



2010 Minerals Yearbook

GEORGIA

THE MINERAL INDUSTRY OF GEORGIA

By Elena Safirova

Prior to the proclamation of Georgian independence in 1991, a range of mineral commodities were mined in Georgia, including arsenic, barite, bentonite, coal, copper, diatomite, lead, manganese, zeolites, and zinc, among others. The country's metallurgical sector produced ferroalloys and steel. Since 1991, production of many of these mineral commodities had ceased or been significantly reduced.

Georgia had a sizable hydropower capacity, only a fraction of which was being used. In recent years, Georgia had become a major exporter of electricity in the region, exporting 1.3 billion kilowatt-hours in 2010. Hydropower stations in Georgia produced 80% to 85% of the electricity used in the country, and the remaining 15% to 20% was produced by thermal power stations. According to the Ministry of Energy, Georgia had thus far been exploiting only 18% of its hydropower resource potential. The country was planning to begin construction of 15 new hydropower stations of various sizes and capacities. All together, the new plants would have the capacity to produce 2 billion kilowatt-hours per year of electric power (Borodin, 2011; U.S. Central Intelligence Agency, 2012).

In 2010, Georgia imported about 80% to 90% of the petroleum used for domestic consumption, mostly from Azerbaijan. In the past, natural gas was supplied to Georgia by Russia. In recent years, however, Georgia had been trying to reduce its dependence on Russian gas imports by boosting hydropower production and importing natural gas from Azerbaijan. All Russian gas exports to Armenia passed through the Georgian pipeline system, and Georgia received 10% of the gas as a transit fee (U.S. Department of State, 2012).

Minerals in the National Economy

In 2010, the gross domestic product (GDP) of Georgia increased by 8.0% compared with that of 2009, to \$11.6 billion. Real GDP increased by 6.3% in 2010 compared with that of 2009. The share of industrial production in the GDP in 2010 was 27.1%. Mining and quarrying accounted for 5.3% of the value of industrial production; and the mining of metal ores contributed 49.3% of the total value of mining and quarrying (National Statistics Office of Georgia, 2011c).

In 2010, foreign direct investment (FDI) increased by 23.7% to \$814.5 million from \$658.4 million in 2009. The United States was the leading investor in Georgia (provided 16.7% of the total FDI received by Georgia) in 2010, followed by Turkey (11.3%), the Netherlands (9.0%), the United Kingdom (7.2%), Azerbaijan (7.1%), and the United Arab Emirates (6.8%). The FDI by the European Union was \$248 million, or 30% of the total. The FDI in mining and manufacturing was \$228.8 million, or 28.1% of the total (National Statistics Office of Georgia, 2011b).

In 2010, Georgia ran a substantial trade deficit—the total value of its exports (\$1.68 billion) was far exceeded by the

total value of its imports (\$5.26 billion). The country's major export trade partners were, in order of value, Azerbaijan (which received 15.4% of Georgia's exports), Turkey (13.6%), the United States (11.4%), Armenia (10.1%), Ukraine (6.5%), and Canada (5.5%). Its major import trade partners were, in order of value, Turkey (which supplied 17.4% of Georgia's imports), Ukraine (11.0%), Azerbaijan (9.1%), China (6.6%), Germany (6.5%), and Russia (5.5%). Mineral commodities, especially metals, played a significant role in the country's exports. Ferroalloys accounted for 16.7% of the country's total export value; ferrous waste and scrap, 6.9%; gold, 5.4%; copper ores and concentrates, 4.5%; and copper waste and scrap, 2.6%. Among the country's imports, the largest single category was petroleum, petroleum products, and other hydrocarbons, which made up 16.2% of the total (National Statistics Office of Georgia, 2011a).

Production

Most of the data in table 1 were estimated because 2010 production data for most mineral commodities were not available. Because of the reported increases in Georgia's GDP, its industrial output, and the value of output in the mining and refining sectors, the production volumes of metals, industrial minerals, and mineral fuels were estimated to have increased in 2010. Production of ferromanganese increased by an estimated 93.3%; that of silicomanganese, by an estimated 81.6%; bituminous coal, by an estimated 42.8%; gypsum, by an estimated 20.0%; and steel-reinforcing bar (rebar), by 20.0%. At the same time, production of copper decreased by 44.5%, and that of natural gas, by 35.2%. Other production data are in table 1.

Structure of the Mineral Industry

Georgia's main nonferrous and precious metals mining enterprise was JSC Madneuli, which mined a large copper-gold and barite deposit. The former Madneuli mining and beneficiation complex had been transformed in 1994 into JSC Madneuli, in which the controlling interest belonged to the state. In 2005, after changing hands several times, Madneuli became a part of the holding company GeoProMining Ltd. (GeoProMining Ltd., 2011). In 2006, British company Stemcor Holdings Ltd. merged three separate organizations into one entity to create the largest industrial company in Georgia. The three organizations were the Chiatura Manganese Mine, Zestafoni Ferroalloys Plant, and Vartshikhe Hydroelectric Power Plant. The name of the new establishment was Georgian Manganese Holding LLC, and in 2010, it employed a total of 7,000 workers. Georgian Manganese Holding was owned by the Privat Group of Ukraine (Stemcor.com, 2008).

Another Soviet-era metal plant, the Rustavi metallurgical plant, was acquired by JSW Steel Ltd. of India, which was

India's third ranked producer. JSW bought the Rustavi plant in 2006 and invested \$70 million in upgrades; the European Bank for Reconstruction and Development invested another \$14 million in this project. The goal of the reconstruction was to produce 200,000 metric tons per year (t/yr) of rebar (Bedwell, 2009).

The Kutaisi metallurgical plant was a new joint venture with Indian steel producer EurAsia Steel. The construction of the plant started in 2008 on the site of the former Kutaisi concrete structures plant. The plant was expected to reach its full production capacity of 100,000 t/yr of rebar in 2010 (Steelguru.com, 2010).

Commodity Review

Metals

Copper.—The Madneuli deposit of polymetallic ores is situated in the Bolnisi Region in southern Georgia about 80 kilometers south of Tbilisi near the borders with Armenia and Azerbaijan. The company was established in 1975 and had a long history as a respected precious metals producer in the region. The main ore types at Madneuli are barite-polymetallic ore, copper-barite ore, copper-zinc ore, gold-copper ore, and quartzite ore (JSC Madneuli, 2012). The company's primary focus was on copper, and more than 65% of the company revenue came from the sale of copper (JSC Madneuli, 2012). According to the company's Web site, annual production of copper was about 11,000 t. In 2010, Madneuli invested 1 million Georgian laris (\$561,073)¹ in corporate social responsibility activities, including cultural events, education, and restoration of churches and historic monuments.

Manganese.—For more than a century, Georgia had mined manganese ore from the Chiatura deposit. A portion of the ore was used to produce manganese ferroalloys at the Zestafoni ferroalloys plant. Since 2006, both the Chiatura Mine and the Zestafoni plant had been a part of Georgian Manganese Holding (which was owned by the Privat Group). As of the 1980s, the Chiatura deposit's resources were estimated to be 215 million metric tons (Mt) of manganese ore; by 2010, about one-half of that amount had been mined. The Chiatura manganese mine included four mines and three open quarries; the mine's annual production capacity was about 400,000 t/yr (Felman Trading Inc., 2012).

In April and May 2010, workers from the Chiatura and Zestafoni facilities held protest demonstrations demanding improvement in working conditions. Their demands included a 50% increase in pay, special pay for overtime and overnight work, and an increase in vacation time from 24 to 35 days per year. In June 2010, the Privat Group decided to satisfy workers' demands partially and increased the base pay by 15%, introduced a 20% premium for the overnight shift, and increased the minimum wage by almost 40% (Ugmk.info, 2010).

¹Where necessary, values have been converted from Georgian laris (GEL) to U.S. dollars (US\$) at an annual average exchange rate of GEL1.7823=US\$1.00 for 2010.

Outlook

In the years following Georgia's independence in 1991, the country experienced economic and political turmoil that resulted in a significant contraction of its economy. By the end of 1996, Georgia's economy had shrunk to about one-third of the 1989 level. The turmoil affected the entire Georgian economy, including the mineral industry. After the Rose Revolution of 2003, however, the new Georgian Government set out to reorient the economy toward privatization and free markets. The country conducted a sweeping tax reform and significantly reduced corruption. According to The World Bank, Georgia is one of the world's fastest-reforming economies, and in 2011, it ranked as the world's 16th easiest place to do business. With such a record, it is expected that Georgia will be able to attract foreign investment in its minerals and mining sectors and take full advantage of its significant natural resources in the next 5 to 10 years (U.S. Department of State, 2012).

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TABLE 1
GEORGIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2006	2007	2008	2009	2010
METALS					
Copper, mine output, Cu content of concentrate	9,000	11,000	11,000	11,000 ^r	6,100
Gold kilograms	2,000 ^r	2,000	2,000	2,000	2,000
Iron and steel:					
Ferroalloys, electric furnace: ^c					
Ferromanganese	5,130 ³	5,000	5,000	4,500	8,700
Silicomanganese	116,945 ³	120,000	120,000	112,016 ^{r,3}	203,464 ³
Total	122,075 ³	125,000	125,000	116,516 ^{r,3}	212,164 ³
Steel, rebar	NA	NA	NA	70,000	84,000
Lead, mine output, Pb content	400	400	400	400 ^r	400
Manganese ore, marketable: ^c					
Gross weight	328,643 ³	350,000 ³	400,000	400,000 ^r	400,000
Mn content	95,300	102,000	116,000	116,000 ^r	116,000
Silver kilograms	1,000	1,200	1,360	1,200	1,200
Zinc, mine output, Zn content of concentrate	400	400	400	300	300
INDUSTRIAL MINERALS					
Cement ^c	450,000	450,000	450,000	870,368 ^{r,3}	856,880 ³
Clays, bentonite ^c	4,487 ³	5,000	5,000	5,000 ^r	5,000
Gypsum ^c	123 ³	125 ³	125	100	120
Nitrogen, N content of ammonia	140,000	150,000	150,000	150,000 ^r	150,000
Perlite	45,000	45,000	45,000	45,000 ^r	45,000
Salt	30,000	30,000	30,000	30,000	30,000
MINERAL FUELS AND RELATED MATERIALS					
Coal, bituminous ^c	8,284 ³	8,280	11,000 ^r	168,451 ^{r,3}	240,628 ³
Natural gas thousand cubic meters	9,890 ^r	9,890 ^r	7,910 ^r	12,200 ^{r,3}	7,900 ³
Petroleum:					
Crude: ^c					
In gravimetric units	63,506 ³	63,500	63,500 ^r	53,942 ^{r,3}	51,050 ³
In volumetric units 42-gallon barrels	462,000	462,000	462,000	392,000	371,000
Refinery products:					
In gravimetric units	78 ^r	244 ^r	313 ^r	NA ^r	NA
In volumetric units 42-gallon barrels	627	1,960	2,520	NA	NA

^cEstimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. NA Not available.

¹Table includes data available through March 15, 2012.

²In addition to the commodities listed, Georgia had also produced barite and zeolites, but available information was inadequate to make reliable estimates of output.

³Reported figure.

TABLE 2
GEORGIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners ¹	Location or deposit names ¹	Annual capacity ^c
Arsenic:			2,000 ²
As content of ore	Includes: Racha mining and chemical plant	Of which: Lukhumi deposit, Ambrolauri region	
Metal and compounds	Tsana mining and chemical plant Racha mining and chemical plant Tsana mining and chemical plant	Tsana deposit, Lentekhi region Racha region Ts'ana region	
Barite	NA	Chordskoye deposit, Onis Raioni	70,000
Do.	JSC Madneuli (GeoProMining Ltd., 97%)	Madneuli deposit	NA
Barite-zinc ore	NA	Kvaisi deposit	NA

See footnotes at end of table.

TABLE 2—Continued
 GEORGIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners ¹	Location or deposit names ¹	Annual capacity ^e
Bentonite	Includes: Askana LLC (Silver & Baryte Ores Mining Co., 97.7%) NA	Of which: Askanskoye deposit, Ozurget'i Gumbrskoye deposit, Gumbra region	200,000 ²
Cement	LLC Kartuli Cementi (LLC HeidelbergCement Caucasus Shared Services, 70%)	Kaspi and Rust'avi	1,100,000
Do.	LLC SaqCementi (LLC HeidelbergCement Caucasus Shared Services, 75%)	Rust'avi	500,000
Coal	JSC Tkibulnakhshiri	Akhhaltsikhe, Tkibuli-Shaorskoye, and Tkvarchelskoye deposits in Akhhalts'ikhis Raioni, Tqibuli, and Tqvarch'eli regions	300,000 ²
Copper, Cu content of ore	JSC Madneuli (GeoProMining Ltd., 97%)	Bolnisi region	12,000
Copper-gold ore	Trans-Georgian Resources (GeoProMining Ltd., 50%)	Sakdrisi deposit	NA
Diatomite	NA	Kisatibskoye deposit, K'isat'ibi region	150,000
Ferroalloys:			
Ferromanganese	Georgian Manganese Holding LLC (Privat Group of Ukraine)	Zestafoni ferroalloys plant, Zestap'onis Raioni	100,000
Silicomanganese	do.	do.	250,000
Manganese sinter	do.	do.	250,000
Gold, mill	Quartzite Ltd. (GeoProMining Ltd.)	Madneuli deposit	NA
Iron and steel:			
Steel, rebar	Kutaisi metallurgical plant	K'ut'aisi	100,000
Do.	Rustavi metallurgical plant	Rust'avi	125,000
Iron ore	NA	Hrazdan deposit	NA
Do.	NA	Tkibuli-Shaorskoye deposit, Tqibuli region	NA
Lead-zinc:			
Pb content of ore	NA	Kvaisi deposit	1,200
Zn content of ore	NA	do.	3,000
Manganese, marketable ore	Chiaturamanganumi enterprise of Georgian Manganese Holding Limited LLC (Privat Group of Ukraine)	Chiatura deposit	500,000
Nitrogen	JSC Azoti chemical plant	Rust'avi	NA
Petroleum:			
Crude	Saknavtobi Oil and Gas Co. and most Georgian petroleum companies in joint ventures with Frontera Resources, Ioris Valley Oil & Gas Ltd., Ninotsminda Oil Co. Ltd., Georgian-British Oil Co. (GBOC), Anadarko Petroleum Corp., and GeoGeroil	About 60 wells that account for 98% of output in Mirzaani, Sup'sa, and Zemo T'ele't'i regions	200,000 ²
Refined	42-gallon barrels per day LLC Terminal	Batumi refinery, Ajaria	NA
Do.	do. NA	Georgian American Oil Co. Refinery (GAOR), Sart'ichala	4,000 ³

^eEstimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.

¹Many location names have changed since the breakup of the Soviet Union. Many enterprises, however, are still named or commonly referred to based on the former location name, which accounts for discrepancies in the names of enterprises and that of locations.

²Capacity estimate is the total for all enterprises that could produce that commodity.

³Closed.