	3S.12E.11.331	Lincoln County
Hoosier Girl	7S.12E.19.331	Lincoln County
Ima Lode Claims	8N.27E.12,13	Quay County
Last Chance	1S.12E.19.114	Lincoln County
Little Wonder, Old Hickory, Eureka	1S.12E.19.320	Lincoln County
Porcupine	8N.18E.13	Guadalupe County
Powell and Son	3S.27E.12	Chavez County
Pride No.2, E and M No.13	1S.11E.27.414	Lincoln County
Rare Metals	1S.11E.22.413	Lincoln County
Red Cloud Mine, Red Cloud Copper Conqueror No.4, Hilltop	1S.11E.25.200	Lincoln County
Rio Tinto	1S.11E.25.421	Lincoln County
Santa Rosa Railroad Cut	8N.21E.2	Guadalupe County
Sky High	1S.11E.14.411	Lincoln County
Summit	1S.12E.19.334	Lincoln County
Tecolote Peaks Iron Claim	3S.12E.10.423	Lincoln County

Radioactive Occurrences in the New Mexico Portion of the Gallup 1- by 2-degree Quadrangle

Alpha	14N.13W.12.333	McKinley County
Alta	14N.11W.5.313	McKinley County
Anomaly	15N.17W.28.114	McKinley County
Anomaly	15N.17W.33.422	McKinley County
Anomaly	15N.17W.34.432	McKinley County
Billy the Kid, Greer, Warren & McCormick	14N.11W.19.220	McKinley County
Black Jack No. 1	15N.13W.12.322	McKinley County
Black Jack No. 2	15N.13W.18.223	McKinley County
Black Rainbow Claims	16N.18W.36.300	McKinley County
Canyon	17N.13W.34	McKinley County
Car Ball #13	16N.18W.26.220	McKinley County
CD and S	16N.17W.35.411	McKinley County
Church Rock	16N.16W.17.212	McKinley County
Church Rock 8 & 2	17N.16W.9	McKinley County
Crownpoint	17N.12W.19.312	McKinley County
Crownpoint	17N.12W.29.212	McKinley County
Crownpoint Section 9	17N.13W.9.322	McKinley County
Crownpoint North Trend	17N.13W.4	McKinley County
Crownpoint South Trend	17N.13W.16	McKinley County
Dalton Pass	17N.14.28.400	McKinley County
Dalton Pass-Section 30	17N.13W.30	McKinley County
Dalton Pass	17N.14W.24,25	McKinley County
Delter	16N.17W.36.114	McKinley County
Diamond No. 2	15N.17W.33.214	McKinley County
Eagle #1-6	14N.12W.18.430	McKinley County
Elkins Claims	14N.12W.24.243	McKinley County
Elkins Claims	14N.12W.24.414	McKinley County
Elkins Claims	14N.12W.24.421	McKinley County
Foutz #1	15N.16W.4.111	McKinley County
Foutz #2	15N.16W.5.222	McKinley County
Foutz #3	16N.16W.31.444	McKinley County
Francis	14N.11W.8.213	McKinley County
Gallup Titanium Deposit	15N.19W.32.432	McKinley County
Glover Claims	14N.11W.20.133	McKinley County
Haven	14N.11W.21.313	McKinley County
Hogback #3-5	15N.18W.12.244	McKinley County
Ho Hon-James Group	13N.11W.15.111	McKinley County
Ingersol Copper	11N.12W.7.144	Cibola County
June	14N.13W.14.222	McKinley County
Largo	14N.13W.14.114	McKinley County
Last Chance #2	14N.14W.2.123	McKinley County
Mac #1	15N.14W.12.423	McKinley County
Mac #2	15N.13W.18.442	McKinley County
Malpais Raise	13N.9W.20.144	McKinley County
Mancos Section 7	16N.16W.7.331	McKinley County
Mancos Section 12	16N.17W.12.444	McKinley County
Mariano Lake	15N.14W.12.134	McKinley County
Mirabel Copper Deposit	11N.12W.7.110	Cibola County
Mirabel Mine	11N.12W.7.200	Cibola County
Monument	17N.12W.28.144	McKinley County
Mt. Sedgwick Copper	11N.12W.17.344	Cibola County
Narrow Canyon	17N.14W.2	McKinley County
Nicholson Brown	15N.14W.26.423	McKinley County
N.E. Church Rock-Section 31	17N.15W.31.100	McKinley County
N.E. Church Rock	17N.16W.35.200	McKinley County
N.E. Church Rock #1	17N.16W.35.200	McKinley County
N.E. Church Rock #1-East	17N.16W.36.100	McKinley County
N.E. Church Rock #2	17N.16W.27.200	McKinley County
N.E. Church Rock #3	17N.16W.21.210	McKinley County
Nose Rock #1	19N.11W.31.133	McKinley County
Nose Rock	19N.12W.32	McKinley County
Nose Rock	19N.12W.36.414	McKinley County
Pyramid Group	16N.16W.22	McKinley County
Pyramid Group	16N.16W.32.440	McKinley County
Red Cap Group	14N.11W.28.113	McKinley County
Rep Top #1 & #2	14N.11W.18.340	McKinley County
Red Top Mines	14N.11W.20.144	McKinley County
Ruby #1 and #2 decline	15N.13W.21.142	McKinley County
Ruby #2 ore body	15N.13W.27.120	McKinley County
Ruby #3 & #4 decline	15N.13W.25.224	McKinley County
Ruby #4 ore body	15N.13W.26.200,400	McKinley County
Section 3	15N.16W.3.332	McKinley County
Section 19	14N.11W.19.244	McKinley County
Section 20	15N.13W.20.223	McKinley County
Section 23-Grace Nuclear	16N.17W.23.221	McKinley County
Section 28	15N.17W.28.132	McKinley County
Section 32,33	15N.11W.32.224	McKinley County
Silver Bit #7	14N.12W.10.200	McKinley County
Silver Bit	14N.12W.10.200	McKinley County
Silver Bit #15	14N.12W.10.233	McKinley County
Silver Bit #18	14N.12W.10.243	McKinley County
South Pod ore body	15N.13W.25.440	McKinley County
Standing Rock	18N.14W.35.300	McKinley County
Tietjen-Lewis No.2	14N.13W.8	McKinley County
U Mine	15N.16W.4.414	McKinley County
Unknown-Zuni Indian Reservation	9N.17W.4	McKinley County
Unknown	11N.12W.17.133	Cibola County
Unknown	11N.13W.1.331	Cibola County
Unknown	11N.15W.23	Cibola County
Unknown	13N.19W.32	McKinley County
Unknown-Section 4	14N.11N.4.100	McKinley County
Unknown	14N.11W.17.234	McKinley County
Unknown	14N.11W.19.232	McKinley County
Unknown	14N.11W.19.414	McKinley County
Unknown	14N.11W.19.423	McKinley County
Unknown	14N.11W.20.444	McKinley County
Unknown	14N.16W.30.111	McKinley County
Unknown	15N.12W.23.220	McKinley County
Unknown	15N.12W.24	McKinley County
Unknown	15N.13W.11.200	McKinley County
Unknown-Section 13	15N.13W.13.220	McKinley County
Unknown-Section 13	15N.13W.13.400	McKinley County
Unknown	15N.14W.2	McKinley County
Unknown	15N.14W.3	McKinley County
Unknown-Section 2	15N.16W.2.323	McKinley County
Unknown-Section 6	15N.16W.6.221	McKinley County
Unknown	15N.16W.15	McKinley County
Unknown	16N.12W.32.234	McKinley County
Unknown	16N.13W.5.300	McKinley County
Unknown	16N.13W.14	McKinley County
Unknown	16N.13W.26.300	McKinley County
Unknown	16N.14W.2.100	McKinley County
Unknown	16N.14W.34	McKinley County
Unknown-Section 21	16N.15W.21.300	McKinley County
Unknown	16N.16W.3.222	McKinley County
Unknown	16N.16W.4.400	McKinley County
Unknown-Section 7	16N.16W.7.132	McKinley County
Unknown-Section 8	16N.16W.8.422	McKinley County
Unknown-Section 8	16N.16W.8.443	McKinley County
Unknown-Section 9	16N.16W.9.400	McKinley County

Radioactive Occurrences in the New Mexico Portion of the Gallup 1- by 2-degree Quadrangle (continued)

Unknown	16N.16W.9.411	McKinley County	Unknown-Section 14	16N.17W.14.100	McKinley County
Unknown-Section 16	16N.16W.16.110	McKinley County	Unknown-Section 24	16N.17W.24.200	McKinley County
Unknown	16N.16W.16.200	McKinley County	Unknown-Section 25	16N.17W.25.241	McKinley County
Unknown	16N.16W.17.100	McKinley County	Unknown-White Cliffs	16N.17W.31.224	McKinley County
Unknown-Section 18	16N.16W.18.111	McKinley County	Unknown	17N.14W.27.300	McKinley County
Unknown-Section 18	16N.16W.18.113	McKinley County	West Eagle 1-3	14N.13W.24.234	McKinley County
Unknown-Section 18	16N.16W.18.332	McKinley County	West Largo	15N.10W.17.300	McKinley County
Unknown-Section 19	16N.16W.19.132	McKinley County	West Water #1	15N.16W.2.442	McKinley County
Unknown-Section 22	16N.16W.22.200	McKinley County	Wilcox Ranch	10N.15W.14.200	Cibola County
Unknown-Section 23	16N.16W.23.210	McKinley County	Williams and Reynolds Mine	15N.16W.4.441	McKinley County
Unknown-Section 13	16N.17W.13.323	McKinley County	Yucca #2	14N.11W.28.134	McKinley County
Unknown-Section 13	16N.17W.13.411	McKinley County			

Radioactive Occurrences in the New Mexico Portion of the Hobbs 1- by 2-degree Quadrangle (Lea County)

Stoltz Test Hole	22S.34E.35	Unknown	19S.35E.24.134

Radioactive Occurrences in the New Mexico Portion of the Las Cruces 1- by 2-degree Quadrangle

ABC Mining	19S.2W.5.222	Dona Ana County	Lydia K Mine	16S.4W.29.400	Sierra County
Barite Hill No.1	15S.9W.13.214	Sierra County	Paran	17S.4W.27	Sierra County
Black Range-Dry Gallinas Canyon	16S.10W.23.400	Grant County	Red Hill Claim	15S.3W.18.312	Sierra County
			Red Rock No.1	16S.4W.33.214	Sierra County
Blue Star Claims	24S.3E.25.214	Dona Ana County	Red Rock No.3	16S.4W.33.200	Sierra County
Cooks Peak	20S.8W.29	Luna County	Red Rock Claims	16S.4W.33.300	Sierra County
Coral Snake Hidden Valley	17S.9W.35	Sierra County	Russel Soper Property	19S.2W.36.200	Dona Ana County
			Sierra Mining	17S.4W.4.213	Sierra County
Enchantment Claims	15S.9W.21	Sierra County	Torbenite Claim	22S.8E.3.341	Otero County
Faywood Hot Springs	20S.11W.20.200	Grant County	Treasure U. Co.	18S.3W.5,6	Sierra, Dona Ana Counties
Granite Wash	15S.4W.22.300	Sierra County	Unknown	15S.4W.22.300	Sierra County
Hot Rock No.2, 4	17S.4W.29,30	Sierra County	Unknown-Mesilla Park	24S.3E.13,24.25	Dona Ana County
Ingersoll	15S.9W.13.332	Sierra County	Virginia-Templar-Keystone Mine	15S.9W.26.100	Sierra County
Lookout Claims 1-3	20S.9W.11	Luna County			

Radioactive Occurrences in the New Mexico Portion of the Raton 1- by 2-degree Quadrangle

A and M Mining	21N.16E.22	Mora County	Lake Fork	27N.14E.15	Taos County
Ace Construction	27N.25E.17.213	Colfax County	Langley Prospect	26N.15E.18	Colfax County
Anomaly #15	25N.9E.3.413	Rio Arriba County	Latir	30N.15E.18	Taos County
Billy Goat	30N.15E.7.311	Taos County	Laughlin Peak	27N.25E.1.200	Colfax County
Bitter Creek	29N.15E.21	Taos County	Langlin Peak	27N.25E.12.443	Colfax County
Black Copper Mines	28N.15E.30.200	Taos County	Le Deoux Ranch Lease	22N.16E.13	Mora County
Black Lake	24N.16E.6.112	Colfax County	Lulu Ann	22N.16E.12	Mora County
Blas Medina	22N.16E.1	Mora County	President Mine	28N.16E.15	Colfax County
Blasted Pine	27N.25E.1.411	Colfax County	San Antonio Claims	27N.13E.28	Taos County
Blue Feather Claims	23N.11E.30	Taos County	Servillita Plaza	25N.9E.3	Taos County
Cimarron Black-SS Deposit	26N.19E.6	Colfax County	Shell Prospect	26N.25E.3.141	Colfax County
			Unknown-Mora Grant	22N.16E.9	Mora County
Copper Hill Claims	23N.11E.20	Taos County	Unknown	23N.18E.18.220	Mora County
Copper Hill	23N.11E.20.210	Taos County	Unknown-Billy Goat Pegmatites	30N.15E.7.143	Taos County
Costilla	30N.15E.7.321	Taos County			
Costilla	30N.15E.8.300	Taos County	Unknown-Comanche Point	30N.15E.8.100	Taos County
Coyote Creek Misc. Prospects	22N.17E.,21N.16E.	Mora County	Wichita Mine	23N.11E.16.421	Taos County
			William Atkins	22N.16E.1	Mora County
Harding Mine	23N.11E.29	Taos County			

Radioactive Occurrences in the Roswell 1- by 2-degree Quadrangle

Alaskan #1 Lode	5S.12E.14	Lincoln County	Old Jack-Jack #1	5S.12E.35.424	Lincoln County
Barlejon No.2 (1-8)	8S.15E.16.414	Lincoln County	Piney	8S.15E.15.331	Lincoln County
Bear Canyon	8S.17E.9.400	Lincoln County	Pittsburg Iron Claims	6S.14E.10.441	Lincoln County
Black Night-Good Night	6S.11E.24.131	Lincoln County	Prince Mine	6S.11E.14.223	Lincoln County
Bonita Claims	10S.11E.9.211	Lincoln County	Ricardson Claims	9S.11E.15.100	Lincoln County
Capitan Uranium Co. No.14 & 18	7S.15E.33	Lincoln County	San Pedro-Link Hill Claims	8S.17E.35.331	Lincoln County
Copeland Canyon	8S.17E.17.200	Lincoln County	Silver Plume	10S.13E.31.242	Lincoln County
Drunzer	8S.17E.17.200	Lincoln County	Spur Adit	10S.11E.3.411	Lincoln County
Eagle Nest No.1 and 2	6S.11E.21.274	Lincoln County	Unknown	4S.12E.29.322	Lincoln County
El Tigre	8S.15E.23.100	Lincoln County	Unknown-Ancho	5S.10E.25	Lincoln County
Ferro	6S.11E.16.422	Lincoln County	Unknown-Carrizozo	7S.10E.20	Lincoln County
Fuzzy Nut #1-8	8S.15E.3	Lincoln County	Unknown-Roadcut	7S.10E.28.123	Lincoln County
Helen Rae	9S.12E.12,13	Lincoln County	Unknown-Section 2	7S.11E.2.222	Lincoln County
Hopeful Claims	8S.15E.17.433	Lincoln County	Unknown	7S.14E.36.411	Lincoln County
Iron Rail and Iron Contact Mine	5S.12E.11.344	Lincoln County	Unknown	7S.15E.31.214	Lincoln County
			Unknown-Torlita Canyon	9S.11E.13.112	Lincoln County
King	8S.15E.15,22	Lincoln County	Unknown	9S.11E.19.414	Lincoln County
Koprian Springs	8S.15.11	Lincoln County	Unknown	9S.11E.27.233	Lincoln County
Lane Claim	5S.12E.25.131	Lincoln County	Unknown	9S.14E.9	Linolon County
Little Mac	6S.11E.25.114	Lincoln County	Unknown-Section 26	13S.10E.26.231	Otero County
Maud Mine	10S.11E.3.324	Lincoln County	Unknown-Section 32	13S.10E.32.441	Otero County
McCory Claims	8S.15E.1.141	Lincoln County	Virginia Mine	13S.10E.26.144	Otero County
Mina Tiro Estrella	8S.16E.27.400	Lincoln County	Wee Three	8S.15E.15.414	Lincoln County
Monso Group #32,4,5	8S.15E.22.213	Lincoln County	Yellow Jacket	6S.11E.22.411	Lincoln County

Radioactive Occurrences in the New Mexico Portion of the Saint Johns 1- by 2-degree Quadrangle

Dorothy B Mines #1,2,3	4N.21W.24	Catron County	Unknown	3N.16W.21.342	Catron County
Hancock-Geotex	3N.11W.32.321	Catron County	Unknown	3S.13W.29	Catron County
Mangum	3N.16N.22.341	Catron County	Unnamed-Quemado	4N.19W.3.332	Cibola County
Unnamed-Red Hill Area	1N.19W.21.1ØØ	Catron County	Varnum	3N.16W.21.231	Catron County

Radioactive Occurrences in the Santa Fe 1- by 2-degree Quadrangle

AEC Anomaly No.3	17N.23E.28	San Miguel County	Kunklin (?)Deposit	16N.11E.14	Santa Fe County
AEC Anomaly No.12	14W.2ØE.34	San Miguel County	Las Vegas Grant	17N.15E.32	San Miguel County
Anomaly No.2 and 3	2ØN.9E.33.411	Santa Fe County	Locality #33	17N.14E.14.142	San Miguel County
Anomaly #3	12N.1ØE.11	Santa Fe County	Locality #43	17N.24E.25	San Miguel County
Anomaly No.5	2ØN.9E.13.133	Santa Fe County	Los Vigiles	17N.16E.31	San Miguel County
Anomalies No.6 and 7	2ØN.9E.22.43Ø	Santa Fe County	Lost Creek Claims	16N.14E.34.144	San Miguel County
Anomaly No.1Ø	19N.9E.2.442	Santa Fe County	Lujan Cattle Co.	17N.24E.16.134	San Miguel County
Anomalies No.11 and 12	19N.9E.22,28	Santa Fe County	Marion	2ØN.1ØE.7.132	Santa Fe County
Anomaly #13	12N.17E.13	San Miguel County	Mars Claim	16N.23E.19	San Miguel County
Anomaly #13	19N.9E.36.131	Santa Fe County	Mickie V Claims	17N.23E.27,28	San Miguel County
Anomaly No.14	18N.9E.12.134	Santa Fe County	Mora River Gap	2ØN.16E.16	Mora County
Beasley Brothers	1ØN.27E.16.244	Quay County	Neafus Ranch	11N.25E.17.311	Guadalupe County
Bish #2	17N.24E.31.222	San Miguel County	Neafus Claim	12N.23E.2Ø	San Miguel County
Black Nugget No.1	17N.14E.11.331	San Miguel County	Park Springs Ranch Anomaly	13N.19E.27	San Miguel County
Blakely Ranch	12N.1ØE.26	Santa Fe County			
Blake Mine (?)	14N.15E.8	San Miguel County	Pidlite Mine	19N.14E.17.133	San Miguel County
Bookout Ranch	12N.23E.25	San Miguel County	Priest Mine	15N.14E.26.432	San Miguel County
Bookout Ranch	12N.24E.31.122	San Miguel County	Quintana	15N.14E.18	San Miguel County
Branch Ranch	11N.25E.27	Guadalupe County	Sabinosa Uranium Corp.	17N.24E.8.431	San Miguel County
Bryan Ranch	19N.15E.15	San Miguel County	Sanford Ranch	19N.23E.1	Mora County
Budagher	15N.11E.6.222	Santa Fe County	Sanford Ranch	2ØN.24E.5	Mora County
Bustos	2ØN.16E.17	Mora County	Santa Rosa Tar Sand	9N.21E.1.122	Guadalupe County
Cip Lujan	17N.24E.17.141	San Miguel County	Shaw No.2	2ØN.1ØE.7.123	Santa Fe County
Conoco Leatherwood-Reed No.1 Well	16N.17E.15.234	San Miguel County	Sowell Ranch	12N.17E.24	San Miguel County
			Sparks-Stone	16N.14E.5.132	San Miguel County
East Point Mesa Montosa	13N.21E.19	San Miguel County	St. Anne Claims	12N.25E.5	San Miguel County
Elk Mountain	18N.13E.14,23	San Miguel County	T Claims	16N.23E.1Ø,11	San Miguel County
Eloy Estrada	15N.21E.24	San Miguel County	Unknown	12N.17E.23	San Miguel County
El Villa Claims	17N.25E.19.322	San Miguel County	Unknown-Roadcut	17N.24E.5.413	San Miguel County
Gilliland Claims	2ØN.9E.23.341	Santa Fe County	Unknown-Roadcut	17N.14E.8.323	San Miguel County
Guy No.1	18N.13E.36.4ØØ	San Miguel County	Unknown	17N.14E.14.114	San Miguel County
High Peak	17N.13E.3Ø.223	San Miguel County	Unknown	17N.14E.14.144	San Miguel County
Hunt Oil Co.	17N.24E.29.142	San Miguel County	Unknown-Adit	17N.14E.15.121	San Miguel County
Kennedy Mine	15N.11E.23.1ØØ	Santa Fe County	Windy #9	17N.23E.14.441	San Miguel County
Key Claims	17N.23E.1.444	San Miguel County			

Radioactive Occurrences in the New Mexico Portion of the Shiprock 1- by 2-degree Quadrangle (San Juan County)

Airbourne Anomaly #3	28N.16W.21.114	Canyon #1	3ØN.2ØW.19.31Ø	King Tutt #2	29N.21W.12,13
Airbourne Anomaly #4	31N.14W.13	Canyon View	29N.21W.24.443	King Tutt Point	29N.21W.24.42Ø
Airbourne Anomaly #5	3ØN.16W.32	Carl Yazzie #1	25N.2ØW.17.114	Lone Star	3ØN.21W.35.31Ø
Airbourne Anomaly #6	3ØN.16W.1Ø.34Ø	Carrizo #1	29N.21W.23.424	Lookout Point-Sunnyside	29N.21W.14.344
Airbourne Anomaly #7	31N.16W.24	Castle Tsosie	26N.21W.36.444	Lookout Point Incline	29N.21W.23.122
Airbourne Anomaly #8 & 9	31N.15W.3Ø	Claim #14		Lower Canyon	29N.21W.2
		Coal Mine	32N.13W.15.444	Lower Oak Creek	29N.21W.14.122
Airbourne Anomaly #1Ø & 11	31N.15W.3Ø	Cottonwood Butte	3ØN.21W.35.13Ø	Lower Salt Rock	29N.21W.14.122
		David Kee	26N.21W.36.314	Nelson Point	29N.21W.23.41Ø
Airbourne Anomaly #12	31N.15W.3Ø	Deneh Nez #1 & 2	25N.2ØW.5.214	Rattlesnake #6	29N.21W.
Airbourne Anomaly #13, 14, & 15	31N.15W.19.4ØØ	Deneh Nez #3	25N.2ØW.5.411	Red Wash Point	29N.21W.24.323
		Deposit #2	32N.16W.19	Reed Henderson	25N.2ØW.19.344
Airbourne Anomaly #16, 17, & 18	31N.16W.14	Deposit X-Y	3ØN.15W.6	Rocky Flats #1	3ØN.21W.24.12Ø
		Dodge Brothers	23N.19W.5.1ØØ	Rocky Flats #2	3ØN.21W.26.122
Airbourne Anomaly #19 & 2Ø	31N.16W.15	Dodge Brothers	24N.19W.7.11Ø	Rocky Spring	27N.21W.35
		Dodge and Begay	23N.19W.8,17	Salt Canyon	29N.21W.13,14
Airbourne Anomaly #21	31N.16W.3.1ØØ	Dodge and Begay	23N.19W.16.3ØØ	Salt Rock	29N.21W.14.121
Anomalous Area Near Airbourne Anomaly #21	31N.16W.3.2ØØ	Dodge and Begay	23N.2ØW.1	Sanostee	26N.19W.31
		East Carrizo Area	29N.21W.35	Section 8 Adit	25N.2ØW.8.213
Airbourne Anomaly #22 & #23	32N.16W.28	East Reservation Lease-Plot 3	29N.21W.14	Shadyside	29N.21W.23.124
				Shadyside #1-Plot 3	29N.21W.23
Outcrop SE of Airbourne Anomaly No.23	32N.16W.28	Enos Johnson #1-4	25N.2ØW.7,8	Shadyside #2	29N.21W.23.212
		Enos Johnson #3	25N.2ØW.8.311	Shiprock Diatreme	29N.1[illegible]W.34
Airbourne Anomaly #24	32N.16W.29	Franks Point	29N.21W.14.112	Tent	29N.21W.23.142
Airbourne Anomaly #32	32N.17W.27	Hazel	29N.21W.3	Toadlena	23N.1[illegible]W.14
Airbourne Anomaly #33	32N.17W.15	H.B. Roy	25N.2ØW.18.441	Tyler	25N.2[illegible]W.6.131
Airbourne Anomaly #34	32N.17W.27	H.B. Roy #1	26N.2ØW.3Ø.1ØØ	Unknown	25N.2[illegible]W.4.331
Airbourne Anomaly #35	32N.17W.22,27	Hogback Claim	3ØN.16W.15.323	Unknown	25N.2[illegible]W.5.42Ø
Airbourne Anomaly #36	31N.16W.15,16	Horace Ben #1	25N.2ØW.8.442	Unknown	25N.2[illegible]W.6.134
Airbourne Anomaly #37	31N.16W.1Ø	Horse Mesa South	29N.21W.26.323	Unknown	25N.2[illegible]W.8.331
Airbourne Anomaly #46	28N.17W.13	Horse Mesa North	29N.21W.26.134	Unknown	25N.2[illegible]W.8.334
A.L. Cook	3ØN.18W.24.3ØØ	Joe Ben #1	25N.2ØW.6.141	Unknown	25N.2[illegible]W.17.231
Alfred Talk	25N.2ØW.6.113	Joe Ben #2	25N.2ØW.6.231	Unknown	25N.2[illegible]W.18.444
Alongo	29N.21W.24.441	Joe Ben #5	25N.2ØW.7.131	Unknown	26N.2[illegible]W.36.2ØØ
Barton and Lee	3ØN.21W.26.3ØØ	John Joe #1	25N.2ØW.8.11Ø	Unknown	29N.21W.11.1ØØ
Beclabito Lease	3ØN.21W.24.11Ø	John Joe #2	26N.2ØW.31.334	Unknown	29N.2[illegible]W.24.33Ø
Begay #1	29N.21W.24.333	John John #1	3ØN.21W.22.42Ø	Unknown	29N.2[illegible]W.25.3ØØ
Begay #2	29N.21W.23.224	Junction	29N.21W.24.243	Unknown	29N.2[illegible]W.27.222
Begay Incline	29N.21W.23.221	Kee and Tohe	26N.2ØW.31.313	Unknown	3ØN.21W.11.3ØØ
C. Bekis No.1	3ØN.21W.27	King #2	3ØN.21W.26.12Ø	Unknown	3ØN.2[illegible]W.14.3ØØ
Benall and Shorty	29N.21W.24.22Ø	King #6	3ØN.21W.14.433	Willack & Hamilton	29N.1[illegible]W.17
Boyd	3ØN.15W.3.14Ø	King Tutt #1	29N.21W.24.323	Williams Point	29N.21W.14.32Ø

Radioactive Occurrences in the New Mexico Portion of the Silver City 1- by 2-degree Quadrangle

Acme-Utah-California	20S.15W.22.421	Grant County
Alhambra	18S.16W.21.331	Grant County
Alhambra #1-Bluebell #2-Lindsey #2	20S.15W.21.231	Grant County
Anomaly #1	19S.15W.11.122	Grant County
Anomaly #2	19S.15W.2.344	Grant County
Anomaly #6	20S.14W.19.441	Grant County
Anomaly #7	20S.15W.36.400	Grant County
Anomaly #9	18S.16W.36.341	Grant County
Anomaly #10	18S.16W.36.434	Grant County
Anomaly #11	26S.18W.5.122	Hidalgo County
Anomaly #15	21S.15W.31.100	Grant County
Anomaly #16	21S.15W.31.200	Grant County
Anomaly #17	21S.15W.31.300	Grant County
Apache Trail-Black Cat	20S.15W.2.242	Grant County
Arrowhead Claim	20S.15W.22.342	Grant County
Austin-Amazon Mine	19S.16W.35.220	Grant County
Banner	20S.15W.26.113	Grant County
Bisbee	20S.14W.27.400	Grant County
Black Beauty Claims	20S.15W.35.123	Grant County
Black Hawk Mine	18S.16W.16,21	Grant County
Blue Eagle Fluorspar	18S.18W.21.220	Grant County
Blue Jay	20S.15W.26.122	Grant County
Bouncing Bet	20S.15W.24.421	Grant County
Buckhorn No.2 Claim	20S.15W.19.224	Grant County
Calamity	20S.15W.23.432	Grant County
Carlisle Claims	17S.21W.1,12	Grant County
Chapman Turquoise Mine	20S.15W.25.244	Grant County
Chino Mine	17S.12W.35	Grant County
Combination	20S.15W.23.213	Grant County
Continental Mine	17S.12W.4,9	Grant County
Co-op Mine Area	21S.16W.29.422	Grant County
Copper Glance	20S.15W.23.100	Grant County
Copper King No.1,2	19S.15W.15	Grant County
Edmonds Shaft	20S.15W.34.144	Grant County
Edwards No.5	20S.15W.27.441	Grant County
Eugenie	20S.15W.26.223	Grant County
Floyd Collins	20S.15W.22.311	Grant County
Golden Eagle	20S.15W.14.223	Grant County
Grandview Group	22S.16W.17	Grant County
High Noon No.1	20S.15W.17.443	Grant County
Hines-Werney	21S.14W.34.223	Grant County
Inez-Hummer	20S.15W.24.313	Grant County
Jay Hawk Claims	17S.13W.7,8	Grant County
Langford Fluorspar	22S.16W.25	Grant County
Lettie Mae	20S.15W.22.212	Grant County
Little Cookie #1	20S.15W.18	Grant County
Lone Jack	20S.15W.24.321	Grant County
Lost Glove Pegmatite	20S.16W.2.434	Grant County
May Day 1 and 2	18S.17W.2.122	Grant County
Merry Widow	20S.15W.22.324	Grant County
Miss Virginia	19S.15W.36.414	Grant County
Monarch No.2, Moneymaker, Wild Irishman	20S.15W.19.330	Grant County
New Years Gift	20S.15W.23.311	Grant County
North and South Pegmatites	21S.16W.29.244	Grant County
Osmer Silver	18S.16W.29.414	Grant County
Paddy Ford	20S.15W.23.421	Grant County
Paul #5 and 6	22S.17W.13	Hidalgo County
Paymaster-Silver Lode	20S.15W.28.114	Grant County
Pegmatites	20S.15W.28.113	Grant County
Pegmatites	21S.17W.15,22	Hidalgo County
Pitman Claims	20S.16W.19.211	Grant County
Prince Albert #1	18S.17W.2.421	Grant County
Prince Albert #2	18S.17W.2.244	Grant County
Purple Heart Mine	18S.17W.3.423	Grant County
Purple Rock Mine	18S.18W.22.233	Grant County
Rambling Ruby	18S.17W.1.144	Grant County
Red Bird	20S.15W.23.334	Grant County
Red Dodson	20S.15W.14.244	Grant County
Red Hill Turquoise Mine	20S.15W.16.124	Grant County
Reed Mine	18S.17W.2.142	Grant County
Rhoda #1-8, Beal #1-2, Ruby #6-15, Sidney #1-7	21S.17W.1,12	Hidalgo County
Rose	18S.16W.29.242	Grant County
Sandy Group	18S.18W.15.433	Grant County
Section 21T 18S R 15W	18S.15W.21.441	Grant County
Shamrock	20S.15W.23.330	Grant County
Silver King	18S.16W.21.223	Grant County
Springfield	18S.17W.9.412	Grant County
Summit	20S.16W.23.233	Grant County
Tullock Peak	20S.15W.25.314	Grant County
Tungsten Hill, Irish Rose	24S.15W.29.412	Luna County
Tunnel Site No.1	20S.15W.26.244	Grant County
Tunoco Mining Claims	18S.15W.28.231	Grant County
Tunoco Mining Claims	18S.15W.28.243	Grant County
Tyrone Copper Mine	19S.15W.14	Grant County
Uncle Sam and Adjacent Properties	20S.14W.32.233	Grant County
Union Hill Claims	18S.17W.10.242	Grant County
Unknown	16S.17W.22.313	Grant County
Unknown	18S.15W.28.211	Grant County
Unknown	18S.15W.35.143	Grant County
Unknown	19S.15W.27.414	Grant County
Unknown	19S.15W.28.334	Grant County
Unknown	19S.15W.32.242	Grant County
Unknown	19S.15W.36.132	Grant County
Unknown	19S.15W.36.133	Grant County
Unknown	19S.15W.36.332	Grant County
Unknown	20S.14W.13	Grant County
Unknown	20S.14W.23.233	Grant County
Unknown	20S.14W.29.342	Grant County
Unknown	20S.14W.30.313	Grant County
Unknown	20S.14W.30.332	Grant County
Unknown	20S.14W.30.431	Grant County
Unknown	20S.14W.30.441	Grant County
Unknown	20S.14W.31.122	Grant County
Unknown	20S.14W.31.233	Grant County
Unknown	20S.15W.1.143	Grant County
Unknown	20S.15W.13.214	Grant County
Unknown	20S.15W.14.142	Grant County
Unknown	20S.15W.14.231	Grant County
Unknown	20S.15W.23.222	Grant County
Unknown	20S.15W.26.124	Grant County
Unknown	20S.15W.26.221	Grant County
Unknown	20S.15W.26.422	Grant County
Unknown	20S.15W.26.442	Grant County
Unknown	20S.15W.27.332	Grant County
Unknown	20S.15W.28.321	Grant County
Unknown	20S.16W.14.142	Grant County
Unknown	20S.16W.18.142	Grant County
Unknown	20S.16W.22.123	Grant County
Unknown	20S.16W.26.222	Grant County
Unknown	20S.16W.30.441	Grant County
Unknown	21S.16W.4.333	Grant County
Unknown	21S.16W.6.423	Grant County
Unknown	22S.17W.9,10	Hidalgo County
Unknown	25S.16W.36.333	Grant County
W.F. Claims	18S.17W.12.121	Grant County
White Bull Pegmatites	19S.16W.23.131	Grant County
White Rock Pegmatites	21S.17W.13.400	Hidalgo County
White Rock Pegmatites	21S.17W.14.422	Hidalgo County
White Top Hill	21S.16W.27.134	Grant County
Wisconsin Group	20S.15W.24.143	Grant County
Yukon Group	17S.17W.35.344	Grant County

Radioactive Occurrences in the Socorro 1- by 2-degree Quadrangle

Abo Milling and Manufacturing Co.	3N.5E.33.230	Valencia County
Abo Milling and Manufacturing Co.	3N.5E.33.431	Valencia County
Abo Mine	2N.5E.3.414	Torrance County
Abo Mining Claims	3N.5E.23.111	Torrance County
Acoma Reservation	9N.7W.26.100	Cibola County
Alamito Canyon Prospect	3N.2W.32.123	Socorro County
Alamosa Creek Valley	1N.5W.8	Socorro County
Alamosa Creek Valley	1N.5W.18	Socorro County
Anomaly #5	1N.5W.7.133	Socorro County
Aqua Torres	1S.2E.13	Socorro County
Balo Mining Company	8N.6W.18	Cibola County
Beall Claims	1N.6W.26	Socorro County
Black Butte	2N.2E.12	Socorro County
Blue Mesa #1	2N.8W.6.442	Socorro County
Brownlow-Heat Prospect	6N.4W.4.220	Cibola County
J.D. Campbell	1N.2E.22	Socorro County
Carter-Tolliver-Cook Claims	2S.1W.6,7	Socorro County
Contreras Mining Co.	2N.5E.5.234	Socorro County
Copper Girl #1-6	4N.5E.28.110	Torrence Count
Copper Prospect	1N.2W.33	Socorro County
Council Rock	1S.5W.9,10	Socorro County
Crackpot Mine	8N.5W.8.113	Cibola County
Disappointment #3	1N.4W.13.100	Socorro County
Drag A Ranch	2N.9W.31	Catron County
Fall Spring	1N.4W.5	Socorro County
Federal Uranium Area	2N.10W.20.440	Catron County
Gonzales	3S.1E.2.241	Socorro County
Granite Well Group	2N.2W.10	Socorro County
Grefco Socorro Perlite	3S.1W.28.214	Socorro County
Hogsett, Hust, Henderson Claim #1-4	1N.6W.24.121	Socorro County
Hook Ranch Deposit	1N.6W.13.344	Socorro County
Hot Shot Mine	1N.5W.18.114	Socorro County
Hust-McDonald-Brown	1N.6W.24.200	Socorro County
Jeter Mine	3N.2W.35.233	Socorro County
Juan Torres	2N.2W.18.422	Socorro County
King	1N.4W.4	Socorro County

Radioactive Occurrences in the Socorro 1 x 2 - Degree Quadrangle (continued)

Lemitar Carbonatites	1S.1W.29.124	Socorro County
Lemitar Carbonatites	1S.1W.30.423	Socorro County
Little Davie	2S.2E.35.243	Socorro County
Luciel Claim	1N.4W.15.121	Socorro County
Luciel Claims #1-8	1N.4W.15.124	Socorro County
Lucky Don	2S.2E.35.223	Socorro County
Marie Prospect	1S.2E.1	Socorro County
McCandless Prospect	5N.5E.24	Torrance County
McPhaul Adit	2N.11W.14.243	Catron County
Midnight Group	2N.11W.12.114	Catron County
Mill Site	2N.5E.4.214	Socorro County
Minas del Chupadera	2S.1E.26.232	Socorro County
Nicolls-Higgens-Jones	1N.6W.2.300	Socorro County
Ox Spring Placer	2N.10W.27.231	Catron County
Paisano Mine	8N.6W.16.124	Cibola County
Parker Ranch	2N.4E.28	Socorro County
Parker Ranch	2N.4E.21	Socorro County
Pioneer Mine	3N.5E.15.441	Torrance County
Polvadera Mountain Claim-Four Jokes	1S.1W.19	Socorro County
Rattlesnake #1-4	3N.5E.15.233	Torrance County
Rayo Hills	1N.4E.4,9	Socorro County
Red Basin Claims	2N.10W.19.121	Catron County
Red Basin #1	2N.10W.19.244	Catron County
Red Basin #2	2N.10W.20.131	Catron County
Rheua No.1	3S.3E.8	Socorro County
Rule Prospect	2N.2W.15	Socorro County
Rusty Atom Claims #1-5	1N.6W.26	Socorro County
San Acacia Copper Mine	1S.2W.2.211	Socorro County
San Lorenzo Canyon	1S.1W.8.100	Socorro County
San Lorenzo #1	1S.1W.18.132	Socorro County
Scholle-1	3N.5E.10.312	Torrance County
Scholle	2N.5E.10	Torrance County
Shaft	1S.2W.10.400	Socorro County
Silver Creek Area	1N.2W.15.100	Socorro County
Silver Creek Prospect	1N.2W.15.340	Socorro County
Silver Hill Prospect	2S.4W.14.114	Socorro County
Sixty Prospect	3S.5W.6.311	Socorro County
Sonora 1-4 Claims	7N.5W.12.220	Socorro County
Southwest Minerals Property	2N.10W.36.444	Catron County
Thelma	3N.5E.15.423	Torrance County
Thomas & Melbourn	4N.5E.15	Torrance County
Union #1	1S.3E.31.333	Socorro County
Unknown-La Joyita	1N.1E.23	Socorro County
Unknown-San Acacia	1N.1W.21	Socorro County
Unknown-San Acacia	1N.1W.28	Socorro County
Unknown-La Joyita	1N.2E.31	Socorro County
Unknown	1N.4E.32.444	Socorro County
Unknown	1N.5W.7	Socorro County
Unknown-San Acacia	1S.2W.2.122	Socorro County
Unknown	1S.5W.3,4	Socorro County
Unknown	1N.6W.35	Socorro County
Unknown	1S.6W.14	Socorro County
Unknown	1S.6W.23	Socorro County
Unknown	2N.5E.17	Torrance County
Unknown-Scholle	2N.5W.4.314	Socorro County
Unknown	2N.9W.33.100	Catron County
Unknown	2N.10W.9.100	Catron County
Unknown	2N.10W.27.444	Catron County
Unknown	2N.10W.35.232	Catron County
Unknown-McPhaul	2N.11W.11.113	Catron County
Unknown	2N.11W.11.324	Catron County
Unknown-McPhaul	2N.11W.11.421	Catron County
Unknown	2N.11W.13.112	Catron County
Unknown-Adit	2N.11W.13.321	Catron County
Unknown-McPhaul Adit	2N.11W.14.224	Catron County
Unknown-Tajo Granite	3S.1E.11.111	Socorro County
Unknown-Tajo Granite	3S.1E.14.232	Socorro County
Unknown-Tajo Granite	3S.1E.14.441	Socorro County
Unknown	3N.5E.10.314	Torrance County
Unknown-Scholle	3N.5E.21.340	Valencia County
Unknown-Gravel Pit	3N.5E.21.421	Valencia County
Unknown-Laguna Reservation	8N.5W.6.100	Cibola County
Unnamed	8N.6W.5.111	Cibola County
Unnamed	8N.6W.5.131	Cibola County
Unnamed	8N.6W.5.133	Cibola County
Unnamed	8N.6W.10.333	Cibola County
Unnamed	8N.6W.11.323	Cibola County
Unknown	9N.5W.27.134	Cibola County
Unknown	9N.5W.27.23	Cibola County
Vulcan Claims	2S.1W.7.123	Socorro County
White Lovelace Claims	9N.1W.11,12	Bernalillo County
Yequa Claims	2N.10W.27.222	Catron County

Radioactive Occurrences in the New Mexico Portion of the Tucumcari 1 x 2 - Degree Quadrangle

Airbourne Anomaly No.1	13N.31E.25.210	Quay County
Airbourne Anomaly No.2	13N.31E.25.240	Quay County
Airbourne Anomaly No.3	11N.30E.32.331	Quay County
Airbourne Anomaly No.4	10N.29E.16.222	Quay County
Airbourne Anomaly No.5	10N.33E.15.411	Quay County
Airbourne Anomaly No.6	10N.33E.15.230	Quay County
Anomaly	10N.33E.10.411	Quay County
Anomaly No.1	13N.30E.21	San Miguel County
Anomaly No.2	13N.30E.20	San Miguel County
Anomaly No.3	14N.30E.33	San Miguel County
Anomaly No.4	14N.30E.28	San Miguel County
Anomaly No.5	13N.30E.32	San Miguel County
Anomaly No.6	12N.30E.8	San Miguel County
Anomaly No.7	12N.30E.7	San Miguel County
Anomaly No.8	12N.30E.6	San Miguel County
Bel Aro	11N.28E.24	Quay County
Breen Prospect	11N.30E.5	Quay County
Eight Point	11N.28E.15	Quay County
Gilstrap and Trusdal Claim	11N.33E.29.110	Quay County
Little Rattler	11N.33E.11.422	Quay County
Payne Claims	11N.33E.18.413	Quay County
Polita #2	17N.29E.6.223	Harding County
Richardson Ranch	10N.28E.2.431	Quay County
Frank Smith	12N.33E.23	Quay County
State Land	14N.32E.14.240	Harding County
Strawn Prospect	12N.30E.32	Quay County
Troutman Ranch	11N.32E.2	Quay County
Unknown	11N.30E.20.424	Quay County
Wallace Lease	10N.33E.31.400	Quay County
Wallace Ranch, North	9N.33E.5	Quay County
William Wallace	9N.32E.2,3	Quay County

Radioactive Occurrences in the Tulorosa 1 x 2 - Degree Quadrangle

Alpha #8 Claim	15S.3W.6.321	Sierra County
Bear Trap Canyon	6S.7W.18.144	Socorro County
Bell Mine	6S.6W.12.143	Socorro County
Big Chief Group	4S.3W.3.330	Socorro County
Black Range	14S.10W.2,11,14	Grant County
Blue Jacket #1 and 2	14S.4W.15	Sierra County
Chise	12S.7W.18.232	Grant County
Chupadera Carbonatites	5S.1W.21,28	Socorro County
Clum, Aguilar Mines	14S.16W.28,33	Grant County
Cocar Lease	9S.7W.5	Socorro County
Craig and Dike Claims	8S.5W.14.141	Socorro County
Fifty-fifty	11S.5W.6.241	Sierra County
Glory No.2 & Empire Claims	10S.8W.14.200	Sierra County
Good Luck No.1	12S.7W.9	Sierra County
Harvey Sheep and Cattle Co.	5S.7W.23,24	Socorro County
Joker #1	15S.3W.31.342	Sierra County
Lookout No.1	10S.5W.5.233	Sierra County
Luis Lopez Manganese Mine	4S.1W.20.211	Socorro County
Luna Claims	9S.6W.35.420	Socorro County
Mitchell Price Prospect	13S.5W.12	Sierra County
Mockingbird Claims	10S.4,5E.	Sierra County
Mockingbird Gap	9S.6E.34	Lincoln County
Native No.1	11S.7W.6.111	Sierra County
Red Hills	4S.1W.19.120	Socorro County
Red Tiger	13S.7W.1	Sierra County
Rose Dale Mine	6S.6W.1.444	Socorro County
San Juan Peak	7S.5W.35.312	Socorro County
Sherry	11S.7W.31	Sierra County
State Mining Lease	12S.7W.2	Sierra County
Taylor Prospect	9S.7W.10	Socorro County
Terry Prospect	10S.6W.26.233	Sierra County
Unknown-Carthage	4S.3E.5.230	Socorro County
Unknown-Carthage	4S.3E.6.332	Socorro County
Unknown	5S.1W.21	Socorro County
Unknown	5S.6E.16	Socorro County
Unknown	7S.1E.18.300	Socorro County
Unknown	7S.1W.24.400	Socorro County
Unknown	9S.7E.8.200	Lincoln County
Unknown-Oscura	9S.8E.14,22,27	Lincoln County
Unknown	10S.2W.6	Sierra County
Unknown	12S.3W.23	Sierra County
Unknown	12S.3W.33	Sierra County
Unknown	13S.3W.1	Sierra County

Radioactive Occurrences in the Tulorosa 1- by 2-degree Quadrangle (continued)

Unknown	13S.3W.3	Sierra County	Unknown	14S.3W.29	Sierra County
Unknown	13S.3W.4	Sierra County	Vicks Peak No.1	9S.5W.11.400	Socorro County
Unknown	13S.3W.10	Sierra County	Walker Claims	14S.4W.4	Sierra County
Unknown	13S.3W.13	Sierra County	White Mule Canyon	7S.5N.27.400	Socorro County

APPENDIX 2 - Chemical analyses of samples collected by the author during field investigations. U_3O_8, Cu, Pb, Zn, Ag, Au, V, Mo, Ca, F, organic carbon by Lynn Brandvold and associates, and Se by Barbara Popp, New Mexico Bureau of Mines and Mineral Resources chemical laboratory (NMBMMR chem lab). Th, Nb, Zr, and Y by K.B. Faris, New Mexico Bureau of Mines and Mineral Resources x-ray fluorescence laboratory (NMBMMR, XRF lab).

Lab Number	Occurrence[1] Number	Occurrence Name, County	Date	Host Rock[2]	% U_3O_8	% Cu	Th (ppm)	Misc. Analyses
9604	2S.2E.35.243	Little Davie, Socorro	10/20/80	Ps	1.4	—	—	—
9605, 3755	6S.11E.21.224	Eagle Nest #1 and #2 Lincoln	10/20/80	Ps, Tv	0.01	—	—	no Au, Ag
9606	10S.6W.26.233	Terry prospect, Sierra	10/20/80	Tv	0.05	—	—	—
9607, 3753	20S.15W.22.324	Merry Widow, Grant	10/20/80	pЄ	0.02	—	—	no Au, Ag
9608	15S.11E.24.142	Luz #2, Otero	10/20/80	Pa	0.03	—	—	—
9610	2N.10W.36.444	Southwest Minerals, Catron	10/20/80	Tb	0.05	—	—	—
9611	18S.17W.10.242	Union Hill Claims, Grant	10/20/80	pЄ	0.15	—	—	—
9612	2S.2E.35.223	Lucky Don, Socorro	10/20/80	Ps	0.38	—	—	—
9613	18S.17W.10.242	Union Hill Claims, Grant	10/20/80	pЄ	0.09	—	—	—
9614	21S.14W.34.223	Hines-Werney, Grant	10/20/80	Cb	0.02	—	—	—
9615, 3754	18S.16W.21.331	Alhambra, Grant	10/20/80	pЄ	0.17	—	—	no Au, 148.12 oz./ton Ag
9666, 3750	16S.4W.33.214	Red Rock No. 1 Sierra	10/29/80	pЄ	0.005	—	104	48 ppm Nb; 45 ppm Zr, 125 ppm Pb, 77 ppm Y; no Au; no Ag
9669	1N.2W.15.100	Silver Creek, Socorro	10/29/80	Tp	0.021	—	—	—
9670	2N.10W.19.244	Red Basin #1, Catron	2/09/81	Kc	0.024	—	—	—
9671	1S.11E.22.241	American, Lincoln	2/09/81	Tv	0.007	—	—	—
33, 3747	5S.1W.21,28	Chupadera Mountains, Socorro	2/09/81	pЄ	0.0018	—	27	no Au or Ag
34, 3749	5S.1W.21,28	Chupadera Mountains, Socorro	2/09/81	pЄ	0.0016	—	119	no Au or Ag
35	2N.11W.12.114	Midnight Group, Catron	2/09/81	Kc	0.0068	—	—	—
36	8S.5W.14.141	Craig-Dike claims, Socorro	2/09/81	Tv	0.0016	—	18	—
1525	3N.5E.15.441	Pioneer Mine, Torrance	11/30/81	Pa	0.002	4.18	—	0.02% Pb, 0.05% Zn, 0.56 oz/ton Ag, no Au
1526	4N.5E.28.110	Copper Girl, Torrance	11/30/81	Pa	0.005	0.83	—	0.05% Pb, 0.02% Zn, 0.050 oz/ton Ag, no Au
1527	3N.5E.23.111	Abo Mining Claims, Torrance	11/30/81	Pa	0.001	6.36	—	0.05% Pb, 0.02% Zn, 3.18 oz/ton Ag, no Au
1528	3N.5E.23.111	Abo Mining Claims, Torrance	11/30/81	Pa	0.002	11.11	—	0.02% Pb, 0.01% Zn, 3.00 oz/ton Ag, no Au
1529	1N.6W.13.344	Hook's Ranch, Socorro	11/30/81	Tb	0.016	—	—	264.5 ppm Se
1530	21S.24E.26.432	Rocky Arroyo, Eddy	11/30/81	Py	0.017	—	—	0.7% organic carbon
1531	16N.17W.31.224	Unknown-White Cliffs, McKinley	11/30/81	Jmw	0.18	—	—	0.45 ppm Se
1532	1N.4W.15.124	Luciel Claims, Socorro	11/30/81	Tb	0.009	—	—	—
1533	15N.7E.9.112	La Bajada, Santa Fe	11/30/81	Tv	0.09	1.51	19	0.06% Pb, 0.03% Zn, 0.54 oz/ton Ag, no Au
1781	34S.15W.15.432	Opportunity Claims, Hidalgo	2/10/82	Tv	0.02	—	18	no Ag or Au
1782	29S.14W.25.442	Napane Claims, Hidalgo	2/10/82	Ku	0.13	—	127	no Ag or Au
1784	8S.15E.1.141	McCory Claims, Lincoln	2/10/82	Tv	0.02	—	217	no Ag or Au
1785	28N.7E.13.333	Unknown-Prospect #2, Rio Arriba	2/10/82	pЄ	0.04	—	—	—
1786	29N.15E.21	Bitter Creek #2, Taos	2/10/82	pЄ	0.03	—	16	no Ag or Au
1787	29N.15E.21	Bitter Creek #4, Taos	2/10/82	pЄ	0.11	—	47	no Ag or Au
2172	13N.10W.25.110	Section 25 open pit, McKinley	5/20/82	Jt	0.90	—	—	—
2173	13N.9W.21.332	Doris Decline, McKinley	5/20/82	Jmp	0.46	—	—	694 ppm Se
2174	13N.10W.36.220	Section 36, McKinley	5/20/82	Jt	0.02	—	—	—
2175	13N.9W.21.330	Doris West Extension, McKinley	5/20/82	Jmp	0.28	—	—	95 ppm Se
2176	13N.9W.31.110	Section 31, McKinley	5/20/82	Jt	0.12	—	—	—
2177	13N.9W.32.144	Section 32, McKinley	5/20/82	Jt	0.50	—	—	5.5 ppm Se
2178	13N.9W.32.144	Moe #4, McKinley	5/20/82	Jt	1.96	—	—	—
2179	13N.10W.25.122	Section 25 shaft, McKinley	5/20/82	Jt	1.35	—	—	—
2180	13N.10W.25.400	Section 25, McKinley	5/20/82	Jt	0.86	—	—	—
2124	13N.6E.16.124	Diamond Tail, Sandoval	5/20/82	Tg	0.064	—	—	trace Se
2130	9N.1W.1.300	Cerro Colorado, Bernalillo	5/20/82	Tv	0.007	—	14	no Ag or Au
2131	17N.4W.34.332	B.P. Hovey Ranch, Sandoval	5/20/82	Kp	0.013	—	223	244 ppm Y; 277 ppm Nb; 7,852 ppm Zr; no Au or Ag
2132	3S.1E.14.232	Tajo #8, Socorro	5/20/82	pЄ	0.002	—	29	37 ppm Nb, 87 ppm Zr, 65 ppm Pb, no Au or Ag
2133	3S.1E.14.441	Tajo #12, Socorro	5/20/82	pЄ	0.005	—	21	36 ppm Nb, 77 ppm Zr, 238 ppm Pb, no Au or Ag
2134	12N.6E.3.413	Mimi #4, Sandoval	5/20/82	Tv	0.018	—	171	no Au or Ag
2135	11N.6E.16.300	Monte Largo carbonatite, Bernalillo	5/20/82	pЄ	0.005	—	29	445 ppm Nb, 854 ppm Zr
2136	3S.12.11.111	Tajo ore pile, Socorro	5/20/82	pЄ	0.019	—	46	31 ppm Nb; 174 ppm Zr; 1,343 ppm Pb; no Au or Ag
2137	6N.4W.4.220	Brownlow-Heath #1, Cibola	5/20/82	TRc	0.008	—	—	no Au or Ag
2138	6N.4W.4.220	Brownlow-Heath #2, Cibola	5/20/82	TRc	0.009	—	—	no Au or Ag
2139	29S.11W.14.121	Calumet Mine, Luna	5/20/82	Tv	0.003	2.3	—	no Au, 183.80oz/ton Ag
2299	14N.11W.18.340	Red Top #1 and #2, McKinley	7/82	Jt	0.089	—	—	—
2300	14N.11W.18.443	Bottoms Claims, McKinley	7/82	Jt	0.227	—	—	—
2301	14N.11W.19.220	Billy the Kid, McKinley	7/82	Jt	0.112	—	—	trace Se
2302	15N.11W.32,33	Section 32, 33, McKinley	7/82	Jmw	1.22	—	—	0.06 ppm Se
2303	14N.9W.19.210	Section 19, McKinley	7/82	Jmw	1.60	—	—	149 ppm Se
2804	17N.24E.29.142	Hunt #2, San Miguel	9/28/82	TRc	0.840	<0.01	—	8.80% V, 0.14% Mo
2805	17N.24E.29.142	Hunt #1, San Miguel	9/28/82	TRc	0.015	0.64	—	0.40% V, <0.15% Mo, 0.74 oz/ton Ag
2806	17N.24E.8.431	Sabinoso, San Miguel	9/28/82	TRc	0.021	<0.01	—	0.07% V
2807	17N.24E.31.222	Bish #2, San Miguel	9/28/82	TRc	0.005	—	—	0.06% V
2808	17N.24E.31.222	Bish #2 dump, San Miguel	9/28/82	TRc	0.071	—	—	<0.04% V
2809	17N.23E.14.441	Windy #9-1, San Miguel	9/28/82	TRc	0.037	—	—	0.35% V
2810	17N.23E.14.441	Windy #9-2, San Miguel	9/28/82	TRc	0.031	<0.01	—	<0.04% V
2811	17N.23E.14.441	Windy #9-3, San Miguel	9/28/82	TRc	0.406	<0.01	—	0.88% V
2812	17N.24E.25.212	Locality #43-6, San Miguel	9/28/82	TRc	0.006	0.18	—	<0.04% V

Lab Number	Occurence[1] Number	Occurrence Name, County	Date	Host Rock[2]	% U_3O_8	% Cu	Th (ppm)	Misc. Analyses
2813	17N.24E.25.212	Locality #43-7, San Miguel	9/28/82	₮c	0.033	—	—	<0.04% V
2814	17N.24E.25.211	Lujan Ranch #4b, San Miguel	9/28/82	₮c	0.023	0.51	—	0.41% V
2815	17N.24E.25.211	Lujan Ranch #5, San Miguel	9/28/82	₮c	0.001	0.08	—	<0.04% V
2816	17N.24E.25.211	Lujan Ranch #4a, San Miguel	9/28/82	₮c	0.054	0.22	—	0.21% V
2817	17N.24E.17.141	Cip Lujan, San Miguel	9/28/82	₮c	0.020	<0.01	—	0.04% V
2844	18S.17W.12.121	W.F. Claims, Grant	10/06/82	p€, K	0.065	—	—	no Au
2845	18S.17W.12.121	W.F. Claims, Grant	10/06/82	p€, K	0.01	—	—	no Au
2846	18S.17W.10.242	Union Hill Claims, Grant	10/06/82	p€, K	0.59	—	—	trace oz/ton Au
2847	18S.17W.2.421	Prince Albert #1, Grant	10/06/82	p€, K	0.09	—	—	trace oz/ton Au
2848	18S.17W.2.421	Prince Albert #1, Grant	10/06/82	p€	0.03	—	—	no Au
2849	21S.16W.4.333	Unknown, Grant	10/06/82	p€	0.048	—	—	no Au
2850	23N.1E.30.141	Max Jacque, Rio Arriba	10/06/82	Pa	0.036	0.00	—	no Au or Ag
2851	21N.2E.12.143	Section 12, Rio Arriba	10/06/82	Pa	0.14	35.4	—	20.5 oz/ton Ag, no Au
2852	21N.2E.12.411	Jarosa prospects, Rio Arriba	10/06/82	Pa	0.06	0.22	—	—
2853	23N.1E.20.141	Max Jacque, Rio Arriba	10/06/82	Pa	0.05	0.25	—	0.3 oz/ton Ag, no Au
2381	19N.14E.17.133	Pidlite, San Miguel	11/15/82	p€	0.001	—	—	—
2382	27N.8E.10.422	Rancho AAA, Rio Arriba	11/15/82	p€	0.010	3.00%	—	—
2383	26N.9E.18.334	Nambe, Rio Arriba	11/15/82	p€	0.131	—	610	—
2384	26N.9E.6.110	Miller Group, Rio Arriba	11/15/82	p€	0.022	—	279	—
2385	26N.8E.36.221	Globe, Rio Arriba	11/15/82	p€	0.029	—	0	—
2386	26N.8E.36.221	Globe, Rio Arriba	11/15/82	p€	0.062	—	10,332	649 ppm Nb, 889 ppm Y, 659 ppm Pb
2387	14S.21W.7.412	Coal Creek, Grant	11/15/82	Tv	0.202	—	—	—
2388	15N.16W.4.441	Williams and Reynolds, McKinley	11/15/82	Kd	0.258	—	6	60 ppm Se, no Ag or Au
2389	26N.8E.25.112	Alto, Rio Arriba	11/15/82	p€	0.003	—	64	—
2390	24N.16E.6.112	Black Lake, Colfax	11/15/82	Ps	0.002	—	—	no Au or Ag
2391	15N.14W.32.432	Gallup Titanium deposit, McKinley	11/15/82	K	0.076	—	1,983	10.25% Ti; 1,490 ppm Nb; 17,454 ppm Zr; 1,795 ppm Y; 203 ppm Pb
3143	8S.17E.9.400	Bear Canyon group, Lincoln	3/03/83	Ti	0.011	—	—	no Au, 0.62 oz/ton Ag
3144	17N.2E.3.340	Spanish Queen West, Sandoval	3/03/83	Pa	0.006	3.49	—	no Au, 1.06 oz/ton Ag
3145	28N.7E.24.140	JOL, Rio Arriba	3/03/83	p€	0.015	—	—	no Au or Ag
3146	19N.1W.14.233	Cleary, Sandoval	3/03/83	Kd	0.038	—	—	—
3147	18N.1E.35.144	Deer Creek, Sandoval	3/03/83	Pa	0.144	5.92	—	no Au, 0.88 oz/ton Ag
3148	15N.13W.21.142	Ruby #1 and 2, McKinley	3/03/83	Jmb	0.512	—	—	—
3149	18S.15W.28.231	Tunoco Mining Claims, Grant	3/03/83	p€	0.005	—	—	21.7% F, no Au, 0.74 oz/ton Ag
3150	17N.2E.3.400	Spanish Queen East, Sandoval	3/03/83	Pa	0.018	4.90	—	no Au, 0.62 oz/ton Ag
3151	15N.17W.33.214	Diamond #2-Largo, McKinley	3/03/83	Kd	0.034	—	—	—
3152	19N.1W.11.440	Dennison-Bunn #2, Sandoval	3/03/83	Jmw	0.082	—	—	—
3153	9S.11E.27.233	Unknown, Lincoln	3/03/83	Ti	0.003	—	—	—
3154	19S.15W.11.122	Anomaly #1, Grant	3/03/83	p€	0.004	—	—	no Au or Ag
3155	18S.15W.21.441	Section 21, Grant	3/03/83	p€	0.002	—	—	no Au, 0.48 oz/ton Ag
3156	18S.17W.2.244	Prince Albert #2, Grant	3/03/83	p€	0.017	—	—	no Au or Ag
3157	18S.15W.28.243	Tunoco Mining Claims, Grant	3/03/83	Kb	0.009	—	—	no Au or Ag
3158	18S.17W.2.122	May Day 1 and 2, Grant	3/03/83	p€	0.009	—	—	no Au or Ag
3159	18S.15W.21.441	Section 21, Grant	3/03/83	Kb	0.002	—	—	no Au, 1.40 oz/ton Ag
3160	18N.2E.13.400	Soda Dam, Sandoval	3/03/93	Q	0.001	—	—	35.9% Ca
3161	19N.1W.11.440	Dennison-Bunn #3, Sandoval	3/03/83	Jmw	0.044	—	—	—
3162	8S.15E.1.141	McCory Claims, Lincoln	3/03/83	Ti	0.023	—	—	—
3163	15N.13W.12.322	Black Jack #1, McKinley	3/03/83	Jmw	0.293	—	—	—
3164	30N.15W.3.140	Boyd, San Juan	3/03/83	K	0.182	—	—	—
3165	3S.5W.6.311	Sixty Prospect, Socorro	3/03/83	Tv	0.002	1.1	—	no Au, 1.50 oz/ton Ag
3398	3N.16W.21.342	Unknown-Section 21, Catron	3/03/83	Tb	0.012	—	—	
3286	16N.11E.32.431	Adycopt, Otero	3/17/83	Pa	0.008	9.45	—	0.02% Pb, trace Au, 1.88 oz/ton Ag
3287	1N.4W.15.121	Luciel Claims, Socorro	3/17/83	Tb	0.006	—	—	—
3288	1N.4W.15.124	Luciel #1-8 Claims, Socorro	3/17/83	Tb	0.004	—	—	—
3289	16S.11E.17.234	Courtney, Otero	3/17/83	Pa	0.01	6.45	—	0.01% Pb, no Au or Ag
3290	20S.15W.26.122	Blue Jay, Grant	3/17/83	p€	0.036	—	—	trace Au, 0.5 oz/ton Ag
3291	15S.9W.13.332	Ingersoll, Sierra	3/17/83	p€	0.003	0.05		1.5% Pb, Trace Au, 1.5 oz/ton Ag
3292	2N.5E.4.214	Mill Site, Socorro	3/17/83	Pa	0.017	14.37	—	0.03% Pb, no Au, 0.54 oz/ton Ag
3731	27S.9W.35.432	Section 35, Luna	6/22/83	Tv	0.007	0.05	—	trace Au, no Ag, 0.40% Pb, 10.6% Zn
3734	20S.14W.32.233	Uncle Sam, Grant	6/22/83	p€	0.004	—	—	trace Au, 0.80 oz/ton Ag
3735	28N.7E.24.211	Phillips drilling area, Rio Arriba	6/22/83	p€	0.008	—	—	trace Au, no Ag
3736	21S.25E.14.312	Golden Eagle, Eddy	6/22/83	Pa	0.004	1.05	—	no Au or Ag
3739	28N.7E.13.333	Unknown, Rio Arriba	6/22/83	p€	0.066	—	—	no Au or Ag
3740	20S.15W.25.314	Tullock Peak, Grant	6/22/83	p€	0.002	—	—	no Au or Ag
3743	19S.16W.35.220	Auston Amazon, Grant	6/22/83	p€	0.003	7.4	—	no Au, 0.64 oz/ton Ag
3744	20S.15W.22.324	Merry Widow, Grant	6/22/83	p€	0.002	—	—	no Au or Ag
3745	18S.16W.16,21	Black Hawk, Grant	6/22/83	p€	0.005	0.08	—	no Au or Ag, 0.05% Pb, 0.06% Zn, 0.0052% Ni
3746	23N.7E.24.224	Tusas East Slope, Rio Arriba	6/22/83	p€	0.011	—	—	no Au or Ag
4100	27N.25E.1.411	Blasted Pine	9/83	Ti	0.001	—	2	—
4101	27N.25E.1.200	Laughlin Peak	9/83	Ti	0.051	—	60	—
4102	27N.25E.1.200	Laughlin Peak	9/83	Ti	0.005	—	10	—

[1] See Appendix 1 for description of occurrence number.
[2] Host rock: p€-Precambrian rocks, €b, Cambrian Bliss Formation, ꝐPs-Sangre de Cristo Formation, Pa-Abo Formation, Ps-San Andres Limestone, Py-Yates Formation, ₮c -Chinle Formation, Jt-Todilto Limestone, Jmw-Westwater Canyon member (Morrison Formation), Jmp-Poison Canyon sandstone, K-Cretaceous rocks, Kd-Dakota Sandstone, Kc-Crevasse Canyon Formation, Ku-U-Bar Formation, Kp-Point Lookout Sandstone, Tb-Baca Formation, Tp-Popotosa Formation, Tg-Galisteo Formation, Tv-Tertiary volcanic rocks, Ti-Tertiary intrusive rocks.

Appendix 3 - Uranium production of individual mines in New Mexico

Uranium production from ore deposits in New Mexico was compiled by the U.S. Atomic Energy Commission (AEC) and succeeding agencies the U.S. Energy Research and Development Administration (ERDA) and the U.S. Department of Energy (DCE). Production statistics for individual mines that operated from 1948 to 1970 have been released and are tabulated in Table 3-1. These are the best records available. Production statistics for individual mines that operated from 1971 to present are confidential; however, these producing mines have been grouped into production classes in Table 3-2.

The occurrence number refers to the number, based on its location, given in appendix 1. The type of deposit refers to the NURE classification as modified for this report (see Introduction). The Host Rock symbols are defined as follows: p€-Precambrian, C-Cambrian sediments, Ꝑm-Pennsylvanian Madera Limestone, Pma-Magdalena Group, Ps-Permian Sangre de Cristo Formation, Pa-Abo Formation, Pc-Cutler Formation, Psa-San Andres Limestone, ŦRc -Triassic Chinle Formation, Jt-Jurassic Todilto Limestone, Je-Entrada Sandstone, Jm-Morrison Formation, Jmsw-Salt Wash Member, Jmr-Recapture Member, Jmw-Westwater Canyon Member, Jmp-Poison Canyon sandstone, Jmb-Brushy Basin Member, Jmbj-Jackpile sandstone, Kd-Cretaceous Dakota Sandstone, Ku-U-bar Formation, Kp-Point Lookout Sandstone, Kc-Crevasse Canyon Formation, Tb-Tertiary Baca Formation, To-Ojo Alamo Sandstone, Tp-Popotosa Formation, Ts-Santa Fe Group, Te-Espinosa Formation, Tv-Tertiary volcanic rocks, and Ti-Tertiary intrusive rocks.

Table 3-1 - Uranium production from ore deposits in New Mexico from the U.S. Atomic Energy Commission ore production reports (mill receipts), government contracts only, for the years 1948-1970. This includes total ore that was received at the buying stations and mills. Ore grades represent an average of the total shipments V_2O_5 analyses are incomplete; not all of the ore shipments were assayed for V_2O_5.

Number	Mine Name	Tons Ore	Pounds U_3O_8	$\%U_3O_8$	Pounds V_2O_5	$\%V_2O_5$	Type of deposit	Host Rock	Periods of Production/ Shipper
	Catron County								
10S.19W.20.341	Baby Mine	7	14	0.10	99	0.68	hydrothermal-vein	Tv	1956 - 3-11 Mining Co. (James Wray)
2N.11W.12.114	Midnight Group	460	1,097	0.12	643	0.34	sandstone	Kc	1957 - Atomic E and M (Ranchers Exp. & Dev. Co.)
2N.10W.19.244	Red Basin Group	23	92	0.20	139	0.30	sandstone	Kc,Tb	1954 - Febco and Elayer and Co.
3N.6W.21.232	Varnum (Section 21, Mangnum)	12	5	0.02	12	0.05	sandstone	Kc	1956 - H.D. Varnum
	Cibola County (formerly Valencia County)								
12N.9W.4.414	Blackhawk and Bunney (Sec. 4)	13,908	72,996	0.26	4,361	—	limestone	Jt	1952 - John Dorsett; 1954-M.W. Larsen; 1956-Cheyenne Contract; 1958-1960, 1962-Sutton and Sutton; 1960-1962-Astro Enterprises; 1963-Sutton and Moe; 1965-1966-Mesa Mining Co.; 1967-Bailey and Fife
11N.9W.20.414	Cedar (Yucca, Falcon)	3,198	13,631	0.20	6,164	0.10	limestone	Jt	1952 - Maddox and Teague; 1953-Maddox and Teague; 1954-1955-La Jara Mining Co.; 1955-Falcon Uranium and Oil Co.; 1955-1956-Yucca Uranium Co.; 1956-1957-Florida Minerals; 1957-Utco Uranium Corp.
10N.3W.22.400	Chavez Lease	192	821	0.21	2,165	0.56	sandstone	Jmr	1955 - Calumet and Hecla
12N.9W.4.243	Christmas Day	2,625	9,374	0.18	5,621	—	limestone	Jt	1954-1956 - Colamer Corp.
8N.5W.8.113	Crackpot	3,214	8,396	0.13	21,348	0.33	limestone	Jt	1955 - Anaconda
12N.9W.33.444	[1]F-33 (Sec. 33)	48,688	304,871	0.31	31,306	0.12	limestone	Jt	1954-1959 - Anaconda
11N.5W.26,35	[1]Jackpile-Paguate	9,498,698	46,194,350	0.24	5,315,237	—	sandstone	Jmbj	1952-1970 - Anaconda
12N.9W.15.411	La Jara (Zia)	3,573	31,277	0.44	613	—	limestone	Jt,Je	1952 - J.M. Keeney; 1954-La Jara Mining Co.; 1956-Florida Minerals; 1957-1958-Zia Mining Co.; 1960-Chena Mining Co.
12N.9W.8.224	Last Chance	2,753	9,334	0.17	12,804	0.26	limestone	Jt	1952 - William Barlow;; 1952-F.A. Sutton; 1953-T.H. Skidmore; 1956-F.J. Broaddus
11N.9W.8.214	Lone Pine	392	983	0.13	3,309	0.42	limestone	Jt	1954-1955 - Lone Pine Mining Co.; 1955-Permian Basin Uranium Co.
8N.6W.16.124	Paisano	9	34	0.18	—	—	limestone	Jt	1957 - Good News Mining Ltd.
12N.9W.4	[1]Red Bluff-Gay Eagle						limestone	Jt	1952-1955 - Uranium Development Co.; 1953-1954- E and M Mining Co.; 1954-1956-McElvain Brothers; 1955-1956-A M Uranium Corp.; 1955 TransNational Co.; 1955-Missouri Uranium Co.; 1956-W.A. Martin; 1957-1959-Sutton and Sutton; 1957-1958-Chena Mining Co.; 1960-Astro Enterprises; 1962-1963-H. Scriven; 1963-1965-Mesa Mining Co.
12N.9W.4.221	Red Bluff #2, 4	2,756	10,157	0.18	—	—			
12N.9W.4.214	Red Bluff #3, 5, 9	457	1,350	0.15	—	—			
12N.9W.4.434	Red Bluff #7, 8, 10; Gay Eagle	41,914	168,560	0.20	—	—			
	TOTAL	45,127	180,067	0.20	49,831	—			
11N.4W.30.110	[1]St. Anthony (M-6, Hanosh)	78,722	320,942	0.20	100	—	sandstone	Jmbj	1953 - Hanosh Mines; 1957-1960-St. Anthony Uranium Co.; 1960-American Metal-Climax Corp. (now controlled by United Nuclear Corp.)
13N.8W.30.243	[1]San Mateo Mine	837,110	2,847,799	0.17	—	—	sandstone	Jmp	1959-1967 - Rare Metals Corp.; 1967-1970-United Nuclear Corp.
9N.5W.27.211	Sandy Mine	939	2,221	0.12	2,579	0.14	limestone	Jt,Je	1955 - Anaconda
12N.9W.9.120	Section 9	64,424	189,778	0.15	112,584	—	limestone	Jt	1950 - Fred Glover; 1953-1959-Anaconda; 1960-1962-Farris Mines
12N.9W.11.334	Taffy (Bonanza)	110	362	0.16	—	—	sandstone	Jmp	1961 - Lummus and Muriel
11N.9W.4.411	Tom 13	32	169	0.26	315	0.49	limestone	Jt	1954-1955 - Anaconda
12N.9W.4.442	UDC #5	927	3,091	0.17	1,375	0.07	limestone	Jt	1953-1954 - Uranium Development Co.
11N.5W.35.100	Windwhip	2,788	17,325	0.31	9,298	0.17	sandstone	Jmbj	1954 - Anaconda
11N.5W.36.443	Woodrow	5,326	134,014	1.26	4,895	0.05	breccia pipe	Jmw	1953-1956 - Anaconda
	Doña Ana County								
24S.3E.25.214	Blue Star	12	14	0.06	9	0.04	hydrothermal-vein	Pma	1955 - Al J. Conn

Number	Mine Name	Tons Ore	Pounds U_3O_8	$\%U_3O_8$	Pounds V_2O_5	$\%V_2O_5$	Type of deposit	Host Rock	Periods of Production/ Shipper
	Grant County								
20S.15W.22.311	Floyd Collins	165	489	0.15	94	0.05	hydrothermal-vein	p€	1953 – Artiminas, Inc.; 19 Leach and Leach; 1964-A.A Leach
20S.15W.24.313	Inez	262	848	0.16	268	0.05	hydrothermal-vein	p€	1955 – Western Exploratior
18S.15W.21.441	Section 21	38	30	0.04	23	0.03	hydrothermal-vein	p€	1956 – Oil Center Tool Co.
	Harding County								
17N.29E.6.223	Polita 2	1	2	0.15	5	0.31	sandstone	Jm	1955 – Ramon Pachero
	Hidalgo County								
29S.14W.25.442	Napane	9	35	0.19	4	0.02	hydrothermal-vein	Ku	1955 – Hawkins, Kelley, an Butterworth
	Lincoln County								
8S.17E.9.400	Bear Canyon Group	3	1	0.02	2	0.03	hydrothermal-vein	Ti	1954 – Mert Uranium Co.
	McKinley County								
14N.11W.5.313	Alta (Section 6)	3,330	27,212	0.40	13,719	0.35	sandstone	Jmw	1951-1957 – Anaconda; 1960-Farris Mines, Inc.; 1961-L.O. Sutton, Jr.; 1966-Henry Andrews
14N.9W.28.144	[1]Ann Lee (Section 28)	1,116,729	5,032,647	0.20	—	—	sandstone	Jmw	1958-1963 – Phillips; 1963-1970-United Nuclear
13N.9W.30.213	[2]Barbara J #1	8,691	52,631	0.26	14,830	0.11	limestone	Jt	1956-1957 – Midcontinent
13N.9W.30.141	Barbara J #2	46,495	191,199	0.21	—	—	limestone	Jt	1959-1960 – Dalco Uranium Inc.; 1962-1964, 1967-1968-Midcontinent Uranium Co.; 1966-1967-Farris Mines
	Whitecap	11,953	41,631	0.17	—	—			
	TOTAL	58,448	232,830	0.20	—	—			
13N.9W.30.221	Barbara J #3	102,128	485,719	0.23	—	—	limestone	Jt	1959-1963 – Midcontinent Uranium Co.
13N.9W.18.441	Beacon Hill-Gossett (Section 18)	39,354	166,065	0.21	22,671	—	sandstone	Jmp	1956 – Holly Mining Co.; 1957-Lea Exploration Co.; 1958-1959-E.P. Moe; 1960-1961-KSN Co., Inc.; 1962-1963, 1966-1967-Farris Farris Mines
14N.11W.19.220	Billy the Kid (Section 19)	8,724	2,693	0.15	4,276	—	limestone	Jt	1952 – Warren McCormick; 1953-Maddox-Teague; 1954-1954-Continental Divide; 1958-H.E.Andrews; 1960-Don W. Wright
15N.13W.12.322	[1]Black Jack #1	1,439,432	6,440,419	0.22	—	—	sandstone	Jmw	1959-1960 – Lance Corp.; 1960-1961-Lance and Homestake; 1961-Lance, Homestake, and Sabre; 1962--1969-Homestake-Sapin; 1969-1970-United Nuclear-Homestake
15N.13W.18.223	[1]Black Jack #2	247,613	1,129,004	0.23	—	—	sandstone	Jmb	1959-1960 – Lance Corp.; 1960-1961-Lance and Homestake; 1961-Lance and Sabre Pinon; 1962-1968-Homestake-Sapin; 1969-1970-United Nuclear Homestake
13N.10W.24.234	Blue Peak (Garcia)	12,051	44,020	0.19	18,707	—	sandstone	Jmp	1951-1952 – Blue Peak Mining 1953-Shattuck Denn; 1955-Saint Michaels Foundation; 1956-Colohoma Uranium, Inc.; 1957-1958-Three Jacks Mining; 1954-1960-Farris Mining Co.; 1960-1961-Lloyd O. Sutton; 1964-Lee Garcia
13N.10W.24.144	Bob Cat	117	186	0.06	71	0.12	sandstone	Jmp	1956 – Brown and Wallace
14N.10W.14.414	[1]Buckey (Jeep)	161,635	770,893	0.24	241	—	sandstone	Jmw	1957-1958 – Holly Minerals; 1958-1965-See Tee Mining Co.
16N.17W.35.411	C D and S	16	48	0.15	—	—	sandstone	Jmw	1957 – C D and S Mining Co.
13N.9W.33.433	Charlotte (Section 33)	208	704	0.17	—	—	limestone	Jt	1958 – Westvaco Minerals
16N.16W.17.212	[1]Church Rock (Section 17)	77,965	302,608	0.19	—	—	sandstone	Jmw, Jmb, Kd	1960-1961 – Phillips Petroleum Co., 1961-1962-Quinta Corporation (now owned by United Nuclear Corp.)
14N.9W.36.332	[1]Cliffside - Section 36	745,074	6,046,780	0.41	—	—	sandstone	Jmw	1960-1963 – Phillips Petroleum Co., 1963-1968-United Nuclear; 1970-Kerr-McGee
13N.9W.20.312	Davenport Incline	7,517	28,539	0.19	—	—	sandstone	Jmp	1957-1958 – E.P. Moe; 1959-Black Rock Mining; 1961-See Tee Mining Co.; 1966-Bailey and Fife

Number	Mine Name	Tons Ore	Pounds U_3O_8	$\%U_3O_8$	Pounds V_2O_5	$\%V_2O_5$	Type of Deposit	Host Rock	Periods of Production/ Shipper
15N.17W.33.214	Diamond #2 (Largo #2, Mike Smith Lease)	55,717	244,939	0.22	86,298	—	sandstone	Kd	1952-1953 - Adee Dodge Enterprises; 1954-1956-General Uranium; 1955,1956 1959-Largo Uranium Co.; 1964-1967-A and B Mining Co.; 1968-1970-Shiprock Lt
13N.9W.20.411	[1]Dog, Flea, and BG Group	244,177	906,235	0.19	—	—	sandstone	Jmp	1957-1970 - Four Corners Exploration Co.
13N.9W.21.324	[1]Doris-Section 21	31,950	118,052	0.18	—	—	sandstone	Jmp	1958-1959 - Westvaco; 1959-1960-Phillips Petroleum C; 1959-1961-Phillips Petrol Co.; 1959-1961-Phillips Petroleum Co.-KSN Co.; 1961-KSN Co.
14N.10W.11.312	Dysart #1 (Section 11)	891,922	3,795,495	0.21	47,438	—	sandstone	Jmw	1956-1958 - Rio de Oro; 19 1960-Midcontinent and Rio Oro; 1961-Rio de Oro; 196 1962-Homestake-Sapin
14N.10W.11.424	Dysart #2	237,602	894,642	0.19	—	—	sandstone	Jmw	1959 - Rio de Oro and Mid-continent; 1960-1961-Rio d Oro; 1961-1962-Homestake-Sapin
13N.9W.20.233	East Malpais Lease	30,333	139,818	0.23	—	—	sandstone	Jmp	1958-1960 - Four Corners Exploration Co.
14N.12W.24.243	Elkins Group	59	151	0.13	231	0.20	limestone	Jt	1952 - Farris Mines, Inc.; 1953-1954-Josephine Elkin
14N.11W.9.214	[1]Evelyn	10,743	49,584	0.23	23,539	0.48	sandstone	Jmb	1953-1956 - Anaconda Co.; 1966-1968-Farris Mines, Inc.; 1969-1970-Smith Development; 1970-Mineral Energy
13N.9W.29.141	Faith-Section 29	66,327	258,615	0.19	—	—	limestone	Jt	1958-1959 - Westvaco; 1959-1960-Phillips Petroleum Co; 1960-Phillips Petroleum Co. KSN Co.; 1961-1962-KSN Co.; 1963-United Nuclear; 1963-KSN Co. and United Nuclear; 1964-KSN Co.
13N.9W.30.442	Flat Top	49,663	216,486	0.22	66,126	0.11	limestone	Jt	1955-1957 - Holly Uranium Co.; 1957-1959-Flat Top Mining Co.; 1963-1966-Bail and Fife
15N.16W.4.111	Foutz #1	324	1,844	0.28	2,676	0.41	sandstone	Jmw	1953 - Foutz Mining Co., Foutz Mining Co. and Hanos Mines
15N.16W.5.222	Foutz #2	242	1,045	0.22	2,877	0.59	sandstone	Jmw	1953-1954 - Foutz Mining Co
16N.16W.31.444	Foutz #3	2,412	8,556	0.18	12,466	0.26	sandstone	Jmb	1953-1955 - Foutz Mining Co
14N.11W.8.213	Francis	755	6,164	0.41	12,578	0.93	sandstone	Jmb	1953-1954 - Farris Mines, Inc.
	[1]Haystack						limestone	Jt	1952-1965 - Haystack Mounta Development Corp.
13N.11W.13.314	SW1/4 sec. 13	1,162	2,830	0.12	—	—			
13N.11W.13.444	Bibo	3,736	16,701	0.22	—	—			
13N.10W.19.110	Sec. 19	137,310	562,267	0.20	165,454	—			
	TOTAL	142,208	581,798	0.20	165,494				
13N.9W.14.414	Hogan Mine (Section 14)	129,551	678,510	0.26	—	—	sandstone	Jmp	1959-1961 - Four Corners Exploration Co.; 1962-Homestake-Sapin
15N.18W.12.244	Hogback #3-5	6,354	24,234	0.19	2,954	0.03	shale	Kd	1951-1953 - Albert Smith; 1954-1956-Hyde Uranium Co.; 1957-1958-Calumet and Hecla; 1958-Mathis and Mathis; 1959-See Tee Mining Co.; 1960-Windsor Mining Co.
13N.9W.7.221	[1]Isabella (Section 7)	76,748	237,060	0.15	—	—	sandstone	Jmp	1959-1961 - Phillips Petroleum Co.; 1961-1962-KSN Mining Co.
14N.11W.35.120	Lost Mine	10	4	0.02	4	0.02	sandstone	Jmb	1954 - Berryhill and Elkins
15N.14W.12.423	[1]Mac #1	60,109	289,125	0.24	—	—	sandstone	Jmb	1968 - Homestake-Sapin; 1968-1970-United Nuclear-Homestake
15N.13W.18.442	Mac #2	31,194	109,009	0.14	—	—	sandstone	Jmb	1968 - Homestake-Sapin; 1968-1970-United Nuclear-Homestake
13N.9W.20.144	Malpais Raise	42,070	198,492	0.24	—	—	sandstone	Jmp	1958 - Holly Minerals; 1958-1961-See Tee Mining Group
13N.9W.23.233	Marquez Mine	723,032	3,757,847	0.26	—	—	sandstone	Jmp	1958-1964 - Calumet and Hecla; 1965-1966-United Nuclear Corp.
14N.10W.11.112	Mary #1 (Dysart #3)	357,262	794,063	0.11	—	—	sandstone	Jmw	1959-1961 - Boyles Brothers; 1962-Boyles Brothers and Entrada Corp.; 1964-Stella Dysart; 1964-Dysart and Homestake-Sapin; 1964-1965-Homestake-Sapin

Number	Mine Name	Tons Ore	Pounds U_3O_8	%U_3O_8	Pounds V_2O_5	%V_2O_5	Type of Deposit	Host Rock	Periods of Production/ Shipper
13N.9W.20.321	Mesa Top Mine	108,261	512,965	0.24	144,610	—	sandstone	Jmp	1954-1957 – Lea Exploration 1957-Holly Minerals and Le
13N.10W.4.244	Pat – Section 4 (Dakota Mine)	5,069	12,645	0.12	2,478	—	sandstone	Jmw,Kd	1952-1959 – Dakota Mining Co.; 1962-1963-Farris Mines, Inc.
13N.9W.19.420	[1]Poison Canyon	217,066	1,004,574	0.23	338,094	—	sandstone	Jmp	1952-1959 – Haystack Mountain Development Corp.; 1960-1962-Farris Mines Inc.
14N.11W.28.113	Red Cap Group (T Group)	195	497	0.13	951	0.24	limestone	Jt	1952-1953 – Navajo Development Co.; 1953-Fitzhugh & Doerrie
13N.10W.16.134	Red Point Lode	482	1,223	0.13	746	0.07	limestone	Jt	1952-1955 – R.M. Shaw
14N.11W.20.144	Red Top Mines	165	390	0.12	1,287	0.39	limestone	Jt	1955 – Red Top Uranium Mining Co.
14N.9W.34.424	[1]Sandstone	1,034,255	3,540,829	0.17	—	—	sandstone	Jmw	1959-1963 – Phillips Petroleum Co.; 1963-1970-United Nuclear Corp.
13N.9W.1.200	[1]Section 1 (13N-9W) mined through Cliffside	148,066	1,699,137	0.57	—	—	sandstone	Jmw	1967 – Kerr-McGee; 1969-1970-Kerr-McGee and Nation Lead
15N.16W.3.332	Section 3 (15N-16W) Santa Fe-Christensen Rats Nest Mine	324	1,836	0.28	404	—	sandstone (coal)	Kd	1957 – Christensen and Ram Uranium Co.; 1957-1958-Ram Uranium Co.
13N.10W.5.144	Section 5 (13N-10W)	23	54	0.12	—	—	sandstone	Kd	1958 – Westvaco
13N.9W.8.114	Section 8 (13N-9W) Spencer Shaft	47,808	165,319	0.17	—	—	sandstone	Jmp	1958-1960 – United Western; 1961-Hyde and Casper; 1964-1966-W.D. Tripp; 1966-1967-James J. Goode
14N.10W.10.244	[1]Section 10 (14N-10W)	130,767	510,935	0.20	—	—	sandstone	Jmw	1957-1962 – Kermac Nuclear; 1964-Homestake-Sapin
14N.10W.12.411	[1]Section 12 (14N-10W)	74,975	211,873	0.14	—	—	sandstone	Jmw	1961 – Anderson Development Corp.; 1962-1963-Stella Dysart
14N.10W.15.441	[1]Section 15 (14N-10W)	1,213,814	3,625,924	0.15	—	—	sandstone	Jmw	1958-1961 – Homestake-Sapin; 1961-1965-Rio and Homestake-Sapin; 1966-1969-Homestake-Sapin; 1969-1970-United Nuclear-Homestake
14N.9W.17.323	[1]Section 17 (14N-9W)	544,164	2,315,182	0.21	—	—	sandstone	Jmw	1960-1964 – Kermac Nuclear Corp.; 1965-1970-Kerr-McGee
13N.10W.18.341	Section 18 (13N-10W) (Indian Allotment)	25,796	98,175	0.19	75,342	0.30	limestone	Jt	1952 – Sutton, Thompson, Williams; 1953-Williams; 1955-Santa Fe Uranium; 1955-1956-Santa Fe Uranium and Federal Uranium; 1957-1959-Federal Uranium; 1963-1964-Mesa Mining Co.; 1966-Cibola Mining Co.
14N.9W.18.400	[1]Section 18 (14N-9W) mined through Sec. 17	501,946	1,586,447	0.16	—	—	sandstone	Jmw	1962-1964 – Kermac Nuclear; 1965-1970-Kerr-McGee
14N.9W.20.114	[1]Section 20 (14N.9W) mined through Sec. 17	486,375	2,223,977	0.23	—	—	sandstone	Jmw	1962 – Kerr-McGee
14N.10W.22.223	[1]Section 22	2,189,051	11,605,672	0.18	—	—	sandstone	Jmw	1958-1964 – Kermac Nuclear; 1965-1970-Kerr-McGee
	(14N-10W) heap leach	—	38,105	—	—	—			
14N.10W.23.134	[1]Section 23 (14N-10W)	2,528,797	9,679,773	0.19	—	—	sandstone	Jmw	1959-1968 – Homestake-Sapin; 1969-1970-Homestake-United Nuclear
13N.10W.23.444	Section 23 (13N-10W)	21,826	138,541	0.32	10,256	0.06	limestone	Jt	1957-1965 – Haystack Mountain Development Corp.; 1965-1966-Santa Fe Pacific
13N.9W.24.121	Section 24 (13N-9W) Chill Wills, Rialto (Section 13)	10,950	37,693	0.17	—	—	sandstone	Jmp	1960-1963 – Febco Mines, Inc.
13N.11W.24.222	Section 24 (13N-11W) Indian Allotment to Nana-A-Bah Vandever	24,638	115,075	0.22	85,545	0.18	limestone	Jt	1952-1954 – Glen Williams; 1955-1956-Santa Fe Uranium; 1955-Federal Uranium Corp. Santa Fe Uranium; 1956-1957-Federal Uranium Corp.
14N.10W.24.332	[1]Section 24 (14N-10W)	1,904,582	7,071,564	0.19	—	—	sandstone	Jmw	1959-1964 – Kerr-McGee Nuclear; 1965-1970-Kerr-McGee
	Heap leach	—	579	—	—	—			
13N.10W.25.411	[1]Section 25 (13N-10W)	235,156	958,058	0.20	153,657	0.12	limestone	Jt	1952 – A T and SF RR; 1955-1961-Haystack Mountain Development Corp.; 1962-1963-Santa Fe Pacific; 1963-Farris Mines, Inc.; 1963-1965-Santa Fe Pacific; 1965-1966-Farris Mines, Inc.; 1968-Homestake; 1969-1970-United Nuclear Corp.
14N.10W.25.144	[1]Section 25 (14N-10W)	1,791,048	6,444,889	0.18	—	—	sandstone	Jmw	1959-1969 – Homestake-Sapin; 1969-1970-Homestake-United Nuclear
13N.10W.26.221	[1]Section 26 (13N-10W) Desidero Group	11,110	83,752	0.38	17,518	0.08	limestone	Jt	1952-1957 – Hanosh Mines
14N.10W.26.220	[1]Section 26 (14N-10W) mined through Section 24	362,110	1,198,696	0.17	—	—	sandstone	Jmw	1965-1970 – Kerr-McGee

Number	Mine Name	Tons Ore	Pounds U_3O_8	% U_3O_8	Pounds V_2O_5	% V_2O_5	Type of Deposit	Host Rock	Periods of Producion/ Shipper
14N.9W.27.324	[1]Section 27 (14N-9W) mined through	553,732	2,442,855	0.22	—	—	sandstone	Jmw	1967-1970 - United Nuclear
14N.9W.27.310	Ann Lee	285,057	1,275,695	0.22	—	—			
	section total	838,789	3,718,550	0.22	—	—			
15N.17W.28.132	Section 28-Becenti	846	3,350	0.24	1,981	—	sandstone	Kd	1952-1954 - Tucker, Hyde, and Davenport; 1953-Hagens, Fitzhugh, and Davenport; 1956,1958-1959-A.W. Tucker
14N.9W.28.333	Section 28 mined through Sec. 30	23,648	94,333	0.20	—	—	sandstone	Jmw	1958 - United Western
14N.9W.29.300	Section 29 (14N-9W) mined through Sec. 32 shaft	390,511	1,999,236	0.26	—	—	sandstone	Jmw	1961-1964 - Kermac Nuclear; 1965-1970 - Kerr-McGee
14N.9W.29.100	[1]mined through Sec. 30 shaft	318,361	1,401,003	0.22	—	—	sandstone	Jmw	1966-1970 - Kerr-McGee
	mined through Sec. 33	641,918	1,936,819	0.15	—	—	sandstone	Jmw	1963 - Kerr-McGee
13N.9W.30.333	Section 30 (13N-9W) Roundy Lease, Rimrock #3	91,513	464,810	0.25	76,565	—	limestone	Jt	1952-1956 - F.O. Manol; 1956-1966-Rimrock Mining Co.; 1970-Bailey and Fife
14N.9W.30.232	[1]Section 30 (14N-9W)	2,855,164	15,064,056	0.26	—	—	sandstone	Jmw	1959-1964 - Kermac Nuclear; 1965-1970-Kerr-McGee
14N.9W.30.141	[1,3]Section 30W (14N-9W)	68,895	282,714	0.21	—	—	sandstone	Jmw	1970 - Kerr-McGee
14N.9W.31.200	Section 31 (14N-9W) mined through Sec. 32	3,469	17,999	0.26	—	—	sandstone	Jmw	1970 - Kerr-McGee
13N.9W.31.120	Section 31 (13N-9W)	15,736	77,121	0.25	21,628	0.27	limestone	Jt	1953-1954, 1958, 1961 - Haystack Mountain Development Corp.; 1962-Santa Fe Pacific
13N.9W.32.144	Section 32 (13N-9W) Moe #4	2,407	9,746	0.25	21,628	0.27	limestone	Jt	1963 - Sutton and Moe
14N.9W.32.122	Section 32 (14N-9W)	488,031	1,927,388	0.20	—	—	sandstone	Jmw	1958-1961 - Homestake-New Mexico; 1961-1968-Homestake-Sapin; 1969-1970-United Nuclear-Homestake
15N.11W.32.224	Section 32 and 33 (15N-11W) Moe #5	33,286	146,210	0.22	—	—	sandstone	Jmb	1960-1963 - Kermac Nuclear; 1964-1968-E.P. Moe; 1960-1969-DeVilliers Nuclear
14N.9W.33.213	[1]Section 33 (14N-9W)	960,007	3,222,939	0.16	—	—	sandstone	Jmw	1959-1961 - Ambrosia Lake Uranium Co.; 1962-1964-Kermac Nuclear; 1959-1963-Phillips Petroleum; 1963-1965-United Nuclear Corp.; 1965-1970-Kerr-McGee
	Branson heap leach		26,149	—	—	—			
	NOTE: Ambrosia Lake Uranium Co. consisted of Kerr-McGee, Anderson Development Co., Pacific Uranium Co., Phillips Petroleum Co., and Branson Estate								
13N.10W.36.224	Section 36 (13N-10W) Rimrock	1,435	3,770	0.13	2,698	0.19	limestone	Jt	1952-1953 - Moses Mirabel; 1954-1955-Skult-Munson; 1955-Munson; 1958-Chena Mining Co.; 1962-Homer Scriven
14N.10W.36.222	Section 36 (14N-10W) Lease 60-167	5,249	53,349	0.51	45,950	0.43	sandstone	Jmb	1957-1958 - V.C.A.; 1959-United Western
14N.12W.10.243	Silver Bit 1-18	293	3,181	0.54	3,340	0.57	sandstone	Jmw,Jmb	1955-1956 - G.W. Fields; 1957-Monitor Exploration; 1957-United Western Mining
14N.10W.31.334	Silver Spur Group	5,938	29,454	0.25	17,935	—	sandstone	Kd	1952 - Chas Davis and W.A. Greer; 1942-1953-Silver Spur Mining Co.; 1955-Holly Uranium Co.; 1956-Holly Minerals; 1957-1959-Febco Mines; 1958-Holly Corp.; 1966-Farris Mines
15N.16W.4.414	U Mine Christensen 1-20	2,560	8,460	0.17	4,075	0.09	sandstone	Kd	1953-1954 - Williams and Reynolds; 1955-Frontier Uranium; 1957-George Christensen; 1957-Rem Uranium Co.; 1958-W.C.T. Engineering Co.
13N.9W.34.343	Vallejo Mine Double Jerry, Farris	6,458	21,733	0.17	394	—	limestone	Jt	1957-1959 - Vallejo Uranium Mines; 1959-1960-Sampson Oil and Minerals 1962-1963-Penta Mining Co.
15N.16W.2.442	Westwater #1	4,713	26,571	0.28	27,134	0.40	sandstone	Jmw	1957-1960 - Westwater Uranium Corp.
—	Mine Water Recovery	—	893,787	—	—				1963-1970 - all mills
	Mora County								
22N.16E.13	Ledoux Ranch	11	9	0.04	81	0.37	sandstone	Ps	1954 - Galisteo Mining Co.
	Quay County								
7N.32E.6.131	Good Luck	24	50	0.10	38	0.12	sandstone	TRc	1955 - Standard Uranium Co.; 1957-Dennis and Fife
11N.33E.11.422	Little Rattler (Sec. 11, Sec. 12)	59	41	0.03	44	—	sandstone	TRc	1955-1956 - Rattler Uranium Co.; 1958-Highland Development Co., Inc.

Number	Mine Name	Tons Ore	Pounds U_3O_8	%U_3O_8	Pounds V_2O_5	%V_2O_5	Type of Deposit	Host Rock	Periods of Production/ Shipper
	Rio Arriba County								
23N.4E.28.224	Box Canyon (Wasson)	132	253	0.10	212	0.11	limestone	Jt	1957 - Box Canyon Mining Co.
22N.3E.8.121	Coyote Hills (Hillfoot, Bridges)	28	56	0.10	55	0.09	sandstone	Pc	1954 - F.T. Bridges
28N.7E.24.140	J.O.L.	8	6	0.04	5	0.03	hydrothermal-vein	pЄ	1956 - Arriba Uranium Co.
22N.2E.1.223	Lucky Strike	3	4	0.06	20	0.28	sandstone	TRc	1957 - Arroyo del Agua Mining
22N.3E.10	Midcontinent #1	1	1	0.06	7	0.37	sandstone	TRc	1955-MidContinent Exploratio
26N.9E.30.233	Pineapple #1	4	2	0.03	1	0.02	pegmatite	pЄ	1954 - S.H. Wells
22N.3E.8.232	Red Head #2	39	121	0.16	124	0.16	sandstone	Pc	1955 - Bolivar Uranium Co.
28N.7E.24.224	Tusas East Slope #5	8	6	0.04	5	0.03	hydrothermal-vein	pЄ	1954 - Colonial Uranium Co.
23N.7E.19.333	Whiteflo #1	4	7	0.08	43	0.12	sandstone	Pa	1954 - Whiteflo Mining Co.
	Sandoval County								
19N.1W.23.241	Butler Brothers	23	290	0.63	56	0.12	sandstone, coal	Kd	1954-1957 - Butler Brothers
17N.1W.25.112	Collins (Warm Springs)	395	989	0.12	116	0.07	sandstone	Jmb	1957 - E.H. Collins; 1959-Febco Mines, Inc.
23N.1W.25.221	Corral #3 (Corral #1)	20	12	0.03	24	0.06	sandstone	Pa	1956 - Sla-Tex Ventures
	San Juan County								
29N.21W.24.441	Alongo	27	76	0.14	76	0.14	sandstone	Jmsw	1956 - E.J. Alongo
30N.21W.23.110	Beclabito Lease - BB	66	187	0.14	2,804	2.92	sandstone	Jmsw	1950 - Barton and Begay; 1950-Barton, Begay, and Beyale; 1951-Lewis Barton; 1953-Caylor and Neeley
	BBB	188	553	0.15	8,507	2.26			
	Total	254	740	0.15	11,311	2.23			
29N.21W.24.333	Begay #1	3,921	16,491	0.21	27,499	1.63	sandstone	Jmsw	1953-1954 - Walter Duncan, Jr.; 1966-1967-V.C.A.
29N.21W.23.224	Begay #2	4,515	18,450	0.20	190,638	2.11	sandstone	Jmsw	1962 - Davis Mining Co.; 1964-1964-Hazel I. Davis; 1965-1966-Fritz-Ericson Co.; 1967-V.C.A.
29N.21W.23.221	Begay Incline	655	3,475	0.27	38,215	2.92	sandstone	Jmsw	1955-1956 - Texas Mining Co.
29N.21W.24.443	Canyon View (Red Wash)	61	127	0.10	636	0.53	sandstone	Jmsw	1952-H.S. Begay
30N.20W.19.310	Canyon #1	111	237	0.11	4,039	1.82	sandstone	Jmsw	1950-1951, 1953-Pete Atcitty
29N.21W.23.424	Carrizo #1	828	3,426	0.21	21,917	1.32	sandstone	Jmsw	1956-1958 - Spafford and Sons
25N.20W.17.114	Carl Yazzie #1	23	66	0.15	347	0.76	sandstone	Jmsw	1954 - Bee Sho Shee Mining Co.
26N.20W.36.444	Castle Tsosie	12	60	0.25	19	0.08	sandstone	Jmr	1956 - Bee Sho Shee Mining Co.
30N.21W.35.130	[4]Cottonwood Butte-Plot 8	250	1,245	0.25	15,013	3.00	sandstone	Jmsw	(1949-V.C.A) 1950-1951-Alfred Nelson; 1954-VCA
25N.20W.5.214	Deneh Nez #13	312	1,036	0.17	2,299	0.37	sandstone	Jmr	1952-1955 - Rogers and Sons
29N.21W.14	[4]East Reservation Lease-Plot 3	6,758	29,786	0.22	311,503	2.30	sandstone	Jmsw	1948-1950 - V.C.A.
25N.20W.7,8	[1]Enos Johnson 1-4 (Sanastee Mine)	36,498	138,732	0.19	94,288	0.13	sandstone	Jmr	1952-1956 - R.D. Young; 1958-1959-Shiprock Inc.; 1961-1964-A and B Mining Co.; 1964-1970-Ray Williams
29N.21W.11.333	[3]Franks Point (Plot 6)	—	—	—	—	—	sandstone	Jmsw	1949 - V.C.A.
25N.20W.18.441	H.B. Roy #2	6	11	0.10	31	0.28	sandstone	Jmr	1954 - Bigler Johnson
30N.16W.15.323	Hogback #2	8	3	0.02	23	0.16	beach placer	Kp	1954 - Willie Davidson
25N.20W.8.442	Horace Ben #1	4	13	0.17	18	0.24	sandstone	Jmr	1952 - J.C. Cox and Grover Biggons
30N.15W.3.140	Jack Boyd	74	74	0.05	74	0.05	sandstone	Kf	1955 - Victory Exploration and Mining Co.
25N.20W.6.141	Joe Ben #1	6	41	0.34	41	0.34	sandstone	Jmsw	1952 - Rogers and Sons
25N.20W.8.131	Joe Ben #3	225	927	0.21	3,264	0.72	sandstone	Jmsw	1953, 1955 - Rogers and Sons
25N.20W.8.119	John Joe #1	94	243	0.13	739	0.39	sandstone	Jmsw	1955 - Rogers and Sons
30N.21W.22.420	John John #1	25	97	0.19	1,392	2.81	sandstone	Jmsw	1955 - John John
29N.21W.24.243	Junction	18	38	0.11	153	0.43	sandstone	Jmsw	1953 - Walter Duncan
28N.20W.31.313	Key and Tohe	47	90	0.10	261	0.28	sandstone	Jmr	1954 - Bee Sho Shee Mining Co.
30N.21W.26.120	King #2 (Jimmy King #2)	557	1,761	0.16	31,424	2.82	sandstone	Jmsw	1950-1954 - Jimmie King
30N.21W.14.433	King #6 (Jimmy King #6)	54	114	0.11	773	0.72	sandstone	Jmsw	1955, 1957 - Troy Rose Mining Co.
29N.21W.24.323	King Tutt #1	290	1,060	0.18	8,257	1.42	sandstone	Jmsw	1951, 1953 - Shorty and Tutt; 1956-Sylvania Mining Co.; 1958-Charles N. Pickens
29N.21W.24.420	[3,5]King Tutt Point-Plot 2	294	1,900	0.32	15,222	2.59	sandstone	Jmsw	(1942, 1948-1950-V.C.A.) 1953, 1956-V.C.A.; 1950-John Joe; 1950- Ray Marshall; 1950-Leroy Pettigrew; 1951-Carl Thomas
30N.21W.35.310	[3,5]Lone Star-Plot 9	276	1,814	0.33	16,852	3.05	sandstone	Jmsw	(1943, 1949-V.C.A.) 1950-Raymond Marshall; 1950-1951-Harry Russell; 1952-Leroy Pettigrew; 1962-V.C.A.
29N.21W.14.344	[3,5]Lookout Point-Sunnyside (Plot 3)	2,556	16,327	0.32	144,377	2.82	sandstone	Jmsw	(1942, 1948-1950-V.C.A.) 1950-Billy, Peterson, and Shorty; 1950-Billy and Shorty; 1950-1954-Paul Shorty; 1956, 1959-V.C.A.

Number	Mine Name	Tons Ore	Pounds U_3O_8	$\%U_3O_8$	Pounds V_2O_5	$\%V_2O_5$	Type of Deposit	Host Rock	Periods of Production/ Shipper
29N.21W.14.344	Lookout Point West Side Plot 3	506	2,713	0.27	28,485	2.81	sandstone	Jmsw	1960 - C.H. Corey, Jr.; 1960-1961-William George
29N.21W.14.122[3,5]	Lower Oak Creek Plot 7	3,870	21,014	0.27	149,295	1.93	sandstone	Jmsw	(1943-1944, 1948-1950-V.C.A.) 1950-1952 - H.S. Begay; 1950-Eugene Tapahonso; 1951-Tom Jones, Jr.; 1954-1957, 1961-1964-V.C.A.; 1955-1959-Kennedy and McGee; 1960-C.H. Covey, Jr.; 1961-William George
29N.21W.23.410	[3]Nelson Point	2,684	13,364	0.25	211,347	2.94	sandstone	Jmsw	(1942-1943, 1948-1950 - V.C. A.); 1950-1958, 1961-Paul Shorty; 1965-1967-V.C.A.
29N.21W.24.323[3,5]	Red Wash Point-Plot 1 (Sam Point)	305	2,244	0.37	18,230	2.90	sandstone	Jmsw	(1942, 1948-1950-V.C.A.) 1950-Leroy Pettigrew; 1951-Sam Harvey; 1952-Harry Russel
25N.20W.19.344	Reed Henderson #1	24	14	0.03	52	0.11	limestone	Jt	1954 - Hancock and Hutchison
30N.21W.24.120	Rocky Flats Mines (#1 and #2)	698	2,214	0.16	34,154	2.45	sandstone	Jmsw	1950-1952 - Barton and Lee; 1953, 1955-Barrett Smith Mining Co.
29N.21W.13,14	Salt Canyon (MP-4)	93	331	0.18	4,473	2.41	sandstone	Jmsw	1950 - Cato Sells; 1953-Shorty and Tutt; 1954-Hosteen S. Begay; 1955-Kennedy and McBee
29N.21W.14.121	Salt Rock (Upper and Lower)	107	350	0.17	4,122	1.93	sandstone	Jmsw	1950-1951 - Eugene Tapahonso; 1961-1962-Davis Mining Co.
29N.21W.23.124[3,5]	Shadyside #1 and Shadyside Incline-Plot 3	1,728	8,841	0.26	108,589	3.14	sandstone	Jmsw	(1942, 1948-1950-V.C.A.) 1950-Tutt and Thomas; 1950-1951-Tutt and Tanner; 1951-Harry Russell; 1951, 1953, 1956, 1964-1965-V.C.A.; 1952-King Tutt
29N.21W.23.212[3,5]	Shadyside #2	809	6,183	0.35	66,842	3.76	sandstone	Jmsw	(1942, 1948-1950-V.C.A.); 1951, 1953-1954-Harry Russell; 1954-1955, 1966-V.C.A.
29N.21W.23.142	Tent	1,198	5,303	0.22	54,156	2.26	sandstone	Jmsw	1955 - Texas Mining Co.; 1956-1957-Eugene Tapahonso; 1963-Hazel Bryant
29N.21W.14.320[3]	Williams Point Plot 4	—	—	—	—	—	sandstone	Jmsw	1949 - V.C.A.
Location unknown-east of Farmington	Claim #14 (Mystery shipment from Farmington-Aztec area)	22	48	0.11	25	0.06	sandstone	To(?)	1954 - Meadow Mining Co.
	San Miguel County								
[illegible]7N.24E.31.222	Bish #2	30	62	0.10	27	0.04	sandstone	₹c	1956 - Swain, Brooks, and Holcomb
[illegible]N.14E.5.132	Sparks-Stone #1	15	32	0.11	13	0.05	pegmatite	pЄ	1955-1956 - Sparks-Stone Mining Co.
[illegible]7N.23E.14.441	Windy Nine Mine	19	19	0.05	147	0.38	sandstone	₹c	1956 - San Carlos Uranium Co.
	Santa Fe County								
1[illegible]N.7E.9.112	La Bajada	9,649	27,111	0.14	42	—	hydrothermal-vein	Te	1956-1957, 1962-1964, 1966-Lone Star Mining Co.
2[illegible]N.9E.29.144	San Jose #13	12	12	0.05	—	—	sandstone	Ts	1957 - J.C. Roybal
	Sierra County								
12S.7W.18.232	(Chise) Mitchell Price #1-8	14	10	0.04	9	0.03	sandstone	Pa	1955 - P. Buell
1[illegible]S.8W.14.200	Glory #2 and Empire Group	10	38	0.18	—	—	sandstone, hydrothermal-vein	Pa,Ti	1955 - The Empire Project; 1956-Kay P. Crouch
17S.4W.27	Paran	7	9	0.07	1	0.01	vein-type	C	1955 - Plainview Uranium Co.
1[illegible]S.6W.26.233	Terry (Pitchblende)	127	359	0.14	27	0.05	volcanogenic	Tv	1955, 1960 - McDaniel Investment Co.
13S.7W.1	Red Tiger (Last Chance)	9	15	0.08	—	—	sandstone	Pa	1957 - Alamo Mining and Exploration Co.
12S.7W.2	State Mining Lease 61-73	7	22	0.16	11	0.08	sandstone	Pa	1957 - Robert Auguer
	Socorro County								
1[illegible] 2E.13.26	Agua Torres	149	325	0.11	315	0.11	vein-type	Em	1955-1956 - T.D. Campbell; 1956-Florida Mining Co.

Number	Mine Name	Tons Ore	Pounds U_3O_8	%U_3O_8	Pounds V_2O_5	%V_2O_5	Type of Deposit	Host Rock	Periods of Production/ Shipper
1N.6W.13.344	Bocks Ranch (Sec. 13, Jarosa)	87	306	0.18	340	1.29	sandstone	Tb	1959 - Henderson-Robinson; 1960-R.H. Lummus; 1961-Big Tex Mining Co.
3N.2W.35.233	Jeter Mine (Charley #2)	8,826	58,562	0.33	3,202	—	vein-type	Tp	1954-1955 - C.P. Jeter; 1956-Socorro Uranium Co.; 1957-1958-Utco Uranium Corp.
2S.2E.35.243	Little Davie	17	61	0.18	71	0.21	vein-type	Psa	1955 - Holly Uranium Corp.
2S.2E.35.223	Lucky Don (Bonanza)	965	4,168	0.23	3,309	0.17	vein-type	Psa	1955-1956 - Holly Uranium Corp; 1956-Umico Co.; 1956-Three Bear Mining Co.; 1960, 1962-McKedy Mining and Exploration Co.; 1962-1963-R.H. Lummus
1S.2E.1	Maria #1 (Mary Ball)	46	125	0.14	88	0.10	vein-type	Em	1956 - Florida Minerals
1S.1W.18.132	San Lorenzo #1	14	6	0.02	8	0.03	sandstone	Tp	1955 - Fox and Wailer
	<u>Taos County</u>								
28N.15E.30.200	Black Copper #2	5	3	0.03	—	—	hydrothermal-vein	pe	1957 - Black Copper Mines

[1]Produced unknown amount of uranium ore after 1970 (see table 3-2).
[2]Some of the ore credited to Barbara J #1 may actually have been produced from Barbara J #3.
[3]Early production shipped as East Reservation Lease. Years in production given in parenthesis, but production figures do not reflect early production.
[4]Early production includes minor production from Plots 1, 2, 4, 6, 7, 8, 9, 11, and 12.
[5]Early production from 1942-1946 in Carrizo Mountains from East Reservation Lease was 10,216 tons of ore averaging about 2.47% V_2O_5. The total amount of contained U_3O_8 is estimated to be 44,950 pounds (W.L. Chenoweth, PC, 1983).

Table 3-2: Uranium mines in New Mexico that have produced from 1970 to 1982 (U.S. Department of Energy files).

Occurrence Number	Mine Name	Production[1] Class	Host[2] Rock	Periods of Production/ Shipper
	Cibola County (formerly Valencia County)			
12N.9W.33.444	[3]F-33 (Section 33)	c	Jt	1954-1959 - Anaconda; 1971-1977-Homestake
11N.5W.26,35	[3]Jackpile-Paguate	e	Jmj	1952-1982 - Anaconda
11N.5W.13.300	JJ #1	d	Jmj	1976-1981 - Sohio-Reserve
13N.8W.24.433	Mt. Taylor	c	Jmw	1980-1982 - Gulf
12N.9W.4	[3]Red Bluff-Gay Eagle	b	Jt	1952-1965; 1976-Moises-Mirabel
11N.4W.19.300, 11N.4W.30.240, 11N.5W.24.411	[3]St. Anthony	b	Jmj	1953-1960; 1977-1982 - United Nuclear
13N.8W.30.243	[3]San Mateo Mine	d	Jmp	1959-1967 - Rare Metals Corp.; 1967-1971-United Nuclear
	McKinley County			
14N.9W.28.144	[3]Ann Lee (Spider Rock)	d	Jmw	1958-1963 - Phillips; 1963-1973, 1982-United Nuclear; 1977-1982-Spider Rock
13N.9W.30.221	[3]Barbara J #3 (White Cap)	c	Jt	1959-1963 - Midcontinent; 1979-1980-Todilto Exp. Dev. Co.
14N.11W.19.220	[3]Billy the Kid	a	Jt	1952-1960; 1976-Henry Andrews
15N.13W.12.322	[3]Black Jack #1	d	Jmw	1959-1969; 1969-1971-United Nuclear-Homestake
15N.13W.18.223	[3]Black Jack #2	c	Jmb	1959-1968; 1969-1970-United Nuclear-Homestake
14N.10W.14.414	[3]Buckey	c	Jmw	1957-1965; 1972-Hydro-Nuclear; 1978-1980, 1982-Cobb
16N.16W.17.212	[3]Church Rock (Sec. 8, 17)	c	Jmw, Jmb, Kd	1960-1962; 1976-1977, 1979-1982-United Nuclear
14N.9W.36.332	[3]Cliffside-Section 36	d	Jmw	1960-1968; 1970-present - Kerr-McGee
15N.17W.33.214	[3]Diamond #2	c	Kd	1952-1967; 1968-1970-Shiprock, Ltd.
13N.9W.20.411	[3]Dog, Flea, and BG Group	c	Jmp	1957-1975 - Four Corners Exp.; 1978-1980-M&M Mining
13N.9W.21.324	[3]Doris-Section 21	b	Jmp	1958-1961; 1978-1979-Ranchers
14N.11W.9.214	[3]Evelyn	b	Jmb	1953-1968, 1969-1970-Smith Dev.; 1970-Minerals Eng.; 1971-1972-Stevenson; 1972-Oral Creek
13N.11W.13.314	[3]Haystack-Section 13	c	Jt	1975-1981 - Todilto Exp. and Dev.
13N.10W.19.110	Section 18 and 19	c		
13N.9W.19.323	Hope (Section 19)	a or b	Jt	1977-1981 - Ranchers
13N.9W.7.221	[3]Isabella	c	Jmp	1959-1962; 1978-1980 - Koppin; 1980-United Nuclear
13N.8W.7, 18	Johnny M (Section 7)	d	Jmw	1976-1982 - Ranchers
15N.14W.12.423	[3]Mac #1	c	Jmb	1968; 1968-1970, 1976-1978, 1980 - United Nuclear-Homestake
15N.13W.18.442	[3]Mac #2	b	Jmb	1968; 1968-1970 - United Nuclear-Homestake
15N.14W.12.134	Mariano Lake (Section 12)	c	Jmb	1977-1982 - Gulf
17N.16W.35.200	N.E. Church Rock (2 shafts)	d	Jmw	1972-1982 - United Nuclear
17N.16W.35.200	N.E. Church Rock #1	d	Jmw	1976-present - Kerr-McGee
17N.16W.36.100	N.E. Church Rock #1-E	c	Jmw	1979-present - Kerr-McGee
17N.16W.27.200	N.E. Church Rock #2	c	Jmw	1978-1982 - Kerr-McGee
13N.9W.30.143	Piedra Trieste (Section 30)	a	Jt	1979-1981 - Todilto Exp. & Dev.
13N.9W.19.420	[3]Poison Canyon	c	Jmp	1952-1962; 1976-1978 - Reserve
15N.13W.21.142	Ruby #1 } mined through	c	Jmb	1976-1979 - Western Nuclear
15N.13W.27.120	Ruby #2 } same decline			1980-1982 - Western Nuclear
15N.13W.25.224	Ruby #3	c	Jmb	1980-1982 - Western Nuclear
14N.9W.34.424	[3]Sandstone	d	Jmw	1959-1963; 1963-1970, 1974-1980-United Nuclear
13N.9W.1.200	[3,4]Section 1 (13N-9W) mined through Cliffside	d	Jmw	1970 - National Lead; 1967, 1969-1982-Kerr-McGee
14N.10W.10.244	[3]Section 10 (14N.10W)	c	Jmw	1957-1962, 1964; 1980-Cobb
14N.10W.12.411	[3]Section 12 (14N-10W)	c	Jmw	1961-1963; 1978-1982 - Cobb; 1980-United Nuclear
14N.10W.13.413	Section 13 (14N.10W)	c	Jmw	1977-1981 - United Nuclear-Homestake; 1981-Homestake
14N.10W.15.441	[3]Section 15 (14N.10W)	d	Jmw	1958-1964; 1969-1981 - United Nuclear-Homestake; 1981-Homestake
13N.9W.16.441	Section 16 (13N.9W) mined through Dog-Flea mines	b	Jmp	1973 - United Nuclear-Homestake
13N.9W.17.311	Section 17 (13N.9W) mined through Dog-Flea mines	b	Jmp	1972-1973 - United Nuclear-Homestake
14N.9W.17.323	[3]Section 17 (14N-9W)	d	Jmw	1960-1982 - Kerr-McGee
14N.9W.18.420	[3,4]Section 18 (14N-9W) mined through Section 17	d	Jmw	1962-1982 - Kerr-McGee
14N.9W.19.411	Section 19 (14N.9W)	d	Jmw	1978-present - Kerr-McGee

Occurrence Number	Mine Name	Production[1] Class	Host[2] Rock	Periods of Production/ Shipper
14N.9W.20.114	[3,4]Section 20 (14N.9W) mined through Section 17	d	Jmw	1962, 1970-1979 - Kerr-McGee
14N.10W.22.223	[3]Section 22 (14N.10W)	d	Jmw	1958-1982 - Kerr-McGee
14N.10W.23.134	[3]Section 23 (14N.10W)	d	Jmw	1959-1968; 1969-1982 - United Nuclear-Homestake; 1981-present-Homestake
16N.17W.23.221	Section 23 (16N.17W)	a	Jmw	1975 - Grace Nuclear (in situ production)
14N.10W.24.332	[3]Section 24 (14N.10W)	d	Jmw	1959-1982 - Kerr-McGee
13N.10W.25.411	[3]Section 25 (13N.10W)	c	Jt	1952-1968; 1969-1971, 1979 - United Nuclear; 1972-1973-United Nuclear-Homestake; 1972-1973-Bailey and Fife; 1980-1981-Reserve
14N.10W.25.144	[3]Section 25 (14N.10W)	d	Jmw	1959-1969; 1969-1981 - United Nuclear-Homestake; 1981-1982-Homestake
14N.9W.26.430	[4]Section 26 (14N-9W)	c	Jmw	1971-1982 - Kerr-McGee
14N.9W.27.310, 324	[3]Section 27 E and W	d	Jmw	1967-1979 - United Nuclear
14N.9W.29	[3,4]Section 29 (14N.9W) mined through Section 32 and 30	d	Jmw	1961-1982 - Kerr-McGee
14N.9W.30.232	[3]Section 30 (14N.9W)	d	Jmw	1959-present - Kerr-McGee
14N.9W.30.141	[3]Section 30W (14N.9W)	d] e	Jmw	1970-present - Kerr-McGee
13N.9W.30.333	[3]Section 30 (13N.9W)	c	Jt	1952-1966; 1970-1971 - Bailey and Fife
14N.9W.31.200	[3,4]Section 31 (14N.9W)	c	Jmw	1970-1972, 1980-1981 - Kerr-McGee
14N.9W.32.122	[3]Section 32 (14N.9W)	d	Jmw	1958-1968; 1969-1981 -United Nuclear-Homestake; 1981-1982 - Homestake
15N.11W.32.224	[3]Section 32-33 (West Ranch)	c	Jmw	1960-1969; 1972-Hydro Nuclear; 1978-1981-Cobb
14N.9W.33.213	[3]Section 33 (14N.9W)	d	Jmw	1959-1970; 1970-1981 - Kerr-McKee
14N.9W.35.233	Section 35 (14N.9W)	d	Jmw	1971-present - Kerr-McGee
	<u>Sandoval County</u>			
12N.3W.18.141	Rio Puerco	a	Jmw	1979-1980 - Kerr-McGee
	<u>San Juan County</u>			
25N.20W.7, 8	[3]Enos Johnson	c	Jmr	1952-1964; 1964-1971; 1976-present - Ray Williams; 1972 - Foote Minerals
--	[4]Shiprock residue	a	--	
	<u>Insitu Leaching Plant</u>			
17N.13W.9.322, 17N.13W.16	Crownpoint	a	Jmw	1981-present - Mobil (Nufuels)

1 Production Class: a - 0-20,000 pounds U_3O_8; b - 20,000-200,000 pounds U_3O_8; c - 200,000-2 million pounds U_3O_8; d - 2 million-20 million pounds U_3O_8; e - greater than 20 million pounds U_3O_8.

2 Host Rock: Jt - Todilto Limestone; Jmr - Recapture member; Jmw - Westwater Canyon member; Jmb - Brushy Basin member; Jmp - Poison Canyon sandstone; Jmj - Jackpile sandstone; Kd - Dakota Formation.

3 Produced prior to 1970, included table 3-1. Production classification based on total production.

4 Properties mined through adjacent shafts.

5 Residue produced from cleanup of the Shiprock mill (abandoned).

Appendix 4 - Selected Bibliography

This section includes over 1,ØØØ reference citations of published and unpublished reports pertaining to the geology, mineralogy, petrology, geochemistry, mineralization, and uranium potential of New Mexico. A list of publications and abbreviations is included. Many of these references are cited in the occurrence descriptions (Appendix 1) and in the text of this report. Citations of bibliographies and mapping indexes used for compilation of this bibliography are in Appendix 6.

Publications and abbreviations

Am. Assoc. Petroleum Geologists, Bull.; Mem.; Studies in geology; Southwest Sec., Ann. Mtg., Prog. and Abs.: American Assoc. of Petroleum Geologists, Bulletin; Memoir; Studies in geology; Southwest Section, Annual Meeting, Programs and Abstracts. Tulsa, Oklahoma

Am. Geophys. Union (EOS), Trans.: American Geophysical Union (EOS), Transactions. Washington, D. C.

Am. Inst. Mining Engineers, Trans.: American Institute of Mining Engineers, Transactions (see American Institute of Mining, Metallurgical, and Petroleum Engineers)

Am. Inst. Mining, Metall., Petroleum Engineers, Trans.; Soc. Mining Engineers: American Institute of Mining, Metallurgical, and Petroleum Engineers, Transactions; Society of Mining Engineers. New York, New York.

Am. Jour. Sci.: American Journal of Science. Yale University, New Haven, Connecticut

Am. Mineralogist: American Mineralogist, Journal of the Mineralogical Society of America. Washington, D. C.

Am. Scientist: American Scientist

Arizona Bureau Geology Mineral Technology, Field notes; Arizona Bureau of Geology and Mineral Technology, Field notes

Arizona Mining Journal

Arizona State Univ.: Arizona State University. Tempe, Arizona

Univ. Arizona: University of Arizona. Tucson, Arizona

Univ. California: University of California. Berkeley, California

Colorado School Mines: Colorado School of Mines. Golden, Colorado

Colorado School Mines, Quart.: Colorado School of Mines, Quarterly. Golden, Colorado

Univ. Colorado: University of Colorado. Boulder, Colorado

Columbia Univ.: Columbia University. New York, New York

Compass: The Compass of Sigma Gamma Epsilon, School of Geology and Geophysics, University of Oklahoma. Norman, Oklahoma

Contr. Mineralogy and Petrology: Contributions to Mineralogy and Petrology. Springer-Verlag, New York, New York

Earth and Planet. Sci. Letters: Earth and Planetary Science Letters. Elsevier Scientific Publishing Company. Amsterdam, The Netherlands

Econ. Geology; Ann. Volumn: Economic Geology and the Bulletin of the Society of Economic Geologists; Anniversary Volumn. New Haven, Connecticut

Eng. and Mining Jour.: Engineering and Mining Journal, McGraw-Hill Publishing Company. New York, New York

Four Corners Geol. Soc., Guidebook: Four Corners Geological Society, Guidebook. Durango, Colorado

Geochim. et Cosmochim. Acta: Geochimica et Cosmochimica Acta, Journal of the Geochemical Society and the Meteoritical Society, Pergameon Press. Oxford, England

Geol. Assoc. Canada, Spec. Paper: Geological Association of Canada, Special Paper, University of Toronto. Toronto, Ontario, Canada

Geol. Soc. America, Rocky Mtn. Sec., Spec. Paper; Bull.; Abs. with Programs; Map and Chart Series: Geological Society of America, Rocky Mountain Section, Special Paper; Bulletin; Abstracts with Programs; Map and Chart Series. Boulder, Colorado

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APPENDIX 5
Listing of AEC Preliminary Reconnaissance Reports (PRR's)

Bernalillo County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
11N.1W.30,11N.2W.25	Angell	ED-R-381, ED-R-290(1954)	Coal/Sandstone	K	3
9N.5E.6, 7	Grand View Mining Claim and Wac Mine (Cerro Pelon)	DEB-RRA-643(1953)	Hydrothermal-vein	PЄ	1
10N.4E.25	Lucky Strike claim	ASO-70(1955)	Pegmatite	PЄ	2(p.5)
9N.1W.1.300	L-W claims (Cerro Colorado Archuleta)	DAO-J-4-14-1480(1955)	Hydrothermal-vein	Tv	2(p.6)
9N.5E.2	Public Domain (Tijeras Canyon)	DEB-RRA-873(1953)	Sandstone/Hydrothermal-vein	Pm	1
10N.5E.22,23	Public Domain (Unknown)	DEB-RRA-874(1953)	Sandstone	Pa	1
10N.5E.22,23	Unknown	F-1027(1953)	Sandstone	Pa	1
———	Unknown	DEB-A-517(1953)	none	PЄ	3

Catron County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
10S.19W.20.341	Baby Mine	DEB-P-4-1461 (1955)	Hydrothermal-vein	Ti	1
2N.9W.31	Drag A Ranch	F-1102; F-1104 (1954)	Sandstone	Tb	1
11S.19W.5	Evelyn No. 1 and 2	DEB-RRA-1438 (1954) DEB-RRA-1439 (1954)	Hydrothermal-vein	Ti	1 3
3N.11W.32.321	Geo-Tex Mineral Co. (Hancock-Geotex)	B (1956)	Sandstone	Kc	3
3N.11W.32.321	Hancock-Geotex	ED-R-681 (1955)	Sandstone	Kc	2(p.7)
2N.10W.19.121	Hot-Spot claims Nos. 1-8 (Red Basin Claims)	DEB-RRA-1432 (1954)	Sandstone-tabular	Kc	1
2N.10W.36.444	Hot-Spot claims # 1-4 (Southwest Minerals Property)	ASO-14 (1954)	Sandstone	Tb	3
3N.16W.22.341	Mangum	A (1956); F-1153 (1954)	Sandstone	Kc	1 1
2N.11W.14.243	McPhaul Ranch (McPhaul Adit)	F-1129 (1954)	Sandstone	Kc	1
9S.20W.5,6,7	Frank Owen	ASO-30 (1955)	Volcanogenic	Tv	3
———	R.C. Cline	ED-R-289 (1954)	none	-	3
———	Republic Mine	DEB-RRA-1189 (1953)	none	-	1
2N.10W.19.121	Tietzen-Red Basin (Red Basin Calims)	DEB-RRA-1186 (1954)	Sandstone-tabular	Kc	1
2N.10W.27.231	Unknown (Ox Spring Placer)	F-1032 (1953)	Sandstone	Tb	1
2N.10W.19.121	Unknown (Red Basin Claims)	F-1033 (1953)	Sandstone-tabular	Kc	1
2N.11W.11.421	Unknown (Unknown-McPhaul Ranch)	F-1031 (1953)	Sandstone	Kc	1
1N.19W.21.100	Unknown (Unknown-Red Hill area)	ASO-18 (1954)	Sandstone-tabular	Kc	3
9S.16N.7,8	Unknown (Mogollon)	D-311 (1951)	Volcanogenic	Tv	1
3S.13W.29	Unknown-Horse Springs	ASO-17 (1954)	Volcanogenic	Tv	3

Chaves County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
3S.27E.12	Powell & Son	ASO-109 (1958)	Sandstone	TRc	2(p.10)

Cibola County (formerly Valencia County)

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
9N.7W.26.100	Acoma Reservation	unnumbered (1955)	Sandstone	Jmr	3
11N.15W.23	Airborne Anomaly near Dents Ranch (Unknown)	ED-R-478 (1955)	Sandstone/Shale		3
10N.3W.22.400	Abetya, Narciso (Chavez Mine)	ED-R-291 (1954); ED-R-380 (1954)	Sandstone	Jmr	3
8N.6W.18	Balo Mining Company	ED-R-286 (1954); ED-R-383 (1954)	Limestone	Jt	3
11N.9W.20.414	Cedar No. 1	201-AEC (1951); DEB-200(1951)	Limestone	Jt	3
10N.3W.22.400	Chavez Mine	ED-R-617 (1956)	Limestone	Jt	3
———	Chavez (11N/8W/36)	DAO-RRA-1502 (1953)	none	-	2(p.77)
8N.5W.8.113	Crackpot Mine	unnumbered (1955)	Limestone	Jt	3
11N.9W.20.414	Crusher No. 1 and 2 (Cedar #1)	200-AEC (1951)	Limestone	Jt	1
12N.9W.4.414, 12N.9W.4.432	Grey Eagle, Black Hawk, and Bunny (Grey Eagle, Black Hawk, and Bunny)	CEB-13 (1950)	Limestone	Jt	3
10N.9W.4.411	Horace and Quemazon claims	ED-R-297 (1954); ED-R-600 (1955); ED-R-427 (1955)	Limestone	Jt	1
11N.12W.7.144	Ingersol Copper Mine	ED-R-369 (1954)	Sandstone	PЄ,Pa	3
———	Mesa Gigante	ED-R-288 (1954)	none		
11N.12W.7.110,200	Mirabel	D-242 (1951)	Sandstone/Hydrothermal-vein	PЄ,Pa	1
9N.6W.17.114	Paraje Prospect	unnumbered (1955)	Sandstone	Jmb	3
12N.9W.4.212,221,214	Red Bluff #1-6	GJEB-11(1950)	Limestone	Jt	3
12N.9W.4.221,214,342	Red Bluff #2-7	CEB-11 (1950)	Limestone	Jt	3
12N.9W.4.342,433	Red Bluff #7-8	CEB-RR-25A (1951)	Limestone	Jt	3
	Sandy	ED-R-477 (1955)	Sandstone/Limestone	Je,Jt	1
11N.4W.30.110	Seboyeta Grant-Hanosh (St. Anthony-M-6)	ED-R-213 (1953)	Sandstone	Jmbj	
11N.4W.30.110	Seboyeta Grant (St. Anthony-M-6)	ED-R-220 (1953); ED-RRA-1503 (1953)	Sandstone	Jmbj	 2(p.223)
7N.5W.12.220	Sonora #1-4	ED-R-392 (1954)	Contact-metasomatic	TRc	3
6N.4W.4.220	Unknown-South Sawanee dome (Brownlow- Heath Prospect)	ED-R-753 (1956)	Sandstone	TRc	3
8N.5W.6.100	Unknown-Laguna Reservation	unnumbered (1955)	Limestone	Jt,Js	3
8N.6W.18	Unknown (Balo Mining Company)	unnumbered (1955)	Limestone	Jt	3
11N.9W.17	Unknown	DEB-260 (1951)	Shale	K	3
11N.12W.17.133	Unknown-Zuni Mountains	D-239 (1951); D-241 (1951)	Hydrothermal-vein	PЄ	1
12N.9W.9.120,213	Unknown-Mark Elkins (Section 9 Mine)	CEB-12 (1959)	Limestone	Jt, Js	3
12N.9W.34.430	Unknown-Head and Keely (Forrest Group)	204-AEC (1951)	Limestone	Jt	2(p.222)
12N.9W.33.333	Unknown-Prewitt (Vanadium #1)	CEB-RR-29 (1951)	Limestone	Jt	1
12N.9W.33.333	Vanadium #1	203-AEC (1951)	Limestone	Jt	1
———	Unknown 9N/17W/4(?)	RR-207 (1951)	none	-	1
———	Unknown 12N/9W/19	unnumbered (1950)	none	-	1

Colfax County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
27N.25E.17.213	Ace Construction	ASO-84 (195)	Contact-metasomatic	Ti	2(p.11)
———	Ajax Claim (3T27NR16E)	5859 (1951)	none	-	1
———	Baldy Tunnel Site (27,28T28NR16E)	M-855 (1953)	none	-	1
27N.25E.1.411	Blasted Pine Claim	DEB-RRA-1433 (1954)	Hydrothermal-vein	Kd	1
26N.27E.18	Langley Prospect	DEB-RRA-1439 (1954)	Hydrothermal-vein	Ti	1
26N.27E.18	Langley Prospect	DEB-RRA-1440 (1954)	Hydrothermal-vein	Ti	3
27N.25E.12.443	Laughlin Peak	DAO-P-4-1481 (1955)	Hydrothermal-vein	Ti	2(p.13-14)
28N.16E.15.	President Mine	M-856 (1953)	Hydrothermal-vein	Ti,Kd	1
26N.25E.3.141	Shell Prospect	ASO-110 (1954)	Contact-metasomatic	Ti	2(p.12)

DeBaca County (none)

Dona Ana County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
24S.3E.25.214	Diamond Gravel Mine (Blue Star Claims)	ASO-80 (1955)	Hydrothermal-vein	Pm	2(p.15-16)
———	Hayner Mine	M-1501 (1954)	none	-	1
———	Memphis Mine	M-1499 (1954)	none	-	1
———	Modoc Mine	M-1500 (1954)	none	-	1
———	Philadelphia group, Homestake mine, Merrimac mine, Excelsior mine	M-1498 (1954)	none	-	1
19S.2W.5.222	Snooper Claim (ABC Mining)	ASO-81 (1955)	Sandstone	Ts	2(p.17)
———	Stevenson-Bennett Mine	M-1502 (1954)	none	-	1
19S.2W.36.200	Unknown (Russel S property)	DEB-A-520 (1953) plus supplement	Hot Springs deposit	Q	3
24S.3E.13	Unknown	DEB-RRA-1424 (1954)	Hydrothermal-vein	Pm	1
24S.3E.25.214	Unknown (Blue Star Claims)	F-1036 (1954) plus supplement	Hydrothermal-vein	Pm	1

Eddy County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
21S.24E.26.432	A. Pitts and B. Price claims (Rocky Arroyo Prospect)	DEB-RRA-1416 (1954) plus supplement	Limestone	P	1 2(p.18)
21S.25E.14.312	Golden Eagle	RG-15-51 (1951)	Sandstone	P	1
22S.24E.2	Little Walt Mine	M-1584 (1954)	Limestone	P	1
21S.24E.27	W.H. Shaffer Ranch	DEB-RRA-1419 (1954)	Sandstone (Limestone?)	P	1

Grant County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
20S.15W.22.421	Acme	unnumbered (1951)	Hydrothermal-vein	p€	1
20S.15W.22.421	Acme No.1 (Acme)	unnumbered (1951)	Hydrothermal-vein	p€	1
18S.16W.21.331	Alhambra (Black Hawk Mine)	D-187 (1951)	Hydrothermal-vein	p€	1
20S.15W.21.231	Alhambra No.1-Bluebell #2	D-191 (1951); ASO-49 (1955)	Hydrothermal-vein	p€	1 2(p.21)
———	American Group	DEB-RR-512 (1953)	none	-	3
———	Anomaly	unnumbered (1955)	none	-	3
19S.15W.11.122	Anomaly No.1	ASO-113 (1955)	Hydrothermal-vein	p€	2(p.26-27)
19S.15W.2.344	Anomaly No.2	ASO-114 (1955)	Hydrothermal-vein	p€	2(p.28-29)
18S.15W.28.231	Anomaly No.3 (Tunoco Mining claims)	ASO-115 (1955)	Hydrothermal-vein	p€	2(p.30-31)
18S.15W.28.243	Anomaly No.4 (Tunoco Mining claims)	unnumbered (1955); ASO-116 (1955)	Hydrothermal-vein	p€	2(p.32-33)
18S.15W.21.441	Anomaly No.5 (Section 21)	unnumbered (1955); ASO-117 (1955)	Hydrothermal-vein	p€	2(p.34-35)
20S.14W.19.441	Anomaly No.6	unnumbered (1955)	Hydrothermal-vein	p€	3
20S.15W.36.400	Anomaly No.7	unnumbered (1955)	Hydrothermal-vein	p€	3
20S.15W.25.314	Anomaly No.8 (Tullock Peak)	unnumbered (1955)	Hydrothermal-vein	p€	3
18S.16W.36.341	Anomaly No.9	unnumbered (1955)	Hydrothermal-vein	p€	3
18S.16W.36.434	Anomaly No.10	ASO-122 (1955)	Hydrothermal-vein	p€	2(p.49-51)
21S.15W.31.100	Anomaly No.15	unnumbered (1955); ASO-123 (1955)	Hydrothermal-vein	p€,Kb	2(p.52)
21S.15W.31.200	Anomaly No.16	ASO-124 (1955)	Hydrothermal-vein	p€,Kb	2(p.53)
21S.15W.31.300	Anomaly No.17	ASO-125 (1955)	Hydrothermal-vein	p€,Kb	2(p.54)
———	Anomaly No.18	unnumbered (1955)	none	-	3
[illegible]S.15W.2.242	Apache Trail	D-181 (1951); DEB-P-4-1467 (1955)	Hydrothermal-vein	p€ -	1 1
20S.15W.22.342	Arrowhead claim	DEB-P-4-1445 (1955)	Hydrothermal-vein	p€	1
19S.16W.35.220	Auston-Amazon	D (1956)	Hydrothermal-vein	p€	3
20S.15W.2.242	Black Cat Apache Trail claims	DEB-P-4-1464 (1955,1956)	Hydrothermal-vein	p€	1
18S.16W.16,21	Black Hawk	unnumbered (1951); D-189 (1951)	Hydrothermal-vein	p€	1 1
18S.16W.16,21	Black Hawk and Alhambra Group	unnumbered (1951)		p€	1
20S.15W.26.122	Blue Jay	D-170 (1951)	Hydrothermal-vein	p€	1
[illegible]S.15W.19.224	Buckhorn No.2 claim	unnumbered (1951)	Hydrothermal-vein	p€	1
[illegible]S.15W.22.421	California (Acme)	unnumbered (1951)	Hydrothermal-vein	p€	1
17S.21W.1,12	Carlisle Claims	DEB-RRA-1169 (1954)	Hydrothermal-vein	Ti	1
20S.15W.23.213	Combination	unnumbered (1951)	Hydrothermal-vein	p€	1
———	Copper Flat Group	DEB-RRA-579 (1953); ASO-112 (1953)	none	-	3 2(p.25)
[illegible]S.15W.23.100	Copper Glance	unnumbered (1951)	Hydrothermal-vein	p€	1
[illegible]S.15W.15	Copper King No.1	D-694 (1953)	Hydrothermal-vein	p€	3
[illegible]S.15W.15	Copper King No.2	M-854 (1953)	Hydrothermal-vein	p€	3

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
———	East Camp Claims	DEB-RRA-117Ø	none	-	1
2ØS.15W.27.441	Edward No. 5 Claim	D-178 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.26.223	Eugenie	D-173 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.1.143	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
———	Unknown	D-186	none	-	1
2ØS.11N.13	Unknown	unnumbered	Hydrothrmal-vein	PЄ	1
18S.16W.16,21	Unknown (Black Hawk)	D-188, D-185	Hydrothermal-vein	PЄ	1
2ØS.11W.2Ø.2ØØ	Faywood Hot Springs	DEB-P-4-1479 (1956)	Hot Springs deposit	Q	1
2ØS.15W.22.311	Floyd Collins	D-19Ø (1951)	Hydrothermal-vein	PЄ	1
22S.16W.17	Grandview Group	DEB-P-4-1449 (1955)	Hydrothermal-vein	PЄ	1
2ØS.15W.17.443	High Noon No.1 claim	DEB-P-4-1455 (1955)	Pegmatite	PЄ	1
21S.14W.34.223	Hines claim	DEB-P-4-1456 (1955)	Hydrothermal-vein	Eb	1
2ØS.15W.24.313	Hummer (Inez-Hummer)	D-165 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15N.24.313	Inez	D-166 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.22.212	Lettie May	D-194 (1951)	Hydrothermal-vein	PЄ	1
19S.15W.32.242	Liberty Bell (Unknown)	D-695 (1953)	Hydrothermal-vein	Ti	1
2ØS.15W.21.231	Lindsey No.2 (Alhambra #1)	unnumbered (1953)	Hydrothermal-vein	PЄ	1
18S.15W.28.211	Little Burro Mtns (Unknown)	unnumbered (1955)	Hydrothermal-vein	PЄ	3
18S.15W.28.243	Little Burro Mtns (Tunoco Mining Claims)	unnumbered (1955)	Hydrothermal-vein	PЄ	3
18S.16W.36.341	Little Burro Mtns (Anomaly No.9)	unnumbered (1955)	Hydrothermal-vein	PЄ	2(p.46-48)
18S.16W.36.434	Little Burro Mtns (Anomaly No.1Ø)	unnumbered (1955)	Hydrothermal-vein	PЄ	3
2ØS.15W.18	Little Cockie #1	ASO-34 (1953)	Hydrothermal-vein	PЄ	2(p.2Ø)
2ØS.15W.24.321	Lone Jack	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.16.2.434	Lost Glove #4	ABO-"C" (1956)	Pegmatite	PЄ	3
18S.18W.22.233	McCauly Lease (Purple Rock Mine)	A (1956)	Hydrothermal-vein	PЄ,Ti	3
2ØS.15W.22.324	Merry Widow	unnumbered (1951);	Hydrothermal-vein	PЄ	1
		D-196 (1951)		-	1
———	Mines and prospects in sec 5	DEB-RRA-581 (1953)	none	-	3
———	Mines and prospects in sec 6	DEB-RRA-578 (1953)	none	-	3
———	Mines and prospects in sec 7	DEB-RRA-58Ø (1953)	none	-	3
———	Mines and prospects in sec 31	DEB-RRA-576 (1953)	none	-	3
———	Mines and prospects in sec 32	DEB-RRA-575 (1953)	none	-	3
———	Mines and prospects in sec 33	DEB-RRA-577 (1953)	none	-	3
19S.15W.36.414	Miss Virginia	D-184 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.19.33Ø	Monarch No.2	unnumbered (1951)	Hydrothermal-vein (Orthomagmatic)	PЄ	1
18S.15W.21.441	Oil Center Tool Co. Claims (sec.21)	DEB-P-4-1478 (1956)	Hydrothermal-vein	PЄ,Kb	1
2ØS.16W.19.211	Pitman Claim	ASO-85 (1955)	Hydrothermal-vein	PЄ	2(p.23)
18S.17W.2.421	Prince Albert No.1	DEB-P-1446 (1955)	Hydrothermal-vein	PЄ,Kb	1
18S.17W.2.244	Prince Albert No.2	DEB-P-4-1447 (1955)	Hydrothermal-vein	PЄ,Kb	1
18S.18W.22.233	Purple Rock Mine	DEB-A-532 (1953)	Hydrothermal-vein	PЄ,Ti	3
2ØS.15W.23.334	Red Bird	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.16.124	Red Hill Turquoise Mine	unnumbered (1951)	Hydrothermal-vein	PЄ	1
18S.18W.15.433	Sandy Group	A-22 (1954)	Hydrothermal-vein	PЄ	1
2ØS.15W.23.33Ø	Shamrock	unnumbered (1951)	Hydrothermal-vein	PЄ	1
18S.17W.9.412	Springfield Claim	DEB-P-4-1472 (1956)	Hydrothermal-vein	PЄ	1
2ØS.16W.23.233	Summit No.1 and 2	D-279 (1951)	Hydrothermal-vein	PЄ	1
21S.16W.27.134	Thunderbird Claim (White Top Hill)	B (1956)	Pegmatite	PЄ	3
2ØS.15W.26.244	Tunnel Site	D-174 (1951)	Hydrothermal-vein	PЄ,Ti	1
18S.15W.28.231	Tunoco Mining Claim	DAO-P-1482 (1954)	Hydrothermal-vein	PЄ	2(p.55)
2ØS.14W.32.233	Uncle Sam Silver Mine	unnumbered (1951);	Hydrothermal-vein	PЄ	1
		unnumbered (1951);	Hydrothermal-vein	PЄ	1
		ASO-63 (1955)	Hydrothermal-vein	PЄ	2(p.22)
19S.15W.36.332	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
19S.15W.36.414	Unknown (Miss Virginia)	D-182 (1951)	Hydrothermal-vein	PЄ	1
19S.15W.36.414	Unknown (Miss Virginia)	D-183 (1951)	Hydrothermal-vein	PЄ	1
2ØS.14W.23.233	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.14W.29.342	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	3
2ØS.14W.3Ø.313	Unknown	unnumbered (1951)	Pegmatite	PЄ	1
2ØS.14W.3Ø.332	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.14W.3Ø.332	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.14W.31.122	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.14W.31.122	Unknown	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.21.231	Unknown (Alhambra #1)	unnumbered (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.21.231	Unknown (Alhambra #1)	unnumbered (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.22.421	Unknown (Acme)	D-193 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.22.421	unknown (Acme)	D-195 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.23.33Ø	Unknown (Shamrock)	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.23.334	Unknown (Red Bird)	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.23.334	Unknown (Red Bird)	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.23.421	Unknown (Paddy Ford)	D-158 (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.24.	Unknown (Inez Hummer)	unnumbered (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.24.313	Unknown (Inez Hummer)	D-16Ø (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.24.313	Unknown (Inez Hummer)	D-161 (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.25.244	Unknown (Chapman Turquoise Mine)	D-168 (1951)	Hydrothermal-vein	Tv,Ti	1
2ØS.15W.25.244	Unknown (Chapman Turquoise Mine)	D-169 (1951)	Hydrothermal-vein	Tv,Ti	1
2ØS.15W.25.314	Unknown (Tullock Peak)	D-167 (1951)	Hydrothermal-vein	PЄ,Ti	1
2ØS.15W.26.113	Unknown (Banner)	D-171 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.26.124	Unknown	D-172 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.26.221	Unknown	D-176 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.26.442	Unknown	D-175 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.26.422	Unknown	D-177 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.27.332	Unknown	D-179 (1951)	Hydrothermal-vein	PЄ	1
2ØS.15W.28.321	Unknown	D-18Ø (1951)	Hydrothermal-vein	PЄ	1
2ØS.16W.26.222	Unknown	unnumbered (1951);	Hydrothermal-vein	PЄ	1
		unnumbered (1951)			3
2ØS.15W.22.421	Utah (Acme)	unnumbered (1951)	Hydrothermal-vein	PЄ	1
2ØS.14W.19.441	White Signal (Anomaly No.6)	unnumbered (1955);ASO-118	Hydrothermal-vein	PЄ	2(p.37-39)
2ØS.15W.25.314	White Signal (Tullock Peak)	unnumbered (1955);ASO-12Ø	Hydrothermal-vein	PЄ,Ti	2(p.43-45)

Grant County continued

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
20S.15W.36.400	White Signal (Anomaly No.7)	unnumbered (1955);ASO-119	Hydrothermal-vein	p€	2(p.40-42)
20S.15W.23.421	Wisconsin group (Paddy Ford)	unnumbered (1951)	Hydrothermal-vein	p€,Ti	1
20S.15W.24.143	Wisconsin group	D-159 (1951);	Hydrothermal-vein	p€	1
		D-162 (1951);			1
		D-162 (1951);			1
		D-164 (1951)			
17S.17W.35.344, 18S.17W.2.344,	Yukon group, May Day No.1 and 2	DEB-P-4-1448 (1951)	Hydrothermal-vein	Ti,Kb	1
16S.10W.23.400	Unknown (Black Range-Dry Gallinas Canyon)	unnumbered (1951)	Hydrothermal-vein/Volcanogenic	Ti	1
———	Miscellaneous Mines	M-1535	None	-	1
20S.16W.22.123	Unknown	D-280	Hydrothermal-vein	p€	1
———	Whitewater Canyon	D-694	none	-	1
20S.15W.14.142	Unknown-White Signal	unnumbered (1951)	Hydrothermal-vein	p€	1
20S.15W.14.231	Unknown-White Signal	unnumbered (1951)	Hydrothermal-vein	p€	1

Guadalupe County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
———	Guadalupe Mine	DEB-A-534 (1953)	none	-	
———	Stauber	D-247 (1951)	none	-	3
———	Unknown	D-248 (1951)	none	-	1
———	Unknown	DEB-A-528 (1953)	none	-	1

Harding County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
———	De Baca Ranch	ED-R-1153 (1953)	none	-	3
14N.32E.14.240	State Land	unnumbered (1956) ASO-126	Sandstone	TRc	2(p.56)
———	Unknown	DEB-RRA-1113 (1953)	none	-	1
———	W.F. Brune	DEB-RRA-01408 (1954)	none	-	1

Hidalgo County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
———	Alamo Hueco Mtns	ASO-1 (1954)	none		3
———	Anita Mine	DEB-RRA-1166 (1954)	none		1
26S.18W.5.122	Anomaly No.11	unnumbered (1955)	Volcanogenic	Ti	3
30S.15W.31.311	Anomaly No.12	unnumbered (1955)	Hydrothermal-vein	p€	3
32S.14W.20.222	Anomaly No.13	unnumbered (1955)	Volcanogenic	Ti	3
34S.16W.14.121	Anomaly No.14	unnumbered (1955)	Orthomagmatic	Ti	3
———	Anomaly No.20	unnumbered (1955)	none	-	3
———	Anomaly No.21	unnumbered (1955)	none	-	3
———	Anomaly No.22	unnumbered (1955)	none	-	3
———	Anomaly No.23	unnumbered (1955)	none	-	3
28S.14W.24	Area on southwest side of Apache Hills (Apache and Chapo Mines)	DEB-RRA-1160 (1953)	Hydrothermal-vein; Contact-metasomatic	Ku	1
———	Banner Mines	DEP-RRA-1164 (1954)	none	-	1
———	Carbonate Hills	DEB-RRA-1405 (1954)	none	-	1
———	Crystal Mine	DEB-RRA 1195 (1954)	none	-	1
———	Grantite Gap claims	DEB-RRA-1162 (1954)	none	-	1
———	Last Chance	DEB-RRA-1163 (1954)	none	-	1
———	Lerntondorf Mine	DEB-RRA-1151 (1954)	none	-	1
———	No.85 Mine	DEB-RRA-1167 (1954)	none	-	1
———	North Star Claims	DEB-RRA-1199 (1954)	none	-	1
34S.15W.15.432	Opportunity claims	DEB-RRA-1437 (1954)	Hydrothermal-vein/Volanogenic	Tv	1
24S.22W.6	Radioactive High	ASO-111; (1955); ASO-128 (1955)	Volcanogenic	Ti	2(p.24,p.58)
21S.17W.6,7 34S.15W.15.432	Rhoda #1-8, Beal #1-2, Ruby #1-5, Rugby #6-15, Sidney #1-7	DEB-A-515 (1953)	none	-	3
———	Robinson Prospect	DEB-RRA-1198 (1954)	none	-	1
———	Silver Hill and State of Maine Prospects	DEB-RRA-1200 (1954)	none	-	1
———	Silver Light Prospects	DEB-RRA-1165 (1954)	none	-	1
———	Unknown	DEB-A-518 (1953)	none	-	3
22S.19W.34.134	Unknown	DEB-A-519 (1953)	Volcanogenic	Ti	3
27S.20W.32	Unknown	DEB-RRA-1196 (1954)	Hydrothermal-vein	K	1
———	Unknown	DEB-RRA-1197 (1954)	none	-	1
———	Unknown	DEB-RRA-1402 (1954)	none	-	1
———	Unknown	DEB-RRA-1403 (1954)	none	-	1
———	Unknown	DEB-RRA-1404 (1954)	none	-	1
29S.21W.8,9	Unknown-Animas	ASO-127 (1955)	Volcanogenic	Tv	2(p.57)
———	Unknown	ASO-10 (1954)	none	-	2(p.19)

Lea County(None)

Lincoln County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
5S.12E.14	Alaskan #1 Lode	DEB-RRA-588 (1953)	Contact-Metasomatic	Ti	3
1S.11E.23.211	All American Lode	DEB-RRA-646 (1953)	Hydrothermal-vein	Py	1
1S.11E.22.241	American, Rare Metals	DEB-RRA-639 (1953)	Contact-Metasomatic	Ti,Py	1
8S.15E.16.414	Barlejon No.2	ASO-33 (1955)	Hydrothermal-vein	Ti	2(p.62)
6S.11E.24.131	Black Night - Good Night	DEB-RRA-645 (1953)	Contact-Metasomatic	Ps	1
3S.12E.10.424	Bond #4	DEB-RRA-613 (1953)	Contact-Metasomatic	Py	1

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
10S.11E.9.211	Bonita Claims (1-13)	ASO-26 (1954)	Hydrothermal-vein	Tv	2(p.60)
7S.15E.33,34	Capitan Uranium Co. claims No. 15 & 18	A (1955) ASO-130 (1955)	Hydrothermal-vein	Ti	2(p.64)
6S.11E.21.274	Eagle Nest Nos. 1 & 2	ASO-98 (1956)	Contact-Metasomatic	Ps,Ti	2(p.63)
3S.12E.11.331	Elda Mine	DEB-RRA-589 (1953)	Contact-Metasomatic	Py	3
3S.12E.11.331	Elda Mining Lode	DEB-RRA-610 (1953)	Contact-Metasomatic	Py	1
6S.11E.16.422	Ferro Nos. 1 and 2	DEB-RRA-548 (1953)	Contact-Metasomatic	Ps,Ti	1
——	Gallinas mine 7/2S/12E	DEB-RRA-644 (1953)	none	-	1
9S.12E.12,13	Helen Rae, American	DEB-RRA-1118 (1953)	Hydrothermal-vein	Ti	1
8S.15E.17.433	Hopeful Claims	DEB-RRA-1443 (1954)	Hydrothermal-vein	Ti	2(p.66)
6S.11E.14.223	House Claims (Prince Mine)	DEB-RRA-583 (1953)	Contact-Metasomatic	Ps,Ti	3
1S.11E.22.241	Iron Hammer No.2 (American)	DEB-RRA-639 (1953)	Contact-Metasomatic	Ti,Py	3
——	Iron Monument Lode-11/3S12E	DEB-RRA-609 (1953)			1
6S.11E.16.422	J.B. Close, Lone Mountain Claims (Feris)	DEB-RRA-548 (1953)	Contact-Metasomatic	Ps,Ti	3
5S.12E.5.131	Lane Claim	DEB-RRA-584 (1953)	Contact-Metasomatic	Py	3
6S.11E.25.114	Little Mac	DEB-RRA-697 (1953)	Hydrothermal-vein	Ti	1
1S.12E.19.320	Little Wonder, Old Hickory and Eureka prospects	DEB-RRA-638 (1953)	Hydrothermal-vein	Py,Ti	1
8S.15E.2.213	Monzo Group (Monso Group)	DEB-P-4-1453 (1955)	Hydrothermal-vein	Ti	1
5S.12E.35.424	Old Jack (formerly Jack #1)	DEB-RRA-587 (1953)	Sandstone or Contat-Metasomatic	Py	3
8S.15E.15.331	Pinie Claims (Piney)	DEB-RRA-1438 (1954)	Hydrothermal-vein	Ti	2(p.65)
6S.14E.10.441	Pittsburg Iron Claims (Smokey Mine)	DEB-RRA-612 (1950'S)	Contact-Metasomatic	Ps,Ti	1
9S.11E.15.100	Richardson Claims	ASO-29 (1954)	Hydrothermal-vein	Ti	2(p.61)
10S.13E.31.242	Silver Plume	DEB-RRA-120 (1953)	Hydrothermal-vein (?)	-	1
8S.15E.2.213	Silvertone Claim (Monso Group #2,4,5)	DEB-RR-452 (1952)	Hydrothermal-vein	Ti	1
3S.12E.10.423	Tecolote Peaks Iron Claim	DEB-RRA-611 (1953)	Contact-Metasomatic	Py	1
——	Thor #1 Lode 14/5S/12E	DEB-RRA-586 (1953)	none	-	3
——	Unknown 33 or 34/6S/12E	ASO-12 (1954)	none	-	2(p.59)
——	Unknown 12/9S/6E	RG 11-51 (1951)	none	-	1
——	Unknown 8S/15E; ?/9S/14E; 11/11S/13E	DEB-RR-461 (1953)	none	-	3
4S.12E.29.322	Unknown	DEB-RR-457 (1953)	Shale	Jm	3
1S.11E.23.211	Unknown (All American)	DEB-RRA-789 (1953)	Hydrothermal-vein	Py,Ti	1
——	Unknown 3/10S/11E	DEB-RRA-1117 (1953)	none	-	1
9S.11E.19.414	Unknown 19/9S/11E	DEB-RRA-1119 (1953)	Hydrothermal-vein	Ti	1
9S.14E.9	Unknown	DEB-RRA-1121 (1953)	Coal	K	1
5S.10E.25	Unknown	DEB-RRA-1122 (1953)	Sandstone	Rc	1
9S.8E.14,22,27	Unknown	DEB-RRA-1124 (1953)	Sandstone	Rc,Kd	1
7S.10E.20	Unknown	DEB-P-4-1476 (1956)	Sandstone	Kd	1
7S.11E.2.222	Unknown	ED-R-1249 (1953)	Orthomagmatic	K,Ti	1
8S.15E.15.124	Wee Three No.1-2	DEB-P-4-1462 (1955)	Hydrothermal-vein	Ti	1
6S.11E.22.411	Yellow Jacket	DEB-RRA-585 (1953)	Contact-Metasomatic	Ps,Ti	3

Luna County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
——	Anomaly No.19	unnumbered (1955)	none	-	3
——	Contention Claim	M-1503 (1954)	none	-	1
20S.8W.29	Cooks Peak	DEB-RRA-1145 (1953)	Hydrothermal-vein	M	1
——	Grattan Stateland Mine	DEB-RRA-1144 (1953)	none	-	1
——	Greenleaf Mine	DEB-RRA-1142 (1953)	none	-	1
——	Hadly Mines	DEB-RRA-1146 (1953)	none	-	1
29S.11W.14.121	High Hope Claims 1-8 (Calumet Mine)	DEB-P-4-1457 (1955)	Hydrothermal-vein	Ti	1
——	International Silver Mine	DAO-P-4-1485 (1953)			2(p.71)
20S.9N.11,13	Lookout Claims	DAO-P-4-1483 (1955)	Hydrothermal-vein	M	2(p.69)
——	Lucky Mine	DEB-RRA-1141 (1953)	none	-	1
——	Luna Mine	DAO-P-4-1489 (1953)	none	-	2(p.75)
24S.12W.29.412	Morlock-Walter-Hemley tungsten claim (Tungsten Hill)	M-1505 (1954)	Contact-Metasomatic Hydrothermal-vein	K	1
27S.9W.35.432	Rambler No.1 (Section 35)	DEB-RRA-1191 (1953)	Hydrothermal-vein	Ti	1
——	Sagler Mine	DEB-RRA-1140 (1953)	none	-	1
——	San Juan	DEB-RRA-1138 (1953)	none	-	3
——	Star Key Mine and prospects	DEB-RRA-1136 (1953)	none	-	3
——	Unknown	DAO-P-4-1486 (1953)	none	-	2(p.72)
——	Unknown	ASO-7 (1953)	none	-	2(p.67)
——	Unknown	DEB-RRA-1147 (1953)	none	-	1
——	Unknown	DAO-P-4-1484 (1953)	none	-	2(p.70)
——	Unknown	DAO-P-4-1487 (1953)	none	-	2(p.73)
——	Unknown	DAO-P-4-1488 (1953)	none	-	2(p.74)
——	Unknown	DAO-P-4-1490 (1953)	none	-	2(p.76)
28S.9W.2.224	Unknown (Section 2)	DEB-RRA-1192 (1953)	Hydrothermal-vein	Ti	1
27S.8W.31.133; 27S.8W.31.314	Unknown (Unknown-Middle Sister Peak)	DEB-RRA-1193 (1953)	Contact-Metasomatic	Ti	1
——	Valley Manganese Mine	ASO-8 (1953)	none	-	2(p.68)
24S.12W.29.412	Victorio district; Chance Rambler, Jessie,; adj. claims (Tungsten Hill)	M-1504 (1954)	Contact-Metasomatic Hydrothermal-vein	K	1
——	Whitehall Shaft; Grattan No.1 & No.2	DEB-RRA-1143 (1953)	none	-	1
——	Windy Point Mine	DEB-RRA-1137 (1953)	none	-	3
28S.8W.6.124	Zumwalt	DEB-RRA-1139 (1953)	Contact-Metasomatic	Ti	3

McKinley County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
—	Airbourne Anomaly 11N/15W/23	ED-R-426 (1954)	none	-	1
14N.13W.12.333	Alpha	ED-R-680 (1956)	Shale/Sandstone	Km,Jm	2(p.78-80)
14N.11W.18.340	Bottoms Claims (Red Top #1 and #2)	CEB-18 (1950)	Limestone	Jt	1
16N.18W.26.220	Car Ball #13	ED-R-240 (1953)	Shale	Kc	3
15N.16W.4.414	Claim (U Mine)	ED-R-234 (1953)	Sandstone	Kd	3
13N.10W.4.244	Dakota Mining Co. (pat-Sec.4)	GJEB-R-188 (1952);	Sandstone	Kd	3
15N.17W.33.244	Diamond #2	unnumbered (1953)	Sandstone	Jmw	3
14N.10W.11.312	Dysart #1	NM-101 (1955)	Sandstone	Kd	3
14N.12W.24.24	Elkins Claims	CEB-17 (1950); GJEB (1950)	Sandstone	Jmw	1
14N.11W.20.133	Grover Claims	CEB-21 (1950); GJEB (1950)	Limestone	Jt	3
14N.9W.4	Green Pick #20, 21	DEB-252 (1952)	Limestone	Jt	1
13N.10W.16.100	Hard-word, Red Point, and others	CEB-15 (1950); GJEB (1950)	Sandstone	Kp	3
15N.18W.12.244	Hogback No. 4	GJEB:R-173 (1952)	Limestone	Jt	1
14N.14W.2.123	Last Chance #2	DEB-248 (1951)	Sandstone/Shale	Kd	1
19N.6W.13,14;19N.6W., 23.344; 19N.6W.25,26	L.L. Farr Ranch (Farr Ranch)	ED-R-458 (1955)	Sandstone	Jmr	1
13N.10W.25.411			Sandstone Beach placer	Kpc	1
	Operation Haystack-Sec.25 (Sec.25-SEQ-Desiderio)	unnumbered (1956)	Limestone	Jt	3
15N.16W.4.111	Prospect #1 (Foutz #1)	ED-R-214 (1953)	Sandstone	Jmw	3
15N.16W.5.222	Prospect #2 (Foutz #2)	ED-R-215 (1953)	Sandstone	Jmw	3
14N.13W.14.222	Reynolds (June)	unnumbered (1958)	Sandstone	Jmr	3
13N.10W.36.224	Rimrock #1 (Section 36)	CEB-14 (1950); GJEB (1950)	Limestone	Jt	3
14N.10W.31.233	Silver Spur #5 (Silver Spur Pits)	DEB-251 (1952)	Sandstone	Kd	1
18N.14W.35.300	Standury Rock	ED-R-620 (1956)	Sandstone Beach placer	Kp	3
14N.11W.28.113	T Claims #1-4 (Red Cap Group)	CEB-20 (1950); GJEB 1950)	Limestone	Jt	1
14N.13W.8	Tietjon-Lewis #8	DEB-249 (1951)	Sandstone	Jmr	1
13N.9W.29.141	Unknown (Faith)	RR-209 (1951)	Limestone	Jt	2(p.83)
13N.10W.18.341	Unknown (Section 18)	CEB-10 (1950); GJEB (1950)	Limestone	Jt	1
—	Unknown	ED-R-426 (1954)	none	-	1
13N.10W.19.110	Unknown (Haystack-Sec.19)	CEB-9 (1950); GJEB (1950)	Limestone	Jt	1
13N.10W.24.222	Unknown (Shirley and Gunther, G.)	RR-202-ABC (1951)	Sandstone	Jmw	1; 2(p.81)
13N.10W.25.114	Unknown (Section 25 Open-pit)	CEB-8 (1950)	Limestone	Jt	1
13N.10W.26.221	Unknown (Section 26)	CEB-7 (1950)	Limestone	Jt	1
13N.11W.13.314	Unknown (Haystack Sec.13 p.t)	CEB-16 (1950); GJEB (1950)	Limestone	Jt	1
13N.11W.21	Unknown - Prewitt	211-ABC (1951)	Limestone	Jt	2(p.85)
14N.10W.31.344	Unknown (Febco)	GJEB-R-172 (1952)	Sandstone	Kd	1
14N.11W.19.414	Unknown - Andrews	CEB-19 (1950); GJEB (1950)	Limestone	Jt	1
9N.17W.4	Unknown - Zuni Indian Reservation	RR-207 (1951)	Orthomagmatic	Ti	1 (under Valencia County)
14N.11W.35.120	Unknown (Last Mine)	DEB-237 (1951); RR-210 ABC (1952)	Sandstone	Kd	2 (p.84)
14N.13W.14.114	Unknown (Largo)	RR-208 AED (1951)	Limestone	Jt	2 (p.82)
15N.17W.28.114	Unknown (Anomaly)	GJEB-145 (1952)	Sandstone	Jmw	1
15N.17W.33.422	Unknown (Anomaly)	GJEB-144 (1952)	Sandstone	Kd	1
15N.19W.32.432	Weingarten State Lease (Gallup titanium deposit)	ED-R-618 (1956)	Sandstone Beach Placer	Kg	3

Mora County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
21N.16E.22	A and M Mining	ASO-93 (1955)	Pegmatite	PG	2(p.90)
22N.16E.1	William Atkins	ASO-64 (1955)	Shale/Sandstone	Ps	2(p.92)
22N.16E.13	Le Deoux Ranch	DAO-P-4-1491 (1953)	Sandstone	Ps	2(p.91)
20N.24E.5,19N.23E.1	Sanford Ranch	ASO-65 (1955)	Sandstone	Jm	2(p.86)
—	Turkey Mountain Area	DEB-RRA-545 (1953)	none	-	3
22N.17E.,21N.16E	United Development Co.(Coyote Creek Misc.prospects)	ASO-66 (1955)	Sandstone/Shale	Ps	2(p.87)
22N.17E.,21N.16E	United Development Co.(Coyote Creek Misc.prospects)	ASO-67 (1955)	Sandstone/Shale	Ps	2(p.88)
—	Unknown	unnumbered (1951)	none	-	3
22N.17E.,21N.16E	Unknown (Coyote Creek Misc. prospects)	D-243 (1951)	Sandstone/Shale	Ps	1
—	Unknown	ED-R-1121 (1958)	none	-	3
22N.16E.9	Unknown (Unknown-Mora Grant)	ED-R-1135 (1953)	Orthomagnetic	PG	1
—	Unknown	ED-R-1136 (1953)	none	-	1
22N.17E.,21N.16E; 22N.16E.13	Unknown (Coyote Creek Misc. prospects) (Le Deoux Ranch Lease)	ED-R-1138 (1953)	Sandstone/Shale; Sandstone	Ps	1
—	Unknown	DEB-RRA-1111 (1953)	none	-	1
—	Unknown	ED-R-1140 (1953)	none	-	3
—	Unknown	DEB-RR-501 (1953)	none	-	3
22N.17E.,21N.16E.	Unknown (Coyote Creek Misc. prospects)	ASO-92 (1955)	Sandstone/Shale	Ps	2(p.89)
22N.17E.,21N.16E.	Unknown (Coyote Creek Misc. prospects)	D-244 (1951)	Sandstone/Shale	Ps	1
—	Unknown	M-1475 (1954)	none	-	1
—	Unknown (No Location given)	unnumbered (1951)	none	-	1

Otero County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
—	Alice, Nannie Beard and Garnet Mines	DEB-RRA-1104 (1953)	none	-	1
16S.11E.17.234	Courtney Mine	DEB-RRA-1134 (1953)	Sandstone-tabular	Pa	3
16S.11E.17.234	Courtney and Grandview	RG-9-51 (1951)	Sandstone-tabular	Pa	1
16S.11E.30.441	Holmes (East Warnock)	RG-14-51 (1951)	Sandstone-tabular	Pa	1
—	Iron Ousen Mine	DEB-RRA-105 (1953)	none	-	1
15S.11E.24.142	Luz #2	ASO-73 (1955)	Sandstone-tabular	Pa	2(p.94)
—	Muscalero Apache Indian Res.	ASO-28 (1954)	none	-	2(p.93)
—	Providence Mine	DEB-RR-1103 (1953)	none	-	1

Otero County continued

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
22S.8E.3.431	Torbernite Claim	ADEB-RRA-1106 (1953)	Hydrothermal-vein	Pi	1
13S.10E.26.144	Treasure Island 1,2,3 (Virginia Mine)	RG-8-51 (1953)	Sandstone	Pa	1
———	Unknown	DEB-RRA-1123 (1953)	none	-	1
———	Unknown	DEB-RRA-1135 (1953)	none	-	
13S.10E.32.441	Unknown	RG-10-51 (1951)	Sandstone	Pa	1
———	Unknown	RG-12-51 (1951)	none	-	3
16S.11E.30.441	Warnock Mine	DEB-RRA-1133 (1953)	Sandstone-tabular	Pa	3
16S.11E.30.441	Warnock Mine	RG 13-51 (1950)	Sandstone-tabular	Pa	1

Quay County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
13N.31E.25.210	Airborne Anomaly No.1	R-DEB-P-4-2356 (1954)	Sandstone	TRc	1;2(p.115)
13N.31E.25.240	Airborne Anomaly No.2	R-DEB-P-4-2357 (1954)	Sandstone	TRc	1;2(p.116)
11N.30E.32.331	Airborne Anomaly No.3	R-DEB-P-4-2358 (1954)	Sandstone	Jm	1;2(p.117)
10N.29E.16.222	Airborne Anomaly No.4	R-DEB-P-4-2359 (1954)	Shale/Sandstone	Jm	1;2(p.118)
10N.33E.15.411	Anomaly No.5	R-DEB-P-4-2355 (1955)	Sandstone	TRc	1;2(p.114)
10N.33E.15.230	Anomaly No.6	R-DEB-P-4-2360 (1955)	Sandstone	TRc	1;2(p.111)
10N.27E.16.244	Beasley Brothers	ASO-45 (1955)	Sandstone	TRc	2(p.100-101)
11N.28E.24	Ben and Goldie Bell (Bel Aro)	ASO-46 (1955)	Sandstone	Jm	2(p.102-103)
11N.30E.5	Bill Breen claims (Breen prospect)	DEB-RRA-1422 (1954)	Sandstone	Jm	1
9N.31E.34,7N.32E.6.131	Edgemont Mining (J.R. Fife) (Good Luck)	ASO-74 (1955)	Sandstone	T	2(p.106)
11N.28E.15	Eight Point	ASO-47 (1955)	Shale/Sandstone	Jm	2(p.104)
9N.31E.34	J.R. Fife	ASO-37 (1955)	Sandstone	TRc	2(p.96-97)
11N.33E.29.110	Gilstrap and Trusdal	DEB-RRA-1435 (1954)	Sandstone	TRc	1
7N.32E.6.131	Good Luck claims	DAO-P-4-1492 (1955)	Sandstone	TRc	2(p.110)
11N.30E.2	Guy Troutman Ranch (Troutman Ranch)	DEB-RRA-1426 (1954)	Sandstone	TRc	1
8N.27E.12,13	Ima Lode Claims #1-6	unnumbered (1957)	Sandstone	TRc	2(p.105)
11N.33E.11.422	Little Rattlesnake Mining Co. (Little Rattler)	DEB-P-4-1458 (1955)	Sandstone	TRc	1
———	Mors Land and Clover weidon; Lucky find #15	R-DEB-P-4-2355 (1955)		-	2(p.112-113)
———	L.R. Packwood	DEB-RRA-1409 (1954)		-	1
11N.33E.18.413	Payne claims	ASO-40 (1955)	Sandstone	TRc	2(p.98-99)
10N.28E.2.431	Richardson Ranch	ASO-129 (1955); unnumbered (1955)	Sandstone	Jm	2(p.107)
12N.33E.23	Frank Smith	ASO-77 (1955)	Sandstone	TRc	2(p.108)
12N.30E.32	L.C. Strawn (Strawn Prospect)	DEB-RRA-1436 (1954)	Sandstone	Jm	1
11N.30E.32.311	Unknown	ED-R-1158 (1953)		-	1
11N.30E.20.424	Unknown	ASO-75 (1955)	Sandstone	gravel depth	2(p.107)
	Unknown	ASO-16 (1954)		-	2(p.95)
9N.33E.29	Bill Wallace (Wallace Lease)	DEB-RRA-54 (1953)	Sandstone	TRc	3
9N.33E.5	Bill Wallace Ranch (Wallace Ranch)	DEB-RRA-58 (1953)	Sandstone	TRc	3
9N.32E.2,3	William Wallace	ED-R-1159 (1953)	Sandstone	TRc	1

Rio Arriba County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
	Airborne Anomaly No.20 and 21	ED-R-442 (1955)	none	-	1
	Anomaly (No.19)	ED-R-443 (1955)	none	-	1
24N.3E.19.300	Anomaly No.1-Chama Basin	ED-R-548 (1955)	Sandstone	Kbc	1
28N.1E.3.311	Airborne Anomaly No.1-Jicarilla Res.	ED-R-604 (1956)	Sandstone beach placer	Kp	3
28N.1E.3.323	Airborne Anomaly No.2-Jicarilla Res.	ED-R-605 (1956)	Sandstone beach placer	Kp	3
27N.1E.2.420	Airborne Anomaly No.3-Jicarilla Res.	ED-R-606 (1956)	Sandstone beach placer	Kp	3
25N.9E.3.413	Anomaly No.15	ED-R-1558 (1954) ASO-P-4-1493 (1954)	Sandstone	Kd	1 2(p.124)
24N.1W.36.222	Airborne Anomaly No. NA-17	ED-R-1465 (1954)	Sandstone	To	3
26N.8E.12.123	Apache Mine	DEB-RRA-1415 (1954)	Pegmatite	P€	1
22N.3E.8.214	Arrojo de Aqua (Red Head Claims)	ED-R-209 (1952)	Sandstone	Pc	3
23N.4E.28.224	Box Canyon	ED-R-633 (1956)	Limestone	Jt	3
25N.1W.11.220	Carbon and Log	ED-R-619 (1956)	Sandstone	To	3
27N.8E.36.444	Cooperative Mines, Inc. (Mary #1 and 2)	DEB-RRA-763 (1953) plus supplement	Pegmatite	P€	1
25N.1E.30.320	Coy Claims	ED-R-623 (1956) ED-R-602 (1956)	Sandstone	To	3
23N.1E.29.144	D.B. Group (E and B No.1)	ED-R-513 (1954)	Sandstone	Pa	1
25N.2E.7.421	ELC-B and Maxine Groups	ED-R-757 (1955)	Sandstone	Jm	3
21N.2E.14.441	Erma No.1	ED-R-508 (1954)	Sandstone	Pa	1
21N.1E.32.200	Eureka Mine	PRR unnumbered (1951)	Sandstone	TRc	1
27N.5E.	George and Fido claims	GJEB-R-183 (1952)	Shale	Km	1
26N.2E.26.343, 26N.2E.27.242	Heart #3 and Cebolla #2 claims	GJEB-R-184 (1952)	Sandstone	Jm	1
21N.2E.12.411	Jarosa Prospects	ED-R-616 (1956)	Sandstone	Pa	3
24N.8E.11.442	Joseph Mike	ASO-71 (1955)	Pegmatite	P€	2(p.120)
25N.5E.32.121	Lucky Dog No.1	ED-R-509 (1954)	Sandstone	Kd	
26N.8E.25,26	Lucky 7 Claim	ASO-72 (1955)	Hydrothermal-vein	P€	2(p.121)
23N.3E.19.122	Mesa Alta	ED-R-634 (1956)	Limestone	Jt	
21N.2E.31.233, 21N.2E.33.123	Mining Mountain Group	ED-R-758 (1955)	Sandstone	Pm	
21N.2E.31.233	O.L. and H.Co. (Mining Mountain)	ED-R-758 (1955)	Sandstone	Pa	3
28N.7E.24.320	Moran, Sawyer, and McLind claims	DEB-RRA-1431 (1954)	Hydrothermal-vein/ Contact-metasomatic	P€	1
26N.9E.30.211, 26N.9E.30.233	(La) Paloma and Pineapple	ASO-25 (1954)	Pegmatite	P€	3
24N.3E.4.310	Pivot Rock	PHK (1956) ED-R-611 (1956)	Sandstone	TRc	3
26N.1W.33.330	Princess Claims	ED-R-622 (1956)	Sandstone	Tsj	3
	Public Domain - 3 ON, 7 and 6W	FILE COPY	none	Tsj	3
27N.8E.10.422	Rancho AAA	ED-R-201 (1952)	Hydrothermal-vein	P€	1
22N.3E.8.232	Red Bird adit (Red Head #2)	ED-R-737 (1957)	Sandstone	Pc	3
23N.3E.31.332	Resurrection	ED-R-756 (1957)	Sandstone	Pc	3

Rio Arriba County continued

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
22N.3E.27.210	Rey and Lov claims	ED-R-754 (1955)	Limestone	Jt	3
22N.3E.27.210	Reynolds Electrical and Eng. Corp. (Rey and Lov)	ED-R-759 (1955)	Limestone	Jt	3
21N.2E.11.424	St. Jude	ED-R-615 (1956)	Sandstone	Pa	3
22N.3E.8.121	Serrano Prospect (Coyote Hill)	ED-R-624 (1956)	Sandstone	Pc	3
23N.1W.16.340	State Lease Section 16 (State Lease)	ED-R-492 (1954)	Sandstone	Tsj	1
24N.6E.30.433	Trejo and Sanchez No.1	ED-R-512 (1954)	Sandstone	Pa, TRc	1
24N.6E.30.433, 24N.6E.19.322	Unknown (Trejo and Sanchez No.1, Las Minas de Pedro)	unnumbered (1951)	Sandstone	Pa, TRc	1
	not known - 21N.3E	unnumbered (1951)	none	-	1
	Abandoned Mine	ED-R-511 (1954)	none	-	1
	Unknown-Pojoague	ED-R-210 (1952)	none	-	1
25N.8E.11.432	Vargas-Jaramillo	DEB-P-1471 (1956)	Sandstone	Ts	1
26N.7E.4.314	William Hill	ASO-131 (1954)	Sandstone		2(p.122)

Sandoval County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
16N.1E.12.110	Anomaly #1	ED-R-410 (1954)	Hydrothermal-vein/Orthomagmatic	p€	3
16N.1E.8.300	Anomaly #2	ED-R-411 (1954)	Hydrothermal-vein	p€	3
15N.1E.17.414	Anomaly #3	ED-R-412 (1954)	Sandstone	Jmb	3
17N.1W.14	Anomaly #5-Ojo del Espirita Santo Grant	ED-R-518 (1955), ED-R-413 (1954), ED-R-1540 (1954)	Sandstone	Jmw	1 3 3
17N.1W.35.240	Anomaly #6-Ojo del Espirita Santo Grant	ED-R-519 (1955)	Sandstone	Jmw	1
17N.2E.18.100	Anomaly #6	ED-R-1541 (1954), ED-R-414 (1954)	Hydrothermal-vein/Volcanogenic	Tv	3
17N.1W.36.300	Anomaly #7-Ojo del Espirita Santo Grant (Section 36)	ED-R-520 (1955)	Sandstone	Jmw	1
17N.2E.8	Anomaly #7	ED-R-1542 (1954), ED-R-415 (1954)	Volcanogenic	Qv	3 3
17N.2E.17	Anomaly #8	ED-R-1543 (1954), ED-R-416 (1954)	Volcanogenic	Qv	3 3
17N.2E.21,22	Anomaly #9	ED-R-1544 (1954), ED-R-417 (1954)	Volcanogenic	Qv	3 3
16N.1E.29.123	Anomaly #10	ED-R-418 (1954), ED-R-1545 (1954)	Hot Springs deposit	Q	3 3
16N.1E.29.133	Anomaly #11	ED-R-419 (1954), ED-R-1546 (1954)	Hot Springs deposit	Q	3 3
16N.1E.29.130	Anomaly #12	ED-R-1547 (1954), ED-R-420 (1954)	Hot Springs deposit	Q	3 3
17N.4W.34.332	B.P. Hovey Ranch	ED-R-552 (1956), ED-R-554 (1956)	Sandstone Beach Placer none	Kp -	1 1
19N.1W.23.241	Butler	ED-R-404 (1954)	Sandstone/Coal	Kd	3
	Carbonate #3 - 33/12N/5E	DEB-RRA-673 (1953)	none	-	1
17N.1W.25.112	Collins Claims	ED-R-460 (1955)	Sandstone	Jmb	1
13N.6E.22.320	Coyote #1-10	unnumbered (1958)	Sandstone	Tg	3
13N.6E.22.320	Coyote-Hagan	DEB-RRA-698 (1953)	Sandstone	Tg	1
	Crummy No.1 Prospect - 24/12N/5E	DEB-RRA-94 (1953)	none	-	2
19N.2W.35	Cuba #13	ED-R-510 (1954)	Sandstone	To	1
18N.1E.35.144	Deer Creek	ED-R-612 (1956)	Sandstone	Pa	3
14N.6E.19	Dial Exploration Claims	DEB-P-4-1475 (1956)	Sandstone	Tg	1
20N.1E.6.114	Don No.11 (Cliff)	ED-R-506 (1954)	Sandstone	TRc	1
12N.3W.8.122	Dory	ED-R-384 (1956)	Sandstone	Jmb	1
12N.2W.31.420	Herrara Ranch	ED-R-661 (1956)	Sandstone Beach Placer	Kgs	3
22N.4W.21	Jicarilla Manganese lease (Manganese Prospect)	ED-R-614 (1956)	Sandstone	To	3
17N.1W.25.420	Kroeger No.1 Claim (unknown)	ED-R-475 (1955)	Sandstone	Jmb	1
	Little Joe Group - 5/20N/2E	ED-R-07 (1954)	none	Pa	1
15N.1E.27.200	Lone Star Mining and Dev. Corp.	ED-R-599 (1956)	Sandstone	Jm	3
15N.1E.17.414, 15N.1E.20.441	Morris Peters (Anomaly #3)	ED-R-287 (1954)	Sandstone	Jmb	3
15N.1E.17.414, 15N.1E.20.441, 15N.1E.21.441	Morris Peters (Anomaly #3, Morris Peters #20 and #21)	ED-R-382 (1954)	Sandstone	Jmb	3
location unknown	Ojo del Espirito Santo Grant	ED-R-197 (1952)	Sandstone	Jm or K	1
17N.1W.12.220	Ojo del Espirito Santo Grant	ED-R-459 (1955)	Sandstone	Kd	1
18N.2E.13.400	Perry Robb (Soda Dam)	unnumbered (1951)	Hot Springs deposit	Q	1
19N.1W.24.100	San Miguel Mine	unnumbered (1951)	Sandstone	TRc	1
23N.1W.25.221	Sla-Tex Open Pit (Corral #3)	ED-R-610 (1956)	Sandstone	Pa	3
18N.2E.34	Texm Property (Tex-N)	unnumbered (1955)	Sandstone	Pa	3
18N.2E.34	Tex-N	ED-R-609 (1955)	Sandstone	Pa	3
	Unknown-Golden	DEB-RR-467 (1953)	none	-	3
	Unknown-Placitas - 5/13N/5E	DEB-RRA-696 (1953)	none	-	1
	Unknown-Placitas	DEB-RR-465 (1953)	none	-	3
	Unknown-Placitas, Bernalillo	DEB-RR-466 (1953)	none	-	3
17N.1W.25.112, 17N.1W.25.113	Unknown-Ojo del Espirito Santo Grant (Collins, Collier)	ED-R-208 (1953)	Sandstone	Jmb	3
17N.2E.3.400	Unknown-Jemez Springs (Spanish Queen)	unnumbered (1951)	Sandstone	Pa	1
18N.2E.13.200	Unknown-(NE of Soda Dam)	ED-R-608 (1956)	Sandstone	Pa	3
19N.1W.14.233	Unknown-Cuba (Cleary)	ED-R-239 (1953)	Shale/Sandstone	Kd	3
19N.2W.3.340	Unknown-Cuba (Houston)	ED-R-244 (1953)	Sandstone	To	3
20N.1W.1.141	Unknown (Naicmento Mine)	unnumbered (1951)	Sandstone	TRc	1
17N.1W.26	J. Walker No.1	ED-R-475 (1955)	Sandstone	Jmb	3
14N.6E.32, 13N.6E.4,5	Wee Hope and RABAC (We Hope #4)	ASO-132 (1958)	Sandstone	Tg	2(p.125)
12N.4E.3.413	Mimi #4 Claim	DEB-P-4-1444 (1955)			1

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Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
12N.19W.16.300	Adee Bitany Dodge & B. Johnny Tsosie Begay claims (Dodge Begay)	GJEB-R-185 (1952)	Sandstone	Kd	3
23N.19W.5.100	Airborne Anomaly #1 (Dodge Brothers)	ED-R-483 (1955)	Sandstone	Kg	1
24N.19W.7.110	Airborne Anomaly #2 (Dodge Brothers)	ED-R-484 (1955)	Sandstone/Shale	Kg	1
28N.16W.21.114	Airborne Anomaly #3	ED-R-485	Sandstone/Coal	Kpl	1
31N.14W.13	Airborne Anomaly #4	ED-R-431 (1955)	Sandstone/Coal	Kpl	1
30N.16W.32	Airborne Anomaly #5	ED-R-R-449 (1955),	Beach Placer Sandstone	Kpl	1
		ED-R-432 (1955)	none	-	1
30N.16W.10.340	Airborne Anomaly #6	ED-R-445 (1955),	Beach Placer Sandstone	Kpl	1
		ED-R-450 (1955)	none	Kpl	1
31N.16W.24	Airborne Anomaly #7	ED-R-435 (1955)	Beach Placer Sandstone	Kpl	1
31N.15W.30	Airborne Anomaly #8 and #9	ED-R-433 (1955)	Beach Placer Sandstone	Kpl	1
31N.15W.30	Airborne Anomaly #10 and #11	ED-R-434 (1955)	Beach Placer Sandstone	Kpl	1
31N.15W.30	Airborne Anomaly #12	ED-R-436 (1955)	Beach Placer Sandstone	Kpl	1
31N.15W.19.400	Airborne Anomaly #13	ED-R-451 (1955)	Beach Placer Sandstone	Kpl	1
31N.15W.19.400	Airborne Anomaly #14	ED-R-452 (1955)	Beach Placer Sandstone	Kpl	1
31N.15W.19.400	Airborne Anomaly #15	ED-R-453 (1955)	Beach Placer Sandstone	Kpl	1
31N.16W.14	Airborne Anomaly #16,#17,#18	ED-R-437 (1955)	Beach Placer Sandstone	Kpl	1
31N.16W.15	Airborne Anomaly #19 and #20	ED-R-438 (1955)	Beach Placer Sandstone	Kpl	1
31N.16W.3.100	Airborne Anomaly #21	ED-R-473 (1955),	Beach Placer Sandstone	Kpl	1
		ED-R-439 (1955)	Beach Placer Sandstone	Kpl	1
32N.16W.28	Airborne Anomaly #22	ED-R-454 (1955)	Beach Placer Sandstone	Kpl	1
32N.16W.28	Airborne Anomaly #23	ED-R-455 (1955)	Beach Placer Sandstone	Kpl	1
32N.16W.28	Airborne Anomaly #23	ED-R-472 (1955)	Beach Placer Sandstone	Kpl	1
32N.16W.29	Airborne Anomaly #24	ED-R-486 (1955)	Beach Placer Sandstone	Kpl	1
32N.17W.27	Airborne Anomaly #32	ED-R-487 (1955)	Beach Placer Sandstone	Kpl	3
32N.17W.15	Airborne Anomaly #33	ED-R-488 (1955)	Beach Placer Sandstone	Kpl	3
32N.17W.27	Airborne Anomaly #34	ED-R-489 (1955)	Beach Placer Sandstone	Kpl	1
32N.17W.22,27	Airborne Anomaly #35	ED-R-490 (1955)	Beach Placer Sandstone	Kpl	1
31N.16W.15,16	Airborne Anomaly #36	ED-R-440 (1955)	Beach Placer Sandstone	Kpl	1
31N.16W.10	Airborne Anomaly #37	ED-R-441 (1955)			1
28N.17W.13	Airborne Anomaly #46	ED-R-491 (1955)			1
30N.18W.24.300	A.L. Cook	ED-R-482 (1955)	Sandstone River Placer	Recent Gravel Sands	1
25N.20W.6.113	Alfred Talk claim	ED-R-405 (1954)	Sandstone	JMsw	
30N.15W.3.140	Jack Boyd (Boyd)	ED-R-457 (1955)	Sandstone	Kf	1
30N.15W.3.140	Jack Boyd (Boyd)	ED-R-274 (1954)	Sandstone	Kf	3
30N.15W.3.140	Jack Boyd (Boyd)	ED-R-246 (1954)	Sandstone	Kf	3
———	Canyon Number Two (no location given)	CEB-R-56 (1951)	none	-	1
25N.20W.17.114	Carl Yazzie	ED-R-400 (1954)	Sandstone	JMsw	3
25N.20W.17.114	Carl Yazzie Claim	ED-R-401 (1954)	Sandstone	JMsw	3
26N.21.36.444	Castle Tsosie	ED-R-399 (1954)	Sandstone/Shale	Jmr	3
25N.20W.5.214	Deneh Nez (Deneh Nez #1 and 2)	ED-R-35 (1954),	Sandstone	Jmr	3
		ED-R-393 (1954)	Sandstone	Jmr	
25N.20W.5.214	Demet Nezz (Deneh Nez #1 and 2)	D-550 (1953)	Sandstone	Jmr	1
23N.19W.5.100	Dodge Brothers' Prospect	ED-R-429 (1955)	Sandstone	Kg	1
24N.19W.7.110	Dodge Brothers Prospect	ED-R-423 (1955)	Sandstone/Shale	Kg	1
———	Edward Benali (no location given)	GJEB-R-83 (1951)	none	-	1
[illegible]2N.10W.29.100	C.L. Chilton and Sons	ED-R-273 (1954)	Sandstone	Tsj	1
[illegible]0N.16W.15.323	Elmer Davidson (Hogback claim)	ED-R-273 (1954)	Beach Placer Sandstone	Kpl	3
25N.20W.7,8	Enos Johnson Nos. 1 and 2	ED-R-402 (1954)	Sandstone	Jmsw,r	3
25N.20W.7,8	Enos Johnson Nos. 1 and 2	CEB-R-42 (1951)	Sandstone	Jmsw,r	1
25N.20W.18.441	H.B. Roy Claim	ED-R-366 (1954)	Sandstone	Jmr	3
[illegible]0N.16W.15.323	Hogback claims	ED-R-456 (1955)	Beach Placer Sandstone	Kpl	1
25N.20W.8.442	Horace Ben Claim	ED-R-367 (1953)	Sandstone	Jmr	3
———	Hoskey Barton Claim (no location given)	ED-R-260 (1954)	none	-	1
25N.20W.6.141;	Joe Ben No.1 and 2	ED-R-299 (1954)	Sandstone	Jmsw	3
25N.20W.6.231					3
25N.20W.7.131	Joe Ben No.3 (Joe Ben #5)	ED-R-354 (1954)	Sandstone	Jmsw	3
26N.20W.31.334	John Joe (John Joe #2)	ED-R-396 (1954)	Sandstone	Jmsw	3
———	Joe Leichenheit (no location given)	unnumbered (1954)	none	-	3
26N.21W.36.314	David Kee	ED-R-403 (1954)	Sandstone	Jmr	3
26N.20W.31.313	Kee and John claim	ED-R-397 (1954)	Sandstone	Jmr	3
26N.20W.31.313	Kee and John claim	ED-R-398 (1954)	Sandstone	Jmr	3
———	Dr. Lamereaux (30N/15W/4)	FILE COPY (1954)	none	-	3
[illegible]2N.9W.32.300	Lone Star claim	ED-R-501 (1955)	Sandstone	Tsj	3
———	Mr. Mullen	unnumbered FILE COPY (1954)	none	-	3
25N.20W.19.344	Reed Henderson Claim	ED-R-259 (1954)	Limestone	Jt	1
[illegible]0N.21W.24.120	Rocky Flats No.1	unnumbered (1955)	Sandstone	Jmsw	3
27N.21W.35	Rocky Spring	ED-R-229 (1953)	Sandstone	Jmsw	3
26N.19W.31	Sanostee	ED-R-621 (1956)	Beach Placer Sandstone	Kg	3
25N.20W.6.131	Tyler Claim	ED-R-395 (1954)	Limestone	Jt	3
23N.10W.26.322	Unknown prospect near Kimbeto T.P.	ED-R-502 (1955)	Sandstone	To	3
———	Unknown no location given	ED-R-426 (1954)	none	-	3
29N.12W.17	Weillack and Hamilton	unnumbered FILE COPY (1954)	Sandstone	To	3

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Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
17N.16E.31	Anomaly No.1 (Los Vigiles)	ED-R-1132 (1953)	Sandstone	TRc	1
14N.20E.34	Anomaly No.12 (AEC Anomaly No.12)	ED-R-1137 (1953)	Sandstone	TRc	1
17N.14E.14.142	Baker Gulch (Locality #33)	ASO-11 (1954)	Pegmatite	Pd	2(p.126)
17N.24E.31.222	Bish Mineral Claim (Bish #2)	ASO-53 (1955)	Sandstone-tabular	TRc	2(p.131-137)
17N.14E.11.331	Black Nugget No.1	D (1956); ASO-133 (1956)	Orthomagmatic	P€	2(p.148)
———	Bonanza	D-246 (1951)	none	-	1
19N.15E.15	Bryan Ranch	DEB-RRA-1112 (1953)	Pegmatite	P€	3
15N.21E.24	Eloy Estrada	ASO-42 (1955)	Sandstone	Jm	2(p.130-131)
17N.13E.30.223; 17N.23E.28	Faith Mineral Research (High Peak) (Mickie V Claims)	ASO-55 (1954)	Pegmatite	P€	2(p.140-141)

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Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
17N.23E.27,28	Garfield Lester Ranch (AEC Anomaly #3)	DEB-RRA-468 (1953)	Sandstone-tabular	Ꞧc	3
17N.23E.1.444	Gonzales Lease, (Key's claims #1-6)	ASO-43 (1955)	Sandstone-tabular	Ꞧc	2(p.132-133)
17N.13E.30.223	High Peak No.2 claim	DEB-RRA-1423 (1954)	Pegmatite	p€	1
17N.13E.30.223	High Peak	ASO-132 (1956); A (1956)	Pegmatite	p€	2(p.147)
17N.24E.29.142	Hunt Oil Company	DEB-PR-468,469 (1953)	Sandstone-tabular		1
17N.15E.32	Las Vegas Grant	DEB-A-531 (1953)	Pegmatite	p€	1
———	no claim 32/17N/16E	M-958 (1953)	none	-	1
15N.14E.26.432	P. Lopez and Associates (Priest Mine)	ED-R-1141 (1953)	Pegmatite	p€	1
16N.14E.34.144	Lost Creek Claims	ASO-135 (1956)	Hydrothermal-vein	p€	2(p.150)
17N.16E.31	Los Vigiles	ASO-105 (1956)	Sandstone	Kd	2(p.146)
17N.24E.25.211	Charles Lujan Ranch	DEB-RRA-735 (1953)	Sandstone	Ꞧc	1
17N.24E.16.134	Lujan Cattle Company	DEB-A-527 (1953)	Sandstone-tabular	Ꞧc	3
17N.24E.17.141	Frank Lujan (Cip Lujan)	DEB-A-514 (1953)	Sandstone-tabular	Ꞧc	3
17N.25E.19.322	James Lujan Ranch (El Villa Claims)	DEB-RRA-736 (1953)	Sandstone-tabular	Ꞧc	1
17N.24E.8.431	Frank Lujan Ranch (Sabinoso Uranium Corp)	ASO-158, unnumbered (1955)	Sandstone-tabular	Ꞧc	2(p.155)
12N.23E.20	Neafus claims	ASO-56 (1955)	Sandstone	Ꞧc	2(p.138-139)
———	Pecos Mine 24,25/18N/12E	DEB-RRA-1158 (1954)	none	-	1
15N.14E.18	Quintana Claims	ASO-134 (1956)	Pegmatite	p€	2(p.149)
17N.24E.29.142	SAB (Hunt Oil Co.)	ASO-79 (1955)	Sandstone-tabular	Ꞧc	2(p.142-143)
17N.23E.14.441	San Carlos Mining Co. (Windy #9)	ASO-138, no number (1956)	Sandstone-tabular	Ꞧc	2(p.153-154)
12N.24E.31.122	Santa Rosa Uranium Claims (Bookout Ranch)	ASO-99 (1956)	Sandstone	Ꞧc	2(p.144)
12N.25E.5	St. Anne Claims	ASO-39 (1955)	Sandstone	Ꞧc	2(p.128-129)
16N.23E.10,11	T Claims	ASO-31 (1955)	Sandstone-tabular	Ꞧc	2(p.127)
13N.21E.19	Unknown (East Point Mesa Montosa)	DEB-A-513 (1953)	Sandstone	Ꞧc	3
17N.24E.17.141	Unknown (Cip Lujan)	DEB-A-514 (1953)	Sandstone-tabular	Ꞧc	3
12N.17E.23	Unknown (No Name B)	ASO-137 (1953)	Sandstone	Ꞧc	2(p.152)
———	Unknown 13/13N/23E; 16,17,18/13N/24E	DEB-RRA-1107 (1953)	Sandstone	-	1
———	Unknown ?/14N/15E	ED-R-1108 (1953)	none	-	1
17N.24E.29.142	Unknown 4/12N/25E (Hunt Oil Co)	ED-R-1109 (1953)	Sandstone-tabular	Ꞧc	1
17N.23E.28	Unknown (AEC Anomaly No.3)	ED-R-1110 (1953)	Sandstone-tabular	Ꞧc	3
16N.23E.10,11	Unknown - 10/16N/23E (T claims)	ED-R-1112 (1953)	Sandstone-tabular	Ꞧc	1
———	Unknown 1,2/12N/24E; 6/12N/25E; 31/13N/25E; 35,36/13N/24E	DEB-RRA-1125 (1953)	none	-	1
———	Unknown 9,10,15/14N/17E	DEB-RRA-1131 (1953)	none	-	3
12N.17E.24	Unknown (Sowell Ranch)	ED-R-1131 (1953)	Sandstone	-	3
———	Unknown 7,15,29,20,24,29/13N/17E	DEB-RRA-1132 (1953)	none	-	3
———	Unknown (27 or 28/17N/23E) (Anomaly #13)	ASO-136 (195)	none	-	2(p.151)
———	Unknown 31-32/17N/14E	ASO-101 (1955)	none	-	2(P.145)
13N.30E.21; 13N.30E.20	Unknown (Anomaly No.1; Anomaly No.2)	ED-R-1150 (1953)	Sandstone	Ꞧc	1
14N.30E.33; 14N.30E.28	Unknown (Anomaly No.3; Anomaly No.4)	ED-R-1151 (1953)	Sandstone	Ꞧc	1
13N.30E.32; 12N.30E.8; 12N.30E.7; 12N.30E.6	Unknown (Anomaly No.5; Anomaly No.6; Anomaly No.7, Anomaly No.8)	ED-R-1152 (1953)	Sandstone	Ꞧc	1
17N.24E.29.142	Unknown (Hunt Oil Co.)	DEB-RR-469 (1953)	Sandstone-tabular	Ꞧc	3
———	Unknown	ED-R-1140 (1953)	none	-	1
———	Unknown	ED-R-1139 (1953)	none	-	1
———	Unknown ?/13N/14E; ?/14N/14E; ?/15N/14E	DEB-RRA-640 (1953)	none	-	
7N.14E.8.323	Unknown	M-1475 (1954)	Hydrothermal-vein	p€	1
7N.24E.29.142	Unknown (Hunt Oil Co.)	DEB-RR-468 (1953)	Sandstone-tabular	Ꞧc	3
7N.24E.29.142	Unknown (Hunt Oil Co.)	DEB-PR-468,469 (1953)	Sandstone-tabular	Ꞧc	3
7N.23E.14.441	Windy Claims (Windy #9)	ASO-44 (1955)	Sandstone-tabular	Ꞧc	2(p.134-135)

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20N.9E.32.322	Anomaly No.1	ED-R-1549 (1954)	Sandstone	Ts	1
20N.9E.33.411	Anomalies No.2 and 3	ED-R-1550 (1954)	Sandstone	Ts	1
20N.8E.25.111	Anomaly No.4	ED-R-1551 (1954)	Sandstone	Ts	1
20N.9E.13.133	Anomaly No.5	ED-R-1552 (1954)	Sandstone	Ts	1
20N.9E.22.430	Anomalies No.6 and 7	ED-R-1553 (1954)	Sandstone (?)	Ts	1
9N.9E.17.443, 19N.9E.17.434	Anomalies No.8 and 9	ED-R-1554 (1954)	Sandstone	Ts	1
9N.9E.2.442	Anomaly No.10	ED-R-1555 (1954)	Sandstone/Hydrothermal-vein	Ts	1
9N.9E.22,28	Anomalies No.11 and 12	ED-R-1556 (1954)	Sandstone	Ts	1
9N.9E.36.131, 18N.9E.12.134	Anomalies No.13 and 14	ED-R-1557 (1954)	Sandstone	Ts	1
4N.8E.5.424	Cash Entry	DEB-RRA-1185 (1954)	Hydrothermal-vein	Ti	1
20N.9E.23.341	Gilliland Claims	A(1954), ASO-142 (1954)	Sandstone	Ts	2(p.162)
5N.7E.8.230	Hiser-Moore	DEB-RA-1425 (1954) plus 2 supplments (ASO-145)	none	-	1 2(p.165)
———	McCendon	ASO-83 (1955)	none	-	2(p.157)
3N.8E.3, 14N.8E.35	Ortiz Mine Grant	DEB-RRA-1411, (1954)-ASO-143 plus 1 supplement (ASO-144)	none	-	1;2(p.163) 2(p.164)
20N.9E.17.144, 20N.9E.17.344 20N.9E.20.123, 20N.9E.20.144, 20N.9E.20.322, 20N.9E.29.144	Rogers Claims (Rogers, San Jose Claims)	ASO-140 (1954) DAO-P-4-1494 (1954)	Sandstone	Ts	2(p.160) 2(p.166)
20N.10E.7.123	Salmar (Shaw #2)	unnumbered (1957), ASO-139 (1957)	Hydrothermal-vein	Ti	3 2(p.158)
2N.10E.26	Sawyer Ranch	DEB-RRA-1115 (1953)	none	-	1
20N.10E.7.132	Shaw #2 (Marion)	ASO-59 (1955)	Hydrothermal-vein	Ti	2(p.156)
———	Unknown-Golden	DEB-RRA-695 (1953)	none	-	1
———	Unknown-Golden	unnumbered (1953)-ASO-141	none	-	2(p.161)
2N.10E.11, 12N.10E.26	Unknown-Galisteo (Blakely Ranch, Anomaly #3)	ED-R-1263 (1954)	Sandstone	Ꞧc	1
12N.10E.11,	Unknown-San Cristoval Grant	ED-R-1264 (1954)	Sandstone	Ꞧc	1

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Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
12N.10E.26	(Blakely Ranch, Anomaly #3)				
—	Unknown-Carrillos	DEB-RRA-1114 (1953)	none	-	1
—	Unknown-Galisteo	DEB-RRA-1414 (1954)	none	-	1
15N.7E.9.112	Unknown-Alyodones (La Bajada)	DEB-RRA-799 (1953) plus 1 supplement	Hydrothermal-vein	Ti	1
15N.7E.19.421	Unknown-Santae (Anomaly #1)	ED-R-1262 (1954)	Sandstone	Ts	1
	Unknown-Algoones	DEB-RRA-1194,	none	-	1
15N.8E.20.144	Unknown-La Cienega	DEB-RRA-1183 (1954),	Hydrothermal-vein	Ti	1
		DEB-RRA 1184 (1954),	none	-	1
		DEB-RRA-1179 (1954)	none	-	1
15N.8E.21	Unknown-La Cieneya	DEB-RRA-1178 (1954)	Hydrothermal-vein	Ti	1
	Unknown-Canoncito	DEB-RRA-1116 (1953)	none	-	1
15N.11E.6.222	Unknown-Canyoncito (Budagher)	DEB-RRA-1177 (1954)	Limestone	Pc	1
19N.9E.17.443, 19N.9E.17.434	Unknown-Cuyamungue (Anomaly No.8 and 9)	M-1598 (1955)	Sandstone	Ts	1
19N.9E.22,28	Unknown-Pojoaque (Anomaly No.11 and 12)	ED-R-210 (1952)	Sandstone	Ts	3

Sierra County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
—	Alamo, Nakoya Mines, 15,16,22/17S/4W	DEB-RRA-543 (1953)	none	-	
5S.3W.6.321	Alpha No.8 Claim	ASO-69 (1955)	Sandstone	Pa	2(p.176)
4S.4W.15	Blue Jacket Nos.1 and 2	DEB-RRA-1434 (1954)	Hydrothermal-vein	P€	1
—	Bonanza Vein 3,/16S/7W	D-698 (1953)	none	-	1
—	Butler-Garfield Vein	D-697 (1953)	none	-	1
—	Chance Group 36/15S/7W	D-689 (1953)	none	-	1
—	Colosal Mine 32/11S/8W	ASO-4 (1953)	none	-	2(p.169)
7S.9W.35	Coral Snake Claims & Hidden Valley claims	ASO-109 (1956)	Volcanogenic	Ꞧc	2(p.179)
—	Diamond A Ranch 2,11/10S/3W	DEB-RRA-1126 (1953);	none	-	1
	67/12S/2 and 3 W	DEB-RRA-1127 (1953)			1
—	El Oro Group 25/15S/7W	D-691 (1952)	none	-	1
10S.8W.14.200	Empire Group 11,12,13,14/10S/8W (Glory #2 and Empire cliams)	DEB-P-4-1459 (1955)	Hydrothermal-vein/ Sandstone	Pa,Ti	
15S.9W.21	Enchantment claims	ASO-153 (1956); E (1956)	Sandstone	Pa	2(p.187)
15S.3W.18.312	Evans, Davis and Murry (Red Hill claims)	DEB-RRA-1441 (1954)	Sandstone	Pa	1
10S.8W.14.200	Glory No.2 Claim	ASO-100 (1956)	Hydrothermal-vein/ Sandstone	Pa,Ti	2(p.178)
15S.4W.22.300	Granite Wash claim (Unknown)	DEB-RRA-1110 (1953) plus 1 supplement	Vein type	P€	1
—	Iron Mountain Prospects 35/9S/8W, 2/10S/8W	DEB-A-529 (1953)	none	-	
15S.3W.31.342	Joker #1	ASO-152 (1955); F (1955)	Sandstone	Pa	2(p.186)
—	Ladrone Gulch 13/16S/9W	D-686 (1953)	none	-	1
—	Lake Valley Hail mines Inc 21/18S/7W	ASO-9 (1953)	none	-	2(p.172)
10S.5W.5.233	Lookout No.1	DEB-RRA-1157 (1954)	Volcanogenic	Tv	1
—	Lorraine Group 3/17S/4W	DEB-RRA-542 (1953)	none	-	1
15S.9W.13.332	Lost Mine No.2 Claim (Ingersoll)	DEB-P-4-1454 (1955)	Hydrothermal-vein	P€	1
—	Lucky Jack 6/11S/5W	unnumbered (1951)	none	-	1
—	Mineral Creek and Sawpit Canyon 36/15S/9W and 12/16S/9W	D-702 (1953)	none	-	1
16S.4W.29.400	Lydia-K Mine	DEB-RR-451 (1952)	Hydrothermal-vein	P€	
—	Miranda 8/12S/8W	DEB-RRA-1190 (1953)	none	-	1
13S.5W.12	Mitchell-Price Nos.1 & 8	ASO-90 (1955); DEB-P-4-1451 (1955)	Limestone	Mm	1;2(p.177)
11S.7W.6.111	Native No.1	ASO-147 (1954); D (1954)	Sandstone	Pa	2(p.181)
—	OK Mine 17,18/16S/8W	D-696 (1953)	none	-	1
—	Opportunity vein 3/16S/7W	D-700 (1953)	none	-	1
—	Palomas Gap Group 2,11,26,35/14S/4W	DEB-RRA-547 (1953)	none	-	1
17S.4W.27	Paran Claims	DAO-P-4-1501; DAO-P-4-1498 (1955)	Vein-type	Pa,Mm	2(p.191)
17S.4W.27	Paran Hill	ASO-150 (1954); G (1954)	Vein-type	Pa,Mm	2(p.184)
10S.6W.26.233	Pitch blende strike Nos.1-4 (Terry Prospect)	DEB-RR-453 (1952)	Volcanogenic	Tv,Em	1
17S.4W.4.213	Plain View #6 (Sierra)	DEB-RR-451 (1952)	Contact-metasomatic/Anatectic	P€	
—	Protector Mine 13/13S/9	ASO-6(1953)	none	-	2(p.171)
—	Rattlesnake claim 3/16S/7W	D-699 (1953)	none	-	1
—	Ready Pay Gulch 2,3/16S/7W	D-693 (1953)	none	-	1
16S.4W.33.214	Red Rock Claim #1	DAO-P-4-1496 (1954)	Contact-metasomatic/Anatectic	P€	2(p.189)
—	Red Rock No.10	ASO-46 (1955)	none		2(p.175)
3S.7W.1	Red Tiger Claims, Last Chance claim, Alemo Mining	DAO-P-4-1495 (1956)	Sandstone	Pa	2(p.188)
—	Richmond Vein 4/16S/7W	D-701 (1953)	none	-	1
—	Riverside Group 22/14S/4W	ASO-20 (1954)	none	-	2(p.173)
S.7W.31; 12S.7W.9	Sherry No.3 Claim, Good Luck No.1 Claim	DEB-P-4-1450 (1955)	Sandstone	Pa	1
—	Steinberg Group 35/15S/7W	D-690 (1953)	none	-	1
3S.3W.5,6	Treasure U. Co.	unnumbered (1958)	Vein-type in sedimentary rocks		2(p.180)
—	Universal Mine, Oakland Mine, Whiter Star Mine, Tingley Prospect 15,22,14/14S/4	DEB-A-530 (1953)	none	-	
—	Unknown 24/10S/9W	DEB-RRA-1187 (1953)	none	-	1
—	Unknown 31/11S/6W	DEB-RRA-1415 (1954)	none	-	1
—	Unknown ?/11S/9W	ASO-2, ASO-3 (1953)	none	-	2(p.167) (p.168)
2S.7W.18.232	No Name (Chise)	ASO-148 (1954); B (1954)	Sandstone	Pa	2(p.182)
2S.7W.18.232	Unknown (Chise)	ASO-149, A (1954)	Sandstone	Pa	2(p.183)
—	Unknown 23/13S/9	ASO-5 (1953)	none	-	2(p.170)
S.4W.4	Unknown (Walker Claims)	DAO-P-4-1497 (1957)	Hydrothermal-vein	P€	2(p.190)
—	Unknown 36/14S/4W; 1,2,11, 12/15S/14W	DEB-RRA-1129 (1953)	none	-	1
S.3W.29	Unknown	DEB-RRA-1140 (1953)	Sandstone/Shale	Kd	2(p.174)
—	Unknown 21/15S/3W	ASO-21 (1954)	none	-	

Sierra County continued

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
—	Unknown 11/16S/7W	D-688 (1953)	none	-	1
—	Unknown (no location given)	DEB-A-516 (1953)	none	-	
15S.9W.26.100	Virginia Claim	D-687 (1953)	Hydrothermal-vein	P€ or T	1
—	Wicks Vein 2/16S/7W	D-692 (1953)	none	-	1
—	Winsum No.1 and 2 2 or 3/10S/9W	DEB-RRA-1188 (1953)	none	-	1
—	Woodrow Wilson Mine 2/18S/4W	DEB-RRA-544 (1953)	none	-	1
—	Yankee Girl 24/13S/9W	ASO-151 (1953); C (1953)	none	-	2(p.185)
—	Unknown 14/15S/3W	DEB-RRA-1130 (1953)	none	-	1

Socorro County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
1N.6W.24.121	Air Anomales #2 & 3 (Hogsett Hust Henderson Claim)	DEB-RRA 1176 (1954)	Sandstone	To	1
—	A 1 to Mining Claim-14/T2S/R1E	DEB-RRA-1148 (1953)	none	-	1
1N.6W.26	Beall Claims	ASO-15 (1954)	Sandstone	To	2(p.192)
4S.3W.3.330	Big Chief Group	unnumbered (1959)	Hydrothermal-vein	Tv	
2N.8N.6.442	Blue Mesa #1	C (1956)	Sandstone	Kg	2(p.197)
—	Buckeye Mine	DEB-RRA-846 (1953)	none	-	1
1N.2E.22	T.D. Campbell	DEB-P-4-1452 (1953)	Sandstone	Ƭc	1;2(p.201)
1S.2E.1	T.D. Campbell (Marie prospect)	D (1955)	Vein-type		
2N.2W.10,2N.2W.15	Campbell property (Granite Well Group, Rule)	DEB-RRA-1440 (1954)	Hydrothermal-vein	P€,Ts	1
2S.1W.6,7	Carter-Tolliver-Cook claims	DEB-RRA-1410 (1954)	Orthomagmatic	P€	1
—	TB Catron-30/T2S/R3W-Ambrosia, Oak Spring	DEB-RRA-794 (1953)	none	-	1
3N.2W.35.233	Charlie #1-4 (Jeter Mine)	DEB-RRA-1430 (1954)	Vein-type	P€	1
9S.7W.5	Cocar Lease	ASO-62 (1955)	Hydrothermal-vein/Volcanogenic	Tv	2(.198)
—	Colorado-Justice Claim-13,24/T3S/R6W	DEB-RRA-1173 (1954)	none	-	1
2S.4W.19.114	Copper Belt Silver and Mining Co. (Silver Hill prospect)	DEB-RRA-1171 (1954)	Volcanogenic	Tv	1
1N.2W.33	Copper Prospect	DEB-RRA-462 (1954)	Hydrothermal-vein		
8S.5W.14.141	Craig and Dike claims	A (1955)	Volcanogenic	Tv	2(p.199)
—	Diamond A Ranch-25/9S.3W	DEB-RRA-1128 (1953)	none	-	1
2S.1E.26.232	Gonzales (Mines del Chupadera)	RG-5-52 (1951),RG-5-51 (1951)	Vein-type	M	1;2(p.194)
3S.1E.2.241	Gonzales	DEB-A-533 (1950's)	Hydrothermal-vein	P€	
—	Graphic Tunnel, Martin Tunnel, NItt, Waldo, Paschal	DEB-RRA-795 (1953)	none	-	1
—	Hall-Lytton-22,27/3S/3W	DEB-RRA-1155 (1954)	none	-	1
5S.7E.23,24	Harvey Sheep and Cattle Co.	DEB-RRA-762 (1953)	Vein-type in sedientary rocks	P€	1
2S.2E.35.223	Holly Uranium Co. (Lucky Don)	DAO-P-4-1499 (1955)	Vein-type	Ps	2(p.202)
1N.5W.18.114	Hot Shot Mine	DEB-RRA-1406 (1954)	Sandstone	Tb	1
—	Iron Mask-12/3S/4W	DEB-RRA-796 (1953)	none	-	1
3N.2W.35.233	Jeter (Jeter Mine)	ED-R-368 (1954)	Vein-type	P€	
2N.2W.18.422	Juan Torres	ASO-R-368 (1954)	Hydrothermal-vein	P€	2(p.193)
1N.4W.4	King	DEB-RRA-1413 (1954)	Sandstone	Tb	1
1N.4W.15.121	Luciel Claims #1-8	DAO-P-4-1500 (1955	Sandstone	Tb	2(p.203)
—	Lynchburg, Enterprise, Young America	DEB-RRA-792 (1953)	none	-	1
—	Mockingbird, Vindicator	DEB-RRA-793 (1953)	none	-	1
1N.6W.2.300	Nicolls-Higgins-Jones	ASO-53 (1955)	Sandstone	Tb	2(p.196)
2N.4E.21	Parker Ranch	ASO-56 (1955)	Sandstone	Pa	2(p.215)
—	Pleasant View, Jack Frost, Pennsylvania	DEB-RRA-1175 (1954)	none	-	1
1N.4E.4,9	Rayo and Scholle (Rayo Hills)	DEB-RRA-1407 (1954)	Sandstone	Tb	1
1N.6W.26	Rusty Atoms	RG-7-51 (1951)	Sandstone	Pa	1
1S.2W.2.211	San Acacia Copper Mine	ASO-13 (1955)	Hydrothermal-vein	Tv	2(p.200)
—	Sleeper, Kelly, and Germany mines	DEB-RRA-798 (1953)	none	-	1
—	Woodland, Cavern, and Grand Lodge	DEB-RRA-797 (1953)	none	-	1
—	Unknown-1/1N/1E	DEB-RRA-1150 (1953)	none	-	
1N.2W.33	Unknown (Copper Prospect)	DEB-RRA-462 (1953)	Hydrothermal-vein	Tr	1
1N.5W.7.133	Unknown (Anomaly #5)	ED-R-1260 (1954)	Sandstone	Kc	1
1N.6W.13.344; 1N.6W.24.121	Unknown (Hook Ranch Deposit; Hogsett, Hust, Henderson)	ED-R-1261 (1954)	Sandstone	Tb	1
1N.6W.24.121	Unknown (Hogsett, Hust, Henderson Claim)	DEB-RRA-1154 (1954)	Sandstone	Tb	1
1S.2W.10.400	Unknown (Shaft)	D-240 (1951)	Volcanogenic	Tp	1
1S.5W.9,10	Unknown (Council Rock)	DEB-RRA-800 (1953) plus supplement	Volcanogenic	Tv	1
1S.5W.3,4	Unknown	DEB-RRA-845 (1953)	Sandstone	Kc	1
2N.2E.12	Unknown (Black Butte)	DEB-RRA-1412 (1954)	Volcanogenic	Tv	1
2N.5E.4.314	Unknown-Scholle	RG-2-51 (1951)	Sandstone	Pa	1
3S.5W.6.311	Unknown (Sixty Prospect)	DEB-RRA-1174 (1954)	Volcanogenic	Tv	1
4S.1W.20.211	Unknown (Luis Lopez)	DEB-RRA-1161 (1953)	Hydrothermal-vein	Tv	1
—	Unknown-9,10,17,21/5S/2E	DEB-RRA-1156 (1954)	none	-	1
5S.6E.16	Unknown	DEB-RRA-1108 (1953)	Sandstone	Pa	1
6S.6W.1.444	Unknown (Rosedale Mine)	DEB-RRA-1172 (1954)	Volcanogenic	Tv	1

Taos County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
30N.15E.7.311, 30N.15E.18	Baldy Peak, Billy Goat, and Latir	ASO-104 (1956)	Hydrothermal-vein	P€	2(p.212)
23N.11E.30	Blue Feather Claims	ASO-41 (1955)	Pegmatite	P€	2(p.208)
28N.15E.30.200	Black Copper Group	ASO-91 (1955)	Hydrothermal-vein	P€	2(p.211)
23N.11E.20	Copper Hill Claims	ASO-68 (1955)	Hydrothermal-vein	P€	2(p.210)
23N.11E.29	Harding Mine	DEB-RRA-1428 (1954)	Pegmatite	P€	1
—	Questa Mine	unnumbered (1951)	none	-	1
27N.13E.28	San Antonio Claims	ASO-48 (1955)	Pegmatite	P€	2(p.209)
—	Show Me Mine	ASO-22 (1954)	none	-	2(p.205)
—	Twining Mine	ASO-23 (1954)	none	-	2(p.206)
—	Unknown-32/29N/14E	M-1485 (1954)	none	-	1
29N.15E.21	Unknown (Bitter Creek)	DAO-P-4-1498 (1954)	Pegatite	Ti	2(p.213)
—	Unknown-Memphis, Independance, Midnight,	ASO-24 (1954)	none	-	3

Taos County continued

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
	Anchor Mines				
30N.15E.7.143	Unknown-Billy Goat Pegmatites	DEB-RRA-1429 (1954)	Pegmatite	Ti	1
	Unknown-16/23N/10E	ASO-19 (1954)	none		2(p.204)

Torrance County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
3N.5E.23.111	Abo Mining Claims	DEB-RR-1401 (1954)	Sandstone	Pa	1
———	Jim Arnett Pros	plus 1 supplement			
2N.5E.3.414	Tom Arnett Prospect (Abo Mine)	RG-1-51 (1951)	Sandstone	Pa	1
7N.12E.28,29	Consolidated Gas and Mining Co.	ASO-82 (1955)	Hydrothermal-vein	P€	2(p.217)
4N.5E.28.110	Copper Girl #1-6	A	Sandstone	Pa	2(p.218)
5N.5E.34	McCandless Prospect	ASO-32 (1955)	Sandstone	Pa	2(p.214)
3N.5E.15.423	Miner's Dream,McTerry Mine, Thelma-Ann Claim (Thelma)	DEB-RRA-568 (1953)	Sandstone	Pa	3
———	Old Abo Claims	ASO-52 (1955)	Sandstone	Pa	2(p.195)
3N.5E.15.441	Pioneer	DEB-RR-464 (1953)	Sandstone	Pa	3
2N.5E.3.414	Prospect #17 (Abo Mine)	unnumbered (1953)	Sandstone	Pa	3
3N.5E.15.233	Rattlesnake #1-4	DEB-RRA-1180 (1954)	Sandstone	Pa	1
2N.5E.3.414	Scholle deposit (Abo Mine)	ASO-157 (1953)	Sandstone	Pa	2(p.219)
3N.5E.23.111	Unknown (Abo Mining Claims)	DEB-RRA-569 (1955)	Sandstone	Pa	3
3N.5E.10.312	Unknown (Scholle-1)	RG-6-51 (1951)	Sandstone	Pa	1
———	Unknown	unnumbered (1951)	none		1
2N.5E.3.414	Unknown (Abo Mine)	D-245 (1951)	Sandstone	Pa	1

Union County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
32N.36E.32.432	Folsom, Black Mesa area	DEB-RRA-546 (1953)	Limestone	Jm	3
22N.33E.28	Smithson Ranch	ASO-102 (1956)	Limestone	Jm	2(p.221)

Valencia County

Occurrence Number	Property Name (Occurrence Name)	PRR Number (year)	Classification	Host	Ref.
———	Casa Colorado Grant-Westpile Cattle Co.-23/4N/4E	DEB-RRA-847 (1953)	none		1
3N.5E.33.431	Colonel Pritchard Claim (Abo Milling and Manufacture Co.)	RG-4-51 (1951)	Sandstone	Pa	1

Appendix 6

Bibliographies and mapping indexes used for compilation of the bibliography in Appendix 4

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