

>> Duurzaam, Agrarisch, Innovatief en Internationaal ondernemen



Colofon

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Opgesteld door: Willem Moraal					
Contactpersonen: Willem Moraal					
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1 Summary

This sector sketch brings an overview of Mining activity in Brazil, its relevance to the Brazilian economy and a closer look at Minas Gerais, the most important mining state. Opportunities for Dutch companies have been identified and NBSO Brazil has developed multiple events and activities to expose these opportunities to Dutch companies.

There are opportunities for Dutch companies in the areas of supply of mining equipment and consultancy in areas of Monitoring (incl. dam safety), efficient water usage, tailings management and residue treatment (amongst others)

A good opportunity to get to know the market and talk to all big mining companies and stakeholders are the EXPOSIBRAM trade shows and congress.

2 Brazilian Mining

On a global scale, Brazil is an important player ranking as the world's fifth largest mineral producer (2016). Mining is of mayor importance to the Brazilian economy. Totaling an estimated US\$ 34 Billion in mineral production for 2018, mineral extraction accounts for about 4% of total Brazilian GDP.

2.1 Mineral production in Brazil

Brazil stands out mainly in the production of iron, bauxite (aluminum), manganese and niobium. The variety and geographical spread of mining activity in Brazil is shown in figure 2.1. The two largest mining reserves are located in Carajás (Pará) and the Iron Quadrangle (Minas Gerais).

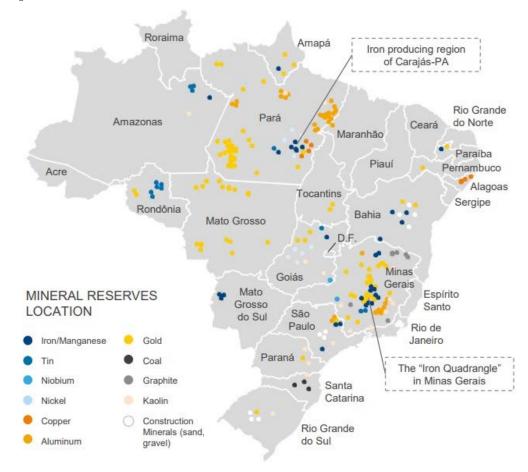
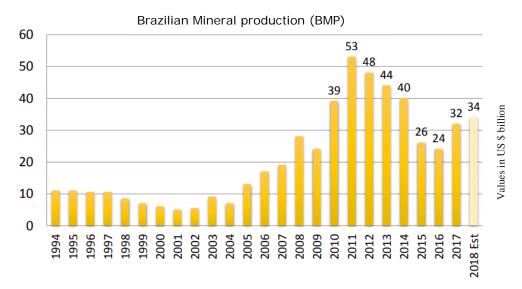


Figure 2.1. Mineral reserves locations in Brazil

Source: IBRAM

For 2018 total mineral production is estimated at US\$ 34 Billion. Although these numbers are quite expressive, mineral production is down by 40% compared to 2011 when production peaked at US\$ 53 Billion. The substantial rise in production since 2005 and the fall after the peak in 2011 are shown in the figure 2.2.

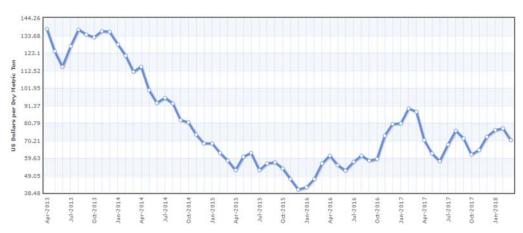
Figure 2.2. Brazilian Mineral Production 1994-2018



Source: IBRAM - Values represent Mineral Extractive Industry, does not include Oil and Gas. The BMP is the sum of all the mineral goods produced in the country calculated in billions of dollars, IBRAM methodology

The Brazilian mining industry depends heavily on exports. Therefore, the mineral prices in international commodity markets have a huge impact on the mining companies. Falling prices since 2013 (as shown in figure 2.3.) were the main factor causing the decline of mineral production, especially iron ore. Gold, nickel, coal, copper, bauxite/aluminum and other minerals also followed the same trend of falling prices. The steady increase in mining commodity prices since the beginning of 2016, as shown in figure 2.3., improved optimism and the investment climate for the Brazilian mining sector.

Figure 2.3. Price development of iron ore 2013-2018



Source: Indexmundi.com

2.2 Importance of mining for the Brazilian economy

Trade Balance

Totaling over 20 US\$ billion, in 2017, the mining sector was responsible for an estimated 30% of the positive Brazilian trade balance, as shown in figure 2.4.

The sector accounted for 21% of all Brazilian export sales. This positive performance was driven mainly by sales of iron ore. Exports of the iron ore accounted for 44% of

all foreign trade in the mineral sector. The export of gold also stood out in the period and reached US \$ 1.4 billion.

The trade data consolidated by the Department of Geology, Mining and Mineral Processing (SGM) of the Ministry of Mines and Energy, includes mining (extractive industry without oil and gas) and the mineral processing industry (metals, non-metals and chemical compounds).

Brazilian Trade Balance

Trade balance Mineral Sector
Trade balance Brazil

Figure 2.4. Participation of mining in the Brazilian Trade Balance 2015-2017

Source: MDIC

Employment

A second factor that shows the importance of the Mineral sector for the Brazilian economy is the number of jobs related to mining. Year-end 2017 this number totaled over 180.000 direct jobs and an estimated 2 million indirect jobs related to miming activity. The trend follows the Mineral production, so the number of jobs created in 2018 is expected to grow accordingly.

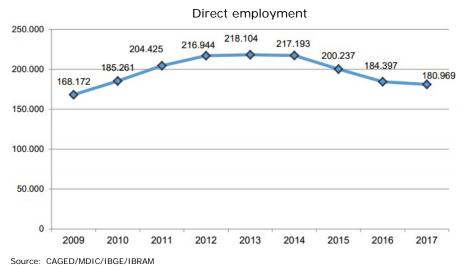


Figure 2.5. Direct employment in the Brazilian Mining sector 2009-2017

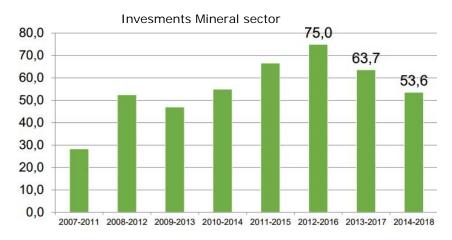
Source: CAGED/MDTC/TBGE/TB

Investments

Another important indicator for the importance of mining to the Brazilian economy is (expected) investments. Figure 2.6. shows the investments on a 5 to 5 year basis. Although down from the record 75 US\$ billion in the 2012-2016 period, investments

for 2015-2020 are expected to pick up again with the opening of new mines and reactivating closed mines due to continued recovery of mineral commodity prices.

Figure 2.6. Investments mineral sector 5 to 5 year period 2007-2018



Source: IBRAM

3 Mining states in Brazil; Minas Gerais and Pará

Minas Gerais accounts for 43% of total mineral exports (2017) and Pará, the second largest Brazilian mining state, is responsible for 21% of total Brazilian Minerals exports. Besides aluminum, gold, copper, nickel and manganese Pará holds the largest iron ore mine in the world with known reserves in the order of 18 billion tons.

Presidente Figueiredo (AM) Paragominas (PA) Aluminum Iron, Gold, Copper, Nickel and Manganese Alagoas (AL) Copper Sergipe (SE) Bauxite, Iron, Vanadium, Aggregates, Pedra Azul/Salto da Divisa (MG) Graphite Governador Valadares (MG) MINAS GERAIS Gems Gold Espírito Santo (ES) Omamental Rocks Copper Unique (MS) Rio de Janeiro (RJ) Gold Manganese and Iron Aggregates Aluminum Iron Quadrangle Iron, Gold, Manganese and Bauxite Tin Araxá (MG) Cooper, Nokel and Gold Niobium Iron-Manganese Graphite Aggregates Kaolin Rio Grande do Sul (RS) Nickel Amethyst and Aggregates Coal Aggregates Talc Criciúma (SC) Coal Source: IBRAM - 2012

Figure 3.1. Minerals in Brazil

3.1 The state of Minas Gerais

Minas Gerais (literally translated as General Mines) is a state in Southeastern Brazil. It ranks as the second most populous, the third by gross domestic product (GDP), and the fourth largest by area in the country. The state's capital and largest city, Belo Horizonte, is a major urban center in Latin America. Its metropolitan area is the third largest in Brazil, with just over 5.5 million inhabitants, after São Paulo and Rio de Janeiro.



State of Minas Gerais

Population: 20.9 million

Economy: 137 Billion US\$ (2016) Size: 586.528 km² (> France)

Capital: Belo Horizonte

In Brazil, the second state in terms of industrial production and exports.

Largest mineral producing state, accounts for 43% of total Brazilian mineral exports (2017).

In 2017 the Mineral Sector in the state of Minas Gerais accounted for 64% of the total trade balance. Besides minerals, Minas Gerais is a major producer of milk, coffee and other agricultural commodities. High tech companies are present as well: Philips relocated its healthcare division to Minas Gerais and a there is a strong presence of the automotive industry with manufacturers like Fiat, Mercedes-Benz and Iveco.

The state has the largest roadway system and the second largest railway system in the country, besides and international airport and five dry ports to facilitate customs. NBSO Brazil operates from the city of Belo Horizonte since 2014.

3.2 The state of Pará

The second most important Brazilian mining state is Pará, is a state in northern Brazil. The capital and largest city is Belém is the 11th most populous city in the country. It's the second-largest state of Brazil in area, with 1,2 million km².

Besides minerals such as iron ore and bauxite, Pará produces rubber and tropical hardwoods. The mining sector of Pará represents 14% of the state's Gross Domestic Product (GDP). There are several seaports in and around Belem for both bulk and container ships as well as an international airport.

Located in the Carajás Mountains, the Ferro Carajás Project, operated by Vale, is the largest iron ore mine in the world. Largely powered by hydroelectric power from the Tucuruí Dam this open-pit mine with known reserves in the order of 18 billion tons with an average grade of 65.4% Fe also holds gold, manganese, copper, and nickel.

4 Mayor players Brazil

There's a large number of Brazilian and foreign mining companies active in Brazil. The mayor players on the Brazilian mining scene with a short description of their activities are discussed in the following two paragraphs. The 75 largest Brazilian mining companies (2016) are listed in Attachment I.

4.1 Brazilian Mining companies

VALE S.A. - Privatized in 1997, Vale is Brazil's largest mining company. Although Brazil only ranks third in iron ore production, Brazilian Vale is the largest producer of iron ore globally (2015). In 2016 Vale produced 348.8 million tons of iron ore and holds an estimated reserve of 17500 million tons. Annual turnover in 2016 totaled US\$30 billion. Vale employs 76 thousand persons worldwide.

SAMARCO - Until recently the third largest Brazilian mining company. It belongs 50% to Vale and 50% to BHP, and was producing 30 Mt of iron ore pellets per year. Samarco has totally discontinued its production when its tailings dam collapsed on November 5th, 2015, causing the worst environmental disaster in Brazilian history. It is looking to re-start its operations in 2018/2019, depending on litigation in many complex cases being discussed in court.

CBMM - is the world's leading supplier of niobium and niobium technology providing over 80% of the world's supply. Headquartered in Brazil, the Company's Araxá mine holds the planet's largest known niobium reserves.

USIMINAS - Usiminas is one of the largest producers of steel in the Americas, operates its own mines for its major steel mills in Brazil with a total capacity of 9.5 million metric tons of steel per year. The company accounts for 28% of total steel output in Brazil. Currently employs 46 thousand.

GERDAU - One of the largest Brazilian steel-makers, produced nearly 8 Mt of iron ore in 2015, mainly for its own consumption.

VOTORANTIM - The largest industrial conglomerate in Brazil, it is the only local producer of zinc and the fifth largest in the world, with an output of 690,000 tons of electrolytic zinc in 2015

CRM - There are 13 coal mining companies operating in Brazil and all of them are small if compared to international producers. The largest is CRM (Companhia Riograndense de Mineração), which is owned by the state of Rio Grande do Sul. All its operations are open pit mines, but it has had underground mines in the past. This is the only state-owned mining company in Brazil. It had an output of 2.5 mi tons of processed coal in 2014.

4.2 Foreign mining operations in Brazil

CSN - Brazil's second largest mining company, produced 35 Mt/y of iron ore in 2015, in joint-venture with several Japanese and Korean partners. It is also the second largest Brazilian steel producer, with an output of 6 Mt/y of steel.

MRN - Mineração Rio do Norte is the fourth largest mining company in Brazil and the largest Brazilian producer of bauxite, producing 18 Mt yearly. CRM is formed by an association of domestic and foreign companies that has been in operation since 1979 in the Amazon, in the western region of Pará state.

V&M - Vallourec & Mannesmann has a yearly output of 4 MT of iron ore, mainly for its own consumption.

YAMANA GOLD - Yamana has two big operations: "Chapada" mine, which produces gold and copper and the "Jacobina" mine.

ANGLOGOLD ASHANTI - The second largest gold producer in Brazil, producing 13% of its worldwide output in Brazil).

ARCELORMITTAL - Brazil's third largest steel producer has had a potential output of 7 Mt of iron ore per year, for its own steel mills.

KINROSS GOLD CORP – Canadian mining company became Brazil's largest gold producer in 2008. Its output in Brazil has been more than 500,000 oz/year. Its Paracatu mine is the largest gold mine in Brazil.

AMG N.V. - Dutch AMG has two subsidiaries in Brasil. AMG Brazil produces Tantalum and Niobium Oxides, Aluminum Master Alloys and Grain Refiners. AMG Mineração produces Spodumene Concentrate, Tantalum Concentrate, Tin in Ingots and Feldspar.

5 Opportunities for Dutch suppliers to Brazilian mining companies

Although expected investments for the coming years in the Brazilian mineral industry are substantially lower than they used to be, investment in maintenance of existing capacities is still one of highest in the world.

Opportunities for Dutch companies can be found in the following areas;

- equipment, especially focused on cost/water usage reduction and productivity gains
- innovative technology, including in sustainable reuse of waste, dam tailings solutions and water treatment
- environmental and water services expertise
- other supply chain products and services, including energy efficiency, project and asset management, health and safety, IT solutions and security systems
- port and rail logistics
- research and development, including industrial applications of advanced materials

Export of (mining) equipment to Brazil

The Brazilian market for mining equipment is very competitive. Most large multinational manufacturers have factories in Brazil, where they manufacture for the domestic market and frequently also export from Brazil to other countries. Typically, these companies use 50% to 90% Brazilian-made components to build their equipment in Brazil, in terms of value of the final product.

Figure 5.1. The size of the market for Mining equipment in Brazil

Mining equipement	2014	2015	2016 (estimated)	2017 (estimated)
Total Market Size	5000	4810	4310	4520
Total Local Production	5400	5200	4700	4900
Total Exports	800	770	740	760
Total Imports	400	380	350	380

Unit US\$ Millions

Data Sources: Brazilian Mining Institute (IBRAM), the Brazilian Ministry of Industry and Commerce (MDIC) and press reports
Brazilian Ministry of Industry and Commerce (MDIC)

It is highly recommended for foreign manufacturers of equipment to have some degree of local presence in Brazil. Smaller companies that cannot afford to establish a local subsidiary must at least have a good Brazilian representative that can supply or subcontract technical maintenance and some degree of local assembling. Brazil's mining companies, even the very large ones, prefer to contract a Brazil-based representative and do all the import procedures through them, instead of contacting the foreign suppliers directly.

Import tariffs and fees in Brazil are high. Import duties on mining equipment normally range between 5 to 12%, calculated based on the CIF (cost, insurance and freight) price. Beside the import duties there are three local taxes due upon entry of goods:

• IPI Industrialized Products Tax, federal tax calculated on top of the CIF price plus Import Tax, is 5% to 8% for most products

- ICMS Merchandise and Services Circulation Tax, a state government valueadded tax, is 18% of the final price in most Brazilian states and products
- PIS/COFINS, Social Integration and Social Security Financing Contributions:
 9.25% but can represent up to 12.63% of the CIF price due to complex calculation formula

Additional Miscellaneous Taxes and Fees: Warehousing, handling charges at port, transportation, etc.

Providing services to Brazilian Mining Companies

Although more difficult to quantify, there are possibilities for Dutch consultancy and engineering companies in the areas of areas of monitoring (incl. dam safety), efficient water usage, tailings management and residue treatment amongst others.

During a scoping mission organized by Consulate General in Rio de Janeiro and NBSO Brazil in cooperation with the Netherlands Water Platform (NWP) in March 2017 opportunities were identified in the above-mentioned areas with special attention for a broader issue: efficient water usage in mining.

In the 2017 scoping report, it was put as follows:

"In certain mining areas in Minas Gerais the groundwater levels are dropping. Mines in the area depend on this groundwater. At the moment production is low due to the lower demand but if everybody goes back to full production they are afraid of a water crises especially because the levels are already lowering. They need water security and clear rules from the authorities, to be able to plan and make their investment plans. The authorities are not proactive. Therefore some mining companies took own initiatives. Usiminas, for example, developed a groundwater model (ModFlow model made by Slumberger). Alternatives are water from the nearest river or buying from a concessionaire but both options are expensive."

Opportunities and leads

Because of the opportunities identified during the scoping mission mentioned before, a mission with ten Dutch companies was organized coinciding with the International Mining Exhibition & Congress in Belo Horizonte. NBSO Belo Horizonte in cooperation with the Consulate General in Rio de Janeiro and the Dutch National Water Platform (NWP) organized a Holland stand at the exhibition.

A NBSO Brazil organized visit by the Minas Gerais State Secretary of Environment Mr. Vieira to The Netherlands in October 2017 led to the organization of the first international seminar on Tailingdam Technologies & Management, early 2018, in Belo Horizonte.

The seminar followed in line of the prioritization on monitoring installed by the State Government of Minas Gerais after the episode of the collapse of the Fundão Dam, in Mariana, together with a taskforce. The taskforce resulted in initiatives that aim at the modernization of laws, as well as the adoption of more stringent criteria for the management of dams in the state. Ten Dutch companies came to Minas Gerais to participate in the Seminar as well as an onsite visit to tailingsdams.

At the time of writing, a next event is foreseen for August 2018. From August 1st to 3rd 2018 the 9th Brazilian Congress on Open Pit and Underground Mines (http://portaldamineracao.com.br/cbmina/) will be held in Belo Horizonte. This year's main theme will be Tailingdam Technology and management. Dutch companies can participate in the seminar and meet with the mayor Mining corporations (Vale, Usiminas, Arcelor, Kinross etc). Interested companies can contact NBSO Brazil for information on participation.

Dutch companies interested in doing business in Brazil are encouraged to contact the NBSO in Belo Horizonte for further information, specific market information, introductions and questions related to trade or investment.

6 Trade Show and Congress

EXPOSIBRAM, the International Mining Exhibition, held biannually in September, organized by IBRAM (www.ibram.org.br), with support from local mining companies and manufacturers of mining equipment. Website: http://www.exposibram.org.br

This trade show is highly recommended to Dutch companies looking to supply to or partner with Brazilian mining (supply chain) companies. This is also an opportunity to get in touch with local and national government entities.

With over 50,000 visitors and 500 exhibitors, EXPOSIBRAM is the largest mining trade show in Latin America, EXPOSIBRAM features 13,000 m² of stands, represented by the major mining companies with global operations as well as big suppliers of products and services. Innovations in technology, equipment, software and other products related to the mining industry, and information about investment and management are released and presented at the event (www.exposibram.org.br)

Held in parallel to the exhibition, the Brazilian Mining Congress attracts more than two thousand participants from experts, researchers, students and business representatives. The agenda of the lectures takes into account the global political and socioeconomic context as well as the business perspectives for the coming decades announced by the mining companies.

In 2018 the show will be held from October 29th to November 1st, in Belem (Pará). In 2019 the Exposibram show will be back in Belo Horizonte. (MG)

Attachment I Largest Brazilian Mining Companies

Ranking	Company	Mineral		ated yearly prodcution alue in Brazilian R\$	Volume represented as compared to all Brazilian Mining Companies
1	Vale S.A.	Iron	R\$	32.663.868.848,50	37,20%
2	Minerações Brasileiras Reunidas S.A.	Iron	R\$	9.340.667.836,50	10,64%
3	Salobo Metais S.A.	Copper e Gold	R\$	4.641.158.690,00	5,29%
4	CSN Mineração S.A.	Iron and Dolomite	R\$	3.014.001.301,50	3,43%
5	Anglo American Minério de Ferro Brasil S.A.	Iron	R\$	2.378.469.690,50	2,70%
6	Kinross Brasil Mineração S.A.	Gold	R\$	2.001.665.776,00	2,28%
7	Anglogold Ashanti Córrego do Sítio Mineração S.A.	Gold e Silver	R\$	1.771.853.370,00	2,01%
8	Vale Fertilizantes S.A.	Phosphate and Potassium	R\$	1.757.897.386,80	2,00%
9	Mineração Paragominas S.A.	Bauxite	R\$	1.736.366.651,67	1,98%
10	Mineração Corumbaense Reunida S.A.	Iron	R\$	1.652.203.944,00	1,88%
11	Mineração Maracá Indústria e Comércio S.A.	Copper and Gold	R\$	1.510.483.670,00	1,72%
12	Mineração Rio do Norte S.A.	Bauxite	R\$	1.480.411.576,67	1,68%
13	Vale Manganês S.A.	Manganese	R\$	1.040.786.677,33	1,18%
14	Beadell Brasil Ltda.	Gold	R\$	813.214.732,00	0,93%
15	Votorantim Cimentos Brasil S.A.	Limestone Nickel	R\$	743.072.592,00	0,85%
16	Anglo American Nickel Brasil Ltda. Mineração Serra Grande S.A.	Gold	R\$ R\$	684.931.750,50	0,78%
17	Gerdau Açominas S.A.		R\$	622.923.908,00	0,71%
18 19	Companhia Brasileira de Metalurgia e Mineração	Iron Niobium	R\$	592.990.902,00 587.374.000,00	0,68%
20	Imerys do Brasil Comércio de Extração de Minérios Ltda.	Kaolinite	R\$	500.667.056,50	0,57%
21	Jacobina Mineração e Comércio Ltda.	Gold	R\$	487.577.015,00	0,56%
22	Niobras Mineração Etda.	Niobium	R\$	455.395.785,50	0,52%
23	Votorantim Metais Zinco S.A.	Zinc	R\$	453.337.900,00	0,52%
24	Alcoa World Alumina Brasil Ltda.	Bauxite	R\$	439.278.338,67	0,50%
25	Cadam S.A.	Kaolinite	R\$	422.290.748,00	0,48%
26	Mineração Taboca S.A.	Tin	R\$	379.656.849,00	0,43%
27	SAMA S.A. Minerações Associadas	Chrysotile (asbestos)	R\$	374.111.813,00	0,43%
28	Pilar de Goiás Desenvolvimento Mineral S.A.	Gold	R\$	363.729.562,00	0,41%
29	Mineração Apoena S.A.	Gold	R\$	336.688.144,00	0,38%
30	Mineração Usiminas S.A.	Iron	R\$	309.680.762,00	0,35%
31	Prometálica Mineração Centro Oeste S.A.	Nickel and Copper	R\$	307.753.179,00	0,35%
32	Fazenda Brasileiro Desenvolvimento Mineral Ltda.	Gold	R\$	302.249.069,00	0,34%
33	Vallourec Mineração Ltda.	Iron	R\$	291.975.126,00	0,33%
34	Mineração Turmalina Ltda.	Gold	R\$	279.656.018,00	0,32%
35	Ferromar Indústria e Comércio Ltda. Ferrous Resources do Brasil S.A.	Iron Iron	R\$ R\$	254.269.974,00 225.524.026,50	0,29% 0,26%
36 37	Serabi Mineração S.A.	Gold	R\$	197.592.707,00	0,23%
38	Mineração Riacho dos Machados Ltda.	Gold	R\$	197.559.673,00	0,23%
39	Arcelormittal Brasil S.A.	Iron	R\$	191.563.032,00	0,22%
40	Copelmi Mineração Ltda.	Coal	R\$	189.574.166,00	0,22%
41	Ferro + Mineração S.A.	Iron	R\$	181.439.644,00	0,21%
42	Nacional de Grafite Ltda.	Grafite	R\$	181.191.098,00	0,21%
43	White Solder Metalurgia e Mineração Ltda.	Tin	R\$	175.761.845,00	0,20%
44	Companhia Riograndense de Mineração	Coal	R\$	163.690.701,50	0,19%
45	Mineração Jundu Ltda.	Quartz sand, Limestone and Dolomite	R\$	163.273.383,00	0,19%
46	Indústria Carbonífera Rio Deserto Ltda.	Coal	R\$	142.707.519,50	0,16%
47	Pará Pigmentos S.A.	Kaolinite	R\$	138.395.121,50	0,16%
48	Mineração Vale do Jacurici S.A.	Cromo	R\$	134.533.717,50	0,15%
49	Magnesita Mineração S.A.	Magnesita	R\$	133.928.223,00	0,15%
50	Minerita Minérios Itaúna Ltda.	Iron	R\$	130.293.577,00	0,15%
51	AMG Mineração S.A. Mineração Serras do Oeste Ltda.	Tantalum, Tin, Niobium and lithium	R\$	129.379.276,00	0,15%
52 53	Nacional Minérios S.A.	Gold Iron	R\$ R\$	125.067.894,00 120.395.204,00	0,14% 0,14%
53	AVB Mineração Ltda.	Copper	R\$	120.193.860,50	0,14%
55	Carbonífera Metropolitana S.A.	Coal	R\$	118.983.397,00	0,14%
56	Red Graniti Mineração Ltda.	Granite	R\$	117.520.532,00	0,13%
57	Copebras Indústria Ltda. (CMOC)	Phosohate	R\$	104.938.003,00	0,12%
58	InterCement Brasil S.A.	Limestone	R\$	102.121.071,00	0,12%
59	Cristal Mineração do Brasil Ltda.	Ilmenite	R\$	101.642.025,50	0,12%
60	Companhia Brasileira de Alumínio	Bauxite	R\$	95.486.311,33	0,11%
61	Vetorial Mineração S.A.	Iron	R\$	94.840.973,50	0,11%
62	Holcim (Brasil) S.A.	Limestone	R\$	89.926.602,00	0,10%
63	Mineração Belocal Ltda.	Limestone	R\$	84.499.195,00	0,10%
64	Vale Metais Básicos S.A.	Nickel	R\$	82.893.426,50	0,09%
65	Vanadium de Maracás S.A.	Vanadium	R\$	77.869.102,50	0,09%
66	Embu S.A. Engenharia e Comércio	Limestone	R\$	76.318.131,50	0,09%
67	Lafarge Brasil S.A. Galvani Indústria Comércio e Serviços S.A.	Limestone Phosphate	R\$ R\$	74.844.328,00 71.247.314,00	0,09%
68 69	Serveng Civilsan S.A.	Limestone	R\$	63.746.266,00	0,08%
70	Ciplan Cimento Planalto S/A	Limestone	R\$	62.605.610,50	0,07%
71	Itaquareia Ind. Extr. Minérios Ltda.	Sand	R\$	60.016.148,00	0,07%
72	Petra Agregados RJ Ltda.	Limestone	R\$	58.625.670,00	0,07%
73	Mineração Bodoquena S.A.	Limestone	R\$	55.827.871,00	0,06%
74	Extrativa Mineral Ltda.	Iron	R\$	54.999.341,50	0,06%
75	MIB Mineração Ibirité Ltda.	Iron	R\$	53.984.622,00	0,06%

Data and information sources:
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Press Reports

Report Scoping Mission for the Dutch Water and Mining platform in Brazil | 26 May 2017 | NWP



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