

JAMAICA

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Located just south of Cuba, Jamaica is the third-largest island of the Greater Antilles of the West Indies, having a maximum length of 235 km and width of approximately 80 km. The country's terrain is mountainous, including the Blue Mountains famous for its coffee, plus several tracts of lowlands in the southern coastal area. The coastline, 1,020 km long, is irregular, particularly in the south, and the island has a number of excellent natural harbours such as Kingston, Saint Ann's Bay, Montego Bay, and Port Maria.

In addition to the island's famous tourist industry, mining makes a major contribution to the island's economy. The Ministry of Mines and Energy is the government agency responsible for the mining sector and legislation includes the Mining Act, mining regulations, the Minerals (Vesting) Act, mines and health regulations, the Bauxite and Alumina (Encouragement) Act, the Quarries Control Act, quarries regulations, and the Gunpowder and Explosives Act. The Mines and Geology Division supports the Ministry through research and ensures compliance with the mining laws. The Jamaica Bauxite Institute (JBI) is responsible for monitoring and regulating the bauxite industry and serves as the government's adviser in all matters that concern the industry.

The Bauxite and Alumina Encouragement Act provides for waiver of duties on capital expenditures among other things. In addition, a provision under the Bauxite and Alumina Industries Special Provision Act encourages incentive-based agreements between the government and bauxite/alumina producers. Incentives given are a tax holiday of up to ten years, exemption from customs duties on capital goods, and no withholding tax on dividends. An income tax of 33.3% on all profits of mining companies, with the exception of bauxite companies, is assessed under the Income Tax Act. Similar incentives also are available for the non-bauxite/industrial minerals sector. The Mining Act and the Quarries Control Act governs the prospecting and exploitation of mineral resources in Jamaica. The laws and regulations that control mining and prospecting are administered by the Commissioner of Mines and Geology within the Ministry of Mining and Energy.

In 2003, world production of bauxite was essentially unchanged from that for 2002 and output from Jamaica actually increased almost 3% from 13.12 Mt to an estimated 13.44 Mt; exports increased from 13.14 to 13.39 Mt. Production of alumina also increased by 5.87%, from 3.63 to 3.84 Mt; exports increased by 5.6%, from 3.64 to 3.84 Mt. According to the JBI, this was another record year for bauxite production mainly due to increased efficiencies at Jamalco, Alpart, and Windalco. The Institute also notes that world alumina production increased by 6% to 54.3 million Mt, largely as a result of increased demand in China and a resurgent US economy. The industry has been enjoying buoyant

prices in tandem with increases in oil prices, coupled with a sliding US dollar *vis-à-vis* the euro. The JBI is optimistic that 2004 will be an even better year for the industry, now that expansion at Jamalco is completed, and expansion work is continuing at Alpart.

Late in 2003 it was announced that Alcoa World Alumina and Chemicals (AWAC), an alliance between Alcoa and Alumina Ltd, with Alcoa holding 60%, had completed the 250,000 t/y expansion at its Jamalco alumina refinery in Clarendon, with start-up ahead of schedule. Jamalco is a 50:50 relationship between AWAC and the Government of Jamaica, with AWAC as the managing partner. This expansion was part of an agreement to invest US\$115 million in the refinery in exchange for removing the nearly 30-year-old levy on bauxite from Jamalco, effective upon the completion of the expansion. The 25% expansion pushed the capacity to 1.25 Mt/y. At the same time, the removal of the levy, combined with the expansion, will lower costs at Jamalco by approximately 30%.

In related news, Alcoa and Jamaica's Forestry Department signed an agreement to work together to rehabilitate reclaimed mined-out lands through reforestation on the island. The five-year accord includes developing a public education programme, planting suitable trees, and a research programme aimed at enhancing the development and reforestation of the lands. Guided by the 'no-net-loss' policy, the two organisations will work to compensate for the loss of forest cover resulting from mining operations. This move will see the establishment of new forests on selected reclaimed bauxite mined-out areas, as well as the protection and preservation of existing forests.

In January 2004, Kaiser Aluminum & Chemical Corp signed an agreement to sell its 65% interest in Alpart, Jamaica's largest alumina refinery located in Nain, St Elizabeth, to Glencore International AG of Switzerland, a JV partner with the Government of Jamaica in the ownership of West Indies Alumina Company (Windalco) which operates Port Esquivel, bauxite mines in Schwallenburgh (Ewarton) and Russell Place (Kirkvine), and farms in Manchester and St. Ann. Hydro Aluminium of Norway, Kaiser's 35% partner in Alpart, did not make a bid for the shares when Kaiser offered them for tender in 2003. It was reported that net cash proceeds were expected, at a minimum, to be in the range of US\$160 million to US\$170 million, subject to certain closing and post-closing adjustments. Revenues from the sale would help Kaiser Aluminum emerge from bankruptcy by the mid- 2004 deadline, and help to secure the future of the Jamaican operation. However, in April 2004 the U.S. Bankruptcy Court for the District of Delaware ordered that Kaiser hold an auction to determine the winning bidder for its interests in, and related to, Alpart. The court terminated Kaiser's agreement with Glencore for about US\$165 million and ordered the minimum bid set at US\$215 million.

Under Alpart's existing partnership arrangement, Hydro Aluminum, which currently owns the remaining 35% of Alpart, retains the right, for 30 days following Kaiser's receipt of court approval of any sale transaction, to elect to purchase Kaiser's interests at the price specified in any agreement approved by the court.

The Alpart refinery has substantially completed its expansion from 1.45 Mt to 1.65 Mt/y. This expansion project included two separate steps: a new dual-feed system enabling the facility to process different grades of bauxite more efficiently, and a new cooling system to improve alumina quality. The company also controls bauxite reserves on the south coast of Jamaica and the 3.5 Mt/y production used to feed its alumina refinery in Nain; in turn the alumina is shipped to the Valco plant in Ghana, to the Anglesey plant in Wales, and to external customers.

The acquisition by Glencore involves not only the interests of Kaiser and certain of its subsidiaries in Alpart, but may include certain alumina sales contracts that are typically sourced from Kaiser's share of alumina production at Alpart. At the time of writing, it was suggested that the purchase price could increase significantly depending on which contracts, if any, are ultimately included in the transaction. Kaiser will be responsible for prepayment of its approximately US\$14 million share of Alpart's outstanding CARIFA loan, which becomes due in full upon consummation of the transaction. The agreement also provides for Glencore to supply Kaiser with alumina of up to 200,000 t in 2004 and up to 100,000 t in 2005 at an agreed percentage of London Metal Exchange aluminium prices.

Kaiser Jamaica Bauxite Co (KJBC), owned 49% by Kaiser Aluminum and 51% by the Government of Jamaica, mines bauxite on the north coast. Annual bauxite production capacity is 4.5 Mt, and KJBC presently has rights to 120 Mt of bauxite reserves. Although Kaiser owns 49% of KJBC, it receives 100% of KJBC's output, mainly for refining into alumina at its Gramercy, Louisiana, plant, and the rest is sold to third parties. The 1.25 Mt/y capacity Gramercy alumina refinery, located on the Mississippi River, supplies all of its alumina output to external customers, including a significant portion for non-metallurgical uses, for example, alumina hydrate used to manufacture flame retardants and other specialty chemicals.

Illegal sand quarrying continues to be a concern in Jamaica and 'Operation Sand Storm' has tried to discourage the dangerous but lucrative practice. Affected areas include Lakes Pen, Grange Lane, Dunbeholden, and Harkers Hall in St Catherine, and Danks in Clarendon. Demand for sand has been outstripping supply and the Highway 2000 project needs large quantities of skid-resistant material. Preliminary results of a study to identify skid-resistant aggregate in areas of Jamaica have confirmed the presence of over 43,000 Mt of hard volcanic rocks, suitable for use in road surfacing and on airport runways. The rocks are excellent sources for generating aggregate for use in concrete mixes as well as in the manufacture of sand. Traditional sand quarrying areas are the Rio Minho River in Clarendon, Wag Water in St Mary, Rio Grande in Portland and Hallahs and Morant Rivers in St Thomas. Nine crushing plants provide wash sand with about triple the amount of sieve operations. Mining and Energy Minister, Anthony Hylton, signed the US\$8.5 million Sedimentary Basin Resource Assessment Project in January 2002, and this will analyse sand and gravel deposits in the Yallahs River and Rio Minho.

There is considerable potential in parts of the industrial mineral sector. Jamaica's calcium carbonate resources include 152,000 Mt of recoverable limestone, 350 Mt of recoverable marble, and about 350 Mt of high-purity, high-brightness ground calcium carbonate (GCC) or whiting appropriate for filler-grade material. GCC is now the second most important mineral exported from Jamaica after bauxite. J M Huber and Omya operate properties on the island near Ochos Rios. Huber, for example, exports a significant volume of 93-94% brightness chalk for processing at, and distribution from, its Quincy, Illinois, facility in the US. Hodges Minerals Ltd was incorporated in 1988 to supply the Jamaican market with GCC from its plant at Hodges in the parish of St Elizabeth. It has a capacity of 20,000 t/y of GCC, some of which is exported.

Central Jamaica, Rugby Lime and Minerals' US\$25 million, 400 t/d lime plant in Clarendon, which includes a Cimprogetti Twin-D 85 twin-shaft regenerative kiln, has a 25-year contract to supply lime to Jamalco. Lydford Mining, based in Kingston, produces 10-15,000 t/y of fine-ground filler-grade calcium carbonates to regional markets.

Trinidad Cement Ltd Group of Companies, the Caribbean's foremost producer and supplier of cement and gypsum, owns Caribbean Cement Co Ltd (CCCL or Carib Cement), which operates the Rockfort cement plant in Kingston. The company also owns Trinidad Cement Ltd (TCL) in Trinidad and Arawak Cement Co Ltd (ACCL) in Barbados. Overall, Trinidad Cement Ltd Group of companies' subsidiaries and share ownership include TCL Packaging Ltd. (80%), Arawack Cement Co Ltd (100%), TCL Ponsa Manufacturing Ltd (65%), Readymix (WI) Ltd (70%), TCL Trading Ltd (100%), and Caribbean Cement Co Ltd (74%). Carib Cement's plant produces around 550,000 – 600,000 t/y of cement and consumes about 25,000 t/y of a gypsum/anhydrite blend supplied by its wholly-owned subsidiary, Jamaica Gypsum and Quarries. Production is approximately 330,000 t of gypsum and anhydrite, most of which is sold on the overseas market. Carib Cement has two kilns and uses a combination of both wet and dry processes, whereas TCL has two kilns and the wet process is used exclusively, and ACCL has one kiln that uses the dry process. The cost of production at TCL Trinidad is the lowest among the three plants, with costs at ACCL and Carib Cement being 25% and 35% higher respectively largely due to higher energy costs in Barbados and Jamaica.

Cement continues to be an important part of the Jamaican economy and the National Housing Trust (NHT) has characterised high domestic cement prices as a major impediment to the anticipated boom (along with extortion, fragmentation in the sector, inadequate on-site project management resulting in waste, and a lack of trained workers). In fact, following Carib Cement's price rise early in 2003, builders are paying an average US\$42 per bag, which the NHT claims is some 300% higher than prices outside the region. Carib Cement contends that its pricing structure is built on its cost of production, and that costs are heavily influenced by local labour rates, as well as interest rates or the cost of borrowing. The company also claims to be adversely affected by the sliding dollar, since 60% of total cost is directly foreign-

exchange related. Nevertheless, sales of cement are on the increase with Carib Cement holding an almost 90% market share on the island (about 50,000 t/y of clinker is imported to cover shortfalls in production and provide security stock).

As well as marble from St Catherine's Parish, Jamaica has been producing salt, silica sand, and stone. Some semi-precious stones like agates, jasper and carnelian are used in an indigenous jewellery industry, and some mineral and spring water is being marketed abroad. Clays (80% of which are naturally coloured red) are available to produce commercial quantities of ceramics and building components. The existing reserves are 250 Mt including disordered kaolinite (near white to buff firing), red firing illite to montmorillonite and light firing clays. Most of the island's gypsum is in the Bull Bay area of eastern St Andrew and western St Thomas. Indicated overall reserves total some 40 Mt, with recoverable reserves estimated at 5 Mt (gypsum) and 20 Mt (anhydrite).

Canadian interests, both in banking and mining, have long been involved in Jamaica. Several gold and copper anomalies associated with Cretaceous inliers and lower Eocene graben sediments have been outlined in the past. OroGrande Resources had potential deposits of copper, gold, porphyry, and skarn at its Bellas Gate property, acquired in 1991, about 65 km northwest of the capital where the island's historic copper mining started in the 1850s. Various other companies have explored for gold and copper, including BHP, Kennecott, Organa, and the Ausjam group, with interests in the Bennett Zone of the Central Inlier property.

In 2002, the Australian company Ausjam Mining temporarily suspended the operation of its commercial gold mine in Pennants, north-central Clarendon, after a year of operations. The operation began in 2001 on expectations that it could extract 35,000 oz of 9 ct 15 ct nuggets from Pennants but it had only yielded 12,000 oz by the end of the year, and geologists suggested that only another 3,000-4,000 oz remained to be extracted. In addition, the project has run into difficulties with its workforce, protests from local residents, and even cyanide procurement problems after the September 11 terrorist attacks.

In March, 2003, the Commissioner of Mines and Geology, Coy Roache, suggested that the current mining area could be totally exhausted within three to four months, hence, in December 2003, the company closed the operations. The United Union of Jamaica (UUJ), which represents the company's workers, accused Ausjam's management of union-busting. Ausjam claimed that the company's financial woes were caused by low ore grades and that "unreasonable demands" by the UUJ also contributed to the decision to close the mine "whilst the company reconsiders its future options". During the two years of operation, Ausjam invested some US\$16 million in the mine and Jamaica earned J\$7.5 million on the yields representing its 4.25% royalty on gross revenues.