



2011 Minerals Yearbook

ROMANIA

THE MINERAL INDUSTRY OF ROMANIA

By Alberto Alexander Perez

Romania's mineral production was not significant in terms of world production, and the mineral industry was dependent on imports of mineral ores and concentrates to produce refined metals. European Union (EU) membership was achieved on January 1, 2007, which prompted the cessation or steep decline of metallic ore mining activities for copper, iron ore, lead, and zinc. In 2011, Romania's gross domestic product (GDP) decreased by 2.5% to \$267 billion in 2011. Industrial production made up about 20.2% of the GDP (U.S. Central Intelligence Agency, 2012).

Minerals in the National Economy

The Government did not report the percentage of Romania's GDP that was from mining, quarrying, and metal production activities. Romania was one of the last countries in Europe in which metal ore mining was still ongoing. The country produced alumina, copper ore, and gold (table 1).

Production

Growth in the production of most mineral commodities was mixed. In 2011, significant increases in production were estimated for alumina (the output of which was estimated to have increased by 15.5%), primary aluminum (9.1%), and crude steel (2.3%). Estimated decreases included lead metal (the output of which was estimated to have increased by 32.1%) and pig iron (7.5%).

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Bauxite and Alumina and Aluminum.—Romania's only alumina plant, which was located in Tulcea, was owned by Alum S.A. (Alum) (part of the Vimetco Group NV of the Netherlands). The plant had been closed for modernization in 2007 and was reopened in 2010. In 2011, Alum stated that the plant was expected to have an average production of 500,000 metric tons per year (t/yr) (Vimetco N.V., 2012).

Gold.—In May, Gabriel Resources Ltd. of Canada won its case in the Romanian Court of Appeals, which gave a validation of Gabriel Resources' permits that had been challenged by groups opposing the development of the Rosia Montana gold project. It was the 10th favorable decision for Gabriel Resources during the previous 15 months in the Romanian courts. The project had been put on hold when the technical review of the company's environmental impact assessment (EIA) by the Ministry of Environment was suspended in September 2007. The review was restarted in late

2010 and continued through 2011. Gabriel Resources reported proven reserves of 5.9 million troy ounces [180 metric tons (t)] of gold and 32.6 million troy ounces (1,010 t) of silver, and probable reserves of 4.2 million troy ounces (130 t) of gold and 15 million troy ounces (470 t) of silver. The company estimated that the project could produce an average of 511,000 troy ounces per year of gold during a 16-year mine life and could make Romania a significant European gold producer (Corser and others, 2009, p. 3; Gabriel Resources Ltd., 2011a, p. 5–6; 2011b, 2012).

Lead and Zinc.—Sometra S.A., which was Romania's only primary producer of lead and zinc metal, was owned by Mytilineos Holdings S.A. of Greece. The holding company suspended production in January 2009 and declared in its 2011 annual report that it planned to abandon zinc-lead production while exploiting the remaining stock in the plant (Mytilineos Holdings S.A., 2012, p. 105).

Industrial Minerals

Cement.—In 2011, reported cement production in Romania increased compared with that of the previous year, returning to a production level comparable with that of 2009 but still well below the 5-year high of 11 million metric tons (table 1). The long-term decrease was possibly owing to weak demand in the domestic construction sector. Romania's cement production capacity had increased in 2010 by 2.8 million metric tons per year (Mt/yr) to 16.9 Mt/yr owing to investments made in existing plants. Holcim (Romania) S.A. had increased the capacity of its plants in 2010 by 1 Mt/yr, Carpatcement Holding S.A. had increased the capacity of its plant at Bicaz by 1.4 Mt/yr, and Lafarge Ciment S.A. had increased the capacity of its plants by 0.4 Mt/yr (HeidelbergCement AG, 2010, p. 67; Holcim Ltd., 2010, p. 187; Lafarge S.A., 2010, p. 30).

Outlook

Romania's mineral production was stable in 2011 with significant increases in the production of alumina, aluminum, and iron and steel. The level of output was mostly driven by international demand for its products in 2011, in particular demand from the EU. Modernization of facilities to meet EU standards is likely to be the most important priority for the industry. The European economic environment will also continue to affect production and sales of Romania's mineral products.

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TABLE 1
ROMANIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2007	2008	2009	2010	2011
METALS					
Alumina, calcined, gross weight	23,097	--	44,000	450,000 ^e	520,000 ^e
Aluminum:					
Primary	262,505	264,752	201,000	240,000 ^e	262,000 ^e
Secondary	11,674	12,149	10,544	18,282 ^r	21,020
Total	274,179	276,901	211,544	258,000 ^{r,e}	283,000 ^e
Copper:					
Mine output, Cu content of concentrate ^e	2,213 ³	2,000	1,000	5,000	6,500
Metal, refined:					
Primary	15,589	12,000	3,000 ^r	3,000	--
Secondary ^e	3,000	3,000	1,000 ^r	1,000	--
Total ^e	18,600	15,000	4,000	4,000	--
Gold, mine output, Au content ^e	400	400	400	400	500
Iron and steel:					
Iron ore:					
Gross weight	45 ^e	-- ^e	--	--	--
Metal content	11	--	--	--	--
Metal:					
Pig iron	3,923	2,945	1,575 ^r	1,726	1,595
Ferroalloys, electric furnace:					
Ferrochromium ^e	--	6,000	15,000	14,000	--
Silicomanganese ^e	26,868 ³	10,000	--	20,000	31,000
Total ^e	26,868 ³	16,000	15,000	34,000	31,000
Steel, crude	6,261	5,035	2,761	3,724 ^r	3,811
Finished products: ^e					
Pipes and tubes	620	850	450	678	799
Rolled products	5,589 ³	4,500	2,800	3,762 ^{r,3}	4,061 ³
Lead:					
Mine output, Pb content of concentrate	800	--	--	--	--
Smelter, primary ^e	800	--	--	--	--
Refined:					
Primary	34,368	34,000	9,000	11,000	6,500
Secondary ^e	5,000	5,000	3,000	3,000	3,000
Total ^e	39,400	39,000	12,000	14,000	9,500
Manganese, Mn content of ore: ^e					
Gross weight	55	50	15	--	--
Mn content	11	10	3	--	--
Silver, mine output, Ag content ^e	18	18	18	--	--
Zinc:					
Mine output, Zn content of concentrate	1,000	--	--	--	--
Metal, refined, primary and secondary	58,000	62,000 ^e	300	200	220 ^e

See footnotes at end of table.

TABLE 1—Continued
ROMANIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2007	2008	2009	2010	2011
INDUSTRIAL MINERALS					
Cement, hydraulic ^c	10,000	11,000	7,800	7,000 ³	7,846 ³
Clays:					
Bentonite, marketable	16,911	16,643	13,756	20,000 ^e	18,008
Kaolin, marketable	7,576	3,166	1,000 ^e	500	--
Diatomite ^c	2,000	--	--	--	--
Feldspar ^c	45,000	25,000	14,000	5,500 ^r	2,500
Fluorspar ^c	15,000	15,000	15,000	15,000	--
Graphite	--	-- ^e	20,000 ^e	7,000	--
Gypsum	707	885	600	600 ^e	1,617
Lime ^c	2,000	2,000	1,600	1,700	1,679 ³
Nitrogen, N content of ammonia ^c	1,300	1,300	40	80	160
Salt: ^c					
Rock	51 ³	50	40	40	40
Other	2,424 ³	2,400	2,000	2,400	2,500
Total	2,475 ³	2,450	2,040	2,500	2,500
Sand and gravel ^c	5,000	5,000	3,000	2,700	3,340
Sodium compounds:					
Caustic soda ^c	475	650	300	300	342 ³
Soda ash, manufactured, 100% Na ₂ CO ₂ basis	453	450 ^e	400 ^e	350	420
Sulfuric acid ^c	-- ³	--	500	383 ^r	2,100
Talc ^c	1,450	1,700	500	307 ^r	100
MINERAL FUELS AND RELATED MATERIALS					
Coal, brown and lignite ^c	32,500	35,000	30,000	30,000	35,000
Coke, metallurgical	1,558 ³	1,080	320	--	--
Gas, natural, gross:					
Associated ^c	1,100	1,000	1,000	1,161 ^{r,3}	1,182 ³
Nonassociated ^c	11,100	10,400	9,860	9,694 ^{r,3}	9,823 ³
Total	12,245	11,400 ^e	10,860	10,855 ^{r,3}	11,005 ³
Petroleum: ^c					
Crude ⁴	38,200	36,000	33,700	33,000	31,000
Refinery products ⁵	109,000	112,000	97,300	95,000	79,000
Uranium, U ₃ O ₈ content ^c	91	91	88	88	88

^cEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through October 11, 2012.

²In addition to the commodities listed, a variety of construction materials are produced; antimony, asbestos, bismuth, and pyrites may have been produced; and molybdenum may have been produced as a byproduct of copper from 1988 on; however, available information is inadequate to make reliable estimates of output.

³Reported figure.

⁴Figures converted to barrels from production in metric tons, which was reported as the following: 2007—5,086,000; 2008—4,798,000; 2009—4,494,000; 2010—4,490,000 (estimate); and 2011—4,000,000 (estimate).

⁵Figures converted to barrels from production in metric tons, which was reported as the following: 2007—13,648,000; 2008—13,974,000; 2009—12,165,000; 2010—12,000,000 (estimate); and 2011—10,000,000 (estimate).

TABLE 2
ROMANIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Alum S.A. (Vimetco NV, 99.4%)	Plant at Tulcea, Danube Delta	600
Aluminum:			
Primary	Alro S.A. (Vimetco NV, 88%)	Slatina, 120 kilometers west of Bucharest	265
Secondary	Neferal S.A. (Member of Metanef Group)	Bucharest	NA
Cement	Holcim (Romania) S.A. (Holcim, 100%)	Plants at Alesd, Campulung, and Turda	5,700
Do.	Carpatcement Holding S.A. (HeidelbergCement AG, 99%)	Plant at Bicaz, northeastern Romania	3,000
Do.	do.	Plant at Fieni, 90 kilometers northwest of Bucharest	1,650
Do.	do.	Plant at Deva, western Romania	1,650
Do.	Lafarge Ciment S.A. (Lafarge S.A., 99%)	Plants at Hoghiz and Medgidia	4,900
Coal:			
Bituminous	Compania Nationala a Huilei-Petrosani (Government)	7 mines located near Petrosani	3,500 ^e
Lignite	Societatea Nationala a Lignitului Oltenia (Government)	Tismana I-II, Garla-Rovinari Est, and Pinoasa opencast mines at Rovinari	8,000 ^e
Do.	do.	Rosia, Pesteana Nord, and Pesteana Sud-Urdari opencast mines at Balteni	6,900 ^e
Do.	do.	Udari underground mine at Udari	300 ^e
Do.	do.	Jilt Sud and Jilt Nord opencast mines at Matasari	7,000 ^e
Do.	do.	Dragotesti underground mine at Matasari	600 ^e
Do.	do.	Lupoia and Rosiuta opencast mines at Motru	5,000 ^e
Do.	do.	Plostina, Horasti, and Lupoia underground mines at Motru	1,600 ^e
Do.	do.	Seciuri, Oltet, Berbesti-Vest, and Panga opencast mines near Berbesti	2,000 ^e
Do.	do.	Albeni underground mine at Bolbocesti	555 ^e
Do.	do.	Husnicioara-Vest opencast mine near Drobeta Turnu Severin	2,500 ^e
Do.	do.	Zegujani underground mine about 18 kilometers northeast of Drobeta Turnu Severin	600 ^e
Do.	Societatea Nationala a Carbunelui Ploiesti (Government)	8 mines located near Campulung, Baraolt City, Sarmasag, Popesti Commune, Comanesti Commune, Filipestii de Padure Commune, Sotanga Commune, and Borsec City	3,000 ^e
Do.	SC Complexul Energetic Craiova SA (Ministry of Economy, 73%)	Prigaria Mine	1,000 ^e
Coke	ArcelorMittal Galati (ArcelorMittal, 100%)	Galati, north of Brail	2,100
Copper:			
Ore (concentrate, Cu content)	Compania Nationala REMIN S.A., Compania Nationala Minvest, and Moldomin S.A. (Government)	Baia Mare, Baia Sprie, and Cavnic Mines, in northwestern area near the Ukrainian border; Rosia Montana, Noud, Borsa Balan, and Lesul Ursului Mines, in east-west arc along along Carpathian range; Rosia Poieni Mine; Moldova Noua	27
Metal	Cuprom S.A. Baia Mare	Smelter and electrolytic refinery at Baia Mare	40
Ferroalloys, ferrochromium	S.C. Feral s.r.l.	Complex at Tulcea	NA
Iron ore	Compania Nationala Minvest (Government)	Mining complex at Hunedoara, in west-central Romania	1,320
Do.	do.	Resita Mining Complex, southwestern Romania	660
Do.	do.	Napoca-Cluj Mining Complex, northwestern Romania on the Somesul River	990

See footnotes at end of table.

TABLE 2—Continued
ROMANIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Lead:				
In ore		Compania Nationala REMIN S.A. (Government)	Baia Mare Mine, near Ukrainian and Hungarian borders	12
Do.		Compania Nationala Minvest (Government)	Vetel Mine, near Deva	5
Metal		Neferal S.A. (Member of Metanef Group)	Bucharest	25
Natural gas	million cubic meters	SNGN Romgaz S.A. (Romanian Ministry of Economy, 85.01%, and Fondul Proprietatea, 14.99%)	Operated more than 150 reservoirs in Moldova, Muntenia, and Transylvania regions	NA
Do.	do.	S.C. OMV Petrom S.A. [OMV AG, 51.01%; Romanian Ministry of Economy, 20.64%; Property Fund S.A. (Government), 20.11%]	Approximately 250 commercial oil and gas fields located in southern and western Romania and offshore in the Black Sea	NA
Petroleum:				
Crude		do.	do.	NA
Refined		do.	Arpechim refinery, just south of Pitesti	3,500
Do.		do.	Petrobrazi refinery, just south of Ploiesti	4,500
Do.		Rompetrol Rafinarie S.A. (Rompetrol Group)	Refinery at Navodari	4,500
Do.		Vega Ploiesti Refinery (Rompetrol Group)	Refinery just north of Ploiesti	500
Do.		S.C. RAFO S.A.	Refinery at Onesti	3,000 ^e
Do.		S.C. Petrotel S.A. (OAO Lukoil)	Refinery just east of Ploiesti	2,400
Do.		Astra Refinery	Refinery in Ploiesti	NA
Do.		Refinaria Petrolsub Suplacu de Barcau	Refinery at Suplacu de Barcau	NA
Do.		Darmanesti Refinery	Refinery at Darmanesti in eastern Romania	NA
Steel		ArcelorMittal Galati (ArcelorMittal, 100%)	Galati, north of Brail	4,500 ^e
Do.		ArcelorMittal Hunedoara (ArcelorMittal, 100%)	Hunedoara, west-central Romania, near Calan	NA
Do.		S.C. Donasid S.A. (Tenaris S.A., 99%)	Calarasi in southeastern Romania	470
Do.		S.C. TMK-Resita S.A. (OAO TMK, 100%)	Resita in southwestern Romania	450
Do.		Mechel Targoviste (OAO Mechel, 87%)	Targoviste	630 ^e
Do.		Mechel Campia Turzii SA (OAO Mechel, 87%)	Campia Turzii, northwestern Romania	300 ^e
Do.		Ductil Steel (OAO Mechel, 100%)	Otelu Rosu in southwestern Romania	400 ^e
Uranium		Compania Nationala a Uraniului (Government)	Suceava county	NA
Zinc, in ore		Compania Nationala Minvest (Government)	Baia Mare, near Ukrainian and Hungarian borders	12
Do.		Compania Nationala REMIN S.A. (Government)	Vetel Mine, near Deva	45

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