

# THE MINERAL INDUSTRY OF GEORGIA

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Georgia has a diverse mineral industry, producing fuels, ferrous and nonferrous metals, ferroalloys, and industrial minerals. Georgia was a major producer of manganese from the Chiatura deposit, but reserves of high-grade ore are almost depleted. The manganese was used in Georgia for ferroalloy production at the Zestafoni ferroalloys plant. A small amount of iron ore also was mined. At the Madneuli complex in Georgia, a copper-barite polymetallic ore deposit was exploited for barite, copper, and a range of byproduct minerals, including gold and silver. Production of lead and zinc occurred at the Kvaisi lead-zinc deposit, and arsenic was mined from the Lukhumskoeye and Tsanskoye deposits. Georgia has a steel mill in Rustavi with the capacity to produce 1.5 million metric tons per year (Mt/yr) of raw steel, and which also has the capacity to produce, coke, pig iron, sinter, and rolled products. Georgia produces a range of industrial minerals, including bentonite, diatomite, talc, and zeolites and also mines semiprecious stones. Georgia produces some coal, gas, and oil and has an oil refinery at Batumi.

In 1996, Georgia's economy for the second year in a row showed positive growth, with the gross domestic product (GDP) reportedly increasing by 11% and industrial output by 7.7% compared with that of 1995. Nevertheless, Georgia had experienced the worst reported economic downturn of all the new countries of the former Soviet Union (FSU). In 1996, Georgia's GDP was only 29% and industrial output only 23% of its 1991 level (Interfax Statistical Report, 1997a).

## Mineral Production

Georgia has not systematically reported mineral production data for its major mineral products including arsenic, barite, copper, ferroalloys, gold, iron ore, manganese, lead and zinc, and a number of industrial minerals. Except for reported production series on cement, coal, natural gas, petroleum, and steel, only some scattered information is obtainable for other mineral commodities. The following paragraphs contain all reported data obtained on Georgian mineral production.

In the nonferrous metals sector, in 1996, production reportedly increased by 23.8% and in the construction materials sector by 52.2% compared with 1995 (Interfax Statistical Report, 1997b). The only reported data on commodities in the industrial minerals sector were for cement production which was estimated to have remained at its 1995 level of 100,000 metric tons (t) and for mineral fertilizers which were estimated to have increased to 100,000 t compared with a reported 40,000 t in 1995 (Interfax Statistical Report, 1997a).

Production in the ferrous metals sector reportedly decreased by 16.8% compared with 1995 (Interfax Statistical Report, 1997b). Regarding metal production data, in 1996 it was reported that Georgia produced respectively 80,000 t and an estimated 60,000 t of crude and rolled steel compared with a reported 84,000 t and 70,000 t in 1995; 141,000 t and 100,000 t in 1994; 215,000 t and 100,000 t in 1993, and 529,000 t and 400,000 t in 1992 (Interfax Statistical Report, 1997a; Metal Statistics, 1996). In 1991 Georgia reportedly produced 800,000 t of rolled steel (Interfax Statistical Report, 1997a).

Output of manganese, which was Georgia's major mineral product, had fallen from over 5 Mt/yr of marketable ore in the mid-1980's to only 97,000 t of manganese concentrate in 1996 (Interfax Mining and Metals Report, 1997a).

In the nonferrous metals sector, in 1996, the only reported data obtained was for copper production; the country processed about 150,000 t of ore to produce 6,000 t of copper concentrate, compared with the production of 3,700 t of copper concentrate in 1995 (Interfax Mining and Metals Report, 1997b).

In the fuel sector, in 1996 Georgia reported producing 128,000 t of crude oil compared with 40,000 t in 1995, 70,000 t in 1994, 100,000 t in 1993 and 1992 and 200,000 t in 1991 (Interfax Petroleum Report, 1997a; Interfax Statistical Report, 1997a). In 1996, Georgia produced an estimated 30,000 t of coal compared with 40,000 t in 1995, 30,000 t in 1994, 100,000 t in 1993, 200,000 t in 1992, and 700,000 t in 1991. No figure has been published for natural gas production for either 1995 or 1996, but production in 1992, 1993, and 1994 was 10 million cubic meters each year and in 1991 40 million cubic meters (Interfax Statistical Report, 1997a).

Mineral products did not appear to be a major source of export earnings as ores and concentrates comprised 7% of total exports. Mineral imports, primarily of fuel, were, however, a major component of the country's imports. Georgia had a large foreign trade debt totaling over \$1 billion, most of which was owed for energy purchases from Russia and Turkmenistan (Interfax Statistical Report, 1997b).

The Chiatura manganese complex in Georgia had been the FSU's major domestic source of high grade manganese ore. Chiatura has experienced major difficulties in obtaining energy and other necessary inputs and the cost of producing manganese has risen dramatically. Chiatura has lost all of its former markets in the FSU, including the Zestafoni ferroalloys plant in Georgia, which is only 28 kilometers (km) away. Zestafoni is considering buying manganese from Australia or Brazil which it claims is cheaper than manganese from Chiatura. Zestafoni was signed over by the Government to foreign management in

1995 and a similar arrangement is being considered for Chiatura. Zestafoni is being managed under a 10-year trusteeship by the Russian-Georgian Bank for Reconstruction and Development and North Atlantic Research of the United States. Output at Zestafoni reportedly increased in 1996 as the new management was able to raise funds to supply the plant with power and raw materials. For the past 3 years, Georgian authorities have been seeking foreign investors for Chiatura and the European Union was working on a recovery plan for Chiatura (Interfax Mining and Metals Report, 1997a).

At the end of December, Georgia announced a tender to acquire the rights to manage 51% of the shares in Spilendzi, Ltd., a company mining and processing barite and copper ore. Spilendzi, a subsidiary of the Madneuli mining and beneficiation complex joint stock company, is the country's biggest copper producer. Bids were to be considered until March 1, 1997 (Interfax Mining and Metals Report, 1997b).

According to a communique from the American Embassy in Tbilisi, eligible participants could be Georgian corporations in which the state interest did not exceed 25%, or these could be individuals or companies from any foreign country. The winner would obtain the right to manage 51% of Spilendzi for 5 years along with the right to 51% of the net profit from the enterprise. The contract could be extended for another 5 years.

The proposals submitted had to meet a series of requirements including refurbishing the enterprise's equipment and upon the termination of the contract guaranteeing its functioning, ensuring the full payment of company debts both current and incurred in the course of the contract, maintaining the same number of jobs, improving the social and economic conditions of the employees, and improving the social and economic situation in the region. The State was to be represented by at least two members on Spilendzi's supervisory board.

The Swiss metals trader Glencore International and Mtebi, a Georgian company, made preliminary bids. Mtebi was making a joint bid with TbilInterBank, a Tbilisi bank. Both Glencore and Mtebi already had been doing business with the Madneuli complex. Glencore was selling metal from Madneuli valued at about \$1 million a month, while Mtebi was processing copper ores from the Madneuli complex. Both Glencore and Mtebi proposed to increase Spilendzi's copper ore and concentrate production. In September, it was announced that Glencore was the winner of this tender (Interfax Mining and Metals Report, 1997c).

The Madneuli field had been under development by open pit mining since 1974, and reportedly contains reserves estimated at 460,000 t of contained copper in ore, of which about 300,000 t are proven copper reserves. The copper content of the ore reportedly averages 1.29% (Interfax Mining and Metals Report, 1997b).

Madneuli's managing director stated that the country's copper concentrate production could rise to 20,000 metric tons per year by the year 2000. He also stated that there was a plan to recover additional gold and silver from Madneuli ores. The field reportedly contains proven reserves of about 25 t of gold and 120 t of silver and also contains resources of zinc and other metals (Interfax Mining and Metals Report, 1997b).

In 1996, Georgia produced about one-third less crude oil than was planned. The two joint ventures producing oil in Georgia reportedly failed to meet their targets. The country recorded gains in output of natural and associated gas that exceeded its target. Drilling, however, was around 66% under target and refining throughput totaled 20,000 t, less than one-half the level in 1995 (Interfax Petroleum Report, 1997b).

The Georgian British Oil Company (GKS), a joint venture in partnership with Georgia's Gruzneft, accounted for about 66% of the country's total petroleum production. Gruzneft's joint venture with Switzerland's National Petroleum Limited extracted most of the rest. Gruzneft alone produced 3,000 t of the total. In 1997, Georgia plans to produce at least 300,000 t of oil, 200 million cubic meters of gas, and 280,000 t of petroleum products. Georgia plans to achieve these targets mainly by engaging in new joint ventures. Projects, reportedly, were being negotiated with foreign firms (Interfax Petroleum Report, 1997b).

Preparations reportedly were on schedule to build a pipeline to export via Georgia a portion of the first flows of Azerbaijan oil from the Azeri, Chirag, and Gunesheli fields being developed by an international consortium. Azerbaijan also plans to pump a portion of first output from these fields via Russia through a pipeline that passes through Chechnya (Contact Information Agency, 1996). In 1997, Azerbaijan, in addition, will export some of its oil by rail via Georgia until security problems with the pipeline passing through Chechnya are resolved (Interfax Petroleum Report, 1997a).

The construction of the Georgian pipeline to export the initial oil from the Azerbaijan offshore fields was scheduled to start in March 1997 and to be commissioned late in 1998. The pipeline route through Georgia, which is called the western route, goes to the Black Sea port of Supsa in Georgia. The Georgian Pipeline Company was formed in 1996 to implement the construction of the pipeline. A new oil terminal also will be built at Supsa with construction scheduled to start in March 1997 and end December 1998 (Moscow Interfax, 1997b). It was stressed that the key condition for the pipeline and terminal project's implementation was a strong guarantee that the local ecological system be fully protected (Contact Information Agency, 1996).

In 1997, Kazakstan will resume transporting oil via Azerbaijan and Georgia by rail to the Georgian port Batumi on the Black Sea. These shipment stopped in mid-October due to repairs to a terminal in Azerbaijan. Furthermore, the Georgian railways department and TengizChevrOil, the U.S.-Kazak venture that is developing the large Tengiz oil field in Kazakstan, agreed to make test shipments of 50,000 t of oil via Georgia in 1997. If the test is successful, it could result in at least 1 million metric tons of Tengiz oil being transported from Aktau in Kazakstan to Batumi in 1997 (Moscow Interfax, 1996).

Georgia, a member of the International Atomic Energy Agency (IAEA), received \$2.5 million from the IAEA in 1996 for its nuclear and radiation safety program. Part of the money was spent on cleaning and protecting the Mtskheta nuclear reactor. The Mtskheta reactor for nuclear research belongs to

the Physics Institute of the Georgian Academy of Sciences, 15 km west of Tbilisi (Moscow Interfax, 1997a).

Since the establishment of the center in 1959, the research reactor had been receiving supplies of nuclear substances from Russia. The Physics Institute had tried diminishing its radioactive reserves, particularly since a 1990 decision to shut down the reactor. By the time the Soviet Union had disintegrated, the nuclear center reportedly had about 10 kilograms (kg) of enriched uranium and a large amount of nuclear wastes. Soon afterwards, political disturbances started in Georgia, followed by a civil war (Moscow NTV, 1997a).

The nuclear center reportedly has come under attack on two occasions. Nuclear substances, reportedly, were not plundered. Representatives of the IAEA have installed a security alarm system on the premises. Nevertheless, the center, reportedly, was still experiencing security problems (Moscow NTV, 1997a).

In 1995, 5 kg of enriched uranium-235 from the Mtskheta reactor were sold to Uzbekistan (Moscow Interfax, 1997a). Now there is a little more than 4 kg of 90-percent-enriched uranium-235 at Georgia's nuclear center. The Mtskheta nuclear reactor also contains radioactive waste (Moscow NTV, 1997b).

By the terms of an accord reached at a meeting of the Vice-President of the United States and Russia's Prime Minister, in 1996 the radioactive substances stored in Georgia should have been shipped to Russia for recycling and burial. The United States was providing the money for this operation. However, in accordance with Russian legislation, spent nuclear materials are to be returned to the country of their origin. Georgia, however, stated it was not able to bury nuclear waste. The problem remained unsolved and was again put on the agenda for United States-Russian talks (Moscow NTV, 1997a).

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## Major Sources of Information

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TABLE 1  
 GEORGIA: STRUCTURE OF THE MINERAL INDUSTRY FOR 1996

(Metric tons unless otherwise specified)

Commodity	Major operating company	Location of main facilities	Annual capacity e/
Arsenic, mine output	Lukhumi deposit Tsana deposit	Upper Racha region Lower Svanetiya region	2,000 total.
Arsenic, metal and compounds	Racha mining and chemical plant	Racha region	NA.
Do.	Tsana mining and chemical plant	Tsana	NA.
Barite	Chordskoye deposit	Onskiy rayon	70,000.
Bentonite	Gumbrskoye and Askanskoye deposits	Gumbra, Askana regions	200,000.
Cement	Rustavi cement plant	Rustavi	1,500,000.
Coal	Tkibuli-Shaorskoye, Tkvarchelskoye, deposits	Tkibuli, Tkvarcheli, Akhaltsikhe regions	300,000. total.
Copper, copper content of ore	Madneuli complex	Madneuli region	12,000.
Diatomite	Kisatibskoye deposit	Kisatibi region	150,000.
Ferroalloys	Zestafoni plant	Zestafoni (now Zestap'oni)	100,000 (ferromanganese).
Do.	do.	do.	250,000 (silicomanganese).
Do.	do.	do.	250,000 (manganese sinter).
Gold	Madneuli complex	Madneuli region	2.
Lead-zinc	Kvaisi deposit	Kvaisi region	1,200 (lead).
Do.	do.	do.	3,000(zinc).
Manganese, ore	Chiatura complex	Chiatura region	2,000,000.
Petroleum, crude	About 60 wells accounting for 98% of output	Mirzaani, Teleti, Supsa regions	200,000.
Steel, crude	Rustavi steel mill	Rustavi	1,500,000.

e/ Estimated. NA Not available.