


1988

Mineral Yearbook of Nebraska-1988

Leon E. Esparza

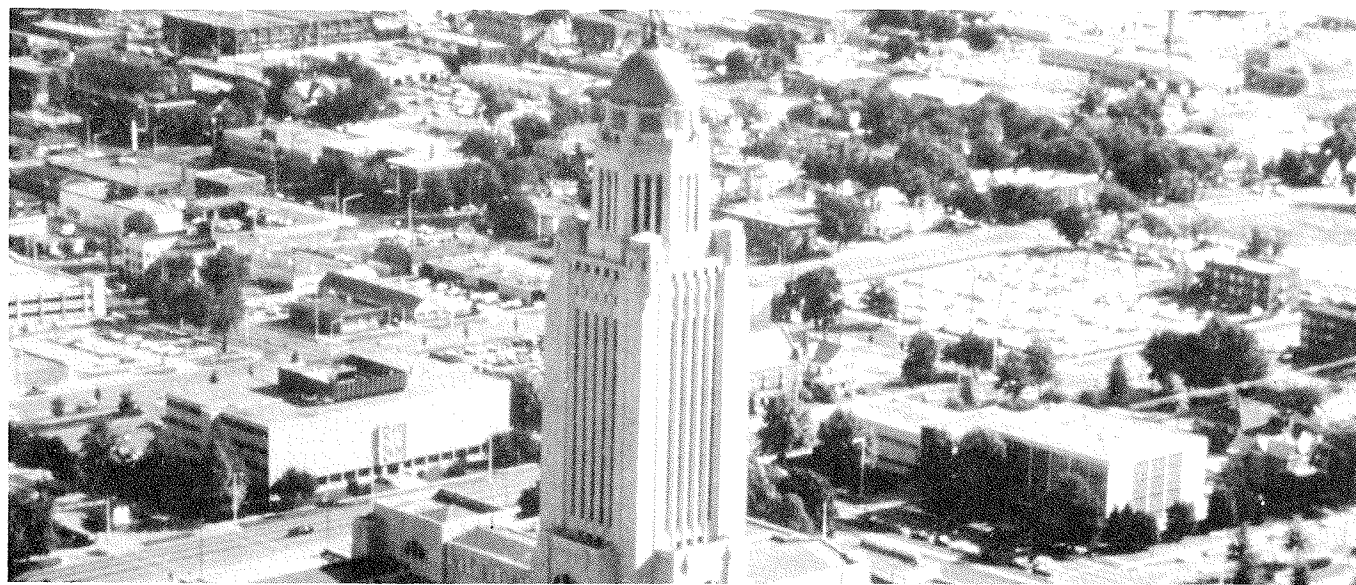
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NEBRASKA

By Leon E. Esparza and Raymond R. Burchett

1988

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

NEBRASKA



U.S.
DEPARTMENT
OF THE
INTERIOR

Manuel Lujan, Jr.
Secretary



BUREAU OF
MINES

T S Ary
Director

1988

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Centerfold Map

Principal Mineral-Producing Localities in Nebraska

COVER PHOTO:
The Nebraska Capitol Building in Lincoln symbolizes the cooperative working relationship between the U.S. Bureau of Mines and the mineral agencies of the State. (Photo is courtesy of the Nebraska Department of Economic Development.)

THE MINERAL INDUSTRY OF NEBRASKA

This chapter has been prepared under a Memorandum of Understanding between the Bureau of Mines, U.S. Department of the Interior, and the Conservation and Survey Division of the University of Nebraska (Nebraska Geological Survey) for collecting information on all nonfuel minerals.

By Leon E. Esparza¹ and Raymond R. Burchett²

Nebraska's 1988 nonfuel mineral production value increased about 2% over that of 1987 to \$91.2 million, thus reversing a 2-year slide. Increases in production and value of clays, construction and industrial sand and gravel, and crushed stone accounted for the higher State value. Nebraska ranked 43d in the Nation in production of nonfuel minerals.

Most of the State's nonfuel minerals were used in construction. A total of 5,739 residential units authorized in 1988, according to the U.S. Department of Commerce, was up from 4,902 permits issued in 1987. Nonresidential construction value increased 14% to a total of \$301.5 million. Awards for State road contracts increased 69% over 1987 figures to \$268 million.³

Mining employment decreased by 8% and totaled 1,582 jobs, according to the Nebraska Department of Labor.

LEGISLATION AND GOVERNMENT PROGRAMS

In November, Nebraska voters decided overwhelmingly to keep the State in the Central Interstate Low Level Radioactive Waste Compact. The Compact is composed of five States: Arkansas, Kansas,

Louisiana, Nebraska, and Oklahoma. At issue on the November ballot was withdrawal of the State from the siting process for a low-level radioactive waste disposal facility. In 1987, members of the Compact chose Nebraska as the host for the first disposal facility. By order of the U.S. Congress, the Compact was to have a disposal site in operation by January 1, 1993. U.S. Ecology, a unit of American Ecology Corp., was selected as the project contractor. The company was instructed to select three Nebraska locations for further study for a 300-acre disposal site by January 1, 1989. A final site was to be selected by U.S. Ecology in January 1990, after extensive geological studies. The hotly debated ballot issue attracted nationwide interest as concern grew about potential impacts on siting controversies in other regions throughout the Nation.

REVIEW BY NONFUEL MINERAL COMMODITIES

Industrial Minerals

In 1988, Nebraska had 28 limestone quarries; 641 sand, gravel, and silt or siltstone pits; 7 clay or shale pits; and 18 sandstone pits. These 694 active mining operations disturbed 454 acres and reclaimed 208 acres during the year.⁴

Cement.—Production of both masonry and portland cement increased over 1987 figures; however, total value declined for both products because of lower unit sales prices. Value of cement produced in Nebraska accounted for nearly one-half of the total nonfuel mineral value.

Clays.—Production and value of clays increased about 6% and 9%, respectively. The production by four companies from five pits in five counties was used mostly in brick manufacturing.

Lime.—The quantity of lime sold or used decreased 13%, and its value decreased about 60%. Western Sugar Co. shipped limestone from its quarries in Wyoming to plants in Morrill and Scotts Bluff Counties for conversion to quicklime for use in sugar refining.

Sand and Gravel.—Construction.—Construction sand and gravel production is surveyed by the U.S. Bureau of Mines for even-numbered years only; data for odd-numbered years are based on annual company estimates. This chapter contains actual data for 1986 and 1988 and estimates for 1987.

For some States, construction sand and gravel statistics are compiled by districts. Table 3 presents end-use data for this commodity in Nebraska as

TABLE 1
NONFUEL MINERAL PRODUCTION IN NEBRASKA¹

Mineral		1986		1987		1988	
		Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays	short tons	221,153	\$668	223,728	\$721	237,459	\$786
Gem stones		NA	10	NA	10	NA	10
Sand and gravel (construction)	thousand short tons	9,675	23,912	^e 10,300	^e 26,300	11,229	28,928
Stone (crushed)	do.	^e 4,000	^e 17,900	4,316	19,461	^e 4,900	^e 22,000
Combined value of cement, lime, and sand and gravel (industrial)		XX	51,598	XX	43,256	XX	39,468
Total		XX	94,088	XX	89,748	XX	91,192

^e Estimated. NA Not available. XX Not applicable.

¹ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

depicted in the centerfold map.

Construction sand and gravel accounted for about 32% of the State's total value of nonfuel mineral production. Compared with figures estimated for 1987, production and attendant value increased about 9% and 10%, respectively.

Overland Sand & Gravel Co. won first place in Class F competition in the 1988 National Aggregates Association Annual Safety Contest. Class F competition was for operations producing 60,000 tons or less per year. Factors considered in judging included tons produced, total worker hours, and number of accidents. Overland has operations in Merrick, Polk, and York Counties.

Industrial.—Western Sand & Gravel Co., the State's sole producer of industrial sand, operated one pit in Saunders County. Production was sold for cement manufacture, filtration, sand-blasting, and traction.

Stone.—Stone production is surveyed by the U.S. Bureau of Mines for

TABLE 2
NEBRASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1988, BY MAJOR USE CATEGORY

Use	Quantity (thousand short tons)	Value (thousands)	Value per ton
Concrete aggregates (including concrete sand)	1,480	\$3,912	\$2.64
Plaster and gunite sands	60	153	2.55
Concrete products (blocks, brick, pipe, decorative, etc.)	94	271	2.88
Asphaltic concrete aggregates and other bituminous mixtures	738	1,956	2.65
Road base and coverings ¹	3,033	7,765	2.56
Fill	443	1,010	2.28
Snow and ice control	56	140	2.50
Other	60	259	4.32
Unspecified: ²			
Actual	471	1,450	3.08
Estimated	4,793	12,012	2.51
Total or average	³ 11,229	28,928	2.58

¹ Includes road and other stabilization (cement and lime).

² Includes production reported without a breakdown by end use and estimates for nonrespondents.

³ Data do not add to total shown because of independent rounding.

TABLE 3
NEBRASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN 1988, BY USE AND DISTRICT

(Thousand short tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates (including concrete sand)	335	674	461	1,080	683	2,159
Plaster and gunite sands	10	34	30	68	20	51
Concrete products (blocks, brick, etc.)	8	18	W	W	W	W
Asphaltic concrete aggregates and other bituminous mixtures	382	1,059	239	602	118	296
Road base and coverings ¹	1,681	3,973	978	2,796	374	995
Fill	99	220	214	443	130	347
Snow and ice control	25	60	18	51	12	29
Other miscellaneous	42	194	23	51	82	266
Other unspecified ²	703	1,544	1,577	3,880	2,985	8,038
Total³	3,284	7,775	3,540	8,971	4,404	12,182

W Withheld to avoid disclosing company proprietary data; included with "Other miscellaneous."

¹ Includes sand and gravel for road and other stabilization (cement and lime).

² Includes production reported without a breakdown by end use and estimates for nonrespondents.

³ Data may not add to totals shown because of independent rounding.

odd-numbered years only; data for even-numbered years are based on annual company estimates. This chapter contains estimates for 1986 and 1988 and actual data for 1987.

Metals

Ferret Exploration Co. of Nebraska Inc. continued construction of its Crow Butte uranium in situ leach project near Crawford. Full startup of the project was expected by late 1989 or early 1990

with an initial annual production rate of 500,000 pounds of uranium oxide.

Antimony oxide, bismuth, and lead were processed from lead bullion by ASARCO Incorporated at its Omaha refinery. The bullion was supplied from company smelters at Glover, MO, and East Helena, MT. Defined capacity of the Omaha refinery is 156,000 short tons per year. During 1988, the refinery operated at 47% of defined capacity and processed 73,500 short tons of lead bullion.⁵

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³ Highway and Heavy Construction Magazine. Highways: New State Revenue Cushions Falling Federal Aid. June 1988, p. 34.

⁴ Burchett, R. R., and D. A. Eversoll. Nebraska Mineral Operations Review, 1988. Nebraska Geol. Survey, Conserv. and Survey Div., Inst. of Agriculture and Nat. Resour., The Univ. of Nebraska, Lincoln, NE, 15 pp.

⁵ ASARCO Incorporated 1988 Annual Report. 17 pp.

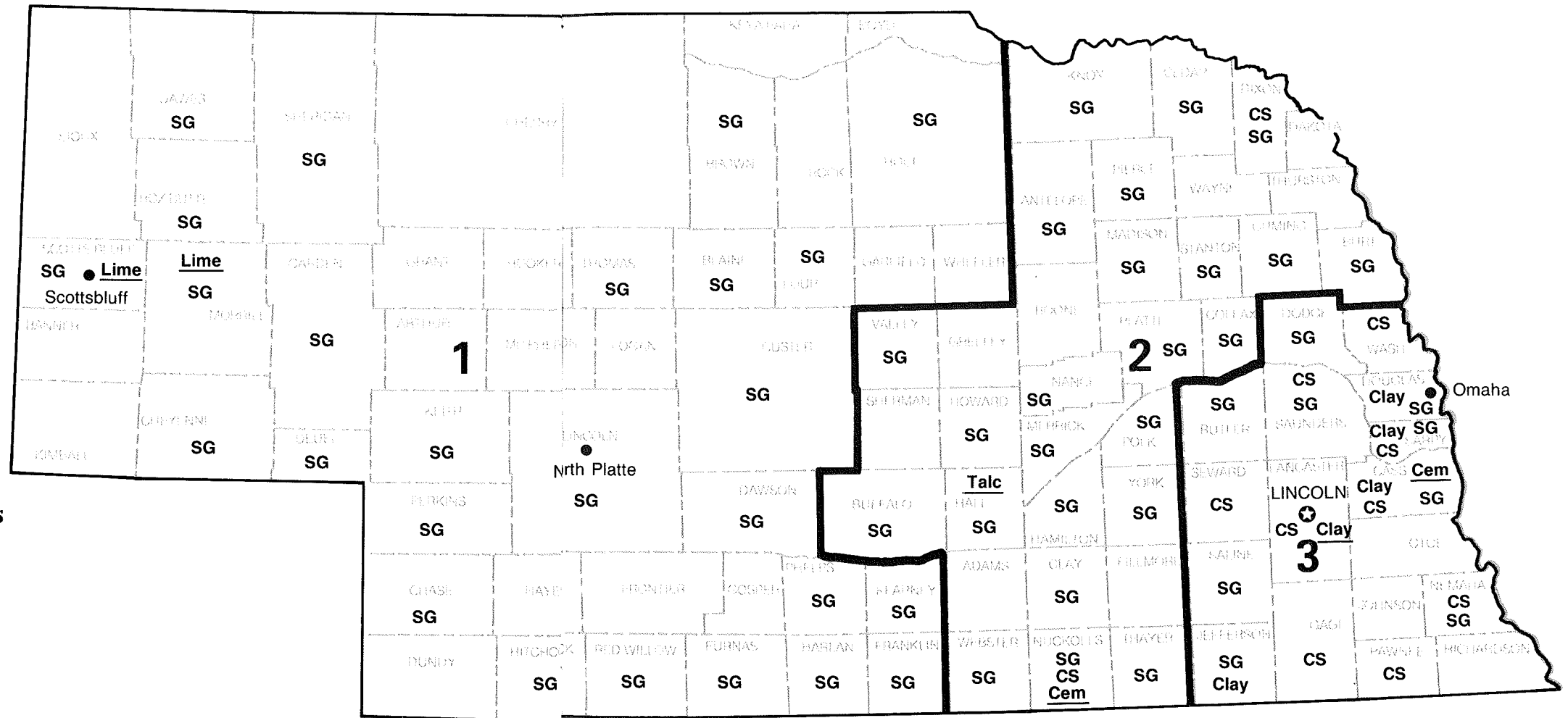
NEBRASKA

LEGEND

- State boundary
- - - County boundary
- ★ Capital
- City
- ▬ Waterway
- ▬ Crushed stone/sand & gravel districts

MINERAL SYMBOLS

- Cem Cement plant
- Clay Clay
- Clay Clay products
- CS Crushed Stone
- Lime Lime plant
- SG Sand and Gravel
- Talc Talc plant



Principal Mineral-Producing Localities

MINERAL-RELATED GOVERNMENT AGENCIES

TABLE 4
PRINCIPAL PRODUCERS

Commodity and company	Address	Type of activity	County
Cement:			
Ash Grove Cement Co.	Box 25900 Overland Park, KS 66225	Quarry, clay pit, plant	Cass.
Ideal Basic Industries Inc., a subsidiary of Holderbank Financiers Glaris SA.	Box 8789 Denver, CO 80201	Stockpile shipments	Nuckolls.
Clays:			
Endicott Clay Products Co.	Box 17 Fairbury, NE 68352	Pit and plant	Jefferson.
Yankee Hill Brick Manufacturing Co.	Route 1 Lincoln, NE 68502	do.	Lancaster.
Lime:			
Western Sugar Co.	Anaconda Towers, Suite 1400 555 17th St. Denver, CO 80202	Plants	Morrill and Scotts Bluff.
Sand and gravel (construction):			
Central Paving Sand & Gravel Co. Inc.	Box 626 Columbus, NE 68601	Pits and plants	Butler, Madison, Nance, Platte, Stanton.
Hartford Sand & Gravel Co.	Box Z Valley, NE 68064	Dredges and pits	Douglas and Hall.
Lyman-Richey Sand & Gravel Corp.	4315 Cuming St. Omaha, NE 68131	Pits and plants	Cass, Douglas, Platte, Saunders.
Western Sand & Gravel Co. ¹	Box 28 Ashland, NE 68003	Dredges and pits	Cass, Dodge, Saunders.
Stone (crushed, 1987):			
Fort Calhoun Stone Co.	1255 South St. Blair, NE 68008	Quarries and plants	Washington.
Kerford Limestone Co.	Box 449 Weeping Water, NE 68463	Quarry and plant	Cass.
Martin Marietta Aggregates, Central Div.	Box 30013 Raleigh, NC 27622	Quarries and plants	Cass, Nemaha, Nuckolls, Pawnee, Saunders.
Vermiculite (exfoliated):			
W. R. Grace & Co.	62 Whittemore Ave. Cambridge, MA 02140	Plant	Douglas.

¹ Also industrial sand in Saunders County.

FEDERAL

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