



2012 Report on Ohio Mineral Industries: An Annual Summary of the State's Economic Geology

**with
Directories of Reporting Coal and
Industrial Mineral Operators**

**compiled by
Mark E. Wolfe**

**Database design and data retrieval: Joseph G. Wells
Interactive mineral industries map/digital cartography: Dean R. Martin**

STATE OF OHIO
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Thomas J. Serenko, Chief

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Graphic design and layout: Lisa Van Doren

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2012 Ohio Economic Geology in Brief

Reports were filed in 2012 for 134 coal-mining operations, including 5 mines with their own coal-washing facilities. Coal production was reported from 61 of these 134 operations. Reports also were filed for 9 separate coal-washing plants and associated facilities. Of the 523 industrial-mineral-mining operations known to be operating in 2012, 337 operations were reported active. A total of 26 mines reported production of multiple mineral commodities, including coal and/or one or more industrial minerals. There were 538 new wells completed for oil and gas in 2012, of which 505 were productive and 33 were dry.

The total tonnage of coal and industrial minerals produced in Ohio during 2012 was 121,810,337 tons or approximately 10.4 tons per capita. The total value¹ of coal

was \$1,182,184,498 in 2012; the value of oil and gas was \$706,052,337; and the total value¹ of all industrial minerals was \$870,367,049 in 2012. The combined total value of fuel and nonfuel minerals produced in Ohio during 2012 was \$2,758,603,884 or approximately \$239 per capita. Reported and estimated total employment in the extractive industries of Ohio in 2012 was more than 11,000 people.

¹Includes reported and estimated values. Some operations reporting sales did not report a value for those sales. A countywide- or statewide-average price per ton was calculated for each industrial-mineral commodity based on sales for which the value was reported. A countywide, average price per ton was calculated for coal based on sales for which the value was reported and method of production. These calculated averages were used to estimate the value of the sales for which the actual values were not reported.

TABLE 1. 2012 Fuel and nonfuel mineral sales and production in Ohio

Commodity	Production ¹	Sales ²	Value ³	Change in value from 2011 (percent)
Coal	26,344,046 tons	25,508,364 tons	\$1,182,184,498	-1.1
Limestone and dolomite	58,305,506 tons	58,188,739 tons	\$494,626,494	+3.8
Sand and gravel	30,479,982 tons	29,410,320 tons	\$192,194,837	+7.6
Salt	4,261,370 tons	3,552,814 tons	\$127,683,120	-27.7
Sandstone and conglomerate	1,708,957 tons	1,409,178 tons	\$46,598,064	+8.6
Clay	289,322 tons	289,322 tons	\$1,866,422	-23.0
Shale	421,154 tons	394,190 tons	\$7,394,802	-20.0
Peat		420 tons	\$3,360	+128.3
Gas	86,770,137 thousand cubic feet	not available	\$248,162,591	-20.1
Oil	4,974,359 barrels	not available	\$457,889,746	+4.8

¹The production figures for industrial minerals are estimates. Many operators do not know actual production. Some operators report estimates, other operators do not report any production. For those operators who do not report production, production is assumed to equal sales. Timely completion of this report requires that when production and sales information are not available, production figures may be gathered from the ODNR Division of Mineral Resources Management or be estimated or be excluded.

²Includes material for captive use.

³The FOB value of industrial minerals sold was estimated for mines that failed to report this information and for those producing material for captive use. These estimates were calculated using a countywide- or statewide-average price per ton calculated on reported FOB values.

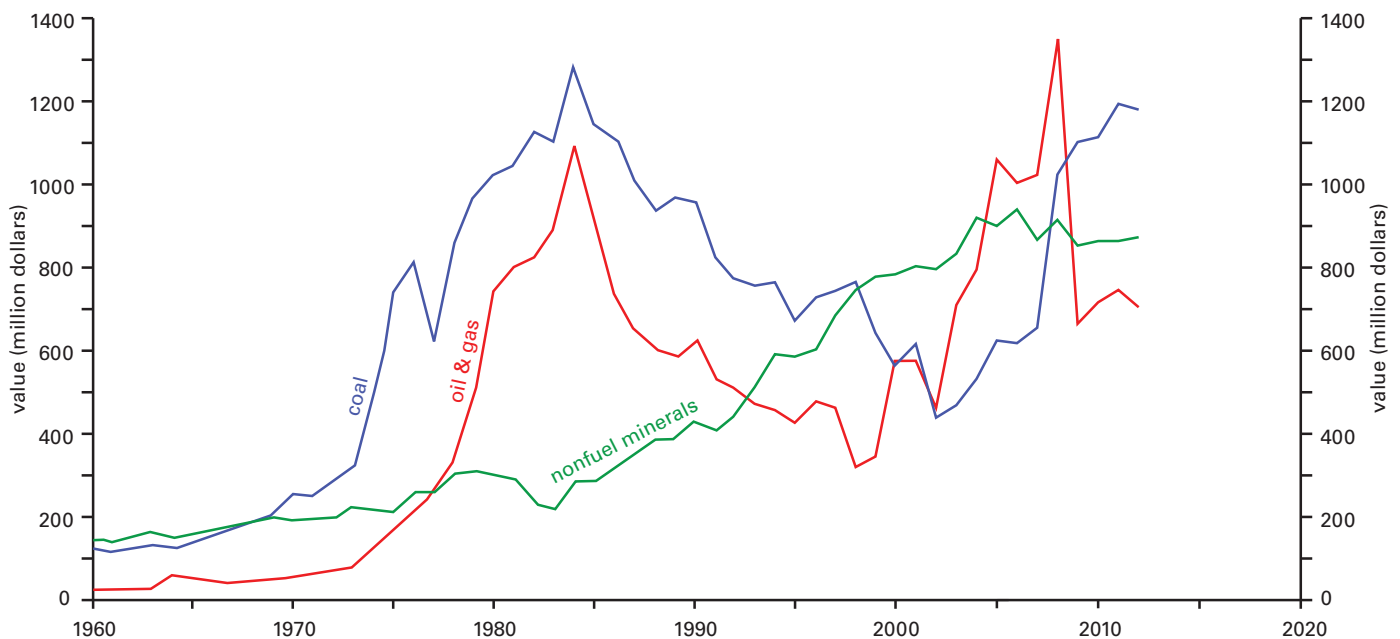


FIGURE 1. Value of coal, nonfuel minerals, and oil and gas in Ohio.

COAL

(See also Appendix A)

Coal was first recognized in Ohio by pioneers in the 1740s and the first map of Ohio coal deposits was made in 1752 (Crowell, 1995). The first recorded coal production occurred in Jefferson County during 1800 and in the 212 years since, nearly 3.9 billion tons of coal have been produced from coal seams in the state (Crowell, 1995). This represents a value of nearly \$181 billion in 2012 dollars.

A new underground mine in Harrison County was under development in 2012 and should reach full production in 2013. Through September 2013, permits for mine expansions were issued for two underground mines and three surface mines, covering a total area of 3,167 acres. Permits also were issued for four new surface mines with a total area of 1,472 acres.

Ohio coal is used primarily to generate electricity; 78 percent of the state's electricity is produced by burning coal (PUCO, 2011). Ohio coal is also used in commercial, institutional, and industrial applications, while minor amounts are exported.

The National Coal Mine Rescue event was held in Columbus, Ohio, from September 9 to September 12, 2013 (see www.coalminerescuecontest.com).

Production

Coal was produced by 22 companies at 61 mines in 13 Ohio counties during 2012. Production decreased 5.7 percent from 2011 (Wolfe, 2012), totaling 26,344,046 tons in 2012 (fig. 2). Of the total production, 7,168,585 tons (27.2 percent of total production) were produced at 52 surface mines, and 19,175,461 tons (72.8 percent of total production) were produced at 9 underground mines (table 2).

Of 25 coal-producing states, Ohio ranked tenth in 2012 (USDOE, 2013). The top five states, in descending order of production, were Wyoming (401.4 million tons), West Virginia (120.1 million tons), Kentucky (90.6 million tons), Pennsylvania (55.8 million tons), and Illinois (48.2 million tons).

The five leading counties for 2012 production, in descending order, were Belmont, Harrison, Perry, Tuscarawas and Jefferson Counties (table 3 and fig. 2). Mine closures in Meigs, Jefferson, and Coshocton Counties were partially offset by increased production in Belmont County.

The Pennsylvanian-age Monongahela Group Pittsburgh (No. 8) coal was the most heavily mined seam followed by, in

descending order (see fig. 4 and table 6):

- Allegheny Group Middle Kittanning (No. 6) coal
- Monongahela Group Meigs Creek (No. 9) coal
- Allegheny Group Upper Freeport (No. 7) coal
- Allegheny Group Lower Freeport (No. 6a) coal

Coal produced from these five seams constituted 91.8 percent of the total 2012 production. Since 1816, mining of the Pittsburgh (No. 8) in eastern Ohio has produced more than 1 billion tons of coal (Crowell, 1995).

In underground mining, 64.7 percent of the coal was produced by longwall mining and 35.3 percent was mined by continuous miner. In surface operations, 89.6 percent of the coal was mined by conventional surface methods, 3.5 percent was mined by augering, and 6.9 percent was mined by highwall miner.

Rail was the primary means of coal disposition from the mine, carrying 55.8 percent of the total sales. Trucking transported 42.7 percent, and water carried 1.5 percent of the coal sold in 2012. Often, multiple modes of transportation are used to deliver coal to its final destination. A total of 137,919 tons (0.5 percent) of the coal produced was reported as stored (table 7).

A total of 18,356,938 tons of washed coal was reported in 2012. Reports from 9 coal-washing plants indicate an average 36.5 percent loss in washing.

Economic Impact

A total of 25,508,364 tons of coal were sold in 2012; total value² was \$1,182,184,498 (fig. 5). This was the fifth consecutive year that coal values were greater than \$1 billion, which had not happened since the early 1980s.

The average price of all coal sold was \$46.38 per ton; surface-mined coal averaged \$43.92 per ton and underground-mined coal averaged \$47.33 per ton (table 8).

The total average annual employment reported in 2012 was 2,918 employees; 2,189 of these were production employees (table 9). Production employees worked an average of 223 days producing coal in 2012. The average annual wage earned by all production employees was \$70,854 based on those employees for whom wages were reported. The average annual wage for surface-mine production employees was \$58,459, and the average annual wage for underground-mine production employees was \$76,228. Wages earned by all employees totaled \$218,785,067 in 2012 (table 10).

²Includes reported and estimated values. See footnote 1, p. 1.

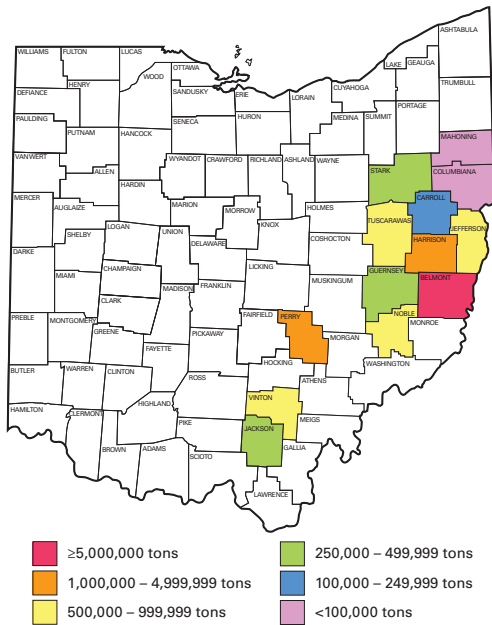


FIGURE 2. Coal production in Ohio in 2012, by county and quantity.

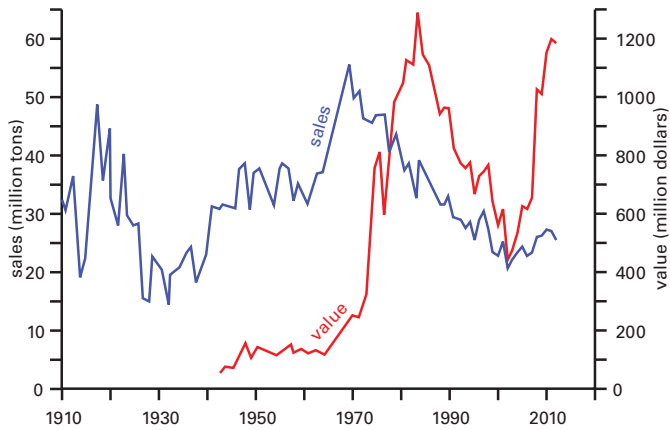


FIGURE 3. Sales and value of coal in Ohio.

SYSTEM	GROUP	LITHOSTRATIGRAPHIC UNITS
Permian	Dunkard	Washington (No. 12) coal
	Monongahela	Waynesburg (No. 11) coal Uniontown (No. 10) coal Meigs Creek (No. 9) coal Pomeroy (No. 8a, Redstone) coal Pittsburgh (No. 8) coal
Pennsylvanian	Conemaugh	Ames marine zone Harlem coal Wilgus coal Brush Creek marine zone Mahoning (No. 7a) coal
	Allegheny	Upper Freeport (No. 7) coal Lower Freeport (No. 6a) coal Middle Kittanning (No. 6) coal Lower Kittanning (No. 5) coal Vanport marine zone Clarion (No. 4a) coal Winters coal Newland (No. 4, Brookville) coal
	Pottsville	Upper Mercer (No. 3a) coal Quakertown (No. 2) coal Sharon (No. 1) coal

FIGURE 4. Stratigraphic column of coals mined in Ohio during 2012 (black), other significant coal beds (red), and associated key beds (blue) used for stratigraphic correlation. Modified from Larsen (1991, fig. 2), Collins (1979, fig. 3), and Brant and Delong (1960, table 9).

TABLE 2. 2012 Ohio coal production, by county and mining method

County ¹	All methods (short tons)	Total number of mines	Underground				Surface				
			Number of mines reporting	Production (short tons)			Number of mines reporting	Production (short tons)			
				Total	Longwall	Continuous miner		Total	Strip	Auger	Highwall
Belmont	15,155,856	11	2	14,165,346	12,401,951	1,763,395	9	990,510	854,562	108,049	27,899
Carroll	152,609	2	1	150,647		150,647	1	1,962	1,962		
Columbiana	49,230	2					2	49,230	49,230		
Guernsey	354,802	1					1	354,802	160,580	21,305	172,916
Harrison	3,020,758	7	1	1,158,900		1,158,900	6	1,861,858	1,858,726	3,132	
Jackson	481,467	4					4	481,467	481,467		
Jefferson	923,186	5	2	480,973		480,973	3	442,213	238,220		203,993
Mahoning	3,969	1					1	3,969	3,969		
Noble	704,995	5					5	704,995	698,391	6,604	
Perry	3,547,749	4	2	2,761,707		2,761,707	2	786,042	657,021	41,413	87,608
Stark	431,117	6					6	431,117	425,147	5,970	
Tuscarawas	941,173	10	1	457,887		457,887	9	483,286	418,268	65,018	
Vinton	577,135	3					3	577,135	577,135		
TOTAL²	26,344,046	61	9	19,175,461	12,401,951	6,773,510	52	7,168,585	6,424,677	251,492	492,415

¹Production from mines operating in more than one county was evenly split between the counties involved unless a county-specific breakdown was provided by the operator.

²Any tally inconsistencies are due to rounding of production tonnages.

TABLE 3. 2012 Ohio coal production and sales, by county, in descending order of production

County	Production (short tons)	Sales (short tons)
Belmont	15,155,856	15,455,041
Perry	3,547,750	2,440,584
Harrison	3,020,758	3,025,082
Tuscarawas	941,173	941,173
Jefferson	923,186	900,375
Noble	704,995	704,995
Vinton	577,135	570,490
Jackson	481,467	475,254
Stark	431,117	431,117
Guernsey	354,802	354,802
Carroll	152,609	149,314
Columbiana	49,230	49,230
Mahoning	3,969	3,596
Athens		7,312
TOTAL	26,344,046	25,508,364

TABLE 4. 2012 Ohio coal production, by production size group and change from 2011

Production size group	2012		Change from 2011 (short tons)
	Number of mines reporting	Production (short tons)	
1,000,000 tons and over	6	19,148,636	+2,575,782
500,000 to 999,999 tons	1	719,447	-2,930,459
250,000 to 499,999 tons	10	3,579,039	-272,253
100,000 to 249,999 tons	13	2,144,026	-311,544
50,000 to 99,999 tons	7	516,189	-531,566
25,000 to 49,999 tons	3	110,165	-58,858
Less than 25,000 tons	21	126,544	-56,145
TOTAL	61	26,344,046	-1,585,043

TABLE 5. 2012 Ohio coal production, by county and month

County ¹	Production (short tons)												
	Total annual	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	15,155,858	1,251,566	1,452,761	1,231,060	1,312,194	1,597,349	1,420,910	811,314	1,405,388	1,426,174	1,167,302	1,107,240	972,606
Carroll	152,609	18,212	16,250	16,250	5,401	13,500	13,500	11,250	16,875	12,355	15,399	11,219	2,398
Columbiana	49,230	7,743	3,838	4,652	171	2,673	2,136	4	8	7	3,065	14,102	10,831
Guernsey	354,802	16,337	14,691	17,514	37,136	48,285	43,228	41,457	46,621	32,430	27,504	26,040	3,558
Harrison	3,020,758	253,588	235,608	244,775	235,570	239,436	265,833	283,118	304,706	232,815	266,329	222,387	236,593
Jackson	481,467	32,075	35,366	40,928	46,415	55,429	48,656	30,514	48,998	37,468	38,606	25,915	41,097
Jefferson	923,186	48,345	55,848	54,477	74,603	93,638	109,620	75,527	102,732	62,700	77,582	102,064	66,050
Mahoning	3,969	698	1,875									681	715
Noble	704,995	44,471	56,087	55,840	62,576	58,149	55,846	63,697	65,125	54,828	68,219	63,164	56,994
Perry	3,547,750	320,728	302,313	345,913	237,658	274,734	286,271	291,772	337,991	302,515	326,977	259,046	261,832
Stark	431,117	31,763	35,304	25,784	31,780	30,478	33,749	38,467	38,407	27,799	46,903	45,193	45,490
Tuscarawas	941,173	91,641	72,398	102,747	65,075	74,076	90,633	74,944	89,714	88,254	64,876	48,053	78,762
Vinton	577,135	61,873	44,005	41,422	45,419	43,921	36,684	39,681	49,272	41,640	52,444	64,571	56,203
TOTAL²	26,344,046	2,179,040	2,326,343	2,181,361	2,153,997	2,531,668	2,407,066	1,761,745	2,505,838	2,318,986	2,155,206	1,989,674	1,833,131

¹Production from mines operating in more than one county was evenly split between the counties involved unless county-specific information was provided by the operator.

²Any tally inconsistencies are due to rounding of production tonnages.

TABLE 6. 2012 Ohio coal production,

County ¹	Production							
	Total	Newland (No. 4, Brookville)	Winters	Clarion (No. 4a)	Lower Kittanning (No. 5)	Middle Kittanning (No. 6)	Lower Freeport (No. 6a)	Upper Freeport (No. 7)
Belmont	15,155,856							
Carroll	152,609							1,962
Columbiana	49,230							49,230
Guernsey	354,802					354,802		
Harrison	3,020,758						1,158,900	
Jackson	481,467	55,617		190,701	197,695	14,328		23,126
Jefferson	923,186						7,615	23,150
Mahoning	3,969				3,969			
Noble	704,995							
Perry	3,547,749				154,145	2,334,487		1,059,117
Stark	431,117	50,000			147,360	189,191	42,202	2,365
Tuscarawas	941,173	9,868			154,474	600,392		176,438
Vinton	577,135	35,721	134,444	131,434	192,581	29,905		41,099
TOTAL²	26,344,046	151,206	134,444	322,135	850,224	3,523,105	1,208,717	1,376,487

¹Production from mines operating in more than one county was evenly split between the counties involved unless county-specific information was provided by the operator.

²Any tally inconsistencies are due to rounding of production tonnages.

TABLE 7. 2012 Disposition of Ohio coal, by county

County ¹	Number of mines	Disposition ¹ (short tons)						Stored
		Total ²	Rail	Water	Truck	Conveyor	Unspecified/other	
Athens	1	7,312	4,972		2,340			
Belmont	11	15,455,041	10,989,293		4,465,748			49,260
Carroll	2	149,314			149,314			3,295
Columbiana	2	49,230			49,230			
Guernsey	1	354,802			354,802			
Harrison	7	3,025,082	1,133,300		1,891,758		24	12,640
Jackson	4	475,254		240,898	234,356			13,353
Jefferson	5	900,375			900,375			22,811
Mahoning	1	3,596			1,631	1,965		2,619
Noble	5	704,995			704,995			
Perry	4	2,440,583	1,911,130		529,454			25,418
Stark	6	431,117			431,117			
Tuscarawas	10	941,172	200,000		741,173			
Vinton	3	570,490		131,053	439,437			8,523
TOTAL³	62	25,508,364	14,238,695	371,951	10,895,729	1,965	24	137,919

¹Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved and type(s) of disposition reported unless county-specific information was provided by the operator.

²Does not reflect tonnage stored. Reflects tonnage sold and shipped from mine.

³Any tally inconsistencies are due to rounding.

by county and seam

(short tons)							County ¹
Mahoning (No. 7a)	Wilgus	Harlem	Pittsburgh (No. 8)	Pomeroy (No. 8a, Redstone)	Meigs Creek (No. 9)	Waynesburg (No. 11)	
150,647			14,244,792		902,445	8,631	Belmont Carroll Columbiana Guernsey Harrison
		694	1,541,457	275,372	44,335		Jackson Jefferson Mahoning Noble Perry
496,271			385,830	5,999	4,321	704,995	Stark Tuscarawas Vinton
	11,951						
646,918	11,951	694	16,172,079	281,371	1,656,096	8,631	TOTAL ²

TABLE 8. 2012 Dollar value of coal at mine, by county and mining method

County ¹	Total				Underground				Surface			
	No. of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine ² (dollars)	Per ton average (dollars)
Athens	1	7,312	\$521,086	\$71.26	1	7,312	\$521,086	\$71.26				
Belmont	11	15,455,041	671,176,423	43.43	2	14,463,521	628,311,466	43.44	9	990,520	\$42,864,957	\$43.28
Carroll	2	149,314	11,602,889	77.71	1	147,352	11,522,889	78.20	1	1,962	80,000	40.77
Columbiana	2	49,230	2,217,093	45.04					2	49,230	2,217,093	45.04
Guernsey	1	354,802	15,812,736	44.57					1	354,802	15,812,736	44.57
Harrison	7	3,025,082	152,580,317	50.44	1	1,163,224	67,342,700	57.89	6	1,861,858	85,237,617	45.78
Jackson	4	475,254	22,174,297	46.66					4	475,254	22,174,297	46.66
Jefferson	5	900,375	42,621,057	47.34	2	458,162	23,003,398	50.21	3	442,213	19,617,659	44.36
Mahoning	1	3,596	291,681	81.11					1	3,596	291,681	81.11
Noble	5	704,995	24,293,075	34.46					5	704,995	24,293,075	34.46
Perry	4	2,440,584	152,951,324	62.67	2	1,654,542	117,919,177	71.27	2	786,042	35,032,147	44.57
Stark	6	431,117	18,557,214	43.04					6	431,117	18,557,214	43.04
Tuscarawas	10	941,173	41,151,331	43.72	1	457,887	20,000,000	43.68	9	483,286	21,151,331	43.77
Vinton	3	570,490	26,233,977	45.98					3	570,490	26,233,977	45.98
TOTAL	62	25,508,364	\$1,182,184,498	\$46.38	10	18,352,000	\$868,620,716	\$47.33	52	7,156,354	\$313,563,782	\$43.92

¹Sales reported from mines operating in more than one county were evenly split between the counties involved unless county-specific information was provided by the operator.

²The FOB value of coal sold was estimated for those mines that failed to report this information. These estimates were calculated using a countywide-average price per ton by mining method, based on reported FOB values deemed to be reliable.

TABLE 9. 2012 Ohio coal mine employment, by occupational group and month¹

Occupational group	Number of employees												
	Total annual ²	January	February	March	April	May	June	July	August	September	October	November	December
Production workers	2,189	2,225	2,213	2,223	2,196	2,198	2,082	2,191	2,193	2,147	2,161	2,200	2,233
Non-production workers	729	760	773	751	720	713	735	723	741	716	708	715	697
TOTAL	2,918	2,985	2,986	2,974	2,916	2,911	2,817	2,894	2,934	2,863	2,869	2,915	2,930

¹Employment was estimated for mines not reporting employment.

²Represents the average number of employees for the year.

TABLE 10. 2012 Wage and salary payments to Ohio coal mine employees, by county and occupational group

County ¹	Wage and salary payments (nearest whole dollar) ^{2,3}			
	All occupations	Underground production employees	Surface production employees	Other
Athens	\$85,549			\$85,549
Belmont	130,410,511	\$76,248,821	\$8,497,109	45,664,581
Carroll	3,526,688	2,882,111	957	643,620
Columbiana	1,013,720		228,840	784,880
Guernsey	2,046,019		1,792,108	253,911
Harrison	22,800,774	12,138,000	7,605,333	3,057,440
Jackson	7,233,389		3,567,974	3,665,415
Jefferson	7,450,835	4,131,166	2,058,880	1,260,788
Mahoning	227,249		46,438	180,811
Noble	4,310,136		4,165,283	144,853
Perry	25,846,704	16,988,154	3,095,366	5,763,183
Stark	2,535,389		2,237,142	298,247
Tuscarawas	9,471,632	4,023,130	3,706,261	1,742,241
Vinton	1,826,473		1,676,473	150,000
TOTAL	\$218,785,067	\$116,411,382	\$38,678,165	\$63,695,520

¹For those operations reporting activity in more than one county, wage and salary payments were evenly split between the counties involved unless county-specific information was provided by the operator.

²For those operations reporting only a total wage and salary payment for all workers, an equal pay rate was assumed for all employees. In cases where quarterly employment was reported but wage and salary payments were not, wage and salary payments for that quarter were estimated from reported payments in the other quarters to arrive at the annual figure. For mines reporting employment and no wage and salary payments, wage and salary payments were estimated using a countywide or statewide average.

³Any tally inconsistencies are due to rounding.

INDUSTRIAL MINERALS

(See also Appendix B)

Industrial minerals are nonmetallic, nonfuel rocks or minerals that have economic value and are essential to modern society. Industrial minerals have been mined or quarried in Ohio since the establishment of early settlements and include salt, sandstone, conglomerate, clay, shale, limestone, dolomite, gypsum, sand, and gravel. Hundreds of construction, chemical, and industrial products rely on the availability of industrial minerals.

The production of multiple commodities, including coal and/or one or more industrial minerals, is important to successful mine operations in many areas of Ohio. The most common multiple operations are sand and gravel with clay; coal along with clay, shale, or limestone; and limestone with associated clay or shale. The production of sand and gravel along with clay is often located in the glaciated portions of

northern and western Ohio, where deposits of sand and gravel can be overlain by clay-rich glacial tills. The Pennsylvanian-age cyclic sedimentation in eastern Ohio includes coals, clays, shales, and limestones in close proximity, allowing for economic recovery of multiple commodities.³

Industrial minerals were produced in a total of 87 Ohio counties in 2012 and 329 companies held valid permits for 523 industrial-mineral mining operations. Industrial minerals were reported as produced or sold by 225 companies from 337 active operations. The combined value of all industrial minerals sold in 2012 was \$870,363,689 (table 11).

The total average annual employment reported in 2012 for industrial-mineral operations was 3,306 people (2,430 production employees and 876 nonproduction employees; table 12). Total wages for all employees at industrial-mineral operations in 2012 were \$162,111,310. The average annual wage, based on those employees for whom wages were reported, was \$49,035.

³The following links will provide more information on the general bedrock and glacial geology of Ohio:

http://www.dnr.state.oh.us/Portals/10/pdf/BG-1_8.5x11.pdf
<http://www.dnr.state.oh.us/Portals/10/pdf/glacial.pdf>

TABLE 11. 2012 Value of Ohio industrial minerals

Commodity	Sales (tons)	Change from 2011 (tons/percent)	Value ¹	Percent of total value
Limestone and dolomite	58,188,739	+4,600,415/+8.6	\$494,626,494	56.8
Sand and gravel	29,410,320	+2,109,185/+7.7	\$192,194,837	22.1
Salt	3,552,814	-2,024,033/-36.3	\$127,683,120	14.7
Sandstone and conglomerate	1,409,178	+218,846/+18.4	\$46,598,064	5.4
Clay	289,322	+316/+0.1	\$1,866,422	0.2
Shale	394,190	-340,068/-46.3	\$7,394,802	0.8
Peat	420	+246/+141.4	\$3,360	<0.1
Total	93,244,983	+4,564,907/+5.1	\$870,367,049	100.0

¹The FOB value of industrial minerals sold was estimated for those mines that failed to report this information and for those producing material for captive use. These estimates were calculated using a countywide- or statewide-average price per ton based on reported FOB values.

TABLE 12. 2012 Employment at Ohio industrial-mineral operations, by county and commodity (cont.)

County ¹	Total employees ²	Number of employees ³															
		Total ²		Limestone and dolomite		Sand and gravel		Sandstone and conglomerate		Clay		Shale		Salt		Multiple commodities	
		Production	Non Production	Production	Non Production	Production	Non Production	Production	Non Production	Production	Non Production	Production	Non Production	Production	Non Production	Production	Non Production
Marion	17	14	3	6		4	3					4					
Medina	20	15	5			15	5										
Meigs	29	21	8			21	8										
Mercer	11	7	4	7	4												
Miami	53	35	18	33	15	2	3										
Monroe	5	3	2	3	2												
Montgomery	57	41	16	11	5	30	11										
Morrow	9	7	2			7	2										
Muskingum	86	71	16	44	11	11	3			4	1	6				6	1
Noble	7	6	1	6	1												
Ottawa	86	70	16	70	16												
Paulding	17	14	3	14	3												
Perry	29	24	5					19	4			5	1				
Pickaway	30	25	5	8	2	17	3										
Pike	26	20	6	8	2	4	2	8	2								
Portage	110	90	20			68	13									22	7
Preble	37	27	10	10	2	16	8									1	
Putnam	14	11	3	11	3												
Richland	28	24	4			24	4										
Ross	22	18	4			18	4										
Sandusky	226	198	28	190	23											8	5
Scioto	7	6	1			6	1										
Seneca	59	40	19	40	19												
Shelby	22	17	5		2	10	1									7	2
Stark	105	88	17			86	15									2	2
Summit	16	11	5			3	1							8	4		
Tuscarawas	86	64	22	2	1	29	6			14	9	7	3			12	3
Union	23	15	8	15	8												
Van Wert	18	16	2	16	2												
Warren	41	31	10			31	10										
Washington	31	18	13			18	13										
Wayne	37	25	12			6	2	2	1					12	6	5	3
Williams	5	5				5											
Wood	53	44	9	30	5											14	4
Wyandot	81	71	10	56	7	15	3										
TOTAL	3,306	2,430	876	1,040	307	843	346	143	39	31	14	34	5	221	106	119	58

¹For those operations reporting activity in more than one county, the number of employees was rounded and evenly split between the counties, unless county-specific information was provided by the operator.

²Any tally inconsistencies are due to computer rounding of fractions produced by partial-year employment.

³Employment is not included for mines that were owner operated.

LIMESTONE AND DOLOMITE

(See also Appendix C)

Limestone and dolomite are Ohio’s most versatile industrial minerals. Both are used by the construction industry as aggregate, as an essential ingredient in the cement industry, to produce lime, as a flux in the steel and glass industries, as a filler in a multitude of products, as an agricultural supplement, in water purification, and as a building stone. Ohio has long been a national leader in the production of lime and construction aggregates.

In 2012 the primary use for crushed and broken limestone and dolomite was road construction/resurfacing. Other major uses for various forms of limestone and dolomite included stone for asphaltic concrete and Portland cement concrete, commercial building construction, and the production of lime. Since 2011, there has been a significant increase in the railroad transportation of aggregates and other industrial minerals in Ohio, largely to support the development of hydrocarbons in eastern Ohio.

Production

Limestone and dolomite were reported sold and/or produced by 56 companies at 103 operations in 50 Ohio counties during 2012 (fig. 5). Reported production totaled 58,305,506 tons.

Ohio ranks fourth in the production of crushed stone (which includes crushed sandstone) out of 50 producing states. The top five states in the production of crushed stone, in descending order, are Texas, Pennsylvania, Missouri, Ohio, and Illinois (USGS, 2013c). Ohio had the second highest increase in production compared to 2011, both as a percentage and total tonnage, trailing only Texas.

Devonian-age and Silurian-age carbonates located in the western half of Ohio are the primary geologic units producing crushed stone. Pennsylvanian-age and Mississippian-age limestones are important sources of aggregate in local markets of eastern Ohio (Stout, 1941; Lamborn, 1951), particularly the Youngstown (Mahoning County) and Zanesville (Muskingum County) areas. The top five geologic units in Ohio producing limestone or dolomite during 2012, in descending order of total tonnage (see fig. 7), were:

- Devonian-age Columbus Limestone
- Silurian-age Lockport Dolomite
- Devonian-age Detroit River Group
- Silurian-age Greenfield/Tymochtee Dolomites
- Silurian-age Cedarville Dolomite

Ohio ranks fourth nationally in the production of lime out of 29 producing states and Puerto Rico. The top five states, in descending order of lime production, are Missouri, Kentucky, Alabama, Ohio and Texas (USGS, 2013a). Lime produced from Ohio limestone and dolomite totaled 1,939,515 tons in 2012 and came from four operations in Ottawa, Sandusky, and Seneca Counties (table 14). A major expansion at a lime plant in northern Ohio will increase production of dolomitic quicklime used by the steel industry and as a feedstock to produce magnesia (USGS, 2013b).

Economic Impact

Estimated sales of limestone and dolomite totaled 58,188,739 tons, up 8.6 percent from 2011 (Wolfe, 2012; fig. 6 and table 13). Wyandot, Ottawa, Erie, Franklin, and Sandusky Counties accounted for 41.1 percent of those sales.

The total value⁴ of limestone and dolomite sold in 2012 was \$494,626,494 (fig. 6). Average price was \$8.50 per ton.

An annual average of 1,040 employees worked an average of 192 days to produce limestone and dolomite. Total wages of \$69,573,897 were paid to a total of 1,347 employees (1,040 production employees and 307 nonproduction employees; table 12). The average annual wage, based on those employees for whom wages were reported, was \$51,651.

⁴Includes reported and estimated values. See footnote 1, p. 1.

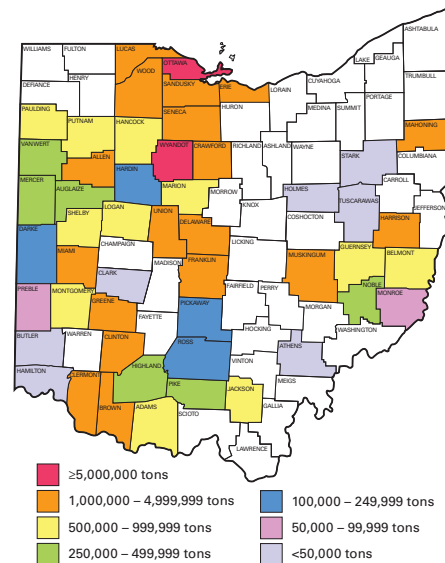


FIGURE 5. Sales of limestone and dolomite in Ohio in 2012, by county and quantity.

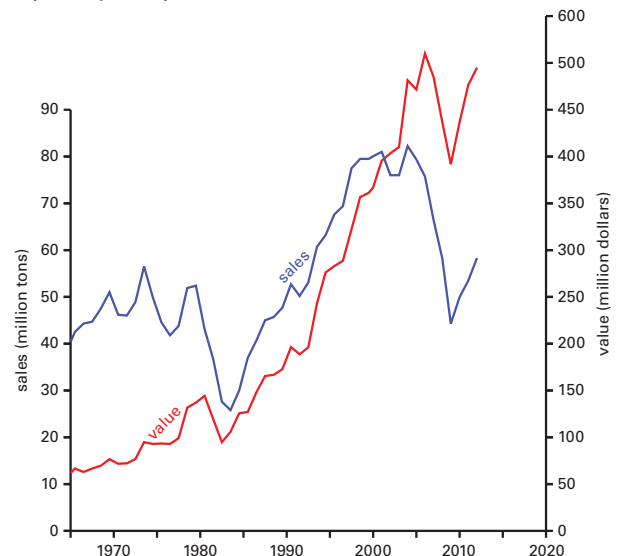


FIGURE 6. Sales and value of limestone and dolomite in Ohio.

TABLE 13. 2012 Ohio limestone and dolomite sales, by county and use (cont)

County	Tons sold																	
	Total all types	Crushed and broken stone											Dimension stone	Stone for portland cement manufacture	Agricultural stone (aglime)	Raw stone for burning		
		Total	Riprap	Flux stone	Stone for portland cement concrete	Stone for asphaltic concrete	Road construction/resurfacing	Commercial building	Railroad ballast	Extenders/fillers	Unspecified/other							
Paulding	917,509	917,378	1,892	170,000	170,000	274,433	285,387	1,000	15,666									
Pickaway	225,738	225,738	5,000	30,000	70,000	80,000	20,000	1,000	19,738									
Pike	456,260	456,260	19,600	100,000	125,000	125,000	25,000	10,000	51,660									
Preble	55,816	51,905	12,066			39,839												
Putnam	547,000	547,000	1,000	110,000	16,000	294,000			126,000									
Ross	231,160	231,160				150,000	50,000		31,160									
Sandusky	3,109,246	1,191,535	4,898	245,650	177,062	475,607	288,318											
Seneca	1,509,582	868,570	3,090	54,816	132,000	207,042	97,520		2,102	372,000								1,912,856
Shelby	506,178	506,178	12,608			493,570												610,000
Stark	469	469																
Tuscarawas	18,551	18,551				10,737			7,814									
Union	1,408,370	1,408,370	20,000	250,000	350,000	550,000	150,000		88,370									
Van Wert	490,385	490,385		84,000	122,000	70,000	50,000		164,385									
Wood	1,470,006	1,470,006	24,285	130,183	423,005	543,637	323,000	5,000	17,953	2,943								
Wyandot	6,569,847	6,569,847	98,000	1,345,673	1,025,544	2,814,508	648,938	60,000	443,184	61,000								
TOTAL	58,188,739	53,855,878	829,113	7,784,945	7,709,381	21,440,484	5,786,947	319,731	9,035,673	864,634								2,791,335

TABLE 14. 2012 Production of lime from Ohio, by county and use

County	Total tons ¹	Building (tons)	Chemical and industrial (tons)	Refractory (tons)
Ottawa	122,036	75,704	46,332	
Sandusky	1,515,479		992,679	522,800
Seneca	302,000		302,000	
TOTAL	1,939,515	75,704	1,341,011	522,800

¹Burning produced a 30.5% weight loss.

SYSTEM		LITHOSTRATIGRAPHIC UNITS
GROUP		
Pleistocene		Glacial clay
Permian	Dunkard	
Pennsylvanian	Monongahela	Fishpot limestone Redstone limestone
	Cone-maugh	Bellaire sandstone Ames limestone Buffalo sandstone Brush Creek limestone
	Allegheny	Lower Kittanning clay Vanport limestone Putnam Hill limestone Clarion shale Newland-Brookville clay/limestone
	Pottsville	Tionesta clay Middle Mercer clay Flint Ridge clay Massillon sandstone Sharon conglomerate
Mississippian		Maxville Limestone Logan Formation Black Hand Sandstone Buena Vista Sandstone
Devonian	Detroit River	Berea Sandstone Bedford Shale Ohio Shale Chagrin Member Ten Mile Creek Dolomite Dundee Limestone
	Salina	Delaware Limestone Columbus Limestone Salina Dolomite "Salt beds"
Silurian		Tymochtee Dolomite Greenfield Dolomite Pebbles Dolomite Cedarville Dolomite Lockport Dolomite Laurel Limestone Dayton Limestone Brassfield Limestone
Ordovician	Black River	Black River Limestone

FIGURE 7. Stratigraphic column of industrial minerals mined in Ohio during 2012. Modified from Slucher and others (2006), Ohio Division of Geological Survey (1990), and Brant and Delong (1960, table 9).

SAND AND GRAVEL

(See also Appendix D)

Sand and gravel are common raw materials but can be found as major constituents of asphalt, concrete, mortar, landscaping, roofing shingles, soil additives, and many other products. Sand-and-gravel production increased rapidly in Ohio beginning in the 1950s with the development of improved mining and processing machinery and increased demand from road building (Ohio Division of Geological Survey, 1959). Many depleted sand-and-gravel operations have been redeveloped as parks, residential, or commercial facilities due to their proximity to urban areas.

Commercial and residential building, Portland cement concrete, asphaltic concrete, and road construction/resurfacing were the major uses for Ohio sand and gravel in 2012. One major sand-and-gravel operation in central Ohio currently is converting a portion of the property to a limestone quarry and processing plant.

Production

Sand and gravel were reported sold and/or produced by 148 companies at 213 operations in 57 Ohio counties during 2012 (fig. 8). Estimated production of sand and gravel totaled 30,479,982 tons in 2012.

Out of 50 producing states and Puerto Rico, Ohio ranks sixth nationally in the production of construction sand and gravel. The states leading Ohio, in descending order of production, are California, Texas, Minnesota, Michigan, and Utah. Ohio ranks fourth nationally in the production of

aggregates, including crushed stone. The top five states in the production of aggregates are Texas, California, Pennsylvania, Ohio, and Missouri (USGS, 2013c).

Sand-and-gravel deposits in Ohio primarily are associated with Wisconsinan-age glacial outwash and kame terraces in the valleys and tributaries of the Great Miami, Scioto, and Muskingum Rivers located in the central and southwestern portions of the state. Important sand-and-gravel deposits also are found in glacial kames in northeastern Ohio, particularly south of Cleveland in Portage, Summit, and Stark Counties. Additional sand-and-gravel resources are found in beach ridges associated with ancestral Lake Erie and alluvium of modern floodplains of the Ohio River and its tributaries.

Economic Impact

Estimated sales of sand and gravel totaled 29,410,320 tons (+7.7 percent from 2011; Wolfe, 2012; fig. 9). Sand accounted for 15,916,396 tons of the total sand and gravel sold; gravel accounted for 13,493,924 tons (table 15). Stark, Portage, Hamilton, Franklin, and Butler Counties led in sales, accounting for 45.5 percent of the total.

The total value⁵ of sand and gravel sold in 2012 was \$192,194,837 (fig. 9). Average price was \$6.53 per ton.

An annual average of 843 employees worked an average of 162 days in 2012 to produce sand and gravel. Total wages of \$57,396,597 were paid to a total of 1,189 employees (843 production employees and 346 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was \$48,273.

⁵Includes reported and estimated values. See footnote 1, p. 1.

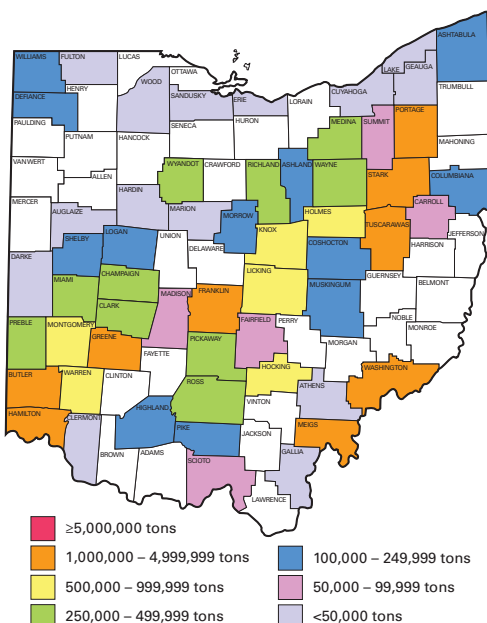


FIGURE 8. Sales of sand and gravel in Ohio in 2012, by county and quantity.

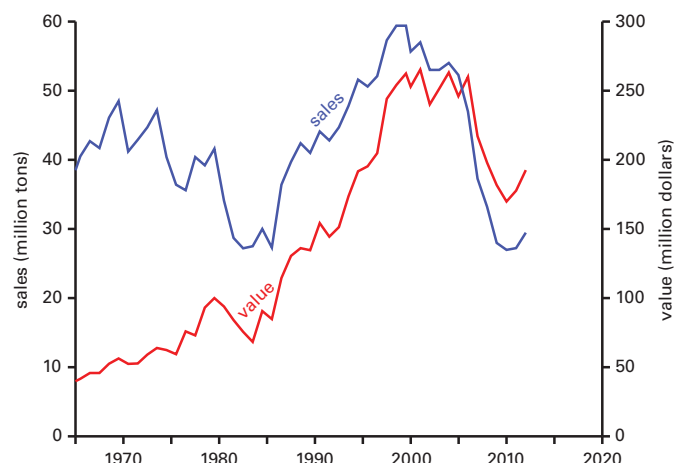


FIGURE 9. Sales and value of sand and gravel in Ohio.

TABLE 15. 2012 Ohio sand and gravel sales, by county and use

County	Tons sold																
	Total sand and gravel	Total sand	Total gravel	Building		Portland cement concrete		Asphaltic concrete		Road construction/resurfacing		Filtration		Foundry sand	Industrial sand	Other/unspecified	
				Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel			Sand	Gravel
Ashtand	149,693	25,850	123,843	7,755	11,571											2,585	37,966
Ashtabula	128,613	81,347	47,266	57,095	25,656	18,610	3,088			15,510	74,306	950	316			1,604	21,295
Athens	10,000	5,000	5,000	5,000	5,000												
Auclair	9,519	6,760	2,759	2,655	2,057	4,105	702										
Butler	1,974,122	982,654	991,468	211,377	254,779	5,000	1,500	25,000	40,000	242,000	255,000					499,277	440,189
Carroll	59,410	29,705	29,705					29,705				4,456					
Champaign	353,197	191,186	162,011	26,214	31,581	130,897	52,870	24,575	77,560	9,500	19,000						
Clark	468,225	174,117	294,108	18,350	20,350	61,000	70,000	60,500								45,267	123,758
Clermont	3,120	3,120														27,089	42,808
Columbiana	163,309	68,904	94,405	19,800	22,262			10,503	9,635	9,565	9,635	1,948	19,700				
Coshocton	229,873	81,432	148,441	15,119	19,345	10,000	20,000	20,000	92,739	20,000		122				16,191	6,357
Cuyahoga	39,085	39,085														39,085	
Darke	42,945	15,000	27,945													15,000	27,945
Defiance	211,104	171,645	39,459	18,114	36,179	153,531										15,000	3,280
Erie	157	157															157
Fairfield	94,385	46,921	47,464													46,921	47,464
Franklin	2,385,115	1,359,886	1,025,229	102,907	369,272	908,321	247,165	116,823	154,060	228,235	250,307					3,600	4,425
Fulton	12,500	12,500		12,500													
Gallia	4,522	4,163	359													2,985	
Geauga	450	450														450	
Greene	1,319,707	507,592	812,115	9,220	87,316	201,849	171,244	19,239	75,618	33,000	45,721	11,000	8,000	9,513		223,771	432,216
Hamilton	2,960,917	1,719,815	1,241,102	597,577	528,226			27,405	45,290	310,000	309,500					784,833	350,086
Hardin	110	110			110												
Highland	102,677	62,626	40,051		12,354	59,901	16,611	9,838	25,000	45,045	25,000	2,724	1,249				
Hocking	604,460	318,738	285,722	27	8,000	3,000	92,104	177,558	92,104	45,045	25,000	25,000	4,376			65,983	153,242
Holmes	593,819	295,728	298,091	28,932	87,420	71,560	8,804	60,278	29,718	47,794	90,275	12,919	19,239			74,246	62,636
Knox	750,296	387,491	362,805	37,238	60,466	165,974	81,125	62,215	78,099	17,198	78,099	16,521				85,956	125,938
Lake	3,149	3,149														3,149	
Licking	708,196	367,296	340,900	107,408	201,159	149,216	14,289	65,672	45,691	40,000	70,054	350				5,000	9,707
Logan	147,259	64,955	82,304	2,866	8,231	10,782										50,957	74,073
Madison	57,613	23,413	34,200	13,021	34,200					10,392							
Marion	23,384	20,063	3,321	1,141		18,919											1,529
Medina	367,000	245,000	122,000	85,000	122,000	100,000	40,000	40,000	40,000	40,000	40,000					60,000	
Meigs	1,322,190	799,904	522,286	40,000	40,000	30,000	30,000	40,000	40,000	40,000	40,000					649,904	372,286
Miami	372,145	195,417	176,728	34,580	34,580	46,400										149,017	142,148

TABLE 15. 2012 Ohio sand and gravel sales, by county and use (cont.)

County	Tons sold																
	Total sand and gravel	Total sand	Total gravel	Building		Portland cement concrete		Asphaltic concrete		Road construction/resurfacing		Filtration		Foundry sand	Industrial sand	Other/unspecified	
				Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel			Sand	Gravel
Montgomery	832,890	415,795	417,095	244,380	182,217											171,415	234,878
Morrow	159,812	94,340	65,472	89,208	37,301											102,384	4,705
Muskingum	201,708	146,703	55,005	14,826	8,896											17,243	33,359
Pickaway	340,973	151,685	189,288	24,442	120,428	10,000										206,462	8,860
Pike	240,876	212,356	28,520			5,894											24,840
Portage	3,028,063	2,055,991	972,072	235,805	212,732	771,531	44,221	242,707	300,302	396,996	296,823	17,454	48,834			391,498	69,160
Preble	288,479	140,060	148,419	109,593	128,472					30,467	19,922						25
Richland	323,277	125,001	198,276	22,277	134,215	19,500		25,080	36,213		2,223					58,144	25,625
Ross	367,692	170,587	197,105	25,318	43,443	28,322	22,990	39,114	62,762	20,808	33,014					57,025	34,896
Sandusky	2,458	2,280	178			2,280			178								
Scioto	50,303	38,150	12,153	13,832	10,852	24,318	911										390
Shelby	207,773	75,196	132,577		310	64,009	59,323		33,724							11,187	39,220
Stark	3,035,613	1,633,702	1,401,911	195,219	256,486	241,962	23,443	221,729	325,781	641,330	534,083					333,462	262,118
Summit	54,940	47,215	7,725	1,506	2,630			38,297		7,412	1,413						3,682
Tuscarawas	1,535,765	944,969	590,796	279,495	258,351	142,033	30,667	148,577	82,700	278,030	207,635			85,392		11,442	11,443
Warren	998,456	354,683	643,773	149,910	224,479	30,000	33,000	31,031	30,000							143,742	356,294
Washington	1,037,123	333,872	703,251	88,188	163,854	59,596	361,212	99,680	40,000	60,000	80,299					26,408	57,886
Wayne	480,706	268,180	212,526	88,837	171,757	90,390	5,067	48,645	23,145	34,010	9,686	6,298	2,871				
Williams	237,991	162,683	75,308	162,683	75,308												
Wood	24,000	24,000						24,000									
Wyandot	289,156	211,156	78,000	86,000	75,000	80,000		39,000								6,156	3,000
TOTAL ¹	29,410,320	15,916,396	13,493,924	3,250,835	4,128,845	3,707,745	1,148,104	1,849,987	1,696,143	2,538,409	2,736,695	85,078	131,135		94,905	4,389,438	3,653,006

¹Any tally inconsistencies are due to rounding of production tonnages.

SANDSTONE AND CONGLOMERATE

(See also Appendix E)

Extensive high-quality sandstone and conglomerate deposits are located in central and eastern Ohio, from near Lake Erie to the Ohio River. In the mid-1800s, these geologic resources were developed into a large building-stone industry, glass production, and to support the steel and associated industries. Ohio led the nation in sandstone production for many decades; this natural resource continues to support the state’s industries today.

Crushed sandstone was used primarily for construction, glass sand, industrial sand, hydraulic fracturing proppant, and aggregate. Dimension stone was used primarily for rough construction purposes. A summary of potential sand resources that may be suitable for use in hydraulic-fracturing—GeoFacts No. 27, *Fracture Sand in Ohio*—was released by the ODNR Division of Geological Survey in September 2013 (Wolfe, 2013).

Recent nationally significant projects using sandstone building-stone from Ohio include Yale University; U.S. Military Academy at West Point, New York; Buffalo, New York, Post Office; Hockey Hall of Fame; and the Walker Center for Performing Arts, Harrisburg, Pennsylvania. Significant Ohio project sites include Kenyon College, Baldwin Wallace College, Lucas County Courthouse, and the University of Cincinnati.

Production

Sandstone and conglomerate were reported sold and/or produced by 21 companies at 27 operations in 18 Ohio counties during 2012 (fig. 10). Reported production of sandstone and conglomerate was 1,708,957 tons in 2012.

Ohio ranks fifteenth out of 36 producing states nationally in production of all dimension stone. Ohio ranks third in the production of sandstone dimension stone. The top five states, in descending order of total dimension-stone production, are South Dakota, Texas, Wisconsin, Indiana, and Georgia (USGS, 2013d). National standings for crushed stone are included in the “Limestone and Dolomite” section (p. 12).

The Pennsylvanian-age Sharon conglomerate in northeastern Ohio was the most productive sandstone mined for industrial purposes during 2012. The Pennsylvanian-age Massillon sandstone and the Mississippian-age Black Hand Sandstone also were important sources of high-silica sandstone. The Massillon sandstone and the Devonian-age Berea Sandstone of northern Ohio, as well as the Mississippian-age Buena Vista Sandstone in southern Ohio, were the primary geologic units quarried for building stone (Bownocker, 1915; see also fig. 7).

Economic Impact

Sales of sandstone and conglomerate in Ohio totaled 1,409,178 tons (+18.4 percent from 2011; Wolfe, 2012; fig. 11). Geauga, Mahoning, Pike, Perry, and Knox Counties accounted for 90.1 percent of the total sales. Crushed sandstone and conglomerate accounted for 1,364,354 tons of the total sales (table 16) and dimension stone accounted

for 44,824 tons (table 17).

The total value⁶ of sandstone and conglomerate sold in 2011 was \$46,598,064 (fig. 11). Average price was \$23.37 per ton for crushed stone and \$147.89 per ton for dimension stone.

An annual average of 143 employees worked an average of 158 days in 2012 to produce sandstone and conglomerate. Total wages of \$7,765,576 were paid to a total of 182 employees (143 production employees and 39 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was \$42,668.

⁶Includes reported and estimated values. See footnote 1, p. 1.

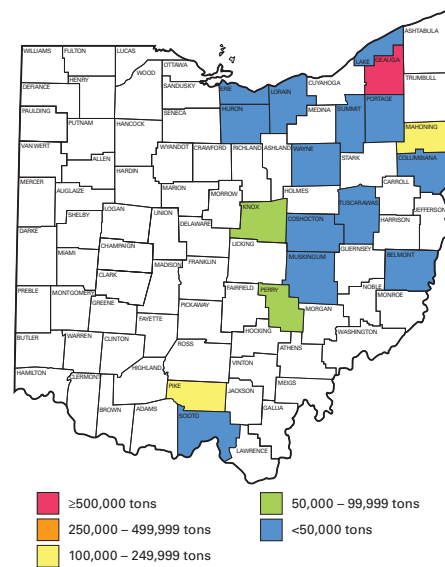


FIGURE 10. Sales of sandstone and conglomerate in Ohio in 2012, by county and quantity.

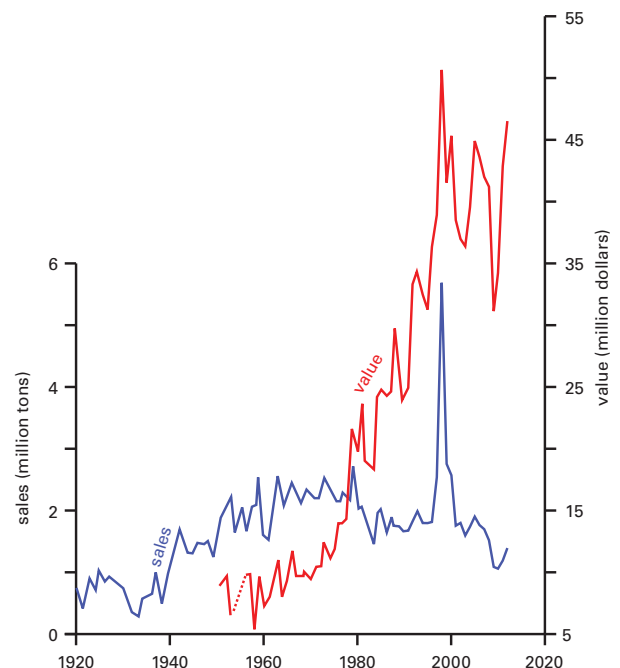


FIGURE 11. Sales and value of sandstone and conglomerate. Value line dashed where data not available.

TABLE 16. 2012 Ohio sales of crushed sandstone and conglomerate, by county and use

County	Tons sold														
	Total	Foundry sand	Glass sand	Metallurgical pebble	Refractory	Riprap	Aggregate	Silica flour	Polishing/ grinding sand	Fire and furnace sand	Engine sand	Frac sand	Construction	Industrial sand	Other/ unspecified
Belmont	297					297							2,941		7,321
Columbiana	10,503					241							267,804	63,898	129,991
Geauga	799,812	121,423	173,420			29,080		2,880				11,316	21,283		
Knox	73,348	520	21,601			21,133						29,944	14,843		
Lake	35,976												166,857		
Mahoning	166,857												6,512		2,332
Muskingum	2,332												7,460		
Perry	91,180	6,901	28,870		2,570		16,101					30,226	20,153	71,000	59,610
Pike	138,622	552													
Portage	20,153														
Tuscarawas	8,307	5,453													2,854
Wayne	16,967												16,967		
TOTAL	1,364,354	134,849	223,891		2,570	538	16,101	2,880				71,486	524,820	134,898	202,108

TABLE 17. 2012 Ohio sales of dimension sandstone, by county and use

County	Tons sold									
	Total	Refractory	Rough construction	Rubble	Grindstones	Rough architectural	Finished	Curbing	Flagging	Other/ unspecified
Coshocton	12,463		12,463							
Erie	8,373		3,408	359			4,588		18	
Huron	14,374		14,374							
Knox	56		56							
Lorain	7,430			1,310		6,120				
Scioto	1,850		1,850							
Summit	278					278				
TOTAL	44,824		32,151	1,669		6,398	4,588		18	

CLAY AND SHALE

(See also Appendices F and G)

The ceramics industry in Ohio has a long and dynamic history. Potteries were established by the early 1800s to supply dinnerware and by the early 1900s, Ohio was producing tremendous amounts of building bricks, sewer pipe, roof and floor tiles, paving bricks, art pottery, and refractory products. Edward Orton, Jr., established the first ceramics engineering program in the nation at Ohio State University in 1894. Ohio is home to the leading producer of unglazed quarry tile in the United States; one of the nation's oldest continually operating tile manufacturers; and a 110-year old roofing tile manufacturer whose products can be seen in 34 states and on nine federal buildings in Washington, D.C. Both the American Ceramic Society and the Edward Orton, Jr. Ceramic Foundation are headquartered in Westerville, Ohio. Ohio clay and shale is still being used to produce important ceramic products, though production tonnages are much less than 100 years ago. General discussions of clay and shale geology in Ohio can be found in Lamborn and others (1938) and Stout and others (1923).

Clay and shale mined in Ohio in 2012 was used largely for captive use in the production of common clay products, such as building bricks; in the construction industry; and to produce lightweight aggregate. Ohio ceramic products are shipped throughout the eastern United States and Canada. The Brick Industry Association has regularly recognized Ohio-made products for architectural awards; in 2011 and 2012, Ohio manufacturers were recognized for 19 projects in nine states and the province of Ontario, Canada.

Production

Clay was reported sold and/or produced by 20 companies at 24 operations in 15 Ohio counties during 2012 (fig. 12). Reported known production of clay was 289,322 tons.

Shale was reported sold and/or produced by 12 companies at 16 operations in 11 Ohio counties during 2012 (fig. 13). Reported production of shale in 2012 was 421,154 tons.

Combined clay and shale production in 2012 was the lowest since 1935. However based on 2011 data, the latest available from USGS, Ohio ranks fifth out of 40 producing states nationally in the production of common clay and shale. The states leading Ohio are Texas, Alabama, North Carolina, and Georgia (Virta, 2012).

Economic Impact

Clay sales (including material for captive use) totaled 289,322 tons (+0.1 percent from 2011; Wolfe, 2012; fig. 14); Tuscarawas, Licking, Athens, Greene, and Muskingum Counties accounted for 84.9 percent of the total sales (table 18).

The total value⁷ of clay sold (including material for captive use) in 2012 was \$1,866,422 (fig. 14). Average price was \$6.45 per ton.

An annual average of 31 employees worked mining clay (including multiple commodities) for an average of 123 days in 2012. Total wages of \$1,446,885 were paid to a total of 45 employees (31 production employees and 14 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was \$32,153.

⁷Includes reported and estimated values. See footnote 1, p. 1.

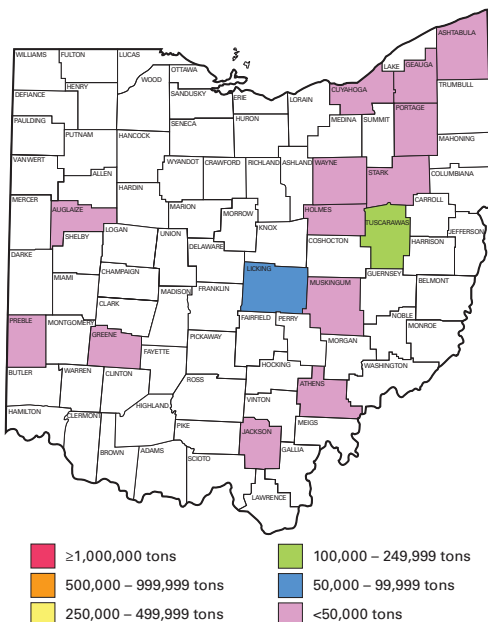


FIGURE 12.—Clay sales in Ohio in 2012, by county and quantity.

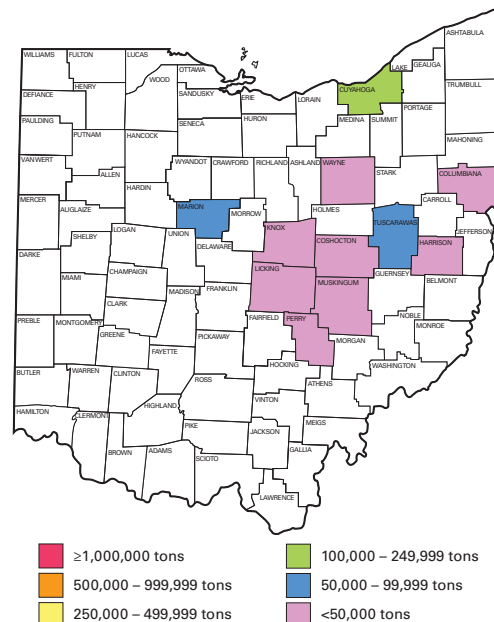


FIGURE 13.—Shale sales in Ohio in 2012, by county and quantity.

Shale sales (including material for captive use) totaled 394,190 tons (-46.3 percent from 2011; Wolfe, 2012; fig. 15); Cuyahoga, Tuscarawas, Marion, Harrison, and Muskingum Counties accounted for 88.0 percent of the total sales (table 19).

The total value⁸ of shale sold (including material for captive use) in 2012 was \$7,394,802 (fig. 15). Average price was \$18.76 per ton.

An annual average of 34 employees worked mining shale (including multiple commodities) for an average of 123 days in 2012. Total wages of \$1,568,229 were paid to

a total of 39 employees (34 production employees and 5 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was \$40,211.

Nearly all the clay and shale produced in Ohio is used to produce value-added products (e.g., building bricks, industrial ceramics, pottery, expanded aggregate, quarry tile), thus the economic impact is much greater than the combined \$8.3 million mined value. For instance, Ohio produced more than 400 million building bricks in 2012 with a market value greater than \$200 million.

⁸Includes reported and estimated values. See footnote 1, p. 1.

TABLE 18. 2012 Ohio clay sales, by county and use

County	Tons sold ¹								
	Total	Common clay products	Stoneware	Vitrified products	Cement manufacture	Refractories	Construction	Landfill use	Other/unspecified
Ashtabula	972						972		
Athens	35,000							35,000	
Auglaize	1,697	1,697							
Cuyahoga	1,249								1,249
Geauga	180	180							
Greene	22,750				22,750				
Holmes	4,000						4,000		
Jackson	9,366					9,366			
Licking	61,676						61,676		
Muskingum	14,177	7,716				6,461			
Portage	11,429	40					11,389		
Preble	470						470		
Stark	10,449	10,449							
Tuscarawas	112,109	112,109							
Wayne	3,797						3,797		
TOTAL	289,322	132,191			22,750	15,827	82,304	35,000	1,249

¹Any tally inconsistencies are due to rounding of total tons sold.

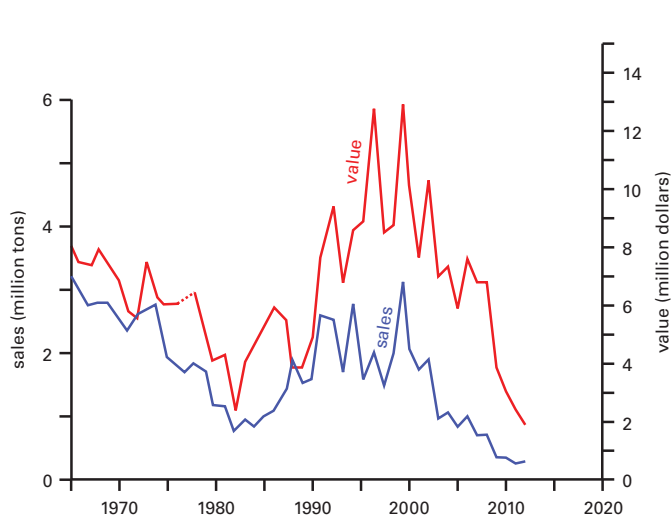


FIGURE 14.—Sales and value of clay in Ohio. Value line dashed where data not available.

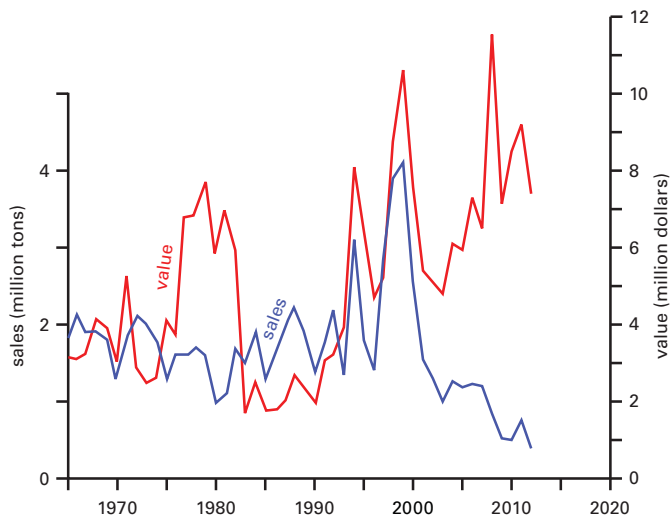


FIGURE 15.—Sales and value of shale in Ohio.

TABLE 19. 2012 Ohio shale sales, by county and use

County	Tons sold							
	Total	Common clay products	Vitrified products	Cement manufacture	Lightweight aggregate	Construction	Landfill use	Other/ unspecified
Columbiana	21,875	21,875						
Coshocton	2,168							2,168
Cuyahoga	130,834				130,834			
Harrison	29,892	29,892						
Knox	492					492		
Licking	8,033	8,033						
Marion	74,533	74,533						
Muskingum	23,170	22,920					250	
Perry	12,530							12,530
Tuscarawas	88,334	88,334						
Wayne	2,329					2,329		
TOTAL	394,190	245,587			130,834	2,821	250	14,698

SALT

(See also Appendix H)

Salt is one of the first industrial minerals produced in Ohio. It was a valuable commodity to the early pioneers and was obtained from natural salt springs. The first State Legislature enacted laws concerning the salt springs in 1803–1804 and wells were drilled in Jackson and Muskingum Counties leading to the first commercial salt production in the state. The most important area for early salt production was in Meigs County, beginning in 1850. By 1903, Ohio was producing 14.7 percent of all the salt in the United States (Bownocker, 1906).

The modern salt industry in Ohio began in 1956 with the construction of the underground salt mine at Fairport Harbor in Lake County. A second large underground operation was constructed in Cleveland, beginning in 1957.

The primary use for Ohio salt in 2012 was ice control. Salt also was used as an additive in animal feed, for cattle blocks, and as a commercial and residential water-softening agent.

Production

Salt was reported produced by 4 companies at 6 operations in 5 Ohio counties during 2012 (fig. 16). Estimated production of salt was 4,261,370 tons in 2012.

In descending order, the top five salt-producing states nationally, based on 2011 data from USGS, are Louisiana, Texas, New York, Ohio, and Kansas (Kostick, 2012).

Both solution-mined and rock salt in Ohio is produced from bedded deposits in the Silurian-age Salina Group. The

Salina salt beds are restricted to the subsurface in eastern Ohio. The Salina Group in eastern Ohio is subdivided into seven units, A through G, from lowest to highest. The salt produced in Ohio comes from the F unit, which is further subdivided into four beds. Individual salt beds are less than 100 feet thick and may contain thin interbeds of anhydrite and dolomite. Depth to the F unit varies from 1,900 feet in the Cleveland mine to over 2,000 feet at the Fairport Harbor mine (Tomastik, 2002; Clifford, 1973; see also fig. 7).

Economic Impact

Estimated total tonnage of salt sold in 2012 was 3,552,814 tons (–36.3 percent from 2011; Wolfe, 2012; fig. 17). Rock salt sales totaled 2,892,652 tons from two underground mines, one each in Cuyahoga and Lake Counties. Four brining operations, two in Licking County and one each in Summit and Wayne Counties, sold an estimated total of 534 tons of salt in brine and 659,628 tons of evaporated salt.

The total value⁹ of the salt sold in 2012 was \$127,683,120 (fig. 17). Average price of rock salt was \$16.29 per ton; salt in brine and evaporated salt was \$97.47 per ton. The average price of all salt sold was \$29.96 per ton.

An annual average of 221 employees worked to produce salt an average of 217 days in 2012. Total wages of \$16,395,126 were paid to a total of 327 employees (221 production employees and 106 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was \$50,138.

⁹Includes reported and estimated values. See footnote 1, p. 1.

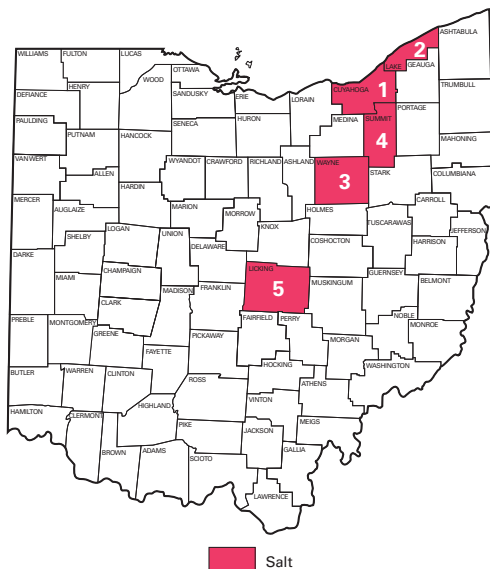


FIGURE 16.—Counties producing salt in Ohio in 2012 and their rankings in sales.

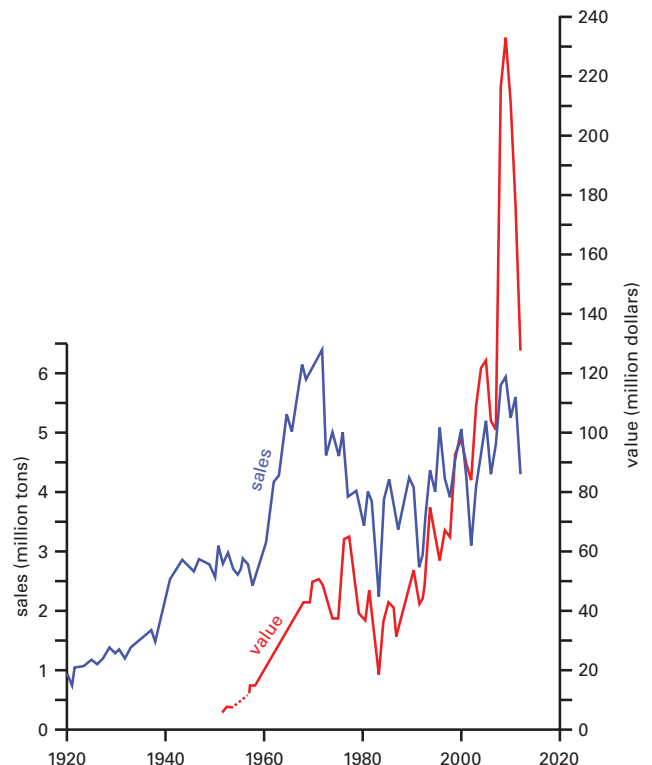


FIGURE 17.—Sales and value of salt in Ohio. Value line dashed where data not available.

GYPSUM

There was no gypsum production or sales reported in 2012. In fact, gypsum has not been produced in Ohio since 2004 (fig. 18). A history of gypsum production in Ohio can be found in Wolfe (2001).

PEAT

(See also Appendix I)

Peat sales were reported by one company in 2012 and totaled 420 tons with a value of \$3,360 (fig. 19). Dachnowski (1912) contains information on the origin, formation, and uses of peat in Ohio.

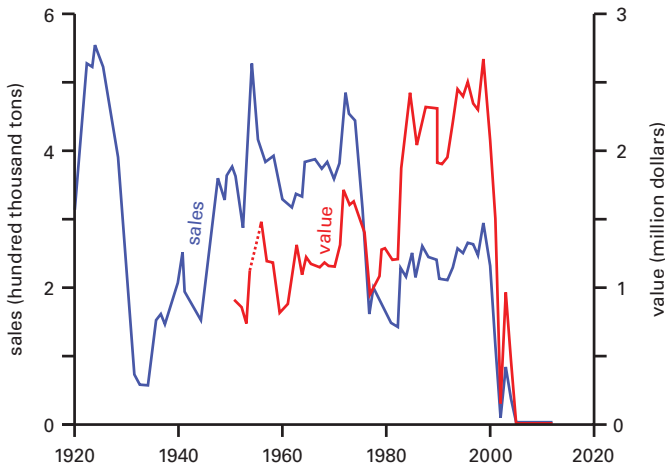


FIGURE 18.—Sales and value of gypsum in Ohio. Value line dashed where data not available. Some sales and values were estimated because in order to maintain confidentiality, actual sales and values were not reported.

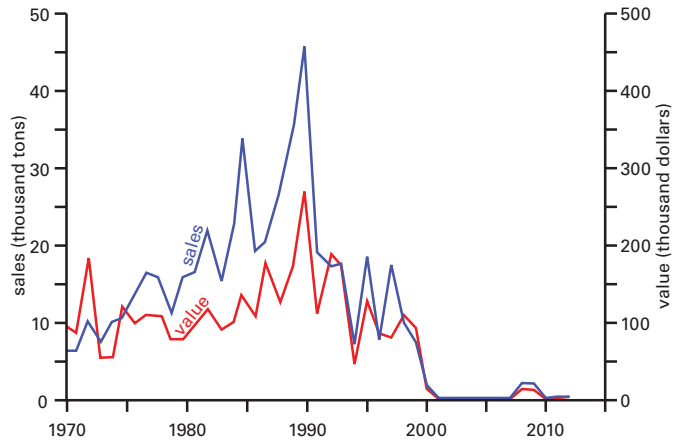


FIGURE 19.—Sales and value of peat in Ohio.

OIL AND GAS

(This information is summarized from DOGRM, in press)

The ODNR Division of Oil and Gas Resources Management (DOGRM) estimates that 553 wells were drilled in 2012, an increase of 93 wells from 2011. Wells were drilled in 44 of Ohio’s 88 counties (fig. 20), an increase of two counties from 2011. The top ten counties in number of new wells drilled in 2012 were Carroll, Noble, Licking, Knox, Stark, Monroe, Columbiana, Harrison, Muskingum, and Guernsey. The DOGRM received 538 well completion reports; 505 wells were productive and 33 were dry holes for a completion rate of 93.9 percent (table 20).

The Ordovician-age Utica-Point Pleasant interval was the most actively drilled in 2012 (table 21). Exploration in the Utica-Point Pleasant resulted in several new county drilling records for vertical depth: Jefferson County (10,320 feet); Monroe County (10,980 feet); and Washington County (10,220 feet). The longest statewide horizontal portion of a well was drilled to a length of 16,604 feet into the Utica-Point Pleasant interval. Drilling into the Silurian-age “Clinton” sandstone represented 30 percent of all drilling in 2012. Drilling in the Devonian-age Ohio Shale increased more than

45 percent compared to 2011, while drilling to the Cambro-Ordovician Knox unconformity decreased 40 percent.

The total reported crude oil production in Ohio in 2012 was 4,974,359 barrels (bbl; fig. 21), a 2.5 percent increase from 2011. Through 2012, Ohio wells have produced approximately 1.15 billion bbl of crude oil. The dollar value of crude oil produced in Ohio in 2012 was \$457,889,746, an increase of 4.8 percent. Average price per barrel in 2012 was \$92.05, a 2.2 percent increase from the 2011 price.

Natural gas production in Ohio in 2012 was 86,770,137 thousand cubic feet (MCF; fig. 21), a 18.4 percent increase from 2011. This production figure includes an estimated 732,015 MCF of gas used on the lease. Through 2012, Ohio wells have produced approximately 8.7 trillion cubic feet of natural gas. The dollar value of natural gas produced in Ohio in 2012 was \$248,162,591, a decrease of 20.1 percent from 2011. The value of the estimated volume of gas used on the lease was not used in computing the total dollar value. The average price per MCF in 2012 was \$2.86, a decrease of \$1.42 per MCF from 2011.

The combined total value of Ohio oil and gas production in 2012 was \$706,052,337, a decrease of 5.6 percent from 2011.

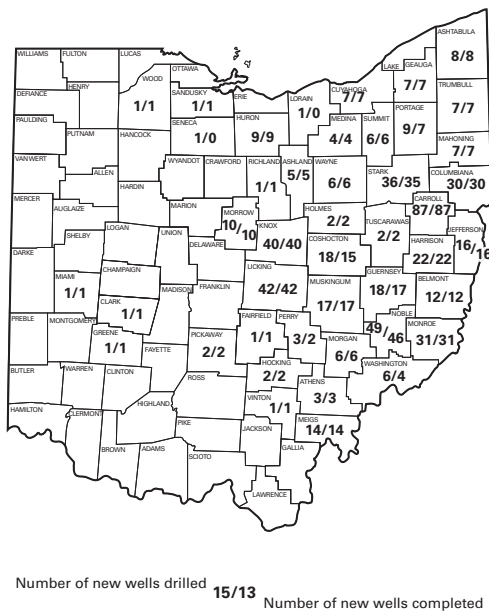


FIGURE 20.—New wells drilled and completed (including dry holes) for oil and gas in Ohio in 2012, by county (from DOGRM, 2013).

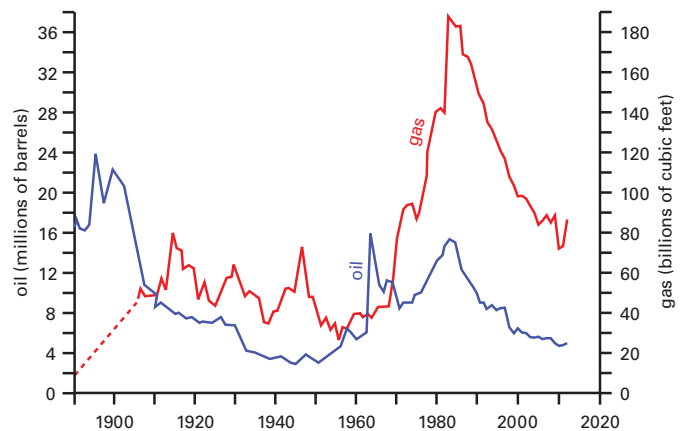


FIGURE 21.—Production of oil and gas in Ohio. Gas line dashed where data not available.

TABLE 20. 2012 Ohio summary of new oil and gas well completions, by county

County ¹	Development wells		Exploratory wells		Total wells	Percent productive	Drilled footage		
	Productive	Dry	Productive	Dry			Productive	Dry	Total
Ashland	4	0	0	1	5	80	2,668	8,000	10,668
Ashtabula	4	0	0	4	8	50	13,017	27,164	40,181
Athens	2	0	0	1	3	67	4,121	6,200	10,321
Belmont	6	0	6	0	12	100	94,579	0	94,579
Carroll	45	0	42	0	87	100	1,178,078	0	1,178,078
Clark	0	0	1	0	1	100	1,820	0	1,820
Columbiana	4	0	26	0	30	100	390,147	0	390,147
Coshocton	13	1	1	0	15	93	57,989	6,500	64,489
Cuyahoga	5	1	0	1	7	71	17,437	8,836	26,273
Fairfield	0	1	0	0	1	0	0	3,909	3,909
Geauga	7	0	0	0	7	100	28,968	0	28,968
Greene	0	0	1	0	1	100	1,820	0	1,820
Guernsey	7	3	6	1	17	76	72,455	8,001	80,456
Harrison	9	0	13	0	22	100	305,933	0	305,933
Hocking	2	0	0	0	2	100	8,088	0	8,088
Holmes	0	1	0	1	2	0	0	13,217	13,217
Huron	7	1	1	0	9	89	27,129	3,338	30,467
Jefferson	6	0	10	0	16	100	233,742	0	233,742
Knox	35	1	2	2	40	93	104,645	17,030	121,675
Licking	40	0	1	1	42	98	109,308	4,449	113,757
Mahoning	4	0	3	0	7	100	58,654	0	58,654
Medina	2	1	0	1	4	50	5,859	13,526	19,385
Meigs	12	0	2	0	14	100	22,011	0	22,011
Miami	0	0	0	1	1	0	0	1,720	1,720
Monroe	23	0	8	0	31	100	144,987	0	144,987
Morgan	1	0	3	2	6	67	21,247	13,070	34,317
Morrow	7	3	0	0	10	70	25,912	10,584	36,496
Muskingum	15	1	1	0	17	94	60,288	7,047	67,335
Noble	36	0	10	0	46	100	267,893	0	267,893
Perry	2	0	0	0	2	100	4,602	0	4,602
Pickaway	1	1	0	0	2	50	2,573	2,690	5,263
Portage	6	0	1	0	7	100	44,853	0	44,853
Richland	1	0	0	0	1	100	4,660	0	4,660
Sandusky	1	0	0	0	1	100	3,526	0	3,526
Stark	28	1	5	1	35	94	207,766	14,212	221,978
Summit	6	0	0	0	6	100	24,669	0	24,669
Trumbull	7	0	0	0	7	100	37,618	0	37,618
Tuscarawas	0	0	2	0	2	100	25,081	0	25,081
Vinton	1	0	0	0	1	100	1,225	0	1,225
Washington	4	0	0	0	4	100	5,947	0	5,947
Wayne	5	0	1	0	6	100	28,222	0	28,222
Wood	1	0	0	0	1	100	1,185	0	1,185
TOTAL	359	16	146	17	538	94	3,650,722	169,493	3,820,215

¹No wells were drilled in these counties in 2012: Adams, Allen, Auglaize, Brown, Butler, Champaign, Clermont, Clinton, Crawford, Darke, Defiance, Delaware, Erie, Fayette, Franklin, Fulton, Gallia, Hamilton, Hancock, Hardin, Henry, Highland, Jackson, Lake, Lawrence, Logan, Lorain, Lucas, Madison, Marion, Mercer, Montgomery, Ottawa, Paulding, Pike, Preble, Putnam, Ross, Scioto, Seneca, Shelby, Union, Van Wert, Warren, Williams, and Wyandot.

TABLE 21. 2012 Ohio summary of new oil and gas well completions, by geologic unit¹

Geologic unit	Number of producing wells	Number of dry holes	Total number of wells	Percent productive	Total footage
Pennsylvanian undifferentiated	2	0	2	100	1,937
Upper Mississippian undifferentiated	1	0	1	100	1,590
Devonian					
"1st & 2nd Berea"	37	2	39	95	53,348
Ohio Shale	74	2	76	97	269,856
Silurian					
"Clinton-Medina"	160	1	161	99	592,483
Ordovician					
Utica/Point Pleasant	192	3	195	98	2,604,261
Trenton/Black River	4	1	5	80	14,551
Beekmantown	4	3	7	57	46,298
Cambrian-Ordovician					
Rose Run	4	9	13	31	84,989
Cambrian					
Trempealeau	27	12	39	69	151,502
TOTAL	505	33	538	94	3,820,815

¹Modified from DOGRM, 2013.

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TABLE 22. *Ohio counties¹ and their state mine number abbreviations²*

County	Abbreviation	County	Abbreviation	County	Abbreviation
Adams	Ads	Hamilton	Hmn	Noble	Ne
Allen	An	Hancock	Hk	Ottawa	Oa
Ashland	Ald	Hardin	Hdn	Paulding	Pg
Ashtabula	Asa	Harrison	Hn	Perry	Py
Athens	As	Henry	Hy	Pickaway	Pky
Auglaize	Ae	Highland	Hd	Pike	Pke
Belmont	Bt	Hocking	Hg	Portage	Pe
Brown	Bn	Holmes	Hs	Preble	Pre
Butler	Br	Huron	Hrn	Putnam	Pm
Carroll	Cl	Jackson	Jkn	Richland	Rd
Champaign	Cpn	Jefferson	Jfn	Ross	Rs
Clark	Ck	Knox	Kx	Sandusky	Sy
Clermont	Ct	Lake	Lke	Scioto	So
Clinton	Cln	Lawrence	Le	Seneca	Sa
Columbiana	Ca	Licking	Lg	Shelby	Shy
Coshocton	Cn	Logan	Lgn	Stark	Sk
Crawford	Cd	Lorain	Ln	Summit	St
Cuyahoga	Cya	Lucas	Ls	Trumbull	Tl
Darke	Dke	Madison	Mdn	Tuscarawas	Ts
Defiance	De	Mahoning	Mg	Union	Un
Delaware	Del	Marion	Mn	Van Wert	Vt
Erie	Ee	Medina	Ma	Vinton	Vn
Fairfield	Fd	Meigs	Ms	Warren	Wan
Fayette	Fe	Mercer	Mr	Washington	Wn
Franklin	Fn	Miami	Mi	Wayne	We
Fulton	Ftn	Monroe	Me	Williams	Ws
Gallia	Ga	Montgomery	My	Wood	Wd
Geauga	Gea	Morgan	Mon	Wyandot	Wt
Greene	Ge	Morrow	Mw		
Guernsey	Gy	Muskingum	Mum		

¹Henry County reported no production or sales of mineral commodities in 2012.

²As used for State of Ohio mine numbers.

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**2012 COAL COMPANIES WITH SALES
AND/OR PRODUCTION**

Company	Number of mines	Production (tons)	Sales (tons)
American Energy Corp.	1	8,446,709	8,704,942
American Landfill, Inc.	1	5,864	5,864
Anthony Mining Co., Inc.	2	93,182	93,182
B & N Coal, Inc.	4	489,229	489,229
Belden Brick Co.	2	3,887	3,887
Buckingham Coal Co., Inc.	3	2,761,708	1,661,854
Cedar Heights Clay Co.	1	1,565	1,565
D. & D. Mining Co.	1	3,969	3,596
Egypt Valley Stone, LLC	1	27,135	27,135
F. & M. Coal Co.	1	6,459	6,459
Harrison Resources, LLC	1	719,447	719,447
Hopedale Mining, LLC	1	1,158,900	1,163,224
Kimble Clay & Limestone Co.	3	189,570	189,570
Ohio Valley Coal Co.	1	5,718,637	5,758,579
Oxford Resource Partners, LP	21	4,460,455	4,460,455
Rosebud Mining Company ¹	8	767,922	767,922
Sands Hill Mining, LLC	3	723,527	710,669
Schaney Mining	1	15	15
Sidwell Materials, Inc.	1	16,720	16,720
Solomon's Mines, Inc.	1	1,791	1,791
Sterling Mining Co.	2	413,856	387,750
Waterloo Coal Co., Inc.	3	333,510	333,510
TOTAL: 22 companies	62	26,344,046	25,508,364

¹This mine was operated by Rosebud Mining Company from January 1 thru June 13, 2012, and Oxford Resource Partners, LP from June 14 thru December 31, 2012.

2012 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL MINE OPERATORS

For those mines that have not been assigned a state mine number, a letter designation is used (example: Bt-C).

The designation (u) indicates an underground mine.

To convert short tons to metric tons, multiply the given tonnage by 0.907185.

Name, address, telephone number, and president/owner/manager of company	Name of mine	County(ies)	2012 production (tons)	State mine number	Mineral Resources Management permit number
American Energy Corp. 43521 Mayhugh Hill Rd., Twp Rd. 88 Beallsville, OH 43950 (740) 795-5220 Robert E. Murray, pres.	Century Mine (u)	Belmont	8,446,709	Bt-67	D-0425
American Landfill, Inc. 7916 Chapel St. SE Waynesburg, OH 44688 (330) 866-3265 Chad Abell, pres.	American Landfill, Inc.	Stark	5,864	Sk-246	D-1090
Anthony Mining Co., Inc. P.O. Box 1298 Steubenville, OH 43952 (740) 266-8100 Albert Carapelotti, pres.	Carson-Harrah Patton-Mader	Harrison Harrison	92,488 694	Hn-766 Hn-A	D-1041 D-2281
B & N Coal, Inc. P.O. Box 100 Dexter City, OH 45727 (740) 783-3575 Carl Baker, Jr., pres.	Estadt Mine Westfork Mine Mantel Mine Whigville III	Noble Noble Noble Noble	94,292 130,280 119,160 145,497	Ne-BN Ne-BN5 Ne-BN7 Ne-BN8	D-1038 D-2218 D-2285 D-2332
Belden Brick Co. P.O. Box 20910 Canton, OH 44701 (330) 852-2424 Robert F. Belden, pres.	Wallick Pit Shanesville Pit	Tuscarawas Tuscarawas	2,352 1,535	Ts-1841 Ts-1939	IM-45 IM-47
Buckingham Coal Co., Inc. P.O. Box 400 Corning, OH 43730-0400 (740) 347-4565 Gerald N. Little, pres.	Buckingham Mine No. 7 (u) Buckingham Mine No. 6 (u)	Perry Perry	1,059,117 1,702,591	Py-B1 Py-B2	D-2223 D-2269
Cedar Heights Clay Co. 50 Portsmouth Rd. P.O. Box 295 Oak Hill, OH 45656-0295 (740) 682-7794 William T. Brown, pres.	Phillips	Jackson	1,565	Jkn-CH3	IM-2035
D. & D. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 (330) 549-3127 Donald Thompson, pres.	D. & D. Strip	Mahoning	3,969	Mg-D	D-2164
Egypt Valley Stone, LLC P.O. Box 188 Morristown, OH 43759 (740) 782-0042 Richard Petrozzi, pres.	Shugert	Belmont	27,135	Bt-E	IM-2299
F. & M. Coal Co. 3925 County Rd. 56 Toronto, OH 43964 (740) 544-5203 Edward Fiala, partner	Grabbit Pit	Jefferson	6,459	Jfn-FM1	D-2216

2012 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County(ies)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Harrison Resources, LLC P.O. Box 205 Cadiz, OH 43907 (740) 942-4393 Chuck Ungorean, pres.	Sexton 2	Harrison	719,447	Hn-H	D-2289
Hopedale Mining, LLC P.O. Box 415 Hopedale, OH 43976 (740) 937-2225 David G. Zatezalo, pres.	Hopedale Mine (u)	Harrison	1,158,900	Hn-169	D-0424
Kimble Clay & Limestone Co. 3596 State Route 39 W Dover, OH 44622-9801 (330) 343-1226 Keith B. Kimble, pres.	Kimble Clay & Limestone Co.	Stark	70,000	Sk-K	D-2263
	Kimble Clay & Limestone Co.	Tuscarawas	60,000	Ts-K10	D-2264
	Kimble Clay & Limestone Co.	Tuscarawas	59,570	Ts-K12	D-2327
Ohio Valley Coal Co. 153 Highway 7 S Powhatan Point, OH 43942 (740) 795-5220 Michael Loiacono, pres.	Powhatan No. 6 (u)	Belmont	5,718,637	Bt-68	D-0360
Oxford Resource Partners, LP P.O. Box 427 Coshocton, OH 43812 (740) 622-6302 Charles C. Ungorean, pres.	CR 29	Belmont	163,996	Bt-CON	D-2238
	Jeffco	Belmont	194,786	Bt-J	D-2319
	Lafferty	Belmont	122,023	Bt-0X3	D-2198
	Wheeling Valley	Belmont	338,437	Bt-0X5	D-2315
	Marietta Egypt Valley	Belmont	35,591	Bt-0X6	D-2386
	Shugert	Belmont	86,947	Bt-0X7	D-2387
	Oxford Resource Partners, LP	Belmont	4,887	Bt-0X8	D-2398
	Rosebud Miller	Columbiana	27,870	Ca-R ¹	D-23591
	Otesego	Guernsey	354,802	Gy-0X	D-2373
	Sandy Ridge	Harrison	6,080	Hn-A1	D-2292
	Standingstone Mine	Harrison	1,043,134	Hn-02	D-2277
	Ellis	Jefferson	389,691	Jfn-0X	D-2369
	Shuman	Noble	215,766	Ne-02	D-2379
	New Lex-Rambo	Perry	430,348	Py-01	D-2254
	Oxford Resource Partners, LP	Perry	355,693	Py-03	D-2376
	East Canton	Stark	330,576	Sk-0	D-2364
	Strasburg Slurry	Tuscarawas	7,516	Ts-HC	D-0981
Page	Tuscarawas	157,570	Ts-06	D-2325	
Stone Creek-Kaiser/Mathais	Tuscarawas	178,973	Ts-09	D-2340	
West	Tuscarawas	8,868	Ts-0X	D-2361	
Stone Creek Kopka	Tuscarawas	6,901	Ts-0X1	D-2393	
Rosebud Mining Company 301 Market St. Kittanning, PA 16201 (724) 545-6222 J. Clifford Forest, pres.	James Mine (Carrol Pits)	Carroll	1,962	Cl-B4	D-2229
	Miller Mine	Columbiana	19,569	Ca-R ¹	D-23591
	Kirk	Jefferson	46,063	Jfn-B1	D-2241
	Bergholz Mine (u)	Jefferson	217,764	Jfn-BI	D-1180
	Wilson Mine	Stark	5,835	Sk-BI5	D-2320
	Hamilton Strip	Stark	15,992	Sk-R	D-2357
	Rosebud Mining Co.	Stark	2,850	Sk-R1	D-2363
Tusky Mine (u)	Tuscarawas	457,887	Ts-TR	D-2177	
Sands Hill Mining, LLC P.O. Box 650 Hamden, OH 45634-0650 (740) 384-4211 Dave Zatezelo, pres.	Sands Hill Rockcamp II	Jackson	350,084	Jkn-S2	D-1087
	Big Valley	Vinton	53,866	Vn-S4	D-2114
	Big Rock	Vinton	319,577	Vn-S7	D-2344

2012 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County(ies)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Schaney Mining 47134 Giacobbi Rd. Jewett, OH 43986 (740) 937-2515 Melvin Schaney, owner	Kuchan	Harrison	15	Hn-SM1	D-2195
Sidwell Materials, Inc. 4620 Limestone Valley Rd. Zanesville, OH 43701 (740) 849-2422 Jeffrey Sidwell, pres.	Uniontown Stone	Belmont	16,720	Bt-S	D-2261
Solomon's Mines, Inc. 7732 Salem-Unity Rd. Salem, OH 44460 (330) 337-0123 Jack Solomon, pres.	Solomon's Mines, Inc.	Columbiana	1,791	Ca-SM	IM-1258
Sterling Mining Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452 (330) 549-2165 W. Thomas Mackall, pres.	Sterling-Carroll Hollow Deep (u) SMC-Shinn Hill (u)	Carroll Jefferson	150,647 263,209	Cl-S1 Jfn-ST2	D-2091 D-2187
Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 (740) 286-5633 Denton Bowman, pres.	Mead-Zinn & Westlake Layne Dundas-Oreton	Jackson Jackson Vinton	4,684 125,134 203,692	Jkn-367 Jkn-W2 Vn-191	D-0594, D-968, D-1083, D-1167, D- 2059 D-712 D-0867, D-0957, D-1004

¹This mine was operated by Rosebud Mining Company from January 1 thru June 13, 2012, and Oxford Resource Partners, LP from June 14 thru December 31, 2012.

2012 OHIO DIRECTORY OF COAL PREPARATION PLANTS AND ASSOCIATED FACILITIES, BY COUNTY

For those mines that have not been assigned a state mine number, a letter designation is used (example: Bt-C).

County	Name, address, telephone number, and president/owner/manager of company	Name of plant	Township	State mine number	Mining and reclamation permit number	Type of facility
Belmont	Marietta Coal Co. 67705 Friends Church Rd. St. Clairsville, OH 43950 (740) 695-2197 John Nicolozakes, mgr.	Loading Dock	Pultney	Bt-936	D-0216	loading dock, prep plant—jig, flotation, centrifugal dryer, crushers, screens
	Ohio Valley Coal Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 (740) 926-1351 John Forelli, pres.	Powhatan #6	Smith, Washington	Bt-68	D-0360	prep plant—jigs, cyclones, centrifuges, thickeners, filters, screens
	Ohio Valley Transloading Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 (216) 765-1240 Robert E. Murray, pres.	Harbour Facility	York	Bt-1198		dock
	Oxford Resource Partners, LP P.O. Box 427 Coshocton, OH 43812 (740) 622-6302 Charles C. Ungurean, pres.	Bellaire Dock	Pultney	Bt-832	D-0838	loading dock
	Rayle River Coal 67705 Friends Church Rd. St. Clairsville, OH 43950 (740) 695-2197 John Nicolozakes, pres.	Rayle River Terminal	Pultney	Bt-1191		coal transfer facility
Columbiana	Rosebud Mining Company 301 Market St. Kittanning, PA 16201 (724) 545-6222 J. Clifford Forest, pres.	Kensington Preparation Plant	West	Ca-879	D-0806	prep plant—heavy-media washer, cyclone, centrifuges, breaker
	State Line Resources, Inc. P.O. Box 419 Negley, OH 44441 (330) 426-9611 Charles H. Muse, Jr., pres.	State Line Resources, Inc.	Middleton	Ca-505	D-0223	prep plant—crushers, cyclones, screens
Coshocton	Oxford Resource Partners, LP P.O. Box 427 Cshocton, OH 43812 (740) 622-6302 Charles C. Ungurean, pres.	Lori Tipple	Franklin	Cn-736	D-0671	tipple
Gallia	Sands Hill Mining, LLC P.O. Box 650 Hamden, OH 45634-0650 (740) 384-4211 Dave Zatezalo, pres.	Sands Hill Coal Co., Inc.	Addison	Ga-183	D-0834	tipple
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 (740) 682-7787 T. L. Darlington, Jr., pres.	Waterloo Dock #1	Addison	Ga-229	D-0725	dock, tipple

**2012 OHIO DIRECTORY OF COAL PREPARATION PLANTS AND
ASSOCIATED FACILITIES, BY COUNTY (cont.)**

County	Name, address, telephone number, and president/owner/manager of company	Name of plant	Township	State mine number	Mining and reclamation permit number	Type of facility
Harrison	Hopedale Mining, LLC P.O. Box 415 Hopedale, OH 43907 (740) 937-2225 David G. Zatezalo, pres.	Hopedale Prep Plant	Green	Hn-169	D-0424	prep plant—heavy-media vessel, heavy-media cyclones, spirals, dryers, thickeners, crushers, screens
Jackson	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 (740) 682-7787 T. L. Darlington, Jr., pres.	Bowman Strip	Jefferson, Madison	Jkn-367	D-0285	prep plant—jig, crushers, breaker, screens, dryers, wash tables
Mahoning	Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 (330) 549-3979 Donald Thompson, owner	Thompson Bros. Mining Co.	Springfield	Mg-588	D-0711	tipple
Meigs	Meigs Point Dock, LLC P.O. Box 388 New Haven, WV 25265 (304) 255-7458 David Jude, pres.	Meigs Point Dock	Sutton	Ms-M	D-2323	dock
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 (740) 682-7787 T. L. Darlington, Jr., pres.	Waterloo Dock #3	Salisbury	Ms-285	D-0698	tipple, dock
Scioto	Norfolk Southern Railroad 914 Hayport Rd. Wheelersburg, OH 45694 (740) 574-8491 Charles G. Howard, asst. to mgr.	NS Wheelersburg Terminal	Porter	So-96		dock
Tuscarawas	Central Fuel Co. County Rd. 55 P.O. Box 165 New Philadelphia, OH 44663 (330) 339-5049 Keith B. Kimble, gen. mgr.	Central Fuel Co.	York	Ts-1938	D-0264	prep plant—jig, screen, dryers
	Oxford Resource Partners, LP P.O. Box 427 Coshocton, OH 43812 (740) 622-6302 Charles C. Ungurean, pres.	Strasburg Wash Plant	Franklin, Lawrence	Ts-1942	D-0287	prep plant—jigs, cyclones, centrifuges, crushers, screens, picking tables
		Slurry Wash Plant	Franklin, Lawrence	Ts-HC	D-0981	prep plant—cyclones
Vinton	Sands Hill Mining, LLC P.O. Box 650 Hamden, OH 45634-0650 (740) 384-4211 Dave Zatezalo, pres.	Sands Hill Tipple/ Preparation Plant	Clinton	Vn-641	D-0169, D-0309	tipple, prep plant—heavy-media washers, flotation, cyclones, centrifuge, crushers, screens, dryer, picking tables, magnets
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 (740) 682-7787 T. L. Darlington, Jr., pres.	Benedict Tipple Dundas Tipple	Swan Clinton	Vn-145 Vn-178	D-0159 D-0185	tipple tipple

2012 OHIO DIRECTORY OF PRODUCING COAL MINE OPERATORS, BY COUNTY

NOTE: This directory lists only coal-producing operations and excludes tipplers; loading docks; preparation plants; or other active, nonproducing operations that contribute to employment and wage statistics presented in tables 9–10 (p. 8). For those mines that have not been assigned a state mine number, a letter designation is used (example: Bt-C). There is no correlation between the “Seam: Number” column and the “Production: Tonnage” column. The “Seam: Number” column represents the seam(s) mined at the operation. No production tonnage is listed by seam. Days in production were estimated for those companies not providing this information. To convert short tons to metric tons, multiply the given tonnage by 0.907185.

Seam identification of principal Ohio coals

- 1 Sharon
- 2 Quakertown
- 3 Lower Mercer
- 3a Upper Mercer
- 3b Tionesta
- 4 Newland (Brookville)
- 4a Clarion
- 5 Lower Kittanning
- 5a Strasburg
- 6 Middle Kittanning
- 6a Lower Freeport
- 7 Upper Freeport
- 7a Mahoning
- 8 Pittsburg
- 8a Pomeroy (Redstone)
- 9 Meigs Creek
- 11 Waynesburg
- 12 Washington
- H Harlem
- W Wilgus
- WI Winters

Type of mine/production
 S Surface
 UG Underground

Name of company	Name of mine	Township	Seam		Type of mine	Production		Days in production in 2012	Disposition		Employment			State mine number	
			Number	Thickness (inches)		Method	Tonnage		Method	Tonnage	UG	S	Other		
															Production
American Energy Corp.	Century Mine	Wayne, Washington	8	66	UG	longwall	7,269,323	353	rail	7,518,584	544			161	Bt-67
						cont. miner	1,177,386		truck	1,186,358					
						Total	8,446,709		Total	8,704,942					
Egypt Valley Stone, LLC	Shugert	Kirkwood, Union	8	42	S	strip	27,135	253	truck	27,135	16			3	Bt-E
						longwall	5,132,628		rail	3,470,709					
						cont. miner	586,009		truck	2,287,870					
Ohio Valley Coal Co.	Powhatan No. 6	Smith	8	62	UG	Total	5,718,637		Total	5,758,579				207	Bt-68
						strip	152,891		truck	163,996					
						auger	11,106		Total	163,996					
Oxford Resource Partners, LP	CR 29	Flushing, Wheeling	9	44	S	strip	180,397	126	truck	194,786	22			3	Bt-J
						auger	14,388		truck	194,786					
						Total	194,786		Total	122,023					
Lafferty	Union	Union	9	46	S	strip	116,951	126	truck	122,023	19			2	Bt-0X3
						auger	5,071		truck	35,591					
						Total	122,023		Total	4,887					
Marietta Egypt Valley	Kirkwood	Kirkwood	8	42	S	strip	34,104	62	truck	35,591	9			1	Bt-0X6
						auger	1,487		truck	4,887					
						Total	35,591		Total	86,947					
Oxford Resource Partners, LP	Richland, Union, Wheeling	Richland, Union, Wheeling	9	42	S	strip	4,887	9	truck	4,887	9			1	Bt-0X8
						auger	55,384		truck	86,947					
						Total	12,023		Total	86,947					
Shugert	Union	Union	9	50	S	strip	55,384	62	truck	86,947	16			2	Bt-0X7
						auger	12,023		truck	86,947					
						highwall	19,539		Total	86,947					

BELMONT COUNTY—Total production = 15,155,858

2012 OHIO DIRECTORY OF PRODUCING COAL MINE OPERATORS, BY COUNTY (cont.)

Name of company	Name of mine	Township	Seam		Type of mine	Production		Days in production in 2012	Disposition		Employment			State mine number	
			Number	Thickness (inches)		Method	Tonnage		Method	Tonnage	UG	S	Production		Other
BELMONT COUNTY (continued)	Wheeling Valley	Wheeling	9	45	S	strip auger Total	274,463 63,974 338,437	126	truck	338,437		40	4	Bt-OX5	
Sidwell Materials, Inc.	Uniontown Stone	Wheeling	8		S	strip	16,720	28	truck	16,720		4	2	Bt-S	
CARROLL COUNTY—Total production = 152,609															
Rosebud Mining Company	James Mine (Carroll Pits)	Rose	7		S	strip	1,962	23	truck	1,962			1	Cl-B4	
Sterling Mining Co.	Sterling-Carroll Hollow Deep	Fox	7A	36	UG	cont. miner	150,647	240	truck	147,352	37		9	Cl-S1	
COLUMBIANA COUNTY—Total production = 49,230															
Oxford Resource Partners, LP	Rosebud Miller	Elk Run	7	24	S	strip	27,870	45	truck	27,870		15	2	Ca-R ¹	
Rosebud Mining Company	Miller Mine	Elk Run	7	24	S	strip	19,569	162	truck	19,569		2	1	Ca-R ¹	
Solomon's Mines, Inc.	Solomon's Mines, Inc.	Salem	7		S	strip	1,791	8	truck	1,791		2		Ca-SM	
GUERNSEY COUNTY—Total production = 354,802															
Oxford Resource Partners, LP	Otesego	Knox	6	40	S	strip auger highwall Total	160,580 21,305 172,916 354,802	126	truck	354,802		33	4	Gy-OX	
HARRISON COUNTY—Total production = 3,020,758															
Anthony Mining Co., Inc.	Carson-Harrah	Green	8 8A 9	56 20 16	S	strip	92,488	256	truck	92,488		14	13	Hh-766	
Hopedale Mining, LLC	Patton-Mader Hopedale Mine	German Green, German	H 6A	20 60	S UG	strip cont. miner	694 1,158,900	65 359	truck rail truck other Total	694 1,133,300 29,900 24 1,163,224	144	2	22	Hh-A Hh-169	
Harrison Resources, LLC	Sexton 2	Athens	8 8A	52 19	S	strip	719,447	304	truck	719,447		52	9	Hh-H	
Oxford Resource Partners, LP	Sandy Ridge	Archer, Cadiz	8 8A	54 16	S	strip	6,080	11	truck	6,080		11	1	Hh-A1	
	Standingstone Mine	Cadiz	8 8A 9	50 18 36	S	strip auger Total	1,040,002 3,132 1,043,134	126	truck	1,043,134		72	8	Hh-02	
Schaney Mining	Kuchan	Green	8	40	S	strip	15	298	truck	15			1	Hh-SM1	

JACKSON COUNTY—Total production = 481,467

Cedar Heights Clay Co.	Phillips	Madison	5	30	S	strip	1,565	5	truck	1,565		3	Jkn-CH3
Sands Hill Mining, LLC	Sands Hill Rockcamp II	Milton	4A	40	S	strip	350,084	320	truck	102,973	60	56	Jkn-S2 ²
			5	19					water	240,898			
			6	8					Total	343,871			
			7	15									
Waterloo Coal Co., Inc.	Layne	Madison	4		S	strip	125,134	144	truck	125,134		18	Jkn-W2
			5										
			6										
	Mead-Zinn & Westlake	Bloomfield		4	S	strip	4,684	5	truck	4,684		21	Jkn-367
				5									

JEFFERSON COUNTY—Total production = 923,186

F. & M. Coal Co.	Grabbit Pit	Smithfield, Green	8	18	S	strip	6,459	310	truck	6,459		3	Jfn-FM1
			8A	54									
Oxford Resource Partners, LP	Ellis	Wells	8	50	S	strip	185,698	126	truck	389,691	32	4	Jfn-0X
			8A	18		highwall	203,993						
			9	38		Total	389,691						
Rosebud Mining Company	Bergholz Mine	Ross	7A		UG	cont. miner	217,764	252	truck	217,764	31	5	Jfn-BI
	Kirk	Springfield, Ross	6		S	strip	46,063	253	truck	46,063		4	Jfn-B1
			6A										
			7										
Sterling Mining Co.	SMC-Shinn Hill	Brush Creek	7A	36	UG	cont. miner	263,209	250	truck	240,398	27	7	Jfn-ST2

MAHONING COUNTY—Total production = 3,969

D. & D. Mining Co.	D. & D. Strip	Springfield	5	30	S	strip	3,969	14	truck	1,631	3	3	Mg-D
									conveyor	1,965			
									Total	3,596			

NOBLE COUNTY—Total production = 704,995

B & N Coal, Inc.	Estadt Mine	Stock, Enoch	9	36	S	strip	94,292	254	truck	94,292	10	1	Ne-BN
	Mantel Mine	Jefferson	9	36	S	strip	119,160	254	truck	119,160	13	1	Ne-BN7
	Westfork Mine	Jefferson	9	36	S	strip	130,280	254	truck	130,280	12	1	Ne-BN5
	Whigville III	Marion	9	42	S	strip	145,497	254	truck	145,497	13	1	Ne-BN8
Oxford Resource Partners, LP	Shuman	Beaver	9	38	S	strip	209,162	105	truck	215,766	22	3	Ne-O2
						auger	6,604						
						Total	215,766						

PERRY COUNTY—Total production = 3,547,751

Buckingham Coal Co., Inc.	Buckingham Mine No. 6	Monroe	6	72	UG	cont. miner	1,702,591	284	rail	697,766	111	31	Py-B2
						truck	328,361						

	Stone Creek-Kaiser/Mathais	York	6		S	strip	178,973	126	truck	178,973	18	2	Ts-09
	Stone Creek Kopka	York	5	32	S	strip	6,901	14	truck	6,901		2	Ts-0X1
	Strasburg Slurry	Lawrence, Franklin	4	18	S	strip	7,516	15	truck	7,516	5	1	Ts-HC
	West	Rush	7	27	S	strip auger Total	8,287 581 8,868	19	truck	8,868		6	Ts-0X
	Tusky Mine	Mill	6	50	UG	cont. miner	457,887	276	rail truck Total	200,000 257,887 457,887		13	Ts-TR
VINTON COUNTY—Total production = 577,135													
	Big Rock	Clinton	W	47	S	strip	319,577		truck water Total	219,906 94,000 313,906			Vn-S7
	Big Valley	Wilkesville, Vinton	4A	42	S	strip	53,866		truck water Total	15,839 37,053 52,892			Vn-S4
	Dundas-Oreton	Clinton	W	15	S	strip	203,692	175	truck	203,692	25	3	Vn-191
			4										
			5										
			6										
			7										

¹This mine was operated by Rosebud Mining Company from January 1 thru June 13, 2012, and Oxford Resource Partners, LP from June 14 thru December 31, 2013.
²Includes employment from Vn-S7 and Vn-S4.

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2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS

For those mines that have not been assigned a state mine number, a letter designation is used (example: Ts-A).

If there are no sales or production figures given for an operation, that operation reported no sales or production in 2012.

To convert short tons to metric tons, multiply the given tonnage by 0.907185.

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
A. P. Green Refractories, Inc. 400 Fairway Dr., Bldg. 400 Moon Township, PA 15108 (412) 375-6600 Jon Allegretti, pres.	Poetker	Jackson	clay	9,366	9,366	Jkn-G	IM-2353
Addy Sand & Gravel 21301 County Rd. 106 P.O. Box 52 Newcomerstown, OH 43832 (740) 502-9598 Gerald L. Addy, owner	Addy	Coshocton	sand & gravel			Cn-AD	IM-971
Agg Rok Materials 711 Frank Rd. Columbus, OH 43223 (614) 875-5500 William G. Heffner, pres.	Agg Rok	Franklin	sand & gravel	6,000	6,000	Fn-36	IM-302
Allgeier & Son, Inc. 6386 Bridgetown Rd. Cincinnati, OH 45248 (513) 574-3735 Michael E. Allgeier, pres.	Allgeier & Son, Inc. Pit 1 Allgeier & Son, Inc. Pit 2 Allgeier & Son, Inc.	Hamilton Hamilton Hamilton	sand & gravel sand & gravel sand & gravel	45,000	45,000	Hmn-AS1 Hmn-AS Hmn-C	IM-797 IM-1106 IM-1132
American Sand & Gravel, Inc. 9500 Forty Corners Rd. NW Massillon, OH 44647 (330) 762-9373 Christopher A. Scala, pres.	Plant #4 Plant #6	Stark Stark	sand & gravel sand & gravel	717,096 3,070	717,096 3,070	Sk-243 Sk-RO	IM-908 IM-2084
Anthony Mining Co., Inc. P.O. Box 1298 Steubenville, OH 43952 (740) 268-8100 Albert Carapellotti, pres.	Carson-Harrah Patton-Mader	Harrison Harrison	limestone limestone	129,630 4,996	129,630 4,996	Hn-766 Hn-A	D-1041 IM-2247
Apex Environmental, LLC 11 County Rd. 78 P.O. Box 151 Amsterdam, OH 43903 (412) 562-1700 Anthony Rizzo, pres.	Apex	Jefferson	limestone			Jfn-K ¹	IM-1164
Arch Materials, LLC P.O. Box 861 Owensville, OH 45160 (513) 724-7625 Ben Rechter, pres.	Batavia	Clermont	limestone	1,359,278	1,422,134	Ct-A ²	
Area Aggregates, LLC 4755 S. High St. Columbus, OH 43207 (614) 491-1515 Kenneth Holland, pres.	Area Aggregates, LLC	Sandusky	limestone	792,534	860,354	Sy-A	IM-2227
Ashcraft Sand & Gravel, Inc. 5850 Dry Fork Rd. Cleves, OH 45002 (513) 367-5700 Rick Ashcraft, owner	Ashcraft Sand & Gravel, Inc.	Hamilton	sand & gravel	21,283	21,283	Hmn-54	IM-710

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Athens Hocking Reclamation Center Athens Hocking Reclamation Clay Mine 450 Gallagher Ave. P.O. Box 946 Logan, OH 43138 (740) 385-6019 Edward F. Kilbarger, safety/HR mgr.	SAA	Athens	clay	35,000	35,000	As-594	
Atlas Towing Co. P.O. Box 1632 Parkersburg, WV 26101 (304) 428-0341 Christopher V. Criss, pres.	Belpre Bank Run	Washington	sand & gravel	6,408	6,408	Wn-54	IM-383
Baker Sand, Inc. 7800 White Rd. Burbank, OH 44214 (330) 948-1448 John E. Baker, owner	Baker Sand, Inc.	Medina	sand & gravel	195,000	195,000	Ma-20	IM-448
Ballentine Sand & Gravel, LLC 7854 Cooley Rd. Ravenna, OH 44266 (330) 297-6712 Daniel H. Ballentine, owner	Ballentine Lake	Portage	sand & gravel	130,171	130,171	Pe-BA	IM-1327
Barrett Paving Materials, Inc. 10400 Haddix Rd. P.O. Box 13671 Fairborn, OH 45324 (937) 424-9104 Marc Zehnder, plant mgr.	Haddix Road Aggregates Plant #341 Hardin Sand & Gravel Jones Deposit Pence Deposit Schmidt Deposit	Greene Shelby Shelby Shelby Shelby	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	411,457 206,943 171 166 183	443,319 237,469 171 166 183	Ck-28 Shy-5C Shy-18 Shy-11 Shy-5C1	IM-1100, IM-2120 IM-1018 IM-388 IM-743 IM-2017
Barrett Paving Materials, Inc. 4710 Soldiers Home-WC Rd. Miamisburg, OH 45342 (937) 424-9100 Mike Oliver, plant super.	West Carrollton Aggregate Plant	Montgomery	sand & gravel	379,482	415,806	My-19	IM-401, IM-916
Barrett Paving Materials, Inc. Mid-Ohio 3244 S. Davis Rd. Ludlow Falls, OH 45339 (937) 698-3043 Jim Meckstroth, reg. mgr.	Barrett Paving Materials, Inc. #231 Bed Rock Properties Miami River Quarry #261 Rock Run Staley Pit Vandemark Quarry #221	Miami Miami Shelby Shelby Shelby Shelby	limestone limestone limestone sand & gravel limestone sand & gravel limestone	246,252 6,692 503,861 310 2,317	235,829 6,692 527,139 0 0	Mi-BPM Mi-502 Shy-17 Shy-16 Shy-5S Shy-15	IM-1169 IM-414 IM-389 IM-411 IM-438 IM-387
Bartley & Bolin Excavating 1242 County Rd. 1475 Ashland, OH 44805-9277 (419) 289-1507 Mitchell W. Bolin, owner	Bartley & Bolin, Inc. James Plant McNaul Road Plant	Ashland Richland	sand & gravel sand & gravel			Ald-B Rd-20	IM-2141 IM-617
Bear Creek Clay Co. 11123 State Route 37 E New Lexington, OH 43764 (740) 342-5473 Tom L. Dennis, owner	Saltillo	Perry	clay			Py-D1 ¹	IM-1304

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Beaver Excavating, Inc. 2000 Beaver Place Ave. SW P.O. Box 6059 Canton, OH 44706 (330) 478-2151 W. Mark Sterling, pres.	Stone Products, Inc./Beaver Exc.	Stark	clay sand & gravel	6,570	6,570	Sk-BE	IM-1202
Beck Sand & Gravel, Inc. 2820 Webb Rd. Ravenna, OH 44266 (330) 626-3863 Rodney Wenrich, owner	Beck Sand & Gravel, Inc.	Portage	sand & gravel	222,820	222,820	Pe-50	IM-96
Belden Brick Co. P.O. Box 20910 Canton, OH 44701 (330) 852-2424 Robert F. Belden, pres.	Beagle Pit Belden Pit Dundee Pit Moomaw Pit Plotner Pit Wallick Pit Shanesville Pit	Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas	clay clay shale clay clay shale clay limestone clay shale	 3,670 21,134 35,015 6,775 45,647 7,814 19,352 36,668	 3,670 21,134 35,015 6,775 45,647 7,814 19,352 36,668	Ts-1960 Ts-1646 Ts-BB Ts-1517 Ts-B Ts-1841 Ts-1939	IM-48 IM-44 IM-1221 IM-46 IM-49 IM-45 IM-47
Benjamin's Farm, Inc. 2787 Mennonite Rd. Mantua, OH 44255 (330) 274-3293 John R. Benjamin, pres.	Benjamin's Farm, Inc.	Portage	sand & gravel			Pe-BF	IM-2163
Best Sand Corp. 11830 Ravenna Rd. Chardon, OH 44024 (440) 285-3132 Jennifer Deckard, pres.	Best Sand Corp. Best Southern	Geauga Pike	sandstone sandstone	690,382 56,622	894,251 48,044	Gea-3 Pke-31	IM-89 IM-835
Black Top Contracting, Inc. P.O. Box 426 Nelsonville, OH 45764 (740) 753-1181 Tim Maiden, pres.	York Twp. Trustees	Athens	sand & gravel	10,000	10,000	As-BT ³	IM-1350
Bluffton Stone Co. P.O. Box 26 Bluffton, OH 45817-0026 (419) 358-6941 Michael J. Gerken, pres.	Bluffton Stone Co.	Allen	limestone	359,607	396,302	An-1	IM-485
Bontrager Excavating Co. 11087 Cleveland Ave. NW Uniontown, OH 44685 (330) 499-8775 Harry Gilbert, pres.	Gilbert	Summit	sand & gravel	4,136	4,136	St-B	IM-2303
Boone Coleman Construction, Inc. 32 State Route 239 West Portsmouth, OH 45663 (740) 858-6661 Timothy Coleman, pres.	Boone Coleman Construction, Inc. Coleman Pit	Scioto Scioto	sand & gravel sand & gravel			So-BC So-B	IM-1252 IM-705

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Bowerston Shale Co. 515 Main St. P.O. Box 199 Bowerston, OH 44695 (740) 269-2921 Mark Willard, pres.	Bowerston Scott Farm	Harrison Harrison	shale shale	29,892	29,892	Hn-152 Hn-B	IM-42 IM-1020
Bowerston Shale Co. 1329 Seven Hills Rd. NE Newark, OH 43055 (740) 763-3921 Mark Willard, pres.	Hanover Pit Frazeyburg	Licking Muskingum	shale clay	8,033 1,716	8,033 1,716	Lg-501 Mum-776	IM-257 IM-256
Boyas Excavating, Inc. 11311 Rockside Rd. Cleveland, OH 44125-4247 (216) 524-3620 Michael Boyas, pres.	Boyas Excavating, Inc.	Cuyahoga	clay sand & gravel	1,249 39,085	1,249 39,085	Cya-42	IM-686
Boyd Excavating 9553 County Rd. 28 Zanesfield, OH 43360 (937) 465-3290 Jeff Boyd, owner	Boyd Excavating	Logan	sand & gravel	8,231	8,231	Lgn-B	IM-1309
Brier Hill Stone Co. P.O. Box 457 Glenmont, OH 44628 (330) 377-5100 Frank L. Waller, pres.	Quarry #18 Quarry #24 Quarry #26 Quarry #32 Quarry #54 Quarry #55 Quarry #56 Quarry #31 Quarry #6	Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Holmes Knox	sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone	517 1,053 2,865 8,028 56	517 1,053 2,865 8,028 56	Cn-695 Cn-692 Cn-13 Cn-686 Cn-809 Cn-815 Cn-BH Hs-49 Kx-12	IM-402 IM-294 IM-397 IM-504 IM-909 IM-939 IM-2147 IM-418 IM-445
Brier Hill Slag Company 18 Hogue St. Youngstown, OH 44502 (330) 743-8170 William Gaffney, Sr., pres.	Brier Hill Slag Company	Mahoning	sandstone			Mg-B ¹	IM-2388
Briggs Sand & Gravel, Inc. County Rd. 10 1905 Blue Knob Rd. Marietta, OH 45750 (740) 373-3363 James A. Briggs, pres.	Briggs Sand & Gravel, Inc.	Washington	sand & gravel	5,841	5,841	Wn-508	IM-57
Brookside Materials, LLC 2850 Rohr Rd. Groveport, OH 43215 (740) 739-4637 Gerald E. Bennett, pres.	Brookside Materials, LLC	Licking	sand & gravel	124,052	128,052	Lg-B	IM-2273
Broshear Contractors, Inc. 2520 Millville-Ross Rd. Hamilton, OH 45013 (513) 863-3388 Gerald Broshear, pres.	Green Heron Ross Twp. Gravel	Butler Butler	sand & gravel sand & gravel	20,666	20,666	Br-B Br-48	IM-2029 IM-562

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Marilyn J. Burkholder, Trust 1655 Fairview Rd. Galion, OH 44833 (419) 468-1361 Marilyn J. Burkholder, owner	Burkholder	Crawford	sand & gravel			Cd-B	IM-2204
Burlington Sand & Gravel Co. P.O. Box 399 Chesapeake, OH 45619 (740) 867-0473 Vernon E. Collier, owner	Burlington Sand & Gravel Co.	Lawrence	sand & gravel			Le-426 ¹	IM-856
Richard & Kathy Burwinkel 5915 Dry Ridge Rd. Cincinnati, OH 45252 (513) 385-7131 Richard & Kathy Burwinkel, owners	Burwinkel	Hamilton	sand & gravel	119,738	119,738	Hmn-RB	IM-2333
C & S Contractors, Inc. P.O. Box 498457 Cincinnati, OH 45249 (513) 530-9844 Raymond A. Conn, pres.	C & S Contractors, Inc.	Warren	sand & gravel			Wan-47	IM-846
C. F. Poeppelman, Inc. 4755 N. State Route 721 Bradford, OH 45308 (937) 448-2191 James C. Poeppelman, pres.	C. F. Poeppelman, Inc.	Miami	limestone	222,952	230,000	Mi-10	IM-335
Calvins Hauling, Inc. 1205 S. Johnson Ave. Bartow, FL 33830 (740) 998-4647 Calvin Cochenour, pres.	Calvins Hauling, Inc.	Ross	sand & gravel	1,759	1,758	Rs-C	IM-2349
Cardinal Aggregates, Inc. 8026 Fremont Pike Perrysburg, OH 43551 (419) 872-4380 Mark Murray, pres.	Cardinal Aggregates, LLC	Wood	limestone	518,841	525,409	Wd-C	IM-2231
Cargill, Incorporated Cargill Deicing Technology 2400 Ships Channel P.O. Box 6920 Cleveland, OH 44101 (216) 357-4600 Richard Maxfield, pres.	Cargill Deicing Technology	Cuyahoga	salt	2,439,361	3,060,877	Cya-30	
Cargill Salt 2065 Manchester Rd. Akron, OH 44314 (330) 848-6912 Dan Pulis, plant mgr.	Cargill Salt	Summit	salt	320,264	320,264	St-9127	
Carl E. Oeder and Sons Sand & Gravel 1000 W. Mason Morrow Millgrove Lebanon, OH 45036 (513) 494-1555 Carl E. Oeder, pres.	Carl E. Oeder and Sons Sand & Gravel	Warren	sand & gravel	287,974	287,974	Wan-41	IM-629

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Carmeuse Lime, Inc. 3964 County Road 41 P.O. Box 708 Millersville, OH 43435 (419) 638-2511 Thomas Buck, pres.	Millersville Plant Maple Grove	Sandusky Seneca	limestone limestone	358,630 1,289,000	360,382 1,289,000	Sy-4 Sa-2 ³	IM-381 IM-352
Joe E. Carter 21399 State Line Rd. Lawrenceburg, IN 47025 (812) 537-3970 Joe E. Carter, owner	Lost Bridge	Hamilton	sand & gravel	1,600	1,600	Hmn-JC	IM-1267
Cedar Heights Clay Co. P.O. Box 295 Oak Hill, OH 45656-0295 (740) 682-7794 John Midea, pres.	Harrison Phillips	Jackson Jackson	clay clay			Jkn-CH2 Jkn-CH3	IM-1302 IM-2035
CEMEX, Inc. 3250 Linebaugh Rd. Xenia, OH 45385 (937) 878-8651 Bernard P. McCormick, plant mgr.	Miller, Schieder, Batdorf, Stewart G-Tract	Greene Montgomery	clay limestone limestone	22,750 614,975 289,053	22,750 614,975 289,053	Ge-8 My-58	IM-364 IM-330
Central-Allied Enterprises, Inc. P.O. Box 80449 Canton, OH 44708-0449 (330) 477-6751 Gerald S. Orn, pres.	Central Sand & Gravel Div. Massillon Washed Gravel Div.	Stark Stark	sand & gravel sand & gravel	600,000 170,000	600,000 170,000	Sk-CA1 ³ Sk-MW ³	IM-2140 IM-1171
Central Ready Mix, LLC P.O. Box 70 Monroe, OH 45050 (513) 402-5001 Todd Dragna, pres.	Middletown Plant #22 Germantown Plant #21 Carlisle Plant #27	Butler Montgomery Warren	sand & gravel sand & gravel sand & gravel	22,506 268,960	12,256 294,810	Br-6 My-41 Wan-7	IM-177 IM-360 IM-151
Chesterville Sand & Gravel Co., Inc. State Route 95 E P.O. Box 51 Chesterville, OH 43317 (419) 768-3369 David W. Gleason, v. pres.	Chesterville Sand & Gravel Co., Inc.	Morrow	sand & gravel	159,787	159,786	Mw-10	IM-258
Christman Quarries 47278 Swazey Rd. Lewisville, OH 43754 (740) 838-2475 Kathy L. Dimmerling, owner	Christman Quarry	Monroe	limestone	70,000	70,000	Me-C ³	IM-1088
City Stone, LLC 8063 Southern Blvd. Boardman, OH 44512 (800) 262-9365 Ronald R. Carroce, pres.	City Stone, LLC City Stone, LLC	Mahoning Trumbull	sandstone sandstone	166,857	166,857	Mg-62 TI-CA	IM-599 IM-2085
Harlen D. & Barbara L. Clark 11535 County Rd. 16 Wauseon, OH 43567 (419) 812-6696 Harlen D. Clark, farmer	Clark	Fulton	sand & gravel	12,500	12,500	Ftn-C	IM-2274

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Clemson Excavating, Inc. 9954 Old State Rd. Chardon, OH 44024 (440) 286-4757 Bill Clemson, pres.	Clemson Excavating Sand & Gravel	Ashtabula	sand & gravel			Asa-C	IM-1278
Clinton Stone, LLC P.O. Box 650 Hamden, OH 45634-0650 (740) 384-4211 David G. Zatezalo, pres.	Clinton Stone, LLC	Jackson	limestone	420,000	420,000	Jkn-S2	D-1087
Cochran Transportation Services, Inc. P.O. Box 578 Athens, OH 45701 (740) 593-3906 Charles W. Cochran, pres.	Circle Hill	Athens	sand & gravel			As-595 ¹	IM-1083
Bill D. Colwell 2530 Regina Pl. Hamilton, OH 45013 (513) 863-2138 Bill D. Colwell, owner	Bill D. Colwell Gravel	Butler	sand & gravel			Br-36	IM-649
Con-Ag, Inc. 16672 County Rd. 66A N St. Marys, OH 45885 (419) 394-8870 John R. Hirschfeld, pres.	Con-Ag, Inc.	Auglaize	limestone	152,239	152,239	Ae-31	IM-744
Cremeans Concrete & Supply P.O. Box 475 Gallipolis, OH 45631 (740) 446-1142 John Cremeans, pres.	Cremeans Concrete & Supply Co., Inc.	Gallia	sand & gravel			Ga-626 ¹	IM-1046
Crushers Stone Products, LLC 7000 Columbus Rd. Shreve, OH 44676 (330) 263-7350 Dan Stauffer, Sr., pres.	Crushers Stone Products, LLC	Wayne	sandstone	10,000	10,000	We-25 ³	IM-1209
Cumberland Limestone, LLC 53681 Spencer Rd. Cumberland, OH 43732 (740) 638-3942 Chris D. Sidwell, pres.	Cumberland Limestone, LLC	Guernsey	limestone	683,300	683,300	Gy-309 ³	IM-1030
Custar Stone Co., Inc. P.O. Box 627 Napoleon, OH 43545 (419) 533-8831 Brent Gerken, pres.	Custar Stone Co., Inc.	Wood	limestone	412,787	412,787	Wd-5	IM-473
D. & D. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 (330) 549-3127 Donald Thompson, pres.	D. & D. Strip D. & D. Strip D. & D. Strip	Columbiana Columbiana Mahoning	clay clay clay			Ca-888 Ca-348 Mg-D	IM-1181 IM-976 D-2164

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
D & K Materials, Inc. 3072 Congress Lake Rd. Mogadore, OH 44260 (330) 678-2411 Kimberly S. Ebie, pres.	D & K Materials, Inc.	Portage	clay sand & gravel	40 106,606	40 107,326	Pe-101	IM-1154
D. H. Bowman & Sons, Inc. 14220 Parrott St. P.O. Box 750 Mt. Vernon, OH 43050 (740) 397-0000 Jeff Ellis, pres.	D. H. Bowman & Sons, Inc.	Richland	sand & gravel			Rd-4	IM-279, IM-1255
D. M. Mining, Inc. P.O. Box 4288 Ironton, OH 45638 (740) 534-4111 Cheryl Bolender, pres.	Ice Creek Land Co.	Lawrence				Le-D	IM-2390
Darby Creek Excavating, Inc. 6790 Brooksmiller Rd. Circleville, OH 43113 (740) 477-8600 Kevin R. Steward, pres.	Darby Creek	Pickaway	sand & gravel			Pky-DC	IM-1316
D.B.M. Materials, LLC 2040 Alum Creek Dr. Columbus, OH 43207 (614) 445-8421 John B. Igel, pres.	D.B.M. Materials, LLC	Franklin	sand & gravel	2,025	2,025	Fn-14	IM-832
D.C. Engineering and Development, Ltd. 329 Mabel Ct. London, OH 43140 (614) 270-8785 Charles W. Duvall, pres.	D.C. Engineering	Madison	sand & gravel			Mdn-D	IM-2338
De Milta Sand & Gravel, Inc. 921 Erie Rd. Eastlake, OH 44095 (440) 942-2015 Nick De Milta, pres.	De Milta Sand & Gravel, Inc.	Lake	sand & gravel			Lke-D	IM-1187
Demmy Construction, Inc. 4324 Fairfield Pike Springfield, OH 45502 (937) 323-4079 Daniel E. Demmy, pres.	Demmy Constuction, Inc.	Clark	sand & gravel			Ck-501	IM-340
Demmy Sand & Gravel 4324 Fairfield Pike Springfield, OH 45502 (937) 323-4079 Daniel Demmy, pres.	Deam	Clark	sand & gravel			Ck-LG	IM-2073
D.G.M., Inc. 1881 Adams Rd. P.O. Box 207 Beaver, OH 45613 (740) 226-1950 Mark A. Salisbury, pres.	Towpath-Warwick Tow Path Ready Mix	Ross Scioto	sand & gravel sand & gravel	23,849 49,913	23,849 49,913	Rs-D So-DGM	IM-2176 IM-1280

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Diamond Stone Quarries P.O. Box 315 McArthur, OH 45651 (740) 596-5226 W. E. Engle, pres.	Diamond Stone	Athens	limestone	15,000	15,000	As-533	IM-17
DiGeronimo Aggregates, LLC 5531 Canal Rd. Valley View, OH 44125 (216) 524-2950 Victor DiGeronimo, Jr., pres.	DiGeronimo Aggregates, LLC	Cuyahoga	shale	130,834	148,648	Cya-19	IM-95
Dingledine Basic Materials, Inc. 2304 Somerville Rd. P.O. Box 262 Somerville, OH 45064 (513) 726-5258 Gerald Dingledine, pres.	Dingledine Basic Materials, Inc.	Butler	sand & gravel	33,840	33,840	Br-50	IM-739
John R. Doherty 2229 Walnut Blvd. Ashtabula, OH 44004 (440) 964-8431 John R. Doherty, pres.	Doherty	Ashtabula	sand & gravel	645	2,670	Asa-JD	IM-2250
James E. Downard 1185 Mount Zwingli Rd. Bremen, OH 43107 (740) 569-7849 James E. Downard, owner	Downard Pit	Fairfield	sand & gravel	4,929	4,929	Fd-16	IM-1156
Duff Quarry, Inc. 9042 State Route 117 P.O. Box 305 Huntsville, OH 43324-0305 (937) 686-2488 James E. Duff, pres.	Duff Quarry, Inc. Duff Quarry, Inc. Duff Quarry, Inc. Duff Quarry, Inc. Duff Sand Co.	Logan Logan Logan Logan Logan	sand & gravel sand & gravel sand & gravel limestone sand & gravel	350 426,236 13,648	350 426,236 13,648	Lgn-36 Lgn-12 Lgn-39 Lgn-15 Lgn-31	IM-1007 IM-1071 IM-887 IM-453 IM-454
E. E. Blair Construction Co. 9540 Ohio River Rd. P.O. Box 39 Wheelersburg, OH 45694 (740) 574-6575 Edwin E. Blair, pres.	Cab Pit E. E. Blair	Scioto Scioto	sand & gravel sand & gravel			So-98 ¹ So-BL ¹	IM-474 IM-2220
East Clayton Asphalt, Inc. P.O. Box 543 Nelsonville, OH 45764 (740) 753-1005 Dan L. Simms, pres.	East Clayton Asphalt, Inc.	Athens	sand & gravel			As-1161 ¹	IM-97
East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452 (330) 549-2165 W. Thomas Mackall, pres.	Withers Petersburg-Surface Withers-Petersburg	Mahoning Mahoning	limestone limestone	686,962	82,826	Mg-EF Mg-631 ⁴	IM-2101 IM-1103
David E. Edgington P.O. Box 282 Frankfort, OH 45628 (740) 998-5328 David E. Edgington, owner	Edgington Pit	Ross	sand & gravel	5,344	5,344	Rs-E	IM-1168

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Egypt Valley Stone, LLC P.O. Box 188 Morristown, OH 43759 (740) 782-0042 Richard Petrozzi, pres.	Shugert	Belmont	limestone	546,637	546,637	Bt-E	IM-2299
Enon Sand & Gravel, LLC 11641 Mosteller Rd. Cincinnati, OH 45241 (513) 771-0820 James P. Jurgensen, pres.	Enon Sand & Gravel, LLC	Clark	sand & gravel	294,500	294,500	Ck-3	IM-463, IM-1359, IM-2026
Envirosafe Services of Ohio, Inc. 876 Otter Creek Rd. Oregon, OH 43616 (419) 698-3500 Douglas E. Roberts, pres.	Johlin Property Clay Mine	Lucas	clay			Ls-E	IM-1075, IM-2116
ENZ, Inc. P.O. Box 405 Magnolia, OH 44643 (330) 339-4935 James R. Demuth, pres.	Baum Sand & Gravel	Stark	sand & gravel			Sk-E	IM-2230
Erie Blacktop, Inc. 4507 Tiffin Ave. P.O. Box 2308 Sandusky, OH 44870 (419) 625-7374 Dean Wikel, pres.	Erie Blacktop Quarry	Erie	limestone	249,397	249,397	Ee-27	IM-608
Erie Materials, Inc. 4507 Tiffin Ave. Sandusky, OH 44870 (419) 625-7374 Dean Wikel, pres.	Borchardt	Erie	sand & gravel	157	157	Ee-18	IM-676
Ervin Hill Enterprises, Inc. P.O. Box 559 Hillsboro, OH 45133 (937) 393-4120 Mark Edenfield, pres.	Ervin Hill Enterprises, Inc.	Highland	sand & gravel	102,677	102,677	Hd-L	IM-1297
ESSROC Cement Corp. P.O. Box 779 Bessemer, PA 16112 (610) 837-4301 Derek Nicholls, v. pres.	Bessemer Quarry Carbon Quarry	Mahoning Mahoning	limestone limestone			Mg-608 Mg-EM	IM-4 IM-1056
Evans Gravel, Inc. 4229 Round Bottom Rd. Cincinnati, OH 45244 (513) 271-1119 Douglas L. Evans, pres.	Evans Gravel, Inc. Evans Gravel, Inc.	Clermont Hamilton	sand & gravel sand & gravel	72,695	177,495	Ct-9 Hmn-E	IM-526 IM-2181
Feikert Sand & Gravel, Inc. 6871 Twp. Rd. 605 Millersburg, OH 44654 (330) 674-7245 Lynn O. Feikert, pres.	Feikert Sand & Gravel, Inc.	Holmes	sand & gravel	165,500	165,500	Hs-511 ³	IM-1048, IM-1240

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Fleming Construction Co., Inc. DBA Scioto S & G P.O. Box 31 Marion, OH 43301-0031 (740) 494-2177 Sonja E. Fleming, pres.	Pit #1 Pit #2	Marion Marion	sand & gravel sand & gravel	6,016 17,368	6,016 17,268	Mn-16 Mn-19	IM-171 IM-990
Foureman's Sand & Gravel, Inc. 2791 Wildcat Rd. Greenville, OH 45331 (937) 548-1718 Gary B. Foureman, pres.	Foureman's Sand & Gravel, Inc.	Darke	limestone sand & gravel	4,009 42,945	4,009 38,936	Dke-4	IM-433
Friendsville Sand, L.P. 9601 Avon Lake Rd. Lodi, OH 44254 (336) 948-2610 Richard L. Rothel, pres.	Klotzsche & Associates	Medina	sand & gravel	88,000	88,000	Ma-F ³	IM-2348
Lloyd B. Fry 10328 Hardin Rd. Piqua, OH 45356 (937) 773-3613 Lloyd B. Fry, owner	Ticon	Miami	sand & gravel	970	970	Mi-T	IM-696
Frye Sand & Gravel, Inc. P.O. Box 3 Dorset, OH 44032-0003 (440) 858-2627 David Frye, owner	Frye Sand & Gravel, Inc.	Ashtabula	sand & gravel			Asa-10	IM-198
G. E. Baker Construction, Inc. 6555 Wharton Rd. Shreve, OH 44676 (330) 264-6626 Glenn E. Baker, pres.	Humphrey	Ashland	sand & gravel			Ald-GB ¹	IM-2298
Ganges Gravel Co. 1884 London East Rd. Shelby, OH 44875 (419) 564-3739 Don Daugherty, pres.	Ganges Gravel Co.	Richland	sand & gravel			Rd-18	IM-670
GANS, Ltd. 800 West Maple St. Hartsville, OH 44632 (330) 877-2525 Ellis Erb, pres.	Gans, Ltd., dba Brimfield Sand & Soils	Portage	sand & gravel	1,720	1,700	Pe-102	IM-1184
General Motors, LLC 26427 State Route 281 E Defiance, OH 43512 (419) 782-7010 Richard Sutton, plant mgr.	General Motors, LLC Clay Borrow Area	Defiance	clay			De-3	IM-1351
George J. Igel & Co., Inc. 2040 Alum Creek Dr. Columbus, OH 43207 (614) 445-8421 John B. Igel, pres.	George J. Igel & Co., Inc.	Pickaway	sand & gravel	455	455	Pky-C	IM-1223

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Gerken Materials, Inc. P.O. Box 607 Napoleon, OH 43545 (419) 533-7701 Brent Gerken, pres.	Gerken Materials, Inc.	Wood	limestone	199,294	266,804	Wd-1	IM-548
Gibson Sand & Gravel Co. 1475 Knorr Rd. Galion, OH 44833 (419) 468-5820 John Gibson, owner	Gibson Sand & Gravel Co.	Crawford	sand & gravel			Cd-G	IM-0693
Glen-Gery Corp. P.O. Box 207 Iberia, OH 43325 (610) 374-4011 Steve Matsick, pres.	Iberia Quarry Glen-Gery Corp.	Marion Morrow	shale shale	74,533	74,533	Mn-7 Mw-G	IM-309 IM-2378
Gray Road Fill, Inc. 700 W. Pete Rose Way Cincinnati, OH 45203 (513) 721-6000 Roy B. Schweitzer, pres.	Gray Road Fill, Inc.	Hamilton	limestone			Hmn-GR	IM-1363
Graymont Dolime (OH), Inc. P.O. Box 158 Genoa, OH 43430 (419) 855-8336 Stephanie Godin, pres.	Graymont Dolime (OH), Inc.	Ottawa	limestone	593,361	331,101	Oa-1	IM-292
Grimes Excavating 165 Holdren Ln. P.O. Box 120 New Matamoras, OH 45767 (740) 865-3990 Lewis Grimes, owner	Grimes Sand and Gravel	Washington	sand & gravel	36,487	36,487	Wn-1008	IM-1111
Hanson Aggregates, LLC 1136 Morgantown Rd. Russellville, KY 42276 (270) 726-4936 Dan Harrington, v. pres.	Plum Run Quarry Eagle Crushed Stone Dry Fork Sand & Gravel Highland Stone Piketon Sand & Gravel	Adams Brown Hamilton Highland Pike	limestone limestone sand & gravel limestone sand & gravel	907,616 1,443,978 777,174 231,302	776,250 1,375,091 878,681 260,431	Ads-1 Bn-EC Hmn-50 Hd-2 Pke-24	IM-237 IM-1195 IM-205, IM-1139 IM-230 IM-222
Hanson Aggregates Midwest, Inc. Heidelberg Cement Group 8130 Brint Rd. Sylvania, OH 43560 (419) 882-0123 Dan Harrington, v. pres./gen. mgr.	Sandusky Crushed Stone Sylvania Waterville Paulding Bloomville Flat Rock North Baltimore Quarry	Erie Lucas Lucas Paulding Seneca Seneca Wood	limestone limestone limestone limestone limestone limestone limestone	3,042,592 906,440 338,017 141,843 216,273 3,109	2,768,598 906,440 272,202 124,577 241,246 0	Ee-11 Ls-3 Ls-1 Pg-7 Sa-3 Sa-1 Wd-H	IM-263 IM-580 IM-575 IM-349 IM-347 IM-2341
Hanson Aggregates Midwest, Inc. dba Wagner Quarries Co. 4203 Milan Rd. Sandusky, OH 44870 (419) 625-8141 Lehigh Hanson, pres.	Wagner Quarry	Erie	limestone	1,244,754	1,094,890	Ee-1	IM-310
Norman Harpster 16069 State Route 235 Belle Center, OH 43310 (937) 464-5623 Norman Harpster, owner	Harpster Pit	Hardin	sand & gravel	110	110	Hdn-H	IM-864

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Harrison Sand & Gravel Co. 10980 Campbell Rd. Harrison, OH 45030 (513) 367-5174 Donald L. Gauck, v. pres.	Harrison Sand & Gravel Co.	Hamilton	sand & gravel			Hmn-17 ¹	IM-295
Hartley Gravel 22941 Hartley Rd. Alliance, OH 44601 (330) 823-0003 Jacob Maendel, pres.	Hartley Gravel	Columbiana	sand & gravel	1,399	1,399	Ca-H1	IM-2033
Harvest Sand & Gravel, Inc. 522 Perkins Jones Rd. Warren, OH 44483 (330) 372-4408 David A. Grayson, pres.	Eberly Harvest Sand & Gravel, Inc.	Columbiana Columbiana	sand & gravel sand & gravel	27,926	27,926	Ca-H2 Ca-H	IM-2174 IM-2027
Heiser Sand & Gravel Corp. 4833 Applegrove St. NW North Canton, OH 44720 (330) 499-8201 Richard L. Heiser, pres.	Heiser Sand & Gravel Corp.	Stark	sand & gravel	2,073	2,073	Sk-HS1	IM-1203
Hidden Ranch, Ltd. 9874 Winesburg Rd. Dundee, OH 44624 (330) 359-6126 Willis Miller, pres.	Schmid	Stark	sandstone			SK-HR	IM-2282
Highlanders Enterprises, LLC 6235 Twp. Rd. 179 Cardington, OH 43315 (419) 560-9906 Patricia Neuman, mgr.	Highlander Enterprises, LLC	Morrow	sand & gravel	25	0	Mw-H	IM-2350
Hocking Valley Concrete, Inc. 35255 Hocking Dr. Logan, OH 43138 (740) 385-2165 Mark Vaughn, v. pres.	Hocking Valley Concrete, Inc.	Hocking	sand & gravel	27	0	Hg-262	IM-41
William A. Hoffman, Jr. 25043 State Route 104 Circleville, OH 43113 (740) 474-2002 William A. Hoffman, Jr., owner	Hoffman Pit	Pickaway	sand & gravel	1,086	1,086	Pky-H	IM-1039
Holmes Redimix, Inc. 5420 County Rd. 349 Millersburg, OH 44654 (330) 674-0370 Steve Schlabach, pres.	Holmes Redimix, Inc.	Holmes	sand & gravel	136,882	136,882	Hs-82	IM-707
Holmes Supply Corp. 7571 State Route 83 Holmesville, OH 44633 (330) 279-9000 Steve Schlabach, pres.	Holmes Supply Corp. Schlabach	Holmes Holmes	sand & gravel sand & gravel	247,229 44,208	247,229 44,202	Hs-J Hs-H1	IM-1043 IM-2310

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Honey Creek Stone Co. P.O. Box 422 Edinburg, PA 16116 (724) 654-5537 Carmen W. Shick, pres.	Honey Creek Stone Co.	Mahoning	limestone			Mg-54	IM-93
Terry A. Hoppes 1533 Moorefield Rd. Springfield, OH 45503 (937) 399-1531 Terry A. Hoppes, pres.	Mitchell Gravel Pit	Clark	sand & gravel	4,700	4,700	Ck-TH	IM-2133
Robin L. Houlette 7225 Houlette's Mountain Rd. Lisbon, OH 44432 (330) 853-6381 Robin L. Houlette, pres.	Houlette	Columbiana	sandstone sand & gravel			Ca-R	IM-2395
Inland South Aggregates P.O. Box 276 Petersburg, OH 44454 (330) 542-1100 Dave Sugar, pres.	Inland South Aggregates	Columbiana	sand & gravel			Ca-351	IM-634
IRG Amherst, LLC 3623 Brecksville Rd., Suite A Richfield, OH 44286 (440) 963-4008 Stuart Kichter, owner	Amherst Quarries	Lorain	sandstone			Ln-3	IM-415
IRG Operating, LLC, dba Cleveland Quarries 5270 Devon Dr. Vermilion, OH 44089 (440) 963-4008 Zachary Carpenter, pres.	IRC Operating	Erie	sandstone	8,373	17,800	Ee-21	IM-416
J. E. Nicolozakes Co. 62920 Georgetown Rd. Cambridge, OH 43725 (740) 435-3222 John E. Nicolozakes, pres.	Bank One	Tuscarawas	sand & gravel			Ts-N	IM-2032
J. L. & Son Excavating, Inc. 8241 Ft. Laurens Rd. NW Strasburg, OH 44680 (330) 878-5883 Jerry L. Slankard, pres.	Beach City Pit	Tuscarawas	sandstone			Ts-2032	IM-1141
Jaclib Enterprises, Inc. 560 State Route 554 Cheshire, OH 45620 (740) 367-0602 Jason C. Leach, pres.	Cheshire Pit	Gallia	sand & gravel	1,536	1,536	Ga-JE	IM-2034
JALIP, Ltd. 16303 Twp. Rd. 124 Harpster, OH 43323 (740) 496-2008 Philip Herring, owner	JALIP, Ltd.	Wyandot	sand & gravel	6,156	6,156	Wt-J	IM-2119

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
James Bros. Sand & Gravel, Ltd. 3000 Dillon School Dr. P.O. Box 1420 Zanesville, OH 43702 (740) 454-1522 Daniel G. James, owner	James Brothers Sand & Gravel, Ltd.	Muskingum	sand & gravel			Mum-J1	IM-2251
Jaymar, Inc. 8751 N. State Route 7 Cheshire, OH 45620 (740) 992-6637 Jay Hall, Jr., pres.	Plant #4	Meigs	sand & gravel	594,886	594,886	Ms-308	IM-1174
JBM, Ltd. dba State Route 416 Sand & Gravel 764 State Route 416 SE New Philadelphia, OH 44663 (330) 339-4313 William P. Marino, Jr., pres.	State Route 416 Sand & Gravel	Tuscarawas	sand & gravel			Ts-2018 ¹	IM-1076
J.J.J. Properties, LLC 5585 Canal Rd. Valley View, OH 44125 (216) 447-0814 John Allega, member	J.J.J. Properties, LLC	Lake	sand & gravel	3,014	3,014	Lke-P	IM-2258
J. McCoy Lumber Co., Ltd. 6 N. Main St. Peebles, OH 45660 (937) 587-2555 Jack McCoy, pres.	Adams County Quarry	Adams	limestone			Ads-H	IM-805
Joe Simak & Sons Trucking, Inc. 3052 E. Center St. P.O. Box 599 North Kingsville, OH 44068 (440) 224-1992 Joseph E. Simak, pres.	Amboy Pit North Ridge Pit	Ashtabula Ashtabula	sand & gravel clay sand & gravel	8,313 753 3,562	8,313 753 3,562	Asa-ST Asa-18	IM-1349 IM-949
Joe Yochman Excavating, Inc. 610 S. Newton Falls Rd. Diamond, OH 44412 (330) 538-0014 Joe Yochman, v. pres.	Yochman	Mahoning	sand & gravel			Mg-Y ¹	IM-2192
John L. Garber Materials, Inc. 2745 Gass Rd. - Route 8 Lexington, OH 44904 (419) 884-1567 John L. Garber, pres.	John L. Garber Materials, Inc. John L. Garber Materials, Inc.	Richland Richland	sand & gravel sand & gravel	141,692 0	0 142,415	Rd-14 Rd-G	IM-436 IM-2152
Betty & Rebecca Johnson 3403 U.S. Route 68 S Bellefontaine, OH 43311 (937) 593-5602 Betty and Rebecca Johnson, owners	Johnson Gravel Pit	Logan	sand & gravel			Lgn-J	IM-2053
Johnson Stone Products, Inc. 4018 Cleveland Rd. E Huron, OH 44839 (440) 775-1913 Terry A. Johnson, pres.	Johnson Stone Products	Lorain	sandstone	7,430	7,430	Ln-J ³	IM-1300

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
K.C. Sand & Gravel, LLC 1913 Mulligan Bluff Rd. Bryan, OH 43506 (419) 658-2186 David Karlstadt, pres.	Kartstadt	Defiance	sand & gravel			De-K ¹	IM-2308
KCI Sand & Gravel P.O. Box 946 Logan, OH 43138 (740) 385-6019 Edward Kilbarger, pres.	SAA	Hocking	sand & gravel	115,501	185,751	Hg-HA	IM-1320
Keeney Sand & Stone, Inc. 13320 Girdled Rd. Painesville, OH 44077 (440) 254-4582 Dennis J. Keeney, pres.	Keeney Sand & Stone, Inc.	Lake	sandstone	35,976	35,976	Lke-K	IM-859
Kimble Clay & Limestone Co. 3596 State Route 39 NW Dover, OH 44622-9801 (330) 343-1226 Keith B. Kimble, pres.	Kimble Clay & Limestone Co. Kimble Clay & Limestone Co.	Tuscarawas Tuscarawas	clay clay limestone sandstone			Ts-K1 ¹ Ts-1818 ¹	IM-2170 IM-9
King Quarries, Inc. 41820 Parrish Ridge Caldwell, OH 43724 (740) 732-2923 David King, Jr., pres.	King Quarries, Inc. King Quarries, Inc.	Noble Noble	limestone limestone	108,507	108,507	Ne-K Ne-K1	IM-1254 IM-1292
Kinsman Materials, Ltd. P.O. Box 76 Chardon, OH 44024 (440) 286-4757 Bill Clemson, pres.	Kinsman Materials, Ltd.	Ashtabula	sand & gravel	21,312	21,312	Asa-20	IM-1198
Kipp's Gravel Co., Inc. 4987 State Route 222 Batavia, OH 45102 (513) 732-1024 Melvin M. Kipp, pres.	Kipp's Gravel Co., Inc.	Clermont	limestone sand & gravel	4,871 3,120	0 0	Ct-7	IM-432
Kirby's Sand & Gravel, Inc. 4876 County Hwy. 43 Upper Sandusky, OH 43351-9155 (419) 927-2260 Minor E. Kirby, owner	Kirby's Sand & Gravel, Inc. Kirby's Sand & Gravel, Inc.	Wyandot Wyandot	sand & gravel sand & gravel	150,000	150,000	Wt-17 Wt-K	IM-604 IM-943
Kleese Development Associates, Inc. 103 W. Market St. Warren, OH 44481 (330) 392-7899 Robert S. Kleese, pres.	Kleese Development Associates	Trumbull	sand & gravel			TI-K ¹	IM-1101
Knox County Board of Commissioners 117 E. High St. Mt. Vernon, OH 43050 (740) 397-1590 James L. Henry, county engineer	Apple Valley	Knox	shale	492	492	Kx-K	IM-870

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
L & I Natural Resources, Inc. 10369 Cones Rd. Loveland, OH 45140 (513) 459-7716 Jerry Walker, pres.	L & I Pit & Mill	Warren	sand & gravel	51,768	51,768	Wan-50	IM-1006
L & M Mineral Co. 2010 County Rd. 144 Sugarcreek, OH 44681 (330) 852-3696 John E. Ling, Jr., pres.	Barr Farm Heil Luikart Spring Industries Spring	Stark Tuscarawas Tuscarawas Tuscarawas Tuscarawas	clay limestone shale clay clay sand & gravel clay shale	10,449 469 22,857 18,890 8,425 900	10,449 469 22,857 18,890 8,425 900	Sk-LM Ts-1884 Ts-1914 Ts-SI Ts-1982	IM-2270 IM-6 D-0701 IM-569 IM-621
L. A. Horn Excavating/Constr., Inc. 35380 Hocking Dr. Logan, OH 43138 (740) 385-2625 Lucas A. Horn, pres.	L. A. Horn Excavating/Constr., Inc.	Hocking	sand & gravel			Hg-L	IM-2117
Lafarge Corp. Great Lakes Region P.O. Box 160 Paulding, OH 45879 (419) 399-4861 Bruno Lafont, pres.	Paulding Quarry	Paulding	clay limestone			Pg-1 ¹	IM-513
Lafarge North America 831 S. Quarry Rd. Marblehead, OH 43440 (419) 798-4486 Jeff Grashel, plant mgr.	Lafarge	Ottawa	limestone	3,227,755	3,500,886	Oa-7	IM-440
Lakeside Sand & Gravel Co. 3498 Frost Rd. Mantua, OH 44255 (330) 274-2569 Larry Kotkowski, pres.	Lakeside Sand & Gravel Co. Plant 1 Solak	Portage Portage	sand & gravel sand & gravel	445,000 4,000	445,000 4,000	Pe-LS ³ Pe-A ³	IM-1293 IM-1362
Latham Limestone, LLC 11641 Mosteller Rd. Cincinnati, OH 45241 (740) 493-2677 Dennis Garrison, pres.	Latham Limestone	Pike	limestone	456,260	456,260	Pke-13	IM-213
Link Trucking Co., Inc. 7305 State Route 669 N McConnelsville, OH 43756 (740) 617-7544 Glen Kussmaul, pres.	Matthew	Morgan	sand & gravel			Mon-L ¹	IM-1266
Little Miami Sand & Gravel P.O. Box 36 Lebanon, OH 45036 (513) 932-3221 Paul N. Herdman, pres.	Little Miami Sand & Gravel Plant #1 Little Miami Sand & Gravel Plant #2	Warren Warren	sand & gravel sand & gravel	0 0	500 350	Wan-B Wan-46	IM-679 IM-842
The Logan Clay Products Co. P.O. Box 698 Logan, OH 43138 (740) 385-2184 Richard H. Brandt, pres.	Webb Summit	Perry	shale	12,530	21,680	Py-L	IM-2367

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Logan Construction, LLC 3610 County Rd. 50 Rushsylvania, OH 43347 (937) 468-2356 Todd Mobley, owner	Logan Construction	Logan	sand & gravel			Lgn-L ¹	IM-2064
Loxley Aggregates, Inc. 4277 Falls Rd. Lewisburg, OH 45338 (937) 839-5488 Matthew L. Loxley, pres.	Loxley Aggregates, Inc.	Preble	clay sand & gravel	470 630	470 630	Pre-9 ³	IM-1095
LUB, Inc. 4174 East Pike Zanesville, OH 43701 (740) 452-3668 Otto Luburgh, pres.	LUB, Inc.	Muskingum	sand & gravel	23,722	23,722	Mum-LB	IM-2106
Luburgh, Inc. 4174 East Pike Zanesville, OH 43701 (740) 452-3668 Otto Luburgh, pres.	Luburgh-Cameron Brothers Yeary	Muskingum Muskingum	clay clay			Mum-L2 Mum-L3	IM-2200 IM-2342
M. J. Coates Construction Co., Inc. P.O. Box 41231 Dayton, OH 45441 (937) 433-1581 Martin J. Coates, owner	M. J. Coates Construction Co., Inc. M. J. Coates Construction Co., Inc.	Greene Greene	sand & gravel sand & gravel	62,721	62,721	Ge-G Ge-47	IM-655 IM-751
MAR-DEL Enterprises, Inc. P.O. Box 6156 Chillicothe, OH 45601 (740) 775-3098 Marvin E. Riley, pres.	MAR-DEL Enterprises, Inc.	Jackson	sand & gravel			Jkn-M	IM-2209
Mark Williams Blacktop Co., Inc. 695 Bramblewood Heights Rd. Marietta, OH 45750 (740) 373-3401 Mark Williams, pres.	Williams Pit #2	Washington	sand & gravel			Wn-1007 ¹	IM-1042
Marshall Quarry, Inc. 10460 State Route 124 Hillsboro, OH 45133 (937) 466-2855 Troy A. Main, v. pres.	Marshall Quarry, Inc.	Highland	limestone	26,648	26,648	Hd-4	IM-406
Martin Marietta Aggregates 9277 Centre Point Dr., Suite 250 West Chester, OH 45069 (304) 485-7341 Dan Goethel, gen. mgr.	Apple Grove Plant	Meigs	sand & gravel	417,896	257,044	Ms-205	IM-30
Martin Marietta Aggregates 9277 Centre Pointe Dr., Suite 250 West Chester, OH 45069 (513) 492-5638 Steve Raffensperger, v. pres.	Fairfield II Gravel Fairfield Sand & Gravel Hamilton Gravel Ross Sand & Gravel Fairborn Gravel	Butler Butler Butler Butler Clark	sand & gravel limestone sand & gravel sand & gravel sand & gravel limestone sand & gravel	5,051 918,275 9,667 1,279 6,611 169,025	0 953,310 0 0 0 160,787	Br-14 Br-35 Br-5 Br-29 Ck-13	IM-147 IM-200 IM-153 IM-149 IM-366

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
	Clinton Limestone	Clinton	limestone	76,575	110,152	Cln-W	IM-2160
	Blue Rock Limestone	Fayette	sand & gravel	12,411	0	Fe-2	IM-169
	Cedarville	Greene	limestone	532,511	563,611	Ge-17	IM-435
	Cook Rd.	Greene	sand & gravel	15,567	15,567	Ge-MM	IM-2123
	Haines Rd.	Greene	limestone	652	0	Ge-32	IM-400
	Spring Valley S & G	Greene	sand & gravel	426,547	348,247	Ge-42	IM-954, IM-2123
	Xenia S & G	Greene	sand & gravel	90,606	13,787	Ge-33	IM-379
	E-town Sand & Gravel	Hamilton	limestone	12,052	0	Hmn-71	IM-771
	Harrison Sand & Gravel	Hamilton	sand & gravel	317,949	302,192	Hmn-37	IM-170
	Kilby Rd. #713	Hamilton	limestone	7,429	0	Hmn-AAC	IM-716
	Miamitown	Hamilton	sand & gravel			Hmn-D	IM-1079
	Stuart Pit	Hamilton	sand & gravel			Hmn-P	IM-1333
	Lynchburg Quarry	Highland	limestone	8,395	8,395	Hd-M	IM-1170
	Troy Sand & Gravel	Miami	sand & gravel	289,895	312,444	Mi-3	IM-462, IM-658
	Phillipsburg	Montgomery	limestone	526,276	529,871	My-1	IM-374
	Rip Rap Rd.	Montgomery	sand & gravel	19,622	43,719	My-66	IM-677
	Franklin Gravel	Warren	sand & gravel	80,361	79,336	Wan-38	IM-615
Martin Marietta Magnesia Specialties, Inc. 755 Lime Rd. Woodville, OH 43469 (419) 849-4200 Tim Tawney, oper. mgr.	Woodville Quarry	Sandusky	limestone	1,847,998	1,836,760	Sy-1	IM-537
MAR-ZANE Materials, Inc. P.O. Box 1585 Zanesville, OH 43702-1585 (740) 453-0721 Nick Little, pres.	Enterprise Pit	Hocking	sand & gravel	450,459	474,953	Hg-HV	IM-1284
Mason's Sand & Gravel Co. 2385 Rathmell Rd. Obetz, OH 43207 (614) 491-3611 George C. Smith, pres.	Mason's Sand & Gravel Co.	Franklin	sand & gravel	22,578	22,578	Fn-11	IM-234
Massillon Materials, Inc. 26 N. Cochran St. P.O. Box 499 Dalton, OH 44618 (330) 837-4767 Howard J. Wenger, pres.	Massillon Materials, Inc. MMI Warmington Plant MMI Sandyville Plant	Stark Stark Tuscarawas	sand & gravel sand & gravel sand & gravel	424,058 100,231	424,058 100,231	Sk-M Sk-M1 Ts-MM	IM-1031 IM-1332 IM-1324
Mathews Sand & Gravel 5061 Monroe Center Conneaut, OH 44030 (440) 594-1130 Edward G. Mathews, owner	Mathews Sand & Gravel	Ashtabula	sand & gravel			Asa-M ¹	IM-1301
Maysville Materials, LLC 3499 Foxfire Dr. Zanesville, OH 45701 (740) 638-3942 Chris D. Sidwell, pres.	Widmor Moore Smith	Belmont Muskingum Muskingum	limestone limestone limestone			Bt-M ¹ Mum-M ¹ Mum-M1 ¹	IM-2392 IM-2371 IM-2372

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
James L. Meade 2151 State Route 46 N Jefferson, OH 44047 (440) 593-6902 James L. Meade, pres.	Meade	Ashtabula	sand & gravel	23,000	23,000	Asa-JM	IM-2242
Mechanicsburg Sand & Gravel, Inc. 5734 State Route 54 Mechanicsburg, OH 43044 (937) 834-2606 James G. Cushman, pres.	Mechanicsburg Sand & Gravel, Inc.	Champaign	sand & gravel	82,000	82,000	Cpn-22 ³	IM-889
The Melvin Stone Co., LLC P.O. Box 158 Sabina, OH 45169 (740) 998-5016 Dennis J. Garrison, pres.	The Melvin Stone Co., LLC Bowersville Circleville Williamsport Plano Road	Clinton Greene Pickaway Pickaway Ross	limestone limestone sand & gravel limestone limestone	945,199 264,564 246,562 225,738 231,160	945,199 264,564 246,562 225,738 231,160	Cln-1 Ge-M Pky-R Pky-4 Rs-MC1	IM-241 IM-2052 IM-993 IM-209 IM-1298
Mesenburg Bros., Inc. 2366 Wells Rd. Collins, OH 44826 (419) 668-5691 William Mesenburg, pres.	Mesenburg Bros., Inc.	Huron	sandstone	14,374	14,374	Hrn-8	IM-268
MGQ, Inc. P.O. Box 130 Old Fort, OH 44861 (419) 992-4235 Lyn O. Radabaugh, pres.	Liberty Quarry	Seneca	limestone			Sa-M	IM-2239
Miami View Mining Co., Ltd. 998-B E. Ridge Dr. Lebanon, OH 45036 (513) 932-6481 James P. Jurgensen, managing mbr.	Miami View	Warren	sand & gravel	419,674	419,674	Wan-MV	IM-1329
Mid Ohio Resources 459 State Route 97 W Bellville, OH 44813 (352) 369-8600 Darryl C. Lanker, pres.	Bellville West	Richland	sand & gravel	41,500	41,500	Rd-M1	IM-2191
Miller's Sand & Gravel, Inc. 10228 State Route 82 Windham, OH 44288 (330) 326-3157 Brian K. Miller, pres.	Miller Sand & Gravel, Inc.	Portage	sand & gravel	170	170	Pe-39	IM-1078
Ed Miller 6640 Twp. Rd. 348 Millersburg, OH 44654 (330) 674-1157 Ed Miller, owner	E. Miller Mine	Holmes	limestone	8,000	8,000	Hs-M	IM-2352
Milligan Materials P.O. Box 419 Sidney, OH 45365 (937) 492-4722 Thomas P. Milligan, pres.	Washington Twp. Pit	Shelby	sand & gravel			Shy-13	IM-412

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Milton Materials, LLC 7131 W. Fenner Rd. Ludlow Falls, OH 45339 (937) 698-7048 Tom Wagner, pres.	Milton Materials Fenner Pit	Miami	sand & gravel	80,980	77,730	Mi-4	IM-472
Morrow Gravel Co. 11641 Mosteller Rd. Cincinnati, OH 45241 (740) 998-5016 Dennis Garrison, pres.	Urbana Pike County Morrow Gravel Co.	Champaign Pike Warren	sand & gravel sand & gravel sand & gravel	271,197 158,678	271,197 158,678	Cpn-1 Pke-M Wan-M	IM-371 IM-1325 IM-728, IM-1065
Morton International, Inc. Morton Salt Division 151 Industrial St. P.O. Box 337 Rittman, OH 44270-0337 (330) 925-3015 Christian Herrmann, CEO	Morton Salt Well Field 9129	Wayne	salt	339,364	339,364	We-9129	
Morton International, Inc. Morton Salt Division P.O. Box 428 Grand River, OH 44045-0428 (440) 354-9901 Mark Mitchell, facility mgr.	Fairport Mine	Lake	salt	453,291	540,331	Lke-6	
Mt. Eaton Reclamation, Inc. P.O. Box 256 Mt. Eaton, OH 44659 (330) 465-7162 Freeman Mullet, pres.	Mt. Eaton Reclamation, Inc.	Wayne	sandstone			We-M	IM-2394
Muskingum River Gravel Co. P.O. Box 1585 Zanesville, OH 43702-1585 (740) 453-0721 Nick Little, pres.	S & S Aggregate #8 S & S Aggregate #1 S & S Aggregate Plant #7	Hocking Muskingum Ross	sand & gravel sand & gravel sand & gravel	38,473 169,828 114,482	38,473 170,726 115,541	Hg-301 Mum-228 Rs-M	IM-458 IM-421 IM-114
National Aggregates, Inc. P.O. Box 340 Malvern, OH 44644 (330) 866-1999 Sheryl Sheckler, owner	National Aggregates, Inc.	Stark	sand & gravel			Sk-1017	IM-1186
National Lime & Stone Co. P.O. Box 120 Findlay, OH 45839-0120 (419) 422-4341 C. Paul Palmer, pres.	Bloomlock Quarry Lima Plant Buckland Plant Bucyrus Plant Delaware Plant Meredith Quarry Warrensburg Columbus Plant Findlay Plant Ridge Quarry County Line Quarry Hamilton Quarry Marion Plant Rimer Plant Delphos Quarry Carey Plant Sammet	Allen Allen Auglaize Crawford Delaware Delaware Delaware Franklin Hancock Hancock Hardin Marion Marion Putnam Van Wert Wyandot Wyandot	limestone limestone limestone limestone limestone limestone limestone sand & gravel limestone limestone limestone limestone limestone limestone limestone limestone limestone sand & gravel	750,000 259,000 1,140,000 2,728,000 357,000 520,000 604,000 332,000 106,000 3,832,000 133,000	750,000 259,000 1,140,000 2,728,000 357,000 520,000 604,000 332,000 106,000 3,832,000 133,000	An-4 An-3 Ae-10 Cd-1 Del-5 Del-2 Del-3 Fn-52 Hk-7 Hk-A Hdn-N Mn-2 Mn-3 Pm-N Vt-1 Wt-1 Wt-N	IM-491 IM-484 IM-486 IM-404 IM-207 IM-299 IM-327 IM-191, IM-2193 IM-1002 IM-1299 IM-2072 IM-423 IM-168 IM-0479 IM-500 IM-405 IM-2132

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Neer's Sand & Gravel 4859 Twp. Rd. 45 Bellefontaine, OH 43311 (937) 585-6733 Arden J. Neer, Sr., owner	Neer's Sand & Gravel	Logan	sand & gravel	125,030	125,030	Lgn-6	IM-459
Nelson Sand & Gravel, Inc. P.O. Box 466 Kingsville, OH 44048 (440) 224-0198 Thomas H. Nelson, pres.	Nelson Sand & Gravel, Inc.	Ashtabula	sand & gravel	31,730	31,730	Asa-N1	IM-2102
New Carlisle Sand & Gravel Co. 6090 S. Scarff Rd. New Carlisle, OH 45344 (937) 845-8434 James R. Upton, owner	New Carlisle Sand & Gravel Co.	Miami	sand & gravel	300	300	Mi-501	
Newark Materials, LLC 2232 Sleepy Hollow Rd. Newark, OH 43056 (740) 652-4565 Barbara Mock, owner	Newark Plant	Licking	clay sand & gravel	59,388 18,866	59,388 31,334	Lg-504	IM-991
Newbury Sand & Gravel, Inc. 5197 Chillicothe Rd. Chagrin Falls, OH 44022-4171 (440) 708-1958 Bruce Thomas, pres.	Newbury Sand & Gravel, Inc.	Geauga	sand & gravel			Gea-N ¹	IM-1123
Newton Asphalt Paving, Inc. P.O. Box 86 Strasburg, OH 44680 (330) 878-5648 George A. Gessner, pres.	516	Tuscarawas	sand & gravel	96,009	96,009	Ts-2001	IM-1004
North Shore Stone Quarries, Inc. 72 Fernhill Ave. Columbus, OH 43228 (614) 878-0620 Clifford Hammond, pres.	North Shore Stone Quarries, Inc.	Seneca	limestone	1,200	1,200	Sa-8	IM-313
Northwest Ohio Property Developments, Ltd. P.O. Box 23242 Toledo, OH 43623 (419) 260-4406 Gene W. Borton, pres.	NOPD, Ltd.	Fulton	sand & gravel			Ftn-NW ¹	IM-2138
Nuway Services 3441 Sportsman Club Rd. Johnstown, OH 43031 (740) 587-2451 Wilda McInturff, pres.	Hopewell	Licking	clay	2,288	2,288	Lg-NU	IM-2046
Ohio Asphaltic Limestone Corp. 8591 Mad River Rd. Hillsboro, OH 45133 (937) 364-2191 Diana M. Jones, pres.	Ohio Asphaltic Limestone Corp.	Highland	limestone	241,871	241,871	Hd-3	IM-253

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Ohio Basic Minerals, LLC 15317 Beaver Pike Jackson, OH 45640 (740) 286-0258 Patrick McDonald, pres.	Scioto Mine	Pike	sandstone	31,000	31,000	Pke-0 ³	IM-2370
Olen Corp. 4755 S. High St. Columbus, OH 43207-4028 (614) 491-1515 Kenneth W. Holland, pres.	Columbus Plant #3 Fredericktown Plant #2 St. Louisville Plant #5 Lucky Sand & Gravel Co. The Olen Corp. - Wooster Upper Sandusky	Franklin Knox Licking Portage Wayne Wyandot	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel limestone	1,997,512 346,305 250,571 12,380 306,890 504,663	2,134,585 369,813 297,914 0 363,596 506,501	Fn-58 Kx-0 Lg-31 Pe-L We-11 Wt-3	IM-1023 IM-2159 IM-246 IM-154 IM-547 IM-298
Orrville Trucking P.O. Box 220 Orrville, OH 44667 (330) 682-4010 David A. Renner, pres.	Orrville Trucking	Ashland	sand & gravel			Ald-G	IM-1121
Oscar Brugmann Sand & Gravel, Inc. 3828 Dudley Rd. Mantua, OH 44255 (330) 274-8224 Alan R. Brugmann, pres.	Oscar Brugmann Sand & Gravel, Inc. Oscar Brugmann Sand & Gravel, Inc. Oscar Brugmann Sand & Gravel, Inc.	Portage Portage Portage	sand & gravel sand & gravel sand & gravel sandstone	527,446 20,153	527,446 20,153	Pe-0B Pe-0B1 Pe-9	IM-1241 IM-2300 IM-119
Oster Sand & Gravel, Inc. 5947 Whipple Ave. NW North Canton, OH 44720-7692 (330) 494-5472 Marlene K. Oster, pres.	Massillon Plant Oster Sand & Gravel, Inc.-Bolivar	Stark Tuscarawas	sand & gravel sand & gravel	405,809 87,670	405,809 87,670	Sk-165 Ts-2036	IM-192 IM-1155
Ours Sand & Gravel 20444 State Route 7 S Crown City, OH 45623 (740) 256-1378 Donald A. Ours, owner	Ours Sand & Gravel	Gallia	sand & gravel	2,985	2,985	Ga-0	IM-1028
Oxford Resource Partners, LP P.O. Box 427 Coshocton, OH 43812 (740) 622-6302 Charles C. Ungurean, pres.	Standingstone Mine New Lex-North 2 Strasburg Slurry	Harrison Perry Tuscarawas	limestone clay limestone	1,453,273 10,737	1,453,273 10,737	Hn-02 Py-02 Ts-HC	D-2277 D-2318 D-0981
The Parry Company, Inc. 33630 Old U.S. Route 35 Chillicothe, OH 45601 (740) 884-4893 David Meredith, pres.	Jackson Grandview Builders	Pike	sandstone	11,000	11,000	Pke-P	IM-2337
Patrick Excavating, Inc. 5839 State Route 5 P.O. Box 387 Ravenna, OH 44266 (330) 296-7706 Tim Patrick, pres.	Patrick	Portage	clay	689	689	Pe-P	IM-1322
Paul D. Beery Trucking Co. 4770 Cincinnati-Zanesville Rd. NE Lancaster, OH 43130 (740) 653-5061 Paul D. Beery, pres.	Paul D. Beery Trucking Co.	Fairfield	sand & gravel	2,691	2,870	Fd-14	IM-933

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Phillips Companies, LLC 620 Phillips Dr. Beavercreek, OH 45435 (937) 426-5461 Dennis K. Phillips, pres.	Phillips Sand and Gravel Phillips Companies, LLC	Montgomery Greene	sand & gravel sand & gravel	114,309 194,000	151,444 330,000	My-52 Ge-36	IM-348 IM-305
Phoenix Asphalt Company, Inc. 3497 University Dr. NE New Philadelphia, OH 44663 (330) 339-4935 James R. Demuth, pres.	Smith Sand & Gravel #1 Smith	Carroll Carroll	sand & gravel sand & gravel	59,410	59,410	CI-P1 CI-P	IM-2354 IM-2322
Piqua Materials, Inc. Piqua Minerals Division 1750 W. Statler Rd. Piqua, OH 45356 (800) 338-2962 Dennis Garrison, pres.	Piqua Minerals Division	Miami	limestone	564,806	564,806	Mi-1	IM-382
Portage Aggregate & Supply, LLC 10155 Royalton Rd. North Royalton, OH 44133 (330) 297-6800 Anthony J. Farinacci, pres.	Portage Aggregate & Supply, LLC	Portage	sand & gravel	72,187	72,187	Pe-M	IM-1312
Power Development Corp. P.O. Box 936 Malvern, OH 44644 (330) 863-0603 Paul W. Robertson, pres.	Power Development/Robertson	Carroll	sand & gravel			CI-PD	IM-1352
Precision Aggregates I, LLC 4843 County Rd. 43 Upper Sandusky, OH 43351 (419) 352-4681 Randolph Schmeltz, pres.	Precision Aggregates I, LLC	Wyandot	limestone sand & gravel			Wt-4	IM-520
Precision Aggregates II, LLC 12205 E. Gypsy Ln. Bowling Green, OH 43402 (419) 352-4681 Randolph G. Schmeltz, pres.	Precision Aggregates II, LLC	Wood	limestone sand & gravel	156,131 24,000	156,131 24,000	Wd-14	IM-1157
Precision Aggregates III, LLC 12205 E. Gypsy Ln. Bowling Green, OH 43402 (419) 352-4681 Randolph Schmeltz, pres.	Precision Aggregates III, LLC	Sandusky	limestone sand & gravel	110,084 2,458	110,084 2,458	Sy-5	IM-0259
Premier Silica, LLC 26900 Coshocton Rd. Howard, OH 43028 (740) 599-7773 Aidan W. Connolly, pres.	Millwood Plant Glass Rock Glass Rock Plant	Knox Perry Perry	sandstone sandstone sandstone	73,348 91,180	86,977 86,895	Kx-1 Py-C Py-344	IM-269 IM-2365 IM-1014
Putnam Aggregates Company, LLC 7053 Road M Ottawa, OH 45875-9754 (419) 523-6004 Stephen S. Benson, mgr./trustee	Putnam Aggregates Company, LLC	Putnam	limestone	215,000	218,000	Pm-2	IM-570

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Quality Ready Mix, Inc. 16672 County Rd. 66A N St. Marys, OH 45885 (419) 738-2817 John Hirschfield, pres.	Quality Pit	Auglaize	sand & gravel	9,519	9,519	Ae-16	IM-595
R. A. Cruise Sand & Gravel, Inc. 2568 Lake Rockwell Rd. Ravenna, OH 44266 (330) 296-4087 Larry A. Cruise, pres.	R. A. Cruise Sand & Gravel, Inc.	Portage	sand & gravel			Pe-45	IM-139
R. H. Penick Co., Ltd. 1504 Blue Jay Rd. Heath, OH 43056-1767 (740) 323-3040 Suzanne R. Neumeyer, owner	R. H. Penick Co.	Licking	salt	278	278	Lg-45	
R. J. Martin Service & Excavating 1875 Roxanna-New Burlington Rd. Waynesville, OH 45068 (937) 862-4182 Roger J. Martin, pres.	Horseshoe Bend Sand & Gravel, Inc.	Greene	sand & gravel	88	0	Ge-40	IM-923
R. L., Ltd. 5850 Dryfork Rd. Cleves, OH 45002 (513) 367-5700 Rick Ashcraft, pres.	R. L., Ltd.	Hamilton	sand & gravel	1,040	1,040	Hmn-67	IM-529
R. W. Sidley, Inc. 436 Casement Ave. Painesville, OH 44077 (440) 298-3232 Robert Buescher, pres.	Sidley-Kingsville Plant	Ashtabula	sand & gravel	40,002	46,000	Asa-15	IM-783
R. W. Sidley, Inc. 7123 Madison Rd. Thompson, OH 44086 (440) 298-3232 Robert Buescher, pres.	Thompson Pit Sidley-Painesville Plant	Geauga Lake	sandstone sand & gravel	109,430 135	195,000 0	Gea-1 Lke-7	IM-163 IM-162
RAK, Inc. dba Rainbow Sand & Gravel, Inc. P.O. Box 240 Bristol, OH 44402 (330) 389-3451 Rex King, pres.	Rainbow Sand & Gravel, Inc.	Portage	sand & gravel			Pe-64	IM-1017
Ralph C. Wagner & Sons 7317 Brinker St. Navarre, OH 44662 (330) 879-5788 Michael Wagner, owner	Wagner & Sons	Stark	sand & gravel			Sk-W	IM-867
Razor Lake S. & G., LLC 59894 County Rd. 9 Newcomerstown, OH 43832 (740) 294-1370 Terry L. Jurin, owner	Razor Lake S. & G., LLC	Coshocton	sand & gravel			Cn-R ¹	IM-2175

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Regeneration Materials P.O. Box 146 Dundee, OH 44624 (330) 852-2012 Matthew Maendel, pres.	Dundee Mine	Tuscarawas	sandstone sand & gravel	8,307	10,304	Ts-1660	IM-68
Ridge Township Quarry 16905 Middlepoint Rd. Van Wert, OH 45891 (419) 238-2533 Nancy Agler, office mgr.	Ridge Township Quarry	Van Wert	limestone	119,218	119,218	Vt-7	IM-642
Riverside Sand & Gravel Co., Inc. P.O. Box 324 Tallmadge, OH 44278-0324 (330) 673-2021 Albert H. Acken, Jr., pres.	Riverside Sand & Gravel Co., Inc.	Summit	sandstone	278	278	St-24	IM-239
Rockwell Sand & Gravel, Inc. 1022 State Route 43 Mogadore, OH 44260 (330) 628-3231 Lana Rufener, pres.	Suffield Aggregate, LLC	Portage	sand & gravel peat	30,479 420	30,479 0	Pe-R	IM-2037
Rohr Excavating, Ltd. 5028 Twp. Rd. 339 Millersburg, OH 44654 (330) 763-1124 Montell J. Rohr, pres.	Rohr Rohr	Holmes Holmes	clay limestone clay limestone	 4,000 20,000	 4,000 20,000	Hs-R1 Hs-R ³	IM-2368 IM-2345
Romig Excavating P.O. Box 260 Sherrodsville, OH 44675 (740) 269-1225 James D. Romig, owner	Romig Excavating	Carroll	sandstone			Cl-R	IM-2296
Roy M. Roush 11278 Darby Creek Rd. Orient, OH 43146 (614) 877-4792 Roy M. Roush, owner	R Farm S & G	Pickaway	sand & gravel			Pky-RR ¹	IM-2040
Royalty Enterprises, Inc. P.O. Box 8680 Newark, OH 43058 (740) 323-3333 Clayton King, pres.	King #1	Licking	salt	256	256	Lg-4484	
Rupp Construction, Inc. 18228 Fulton Rd. Marshallville, OH 44645 (330) 855-2781 Gary D. Radabaugh, pres.	Rupp Construction, Inc.	Wayne	sand & gravel	173,816	173,816	We-7	IM-471
S & R Aggregate 17280 State Route 60 Lowell, OH 45744 (740) 498-7630 Mike Story, pres.	Story	Washington	sand & gravel			Wn-SR	IM-2314

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
S & S Aggregate, Inc. P.O. Box 1585 Zanesville, OH 43702-1585 (740) 453-0721 Nick Little, v. pres.	S & S Aggregate #16 S & S Aggregate #14 Twin Lakes-S & S Aggregate #9	Portage Richland Summit	sand & gravel sand & gravel sand & gravel	537,131 140,085 50,804	648,742 146,525 48,273	Pe-15 Rd-5 St-44	IM-104 IM-470 IM-178
Sam's Excavating Unlimited, Inc. 4324 St. Paul Rd. Ashville, OH 43103 (740) 983-6589 Samuel Hall, pres.	Scioto Aggregates-Sam's Excavating Unlimited	Pickaway	sand & gravel	3,000	3,000	Pky-5	IM-2328
Sandkuhl Clay Works, Inc. 05536 Kossuth-Amanda Rd. Spencerville, OH 45887 (419) 657-2905 Ann L. Engh, pres.	Sandkuhl Clay Works, Inc.	Auglaize	clay	1,697	1,697	Ae-7	
Scassa Asphalt, Inc. 4167 Beaumont Ave. NW Massillon, OH 44647 (330) 830-2039 Ettore Scassa, owner	Rio Sand & Gravel	Stark	sand & gravel	31,000	60,000	Sk-5	IM-2326
Guy Schieve 52943 State Route 113 Wakeman, OH 44889 (440) 965-8792 Guy Schieve, owner	Schieve Pit	Lorain	sand & gravel			Ln-12	IM-731
Roy B. Schweitzer dba The Gravel Co. 700 W. Pete Rose Way Cincinnati, OH 45203 (513) 721-6000 Roy B. Schweitzer, pres.	New Miami Pit Cleves	Butler Hamilton	sand & gravel sand & gravel			Br-3 Hmn-28	IM-719 IM-353
Mark E. Scott P.O. Box 6112 Chillicothe, OH 45601 (740) 772-4990 Mark E. Scott, owner	Scott Pit	Ross	sand & gravel			Rs-P	IM-122
Sereday Trucking, Inc. 7591 Warren Sharon Rd. Brookfield, OH 44403 (330) 448-4000 Richard Sereday, owner	Sereday	Trumbull	clay			TI-SE	IM-2351
Seville Sand & Gravel, Inc. 8215 Seville Rd. Lodi, OH 44254 (330) 948-1812 Richard L. Rothel, mgr.	Seville Sand & Gravel, Inc.	Medina	sand & gravel	84,000	84,000	Ma-22 ³	IM-425, IM-442, IM-650, IM-651
Shamrock Materials, Inc. 11641 Mosteller Rd. Cincinnati, OH 45241 (800) 338-2962 Dennis Garrison, pres.	Shamrock Materials Walls Material	Butler Darke	sand & gravel limestone	136,000 162,861	136,000 162,861	Br-52 Dke-1	IM-814 IM-362

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Sharon Stone Co. P.O. Box 100 Dexter City, OH 45727 (740) 783-3575 John P. McCort, pres.	Sharon Stone Co. Belpre Sand & Gravel	Noble	limestone	148,406	148,406	Ne-5	IM-913
		Washington	sand & gravel	517,356	517,356	Wn-5S	IM-2006
Shelly Materials, Inc. 80 Park Dr. Thornville, OH 43076 (740) 246-6315 Ty Nofziger, pres.	Coshocton Apache #1	Coshocton	sand & gravel			Cn-783	IM-717
	Coshocton Apache #2	Coshocton	sand & gravel			Cn-718	IM-227
	Shelly Materials, Inc. Plant #1305	Coshocton	sand & gravel	153,200	153,200	Cn-694	IM-293
	Shelly Materials, Inc. Plant #1314	Fairfield	sand & gravel	86,765	86,765	Fd-13	IM-848, IM-1331
	Columbus Limestone #331	Franklin	limestone	4,093,772	4,093,772	Fn-53 ²	IM-185
	Marble Cliff Plant #0332	Franklin	limestone	303,586	303,586	Fn-2	IM-261
	Shelly Materials Plant #1312	Licking	sand & gravel			Lg-W	IM-1213
	St. Louisville	Licking	sand & gravel	314,707	314,707	Lg-10	IM-217
	Petersburg	Mahoning	limestone	692,245	893,066	Mg-L	IM-1353
	Portland Plant	Meigs	sand & gravel	309,408	309,408	Ms-S	IM-1326
	Shelly Materials, Inc.-Racine	Meigs	sand & gravel			Ms-298	IM-32
	East Fultonham	Muskingum	limestone	559,122	559,122	Mum-106	IM-297
	Shelly Materials, Inc.-Dresden	Muskingum	sand & gravel			Mum-799	IM-317, IM-264
	Jefferson Materials Plant #1302	Portage	sand & gravel	273,177	320,293	Pe-63	IM-82
	Shalersville South	Portage	sand & gravel			Pe-68	IM-1107, IM-660
	Chillicothe RT 35 Plant	Ross	sand & gravel			Rs-G	IM-2099
	Shelly Materials, Inc.-Chillicothe	Ross	sand & gravel	222,258	222,258	Rs-27	IM-1098
Cunningham Pit	Scioto	sand & gravel			So-83	IM-211	
Haverhill	Scioto	sand & gravel			So-79	IM-221	
Allied Corp., Inc. #1301	Stark	sand & gravel			Sk-N	IM-156	
Allied Corp., Inc.	Stark	sand & gravel	537,406	687,484	Sk-173	IM-879	
Navarre	Stark	sand & gravel			Sk-241	IM-582	
Ostrander Quarry	Union	limestone	1,086,071	1,086,071	Un-2	IM-236	
Willow Island	Washington	sand & gravel	467,886	467,886	Wn-C	IM-1315	
Shelly Materials, Inc. P.O. Box 3100 Findlay, OH 45840 (419) 422-8854 Ty Nofziger, pres.	Mechanicsburg	Champaign	sand & gravel			Cpn-21	IM-616
	Forest Quarry	Hardin	limestone	160,580	143,846	Hdn-S	IM-1034
	Hardin Quarry	Hardin	limestone			Hdn-2	IM-443
	Belle Center	Logan	limestone	259,874	275,735	Lgn-2	IM-494
	East Liberty Quarry	Logan	limestone			Lgn-1	IM-574
	Tri-County Limestone Co.	Marion	limestone			Mn-1	IM-250
	Rockford Quarry	Mercer	limestone			Mr-2	IM-430
York Center Quarry	Union	limestone	322,299	279,918	Un-1	IM-208	
Shelly Materials, Inc. 8920 Canyon Falls Blvd., Suite 120 Twinsburg, OH 44087 (330) 405-4163 Douglas Rauh, pres.	Shelly Materials, INC. Lockbourne #1344	Franklin	sand & gravel			Fn-23	IM-183
	Shalersville North	Portage	sand & gravel	474,776	511,554	Pe-La	IM-1047
	Allied Corp.	Stark	sand & gravel			Sk-CA	IM-1234
Sidco Development, Inc. 4620 Limestone Valley Rd. Zanesville, OH 43701 (740) 849-2422 Jeffrey R. Sidwell, pres.	Columbia Cement	Muskingum	limestone			Mum-SD	IM-1313
	Midvale Sand & Gravel	Tuscarawas	sand & gravel	139,500	139,500	Ts-S2	IM-1356
Sidwell Materials, Inc. 4620 Limestone Valley Rd. Zanesville, OH 43701 (740) 849-2422 Jeffrey R. Sidwell, pres.	Bellaire Stone	Belmont	sandstone	297	297	Bt-1190	IM-1089, IM-2256
	Uniontown Stone	Belmont	clay			Bt-N	IM-1283
	Dupler/Ford	Muskingum	limestone	364,995	861,314	Mum-SB	IM-1212, IM-1269
	Sidwell Materials, Inc.	Muskingum	limestone	71,646	24,486	Mum-SW	IM-2092
	White Cottage	Muskingum	limestone	404,407	519,594	Mum-104 ²	IM-277

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Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Small's Sand & Gravel, Inc. P.O. Box 617 Gambier, OH 43022 (740) 427-3677 Michael W. Small, pres.	Small's Sand & Gravel, Inc.	Knox	sand & gravel	19,664	19,664	Kx-5	IM-2000
	Small's Sand & Gravel, Inc.	Knox	sand & gravel	211,588	211,588	Kx-15	IM-967
	Small's Sand & Gravel, Inc.	Knox	sand & gravel	306	306	Kx-17	IM-968
Sober Sand & Gravel Co. 2898 Tallmadge Rd. Ravenna, OH 44266 (330) 867-0666 Joseph F. Bertolini, pres.	Sober Sand & Gravel Co.	Portage	clay sand & gravel	10,700 190,000	10,700 190,000	Pe-18	IM-193
Soehnlén Bros. Sand & Gravel, Inc. 10449 Soehnlén Rd. NW Beach City, OH 44608 (330) 756-2244 Francis L. Soehnlén, pres.	Soehnlén Bros. Sand & Gravel, Inc.	Tuscarawas	sand & gravel	359,968	359,968	Ts-1826	IM-88
Solomon's Mines, Inc. 7732 Salem-Unity Rd. Salem, OH 44460 (330) 337-0123 Jack Solomon, owner	Solomon's Mines, Inc.	Columbiana	sandstone	10,503	10,503	Ca-5	IM-1258
	Solomon's Mines, Inc.	Mahoning	sand & gravel	45,711	45,711	Mg-632	IM-808
Soltis Sand & Gravel 19102 Nelson Ledges Rd. P.O. Box 452 Garrettsville, OH 44231 (440) 548-5813 James Soltis, owner	Soltis Sand & Gravel	Geauga	clay sand & gravel	180 450	180 450	Gea-9	IM-132
South Central Sand & Gravel 340 Bailey Chapel Rd. Pikeon, OH 45661 (740) 289-2629 James A. Nier, owner	South Central Sand & Gravel	Pike	sand & gravel	9,574	9,574	Pke-30	IM-786
Southern Ohio Aggregates, Inc. 11641 Mosteller Rd. Cincinnati, OH 45241 (513) 771-0820 James P. Jurgensen, pres.	New Miami Plant	Butler	sand & gravel			Br-5	IM-1053
	Cleves Pit	Hamilton	sand & gravel			Hmn-5	IM-746
	Kilby Road	Hamilton	sand & gravel			Hmn-50	IM-720
	Gratis Plant	Preble	sand & gravel			Pre-7	IM-306
Southern Ohio Sand, LLC P.O. Box 748 Willoughby, OH 44094 (440) 946-7478 Roy Vaughn, pres.	Southern Ohio Sand, LLC	Pike	sandstone	40,000	40,000	Pke-5	IM-1348
City of Springfield 201 Eagle City Rd. Springfield, OH 45502 (937) 525-5880 Allen Jones, super.	City of Springfield	Clark	sand & gravel			Ck-7	IM-449
S.R.I., Inc. 1550 Soldiers Home-West Carrollton Dayton, OH 45418 (937) 268-8991 Steve Rauch, pres.	S.R.I., Inc.	Montgomery	sand & gravel			My-R	IM-539

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
St. Joe Sand & Gravel, LLC 13307 County Rd. J35 Montpelier, OH 43543 (419) 392-6749 David A. Nixon, pres.	St. Joe Sand & Gravel, LLC (STSG) St. Joe Sand & Gravel, LLC (STSG)	Williams Williams	sand & gravel sand & gravel	236,604	242,153	Ws-51 Ws-5	IM-2343 IM-2243
Stansley Mineral Resources, Inc. 5679 North Main St. Sylvania, OH 43560 (419) 843-2813 Jeffrey Stansley, pres.	Stansley Mineral Resources, Inc. Plant 301	Ottawa	limestone	366,696	308,110	Oa-1	IM-292
State Line Resources, Inc. P.O. Box 419 Negley, OH 44441 (330) 426-9611 James Muse, pres.	State Line Resources, Inc.	Columbiana	clay			Ca-505 ¹	IM-13, IM-936
Stocker Sand & Gravel Co. P.O. Box 176 Gnadenhutten, OH 44629 (740) 254-4635 William E. Stocker, pres.	Stocker Sand & Gravel Co.-Gnaden Stocker Sand & Gravel Co.- Island Stocker Sand & Gravel Co. Stocker Sand & Gravel Co.	Tuscarawas Tuscarawas Tuscarawas Tuscarawas	sand & gravel sand & gravel sand & gravel sand & gravel	278,040 555,688	278,040 555,688	Ts-69 Ts-125 Ts-53 Ts-ST	IM-51 IM-50 IM-2232 IM-2125
Stoneco, Inc. P.O. Box 3100 Findlay, OH 45840 (419) 422-8854 Ty Nofziger, pres.	Maumee Quarry Celina Quarry Rocky Ridge Quarry White Rock Quarry Auglaize Quarry Scott Quarry Lime City Quarry Portage Quarry Carey Quarry	Lucas Mercer Ottawa Ottawa Paulding Van Wert Wood Wood Wyandot	limestone limestone limestone limestone limestone limestone limestone limestone limestone	651,909 476,022 1,136,143 775,666 265,167	674,980 658,078 1,065,433 750,260 326,275	Ls-2 Mr-1 Oa-14 Oa-6 Pg-2 Vt-3 Wd-6 Wd-11 Wt-8	IM-503 IM-592 IM-320 IM-296 IM-481 IM-495 IM-480 IM-475 IM-273
Subtropolis Mining 10900 South Ave. P.O. Box 217 North Lima, OH 44452 (330) 549-2165 W. Thomas Mackall, pres.	Kemp Mine	Mahoning	limestone	1,211,047	1,333,834	Mg-EF1 ⁵	IM-2093
Sugarcreek Clay & Limestone P.O. Box 402 Sugarcreek, OH 44681 (330) 852-4440 David K. Longfellow, pres.	Sugarcreek Clay & Limestone	Coshocton	sand & gravel			Cn-624 ¹	IM-243
Summitville Tiles, Inc. P.O. Box 173 Summitville, OH 43962 (330) 223-1511 David Johnson, pres.	Summitcrest, Inc. Summitville Tiles, Inc.	Columbiana Columbiana	shale clay	21,875	21,875	Ca-SU Ca-205	IM-2186 IM-74
Sunrise Sand & Gravel 1716 Mill Creek Rd. Jefferson, OH 44047 (440) 576-9693 Kenneth, Robert, and Richard McElroy, partners	Sunrise Sand & Gravel	Ashtabula	sand & gravel			Asa-21 ¹	IM-1239

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Sunshine Sand Co. 30799 Pinetree Rd., PMB 410 Cleveland, OH 44124 (216) 587-2700 Dorothy M. Strohm, pres.	Sunshine Sand Co.	Portage	sand & gravel			Pe-SSC ¹	IM-318
Joseph N. Sypniewski 3780 Mechanicsville Rd. Rock Creek, OH 44084 (440) 563-5644 Joseph N. Sypniewski, owner	Sypniewski	Ashtabula	clay sand & gravel	219 50	219 50	Asa-SY	IM-2222
T & K Kuhnle Co. P.O. Box 375 Newbury, OH 44065 (440) 564-7168 Bob Russell, owner	Munn Materials	Geauga	sand & gravel			Gea-TK ¹	IM-902
Tackett Builders 906 Charleston Pike Chillicothe, OH 45601-9312 (740) 772-5431 Carmel G. Tackett, owner	Tackett's Pit	Ross	sand & gravel			Rs-T	IM-1189
The Terry Byrne Mining Co. 4775 Mill Run Rd Lexington, OH 44904 (419) 564-9809 Terrance K. Byrne, owner	The Terry Byrne Mining Co.	Richland	sand & gravel			Rd-TB ¹	IM-1343
Thiel Construction Co. P.O. Box 225 Blakeslee, OH 43505 (419) 272-2712 Robert L. Thiel, pres.	Thiel Construction Co.	Williams	sand & gravel	1,387	1,387	Ws-21	IM-1225
Thomas Sand & Gravel 5801 Enterprise Rd. West Alexandria, OH 45381 (937) 787-4677 Estelle Thomas, owner	Howard Thomas	Preble	sand & gravel	25	25	Pre-T	IM-2036
Thompson Mining Co. 12321 Ideal Rd. Byesville, OH 43723 (740) 685-6726 George V. Thompson, pres.	Pleasant Valley Limestone	Muskingum	limestone sandstone shale	141,292 2,332 250	141,292 2,332 250	Mum-907	IM-1200
Tiger Sand & Gravel, LLC 4141 Southway St., SW Canton, OH 44706 (330) 477-9653 Pete Bitzel, Jr., partner	Tiger Sand & Gravel, LLC	Stark	sand & gravel	38,300	38,300	Sk-T ³	IM-2279
Tipp Stone Co., Inc. P.O. Box 367 Troy, OH 45373 (937) 890-4051 Michael Eidemiller, pres.	Tipp Stone Co., Inc. Tipp Stone Co., Inc.	Miami Montgomery	sand & gravel sand & gravel	7,188	7,188	Mi-12 My-61	IM-467 IM-468

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Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Top Dog Service Company 660 Lunken Park Dr. Cincinnati, OH 45226 (513) 353-2555 Michael P. O'Rourke, pres.	Whitewater Reclamation Company	Hamilton	sand & gravel	1,195	1,195	Hmn-G	IM-1270
Triple B of Lakeville, Ltd. 13739 State Route 226 Lakeville, OH 44638 (419) 289-1507 Mitchell W. Bolin, pres.	Lakeville Sand & Gravel, Ltd.	Holmes	sand & gravel			Hs-C ¹	IM-1303
Trout Sand & Gravel Co. 347 Gravel Bank Rd. Marietta, OH 45750 (740) 373-7471 Henry C. Trout, Jr., owner	Trout Sand & Gravel Co.	Washington	sand & gravel	3,145	3,145	Wn-510	IM-25
Tuffco Sand & Gravel, Inc. P.O. Box 399 Marysville, OH 43040 (614) 873-3977 Charles Lewis, pres.	Tuffco Sand & Gravel, Inc.	Madison	sand & gravel	57,613	57,613	Mdn-11	IM-1063
Twinsburg Development Corp. P.O. Box 248 Grand River, OH 44045 (440) 357-5562 Jerome T. Osborne, pres.	Twinsburg Development Corp.	Portage	sand & gravel			Pe-84	IM-868
Ty, Inc. 7603 Old Rockside Rd. Independence, OH 44131 (216) 328-9278 Tom Simich, pres.	Bradley Rd.	Cuyahoga	sand & gravel			Cya-T	IM-2356
U.S. Aggregates, Inc. 5400 W. 86th St. P.O. Box 68123 Indianapolis, IN 46268 (317) 872-6010 James Fehsenfeld, pres.	U.S. Aggregates/Richmond Plant	Preble	sand & gravel	110,824	125,388	Pre-AAC	IM-779
United Aggregates, Inc. P.O. Box 750 Mt. Vernon, OH 43050 (740) 397-0000 Jeff Ellis, pres.	United Aggregates, Inc. United Aggregates, Inc.	Knox Knox	sand & gravel sand & gravel	149,620 22,813	184,995 24,069	Kx-3 Kx-5	IM-300 IM-884, IM-1307
Valley Clay Mining Co. 451 Gordon St. Roseville, OH 43777 (740) 697-2005 Peter Petratsas, pres.	Spring Pit	Muskingum	clay shale	12,461 22,920	12,461 22,920	Mum-904	IM-1127
Valley Materials Co. 4947 U.S. Route 23 S P.O. Box 400 Piketon, OH 45661 (740) 289-4400 Ralph McFann, pres.	Valley Materials #2	Pike	sand & gravel			Pke-V ¹	IM-1330

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Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Walhonding Sand & Gravel 27679 State Route 206 Walhonding, OH 43843 (740) 824-5251 Ezra Helmick, v. pres.	Walhonding Valley Sand & Gravel	Coshocton	sand & gravel shale	52,720 2,168	52,720 2,168	Cn-WL	IM-2127
Waller Bros. Stone Co. P.O. Box 157 McDermott, OH 45652 (740) 259-2356 Frank L. Waller, pres.	Crabtree Quarry Inskeep Quarry Miller Quarry New Inskeep Quarry	Scioto Scioto Scioto Scioto	sandstone sandstone sandstone sandstone	1,850	0	So-76 So-48 ³ So-82 So-W	IM-141 IM-140 IM-158 IM-2111
Ward Materials, Inc. 385 Oak St. Leipsic, OH 45856 (419) 943-2450 Arnold W. Rosebrock, pres.	Ward Materials, Inc.	Allen	sand & gravel			An-W	IM-2069
Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 (740) 286-5633 Denton H. Bowman, pres.	Waterloo Coal Stone Plant	Jackson	limestone	462,000	462,000	Jkn-367 ³	D-594, D-968, D-1083
Watson Gravel, Inc. 2728 Hamilton-Cleves Rd. P.O. Box 277 Ross, OH 45061 (513) 863-0070 Ronald E. Watson, pres.	Mecco, Inc. Ongais Plant #1 Watson Pit Dry Fork Harrison #2 Minges-Getz	Butler Butler Butler Hamilton Hamilton Hamilton	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	315,000 0 397,000 59,500 510,000 350,000	67,000 250,000 397,000 59,500 510,000 350,000	Br-15 ³ Br-0 ³ Br-47 ³ Hmn-68 ³ Hmn-ARH ³ Hmn-64 ³	IM-316 IM-2143 IM-111 IM-747 IM-1273 IM-137
Weber Sand & Gravel, Inc. 14586 U.S. Route 127 EW Bryan, OH 43506 (419) 636-4238 Thomas G. Weber, pres.	Weber Sand & Gravel, Inc.	Defiance	sand & gravel	211,104	211,104	Ws-11	IM-0661
Joann O. Weddle 2419 U.S. Route 68 N Yellow Springs, OH 45387 (937) 374-1234 Joann Weddle, owner	Yellow Springs Plant	Greene	sand & gravel			Ge-W	IM-645
Weidle Sand & Gravel, Inc. 9330 Eckhart Rd. Germantown, OH 45327 (937) 855-2227 Ronald L. Weidle, Sr., pres.	Weidle	Montgomery	sand & gravel	157,637	157,637	My-W1	IM-2203
Welch Sand & Gravel, Inc. 10217 Columbia St. Harrison, OH 45030-9751 (513) 353-3220 Charles H. Welch, pres.	Schlichter Pit East Miami Pit Fernald Pit	Butler Hamilton Hamilton	sand & gravel sand & gravel sand & gravel	119,889 199,922 483,820	119,889 199,922 483,820	Br-38 Hmn-48 Hmn-42	IM-218 IM-220 IM-823
Westfall Aggregate & Materials, Inc. 6790 Brooks-Miller Rd. Circleville, OH 43113 (740) 477-8600 Kevin R. Steward, pres.	Hill Road Pit	Pickaway	sand & gravel	89,870	89,870	Pky-WA	IM-2217

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Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
William Albert, Inc. 1300 Cassingham Hollow Rd. Coshocton, OH 43812 (740) 622-3045 William Albert, pres.	William Albert, Inc. Pit 1	Coshocton	sand & gravel	23,953	26,521	Cn-828	IM-1026
	William Albert, Inc. Pit 2	Coshocton	sand & gravel			Cn-WA	IM-2036
Willowbrook Sand & Gravel, LLC 39130 Brookfield St. P.O. Box 304 Lisbon, OH 44432 (330) 424-0742 Ray Perrino, owner	Willowbrook Sand & Gravel	Columbiana	sand & gravel	50,374	50,374	Ca-993	IM-1180
Wysong Gravel Co. 9325 W. Third St. Dayton, OH 45427 (937) 452-1523 John D. Wysong, pres.	Wysong Gravel Co.-Trotwood Plant	Montgomery	sand & gravel	110,000	110,000	My-Wy	IM-2194
	Wysong Gravel Co.-West Alexandria Plant	Preble	sand & gravel			Pre-6 ³	IM-478
	Wysong Gravel Co.	Preble	sand & gravel			Pre-4 ³	IM-477
Wysong Stone Co. 5897 State Route 503 N P.O. Box 159 Lewisburg, OH 45338 (937) 962-2559 Carroll E. Wysong, v. pres.	Wysong Stone Co.	Preble	limestone	55,816	56,200	Pre-5 ³	IM-447
X. L. Sand & Gravel Co., Inc. P.O. Box 255 Negley, OH 44441 (330) 426-9876 Kristen Kalis, owner	X. L. Sand & Gravel Co., Inc. X. L. Sand & Gravel Co., Inc.	Columbiana	sand & gravel	37,900	37,900	Ca-881 ³	IM-611
		Columbiana	sand & gravel			Ca-XL	IM-1347
Xenia Sand & Gravel, Inc. 610 Dayton-Xenia Rd. Xenia, OH 45385 (937) 372-2978 Scott A. Filson, pres.	Xenia Sand & Gravel, Inc.	Greene	sand & gravel	4,412	4,412	Ge-10	IM-518
Youngs Sand and Gravel 987 Hiles Rd. Lucasville, OH 45648 (740) 259-3029 Douglas N. Young, pres.	Young	Scioto	sand & gravel	390	390	So-Y	IM-2380
Young's Sand & Gravel Co. P.O. Box 117 Loudonville, OH 44842 (419) 994-3040 Myron Oswald, owner	Sprang & Youngs	Ashland	sand & gravel	19,431	19,431	Ald-7	IM-392
	Ayers	Ashland	sand & gravel	130,262	130,262	Ald-15	IM-944
	Spreng	Ashland	sand & gravel			Ald-Y	IM-1216
Yuhasz Bros. Sand & Gravel, Inc. 8549 State Route 46 Orwell, OH 44076 (440) 422-3353 Thomas R. Yuhasz, pres.	TJPK Corp.	Trumbull	sand & gravel			TI-Y ¹	IM-2374
Zemba Farms, Ltd. 3401 East Pike Zanesville, OH 43701 (740) 452-1880 Scott Zemba, pres.	Zemba Brothers, Inc.	Muskingum	sand & gravel	8,158	8,158	Mum-Z	IM-2173

2012 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS (cont.)

Name, address, telephone number, and president/owner/manager of company	Name of mine	County	Commodity	2012 sales (tons)	2012 production (tons)	State mine number	Mineral Resources Management permit number
Zollinger Sand & Gravel Co. 11899 Easton Rd. Rittman, OH 44270 (330) 855-2464 Carl Zollinger, pres.	Zollinger Sand & Gravel Co.	Wayne	clay shale sandstone	3,797 2,329 6,967	3,797 2,329 6,967	We-15	IM-398

¹This company did not file a report for 2012. Status of operation unknown.

²This mine began underground operations in 2010.

³This company failed to report in a timely manner. To avoid further delay in report publication and facilitate completeness, commodity sales and production were estimated using quarterly data submitted to the Mines Safety & Health Administration. See <http://www.msha.gov/drs/drshome.htm>

⁴This mine began underground operations in 2003.

⁵This mine began underground operations in 2009.

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2012 LIMESTONE/DOLOMITE COMPANIES WITH SALES OR PRODUCTION

Company	Number of operations	Sales (tons)	Production (tons)	Company	Number of operations	Sales (tons)	Production (tons)
Anthony Mining Co., Inc.	2	134,626	134,626	Marshall Quarry, Inc.	1	26,648	26,648
Arch Materials, LLC	1	1,359,278	1,422,134	Martin Marietta Aggregates	9	1,175,552	1,212,029
Area Aggregates, LLC	1	792,534	860,354	Martin Marietta Magnesia Specialties, Inc.	1	1,847,998	1,836,760
Barrett Paving Materials, Inc.	4	759,122	769,660	The Melvin Stone Co., LLC	4	1,666,661	1,666,661
Belden Brick Co.	1	7,814	7,814	Ed Miller	1	8,000	8,000
Bluffton Stone Co.	1	359,607	396,302	National Lime & Stone Co.	9	10,271,000	10,271,000
C. F. Poeppelman, Inc.	1	222,952	230,000	North Shore Stone Quarries, Inc.	1	1,200	1,200
Cardinal Aggregates, Inc.	1	518,841	525,409	Ohio Asphaltic Limestone Corp.	1	241,871	241,871
Carmeuse Lime, Inc.	2	1,647,630	1,649,382	Olen Corp.	1	504,663	506,501
CEMEX, Inc.	2	904,028	904,028	Oxford Resource Partners, LP	2	1,464,010	1,464,010
Christman Quarries	1	70,000	70,000	Piqua Materials, Inc.	1	564,806	564,806
Clinton Stone, LLC	1	420,000	420,000	Precision Aggregates II, LLC	1	156,131	156,131
Con-Ag, Inc.	1	152,239	152,239	Precision Aggregates III, LLC	1	110,084	110,084
Cumberland Limestone, LLC	1	683,300	683,300	Putnam Aggregates Company, LLC	1	215,000	218,000
Custar Stone Co., Inc.	1	412,787	412,787	Ridge Township Quarry	1	119,218	119,218
Diamond Stone Quarries	1	15,000	15,000	Rohr Excavating, Ltd.	1	20,000	20,000
Duff Quarry, Inc.	1	426,236	426,236	Shamrock Materials, Inc.	1	162,861	162,861
East Fairfield Coal Co.	1	686,962	82,826	Sharon Stone Co.	1	148,406	148,406
Egypt Valley Stone, LLC	1	546,637	546,637	Shelly Materials, Inc.	8	7,477,549	7,635,116
Erie Blacktop, Inc.	1	249,397	249,397	Sidwell Materials, Inc.	3	841,048	1,405,394
Fouremen's Sand & Gravel, Inc.	1	4,009	4,009	Stansley Mineral Resources, Inc.	1	366,696	308,110
Gerken Materials, Inc.	1	199,294	266,804	Stoneco, Inc.	7	5,721,044	6,043,913
Graymont Dolime (OH), Inc.	1	593,361	331,101	Subtropolis Mining	1	1,211,047	1,333,834
Hanson Aggregates Midwest, Inc.	6	5,893,028	5,407,953	Thompson Mining Co.	1	141,292	141,292
Hanson Aggregates, LLC	2	2,351,594	2,151,341	Waterloo Coal Co., Inc.	1	462,000	462,000
King Quarries, Inc.	1	108,507	108,507	Wysong Stone Co.	1	55,816	56,200
Kipp's Gravel Co., Inc.	1	4,871	0	TOTAL: 56 companies	103	58,188,739	58,305,506
L & M Mineral Co.	1	469	469				
Lafarge North America	1	3,227,755	3,500,886				
Latham Limestone LLC	1	456,260	456,260				

2012 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which a state mine number has not been assigned, a letter designation is used (example: Cn-A).

County	Name of operator	Name of mine or quarry	Township	Geological unit (age)	Type and principal use	State mine number
Adams	Hanson Aggregates, LLC	Plum Run Quarry	Meigs	Peebles, Greenfield, and Tymochtee Dolomites (Silurian)	crushed stone—unspecified	Ads-1
Allen	Bluffton Stone Co.	Bluffton Stone Co.	Richland	Tymochtee Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, extenders/fillers, aglime	An-1
	National Lime & Stone Co.	Lima Plant	Bath	Greenfield Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, aglime	An-3
Athens	Diamond Stone Quarries	Diamond Stone	Lee	Brush Creek limestone (Pennsylvanian)	crushed stone—riprap, road construction/resurfacing	As-533
Auglaize	Con-Ag, Inc. National Lime & Stone Co.	Con-Ag, Inc. Buckland Plant	Noble Moulton	Cedarville Dolomite (Silurian) Salina Group (Silurian)	crushed stone—riprap, portland cement concrete, aglime crushed stone—portland cement concrete, road construction/resurfacing, asphaltic concrete, aglime	Ae-31 Ae-10
Belmont	Egypt Valley Stone, LLC Sidwell Materials, Inc.	Shugert Uniontown Stone	Kirkwood, Union Wheeling	Fishpot limestone (Pennsylvanian) Fishpot limestone (Pennsylvanian)	crushed stone—riprap, road construction/resurfacing crushed stone—road construction/resurfacing	Bt-E Bt-N
Brown	Hanson Aggregates, LLC	Eagle Crushed Stone	Eagle	Brassfield Limestone (Silurian)	crushed stone—unspecified	Bn-EC
Butler	Martin Marietta Aggregates	Fairfield Sand & Gravel	Fairfield, Ross		crushed stone—unspecified	Br-35
Clark	Martin Marietta Aggregates	Fairborn Gravel	Bethel		crushed stone—unspecified	Ck-13
Clermont	Arch Materials, LLC	Batavia	Jackson	Black River Group (Ordovician)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, aglime	Ct-A
	Kipp's Gravel Co., Inc.	Kipp's Gravel Co., Inc.	Stonelick		crushed stone—unspecified	Ct-7
Clinton	Martin Marietta Aggregates The Melvin Stone Co., LLC	Clinton Limestone The Melvin Stone Co., LLC	Wilson Richland	Cedarville Dolomite (Silurian) Cedarville Dolomite (Silurian)	crushed stone—unspecified crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial, building, aglime	Cln-W Cln-1
Crawford	National Lime & Stone Co.	Bucyrus Plant	Holmes	Columbus and Delaware Limestones (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, extenders/fillers, aglime	Cd-1
Darke	Foureman's Sand & Gravel, Inc. Shamrock Materials, Inc.	Foureman's Sand & Gravel, Inc. Walls Material	Greenville Butler	Cedarville Dolomite (Silurian)	crushed stone—extenders/fillers crushed stone—riprap, road construction/resurfacing, asphaltic concrete, commercial building	Dke-4 Dke-1
Delaware	National Lime & Stone Co.	Delaware Plant	Scioto	Columbus and Delaware Limestones (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, aglime	Del-5
Erie	Erie Blacktop, Inc. Hanson Aggregates Midwest, Inc.	Erie Blacktop Quarry Sandusky Crushed Stone	Margaretta Groton	Columbus Limestone (Devonian) Columbus and Delaware Limestones (Devonian)	crushed stone—portland cement concrete, road construction/resurfacing, asphaltic concrete crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, aglime	Ee-27 Ee-11

	Hanson Aggregates Midwest, Inc. dba Wagner Quarries Co.	Wagner Quarry	Perkins	Detroit River Group (Devonian) Columbus and Delaware Limestones (Devonian)		
Franklin	Shelly Materials, Inc.	Columbus Limestone #331	Franklin, Jackson, Marion	Columbus Limestone (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, commercial building, aglime	Ee-1
Greene	CEMEX, Inc. Martin Marietta Aggregates The Melvin Stone Co., LLC	Marble Cliff Plant #0332 Miller, Schieder, Batdorf, Stewart Cedarville Cook Rd Bowersville	Norwich Bath Cedarville Spring Valley Jefferson	Columbus Limestone (Devonian) and Salina Dolomite (Silurian) Brassfield Limestone (Silurian) Cedarville Dolomite (Silurian) Cedarville Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial building, unspecified crushed stone—asphaltic concrete, road construction/resurfacing, commercial building, unspecified crushed stone—portland cement concrete crushed stone—unspecified crushed stone—unspecified crushed stone—road construction/resurfacing, asphaltic concrete, commercial building	Fn-53 Fn-2 Ge-8 Ge-17 Ge-MM Ge-M
Guernsey	Cumberland Limestone, LLC	Cumberland Limestone, LLC	Spencer	Fishpot limestone (Pennsylvanian)	crushed stone—road construction/resurfacing, commercial building, aglime, unspecified	Gy-309
Hamilton	Martin Marietta Aggregates	E-town Sand & Gravel Harrison Sand & Gravel	Whitewater Harrison		crushed stone—unspecified crushed stone—unspecified	Hmn-71 Hmn-37
Hancock	National Lime & Stone Co.	Findlay Plant	Liberty	Salina Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete	Hk-7
Hardin	Shelly Materials, Inc.	Forest Quarry	Jackson	Tymochtee Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Hdn-5
Harrison	Anthony Mining Co., Inc.	Carson-Harrah	Green	Redstone limestone (Pennsylvanian)	crushed stone—riprap, road construction/resurfacing, commercial building	Hn-766
Highland	Oxford Resource Partners, LP Marshall Quarry, Inc.	Patton-Mader Standingstone Mine Marshall Quarry, Inc.	German Cadiz Marshall	Ames limestone (Pennsylvanian) Redstone limestone (Pennsylvanian) Peebles Dolomite (Silurian)	crushed stone—road construction/resurfacing, aglime crushed stone—road construction/resurfacing crushed stone—riprap, commercial building, extenders/fillers, aglime	Hn-A Hn-02 Hd-4
Holmes	Martin Marietta Aggregates Ohio Asphaltic Limestone Corp.	Lynchburg Quarry Ohio Asphaltic Limestone Corp.	Union Union	Brassfield Limestone (Silurian) Peebles Dolomite (Silurian)	crushed stone—unspecified crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, aglime	Hd-M Hd-3
Jackson	Ed Miller Rohr Excavating, Ltd. Clinton Stone, LLC Waterloo Coal Co., Inc.	E. Miller Mine Rohr Clinton Stone, LLC Waterloo Coal Stone Plant	Prairie Killbuck Milton Madison	Putnam Hill limestone (Pennsylvanian) Putnam Hill limestone (Pennsylvanian) Vanport limestone (Pennsylvanian) Vanport limestone (Pennsylvanian)	crushed stone—road construction/resurfacing crushed stone—road construction/resurfacing crushed stone—road construction/resurfacing, asphaltic concrete, commercial building, crushed stone—riprap, road construction/resurfacing, commercial building, unspecified	Hs-M Hs-R Jkn-52 Jkn-367
Logan	Duff Quarry, Inc. Shelly Materials, Inc.	Duff Quarry, Inc. Belle Center	Richland McArthur, Richland	Lockport Dolomite (Silurian) Lockport Dolomite (Silurian) Tymochtee Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, commercial building crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Lgn-15 Lgn-2

2012 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of mine or quarry	Township	Geological unit (age)	Type and principal use	State mine number
Lucas	Hanson Aggregates Midwest, Inc.	Sylvania	Sylvania	Detroit River Group and Dundee Limestone (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified, aglime	Ls-3
	Stoneco, Inc.	Waterville Maumee Quarry	Waterville Waynesfield	Greenfield and Tymochtee Dolomites and Salina Group (Silurian) Tymochtee Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, asphaltic concrete, commercial building crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial building, unspecified	Ls-1 Ls-2
Mahoning	East Fairfield Coal Co. Shelly Materials, Inc. Subtropolis Mining	Withers-Petersburg Petersburg Kemp Mine	Springfield Springfield Springfield	Vanport limestone (Pennsylvanian) Vanport limestone (Pennsylvanian) Vanport limestone (Pennsylvanian)	crushed stone—unspecified crushed stone—riprap, road construction/resurfacing crushed stone—unspecified	Mg-631 Mg-L Mg-EF1
Marion	National Lime & Stone Co.	Marion Plant	Grand Prairie, Marion	Columbus and Delaware Limestones (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, aglime	Mm-3
Mercer	Stoneco, Inc.	Celina Quarry	Jefferson	Lockport Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Mr-1
Miami	Barrett Paving Materials, Inc. C. F. Poeppelman, Inc. Piqua Materials, Inc.	Barrett Paving Materials, Inc. #231 Bed Rock Properties C. F. Poeppelman, Inc. Piqua Minerals Division	Union Union Newberry Springcreek, Staunton	Brassfield Limestone (Silurian) Brassfield Limestone (Silurian) Cedarville Dolomite (Silurian) Brassfield Limestone, Dayton and Laurel Dolomites (Silurian)	crushed stone—riprap, road construction/resurfacing, unspecified crushed stone—riprap crushed stone—riprap, portland cement concrete, road construction/resurfacing, commercial building, aglime crushed stone—riprap, portland cement concrete, road construction/resurfacing, flux, asphaltic concrete, commercial building, extenders/fillers, aglime	Mi-BPM Mi-502 Mi-10 Mi-1
Monroe	Christman Quarries	Christman Quarry	Franklin, Seneca	Fishpot limestone (Pennsylvanian)	crushed stone—riprap, road construction/resurfacing	Me-C
Montgomery	CEMEX, Inc.	G-Tract	Wayne	Brassfield Limestone (Silurian)	crushed stone—road construction/resurfacing, commercial building, portland cement	My-58
	Martin Marietta Aggregates	Phillipsburg	Clay	Cedarville Dolomite (Silurian)	crushed stone—unspecified	My-1
Muskingum	Shelly Materials, Inc. Sidwell Materials, Inc. Thompson Mining Co.	East Fultonham Dupler/Ford White Cottage Pleasant Valley Limestone	Newton Newton Newton Hopewell	Maxville Limestone (Mississippian) Maxville Limestone (Mississippian) Maxville Limestone (Mississippian) Maxville Limestone (Mississippian)	crushed stone—road construction/resurfacing, asphaltic concrete, commercial building, unspecified crushed stone—road construction/resurfacing crushed stone—road construction/resurfacing crushed stone—riprap, unspecified	Mum-106 Mum-SB Mum-104 Mum-907
Noble	King Quarries, Inc. Sharon Stone Co.	King Quarries, Inc. Sharon Stone Co.	Olive Noble	Fishpot limestone (Pennsylvanian) Fishpot limestone (Pennsylvanian)	crushed stone—riprap crushed stone—riprap, road construction/resurfacing	Ne-K1 Ne-S
Ottawa	Graymont/Dolime (OH), Inc. Lafarge North America	Graymont Dolime (OH), Inc. Lafarge	Clay Danbury	Lockport Dolomite (Silurian) Columbus Limestone and Detroit River Group (Devonian)	crushed stone—road construction/resurfacing crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, extenders/fillers	Oa-1 Oa-7

	Stansley Mineral Resources, Inc.	Stansley Mineral Resources, Inc. Plant 301	Clay	Lockport Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing	Oa-w1
	Stoneco, Inc.	White Rock Quarry	Allen	Lockport Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial building, extenders/fillers	Oa-6
Paulding	Hanson Aggregates Midwest, Inc.	Paulding	Crane	Tenmile Creek Dolomite (Devonian)	crushed stone—riprap, road construction/resurfacing, commercial building, aglime	Pg-7
	Stoneco, Inc.	Auglaize Quarry	Auglaize	Detroit River Group and Dundee Limestone (Devonian)	crushed stone—portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Pg-2
Pickaway	The Melvin Stone Co., LLC	Williamsport	Perry	Columbus Limestone (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial building	Pky-4
Pike	Latham Limestone, LLC	Latham Limestone	Mifflin	Greenfield Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial building	Pke-13
Preble	Wysong Stone Co.	Wysong Stone Co.	Twin	Brassfield Limestone (Silurian)	crushed stone—riprap, road construction/resurfacing, dimension stone	Pre-5
Putnam	National Lime & Stone Co.	Rimer Plant	Sugar Creek	Greenfield Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete	Pm-N
	Putnam Aggregates Company, LLC	Putnam Aggregates Company, LLC	Pleasant, Riley	Greenfield Dolomite (Silurian)	crushed stone—portland cement concrete, road construction/resurfacing	Pm-2
Ross	The Melvin Stone Co., LLC	Plano Road	Concord	Salina Dolomite (Silurian)	crushed stone—road construction/resurfacing, commercial building	Rs-MC1
Sandusky	Area Aggregates, LLC	Area Aggregates, LLC	Woodville	Lockport Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, aglime	Sy-A
	Carmeuse Lime, Inc.	Millersville Plant	Jackson	Lockport Dolomite (Silurian)	crushed stone—aglime	Sy-4
	Martin Marietta Magnesia Specialties, Inc.	Woodville Quarry	Woodville	Lockport Dolomite (Silurian)	crushed stone—road construction/resurfacing	Sy-1
	Precision Aggregates III, LLC	Precision Aggregates III, LLC	Sandusky	Lockport Dolomite (Silurian)	crushed stone—riprap, asphaltic concrete	Sy-5
Seneca	Carmeuse Lime, Inc.	Maple Grove	Liberty	Lockport Dolomite (Silurian)	crushed stone—road construction/resurfacing, asphaltic concrete, extenders/fillers	Sa-2
	Hanson Aggregates Midwest, Inc.	Bloomville	Bloom	Columbus and Delaware Limestones, Detroit River Group (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, commercial building, aglime	Sa-3
		Flat Rock	Thompson	Columbus and Delaware Limestones, Detroit River Group (Devonian)	crushed stone—riprap, dimension stone	Sa-1
	North Shore Stone Quarries, Inc.	North Shore Stone Quarries, Inc.	Thompson	Greenfield Dolomite (Silurian)	crushed stone—riprap, dimension stone	Sa-8
Shelby	Barrett Paving Materials, Inc.	Miami River Quarry #261	Orange	Lockport Dolomite (Silurian)	crushed stone—riprap, road construction/resurfacing	Shy-17
		Vandemark Quarry #221	Clinton	Lockport Dolomite (Silurian)	crushed stone—road construction/resurfacing	Shy-15
Stark	L & M Mineral Co.	Barr Farm	Bethlehem	Newland-Brookville limestone (Pennsylvanian)	crushed stone—riprap	Sk-LM

2012 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of mine or quarry	Township	Geological unit (age)	Type and principal use	State mine number
Tuscarawas	Belden Brick Co.	Wallick Pit	Franklin, Wayne	Newland-Brookville limestone (Pennsylvanian)	crushed stone—unspecified	Ts-1841
	Oxford Resource Partners, LP	Strasburg Slurry	Franklin, Lawrence		crushed stone—road construction/resurfacing	Ts-HC
Union	Shelly Materials, Inc.	Ostrander Quarry	Mill Creek	Columbus Limestone (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Un-2
		York Center Quarry	York	Salina Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Un-1
Van Wert	National Lime & Stone Co.	Delphos Quarry	Washington	Tymochtee Dolomite (Silurian)	crushed stone—portland cement concrete, asphaltic concrete	Vt-1
	Ridge Township Quarry	Ridge Township Quarry	Ridge	Tymochtee Dolomite (Silurian)	crushed stone—unspecified	Vt-7
	Stoneco, Inc.	Scott Quarry	Union	Salina Dolomite (Silurian)	crushed stone—portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building, unspecified	Vt-3
Wood	Cardinal Aggregates, Inc.	Cardinal Aggregates, LLC	Perrysburg	Lockport Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building	Wd-C
	Custar Stone Co., Inc.	Custar Stone Co., Inc.	Milton	Detroit River Group (Devonian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, extenders/fillers	Wd-5
	Gerken Materials, Inc.	Gerken Materials, Inc.	Perry	Lockport and Salina Dolomites (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, asphaltic concrete, extenders/fillers	Wd-1
	Precision Aggregates II, LLC	Precision Aggregates II, LLC	Portage	Lockport Dolomite (Silurian)	crushed stone—riprap, asphaltic concrete	Wd-14
	Stoneco, Inc.	Portage Quarry	Portage	Greenfield and Lockport Dolomites (Silurian)	crushed stone—portland cement concrete, road construction/resurfacing, railroad ballast, asphaltic concrete, commercial building, unspecified	Wd-11
Wyandot	National Lime & Stone Co.	Carey Plant	Crawford	Lockport Dolomite (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, flux, asphaltic concrete, extenders/fillers	Wt-1
	Olen Corp.	Upper Sandusky	Pitt	Salina and Tymochtee Dolomites (Silurian)	crushed stone—portland cement concrete, road construction/resurfacing, asphaltic concrete, commercial building	Wt-3
	Stoneco, Inc.	Carey Quarry	Crawford	Greenfield and Lockport Dolomites (Silurian)	crushed stone—riprap, portland cement concrete, road construction/resurfacing, railroad ballast, flux, asphaltic concrete, commercial building, unspecified	Wt-8

2012 SAND AND GRAVEL COMPANIES WITH SALES OR PRODUCTION

Company	Number of operations	Sales (tons)	Production (tons)	Company	Number of operations	Sales (tons)	Production (tons)
Agg Rok Materials	1	6,000	6,000	Highlanders Enterprises, LLC	1	25	0
Allgeier & Son, Inc.	1	45,000	45,000	Hocking Valley Concrete, Inc.	1	27	0
American Sand & Gravel, Inc.	2	720,166	720,166	William A. Hoffman, Jr.	1	1,086	1,086
Ashcraft Sand & Gravel, Inc.	1	21,283	21,283	Holmes Redimix, Inc.	1	136,882	136,882
Atlas Towing Co.	1	6,408	6,408	Holmes Supply Corp.	2	291,437	291,431
Baker Sand, Inc.	1	195,000	195,000	Terry A. Hoppes	1	4,700	4,700
Ballentine Sand & Gravel, LLC	1	130,171	130,171	Jaclib Enterprises, Inc.	1	1,536	1,536
Barrett Paving Materials, Inc.	7	998,712	1,097,114	JALIP, Ltd.	1	6,156	6,156
Beaver Excavating, Inc.	1	6,570	6,570	Jaymar, Inc.	1	594,886	594,886
Beck Sand & Gravel, Inc.	1	222,820	222,820	J.J.J. Properties, LLC	1	3,014	3,014
Black Top Contracting, Inc.	1	10,000	10,000	Joe Simak & Sons Trucking, Inc.	2	11,875	11,875
Bontrager Excavating Co.	1	4,136	4,136	John L. Garber Materials, Inc.	2	141,692	142,415
Boyas Excavating, Inc.	1	39,085	39,085	KCI Sand & Gravel	1	115,501	185,751
Boyd Excavating	1	8,231	8,231	Kinsman Materials, Ltd.	1	21,312	21,312
Briggs Sand & Gravel, Inc.	1	5,841	5,841	Kipp's Gravel Co., Inc.	1	3,120	0
Brookside Materials, LLC	1	124,052	128,052	Kirby's Sand & Gravel, Inc.	1	150,000	150,000
Broshear Contractors, Inc.	1	20,666	20,666	L & I Natural Resources, Inc.	1	51,768	51,768
Richard & Kathy Burwinkel	1	119,738	119,738	L & M Mineral Co.	1	18,890	18,890
Calvins Hauling, Inc.	1	1,759	1,758	Lakeside Sand & Gravel Co.	2	449,000	449,000
Carl E. Oeder and Sons Sand & Gravel	1	287,974	287,974	Little Miami Sand & Gravel	2	0	850
Joe E. Carter	1	1,600	1,600	Loxley Aggregates, Inc.	1	630	630
Central-Allied Enterprises, Inc.	2	770,000	770,000	LUB, Inc.	1	23,722	23,722
Central Ready Mix, LLC	2	291,466	307,066	M. J. Coates Construction Co., Inc.	1	62,721	62,721
Chesterville Sand & Gravel Co., Inc.	1	159,787	159,786	Martin Marietta Aggregates	13	2,756,689	2,498,844
Harlen D. & Barbara L. Clark	1	12,500	12,500	MAR-ZANE Materials, Inc.	1	450,459	474,953
D & K Materials, Inc.	1	106,606	107,326	Mason's Sand & Gravel Co.	1	22,578	22,578
D.B.M. Materials, LLC	1	2,025	2,025	Massillon Materials, Inc.	2	524,289	524,289
D.G.M., Inc.	2	73,762	73,762	James L. Meade	1	23,000	23,000
Dingledine Basic Materials, Inc.	1	33,840	33,840	Mechanicsburg Sand & Gravel, Inc.	1	82,000	82,000
John R. Doherty	1	645	2,670	The Melvin Stone Co., LLC	1	246,562	246,562
James E. Downard	1	4,929	4,929	Miami View Mining Co., Ltd.	1	419,674	419,674
Duff Quarry, Inc.	2	13,998	13,998	Mid Ohio Resources	1	41,500	41,500
David E. Edgington	1	5,344	5,344	Miller's Sand & Gravel, Inc.	1	170	170
Enon Sand & Gravel, LLC	1	294,500	294,500	Milton Materials, LLC	1	80,980	77,730
Erie Materials, Inc.	1	157	157	Morrow Gravel Co.	2	429,875	429,875
Ervin Hill Enterprises, Inc.	1	102,677	102,677	Muskingum River Gravel Co.	3	322,783	324,740
Evans Gravel, Inc.	1	72,695	177,495	National Lime & Stone Co.	2	490,000	490,000
Feikert Sand & Gravel, Inc.	1	165,500	165,500	Neer's Sand & Gravel	1	125,030	125,030
Fleming Construction Co., Inc.	2	23,384	23,284	Nelson Sand & Gravel, Inc.	1	31,730	31,730
Fouremen's Sand & Gravel, Inc.	1	42,945	38,936	New Carlisle Sand & Gravel Co.	1	300	300
Friendsville Sand, L.P.	1	88,000	88,000	Newark Materials, LLC	1	18,866	31,334
Lloyd B. Fry	1	970	970	Newton Asphalt Paving, Inc.	1	96,009	96,009
GANS, Ltd.	1	1,720	1,700	Olen Corp.	5	2,913,658	3,165,908
George J. Igel & Co., Inc.	1	455	455	Oscar Brugmann Sand & Gravel, Inc.	1	527,446	527,446
Grimes Excavating	1	36,487	36,487	Oster Sand & Gravel, Inc.	2	493,479	493,479
Hanson Aggregates, LLC	2	1,008,476	1,139,112	Ours Sand & Gravel	1	2,985	2,985
Norman Harpster	1	110	110	Paul D. Beery Trucking Co.	1	2,691	2,870
Hartley Gravel	1	1,399	1,399	Phillips Companies, LLC	2	308,309	481,444
Harvest Sand & Gravel, Inc.	1	27,926	27,926	Phoenix Asphalt Company, Inc.	1	59,410	59,410
Heiser Sand & Gravel Corp.	1	2,073	2,073	Portage Aggregate & Supply, LLC	1	72,187	72,187

2012 SAND AND GRAVEL COMPANIES WITH SALES OR PRODUCTION (cont.)

Company	Number of operations	Sales (tons)	Production (tons)	Company	Number of operations	Sales (tons)	Production (tons)
Precision Aggregates II, LLC	1	24,000	24,000	Thiel Construction Co.	1	1,387	1,387
Precision Aggregates III, LLC	1	2,458	2,458	Thomas Sand & Gravel	1	25	25
Quality Ready Mix, Inc.	1	9,519	9,519	Tiger Sand & Gravel, LLC	1	38,300	38,300
R. J. Martin Service & Excavating	1	88	0	Tipp Stone Co., Inc.	1	7,188	7,188
R. L., Ltd.	1	1,040	1,040	Top Dog Service Company	1	1,195	1,195
R. W. Sidley, Inc.	2	40,137	46,000	Trout Sand & Gravel Co.	1	3,145	3,145
Rockwell Sand & Gravel, Inc.	1	30,479	30,479	Tuffco Sand & Gravel, Inc.	1	57,613	57,613
Rupp Construction, Inc.	1	173,816	173,816	U.S. Aggregates, Inc.	1	110,824	125,388
S & S Aggregate, Inc.	3	728,020	843,540	United Aggregates, Inc.	2	172,433	209,064
Sam's Excavating Unlimited, Inc.	1	3,000	3,000	Walhonding Sand & Gravel	1	52,720	52,720
Scassa Asphalt, Inc.	1	31,000	60,000	Watson Gravel, Inc.	6	1,631,500	1,633,500
Seville Sand & Gravel, Inc.	1	84,000	84,000	Weber Sand & Gravel, Inc.	1	211,104	211,104
Shamrock Materials, Inc.	1	136,000	136,000	Weidle Sand & Gravel, Inc.	1	157,637	157,637
Sharon Stone Co.	1	517,356	517,356	Welch Sand & Gravel, Inc.	3	803,631	803,631
Shelly Materials, Inc.	9	2,839,583	3,073,555	Westfall Aggregate & Materials, Inc.	1	89,870	89,870
Sidco Development, Inc.	1	139,500	139,500	William Albert, Inc.	1	23,953	26,521
Small's Sand & Gravel, Inc.	3	231,558	231,558	Willowbrook Sand & Gravel, LLC	1	50,374	50,374
Sober Sand & Gravel Co.	1	190,000	190,000	Wysong Gravel Co.	2	177,000	177,000
Soehnlén Bros. Sand & Gravel, Inc.	1	359,968	359,968	X. L. Sand & Gravel Co., Inc.	1	37,900	37,900
Solomon's Mines, Inc.	1	45,711	45,711	Xenia Sand & Gravel, Inc.	1	4,412	4,412
Soltis Sand & Gravel	1	450	450	Youngs Sand and Gravel	1	390	390
South Central Sand & Gravel	1	9,574	9,574	Young's Sand & Gravel Co.	2	149,693	149,693
St. Joe Sand & Gravel, LLC	1	236,604	242,153	Zemba Farms, Ltd.	1	8,158	8,158
Stocker Sand & Gravel Co.	2	833,728	833,728				
Joseph N. Sypniewski	1	50	50	TOTAL: 148 companies	213	29,410,320	30,479,982

2012 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which a state mine number has not been assigned, a letter designation is used (example: Ald-G).

County	Name of operator	Name of pit	Township	Type and principal use	State mine number	
Ashland	Young's Sand & Gravel Co.	Sprang & Youngs	Green	sand—building, road construction/resurfacing	Ald-7	
		Spreng	Green	gravel—building, road construction/resurfacing sand—building, road construction/resurfacing gravel—building, road construction/resurfacing	Ald-Y	
Ashtabula	John R. Doherty Joe Simak & Sons Trucking, Inc.	Doherty Amboy Pit	Richmond	gravel—unspecified	Asa-JD	
		North Ridge Pit Meade	Kingsville Kingsville N. Kingsville	sand—building, asphaltic concrete, fill, ice grits, pipe bedding gravel—building, filtration sand—building	Asa-ST Asa-T8 Asa-JM	
	James L. Meade	Sypniewski Kinsman Materials, Ltd.	Trumbull Wayne	gravel—building gravel—unspecified	Asa-SY Asa-20	
		Nelson Sand & Gravel, Inc.	Kingsville	sand—building, filtration sand—building	Asa-N1	
	R. W. Sidley, Inc.	Sidley-Kingsville Plant	Kingsville	gravel—building, Portland cement concrete gravel—unspecified	Asa-T5	
	Athens	Black Top Contracting, Inc.	York Twp. Trustees	York	sand—building gravel—building	As-BT
			Quality Ready Pit	Pusheta	sand—building, Portland cement concrete gravel—building, Portland cement concrete	Ae-16
	Butler	Broshear Contractors, Inc. Central Ready Mix, LLC	Green Heron Middletown Plant #22	Ross Madison	sand—building gravel—building sand—building gravel—building	Br-8 Br-6
			Dingledine Basic Materials, Inc.	Milford	sand—building, unspecified gravel—building, unspecified	Br-50 Br-35
		Martin Marietta Aggregates	Fairfield Sand & Gravel Hamilton Gravel Ross Sand & Gravel Shamrock Materials	Fairfield, Ross St. Clair Fairfield, Ross Madison	sand—unspecified gravel—unspecified gravel—unspecified gravel—unspecified	Br-5 Br-29 Br-52
Watson Gravel, Inc.			Lemon Madison	sand—building, Portland cement concrete, asphaltic concrete gravel—building, road construction/resurfacing sand—building, road construction/resurfacing gravel—building, road construction/resurfacing	Br-15 Br-0	
Welch Sand & Gravel, Inc.		Watson Pit Schlichter Pit	Fairfield, Ross Fairfield	sand—unspecified gravel—unspecified sand—building, road construction/resurfacing gravel—building, road construction/resurfacing sand—building gravel—building	Br-47 Br-38	

2012 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of pit	Township	Type and principal use	State mine number	
Carroll	Phoenix Asphalt Company, Inc.	Smith	Rose	sand—asphaltic concrete gravel—road construction/resurfacing, filtration	Cl-P	
Champaign	Mechanicsburg Sand & Gravel, Inc.	Mechanicsburg Sand & Gravel, Inc.	Union	sand—building, road construction/resurfacing gravel—building, road construction/resurfacing	Cpn-22	
	Morrow Gravel Co.	Urbana	Urbana	sand—building, Portland cement concrete, asphaltic concrete gravel—building, asphaltic concrete, road construction/resurfacing	Cpn-1	
Clark	Enon Sand & Gravel, LLC	Enon Sand & Gravel, LLC	Bethel, Mad River	sand—building, Portland cement concrete, asphaltic concrete gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing	Ck-3	
	Terry A. Hoppes	Mitchell Gravel Pit	Springfield	sand—building	Ck-1H	
	Martin Marietta Aggregates	Fairborn Gravel	Bethel	gravel—building sand—unspecified gravel—unspecified	Ck-13	
Clermont	Kipp's Gravel Co., Inc.	Kipp's Gravel Co., Inc.	Stonelick	gravel—unspecified	Ct-7	
Clinton	Martin Marietta Aggregates	Clinton Limestone	Wilson	sand—unspecified	Cln-W	
Columbiana	Hartley Gravel	Hartley Gravel	Knox	sand—building	Ca-H1	
	Harvest Sand & Gravel, Inc.	Eberly	Salem	gravel—building sand—asphaltic concrete, fill	Ca-H2	
	Solomon's Mines, Inc.	Solomon's Mines, Inc.	Salem	gravel—fill	Ca-S	
	Willowbrook Sand & Gravel, LLC	Willowbrook Sand & Gravel	Elk Run	sand—road construction/resurfacing, fill, bedding gravel—building, road construction/resurfacing, filtration	Ca-993	
	X. L. Sand & Gravel Co., Inc.	X. L. Sand & Gravel Co., Inc.	Middleton	sand—unspecified gravel—unspecified sand—building gravel—building	Ca-881	
	Coshocton	Shelly Materials, Inc.	Shelly Materials, Inc. Plant #1305	Bethlehem	sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified	Cn-694
		Walhonding Sand & Gravel	Walhonding Valley Sand & Gravel	New Castle	sand—fill	Cn-WL
William Albert, Inc.		William Albert, Inc. Pit 2	Lafayette	gravel—road construction/resurfacing sand—building, fill, unspecified gravel—building, road construction/resurfacing, unspecified	Cn-WA	
Cuyahoga	Boyas Excavating, Inc.	Boyas Excavating, Inc.	Independence	sand—fill	Cya-42	
Darke	Fourreman's Sand & Gravel, Inc.	Fourreman's Sand & Gravel, Inc.	Greenville	sand—unspecified gravel—unspecified	Dke-4	
Defiance	Weber Sand & Gravel, Inc.	Weber Sand & Gravel, Inc.	Milford	sand—building, Portland cement concrete gravel—building, decorative	Wfs-11	
Erie	Erie Materials, Inc.	Borchardt	Groton, Margaretta	gravel—fill	Ee-18	
Fairfield	James E. Downard	Downard Pit	Rush Creek	sand—granular backfill	Fd-16	
	Paul D. Beery Trucking Co.	Paul D. Beery Trucking Co.	Berne	sand—unspecified gravel—unspecified	Fd-14	

	Shelly Materials, Inc.	Shelly Materials, Inc. Plant #1314	Berne			
Franklin	Agg Rok Materials	Agg Rok	Franklin			Fd-13 sand—unspecified gravel—unspecified
	D.B.M. Materials, LLC Mason's Sand & Gravel Co.	D.B.M. Materials, LLC Mason's Sand & Gravel Co.	Hamilton, Madison Hamilton			Fh-36 sand—bank run gravel—bank run gravel—structural fill sand—building gravel—building
	National Lime & Stone Co.	Columbus Plant	Hamilton			Fh-14 sand—building gravel—building
	Olen Corp.	Columbus Plant #3	Hamilton			Fh-11 sand—Portland cement concrete gravel—Portland cement concrete, road construction/resurfacing
	Harlen D. & Barbara L. Clark	Clark	Hamilton			Fh-52 sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing
Fulton	Jadlib Enterprises, Inc.	Cheshire Pit	Chesterfield			Fh-58 sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing
Gallia	Ours Sand & Gravel	Ours Sand & Gravel	Cheshire			Ftn-C sand—fill gravel—filtration sand—unspecified
	Soltis Sand & Gravel	Soltis Sand & Gravel	Ohio			Ga-JE sand—unspecified
Geauga	Barrett Paving Materials, Inc.	Haddix Road Aggregates Plant #341	Parkman			Ga-0 sand—fill
	M. J. Coates Construction Co., Inc.	M. J. Coates Construction Co., Inc.	Mad River			Gea-9 sand—Portland cement concrete, asphaltic concrete, unspecified gravel—Portland cement concrete, asphaltic concrete, unspecified
	Martin Marietta Aggregates	Cedarville	Spring Valley			Clk-28 sand—road construction/resurfacing gravel—road construction/resurfacing
	Phillips Companies, LLC	Cook Rd.	Cedarville			Ge-47 sand—unspecified gravel—unspecified
	R. J. Martin Service & Excavating Xenia Sand & Gravel, Inc.	Xenia S & G	Spring Valley			Ge-17 sand—unspecified gravel—unspecified
	Phillips Companies, LLC	Phillips Companies, LLC	Beaver Creek, Xenia			Ge-MM sand—unspecified gravel—unspecified
	Algeier & Son, Inc.	Algeier & Son, Inc. Pit 2	Beaver Creek			Ge-33 sand—unspecified gravel—unspecified
	Ashcraft Sand & Gravel, Inc.	Ashcraft Sand & Gravel, Inc.	Spring Valley Xenia			Ge-36 sand—building, Portland cement concrete, industrial sand gravel—building, Portland cement concrete
	Richard & Kathy Burwinkler	Burwinkler	Whitewater			Ge-40 sand—building gravel—building
	Joe E. Carter	Lost Bridge	Whitewater			Ge-10 sand—building gravel—building
	Evans Gravel, Inc.	Evans Gravel, Inc.	Anderson			Hmn-AS sand—fill gravel—filtration, pea grits sand—building gravel—building
	Hanson Aggregates, LLC	Dry Fork Sand & Gravel	Harrison, Whitewater			Hmn-54 sand—unspecified gravel—unspecified
	Martin Marietta Aggregates	E-town Sand & Gravel	Whitewater			Hmn-RB sand—unspecified gravel—unspecified

2012 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Hamilton (cont.)	R. L. Ltd.	R. L. Ltd.	Crosby	sand—building	Hmn-67
	Top Dog Service Company	Whitewater Reclamation Company	Whitewater	gravel—unspecified	Hmn-6
	Watson Gravel, Inc.	Dry Fork	Whitewater	sand—building, road construction/resurfacing	Hmn-68
		Harrison #2	Whitewater	gravel—building, road construction/resurfacing	Hmn-ARH
		Minges-Getz	Miami	sand—building, road construction/resurfacing	Hmn-64
	Welch Sand & Gravel, Inc.	East Miami Pit	Colerain	gravel—building, road construction/resurfacing	Hmn-48
		Fernald Pit	Crosby	sand—building	Hmn-42
		Harpster Pit	Roundhead	gravel—building	Hdn-H
		Ervin Hill Enterprises, Inc.	New Market	sand—Portland cement concrete, fill	Hd-L
				gravel—building, asphaltic concrete, road construction/resurfacing, filtration	
Hocking	Hocking Valley Concrete, Inc.	Hocking Valley Concrete, Inc.	Green	gravel—building	Hg-262
	KCI Sand & Gravel	SAA	Green	sand—Portland cement concrete, road construction/resurfacing, fill	Hg-HA
	MAR-ZANE Materials, Inc.	Enterprise Pit	Falls	gravel—building, Portland cement concrete, road construction/resurfacing, filtration	Hg-HV
	Muskingum River Gravel Co.	S & S Aggregate #8	Green, Starr	sand—asphaltic concrete, unspecified	Hg-301
				gravel—asphaltic concrete, unspecified	
				sand—asphaltic concrete, road construction/resurfacing, unspecified	
				sand—building, road construction/resurfacing	Hs-511
				gravel—building, road construction/resurfacing	Hs-82
				sand—unspecified	Hs-J
				gravel—unspecified	Hs-H1
Holmes	Feikert Sand & Gravel, Inc.	Feikert Sand & Gravel, Inc.	Salt Creek	sand—building, road construction/resurfacing	
	Holmes Redimix, Inc.	Holmes Redimix, Inc.	Hardy	gravel—building, road construction/resurfacing	
	Holmes Supply Corp.	Holmes Supply Corp.	Prairie	sand—unspecified	
				gravel—unspecified	
				sand—building, Portland cement concrete, asphaltic concrete, fill	
				gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration	
				sand—building, road construction/resurfacing	
				gravel—building, road construction/resurfacing	
				sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing	
				gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing	
Knox	Olen Corp.	Fredericktown Plant #2	Morris	sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing	Kx-0
				gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing	
	Small's Sand & Gravel, Inc.	Small's Sand & Gravel, Inc.	Howard	sand—building	Kx-5
				gravel—building	
				sand—unspecified	
				gravel—unspecified	
				sand—unspecified	
				gravel—unspecified	
				sand—Portland cement concrete	
				gravel—building, road construction/resurfacing, filtration	
Lake	J.J.J. Properties, LLC	United Aggregates, Inc.	Union	sand—Portland cement concrete	Kx-15
				gravel—building, road construction/resurfacing, filtration	Kx-17
				sand—Portland cement concrete	Kx-3
				gravel—building, road construction/resurfacing, filtration	
				sand—Portland cement concrete	
				gravel—building, road construction/resurfacing, filtration	
				sand—backfill material	
				gravel—building, road construction/resurfacing, filtration	
				sand—backfill material	
				gravel—backfill material	

	R. W. Sidley, Inc.	Sidley-Painesville Plant	Painesville	sand—unspecified	Lke-7
Licking	Brookside Materials, LLC	Brookside Materials, LLC	St. Albans	sand—building gravel—building, road construction/resurfacing	Lg-B
	Newark Materials, LLC	Newark Plant	Madison	sand—Portland cement concrete gravel—building	Lg-504
	Olen Corp.	St. Louisville Plant #5	Washington	sand—building, Portland cement concrete, asphaltic concrete gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing	Lg-31
	Shelly Materials, Inc.	St. Louisville	Newton	sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified	Lg-10
	Boyd Excavating Duff Quarry, Inc.	Boyd Excavating Duff Quarry, Inc.	Monroe Lake	gravel—building sand—fill	Lgn-B Lgn-36
	Neer's Sand & Gravel	Washington Union	sand—building, Portland cement concrete sand—unspecified gravel—unspecified	Lgn-31 Lgn-6	
Madison	Tuffco Sand & Gravel, Inc.	Tuffco Sand & Gravel, Inc.	Darby	sand—building, road construction/resurfacing gravel—building	Mdn-11
Marion	Fleming Construction Co., Inc.	Pit #1	Prospect	sand—building, Portland cement concrete, fill gravel—filtration, driveway, decorative	Mn-16
		Pit #2	Prospect	sand—Portland cement concrete	Mn-19
Medina	Baker Sand, Inc.	Baker Sand, Inc.	Harrisville, Westfield	sand—Portland cement concrete, mason gravel—building	Ma-20
	Friendsville Sand, L.P.	Klotzsche & Associates	Harrisville	sand—building gravel—building	Ma-F
	Seville Sand & Gravel, Inc.	Seville Sand & Gravel, Inc.	Harrisville, Westfield	sand—building gravel—building	Ma-22
	Jaymar, Inc.	Plant #4	Olive	sand—unspecified gravel—unspecified	Ms-308
Meigs	Martin Marietta Aggregates	Apple Grove Plant	Letart	sand—unspecified gravel—unspecified	Ms-205
	Shelly Materials, Inc.	Portland Plant	Lebanon	gravel—unspecified sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified	Ms-S
	Lloyd B. Fry	Ticon	Washington	sand—unspecified gravel—unspecified	Mi-T
	Martin Marietta Aggregates	Troy Sand & Gravel	Concord	sand—unspecified gravel—unspecified	Mi-3
Miami	Milton Materials, LLC	Milton Materials Fenner Pit	Newton	gravel—unspecified sand—Portland cement concrete	Mi-4
	New Carlisle Sand & Gravel Co.	New Carlisle Sand & Gravel Co.	Bethel	gravel—building sand—fill gravel—fill	Mi-501
	Barrett Paving Materials, Inc.	West Carrollton Aggregate Plant	Jefferson, Miami	sand—unspecified gravel—unspecified	My-19
	Central Ready Mix, LLC	Germantown Plant #21	German	sand—building gravel—building	My-41

2012 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of pit	Township	Type and principal use	State mine number	
Montgomery (cont.)	Martin Marietta Aggregates Phillips Companies	Phillipsburg	Clay	sand—unspecified	My-1	
		Phillips Sand and Gravel	Butler	sand—building, Portland cement concrete, road construction/resurfacing, fill gravel—building, Portland cement concrete, road construction/resurfacing	My-52	
	Tipp Stone Co., Inc. Weidle Sand & Gravel, Inc.	Tipp Stone Co., Inc.	Butler	gravel—fill	My-61	
		Weidle	German	sand—building gravel—building	My-W1	
Morrow	Chesterville Sand & Gravel Co., Inc.	Chesterville Sand & Gravel Co., Inc.	Chester	sand—building, fill	Mw-10	
		Highlander Enterprises, LLC	Chester	gravel—building, road construction/resurfacing, filtration, ice grits, landscaping gravel—farm use	Mw-H	
	LUB, Inc.	LUB, Inc.	Muskingum	sand—building gravel—building	Mum-LB	
		Muskingum River Gravel Co.	S & S Aggregate #1	Wayne	sand—asphaltic concrete, road construction/resurfacing, unspecified gravel—asphaltic concrete, road construction/resurfacing, unspecified	Mum-228
Pickaway	Zemba Farms, Ltd.	Zemba Brothers, Inc.	Muskingum	sand—fill materials gravel—fill materials	Mum-Z	
		George J. Igel & Co., Inc. William A. Hoffman, Jr.	Darby Wayne	gravel—unspecified sand—unspecified gravel—unspecified	Pky-C Pky-H	
	The Melvin Stone Co., LLC	Circleville	Wayne	sand—building, Portland cement concrete, asphaltic concrete, farm/residential gravel—building, asphaltic concrete, road construction/resurfacing, farm/residential	Pky-R	
	Sam's Excavating Unlimited, Inc.	Scioto Aggregates-Sam's Excavating Unlimited	South Bloomfield	sand—building	Pky-S	
		Westfall Aggregate & Materials, Inc.	Hill Road Pit	gravel—building sand—building gravel—building	Pky-WA	
	Pike	Hanson Aggregates, LLC	Pike-ton Sand & Gravel	Scioto	sand—unspecified gravel—unspecified	Pke-24
			South Central Sand & Gravel	Scioto	sand—Portland cement concrete gravel—road construction/resurfacing	Pke-30
	Portage	Ballentine Sand & Gravel, LLC	Ballentine Lake	Shalersville	sand—Portland cement concrete gravel—building	Pe-BA
			Beck Sand & Gravel, Inc.	Portage, Shalersville	sand—building, Portland cement concrete, landscape gravel—building, asphaltic concrete, road construction/resurfacing, filtration, landscape, ice control	Pe-50
		D & K Materials, Inc.	D & K Materials, Inc.	Brimfield	sand—building, Portland cement concrete, asphaltic concrete gravel—road construction/resurfacing, filtration	Pe-101
GANS, Ltd.			Brimfield	sand—unspecified gravel—unspecified	Pe-102	
Lakeside Sand & Gravel Co.		Lakeside Sand & Gravel Co. Plant 1	Shalersville	sand—building, road construction/resurfacing gravel—building, road construction/resurfacing	Pe-LS	
		Solak	Shalersville	sand—building gravel—building	Pe-A	
Miller's Sand & Gravel, Inc.		Miller Sand & Gravel, Inc.	Windham	sand—fill sand	Pe-39	

Preble	Olen Corp.	Lucky Sand & Gravel Co.	Mantua	sand—building gravel—building, asphaltic concrete	Pe-L	
	Oscar Brugmann Sand & Gravel, Inc.	Oscar Brugmann Sand & Gravel, Inc.	Shalersville	sand—building, road construction/resurfacing, unspecified	Pe-9	
	Portage Aggregate & Supply, LLC	Portage Aggregate & Supply, LLC	Shalersville	gravel—building, road construction/resurfacing, unspecified sand—building, Portland cement concrete	Pe-M	
	Rockwell Sand & Gravel, Inc.	Suffield Aggregate, LLC	Suffield	gravel—building sand—Portland cement concrete, fill, soil blend gravel—filtration	Pe-R	
	S & S Aggregate, Inc.	S & S Aggregate #16	Ravenna	sand—asphaltic concrete, road construction/resurfacing, unspecified	Pe-15	
	Shelly Materials, Inc.	Jefferson Materials Plant #1302	Streetsboro	gravel—asphaltic concrete, road construction/resurfacing, unspecified sand—Portland cement concrete, asphaltic concrete gravel—asphaltic concrete	Pe-63	
	Sober Sand & Gravel Co.	Shalersville North	Shalersville	sand—Portland cement concrete, asphaltic concrete	Pe-La	
	Sober Sand & Gravel Co.	Sober Sand & Gravel Co.	Rootstown	gravel—Portland cement concrete, asphaltic concrete sand—building, Portland cement concrete gravel—building, asphaltic concrete	Pe-18	
	Loxley Aggregates, Inc.	Loxley Aggregates, Inc.	Twin	sand—building	Pre-9	
	Thomas Sand & Gravel U.S. Aggregates, Inc.	Howard Thomas U.S. Aggregates/Richmond Plant	Lanier Jefferson	gravel—building gravel—pipe backfill sand—building, road construction/resurfacing	Pre-T Pre-AAC	
	Wysong Gravel Co.	Wysong Gravel Co.	Somers	gravel—building, road construction/resurfacing	Pre-4	
	Wysong Gravel Co.-West Alexandria	Wysong Gravel Co.-West Alexandria	Twin Plant	sand—building gravel—building sand—building gravel—building	Pre-6	
	Richland	John L. Garber Materials, Inc.	John L. Garber Materials, Inc.	Troy	sand—building	Rd-14
		John L. Garber Materials, Inc.	John L. Garber Materials, Inc.	Washington	gravel—building sand—unspecified gravel—unspecified	Rd-G
Mid Ohio Resources		Bellville West	Jefferson	sand—building, Portland cement concrete	Rd-M1	
S & S Aggregate, Inc.		S & S Aggregate #14	Monroe	gravel—building, road construction/resurfacing, ice control sand—asphaltic concrete, unspecified gravel—asphaltic concrete, road construction/resurfacing, unspecified	Rd-5	
Calvins Hauling, Inc.		Calvins Hauling, Inc.	Concord	sand—building	Rs-C	
D.G.M., Inc.		Towpath-Warwick	Twin	gravel—road construction/resurfacing sand—building, Portland cement concrete	Rs-D	
Ross	David E. Edgington	Edgington Pit	Concord	gravel—building, Portland cement concrete sand—building	Rs-E	
	Muskingum River Gravel Co.	S & S Aggregate Plant #7	Jefferson	gravel—building sand—asphaltic concrete, road construction/resurfacing, unspecified	Rs-M	
	Shelly Materials, Inc.	Shelly Materials, Inc.-Chillicothe	Springfield	gravel—asphaltic concrete, road construction/resurfacing, unspecified sand—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified	Rs-27	
	Precision Aggregates III, LLC	Precision Aggregates III, LLC	Sandusky	gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, unspecified	Sy-5	
	Precision Aggregates III, LLC	Precision Aggregates III, LLC	Sandusky	sand—asphaltic concrete gravel—asphaltic concrete	Sy-5	

2012 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of pit	Township	Type and principal use	State mine number	
Scioto	D.G.M., Inc.	Tow Path Ready Mix	Morgan	sand—building, Portland cement concrete gravel—building, Portland cement concrete gravel—back fill	So-DGM	
	Youngs Sand and Gravel	Young	Porter		So-Y	
Shelby	Barrett Paving Materials, Inc.	Hardin Sand & Gravel	Washington	sand—Portland cement concrete, unspecified gravel—Portland cement concrete, asphaltic concrete, unspecified	Shy-5C	
		Jones Deposit	Washington	sand—unspecified gravel—unspecified	Shy-18	
		Pence Deposit	Washington	sand—unspecified gravel—unspecified	Shy-11	
		Schmidt Deposit	Washington	sand—unspecified gravel—unspecified	Shy-5C1	
		Staley Pit	Clinton, Salem	sand—building	Shy-5S	
		Plant #4	Jackson	sand—road construction/resurfacing gravel—road construction/resurfacing	Sk-243	
		Plant #6	Jackson	sand—road construction/resurfacing gravel—road construction/resurfacing	Sk-R0	
Stark	Beaver Excavating, Inc.	Stone Products, Inc./Beaver Exc.	Canton	gravel—road construction/resurfacing sand—unspecified	Sk-BE	
		Central Sand & Gravel Div.	Plain	gravel—unspecified sand—building, road construction/resurfacing, unspecified gravel—building, road construction/resurfacing, unspecified	Sk-CA1	
	Central-Allied Enterprises, Inc.	Massillon Washed Gravel Div.	Bethlehem	sand—building, road construction/resurfacing gravel—building, road construction/resurfacing	Sk-MW	
		Heiser Sand & Gravel Corp. Massillon Materials, Inc.	Jackson Perry	gravel—building sand—unspecified	Sk-HS1 Sk-M	
	Oster Sand & Gravel, Inc.	MMI Warmington Plant	Perry	gravel—unspecified sand—unspecified	Sk-M1	
		Massillon Plant	Jackson, Perry	gravel—unspecified sand—building, Portland cement concrete, asphaltic concrete, fill	Sk-165	
		Roio Sand & Gravel	Lawrence	gravel—building, Portland cement concrete, asphaltic concrete, road construction/resurfacing, fill sand—building	Sk-S	
	Shelly Materials, Inc.	Allied Corp., Inc.	Perry	gravel—building sand—Portland cement concrete, asphaltic concrete	Sk-173	
		Tiger Sand & Gravel, LLC	Perry	gravel—asphaltic concrete sand—building gravel—building	Sk-T	
		Bontrager Excavating Co.	Green	sand—building gravel—building	St-B	
	Summit	S & S Aggregate, Inc.	Gilbert	Coventry	sand—asphaltic concrete, road construction/resurfacing gravel—road construction/resurfacing, unspecified	St-44
			Twin Lakes-S & S Aggregate #9			
Tuscarawas	L & M Mineral Co.	Spring Industries	Goshen, Warwick	sand—fill gravel—fill	Ts-SI	

2012 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY (cont.)

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Wyandot	JALIP, Ltd. Kirby's Sand & Gravel, Inc.	JALIP, Ltd. Kirby's Sand & Gravel, Inc.	Pitt Crane, Eden	sand—bedding sand—building gravel—building	Wt-J Wt-17
	National Lime & Stone Co.	Sammet	Antrim	sand—building, Portland cement concrete, asphaltic concrete gravel—base and backfill	Wt-N

**2012 SANDSTONE /CONGLOMERATE
COMPANIES WITH SALES OR PRODUCTION**

Company	Number of operations	Sales (tons)	Production (tons)
Best Sand Corp.	2	747,004	942,295
Briar Hill Stone Co.	5	12,519	12,519
City Stone, LLC	1	166,857	166,857
Crushers Stone Products, LLC	1	10,000	10,000
IRG Operating, LLC, dba Cleveland Quarries	1	8,373	17,800
Johnson Stone Products, Inc.	1	7,430	7,430
Keeney Sand & Stone, Inc.	1	35,976	35,976
Mesenburg Bros., Inc.	1	14,374	14,374
Ohio Basic Minerals, LLC	1	31,000	31,000
Oscar Brugmann Sand & Gravel, Inc.	1	20,153	20,153
The Parry Company, Inc.	1	11,000	11,000
Premier Silica, LLC	2	164,528	173,872
R. W. Sidley, Inc.	1	109,430	195,000
Regeneration Materials	1	8,307	10,304
Riverside Sand & Gravel Co., Inc.	1	278	278
Sidwell Materials, Inc.	1	297	297
Solomon's Mines, Inc.	1	10,503	10,503
Southern Ohio Sand, LLC	1	40,000	40,000
Thompson Mining Co.	1	2,332	2,332
Waller Bros. Stone Co.	1	1,850	0
Zollinger Sand & Gravel Co.	1	6,967	6,967
TOTAL: 21 companies	27	1,409,178	1,708,957

2012 OHIO DIRECTORY OF SANDSTONE/CONGLOMERATE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which a state mine number has not been assigned, a letter designation is used (example: Gea-N).

County	Name of operator	Name of mine or quarry	Township	Geological unit (age)	Type and principal use	State mine number
Belmont	Sidwell Materials, Inc.	Bellaire Stone	Pultney	Bellaire (Pennsylvanian)	crushed or broken stone—riprap	Bt-1190
Columbiana	Solomon's Mines, Inc.	Solomon's Mines, Inc.	Salem	Buffalo (Pennsylvanian)	crushed or broken stone—riprap, construction, other	Ca-5
Coshocton	Briar Hill Stone Co.	Quarry #26	Monroe	Massillon (Pennsylvanian)	dimension stone—rough construction	Cn-13
	Briar Hill Stone Co.	Quarry #32	Monroe	Massillon (Pennsylvanian)	dimension stone—rough construction	Cn-686
	Briar Hill Stone Co.	Quarry #54	Monroe	Massillon (Pennsylvanian)	dimension stone—rough construction	Cn-809
	Briar Hill Stone Co.	Quarry #55	Monroe	Massillon (Pennsylvanian)	dimension stone—rough construction	Cn-815
Erie	IRG Operating, LLC, dba Cleveland Quarries	IRC Operating	Florence	Berea (Devonian)	dimension stone—rough construction, rubble, finished stone, flagging	Ee-21
Geauga	Best Sand Corp.	Best Sand Corp.	Munson	Sharon (Pennsylvanian)	crushed or broken stone—foundry sand, glass sand, construction, industrial, unspecified	Gea-3
	R. W. Sidley, Inc.	Thompson Pit	Thompson	Sharon (Pennsylvanian)	crushed or broken stone—aggregate, polish/grinding sand, construction, industrial sand, unspecified	Gea-1
Huron	Mesenburg Bros., Inc.	Mesenburg Bros., Inc.	Townsend	Berea (Devonian)	dimension stone—rough construction	Hrn-8
Knox	Briar Hill Stone Co.	Quarry #6	Jefferson	Massillon (Pennsylvanian)	dimension stone—rough construction	Kx-12
	Premier Silica, LLC	Millwood Plant	Butler, Union	Black Hand (Mississippian)	crushed or broken stone—foundry sand, glass sand, construction	Kx-1
Lake	Keeney Sand & Stone, Inc.	Keeney Sand & Stone, Inc.	Leroy	Berea (Devonian)	crushed or broken stone—aggregate, construction	Lke-K
Lorain	Johnson Stone Products, Inc.	Johnson Stone Products	Camden	Berea (Devonian)	dimension stone—rubble, architecture	Ln-J
Mahoning	City Stone, LLC	City Stone, LLC	Milton	Sharon (Pennsylvanian)	crushed or broken stone—construction	Mg-62
Muskingum	Thompson Mining Co.	Pleasant Valley Limestone	Hopewell	Massillon (Pennsylvanian)	crushed or broken stone—other	Mum-907
Perry	Premier Silica, LLC	Glass Rock Plant	Hopewell	Massillon (Pennsylvanian)	crushed or broken stone—foundry sand, glass sand, refractory, silica flour, construction	Py-344
Pike	Best Sand Corp.	Best Southern	Jackson	Sharon (Pennsylvanian)	crushed or broken stone—foundry sand, construction, other	Pke-31
	Ohio Basic Minerals, LLC	Scioto Mine	Jackson	Sharon (Pennsylvanian)	crushed or broken stone—industrial	Pke-0
	The Parry Company, Inc.	Jackson Grandview Builders	Jackson	Sharon (Pennsylvanian)	crushed or broken stone—unspecified	Pke-P
	Southern Ohio Sand, LLC	Southern Ohio Sand, LLC	Beaver	Sharon (Pennsylvanian)	crushed or broken stone—industrial	Pke-S
Portage	Oscar Bruggmann Sand & Gravel, Inc.	Oscar Bruggmann Sand & Gravel, Inc.	Shalersville	Sharon (Pennsylvanian)	crushed or broken stone—construction	Pe-9
Scioto	Waller Bros. Stone Co.	Inskeep Quarry	Rush	Buena Vista (Mississippian)	dimension stone—rough construction	So-48
Summit	Riverside Sand & Gravel Co., Inc.	Riverside Sand & Gravel Co., Inc.	Stow, Tallmadge	Sharon (Pennsylvanian)	dimension stone—architecture	St-24
Tuscarawas	Regeneration Materials	Dundee Mine	Wayne	Massillon (Pennsylvanian)	crushed or broken stone—foundry sand, unspecified	Ts-1660
Wayne	Crushers Stone Products, LLC	Crushers Stone Products, LLC	Clinton	Black Hand (Mississippian)	crushed or broken stone—construction	We-25
	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	Black Hand (Mississippian)	crushed or broken stone—construction	We-15

2012 CLAY COMPANIES WITH SALES OR PRODUCTION

Company	Number of operations	Sales (tons)	Production (tons)
A. P. Green Refractories, Inc.	1	9,366	9,366
Athens Hocking Reclamation Center	1	35,000	35,000
Belden Brick Co.	4	103,684	103,684
Bowerston Shale Co.	1	1,716	1,716
Boyas Excavating, Inc.	1	1,249	1,249
CEMEX, Inc.	1	22,750	22,750
D & K Materials, Inc.	1	40	40
Joe Simak & Sons Trucking, Inc.	1	753	753
L & M Mineral Co.	2	18,875	18,875
Loxley Aggregates, Inc.	1	470	470
Newark Materials, LLC	1	59,388	59,388
Nuway Services	1	2,288	2,288
Patrick Excavating, Inc.	1	689	689
Rohr Excavating Ltd.	1	4,000	4,000
Sandkuhl Clay Works, Inc.	1	1,697	1,697
Sober Sand & Gravel Co.	1	10,700	10,700
Soltis Sand & Gravel	1	180	180
Joseph N. Sypniewski	1	219	219
Valley Clay Mining Co.	1	12,461	12,461
Zollinger Sand & Gravel Co.	1	3,797	3,797
TOTAL: 20 companies	24	289,322	289,322

2012 OHIO DIRECTORY OF CLAY MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which a state mine number has not been assigned, a letter designation is used (example: Cn-B).

County	Name of operator	Name of mine or quarry	Township	Geological unit (age)	Type and principal use	State mine number
Ashtabula	Joe Simak & Sons Joseph N. Sypniewski	North Ridge Pit Sypniewski	Kingsville Trumbull	Pleistocene glacial clay Pleistocene glacial clay	construction construction	Asa-18 Asa-SY
Athens	Athens Hocking Reclamation Center	SAA	York	Conemaugh Group (Pennsylvanian)	landfill	As-594
Auglaize	Sandkuhl Clay Works, Inc.	Sandkuhl Clay Works, Inc.	Salem	Pleistocene glacial clay	common clay products	Ae-7
Cuyahoga	Boyas Excavating, Inc.	Boyas Excavating, Inc.	Independence	Bedford (Mississippian)	Ball diamonds	Cya-42
Geauga	Soltis Sand & Gravel	Soltis Sand & Gravel	Parkman	Pleistocene glacial clay	common clay products	Gea-9
Greene	CEMEX, Inc.	Miller, Schieder, Batdorf, Stewart	Bath		cement manufacture	Ge-8
Holmes	Rohr Excavating Ltd.	Rohr	Killbuck	Newland-Brookville clay (Pennsylvanian)	construction	Hs-R
Jackson	A. P. Green Refractories, Inc.	Poetker	Jefferson	Lower Kittanning clay (Pennsylvanian)	refractories	Jkn-G
Licking	Newark Materials, LLC Nuway Services	Newark Plant Hopewell	Madison McKean	Pleistocene glacial clay Pleistocene glacial clay	construction construction	Lg-504 Lg-NU
Muskingum	Bowenston Shale Co. Valley Clay Mining Co.	Frazeysburg Spring Pit	Jackson Newton	Flint Ridge & Middle Mercer (Pennsylvanian) Tionesta clay (Pennsylvanian)	common clay products common clay products, refractories	Mum-776 Mum-904
Portage	D & K Materials, Inc. Patrick Excavating, Inc. Sober Sand & Gravel Co.	D & K Materials, Inc. Patrick Sober Sand & Gravel Co.	Brimfield Charlestown Rootstown	Pleistocene glacial clay Pleistocene glacial clay Pleistocene glacial clay	common clay products construction construction	Pe-101 Pe-P Pe-18
Preble	Loxley Aggregates, Inc.	Loxley Aggregates, Inc.	Twin	Pleistocene glacial clay	construction	Pre-9
Stark	L & M Mineral Co.	Barr Farm	Bethlehem	Newland-Brookville clay (Pennsylvanian)	common clay products	Sk-LM
Tuscarawas	Belden Brick Co.	Belden Pit Moomaw Pit Shanesville Pit Wallick Pit Spring	Sugar Creek Sugar Creek Sugar Creek Franklin, Wayne Mill, Warwick	Newland-Brookville clay (Pennsylvanian) Newland-Brookville & Tionesta clays (Pennsylvanian) Newland-Brookville clay (Pennsylvanian) Newland-Brookville clay (Pennsylvanian) Lower Kittanning (Pennsylvanian)	common clay products common clay products common clay products common clay products common clay products	Ts-1646 Ts-1517 Ts-1939 Ts-1841 Ts-1982
Wayne	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	Pleistocene glacial clay	construction	We-15

2012 SHALE COMPANIES WITH SALES OR PRODUCTION

Company	Number of operations	Sales (tons)	Production (tons)
Belden Brick Co.	3	64,577	64,577
Bowerston Shale Co.	2	37,925	37,925
DiGeronimo Aggregates, LLC	1	130,834	148,648
Glen-Gery Corp.	1	74,533	74,533
Knox County Board of Commissioners	1	492	492
L & M Mineral Co.	2	23,757	23,757
The Logan Clay Products Co.	1	12,530	21,680
Summitville Tiles, Inc.	1	21,875	21,875
Thompson Mining Co.	1	250	250
Valley Clay Mining Co.	1	22,920	22,920
Walhonding Sand & Gravel	1	2,168	2,168
Zollinger Sand & Gravel Co.	1	2,329	2,329
TOTAL: 12 companies	16	394,190	421,154

2012 OHIO DIRECTORY OF SHALE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which a state mine number has not been assigned, a letter designation is used (example: Cn-B).

County	Name of operator	Name of mine or quarry	Township	Geological unit (age)	Type and principal use	State mine number
Columbiana	Summitville Tiles, Inc.	Summitcrest, Inc.	Franklin	Conemaugh Group (Pennsylvanian)	common clay products	Ca-SU
Coshocton	Walshonding Sand & Gravel	Walshonding Valley Sand & Gravel	New Castle	Logan Formation (Mississippian)	aggregate	Cn-WL
Cuyahoga	DiGeronimo Aggregates, LLC	DiGeronimo Aggregates, LLC	Independence	Chagrin Member (Devonian)	lightweight aggregate	Cya-19
Harrison	Bowerston Shale Co.	Bowerston	Monroe	Conemaugh Group (Pennsylvanian)	common clay products	Hn-152
Knox	Knox County Board of Commissioners	Apple Valley	Brown	Logan Formation (Mississippian)	construction	Kx-K
Licking	Bowerston Shale Co.	Hanover Pit	Hanover	Logan Formation (Mississippian)	common clay products	Lg-501
Marion	Glen-Gery Corp.	Iberia Quarry	Tully	Bedford (Mississippian)	common clay products	Mn-7
Muskingum	Thompson Mining Co. Valley Clay Mining Co.	Pleasant Valley Limestone Spring Pit	Hopewell Newton	Clarion Shale (Pennsylvanian)	landfill common clay products	Mum-907 Mum-904
Perry	The Logan Clay Products Co.	Webb Summit	Monday Creek		common clay products	Py-L
Tuscarawas	Belden Brick Co.	Belden Pit	Sugar Creek	Newland-Brookville, Lower Kittanning & Tionesta shales (Pennsylvanian)	common clay products	Ts-1646
		Plotner Pit	Sugar Creek	Newland-Brookville shale (Pennsylvanian)	common clay products	Ts-B
		Shanesville Pit	Sugarcreek	Newland-Brookville shale (Pennsylvanian)	common clay products	Ts-1939
	L & M Mineral Co.	Heil	Warwick	Lower Kittanning (Pennsylvanian)	common clay products	Ts-1884
			Warwick	Lower Kittanning (Pennsylvanian)	common clay products	Ts-1982
Wayne	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	Logan Formation (Mississippian)	construction	We-15

**2012 OHIO DIRECTORY OF SALT MINE AND SALT-BRINING PLANT OPERATORS
REPORTING SALES OR PRODUCTION, BY COUNTY**

County	Name of operator	Name of mine or quarry	Township	Geological unit and product	State mine number
Cuyahoga	Cargill, Incorporated	Cargill Deicing Technology	City of Cleveland	Salina (Silurian)—rock salt	Cya-30
Lake	Morton International, Inc.	Fairport Mine	Painesville	Salina (Silurian)—rock salt	Lke-6
Licking	Royalty Enterprises, Inc. R. H. Penick Co., Ltd.	King #1 R. H. Penick Co.	Madison Newark	"Newburg" (Silurian)—natural brine "Newburg" (Silurian)—natural brine	Lg-4484 Lg-45
Summit	Cargill Salt	Cargill Salt	Coventry	Salina (Silurian)—artificial brine	St-9127
Wayne	Morton International, Inc.	Morton Salt Well Field 9129	Milton	Salina (Silurian)—artificial brine	We-9129

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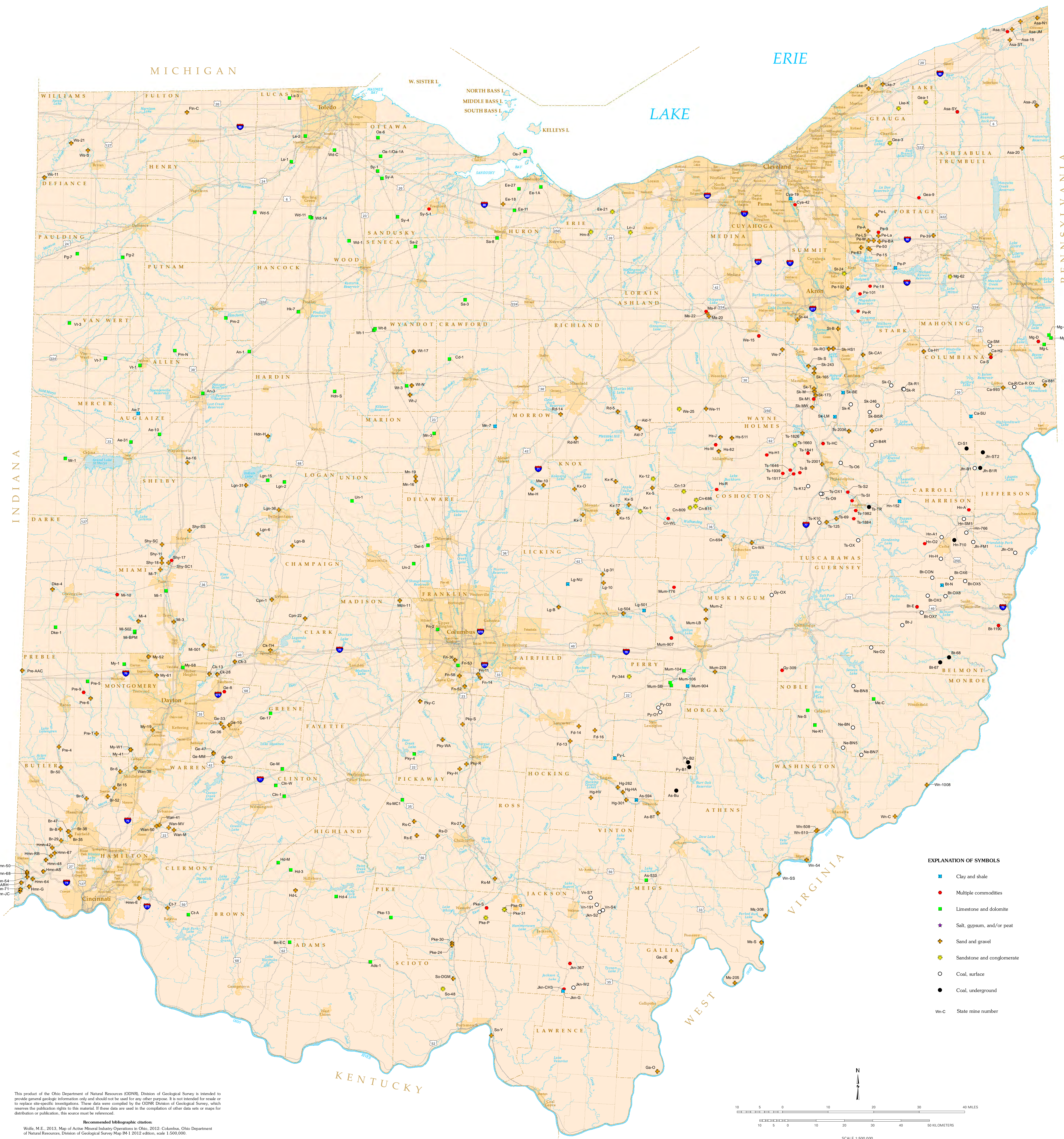
**2012 OHIO DIRECTORY OF PEAT MINE OPERATORS
REPORTING SALES OR PRODUCTION, BY COUNTY**

County	Name of operator	Name of mine or quarry	Township	Geological unit and product	State mine number
Portage	Rockwell Sand & Gravel, Inc.	Suffield Aggregate, LLC	Suffield	Mulch	Pe-R

MAP OF ACTIVE MINERAL INDUSTRY OPERATIONS IN OHIO 2012

By
Mark E. Wolfe

GIS Database Administration by Joseph G. Wells
GIS Cartography by Dean R. Martin



PENNSYLVANIA

INDIANA

ABOUT THE MAP
This map is based on operators listed in the 2012 Report on Ohio Mineral Industries and is intended for general reference. Locations of mineral extraction operations are approximate and are based on permitting information on file at the Ohio Department of Natural Resources (ODNR), Division of Mineral Resources Management. The letters and numbers opposite the symbols are the state mine numbers assigned to operators listed in the directories of the 2012 Report on Ohio Mineral Industries. Operator and other information can be accessed by using the state mine number and commodity to refer to the directories of operators reporting sales or production, by county, in the Report on Ohio Mineral Industries. Operator information for industrial-mineral operations that reported no production during the year can be accessed by searching the alphabetical directories for the state mine number. An interactive mineral industries map also is available on the ODNR Division of Geological Survey website. The interactive map is an improved tool for accessing company and production information and should be used if available. The Report on Ohio Mineral Industries and the interactive map are accessible at www.ohiogeology.com.

2012 OHIO ECONOMIC GEOLOGY IN BRIEF
Reports were filed in 2012 for 134 coal-mining operations, including 5 mines with their own coal-washing facilities. Coal production was reported from 61 of these 134 operations. Reports also were filed for 9 separate coal-washing plants and associated facilities. Of the 523 industrial-mineral-mining operations known to be operating in 2012, 337 operations were reported active. A total of 26 mines reported production of multiple mineral commodities, including coal and/or one or more industrial minerals. There were 538 new wells completed for oil and gas in 2012, of which 505 were productive and 33 were dry.

The total tonnage of coal and industrial minerals produced in Ohio during 2012 was 121,810,337 tons or approximately 10.4 tons per capita. The total value of coal was \$1,182,134,498 in 2012; the value of oil and gas was \$706,052,337; and the total value* of all industrial minerals was \$870,367,049 in 2012 (table 1). The combined total value of fuel and nonfuel minerals produced in Ohio during 2012 was \$2,758,603,884 or approximately \$229 per capita. Reported and estimated total employment in the extractive industries of Ohio in 2012 was more than 11,000 people.

*Includes reported and estimated values. Some operators reporting sales did not report a value for these sales. A countywide or statewide average price per ton was calculated for each industrial-mineral commodity based on values for the value reported. A countywide average price per ton was calculated for coal based on sales for which the value was reported and method of production. These calculated averages were used to estimate the value of sales for which the value was not reported.

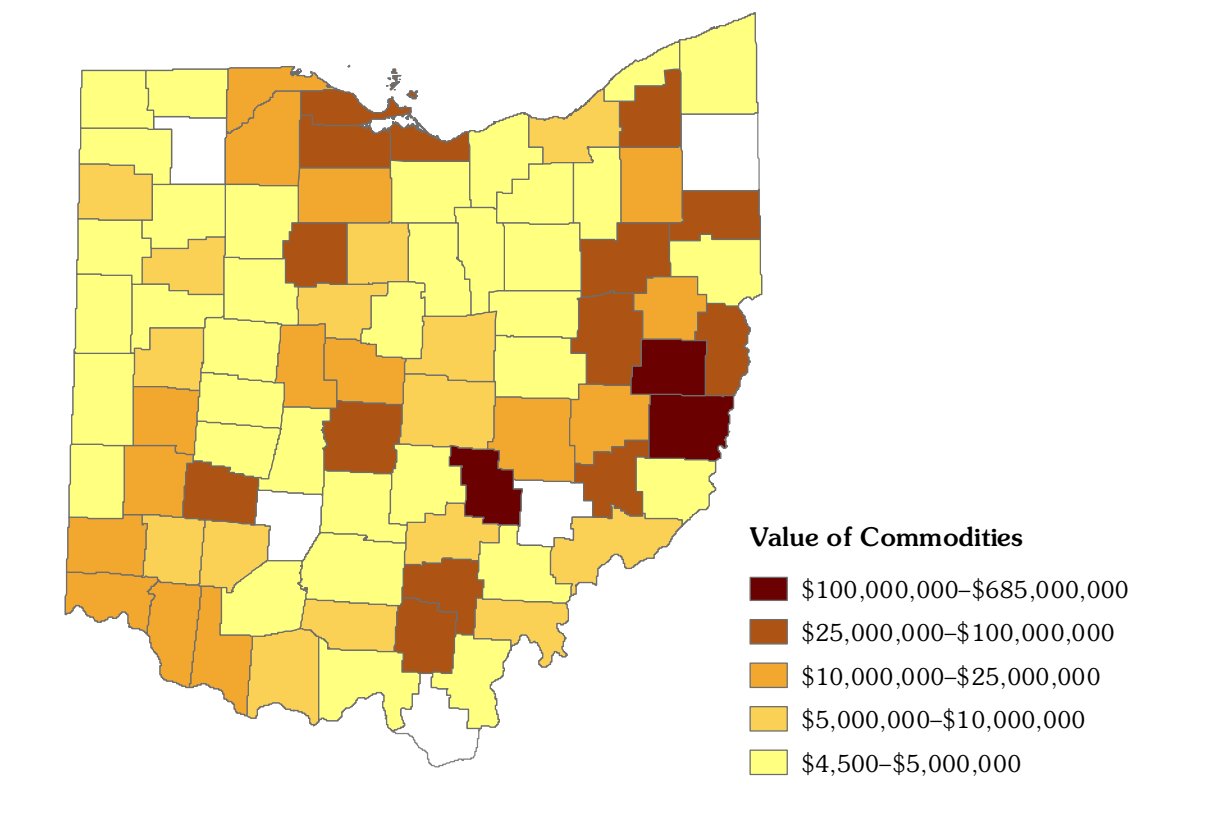
TABLE 1. 2012 Fuel and nonfuel mineral sales and production in Ohio

Commodity	Production ¹	Sales ²	Value ³	Change in value from 2011 (percent)
Coal	26,344,046 tons	25,588,364 tons	\$1,182,134,498	-1.1
Limestone and dolomite	58,305,506 tons	58,168,739 tons	\$494,626,494	+3.8
Sand and gravel	32,970,982 tons	29,410,320 tons	\$192,194,837	-17.6
Salt	4,261,370 tons	3,521,814 tons	\$127,683,120	-27.7
Sandstone and conglomerate	1,708,978 tons	1,408,178 tons	\$46,598,064	-8.6
Clay	289,322 tons	289,322 tons	\$1,866,422	-23.0
Shale	421,154 tons	384,190 tons	\$7,384,602	-20.3
Peat	420 tons	420 tons	\$3,360	+128.3
Gas	68,770,137 thousand cubic feet	not available	\$348,162,591	-20.1
Oil	4,592,599 barrels	not available	\$427,889,246	+4.8

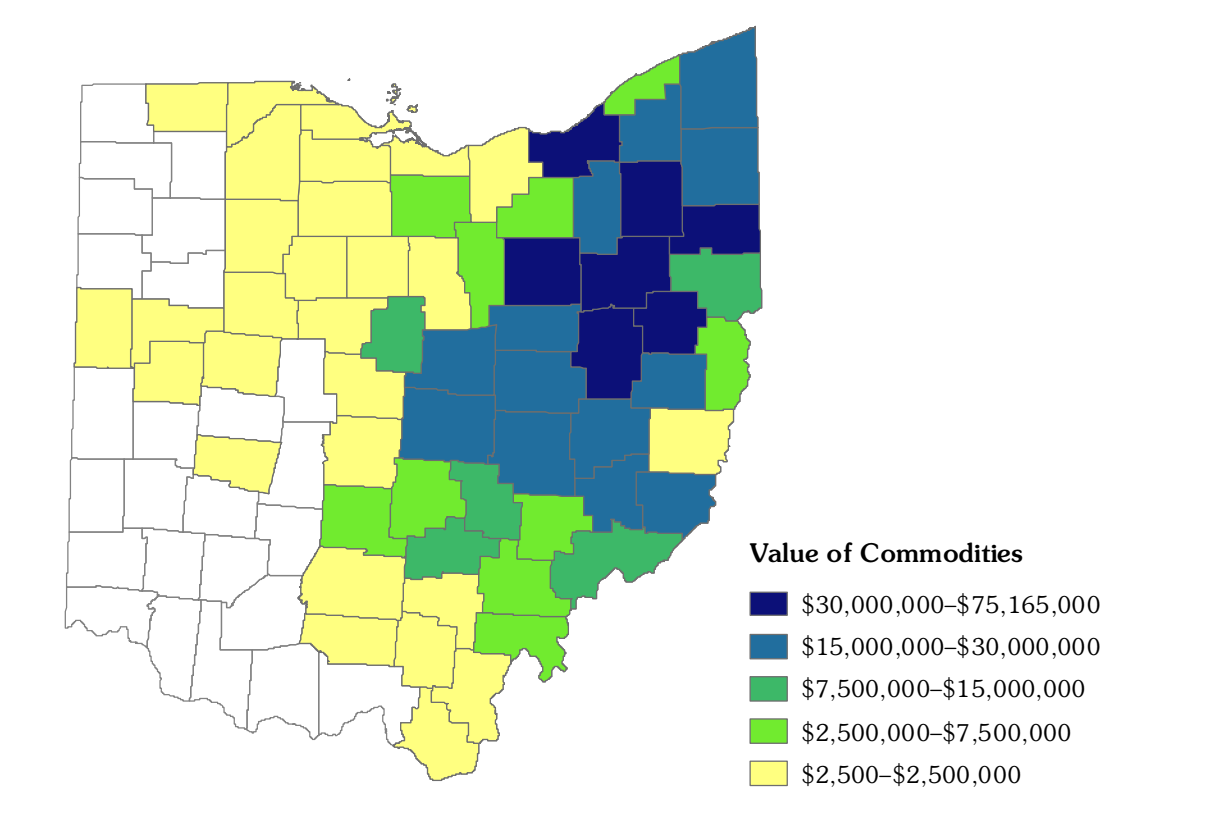
¹The production figures for industrial minerals are estimates. Many operators do not report actual production. Some operators report estimates, other operators do not report any production. For those operators who do not report production, production is assumed to equal sales. Timely completion of this report requires that when production and sales information are not available, production figures may be gathered from the ODNR Division of Mineral Resources Management or be estimated or be excluded.

²Includes reported and estimated values. Some operators reporting sales did not report a value for these sales. A countywide or statewide average price per ton was calculated for each industrial-mineral commodity based on values for the value reported and method of production. These calculated averages were used to estimate the value of sales for which the value was not reported.

³The FOB value of industrial minerals and oil and gas estimated for mines that failed to report this information and for those producing mineral for captive use. These estimates were obtained using a countywide or statewide average price per ton calculation on reported FOB values.

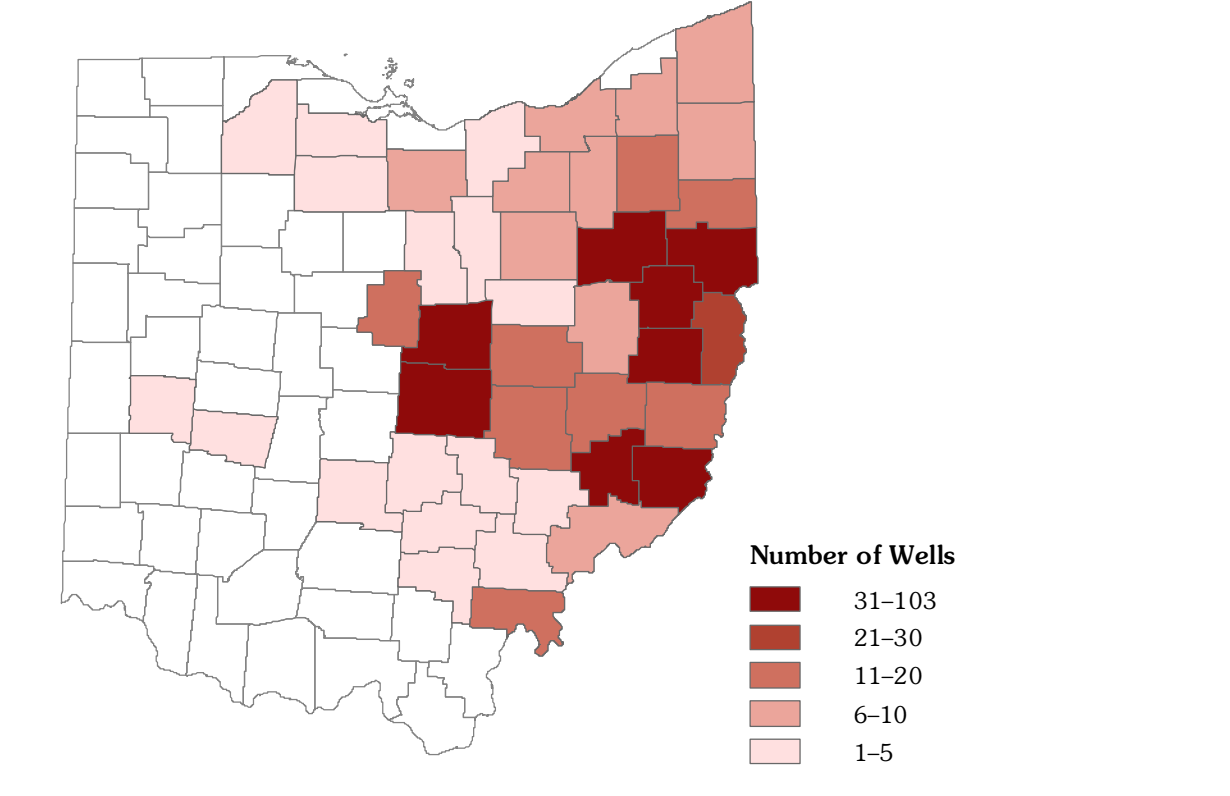
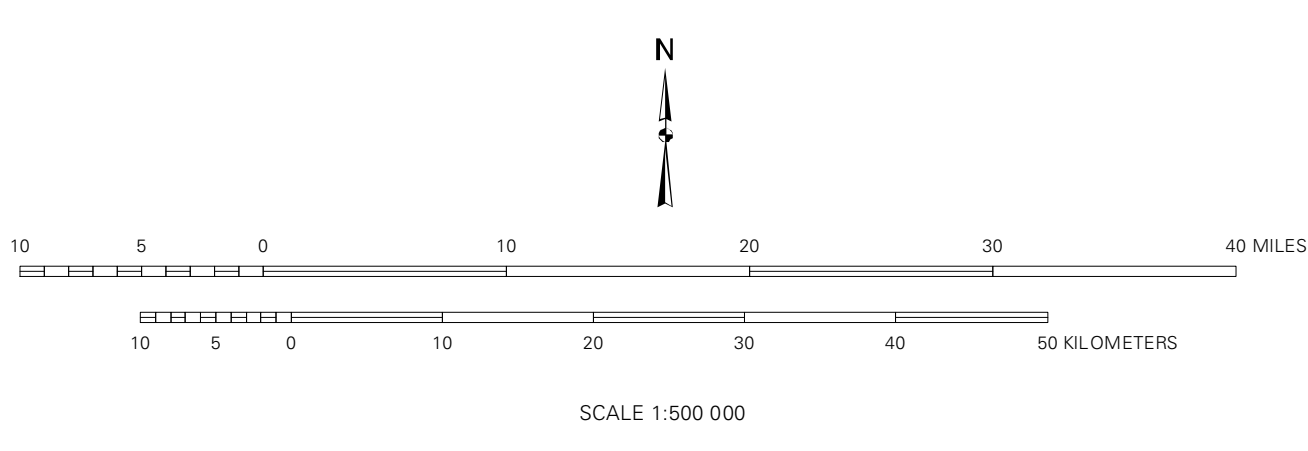


Total value of produced coal and/or industrial minerals in Ohio in 2012, by county.



Total value of oil and gas produced in Ohio in 2012, by county.

- EXPLANATION OF SYMBOLS**
- Clay and shale
 - Multiple commodities
 - Limestone and dolomite
 - ★ Salt, gypsum, and/or peat
 - ◆ Sand and gravel
 - ◆ Sandstone and conglomerate
 - Coal, surface
 - Coal, underground
 - W-C Slate mine number



Number of oil and gas wells drilled and/or completed in Ohio in 2012, by county.

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