



2012 Minerals Yearbook

BOSNIA AND HERZEGOVINA

THE MINERAL INDUSTRY OF BOSNIA AND HERZEGOVINA

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Bosnia and Herzegovina's mineral industry was dominated by the mine output of bauxite, iron, and zinc. Mineral fuels produced in the country included brown coal, coke, and lignite. Other mineral commodities produced included barite, crushed stone, limestone, salt, and sand and gravel.

In 2012, Bosnia and Herzegovina's real gross domestic product (GDP) decreased by 1.10% compared with that of 2011. Mining and quarrying made up about 2.3% of the country's total GDP. In 2012, mining and quarrying made up about 12% of the total value of Bosnia and Herzegovina's imports and about 2% of the total value of exports. Imports of crude petroleum and natural gas were valued at \$932 million and made up about 78% of the total value of mining and quarrying imports. Exports of metal ores were valued at \$54 million and made up about 53% of the total value of mining and quarrying exports (Agency for Statistics of Bosnia and Herzegovina, 2013a, p. 2, 3; 2013b, p. 59).

Production

In 2012, barite production increased by 115% to 28 metric tons (t) from 13 t in 2011; production of ecaussine and other calcareous stones increased, by 66% to 234,120 t from 141,245 t; crude dolomite, by 46% to 127,774 t; gravel, by 23% to 1.1 million metric tons (Mt); sodium bicarbonate, by 22% to 58,620 t; and bauxite, by 13% to 800,316 t. Production of slate decreased by 88% to 30 t from 252 t; marble and travertine, by 62% to 692 t from 1,836 t; construction sand, by 54% to 499,916 t from 1.1 Mt (revised); crude kaolin, by 36% to 149,495 t; alumina, by 23% to 202,416 t; coke, by 22% to 696,231 t; and lime, by 19% to 397,802 t. Data on mineral production are in table 1.

Structure of the Mineral Industry

Table 2 is a list of the major mineral industry facilities.

Commodity Review

Bauxite and Alumina and Aluminum.—In 2012, high gas prices and low alumina and aluminum prices were a challenge for Alumina Factory Birac a.d. (Birac). The company was the only producer of alumina in the country. On August 1, Birac's operations were temporarily suspended owing to the company's outstanding debts with BH Gas d.o.o., which was the country's main gas distributor. On August 2, Birac resumed production after agreeing to pay part of its debt to BH Gas. The plant, which was owned by Ukio Bankas Investment Group of Lithuania, had an annual production capacity of 600,000 t of alumina (Sito-Sucic and Zuvela, 2012; SteelGuru, 2012).

Aluminij d.d. Mostar (Mostar) was Bosnia and Herzegovina's only aluminum producer and its leading exporter. On July 26,

the company announced that it was shutting down 12.5% of its capacity, citing high power prices and low aluminum prices. In 2011, Mostar signed a contract with Hertwich Engineering of Austria for the purchase and installation of a new casting furnace and a new casting line of small (between 8 and 10 kilograms) alloy ingots at Mostar's casthouse at a cost of about \$8 million. Mostar began operation of the new casting line in February 2013. Installation of a new 50-t-capacity melting furnace was also underway and was expected to be completed by April 2013. The company expected to increase its primary aluminum production capacity by up to 30,000 metric tons per year (Aluminij d.d. Mostar, 2011, 2012, 2013).

Iron and Steel.—In July, ArcelorMittal S.A. of Luxembourg through its subsidiary ArcelorMittal Zenica announced plans to implement two environmental projects at the company's blast furnace and coke plant at Zenica. The blast furnace project would include the installation of a de-dusting system at a cost of about \$8 million. The new system would reduce hard particle and pollutant emissions by about 95% and was expected to be completed by yearend 2013. The coke plant project would include the installation of a new charging machine, at a cost of about \$4 million, which would reduce solid particle emissions of coke from about 140 grams per metric ton (g/t) to about 5 g/t. The ArcelorMittal Zenica plant had a production capacity of about 1 million metric tons per year of steel (ArcelorMittal, 2012).

Outlook

Bosnia and Herzegovina forecasted an increase in the GDP of 0.5% in 2013 and 2.0% in 2014 (International Monetary Fund, 2013). The country's mineral industry will most likely continue to be a relatively minor producer of mineral commodities. Metals are expected to remain valuable export commodities for the country. In the short run, high gas and power prices will continue to present challenges to the alumina and aluminum sectors.

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TABLE 1
BOSNIA AND HERZEGOVINA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012
METALS					
Alumina	294,455	191,792	269,414	261,874	202,416
Aluminum:					
Primary	123,000	96,000	118,000	130,875	126,000 ^c
Unwrought aluminum, including alloys	155,903	130,042	150,488	163,954 ^r	159,660
Bauxite	1,018,333	555,820	844,027	707,712	800,316
Iron and steel:					
Ore and concentrate:					
Gross weight	1,481,730	1,614,890	1,401,000	1,891,000	2,075,732
Fe content ^c	622,000	678,000	588,000	794,000	872,000
Metal:					
Crude steel	608,000	519,000	590,757	648,560	700,341
Ferroalloys, ferrosilicon ^c	640	470	870	1,800	--
Pig iron	243,000	482,469	620,935	684,734	749,539
Lead:					
Ores and concentrate, gross weight	6,029	3,781	5,811	6,648	7,000 ^c
Pb content ^c	3,300	2,100	3,200	3,700	3,700
Metal, smelter, secondary ^c	46,000 ^r	35,000 ^r	4,500 ^r	3,400 ^r	3,300
Silicon, metal ^c	12,400	11,000	17,300	17,500	15,900
Zinc:					
Ores and concentrate, gross weight	8,595	6,228	10,025	12,477	12,500 ^c
Zn content ^c	4,700	3,400	5,500	6,900	7,000
INDUSTRIAL MINERALS					
Barite	54	30	57	13	28
Cement	1,406,373	1,073,762	948,513	893,017	845,657
Clays:					
Bentonite	30,504	16,042	314	--	--
Kaolin, crude	259,325	148,384	41,808	232,147	149,495
Dolomite, crude	134,991	79,104	199,757	87,635	127,774
Graphite	272,084	133,819	45,079	-- ^e	-- ^e
Gypsum and anhydrite	150,039	74,302	64,570	71,870	73,665
Lime	215,787	280,939	339,429	488,577	397,802
Salt, all sources	555,122	556,089	662,631	833,734 ^r	862,017
Sand and gravel:					
Gravel	1,475,433	938,253	979,472	913,129	1,126,176
Sand, construction	175,527	156,128	572,452 ^r	1,095,486 ^r	499,916
Silica sand	702,018	524,752	227,721 ^r	118,978 ^r	121,491
Sodium compounds, sodium bicarbonate	19,441	21,944	35,986	47,847	58,620
Stone:					
Dimension:					
Marble and travertine	5,785	6,358	2,674	1,836	692
Ecaussine and other calcareous stone	181,493	64,186	66,133	141,245	234,120
Granite	23,764	18,755	--	--	--
Porphyry, basalt and other building stone	188,410	95,498	137,372	113,285	97,452
Slate	2,181	3,561	525	252	30
Crushed	4,370,598	3,577,927	3,776,726	4,369,575 ^r	3,711,065
Limestone, crushed and powdered	2,403,270	1,829,989	1,916,642 ^r	1,850,140 ^r	1,834,677

See footnotes at end of table.

TABLE 1—Continued
BOSNIA AND HERZEGOVINA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²		2008	2009	2010	2011	2012
MINERAL FUELS AND RELATED MATERIALS						
Brown coal and lignite	thousand metric tons	11,244	11,515	10,976	12,738 ^r	12,312
Coke		576,785	609,377	919,962	886,911	696,231
Petroleum refinery products ³	42-gallon barrels	853,000	8,240,000	8,920,000	9,880,000	8,590,000

^cEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. -- Zero.

¹Table includes data available through November 4, 2013.

²In addition to commodities listed, calcined gypsum, common clay, crude ceramic clay, magnesite, manganese ore, soda ash, and steel semimanufactures may have been produced, but available information is inadequate to make reliable estimates of output.

³Data were converted to barrels from metric tons and were reported as follows: 2008—106,568; 2009—1,029,585; 2010—1,114,669; 2011—1,235,519; 2012—1,073,292.

TABLE 2
BOSNIA AND HERZEGOVINA: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Alumina Factory Birac a.d. (Ukio Bankas Investment Group)	Plant at Zvornik	600.
Aluminum	Aluminij d.d. Mostar	Smelter at Mostar	120. ^c
Bauxite	A.D. Boksit Milici	Mine at Milici, west of Srebrenica	1,500. ^c
Cement	Tvornica Cementa Kakanj d.d. (HeidelbergCement AG)	Plant at Kakanj	400.
Do.	Fabrika Cementa Lukavac d.d.	Plant in Lukavac	800 cement, 600 clinker.
Coal:			
Brown	RMU Banovici	Opencast mines at Cubric, Grivice, and Turija, and underground mines Omazici and Separacija at Banovici	NA.
Do.	Zenica Group	Stara Jama, Raspotocje, and Stranjani Mines at Zenica	NA.
Do.	Durdevik Group	Potocari and Visca II opencast mines and Durdevik underground mine south of Zivinice	NA.
Do.	Kakanj Group	Vrtliste opencast mine at Kakanj	NA.
Do.	do.	Haljinic underground mine about 5 kilometers southeast of Kakanj	NA.
Do.	Breza Group	Sretno and Kamenice underground mines 20 kilometers northwest of Sarajevo	NA.
Do.	Abid Lolic Group	Grahovcici underground mine 10 kilometers west of Zenica	NA.
Do.	Tusnica Mine	Drage opencast mine at Livno	NA.
Do.	Rudnik i Termoelektrana Ugljevik (ZP Elektrokrajina a.d.)	Opencast mine at Ugljevik	NA.
Lignite	Kreka Group	Opencast mine at Dubrave	NA.
Do.	do.	Opencast mine at Sikulje	NA.
Do.	do.	Underground mines at Mramor, about 5 kilometers northeast of Lukavac, and Bukinje, located between Tuzla and Lukavac	NA.
Do.	EFT Rudnik i Termoelektrana Stanari d.o.o. (EFT Group)	Stanari opencast mine located 20 kilometers west of Doboj	1,100. ^c

See footnotes at end of table.

TABLE 2—Continued
BOSNIA AND HERZEGOVINA: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Coal:—Continued				
Lignite—Continued		Rudnik I Termoelektrana Gacko (ZP Elektrokrajina a.d.)	Opencast mine at Gacko	NA.
Do.		Gracanica Group	Dimnjace opencast mine at Gornji Vakuf-Uskoplje	NA.
Do.		Tusnica Mine	Opencast mine at Livno	NA.
Coke		Global Ispat Koksa Industrija d.o.o. Lukavac (Global Steel Holdings and Coke and Chemical Conglomerate)	Lukavac	700
Do.		ArcelorMittal Zenica (ArcelorMittal S.A.)	Plant at Zenica	NA.
Ferroalloys, ferrosilicon		Steelmin Ltd., 80%	Plant at Jajce	NA. ¹
Do.		B.S.I. d.o.o. (Metalleghe S.p.a.)	do.	18.
Iron ore		ArcelorMittal Prijedor (ArcelorMittal S.A., 51%) and Rudnici Zeljezne Rude "Ljubija" a.d.	Jezero and Buvac open pit mines at Ljubija	1,500. ^e
Lead-zinc ore		NA	Mine and mill at Srebrenica	NA. ²
Manganese ore		Rudnik Mangana Buzim (LM IMPEX)	Mine and concentrator at Buzim	NA. ²
Petroleum, refined	42-gallon barrels per day	Rafinerija nafte Brod a.d. (OAO "NefthegazlnKor," 77.99%)	Oil refinery at Bosanski Brod	24,000. ^e
Do.		Rafineriji ulja Modriča a.d. Modriča (OAO "NefthegazlnKor," 77%)	Oil refinery at Modrica	NA.
Pig iron		ArcelorMittal Zenica (ArcelorMittal S.A.)	Blast furnace at Zenica	NA.
Salt		Rudnik Soli Tuzla d.d.	Tuzla	NA.
Steel, crude		ArcelorMittal Zenica (ArcelorMittal S.A.)	Plant at Zenica	1,000.
Steel, crude, secondary		Jelsingrad Livar Steel Foundry a.d.	Banja Luka	NA.

^eEstimated. Do., do. Ditto. NA Not available.

¹The ferroalloys and ferrosilicon plant at Jajce was sold to Steelmin Ltd. of the United Kingdom in October 2011. Work to redevelop the plant was underway, and the plant was expected to be put into operation by 2013.

²Available information is not sufficient to determine if the operation is still active.