

The following table sets forth the commercial selling rate, expressed in *reais* per U.S. dollar (R\$/US\$) for the periods indicated.

	Average for			
	Period-end	Period	Low	High
Year ended				
December 31, 1998	1.209	1.164(1)	1.117	1.209
December 31, 1999	1.789	1.851(1)	1.208	2.165
December 31, 2000	1.955	1.835(1)	1.723	1.985
December 31, 2001	2.320	2.353(1)	1.936	2.801
December 31, 2002	3.533	2.998(1)	2.270	3.955
Month ended				
December 2002	3.533	3.612(2)	3.427	3.798
January 2003	3.526	3.468(2)	3.275	3.662
February 2003	3.563	3.575(2)	3.493	3.658
March 2003	3.353	3.458(2)	3.353	3.563
April 2003	2.889	3.113(2)	2.889	3.336
May 2003	2.966	2.947(2)	2.865	3.028
June 2003 (through June 25, 2003)	2.856	2.913(2)	2.849	2.978

(1) Average of the rates of each period, using the average of the exchange rates on the last day of each month during each period.

(2) Average of the lowest and highest rates in the month.

Source: Central Bank.

On June 25, 2003, the commercial selling rate was R\$2.856 per US\$ 1.00.

RISK FACTORS

Risks Relating to Our Business

Due to our dependence on the global steel industry, fluctuations in the demand for steel could adversely affect our business.

Sales prices and volumes in the worldwide iron ore mining industry depend on the prevailing and expected level of demand for iron ore in the world steel industry. The world steel industry is cyclical. A number of factors, the most significant of these being the prevailing level of worldwide demand for steel products, influence the world steel industry. During periods of sluggish or declining regional or world economic growth, demand for steel products generally decreases, which usually leads to corresponding reductions in demand for iron ore. Global steel output increased in 2002, which resulted in higher iron ore demand. Although we expect this to have a positive effect on world contract prices and sales volumes for iron ore in the short term, we cannot guarantee the length of time that demand will remain at current high levels. Future prolonged reductions or declines in world contract prices or sales volumes for iron ore could have a material adverse effect on our revenues. In addition, poor conditions in the global steel industry could result in the bankruptcy of some of our customers.

We are subject to cyclical and price volatility for iron ore, aluminum and other minerals.

Cyclical and other uncontrollable changes in world market prices affect our iron ore, aluminum, gold and other mining activities. In particular, aluminum and gold are sold in an active world market and traded on exchanges, such as the London Metals Exchange and the Commodity Exchange, Inc. Prices for these metals are more volatile than iron and pellet prices because they respond more quickly to actual and expected changes in supply and demand. Prolonged declines in world market prices for our products would have a material adverse effect on our revenues.

The mining industry is an intensely competitive industry, and we may have difficulty effectively competing with other mining companies in the future.

Intense competition characterizes the worldwide iron ore industry. We compete with a number of large mining companies, including international mining companies. Some of these competitors possess substantial iron ore mineral deposits at locations closer to our principal Asian and European customers. Competition from foreign or Brazilian iron ore producers may result in our losing market share and revenues. Our gold, aluminum, manganese and other activities are also subject to intense competition and are subject to similar risks.

Demand for iron ore in peak periods may outstrip our production capacity, rendering us unable to satisfy customer demand.

Our ability to rapidly increase production capacity to satisfy increases in demand for iron ore is limited. In periods where customer demand exceeds our production capacity, we generally satisfy excess customer demand by reselling iron ore purchased from joint ventures or third parties. If we are unable to satisfy excess customer demand by purchasing from joint ventures or third parties, we may lose customers.

Our reserve estimates may be materially different from mineral quantities that we may actually recover, our estimates of mine life may prove inaccurate and market price fluctuations and changes in operating and capital costs may render certain ore reserves or mineral deposits uneconomical to mine.

Our reported ore reserves and mineral deposits are estimated quantities of ore and minerals that under present and anticipated conditions have the potential to be economically mined and processed to extract their mineral content. There are numerous uncertainties inherent in estimating quantities of reserves and in projecting potential future rates of mineral production, including many factors beyond our control. In addition, reserve engineering is a subjective process of estimating underground deposits of minerals that cannot be measured in an exact manner, and the accuracy of any reserve estimate is a function of the quality of available data and engineering and geological interpretation and judgment. Estimates of different engineers may vary, and results of our mining and production subsequent to the date of an estimate may justify revision of estimates. Reserve estimates may require revision based on actual production experience and other factors. For example, fluctuations in the market price of metals, reduced recovery rates or increased production costs due to inflation or other factors may render proven and probable reserves containing relatively lower grades of mineralization uneconomic to exploit and may ultimately result in a restatement of reserves.

We may not be able to replenish our reserves, which could adversely affect our mining prospects.

We engage in mineral exploration, which is highly speculative in nature, involves many risks and frequently is nonproductive. Our exploration programs, which involve significant capital expenditures, may fail to result in the expansion or replacement of reserves depleted by current production. If we do not develop new reserves, we will not be able to sustain our current level of production beyond the remaining life of existing mines.

Even if we discover minerals, we remain subject to drilling and production risks, which could adversely affect the mining process.

Once we discover minerals, it can take us a number of years from the initial phases of drilling until production is possible, during which the economic feasibility of production may change. It takes substantial time and expenditures to:

- establish ore reserves through drilling,
- determine appropriate metallurgical processes for optimizing the recovery of metal contained in ore,
- obtain the ore or extract the metals from the ore, and
- construct mining and processing facilities for greenfield properties.

If a project proves not to be economically feasible by the time we are able to exploit it, we may incur substantial write-offs. In addition, potential changes or complications involving metallurgical and other technological processes arising during the life of a project may result in cost overruns that may render the project not economically feasible.

We face rising extraction costs as our deposits decrease.

Ore reserves gradually decrease in the ordinary course of a given mining operation. As reserves decrease, it becomes necessary to use more expensive processes to extract remaining ore. As a result, over time, we usually experience rising unit extraction costs with respect to each mine. Several of our mines have operated for long periods, and we will likely experience rising extraction costs per unit in the future at these operations.

Our mining and logistics activities depend on authorizations of regulatory agencies, and changes in regulations could have an adverse effect on our business.

Our mining and logistics activities in Brazil depend on authorizations and concessions by regulatory agencies of the Brazilian government. Our exploration, mining, mineral processing and logistics activities are also subject to Brazilian laws and regulations, which change from time to time. If these laws and regulations change in the future, modifications to our technologies and operations could be required, and we could be required to make unbudgeted capital expenditures, which could lead to an increase in our borrowing costs. For a more detailed discussion about the authorizations and concessions by regulatory agencies of the Brazilian government upon which our mining and logistics activities depend, see *Item 4. Information on the Company—Regulatory Matters*.

Changes in Brazilian environmental laws may adversely affect our mining and energy businesses.

Our operations often involve using, handling, disposing and discharging hazardous materials into the environment or the use of natural resources, and are therefore subject to the environmental laws and regulations of Brazil. Environmental regulation in Brazil has become stricter in recent years, and it is possible that more regulation or more aggressive enforcement of existing regulations will adversely affect us by imposing restrictions on our activities, creating new requirements for the issuance or renewal of environmental licenses, raising our costs or requiring us to engage in expensive reclamation efforts. Several Brazilian states in which we operate are currently considering implementing water use fees under the National Hydrological Resources Policy. This may require us to pay usage fees in the future for water rights that we currently use for free, which could considerably increase our costs in areas where water resources are scarce. In addition, we are currently a defendant in an action brought by the municipality of Itabira, in the state of Minas Gerais, which alleges that our Itabira iron ore mining operations have caused environmental and social damages. If we do not prevail in this lawsuit, we could incur a substantial expense. For more information on environmental laws and the legal challenges we face, see *Item 4. Information on the Company—Environmental Matters* and *Item 8. Financial Information—Legal Proceedings*.

Our Albras joint venture may experience substantial electricity cost increases.

Electricity costs are a significant component of the cost of producing aluminum. Our aluminum plant, Albras-Alumínio Brasileiro S.A., or Albras, obtains electric power at discounted rates from Eletronorte, a state-owned electric power utility. The contract through which Albras purchases electricity from this utility expires in 2004. Albras is unlikely to continue to benefit from favorable electricity costs following expiration of the contract. Albras is currently trying to negotiate a new contract and is examining other alternatives. Although we expect future energy costs for Albras to be in line with those of its peers in the industry, its costs will likely increase compared to current levels.

The Brazilian government's responses to energy shortages could adversely affect us.

We are a significant consumer of Brazil's electricity production, and accounted for 4.5% of total consumption in Brazil in 2002. Brazil faced a shortage of energy during the second half of 2001 as a result of increased demand due to economic growth, inadequate expansion of electric generation in past years and unfavorable hydrological conditions. In response, the Brazilian government implemented an energy-rationing program to alleviate the energy shortage that aimed to decrease energy consumption by at least 20%. As a result of this program, we experienced a temporary reduction in our aluminum and ferroalloy production both of which use significant amounts of electricity. By the end of 2001, weather conditions improved, leading to increased generation at hydroelectric plants and reducing the immediate risk of energy shortages. Accordingly, the Brazilian government eliminated the restrictions on the use of energy on March 1, 2002 for the northern,

northeastern and southeastern regions of Brazil. Energy consumption habits in Brazil have been affected by the energy-rationing, and energy consumption has not returned to prior levels. As a result, there currently is an oversupply in the electricity markets. Although we believe the risk of another energy shortage in the next four years is low, we are unable to assess the long-term impact that the government's response to future energy shortages may have on our operations, particularly on our aluminum and ferroalloy production.

Changes in government regulations could result in lower returns on our energy sector investments.

The Brazilian power generation business depends on concessions granted by the government and is regulated and supervised by the Brazilian electricity regulatory governmental agency, ANEEL. The recently elected Brazilian government has not yet made clear its policy towards the electricity markets. Changes in the laws, regulations or governmental policies regarding the power generation industry, the marketing of energy in the wholesale market or concession requirements could lower the returns we are expecting from our investments in the energy business. For more information on the regulations governing our energy business, see *Item 4. Information on the Company—Regulatory Matters*.

We are subject to ongoing antitrust investigations.

We are currently involved in 23 proceedings before the *Conselho Administrativo de Defesa Econômica*, or CADE, which is the primary Brazilian antitrust regulator. Most of these proceedings involve post-transaction review of acquisition or joint venture transactions, which is required for nearly all of our acquisitions and joint ventures. The remaining are administrative proceedings alleging that we have engaged in illegal anticompetitive conduct in connection with our logistics and aluminum businesses. We intend to defend these claims vigorously. We cannot predict the outcome of these proceedings. If CADE were to determine that undue concentration exists in any of our industries, it could impose measures to safeguard competition, which could include requirements that we divest operations or respect price restrictions. If CADE were to find that we have engaged in anticompetitive conduct, it could order us to cease the conduct and / or to pay fines, which could be substantial. The European Commission is also reviewing our acquisition of Caemi Mineração e Metalurgia S.A., which we refer to as Caemi. See *Item 8. Financial Information—Legal Proceedings*. If the European Commission fails to approve the Caemi acquisition, or imposes burdensome conditions, we could be required to abandon the acquisition or to take actions that would reduce the benefits we are expecting from the acquisition.

We are vulnerable to adverse developments affecting other economies.

In 2002, 6.7% of our consolidated net operating revenues were attributable to sales to Japanese customers, 12.9% were attributable to sales to other Asian customers and 36.2% were attributable to sales to European customers. In 2002, 7.2% of our iron ore and pellets sales were made to customers in China, and the Chinese market was the main driver of demand in the iron ore market. A weakened economy in China or in the other markets where we sell our products could reduce demand for our products in the Chinese market and such other markets, which, in turn, could result in lower revenues and profitability.

Our principal shareholder could have significant influence on our company.

Valepar, our principal shareholder, currently owns 52.3% of our outstanding common stock and 33.6% of our total outstanding capital. For a description of the ownership of our shares, see *Item 7. Major Shareholders and Related Party Transactions—Principal Shareholder*. As a result of its share ownership, Valepar can control the outcome of any action requiring shareholder approval. Further, the Brazilian government owns a golden share in us that gives it limited veto powers over certain actions that we could propose to take. For a detailed description of the veto powers granted to the Brazilian government by virtue of its ownership of this golden share, see *Item 10. Additional Information—Common Shares and Preferred Shares—General*.

Some of our operations depend on joint ventures and could be adversely affected if our joint venture partners do not observe their commitments.

We currently operate important parts of our pelletizing, copper exploration, logistics, energy, aluminum and steel businesses through joint ventures with other companies. Our forecasts and plans for these joint ventures assume that our joint venture partners will observe their obligations to contribute capital, purchase products and, in some cases, provide managerial talent. If any of our joint venture partners fails to observe its commitments, the affected joint venture may not be able to operate in accordance with its business plans or we may have to increase the level of our investment to give effect to these plans. For more information on our joint ventures, see *Item 4. Information on the Company—Lines of Business*.

Our risk management strategy may not be effective.

We are exposed to fluctuations in interest rates, foreign currency exchange rates, and prices relating to our iron ore, aluminum and gold production. In order to partially protect ourselves against unusual market volatility, we periodically enter into hedging transactions to manage these risks. We do not hedge risks relating to iron ore price fluctuations. See *Item 11. Quantitative and Qualitative Disclosures about Market Risk*. Our hedging strategy may not be successful in minimizing our exposure to these fluctuations. In addition, to the extent we hedge our commodity price exposure, we forego the benefits we would otherwise experience if commodity prices were to increase.

We may not have adequate, if any, insurance coverage for some business risks that could lead to economically harmful consequences to us.

Our businesses are generally subject to a number of risks and hazards, including

- industrial accidents,
- labor disputes,
- slope failures,
- environmental hazards,
- electricity stoppages,
- equipment or vessel failures, and
- severe weather and other natural phenomena.

These occurrences could result in damage to, or destruction of, mineral properties, production facilities, transportation facilities, equipment or vessels. They could also result in personal injury or death, environmental damage, waste of resources or intermediate products, delays or interruption in mining, production or transportation activities, monetary losses and possible legal liability. The insurance we maintain against risks that are typical in our business may not provide adequate coverage. Insurance against some risks (including liabilities for environmental pollution or certain hazards or interruption of certain business activities) may not be available at a reasonable cost or at all. As a result, accidents or other negative developments involving our mining, production or transportation facilities could have a material adverse effect on our operations.

Risks Relating to Brazil

The Brazilian government has historically exercised, and continues to exercise, significant influence over the Brazilian economy. Brazilian political and economic conditions have a direct impact on our business and the market price of our securities.

The Brazilian government frequently intervenes in the Brazilian economy and occasionally makes substantial changes in policy, as often occurs in other emerging economies. The Brazilian government's actions to control inflation and effect other policies have often involved wage and price controls, currency devaluations, capital controls and limits on imports, among other things. Our business, financial condition and results of operations may be adversely affected by factors in Brazil including:

- currency fluctuations;
- inflation;
- monetary policy and interest rates;
- fiscal policy;
- tariff policy;
- exchange controls;
- energy shortages; and
- other political, social and economic developments in or affecting Brazil.

Inflation and government measures to curb inflation may contribute significantly to economic uncertainty in Brazil and to heightened volatility in the Brazilian securities markets and, consequently, may adversely affect the market value of our securities.

Brazil has in the past experienced extremely high rates of inflation, with annual rates of inflation during the last ten years reaching as high as 1,158% in 1992, 2,708% in 1993 and 1,093% in 1994 (as measured by the Índice Geral de Preços do Mercado published by Fundação Getúlio Vargas, or IGP-M Index). More recently, Brazil's rates of inflation were 9.9% in 2000, 10.4% in 2001, 25.3% in 2002 and 7.0% for the five months ended May 31, 2003 (as measured by the IGP-M Index). Inflation, governmental measures to combat inflation and public speculation about possible future actions have in the past had significant negative effects on the Brazilian economy, and have contributed to economic uncertainty in Brazil and to heightened volatility in the Brazilian securities markets. If Brazil experiences substantial inflation in the future, our costs may increase, our operating and net margins may decrease and, if investor confidence declines, the price of our securities may fall. Inflationary pressures may also curtail our ability to access foreign financial markets and may lead to further government intervention in the economy, which could involve the introduction of government policies that may adversely affect the overall performance of the Brazilian economy.

Fluctuations in the value of the real against the value of the U.S. dollar may result in uncertainty in the Brazilian economy and the Brazilian securities market and could lower the market value of our securities.

The Brazilian currency has historically suffered frequent devaluation and depreciation. In the past, the Brazilian government has implemented various economic plans and exchange rate policies, including sudden devaluations, periodic mini-devaluations during which the frequency of adjustments has ranged from daily to monthly, floating exchange rate systems, exchange controls and dual exchange rate markets. Although over long periods, depreciation of the Brazilian currency generally has correlated with the rate of inflation in Brazil, depreciation over shorter periods has resulted in significant fluctuations in the exchange rate between the Brazilian currency and the U.S. dollar and other currencies.

The *real* depreciated 34.3% against the U.S. dollar in 2002, and appreciated 19.1% during the first five months of 2003. The exchange rate between the *real* and the U.S. dollar may continue to fluctuate and may rise or decline substantially from current levels.

Depreciation of the *real* relative to the U.S. dollar reduces the U.S. dollar value of distributions and the dividends on our American depositary shares and may also reduce the market value of our securities. Depreciation also creates additional inflationary pressures in Brazil by generally increasing the price of imported products and requiring recessionary government policies to curb aggregate demand. On the other hand, appreciation of the *real* also tends to have a negative impact on our margins because most of our costs are denominated in *reais*, while most of our revenues are denominated in U.S. dollars. In addition, appreciation of the *real* against the U.S. dollar may lead to a deterioration of the current account and the balance of payments, as well as dampen export-driven growth. For additional information about historical exchange rates, see *Item 3. Key Information—Exchange Rates*.

Access to international capital markets for Brazilian companies is influenced by the perception of risk in Brazil and other emerging economies, which may hurt our ability to finance our operations.

International investors generally consider Brazil to be an emerging market. As a result, economic and market conditions in other emerging market countries, especially those in Latin America, influence the market for securities issued by Brazilian companies. As a result of economic problems in various emerging market countries in recent years (such as the Asian financial crisis of 1997, the Russian financial crisis in 1998 and the Argentinian financial crisis which began in 2001 and is continuing), investors have viewed investments in emerging markets with heightened caution. This has resulted in a significant outflow of U.S. dollars from Brazil, and Brazilian companies have faced higher costs for raising funds, both domestically and abroad, and have been impeded from accessing international capital markets. We cannot assure you that international capital markets will remain open to Brazilian companies or that prevailing interest rates in these markets will be advantageous to us. In addition, future financial crises in emerging market countries may have a negative impact on the Brazilian markets, which could adversely affect our share price.

Risks Relating to the American Depositary Shares

Restrictions on the movement of capital out of Brazil may hinder your ability to receive dividends and distributions on American depositary shares, and the proceeds from any sale of American depositary shares.

From time to time, the Brazilian government may impose restrictions on capital outflow that would hinder or prevent the custodian who acts on behalf of the depositary for the American depositary shares from converting proceeds from the shares underlying the American depositary shares into U.S. dollars and remitting those proceeds abroad. Brazilian law permits the government to impose these restrictions whenever there is a serious imbalance in Brazil's balance of payments or reason to foresee a serious imbalance.

The Brazilian government imposed remittance restrictions for approximately six months in 1989 and early 1990. If enacted in the future, similar restrictions would hinder or prevent the conversion of dividends, distributions or the proceeds from any sale of shares from *reais* into U.S. dollars and the remittance of the U.S. dollars abroad. In that event, the custodian, acting on behalf of the depositary, will hold the *reais* it cannot convert for the account of the holders of American depositary receipts who have not been paid. The depositary will not invest the *reais* and will not be liable for interest on those amounts. Furthermore, any *reais* so held will be subject to devaluation risk.

If you exchange American depositary shares for the underlying shares, as a result of Brazilian regulations you risk losing the ability to remit foreign currency abroad and Brazilian tax advantages.

The Brazilian custodian for the shares underlying our American depositary shares will obtain an electronic registration from the Central Bank of Brazil to entitle it to remit U.S. dollars abroad for payments of dividends and other distributions relating to the shares underlying our American depositary shares or upon the disposition of the underlying shares. If you decide to exchange your American depositary shares for the underlying shares, you will be entitled to continue to rely, for five business days from the date of exchange, on the custodian's electronic registration. Thereafter, you may not be able to obtain and remit U.S. dollars abroad upon the disposition of, or

distributions relating to, the underlying shares unless you obtain your own electronic registration by registering your investment in the underlying shares under Resolution No. 2,689 of the National Monetary Council, which entitles foreign investors to buy and sell securities on the São Paulo stock exchange, or BOVESPA. For more information regarding these exchange controls, see *Item 10. Additional Information—Exchange Controls and Other Limitations*. If you attempt to obtain your own electronic registration, you may incur expenses or suffer delays in the application process, which could delay your ability to receive dividends or distributions relating to the underlying shares or the return of your capital in a timely manner. We cannot assure you that the custodian's electronic registration or any certificate of foreign capital registration obtained by you will not be affected by future legislative changes, or that additional restrictions applicable to you, the disposition of the underlying shares or the repatriation of the proceeds from disposition will not be imposed in the future.

Because we are not obligated to file a registration statement with respect to preemptive rights relating to our shares, you might be unable to exercise those preemptive rights.

Holders of American depositary receipts that are residents of the United States may not be able to exercise preemptive rights, or exercise other types of rights, with respect to the underlying shares. Your ability to exercise preemptive rights is not assured unless a registration statement is effective with respect to those rights or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement relating to preemptive rights with respect to the underlying shares, and we cannot assure you that we will file any registration statement. If a registration statement is not filed and an exemption from registration does not exist, JPMorgan Chase Bank, as depositary, will attempt to sell the preemptive rights, and you will be entitled to receive the proceeds of the sale. However, the preemptive rights will expire if the depositary cannot sell them. For a more complete description of preemptive rights with respect to the underlying shares, see *Item 10. Additional Information—Common Shares and Preferred Shares—Preemptive Rights*.

Holders of our American depositary shares may encounter difficulties in the exercise of voting rights.

Holders of our common and preferred shares are entitled to vote on shareholder matters. You may encounter difficulties in the exercise of some of your rights as a shareholder if you hold our American depositary shares rather than the underlying shares. For example, under some circumstances, such as our failure to provide the depositary with voting materials on a timely basis, you may not be able to vote by giving instructions to the depositary on how to vote for you.

Holders of our American depositary shares may have fewer and less well defined shareholder's rights than in the United States and certain other jurisdictions.

Our corporate affairs are governed by our by-laws and the Brazilian Corporation Law, which may differ from the legal principles that would apply if we were incorporated in a jurisdiction in the United States or in certain other jurisdictions outside Brazil. Under the Brazilian Corporation Law holders of our common and preferred shares may have fewer and less well-defined rights to protect their interests relative to actions taken by our board of directors or the holders of common shares than under the laws of some jurisdictions outside Brazil.

Although Brazilian law imposes restrictions on insider trading and price manipulation, the Brazilian securities markets are not as highly regulated and supervised as the U.S. securities markets or markets in certain other jurisdictions. In addition, rules and policies against self-dealing and regarding the preservation of minority shareholder interests may be less well developed and enforced in Brazil than in the United States, which could potentially disadvantage you as a holder of the underlying shares and American depositary shares. For example, when compared to Delaware general corporation law, Brazilian Corporation Law and practice has less detailed and well-established rules and judicial precedents relating to the review of management decisions against duty of care and duty of loyalty standards in the context of corporate restructurings, transactions with related parties, and sale-of-business transactions. In addition, shareholders in Brazilian companies ordinarily do not have standing to bring a class action.

Item 4. Information on the Company**BUSINESS OVERVIEW****General**

We are one of the world's largest producers and exporters of iron ore and pellets. We are the largest diversified mining company in the Americas by market capitalization and one of the largest companies in Brazil. We hold exploration claims that cover 7.6 million hectares (18.8 million acres). We operate large logistics systems including railroads and ports that are integrated with our mining operations. Directly and through affiliates and joint ventures, we have major investments in the energy, aluminum-related and steel businesses.

For the year ended December 31, 2002, we had consolidated gross operating revenues of US\$ 4,282 million, of which 65.9% were attributable to sales of iron ore and pellets, 10.7% were attributable to third-party logistics services, 10.8% were attributable to sales of aluminum-related products, 6.6% were attributable to sales of manganese and ferroalloys and 2.4% were attributable to sales of gold. For the year ended December 31, 2002, we recorded consolidated operating income of US\$ 1,429 million and consolidated net income of US\$ 680 million.

Our principal lines of business are:

- *Mining.* Our primary mining activities involve iron ore. We operate two world-class integrated systems in Brazil for producing and distributing iron ore, each consisting of mines, railroads and port and terminal facilities. The Southern System, based in the states of Minas Gerais and Espírito Santo, contains aggregate estimated proven and probable iron ore reserves of approximately 2.9 billion tons with an average grade of 54% iron. The Northern System, based in the states of Pará and Maranhão, contains aggregate estimated proven and probable iron ore reserves of approximately 1.5 billion tons with an average grade of 67% iron. We also operate ten pellet-producing facilities, six of which are joint ventures with international partners, and have a 50% stake in Samarco Mineração S.A., or Samarco, in Ponta do Ubú, which owns and operates two pelletizing plants. In addition, as part of our mineral prospecting and development activities in Brazil, we have acquired extensive experience in exploration techniques and processes specifically designed for use in tropical areas of the world. Our current mineral exploration efforts are mainly in Brazil and focus on copper, gold, nickel, manganese, kaolin and platinum group metals. Expenditures for mineral exploration were US\$ 50 million in 2002. We currently hold claims to explore approximately 7.6 million hectares (18.8 million acres). We also produce kaolin, potash and gold. In June 2003, we agreed to sell our one remaining operating gold mine.
- *Logistics.* In our logistics business, we provide customers with various forms of transportation and related support services, such as warehouse, port and terminal services. We are a leading competitor in the Brazilian transportation industry. Each of our iron ore complexes incorporates an integrated railroad network linked to automated port and terminal facilities, and is designed to provide iron ore, freight and passenger rail transportation, bulk terminal storage and ship loading services to us and third parties. For 2002, our railroads transported approximately 55% of the total freight tonnage transported by Brazilian railroads, or approximately 171 million tons of cargo, of which 120 million tons were our iron ore and pellets. Of the total amount of iron ore and other products transported, 28% was for third parties and 72% was for us. Our two wholly-owned railroads, the Vitória-Minas railroad and the Carajás railroad, serve primarily to transport our iron ore products from interior mines to coastal port and terminal facilities. In addition, the Vitória-Minas railroad carries significant amounts of third-party cargo as well as passengers. We have nearly completed our exit from the dry-bulk shipping business, which began in 2001.
- *Energy.* Since 2001, we have considered energy to be an important supporting business, although at present energy production does not yet represent a significant portion of our activities. We currently hold stakes in ten hydroelectric power generation projects (Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I, Capim Branco II, Foz do Chapecó, Santa Isabel and Estreito), which have a total projected capacity of 4,451 MW. We are currently negotiating with ANEEL to return the concession for the Santa Isabel hydroelectric project. The Igarapava, the Porto Estrela and the Funil power plants started operations in January 1999, September 2001 and December 2002, respectively. Our remaining power generation projects are scheduled to start operations within the next five years. Depending on market conditions, the