

# The Mineral Industry of New Jersey

This chapter has been prepared under a Memorandum of Understanding between the Bureau of Mines, U.S. Department of the Interior, and the New Jersey Division of Natural Resources, Bureau of Geology and Topography, for collecting information on all nonfuel minerals.

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The value of New Jersey's mineral production totaled \$128 million in 1978 and \$152 million in 1979. The three main minerals, in terms of value, were sand and gravel, stone, and zinc, which accounted for nearly

90% of the State's total mineral value in 1978. Leading counties, in value of mineral production, were Camden, Cumberland, Morris, Passaic, Somerset, and Sussex.

Table 1.—Nonfuel mineral production in New Jersey<sup>1</sup>

Mineral	1977		1978		1979	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays ----- thousand short tons...	68	\$374	68	\$376	67	\$559
Gem stones -----	NA	17	NA	1	NA	1
Lime ----- thousand short tons...	W	W	17	787	W	W
Peat ----- do. ....	30	769	24	568	23	549
Sand and gravel ----- do. ....	9,697	29,327	10,430	40,840	10,731	44,682
Stone, crushed <sup>2</sup> ----- do. ....	12,993	46,621	13,192	50,181	13,950	63,174
Zinc (recoverable content of ores, etc.) metric tons...	30,358	23,024	28,915	19,761	31,118	25,589
Combined value of iron ore (1977-78), magnesium compounds, marl (greensand), stone (dimension), titanium concentrate (ilmenite), and values indicated by symbol W ---	XX	16,928	XX	15,342	XX	17,135
Total -----	XX	117,060	XX	127,856	XX	151,689

NA Not available. W Withheld to avoid disclosing company proprietary data; value included in "Combined value" figure. XX Not applicable.

<sup>1</sup>Production as measured by mine shipments, sale, or marketable production (including consumption by producers).  
<sup>2</sup>Excludes dimension stone; value included in "Combined value" figure.

Table 2.—Value of nonfuel mineral production in New Jersey, by county<sup>1</sup>

(Thousands)

County	1977	1978	Minerals produced in 1978 in order of value
Atlantic	W	\$594	Sand and gravel.
Bergen	W	W	Do.
Burlington	W	757	Do.
Camden	\$1,983	2,841	Do.
Cape May	W	W	Magnesium compounds, sand and gravel.
Cumberland	W	W	Sand and gravel, clays.
Essex	W	W	Stone.
Gloucester	W	W	Greensand marl, sand and gravel.
Hudson	W	W	Stone.
Hunterdon	W	W	Do.
Mercer	W	W	Do.
Middlesex	W	W	Sand and gravel, clays.
Monmouth	464	472	Sand and gravel.
Morris	W	W	Sand and gravel, stone, iron ore.
Ocean	W	W	Ilmenite, sand and gravel.
Passaic	6,530	7,173	Stone, sand and gravel.
Somerset	19,096	20,826	Stone, clays.
Sussex	W	W	Zinc, stone, sand and gravel, lime, peat.
Union	W	1,527	Stone.
Warren	W	W	Sand and gravel, stone, peat.
Undistributed <sup>2</sup>	88,987	93,664	
Total	117,060	<sup>3</sup> 127,856	

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

<sup>1</sup>Salem County is not listed because no nonfuel mineral production was reported.<sup>2</sup>Includes gem stones and values indicated by symbol W.<sup>3</sup>Data do not add to total shown because of independent rounding.

Table 3.—Indicators of New Jersey business activity

	1977	1978 <sup>P</sup>	1979 <sup>P</sup>	1978-79 percent change
Employment and labor force, annual average:				
Total civilian labor force	3,367.0	3,425.0	3,538.0	+3.0
Unemployment	316.0	246.0	245.0	-.4
Employment (nonagricultural):				
Mining	2.9	2.5	NA	--
Manufacturing	767.7	789.2	NA	--
Contract construction	94.5	106.7	NA	--
Transportation and public utilities	178.2	188.6	NA	--
Wholesale and retail trade	637.1	665.1	NA	--
Finance, insurance, real estate	142.9	148.3	NA	--
Services	514.0	545.7	NA	--
Government	503.2	521.9	NA	--
Total nonagricultural employment	<sup>1</sup> 2,840.6	2,968.0	NA	--
Personal income:				
Total	\$58,112	\$64,297	\$71,135	+10.6
Per capita	\$7,920	\$8,775	\$9,702	+10.6
Construction activity:				
Number of private and public residential units authorized	34,665	<sup>2</sup> 38,163	35,137	-7.9
Value of nonresidential construction	\$476.1	\$622.3	\$656.2	+5.4
Value of State road contract awards	\$250.0	\$128.0	\$133.4	+4.2
Shipments of portland and masonry cement to and within the State	1,391	1,762	1,796	+1.9
Nonfuel mineral production value:				
Total crude mineral value	\$117.1	\$127.9	\$151.7	+18.6
Value per capita, resident population	\$16	\$17	\$21	+23.5
Value per square mile	\$14,939	\$16,316	\$19,358	+18.6

<sup>P</sup>Preliminary. NA Not available.<sup>1</sup>Data do not add to total shown because of independent rounding.<sup>2</sup>Series revised in 1978; data not comparable with those of prior years.

Sources: U.S. Department of Commerce, U.S. Department of Labor, Highway and Heavy Construction Magazine, and U.S. Bureau of Mines.

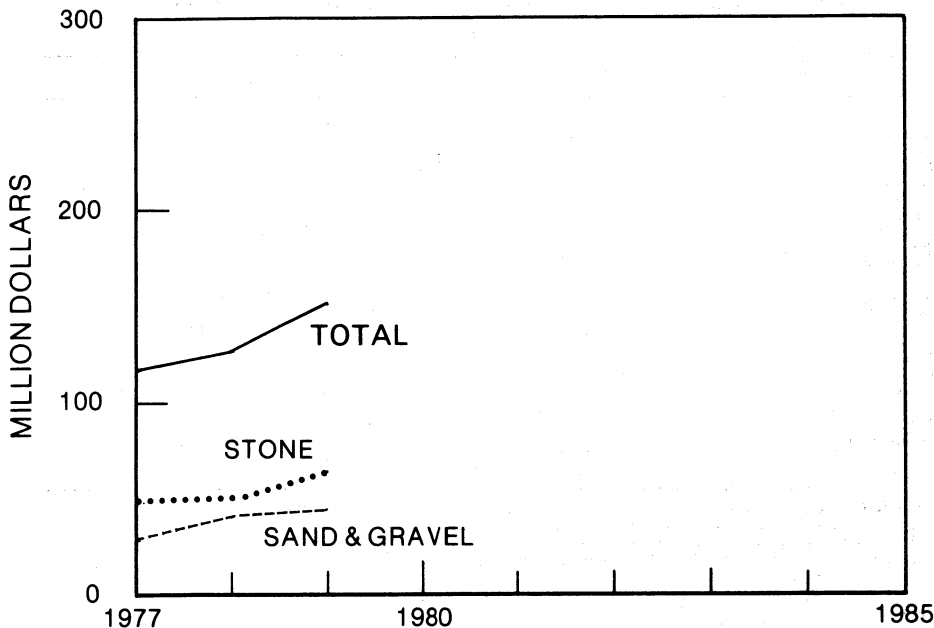


Figure 1.—Value of sand and gravel and stone, and total value of nonfuel mineral production in New Jersey.

**Employment.**—New Jersey's mining industry employed 2,555 workers in 1978. Sand and gravel operations accounted for 1,226 workers, or nearly 48% of the total; the stone industry accounted for 858 employees; and the metal industry accounted for 419 workers. The remaining 52 employees were in clay and shale operations, gypsum plants, and peat operations.

**Legislation and Government Programs.**—In early November 1978, legislation was passed establishing a Pinelands National Reserve to protect an area of approximately 970,000 acres located 30 miles east of Philadelphia and 60 miles south of New York City. No minerals are currently produced in the Pinelands, but zoning ordinances could be established to regulate mining if minerals are located. Currently, one-fifth of the Pinelands is classified as public lands. At the end of 1979, hearings were held by the Department of Environmental Protection (DEP) to clarify the Pinelands boundary.

New Jersey's coastal zone management plan, known as Bay and Ocean Shore Seg-

ment (BOSS), was approved by the Federal Government in late 1978. One part of the program concerns extraction, processing, and reclamation of minerals, including construction and industrial sand, ilmenite, and glauconite. Mining operators are required to comply with the program's standards.

In 1978-79, the Bureau of Geology and Topography made available to the public, as well as to land use planners, overlay maps showing service facilities throughout the State. Other publications pertained to pollution, wastewater management, construction projects within the coastal area, location of water wells, geodetic surveys, and mining practices.

A State program, with possible impact on the mining industry, concerns dredging of the Absecon Creek in Atlantic County. The 5-year study by DEP and Rutgers University, initiated in 1979, will determine the effects of dredging on fish, shellfish, and other marine organisms, and will seek improved methods of disposing of the dredged materials.

## REVIEW BY NONFUEL MINERAL COMMODITIES

## NONMETALS

**Cement.**—New Jersey had no cement production, but shipments of portland and masonry cement into the State totaled 1.7 million short tons in 1978 and 1.8 million short tons in 1979. Most of the cement was manufactured in Pennsylvania and New York. Distribution terminals were in Jersey City, Bayonne, Elizabethport, and Newark.

**Clays.**—Common clay and shale, and fire clay were each produced at two operations; one operation produced both common and fire clay. Total clay production remained unchanged from 1978 to 1979, but value increased nearly 50%.

J. S. Morie & Son, Inc., produced fire clay at the Clayville Mine, Cumberland County; New Jersey Shale Brick & Tile Corp. produced common clay and shale in Somerset County; and Almasi Clay Co. produced both common clay and shale and fire clay at the Main Street Mine, Middlesex County. Common clay and shale were used for face brick and sewer pipe; fire clay was used for fire brick and block, cement, refractory mortar, and sealing.

**Gem Stones.**—Collectors obtained specimens in the northern part of the State. The New Street Quarry, as well as the road cuts on Route 80 near West Patterson, produced fine green prehnite and silky white pectolite. Other areas included the First Watching Mountain near Patterson, Braens Quarry near Hawthorne, and quarries near Great Notch. The value of gem stones collected was estimated at \$1,000 in 1978, and again in 1979.

**Graphite (Synthetic).**—Celanese Corp.'s Summit Plant, Union County, was the only producer of synthetic graphite in the State in 1979. Principal uses were for anodes, graphite shapes, crucibles, and electric motor brushes.

**Greensand Marl.**—Inversand Co., Gloucester County, was the only producer of greensand marl in the Nation. In 1979, production and value increased about 33%, compared with that of 1978. Greensand marl is a sand or marl containing glauconite. The product was used in water treatment and for agricultural purposes.

**Gypsum.**—Calcined gypsum was produced by National Gypsum Co., Burlington County, and by the Flintkote Co., Cam-

den County. The product was used mainly in the manufacture of wallboard lath and sheeting.

**Iodine.**—Eight chemical and pharmaceutical companies consumed organic and inorganic iodine to manufacture various iodide-containing compounds. Iodine was also used as catalysts, food supplements, stabilizers, in inks and colorants, pharmaceuticals, and for sanitary uses. Leading producers were J.T. Baker Chemical Co., Warren County; Cooper Chemical Co., Morris County; Merck & Co., Inc., Union County; and S.B. Penick & Co., Hudson County.

**Lime.**—Limestone Products Corp., Sussex County, was the only producer of lime in the State. Lime was used mainly in chemicals, refractories, construction products, and for agricultural purposes.

**Magnesium Compounds.**—New Jersey ranked third, behind Michigan and California, in production of magnesium compounds, but ranked fifth in value. Harbison-Walker Refractories extracted magnesium compounds from seawater in Cape May County. Production in 1979 exceeded that of 1978 by 20%; value increased more than 77%. Uses were in refractories, fertilizers, pharmaceuticals, and other chemical processing and manufacturing applications.

**Peat.**—New Jersey ranked eighth nationally in 1979, producing 23,000 short tons of peat valued at \$549,000, a slight decrease in production and value compared with that of 1978. Six plants operated in 1979, producing reed sedge and humus. Sussex County producers were Hygrade Humus Co., Hyper-Humus Co., Mt. Bethel Humus Co., Inc., Netcong Natural Products, and Stan's Soils. Kelsey Humus & Partac Co. operated the only plant in Warren County. The average prices per short ton for reed sedge and humus were \$22.00 and \$24.62, respectively. Uses included soil improvement, packing of flowers, and as an ingredient for potting soil.

**Perlite (Expanded).**—Crude perlite, mined in other States, was shipped into New Jersey and expanded by Grefco, Inc., Jamesburg, and The Schundler Co., Edison, both in Middlesex County. In 1979, production of expanded perlite remained unchanged compared with that of 1978, but value increased nearly 8%. The product was used in roof insulation, plaster, masonry products, and as a soil conditioner.

Table 4.—New Jersey: Construction sand and gravel sold or used, by major use category

Use	1977			1978			1979		
	Quantity (thousand short tons)	Value (thou- sands)	Value per ton	Quantity (thousand short tons)	Value (thou- sands)	Value per ton	Quantity (thousand short tons)	Value (thou- sands)	Value per ton
Concrete aggregate -----	2,814	\$6,061	\$2.15	3,540	\$9,703	\$2.74	2,922	\$8,544	\$2.92
Plaster and gunite sands ----	NA	NA	NA	139	469	3.38	232	702	3.02
Concrete products -----	747	162	2.16	320	887	2.77	293	805	2.75
Asphaltic concrete -----	556	1,319	2.37	1,001	2,530	2.53	1,155	3,030	2.62
Roadbase and coverings ----	789	1,720	2.18	1,083	2,497	2.31	1,265	2,998	2.37
Fill -----	2,265	3,179	1.40	1,782	3,144	1.76	1,958	3,364	1.72
Snow and ice control -----	NA	NA	NA	67	206	3.05	284	1,301	4.58
Railroad ballast -----	W	W	W	--	--	--	--	--	--
Other uses -----	500	1,660	3.39	9	49	5.20	168	845	5.04
Total <sup>1</sup> or average -----	7,671	15,551	2.03	7,941	19,480	2.45	8,277	21,590	2.61

NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Other uses."

<sup>1</sup>Data may not add to totals shown because of independent rounding.

Table 5.—New Jersey: Sand and gravel sold or used by producers, by use

Use	1977			1978			1979		
	Quantity (thousand short tons)	Value (thou- sands)	Value per ton	Quantity (thousand short tons)	Value (thou- sands)	Value per ton	Quantity (thousand short tons)	Value (thou- sands)	Value per ton
Construction:									
Sand -----	5,270	\$9,961	\$1.89	5,490	\$12,637	\$2.30	5,249	\$12,555	\$2.39
Gravel -----	2,401	5,590	2.33	2,451	6,848	2.79	3,027	9,036	2.98
Total <sup>1</sup> or average ----	7,671	15,551	2.03	7,941	19,480	2.45	8,277	21,590	2.61
Industrial sand -----	2,026	13,775	6.80	2,485	21,354	8.59	2,504	23,092	9.22
Grand total <sup>1</sup> or average -----	9,697	29,327	3.02	10,430	40,840	3.92	10,781	44,682	4.14

<sup>1</sup>Data may not add to totals shown because of independent rounding.

Table 6.—New Jersey: Sand and gravel sold or used, by county

(Thousand short tons and thousand dollars)

County	1977			1978			1979		
	Quan- tity	Value	Number of com- panies	Quan- tity	Value	Number of com- panies	Quan- tity	Value	Number of com- panies
Atlantic -----	W	W	2	197	594	4	178	714	4
Bergen -----	W	W	1	W	W	1	W	W	1
Burlington -----	W	W	2	508	757	3	341	706	1
Camden -----	1,032	1,983	4	1,255	2,841	4	954	2,381	4
Cape May -----	593	1,090	4	626	1,303	5	587	1,402	6
Cumberland -----	2,460	14,296	6	2,470	20,587	5	3,580	24,999	6
Gloucester -----	132	197	5	121	188	5	70	134	3
Middlesex -----	452	684	4	379	926	3	W	W	2
Monmouth -----	242	464	3	241	472	3	271	590	3
Morris -----	1,191	2,983	4	1,243	3,877	4	1,230	3,955	4
Ocean -----	1,182	3,283	7	1,280	2,643	7	1,161	2,396	7
Passaic -----	534	1,454	5	627	2,037	6	515	1,778	6
Sussex -----	237	463	7	737	1,641	7	526	1,282	7
Warren -----	W	W	2	W	W	2	585	2,354	2
Total <sup>1</sup> -----	9,697	29,327	56	10,430	40,840	59	10,781	44,682	56

W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data may not add to totals shown because of independent rounding.

**Sand and Gravel.**—Construction and industrial sand and gravel increased nearly 4% in quantity and 10% in value, from 1978 to 1979. In 1979, construction sand and gravel accounted for nearly 78% of the total output, but only 48% of the value; industrial sand accounted for the remainder. Higher unit values for industrial sand was the main reason for the difference in value.

Annual production of construction sand and gravel was approximately 8 million short tons. Cumberland County, with nine mines, led in production, followed by Morris, Ocean, Camden, and Warren Counties. Leading producers were New Jersey Silica Sand Co., Saxon Falls Sand & Gravel Co., Inc., and New Jersey Pulverizing Co. Construction sand and gravel was used mainly for concrete aggregate; other uses included plaster and gunite sands, concrete products, and fill.

Industrial sand was produced by five companies with eight operations in three of the State's southern counties. Cumberland County continued as the leading county, producing 84% of the State's total, followed by Camden and Gloucester Counties. Principal producers were Pennsylvania Glass Sand Corp., J. S. Morie & Son, Inc., and Whitehead Bros. Co. Principal uses for industrial sand were in the manufacture of glass products, molds and cores, refractories, and in sandblasting and filtration.

**Stone.**—New Jersey ranked 24th nationally in crushed stone production in 1978-79. Crushed stone was produced in 9 of the State's 21 counties, all in the northern part of the State. The leading counties were Somerset, Passaic, Sussex, and Hunterdon; they had 22 of the State's 27 crushed stone quarries, accounting for 84% of the production in 1979. Only three quarries produced over 900,000 short tons each, accounting for about 37% of the State total. The majority of the remaining quarries were in the 100,000- to 900,000-ton-per-year category.

Sixteen quarries produced traprock, eight granite, two limestone, and one dimension sandstone. Crushed traprock accounted for nearly 75% of all crushed stone, used mainly for aggregate and roadbase, with an average unit value of \$4.05. Crushed granite was also used for aggregate and roadbase, with a unit value of \$4.46. Nearly 95% of the crushed stone was transported by truck; the remainder was transported by rail.

Leading producers of traprock were Stavola Construction Materials, Trap Rock Industries, Inc., and Union Building & Construction Corp. Crushed granite was produced by Tri-County Asphalt Corp., Anthony Ferrante & Sons, Inc., and Lentine Aggregates. Crushed limestone was produced by Penn-Virginia Corp. Limestone Products.

**Table 7.—New Jersey: Crushed stone<sup>1</sup> sold or used by producers, by use**

(Thousand short tons and thousand dollars)

Use	1977		1978		1979	
	Quantity	Value	Quantity	Value	Quantity	Value
Poultry grit and mineral food	W	W	W	W	25	413
Concrete aggregate	1,649	1,790	1,028	3,297	1,168	4,568
Bituminous aggregate	2,094	6,775	2,593	9,566	2,228	9,770
Macadam aggregate	393	1,260	530	1,660	591	2,328
Dense-graded roadbase stone	3,057	9,434	3,280	11,028	3,758	15,756
Surface treatment aggregate	167	521	228	697	296	1,096
Other construction aggregate and roadstone	5,062	18,348	4,076	15,436	4,673	21,162
Riprap and jetty stone	150	535	280	1,031	284	1,310
Railroad ballast	135	387	21	64	59	173
Filter stone	28	138	46	162	W	W
Manufactured fine aggregate (stone sand)	123	377	72	359	98	535
Terrazzo and exposed aggregate	W	W	105	1,734	37	679
Lime manufacture	11	10	18	56	--	--
Fill	11	10	11	10	--	--
Other uses <sup>2</sup>	1,125	7,047	903	5,082	733	5,386
<b>Total<sup>3</sup></b>	<b>12,993</b>	<b>46,621</b>	<b>13,192</b>	<b>50,181</b>	<b>13,950</b>	<b>63,174</b>

<sup>1</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Other uses."

<sup>2</sup>Includes limestone, granite, and traprock.

<sup>3</sup>Includes stone used for agricultural limestone, flux stone, asphalt filler, other filler, acid neutralization (1977-78), roofing granules, sulfur removal from stack gases (1977), unspecified uses, and uses indicated by symbol W.

<sup>3</sup>Data may not add to totals shown because of independent rounding.

Dimension sandstone was produced by Delaware Quarries, Hunterdon County, in the western part of the State. Output was sold for stone and house veneer, with unit value at \$40 per short ton.

**Sulfur.**—Sulfur was recovered as a byproduct of petroleum refining in Gloucester, Middlesex, and Union Counties. Sulfur was used in the manufacture of sulfuric acid, fertilizers, plastics, paper products, explosives, and other products.

**Vermiculite.**—Vermiculite was shipped into the State and exfoliated by W. R. Grace & Co., Trenton, Mercer County; and The Schundler Co., Metuchen, Middlesex County. Exfoliated vermiculite was used for agricultural purposes, loose-fill insulation, fireproofing, and lightweight aggregate.

### METALS

**Ferroalloys.**—New Jersey ranked 13th nationally in the production of ferroalloys. Twenty-two companies produced ferroalloys of vanadium, titanium, boron, columbium, and aluminum, including silicon and zirconium alloys. These ferroalloys were used in the manufacture of cast iron products, bolts, metal brake shoes, automobile mufflers, tool steel, and miscellaneous products.

**Iron Ore.**—Mt. Hope Mining Co. opened the previously abandoned underground iron ore mine located north of Dover, Morris County, in late 1977, and terminated operations in early 1978 because of economic conditions. A small amount of ore was shipped in 1977-78.

**Iron Oxide Pigments.**—Iron oxide pigments, used mainly in the manufacture of paints, were produced by three companies in four counties. Production in 1979 totaled 11,225 short tons valued at \$9.97 million, an increase of nearly 5% in quantity and nearly 8% in value, compared with 1978 levels. Iron oxide pigments were produced

by Combustion Engineering Corp., Camden County; E. I. du Pont de Nemours & Co., Inc., Essex County; and Cities Service Co., Mercer and Middlesex Counties.

**Selenium.**—New Jersey ranked second nationally in the production of selenium. AMAX, Inc., at Carteret, near Newark, produced selenium as a byproduct of the electrolytic copper-refining process. Selenium was used in glass manufacturing, pigments, specialty steels, and electronic components.

**Tellurium.**—In 1979, AMAX, Inc., Carteret, produced nearly 17% less tellurium than in 1978. Tellurium was recovered from the metal anode slimes obtained from the electrolytic refining of copper. Major uses of tellurium were for mold dressing and cast iron products, for improvement of steel machinability, and in various chemicals.

**Titanium.**—Ilmenite was produced by Glidden-Durkee Div. of SCM Corp. and ASARCO Inc., Lakehurst, Ocean County. Production and value in 1979 decreased compared with that of 1978. The chief source of titanium is ilmenite, found in sand deposits near the seashore. The sand deposits are dredged and the product processed, yielding concentrate of approximately 63% titanium dioxide. The product was used in the manufacture of paints, paper, rubber, and leather products.

**Zinc.**—New Jersey ranked fourth nationally in 1979, producing 31,118 metric tons of zinc valued at \$25.6 million. Output and value increased 8% and 29% respectively from 1978 to 1979. Zinc was produced only in Sussex County, and the crushed ore was shipped to a company-owned smelter located in Pennsylvania. Zinc was used mainly for galvanizing, brass products, and zinc-base alloys.

<sup>1</sup>State mineral specialist, Bureau of Mines, Pittsburgh, Pa.

Table 8.—Principal producers

Commodity and company	Address	Type of activity	County
<b>Clays:</b>			
J. S. Morie & Son, Inc. <sup>1</sup> -----	Box 35 Mauricetown, NJ 08329	Pit -----	Cumberland.
New Jersey Shale Brick & Tile Corp -----	Box 490 Somerville, NJ 08876	Plant -----	Somerset.
<b>Greensand marl: Inversand Co</b> -----	226 Atlantic Ave. Clayton, NJ 08312	Pit -----	Gloucester.
<b>Gypsum, calcined:</b>			
Flintkote Co -----	480 Central Ave. East Rutherford, NJ 07073	Plant -----	Camden.
National Gypsum Co -----	4100 First Intl. Bldg. Dallas, TX 75270	do -----	Burlington.
<b>Ilmenite:</b>			
ASARCO, Inc -----	Route 70, Mile 41 Lakehurst, NJ 08733	do -----	Ocean.
Glidden-Durkee Div. of SCM Corp -----	Box 5 Lakehurst, NJ 08733	do -----	Do.
<b>Iron oxide pigments (manufactured):</b>			
Cities Service Co -----	380 Madison Ave. New York, NY 10017	do -----	Mercer and Middlesex.
Combustion Engineering, C. E. Minerals Div -----	901 East 8th Ave. King of Prussia, PA 19406	do -----	Camden.
E. I. du Pont de Nemours & Co., Inc -----	Du Pont Bldg. D 10034 Wilmington, DE 19898	do -----	Essex.
<b>Magnesium compounds:</b>			
Harbison-Walker Refractories, a Division of Dresser Industries, Inc. -----	2 Gateway Center Pittsburgh, PA 15222	do -----	Cape May.
<b>Peat:</b>			
Hyper-Humus Co -----	Lafayette Rd., Box 267 Newton, NJ 07860	Bog -----	Sussex.
Kelsey Humus & Partac Co -----	Kelsey Park Great Meadows, NJ 07838	Bog -----	Warren.
Mt. Bethel Humus Co., Inc -----	315 West 57th St. New York, NY 10019	Bog -----	Sussex.
Netcong Natural Products -----	738 Route 10 Randolph, NJ 07801	Bog -----	Do.
<b>Perlite (expanded):</b>			
Grefco, Inc -----	3450 Wilshire Blvd. Los Angeles, CA 90010	Plant -----	Middlesex.
The Schundler Co. <sup>2</sup> -----	Box 251 Metuchen, NJ 08840	do -----	Do.
<b>Sand and gravel:</b>			
New Jersey Pulverizing Co -----	115 Hickory Ln. Bayville, NJ 08721	Pit -----	Ocean.
New Jersey Silica Sand Co -----	Millville, NJ 08332	Dredge -----	Cumberland.
Pennsylvania Glass Sand Corp -----	Berkeley Springs, WV 25411	Pit -----	Do.
Saxon Falls Sand & Gravel Co., Inc -----	R.D. 3 Stanhope, NJ 07874	Pit -----	Morris.
Whitehead Brothers Co -----	60 Hanover Rd. Florham Park, NJ 07932	Pit and dredge.	Cumberland.
<b>Stone:</b>			
<b>Granite, crushed and broken:</b>			
Anthony Ferrante & Sons, Inc -----	Route 202, Mine Brook Rd. Bernardsville, NJ 07924	Quarry -----	Hunterdon and Somerset.
Tri-County Asphalt Corp -----	Route 15 Hopatcong, NJ 07843	do -----	Sussex.
<b>Traprock (basalt), crushed and broken:</b>			
Stavola Construction Materials -----	Hamilton Rd. Red Bank, NJ 07701	do -----	Somerset.
Trap Rock Industries, Inc -----	Laurel Ave. Kingston, NJ 08528	do -----	Hunterdon, Mercer, Somerset.
Union Building & Construction Corp -----	1111 Clifton Ave. Clifton, NJ 07013	do -----	Passaic.
<b>Sulfur (recovered):</b>			
Chevron Oil Co -----	1200 State St. Perth Amboy, NJ 08861	Plant -----	Middlesex.
Exxon Co., U.S.A. -----	Box 23 Linden, NJ 07036	do -----	Union.
Mobil Oil Corp -----	Paulsboro, NJ 08066	do -----	Gloucester.
Texaco, Inc -----	Eagle Point, Box 52332 Houston, TX 77052	do -----	Do.
<b>Vermiculite (exfoliated):</b>			
W. R. Grace & Co -----	62 Whittemore Ave. Cambridge, MA 02140	do -----	Mercer.

<sup>1</sup>Also sand and gravel.<sup>2</sup>Also exfoliated vermiculite.