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Resource Map 14

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Resource Map 14 introduces the principal mineral and energy resources of New Mexico and identifies and locates the active mines and mineral processing plants in the state. This resource map, a revision of New Mexico Bureau of Mines and Mineral Resources Resource Map 9 (Siemers and Austin, 1979). comprises two maps and a text that includes explanatory material and a set of directories to the active mines and plants. The data for Resource Map 14 are maintained in and manipulated by MINES-CREF, a PASCAL computer code of the New Mexico Bureau of Mines and Mineral Resources, described by Lloyd and Logsdon (1982).

Maps

Plate A, reproduced on the facing page, is a small-scale (approximately 1:3,500,000) map showing New Mexico's principal energy and mineral resources, exclusive of sand, gravel, and common rocks suitable only for crushedrock aggregate. A list of sand, gravel, and crushed-rock aggregate operations is given annually in the report of the State Mine Inspector, and a brief description of the geologic occurrence of sand and gravel is given in Austin and others (1982). Plate A was compiled from information in Arnold and Hill (1980, 1981a, 1981b); Austin and others (1982); Dane and Bachman (1965); Foster (1980); Kottlowski (1962); Lindgren and others (1910); Logsdon (1982); McAnulty (1978); McLemore (1981); U.S. Geological Survey and others (1965; 1981); Williams and others (1964); and from personal communications with numerous colleagues. The map shows only areas of significant production or of significant geologic potential.

Plate B (available as a blue-line copy) is a location map of active mines and processing plants; locations are plotted on a 1:1,000,000 base map that shows counties, major cities, and the New Mexico land grid. This base map also will be used for the forthcoming New Mexico Geological Society state geological highway map, with which plate B could be used conveniently by those who wish to examine the relationship between mineral deposits and geology. Raw material extraction sites, including all mines, pits, and quarries, are represented on the map by an asterisk (*) at each location; processing plants are represented by a cross (+). In each case the site is numbered within each county for easy reference to the directories.

Plate A is designed to be useful with or without plate B and the directories. Consequently, plates A and B can be purchased separately from one another or from the directories. Plate B will be kept updated, and blueline copies will be provided to those who order a copy.

Directories

The text includes eight directories, each of which is arranged alphabetically and crossreferenced to plate B:

1) county directory-all active mines and processing plants in New Mexico;

2) base metal directory-active copper, iron, lead, molybdenum, and zinc operations;

3) rock products directory-active clay, gypsum, limestone, mica, silica, and stone operations:

4) coal directory-active coal operations;

5) precious metals directory-active gold and silver operations;

6) lightweight aggregate directory-active perlite, pumice, and scoria operations;

7) potash directory-active potash and salt operations:

8) uranium directory-active uranium operations.

In each directory data are presented in the following format:

FORMAT	EXAMPLE
Name of operation	AMAX
Location (section-township-	
range)	9-19S-30E
Name of company	AMAX Chemical
	Corp.
Mailing address	P.O. Box 279
City, state, zip code, telephone	Carlsbad, NM
	88220
	505/885-3157
County and plate B code	Eddy #1
Capacity	9,200 tpd
Commodities mined or	
processed	Potash

Processing plants always include a key word (plant, mill, refinery, smelter) in the name of the operation to distinguish them from the mine with which they are associated. In the example, AMAX is a mine, but AMAX mill would be the AMAX Chemical Company's processing plant that serves the AMAX mine. Where an operation does not have an official name, it is named for the operating company.

Locations of operations are given by section, township, and range; 9-19S-30E in the example represents sec. 9, T. 19 S., R. 30 E. In plotting locations on plate B, small adjustments were made to prevent overlap of symbols. With the exception of coal mines, for those operations that occur in more than one section, the operation is plotted in the section which is of most interest, typically the section where the main shafts or administrative offices are located. Coal mines are plotted in the middle section of the lease.

The complete mailing address and telephone number are those of the office to which all inquiries concerning the operation should be addressed

In each county, mines and processing plants are numbered to correspond to the numbered symbols on plate B. For example, the AMAX mine is plotted in Eddy County as (*1), and the AMAX mill is plotted as (+2), adjacent to (*1).

Mine and plant capacities are reported in various units of weight or volume per various units of time. The figures represent rated capacity of operation and do not necessarily reflect current production or processing rates. Because of the current economic difficulties of

the uranium industry in New Mexico, which require some mines to produce only from mine-dewatering operations and other major producers to remain on standby. I have chosen to include only operating status for uranium mines. Thus, uranium mines are listed as active, standby, or development. These ratings are subject to rapid economic fluctuations. and users are cautioned to contact the companies directly if the need arises for data more recent than the date of the last update listed at the top of the directory.

The commodities produced or processed are cross-referenced between directories. For example, porphyry copper deposits, such as Chino, Copper Flat, and Tyrone, typically include gold and silver, as well as copper and molybdenum. Consequently, these deposits are listed in both the base metal directory and the precious metal directory. Directories may be ordered singly or in any desired combination

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References

- Arnold, E. C., and Hill, J. M., 1980, New Mexico's energy resources '79: New Mexico Bureau of Mines and Mineral Resources, Circ. 172, 55 p.
- 1981a, New Mexico's energy resources '80: New Mexico Bureau of Mines and Mineral Resources. Circ. 181, 59 p.
- -, 1981b, New Mexico's energy resources '81: Annual report of the Bureau of Geology in the Mining and Minerals Division of the New Mexico Energy and Minerals Dept., 62 p.
- Austin, G.S., Kottlowski, F. E., and Siemers, W. T., 1982, Industrial minerals of New Mexico in 1981, in Industrial rocks and minerals of the Southwest, G. S. Austin, ed.: New Mexico Bureau of Mines and Mineral Resources, Circ. 182, p. 9-16
- Dane, C. H., and Bachman, G. O., 1965, Geologic map of New Mexico: U.S. Geological Survey, scale 1:500,000
- Foster, R. W., 1980, Carbon dioxide-sources and use for enhanced oil recovery: Petroleum Recovery Research Center, New Mexico Institute of Mining and Technology, Petroleum Research and Recovery Center Rept. 80-4, 73
- Kottlowski, F. E., 1962, Reconnaissance of commercial high-calcium limestones in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Circ. 60, 77 p.
- Lindgren, Waldemar, Graton, L. C., and Gordon, C. H., 1910, The ore deposits of New Mexico: U.S. Geological Survey, Prof. Paper 68, 361 p.



- Lloyd, Paul, and Logsdon, M. J., 1982, MINES-CREF, a PASCAL computer code to maintain and manipulate the list of active mines and processing plants in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Rept. 168, 70 p.
- Logsdon, M. J., 1982, Gypsum resources of New Mexico, in Industrial rocks and minerals of the Southwest, G. S. Austin, ed.: New Mexico Bureau of Mines and Mineral Resources, Circ. 182, p. 43-48
- McAnulty, W. N., 1978, Fluorspar in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Mem. 34, 61 p.
- McLemore, V. T., 1981, Uranium resources in New Mexico-discussion of the NURE program: New Mexico Geology, v. 3, no. 4, p. 54-58
- Siemers, W. T., and Austin, G. S., 1979, Mines, processing plants, and power plants in New Mexico: New Mexico Bureau of Mines and Mineral Resources, Resource Map 9, 25 p.
- U.S. Geological Survey and others, 1965, Mineral and water resources of New Mexico: New Mexico Bureau of Mines and Mineral Resources, Bull. 87, 437 p.
- , 1981, Energy resources map of New Mexico: U.S. Geological Survey, Miscellaneous Investigations Series MI-1327
- Williams, F. E., Fillo, P. V., and Bloom, P. A., 1964, Barite deposits of New Mexico: New Mexico Bureau of Mines and Mineral Resources, Circ. 76, 46 p.