



2007 Minerals Yearbook

ROMANIA

THE MINERAL INDUSTRY OF ROMANIA

By Mark Brininstool

Romania's mineral production was mainly of regional importance and the country remained dependent on imports of mineral ores and concentrates to produce refined metals. On January 1, 2007, Romania joined the European Union (EU), but was still obligated to meet certain requirements, such as reduce the levels of corruption and industrial pollution, to qualify for the full benefits of EU membership. EU membership was affecting Romania's mineral industry as some facilities were being forced to modernize or close to meet EU standards and as increased access to European markets was creating trade opportunities.

Minerals in the National Economy

In 2007, Romania's real gross domestic product (GDP) grew by about 6% compared with the GDP in 2006. The value of industrial production increased by 5.1% and made up about 23% of the GDP in 2007 (National Institute of Statistics, 2008, p. 134, 135). In 2005 (the latest year for which data were available), mining and quarrying activities (including hydrocarbon extraction) accounted for about 5% of the value of industrial production and 1% of the GDP; metallurgy accounted for about 3% of the value of industrial production and 0.7% of the GDP (National Institute of Statistics, 2007, p. 437, 444, 446). The steep drop in the production of metal ores and some refined metals in Romania that began in 2006 most likely reduced the value of mineral production as a percentage of industrial production and the GDP in 2007.

Production

Production of most metals decreased significantly in 2007, whereas production of mineral fuels generally maintained 2006 production levels. In 2007, alumina production decreased by about 96% compared with production in 2006 because of the closure of the Cemtrade Oradea alumina plant in late 2006 and the temporary closure of the Alum S.A. alumina plant in February 2007 for modernization. Alum S.A. had not restarted alumina production by the end of 2007 (Vimetco N.V., 2008, p. 13, 19, 82; Central European Aluminum Co., 2009). Copper content of ore production decreased by 82%, and primary refined copper production decreased by 16%. Production of iron ore (metal content) decreased by 73% in 2007, and total ferroalloy production decreased by 52%; crude steel maintained its 2006 production level. Production of lead and zinc concentrate (metal content) decreased by 88% and 89%, respectively. Despite the reduction in lead and zinc mine output, primary refined lead production increased by 18%, and total refined zinc production increased by 34%. Production of manganese content of concentrate decreased by 15% in 2007.

The steep drop in the mine output of metals was most likely a result of mine closures and restructuring undertaken as a condition of membership in the EU. Romania was required to

eliminate all subsidies given to metal and mineral mines by 2007 and all subsidies given to coal mines by 2010. In 2004, Romania received a loan from The World Bank to enact a mine closure program that would reduce the negative economic and social effects of shutting down certain mining operations (World Bank, The, 2004, p. 1). In 2006, the Romanian Government stated that companies that exceeded the EU target pollution rate and that had not been approved for special transition periods in which to reduce emissions would either be shut down or would face substantial fines. Implementation of the new policy was soon evident. For example, Compania Nationala Remin S.A., a state-owned mining company, announced in August 2006 that, in accordance with the World Bank sponsored program, it would suspend funding for 20 of its mines beginning in January 2007 (Rompres, 2006, 2007).

Industrial mineral production had mixed results in 2007. Diatomite production decreased by 99%, talc production decreased by 49%, and marketable kaolin and bentonite production decreased by 38% and 30%, respectively. Production increased significantly for feldspar (36%), cement (22%), and gypsum (15%).

In the mineral fuels sector, natural gas and crude petroleum production each increased slightly, whereas production of metallurgical coke decreased by 13% compared with production in 2006.

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Outlook

Production of metal ores and concentrates fell sharply in 2007, and Romania's mineral industry will most likely maintain very low levels of production until the mining industry is fully privatized and restructured. Many mines are expected to remain closed permanently as subsidies are withdrawn to meet EU standards. Production of processed metals is expected to continue at about the same level, although producers will likely be under pressure to modernize facilities to meet EU standards. Coal production is also expected to decrease as subsidies are discontinued and mines are closed.

References Cited

- Central European Aluminum Co., 2009, Cemtrade Oradea: Podgorica, Montenegro, Central European Aluminum Co. (Accessed March 24, 2009, at <http://www.ceacgroup.com/index1.php?module=1&sub=3>.)
- National Institute of Statistics, 2007, Statistical yearbook 2007: Bucharest, Romania, National Institute of Statistics, 878 p.
- National Institute of Statistics, 2008, Monthly statistical bulletin—January 2008: Bucharest, Romania, National Institute of Statistics, March, 199 p. (Accessed March 30, 2009, at <http://www.insse.ro/cms/rw/pages/arhivabuletine2008.en.do>.)

- Rompres, 2006, Profit-making mines targeted by Italian-Chinese company: Bucharest, Romania, August 28, no. 35. (Accessed April 1, 2009, at http://moscova.mae.ro/index.php?lang=en&id=22&cmd=show&id_nwl=341.)
- Rompres, 2007, Companies that fail to observe European standards in domain of environment are obliged to close their doors or change domain of activity: Rompres, January 9. (Accessed March 30, 2009, at https://www.opensource.gov/portal/server.pt/gateway/PTARGS_0_0_200_203_51_43/http%3B/apps.opensource.gov%3B7011/opensource.gov/content/Display/6736478?highlightQuery=eJzT8M3MK0stLIFw9HNRCMrPTczLTNQEAE3bBx1%3D&fileSize=5548.)
- Vimetco N.V., 2008, Annual report 2007: Amsterdam, Netherlands, April 28, 109 p. (Accessed December 2, 2008, at http://www.vimetco.com/tl_files/vimetco/downloads/VI_Annual_Report_2007.pdf.)
- World Bank, The, 2004, Project appraisal on proposed loan in the amount of US\$120 million equivalent to Romania for a mine closure, environmental and socio-economic regeneration project: Washington, DC, The World Bank report no. 30517-RO, November 18, 85 p.

TABLE 1
ROMANIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2003	2004	2005	2006	2007	
METALS						
Aluminum:						
Alumina, calcined, gross weight	332,852	559,307	688,829	622,083 ^r	23,097	
Ingot including alloys:						
Primary	196,844	222,347	243,605	266,585 ^r	286,266	
Secondary	7,892	6,506	7,109	10,524 ^r	11,674	
Total	204,736	228,853	250,714	277,109 ^r	297,940	
Copper:						
Mine output, Cu content of concentrate	23,389	18,767 ^r	15,000 ^r	12,132 ^r	2,213	
Metal:						
Smelter:						
Primary	4,456	61	--	--	--	
Secondary ^e	500	10	10	10	10	
Total	4,956	71	10	10	10	
Refined:						
Primary	14,739 ^r	21,562 ^r	18,739 ^r	18,600 ^r	15,589	
Secondary ^e	2,000	3,000 ^r	2,000	3,000 ^r	3,000	
Total	16,739 ^r	24,562 ^r	20,739 ^r	21,600 ^r	18,589	
Gold, mine output, Au content ^e	400	400	400	400	400	
Iron and steel:						
Iron ore:						
Gross weight	thousand metric tons	304	275	265	123 ^r	45 ^e
Metal content	do.	82	74	69	40 ^r	11
Metal:						
Pig iron	do.	4,101	4,244	4,098	3,946 ^r	3,923
Ferroalloys, electric furnace:						
Ferromanganese	--	191	18,625	3,329 ^r	--	
Silicomanganese	141,899	194,754	100,957	53,085 ^r	26,868	
Silicon metal ^e	100	--	--	--	--	
Total	141,999	194,945	119,582	56,414 ^r	26,868	
Steel, crude	thousand metric tons	5,692	6,077	6,280 ^r	6,266 ^r	6,261
Semimanufactures:						
Pipes and tubes	do.	453	486	529 ^r	580 ^r	468
Rolled products	do.	4,757	5,191	5,196	5,696 ^r	5,529
Lead:						
Mine output, Pb content of concentrate	15,747	18,297	11,610	6,269 ^r	784	
Smelter, primary ^e	16,000	19,000	12,000	7,000	800	
Refined:						
Primary	23,100	32,590	32,903	29,130 ^r	34,368	
Secondary ^e	5,000	5,000	5,000	5,000	5,000	
Total	28,100 ^e	37,590	37,903	34,130 ^r	39,368	
Manganese:						
Ore, gross weight ^e	thousand metric tons	90 ³	95 ³	95	95	80
Concentrate:⁴						
Gross weight ^e	do.	60	65	65	65	55
Mn content	do.	15	16	14	13 ^r	11
Silver, mine output, Ag content	18	18 ^e	15	18	18 ^e	
Zinc:						
Mine output, Zn content of concentrate	22,081	23,599	13,784	8,052 ^r	849	
Metal, refined, primary and secondary	48,000	52,746	57,000 ^r	43,705	58,342	
INDUSTRIAL MINERALS						
Barite, processed	23	--	--	--	--	
Cement, hydraulic	thousand metric tons	5,992	6,239	7,032	8,252 ^r	10,061

See footnotes at end of table.

TABLE 1—Continued
ROMANIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2003	2004	2005	2006	2007	
INDUSTRIAL MINERALS—Continued						
Clays:						
Bentonite:						
Run of mine ^c	40,000	40,000	40,000	40,000	30,000	
Marketable	21,724 ^r	22,337 ^r	20,226 ^r	21,165 ^r	14,713	
Kaolin:						
Run of mine ^c	70,000	70,000	65,000	65,000	35,000	
Marketable	25,741 ^r	22,337	20,266	11,063 ^r	6,879	
Diatomite	33,296	20,626	1,017	1,719 ^r	15	
Feldspar	71,717 ^r	60,924	74,920 ^r	33,100 ^r	44,897	
Fluorspar ^c	15,000	15,000	15,000	15,000	15,000	
Graphite	-- ^r	395	478	--	--	
Gypsum	thousand metric tons	394 ^r	490	502	615 ^r	707
Lime	do.	1,963 ^r	1,978	1,791 ^r	1,942 ^r	1,901
Nitrogen, N content of ammonia ^c	do.	1,180 ³	1,182 ³	1,300 ^r	1,300 ^r	1,300
Pyrites, gross weight ^c	do.	70	70	70	70	70
Salt:						
Rock	do.	47	43	46	47 ^r	51
Other	do.	2,417 ^r	2,357	2,374	2,574 ^r	2,424
Total	do.	2,464 ^r	2,400	2,420	2,621 ^r	2,475
Sand and gravel	do.	641 ^r	555 ^r	475 ^r	522 ^r	520
Sodium compounds, n.e.s.: ⁵						
Caustic soda	do.	382	414	443	477 ^r	473
Soda ash, manufactured, 100% Na ₂ CO ₂ basis	do.	407	398 ^r	346 ^r	453 ^r	453
Sulfur, byproduct, all sources ^c	do.	200	200	200	-- ^r	--
Sulfuric acid	do.	65,000	28,000	11,000	5,000 ^{r,c}	--
Talc	do.	10,082	10,000 ^{r,c}	10,000 ^{r,c}	2,967	1,513
MINERAL FUELS AND RELATED MATERIALS						
Carbon black	do.	2,000	-- ^r	-- ^r	-- ^r	--
Coal, washed:						
Anthracite and bituminous	thousand metric tons	3,309 ^r	3,016 ^r	3,079 ^r	2,587 ^r	2,500 ^e
Brown	do.	240	112	52	63 ^r	--
Lignite	do.	32,813	31,479	31,070	34,791 ^r	35,418
Total	do.	36,362	34,607	34,201	37,441	37,918
Coke:						
Metallurgical	do.	1,550	1,573	1,777	1,790 ^r	1,557
Other	do.	88	--	--	--	--
Total	do.	1,638	1,573	1,777	1,790 ^r	1,557
Gas, natural, gross:						
Associated	million cubic meters	1,345	1,267	1,220	1,088 ^r	1,123
Nonassociated	do.	11,829	12,023	11,252	10,854 ^r	10,858
Total	do.	13,174	13,290	12,472	11,942 ^r	11,981
Petroleum:						
Crude:						
As reported	thousand metric tons	5,651	5,465	5,212	4,777 ^r	4,837
Converted ^c	thousand 42-gallon barrels	42,500	41,000	40,000	36,000 ^r	36,000
Refinery products ^c	do.	75,000	75,000	70,000	70,000	70,000

^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 March 31, 2009.

²In addition to the commodities listed, antimony, asbestos, and a variety of construction materials are produced, molybdenum may have been produced as a byproduct of copper from 1988 on, and small amounts of bismuth may have been produced; output is not reported quantitatively, however, and available information is inadequate to make reliable estimates of output.

³Reported figure.

⁴Estimated series are based on published data for concentrate production.

⁵Not elsewhere specified.

TABLE 2
ROMANIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2007

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies (Government-owned unless otherwise specified)	Location of main facilities	Annual capacity
Alumina	Cemtrade Oradea (Part of CEAC Group)	Plant at Oradea, near Hungarian border	250.
Do.	Alum S.A. (99.4% controlled, directly or indirectly, by Vimetco NV)	Plant at Tulcea, Danube Delta	500.
Aluminum, primary	Alro S.A. (87% controlled, directly or indirectly, by Vimetco NV)	Slatina, 120 kilometers west of Bucharest	300.
Barite	Ministry of Industry	Ortra Mine, Rosia Montana, southwest of Cluj	100.
Bauxite	do.	Oradea-Dobresti Mining Complex, near Hungarian border	350.
Cement	Holcim (Romania) S.A. (Holcim, 100%)	Plant at Turda, 600 kilometers from Port of Constanta	1,360, cement; 850, clinker.
Do.	do.	Plant at Campulung, about 499 kilometers from Port of Constanta	2,200, cement; 1,360, clinker.
Do.	do.	Plant at Alesd, 812 kilometers from Port of Constanta	3,500, cement; 2,120, clinker.
Do.	Carpatcement Holding S.A. (HeidelbergCement, 99%)	Plant at Bicaz, about 450 kilometers from Port of Constanta	3,100, cement; 1,520, clinker.
Do.	do.	Plant at Fieni, about 420 kilometers from Port of Constanta	1,650, cement; 960, clinker.
Do.	do.	Plant at Deva, about 490 kilometers from Port of Constanta	1,650, cement; NA, clinker.
Do.	Lafarge Ciment (Lefarge Cement, 78%)	Plant at Hoghiz, 437 kilometers from Port of Constanta	2,200, cement; 1,520, clinker.
Do.	do.	Medgidia plant, about 35 kilometers west of Constanta	3,500, cement; 1,980, clinker.
Do.	do.	Plant at Targu Jiu, about 533 kilometers from Port of Constanta	3,000, cement; 2,045, clinker.
Coal:			
Bituminous	Compania Nationala a Huilei-Petrosani	Valea Jiului Mining Complex, near Hunedoara	10,400.
Lignite	Societatea Nationala a Lignitului Oltenia-Targu Jui	Jiu Valley, Oltenia County, north of Craiova	20,300.
Do.	Societatea Nationala a Carunelui-Ploiesti	About 50 kilometers north of Bucharest	8,700.
Copper:			
Ore (concentrate, Cu content)	Compania Nationala REMIN S.A. and Compania Nationala Minvest	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 Carpathian range; Rosia Poieni Mine; and Moldova Noua Mine, in southwest near Danubian border with Serbia	27.
Metal	Cuprom S.A. Baia Mare (Cuprom S.A.)	Outokumpu flash smelter and electrolytic refinery at Baia Mare in the northwest, near the Ukrainian border	40.
Ferroalloys	Ferom-Joint Stock Co.	Complex at Tulcea	280.
Iron ore	Compania Nationala Minvest	Mining complex at Hunedoara, in west-central Romania	1,320.
Do.	do.	Resita Mining Complex, southwestern Romania, near Serbian border	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 2007

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies (Government-owned unless otherwise specified)	Location of main facilities	Annual capacity
Lead:				
In ore		Compania Nationala REMIN S.A.	Baia Mare Mine, near Ukrainian and Hungarian borders	24.
Do.		Compania Nationala Minvest	Balan Mine, 50 kilometers southwest of Piatra Neamt	10.
Metal		Sometra S.A. (Mytilineos Holdings S.A., 93%)	Imperial smelter at Copsa Mica, central Romania, on the Timava Mare River	18.
Do.		Neferal S.A. (Member of Metanef Group)	Bucharest	25.
Natural gas	million cubic feet per year	Ministry of Industry, Department of Energy	Tirgu Mures field at Tirgu Mures, north-central Romania	996,000.
Do.	do.	do.	Ploesti field, 50 kilometers north of Bucharest	249,000.
Petroleum:				
Crude	42-gallon barrels per day	do.	Ploesti-Teleajen, Pitesti, and Tirgoviste fields, in Prahova Valley around Bucharest; Bacau field at Bacau, east-central Romania near the Siretul River; and West Carpathian field, southeastern Carpathian Mountains, between the west bank of the Olt River and Tirgu Jiu	250,000.
Refined	do.	do.	Refineries at Brazil, Pitesti, Onesti, Barcau, Borzesti, Brasov, Cimpina, Darmanesti, Oradea, Ploesti, Teleajen, and Navodari	664,000.
Steel		Ductil Steel (part of Lakewind Ltd.)	Otelu Rosu in southwestern Romania	400.
Do.		Mechel Campia Turzii SA (Mechel)	Campia Turzii, Cluj, northwestern Romania	300.
Do.		ArcelorMittal Galati (Arcelor Mittal, 100%)	Galati, north of Brail, near the Ukrainian border	10,000.
Do.		ArcelorMittal Hunedoara (Arcelor Mittal, 100%)	West-central Romania, near Calan	2,135.
Do.		TMK-Resita (OAO TMK, 99.5%)	Southwestern Romania, about 20 kilometers southwest of Caransebes	450.
Do.		S.C. Donasid S.A. (Tenaris S.A., 99%)	Calarasi, near the Bulgarian border close to the Danube	470.
Do.		Mechel Targoviste (Mechel)	Targoviste, Dimbovita, near Bucharest	450.
Zinc:				
In ore		Compania Nationala Minvest	Baia Mare, near Ukrainian and Hungarian borders	12.
Do.		Compania Nationala REMIN S.A.	Vetel (Deva)	45.
Metal		Sometra S.A. (Mytilineos Holdings S.A., 93%)	Imperial Smelter at Copsa Mica, Timava River, central Romania	62

Do., do. Ditto. NA Not available.