

Vale S.A.  
Form 6-K  
July 19, 2012  
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**United States  
Securities and Exchange Commission**

Washington, D.C. 20549

**FORM 6-K**

**Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16  
of the  
Securities Exchange Act of 1934**

**For the month of**

**July 2012**

**Vale S.A.**

**Avenida Graça Aranha, No. 26  
20030-900 Rio de Janeiro, RJ, Brazil**

(Address of principal executive office)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

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(Check One) Form 20-F  Form 40-F

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1))

(Check One) Yes  No

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7))

(Check One) Yes  No

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

(Check One) Yes  No

(If  Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b). 82- .)



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## THE FIVE-BILLION TON MARK

Rio de Janeiro, July 18, 2012- Vale S.A. (Vale) celebrated its 70th anniversary on June 1, 2012. Simultaneously, we crossed the extraordinary mark of five billion metric tons of iron ore production accumulated since the company's incorporation(1). The volume of iron ore produced by Vale during these seven decades is sufficient to feed more than two years of global crude steel output at the current pace of 1.5 billion metric tons per annum.

This is a major achievement stemming from a combination of hard work, technological innovation and a generous endowment of natural resources dedicated to supplying the best iron ore in the world to the global steel industry. Metals are the backbone of the modern economy, and Vale as a global mining leader will continue to play an important role in supporting the economic development of nations.

In this context, on June 27, 2012, we obtained the preliminary environmental license (LP) to develop the Carajás S11D (S11D) iron ore project. Located in the Southern Range of Carajás, state of Pará, Brazil, S11D has a nominal capacity to deliver 90 million metric tons per year, with an average ferrous content of 66.48% and low concentration of impurities.

S11D is the largest project not only in Vale's history but also in the entire iron ore industry, being our major lever for production growth and maintenance of Vale's undisputed leadership in the global market in terms of volume, mining costs and quality.

Iron ore output reached 80.5 Mt in 2Q12, a record for a second quarter, thus recovering from the poor performance of the previous quarter, which was caused by adverse weather conditions<sup>2</sup>. Production increased 15.1% against 1Q12 and 0.4% against 2Q11.

The ramp up of new operations, including Moatize, Oman and Bayóvar, was instrumental for achieving all-time high figures for metallurgical coal, 1.3 Mt, pellets, 14.3 Mt, and phosphate rock production, 2.0 Mt.

## Production

000 metric tons	1Q12	2Q12	% change
Iron ore(a)	69,994	80,542	15.1%
Pellets(b)	12,692	14,256	12.3%

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Manganese	484	584	20.6%
Coal(c)	2,350	2,467	5.0%
Nickel	63	61	-3.6%
Copper	73	70	-4.4%
Potash	118	129	8.9%
Phosphate rock	1,826	2,017	10.4%

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- (a) Including Samarco's attributable production.  
(b) Including Samarco's and Hispanobras' attributable production.  
(c) Including El Hatillo's production.
- (1) Iron ore production accumulated from June 1, 1942 to June 1, 2012, totaled 5,007,783,000 metric tons.  
(2) Mt = million metric tons, t = metric tons

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## BULK MATERIALS

- *Iron ore*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>IRON ORE</b>	<b>80,257</b>	<b>69,994</b>	<b>80,542</b>	<b>151,797</b>	<b>150,536</b>	<b>15.1%</b>	<b>0.4%</b>	<b>-0.8%</b>
<b>Northern System</b>	<b>26,019</b>	<b>21,711</b>	<b>27,362</b>	<b>48,670</b>	<b>49,073</b>	<b>26.0%</b>	<b>5.2%</b>	<b>0.8%</b>
Carajás	26,019	21,711	27,362	48,670	49,073	26.0%	5.2%	0.8%
<b>Southeastern System</b>	<b>30,528</b>	<b>26,759</b>	<b>28,296</b>	<b>59,222</b>	<b>55,054</b>	<b>5.7%</b>	<b>-7.3%</b>	<b>-7.0%</b>
Itabira	10,499	8,154	9,184	19,581	17,338	12.6%	-12.5%	-11.5%
Mariana	9,861	9,340	9,080	19,234	18,420	-2.8%	-7.9%	-4.2%
Minas Centrais	10,168	9,265	10,032	20,407	19,297	8.3%	-1.3%	-5.4%
<b>Southern System</b>	<b>19,496</b>	<b>17,667</b>	<b>20,743</b>	<b>36,275</b>	<b>38,409</b>	<b>17.4%</b>	<b>6.4%</b>	<b>5.9%</b>
Minas Itabirito	7,691	7,345	7,993	14,868	15,338	8.8%	3.9%	3.2%
Vargem Grande	5,784	4,800	5,950	10,242	10,750	24.0%	2.9%	5.0%
Paraopeba	6,021	5,521	6,800	11,165	12,321	23.2%	12.9%	10.4%
<b>Midwestern System</b>	<b>1,417</b>	<b>1,302</b>	<b>1,366</b>	<b>2,331</b>	<b>2,668</b>	<b>4.9%</b>	<b>-3.6%</b>	<b>14.5%</b>
Corumbá	1,028	975	915	1,637	1,890	-6.2%	-11.0%	15.5%
Urucum	389	327	451	694	778	38.1%	16.0%	12.1%
<b>Samarco<sup>1</sup></b>	<b>2,798</b>	<b>2,556</b>	<b>2,775</b>	<b>5,300</b>	<b>5,331</b>	<b>8.6%</b>	<b>-0.8%</b>	<b>0.6%</b>

(1) Vale's attributable production capacity of 50%.

In 2Q12 iron ore production was 80.5 Mt, reaching a new record for a second quarter.

Output increased 15.1% on a quarterly basis, with across-the-board gains in all systems, Northern, Southeastern, Southern and Midwestern, as well as Samarco. The end of the rainy season helped the recovery.

Production at the Carajás mining site reached 27.4 Mt in 2Q12, which was the best performance for a second quarter, 26.0% higher than the previous quarter and 5.2% above 2Q11. The increase reflected better weather conditions in 2Q12. The level of rainfall in the Northern System was 50% less in 2Q12 than in 2Q11.

The Southeastern System, which encompasses the Itabira, Mariana and Minas Centrais mining sites, produced 28.3 Mt, 5.7% higher than 1Q12 and 7.3% lower than 2Q11, due to the impoverishment of Itabira and Minas Centrais (Gongo Soco mine) resources.

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The Southern System – Minas Itabirito, Vargem Grande and Paraopeba – produced 20.7 Mt, the best performance for a second quarter since 2Q08 reflecting operational improvements in crushing at Vargem Grande and screening at Minas Itabirito. The output was 17.4% and 6.4% higher than 1Q12 and 2Q11, respectively. Minas Itabirito produced 8.0 Mt in 2Q12, also a new record for a second quarter.

The Midwestern System, Urucum and Corumbá mining sites, produced 1.4 Mt in 2Q12. Production rose 4.9% on a quarter-over-quarter basis and decreased 3.6% on a year-over-year basis. Corumbá's output was 6.2% lower than 1Q12 due to scheduled maintenance stoppage. Urucum's production rose by 38.1%, when compared to 1Q12, reflecting the ramp-up process of a new processing plant, which started in February.

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- *Pellets*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>PELLETS</b>	<b>13,140</b>	<b>12,692</b>	<b>14,256</b>	<b>25,656</b>	<b>26,949</b>	<b>12.3%</b>	<b>8.5%</b>	<b>5.0%</b>
Tubarão I and II	1,440	1,062	1,530	2,776	2,592	44.1%	6.3%	-6.6%
Fábrica	992	907	956	1,939	1,863	5.4%	-3.6%	-3.9%
São Luís	1,349	962	1,373	2,686	2,334	42.7%	1.7%	-13.1%
Vargem Grande	1,321	823	1,383	2,597	2,206	68.2%	4.7%	-15.0%
Oman	336	1,415	1,593	336	3,008	12.6%	374.8%	796.5%
Nibrasco	2,291	2,257	1,977	4,699	4,234	-12.4%	-13.7%	-9.9%
Kobrasco	1,001	1,139	1,258	2,224	2,397	10.5%	25.6%	7.8%
Hispanobras(1)	544	540	565	1,086	1,105	4.7%	4.0%	1.8%
Itabasco	1,135	1,019	1,020	2,155	2,039	0.1%	-10.1%	-5.4%
Samarco(2)	2,731	2,570	2,599	5,159	5,169	1.2%	-4.8%	0.2%

(1) Vale's attributable production capacity of 50.89%.

(2) Vale's attributable production capacity of 50%.

Pellet production reached 14.3 Mt in 2Q12, an increase of 12.3% compared to the previous quarter and 8.5% higher than 2Q11, being a new historical record. The ramp-up of the Oman plants was the main reason for the good year-over-year performance.

Oman operations delivered 1.6 Mt of direct reduction pellets in 2Q12, 12.6% higher than previous quarter.

In 2Q12, the output of the Tubarão I & II plants reached 1.5 Mt, an increase of 44.1% over 1Q12, reflecting the resumption of operation after a maintenance stoppage in 1Q12.

The production of Fábrica was 5.4% higher than 1Q12, but 3.6% lower than 2Q11, still reflecting shortage in pellet feed availability.

Vargem Grande production had an increase of 68.2% on a quarter-over-quarter basis and 4.7% on a yearly basis, recovering from the operational problems faced in mills #1 and #2 in 1Q12.

The output of São Luís was 1.4 Mt in 2Q12, an increase of 42.7% compared to the previous quarter and 1.7% higher than the same quarter of last year, showing recovery in demand.



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In 2Q12, Nibrasco had a decrease of 12.4% over 1Q12 and 13.7% over 2Q11, due to the maintenance stoppage in the quarter.

Kobrasco production was 10.5% and 25.6% above 1Q12 and 2Q11, respectively, reflecting a greater supply of pellet feed in 2Q12 and the recovery from last year's maintenance stoppage.

The attributable production of the three pellet plants of the 50%-owned Samarco JV was in line with the previous quarter, but 4.8% lower than 2Q11 due to a maintenance stoppage.

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- Manganese ore and ferroalloys*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>MANGANESE ORE</b>	<b>619</b>	<b>484</b>	<b>584</b>	<b>1,117</b>	<b>1,068</b>	<b>20.6%</b>	<b>-5.6%</b>	<b>-4.4%</b>
Azul	486	379	463	902	843	22.2%	-4.6%	-6.6%
Urucum	82	67	81	134	148	22.1%	-0.7%	10.2%
Other mines	51	38	39	81	78	3.0%	-23.3%	-3.8%
<b>FERROALLOYS</b>	<b>114</b>	<b>106</b>	<b>109</b>	<b>227</b>	<b>215</b>	<b>2.7%</b>	<b>-4.2%</b>	<b>-5.3%</b>
Brazil	52	50	46	104	96	-6.7%	-11.6%	-7.8%
Dunkerque	37	30	35	74	64	17.1%	-4.9%	-12.4%
Mo I Rana	25	27	28	50	55	4.3%	12.2%	10.1%

In 2Q12, manganese ore production increased 20.6% on a quarterly basis, reaching 584,000 t versus 484,000 t in 1Q12.

Output of the Carajás manganese mine Azul was the main contributor to the improved output, producing 463,000 t in 2Q12, due to the end of the rainy season in Brazil. The 4.6% reduction in output compared to 2Q11 was related to low physical availability of the plant in 2Q12.

Urucum also had a stronger performance, 22.1% higher than 1Q12, reaching 81,000 t in 2Q12, reflecting operational improvements in the equipments in the underground mine.

Production of manganese ore at Morro da Mina, part of the other mines, improved only 3% quarter-over-quarter due to the worsening of the stripping ratio. Waste removal is being intensified during 2012 in order to return production to normal levels.

Ferroalloy 2Q12 production was slightly higher than 1Q12, but below 2Q11, due to lower Brazilian output related to the stoppage for maintenance during the quarter. Production in 2Q12 was comprised of 59,800 t of ferrosilicon manganese alloys (FeSiMn), 43,400 t of high-carbon manganese alloys (FeMnHc) and 5,900 t of medium-carbon manganese alloys (FeMnMC).

Production from operations at Dunkerque in France recovered illustrating improved demand for FeMnHC compared to 1Q12. Furthermore, production from the Norwegian operations of Mo I Rana continued to rise because of better operational efficiency, increasing 4.3% against 1Q12 and 12.2% year-over-year.

We signed this month an agreement to sell the Dunkerque and Mo I Rana operations as part of the optimization of our asset portfolio.



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- Coal

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>METALLURGICAL</b>								
<b>COAL</b>	<b>518</b>	<b>1,127</b>	<b>1,277</b>	<b>1,007</b>	<b>2,403</b>	<b>13.3%</b>	<b>146.3%</b>	<b>138.8%</b>
Moatize	0	501	728	0	1,229	45.2%	n.m.	n.m.
Carborough Downs	368	325	82	599	407	-74.8%	-77.8%	-32.1%
Integra Coal	30	124	266	216	390	115.0%	793.5%	80.9%
Others	121	177	201	192	378	13.6%	66.3%	96.6%
<b>THERMAL COAL</b>								
<b>THERMAL COAL</b>	<b>787</b>	<b>1,223</b>	<b>1,190</b>	<b>1,720</b>	<b>2,414</b>	<b>-2.7%</b>	<b>51.3%</b>	<b>40.3%</b>
Moatize	0	193	390	0	583	101.7%	n.m.	n.m.
El Hatillo	698	848	571	1,533	1,419	-32.7%	-18.2%	-7.5%
Integra Coal	25	81	121	96	202	50.5%	381.9%	110.9%
Others	63	102	108	91	210	6.5%	70.9%	130.8%

Coal production in 2Q12 was 2.5 Mt, compared to 2.4 Mt in 1Q12. We achieved an all time high quarterly figure for metallurgical coal production, 1.277 Mt, which represented an increase of 13.3% over 1Q12. The output of thermal coal, excluding El Hatillo, showed an improvement of 65%. In both cases the ramp-up of Moatize was the main contributor.

The ramp-up of Moatize, the first phase of the Moatize coal project, in Tete, Mozambique, is moving ahead as planned, with 728,000 t of hard coking coal and 390,000 t of thermal coal produced in 2Q12. Output composition is converging to the planned mining split of 80% metallurgical coal and 20% thermal.

Moatize, a long life low cost world-class asset, will reshape our coal business, providing the scale, cost structure and quality - Chipanga prime HCC - required to become an important source of shareholder value creation.

In 2Q12, production of metallurgical and thermal coal at Integra Coal, in Australia, was 266,000 t and 121,000 t, respectively. Metallurgical coal production improved after geological issues were solved in 1Q12 and also due to the end of the rainy season in New South Wales, which contributed to the quarterly increase in thermal coal production.

As previously stated, production at Carborough Downs was impacted by the stoppage of operations after the detection of abnormal levels of carbon monoxide in the mine. Production amounted to 82,000 t of metallurgical coal. At this point, we have begun recovery activities in order to allow for longwall mining to restart. We estimate that mining should be normalized during 3Q12. Meanwhile, we are monitoring very closely in real time the gas levels in the mine.

Coal production in other mines reached 201,000 t of metallurgical coal and 108,000 t of thermal coal, recovering from the above average rainfall in 1Q12.

On June 25, 2012, we concluded the sale of the coal assets in Colombia, including El Hatillo, as part of the effort to optimize the asset portfolio.

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## BASE METALS

• *Nickel*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>Nickel</b>	<b>56</b>	<b>63</b>	<b>61</b>	<b>115</b>	<b>124</b>	<b>-3.6%</b>	<b>8.4%</b>	<b>7.9%</b>
Sudbury	10	23	17	25	40	-22.6%	69.1%	62.5%
Thompson	7	6	7	15	13	12.6%	1.0%	-14.0%
Voisey s Bay	15	14	15	32	29	1.9%	-5.2%	-7.7%
Sorowako	19	12	17	37	29	36.3%	-11.6%	-20.6%
VNC	2	2	2	2	4	-17.5%	-5.9%	73.7%
Onça Puma	1	4	2	1	6	-56.3%	62.0%	316.7%
Others(1)	2	2	2	4	3	-1.3%	-2.0%	-9.3%

(1) External feed purchased from third parties and processed into finished nickel in our operations

Total finished nickel production was 60,900 t in 2Q12, 3.6% below the previous quarter, but 8.4% above 2Q11. The longer than expected temporary suspension for safety assessment of mining operations in Sudbury negatively impacted finished nickel production in 2Q12.

Finished nickel production from Sudbury was 17,400 t, 22.6% below 1Q12. We decided to anticipate scheduled maintenance stoppages from 3Q12 to 2Q12, due to lower availability of feeds after the inventory drawdown in 1Q12.

The output of Thompson in 2Q12 was 12.6% higher than 1Q12, reflecting better operational performance. Production was in line with the same period of last year.

Production at Voisey s Bay was slightly above 1Q12, but was still impacted by the maintenance stoppage in Sudbury, where part of the feed is processed.

Finished nickel production sourced from Sorowako, Indonesia, increased by 36.3% on a quarterly basis, reflecting the ramp-up after the operational issues faced due to the metal cut-out in 4Q11.

VNC, our nickel operation in New Caledonia, is expected to resume operations in 4Q12. In May 2012, we stopped operations due to an incident in the acid plant. An independent investigation concluded that a technical defect caused a water leak inside the plant, which diluted the acid and caused some corrosion.

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The issues with the acid plant have not related to the HPAL (high pressure acid leaching) technology, whose feasibility proven by the production of 1,100 t of nickel oxide in 1Q12. The acid plant only supplies an input to the HPAL process. Currently, we are planning the repairs to the acid plant and all the equipment is expected to be operational by year-end.

The solvent extraction circuit (all 21 columns) will be commissioned and ready to operate by the fourth quarter. As a result, from 4Q12 onwards VNC will produce nickel hydroxide cake, cobalt and nickel oxide, but no output is expected to be delivered in 3Q12.

Onca Puma stopped operating by the end of 2Q12 due to the run-out of furnace #1 on May 28 and furnace #2 on June 22. We are still assessing the extent of the repairs needed and the period of time required to perform them. Initial indications suggest that is likely that both furnaces will be out of operation during the next few months.

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- Copper*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>COPPER</b>	<b>63</b>	<b>73</b>	<b>70</b>	<b>133</b>	<b>143</b>	<b>-4.4%</b>	<b>11.0%</b>	<b>7.4%</b>
Sossego	23	25	28	46	53	11.5%	22.7%	16.8%
Sudbury	22	24	22	47	46	-7.2%	0.4%	-3.4%
Thompson	0	1	1	1	2	-28.4%	242.0%	166.8%
Voisey's Bay	11	11	8	25	19	-31.6%	-31.6%	-21.8%
Tres Valles	2	4	3	3	7	-2.5%	58.3%	126.1%
Others	4	8	8	11	15	-4.9%	80.2%	36.5%

Copper production in 2Q12 was 69,700 t, decreasing 4.4% quarter-over-quarter, mainly due to issues with our Canadian operations.

The output of Sudbury was impacted by the longer than expected temporary suspension for safety assessment of mining operations during 1Q12 and the anticipation of scheduled maintenance stoppage from 3Q12 to 2Q12.

Production of copper in concentrates from the Sossego mine at Carajás was 11.5% and 22.7% above 1Q12 and 2Q11, respectively, due to the improved grade of copper received by the processing plant.

Operations at Tres Valles, in Chile, continued to ramp-up to nominal capacity, reaching 3,500 t of copper cathodes in 2Q12. The output was slightly below 1Q12, due to the lower grade of the ore processed by the plant.

Tres Valles is a small operation but it is relevant as it is our first experience with an SX-EW operation after the start-up of our first copper sulphide greenfield project, Sossego, in 2004.



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- Nickel by-products*

	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>COBALT (metric tons)</b>	<b>640</b>	<b>592</b>	<b>693</b>	<b>1,221</b>	<b>1,285</b>	<b>17.0%</b>	<b>8.2%</b>	<b>5.3%</b>
Sudbury	57	206	166	98	372	-19.2%	190.8%	279.2%
Thompson	41	22	22	92	44	0.7%	-46.1%	-52.2%
Voisey Bay	410	310	316	838	626	1.9%	-22.9%	-25.3%
VNC	114	40	177	136	217	343.0%	55.7%	59.4%
Others	18	14	11	56	25	-21.4%	-39.0%	-55.5%
<b>PLATINUM (000 oz troy)</b>	<b>51</b>	<b>38</b>	<b>39</b>	<b>108</b>	<b>77</b>	<b>2.8%</b>	<b>-22.7%</b>	<b>-28.4%</b>
Sudbury	51	38	39	108	77	2.8%	-22.7%	-28.4%
<b>PALLADIUM (000 oz troy)</b>	<b>72</b>	<b>59</b>	<b>66</b>	<b>144</b>	<b>125</b>	<b>11.9%</b>	<b>-8.0%</b>	<b>-13.3%</b>
Sudbury	72	59	66	144	125	11.9%	-8.0%	-13.3%
<b>GOLD (000 oz troy)</b>	<b>95</b>	<b>19</b>	<b>18</b>	<b>125</b>	<b>37</b>	<b>-5.8%</b>	<b>-81.2%</b>	<b>-70.5%</b>
Sudbury	95	19	18	125	37	-5.8%	-81.2%	-70.5%
<b>SILVER (000 oz troy)</b>	<b>686</b>	<b>595</b>	<b>567</b>	<b>1,281</b>	<b>1,162</b>	<b>-4.7%</b>	<b>-17.3%</b>	<b>-9.3%</b>
Sudbury	686	595	567	1,281	1,162	-4.7%	-17.3%	-9.3%

Cobalt production reached 693 t, 17% higher than 1Q12 and 8.2% above 2Q11.

Sudbury cobalt production in 2Q12 amounted to 166 t, down 40 t from 1Q12, mostly due to a longer than expected temporary suspension for safety assessment of mining operations.

Output from VNC, at 177 t in 2Q12, reflected production before stoppage, which occurred on May 10, when we declared force majeure after an incident in the acid plant. We expect no cobalt production in 3Q12.

In 2Q12, production of platinum and palladium was 105,000 troy ounces, 8,000 troy ounces higher than 1Q12.

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## FERTILIZER NUTRIENTS

• *Potash*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>POTASH</b>	<b>145</b>	<b>118</b>	<b>129</b>	<b>279</b>	<b>247</b>	<b>8.9%</b>	<b>-11.2%</b>	<b>-11.6%</b>
Taquari-Vassouras	145	118	129	279	247	8.9%	-11.2%	-11.6%

• *Phosphates*

	2Q11	1Q12	2Q12	1H11	1H12	% Change 2Q12/1Q12	% Change 2Q12/2Q11	% Change 1H12/1H11
<b>PHOSPHATE ROCK</b>	<b>1,858</b>	<b>1,826</b>	<b>2,017</b>	<b>3,601</b>	<b>3,843</b>	<b>10.4%</b>	<b>8.5%</b>	<b>6.7%</b>
Brazil	1,272	1,112	1,237	2,420	2,349	11.2%	-2.8%	-2.9%
Bayóvar	586	714	779	1,180	1,493	9.2%	33.1%	26.5%
<b>MAP(1)</b>	<b>131</b>	<b>311</b>	<b>286</b>	<b>341</b>	<b>597</b>	<b>-8.3%</b>	<b>118.3%</b>	<b>75.3%</b>
<b>TSP(2)</b>	<b>175</b>	<b>241</b>	<b>213</b>	<b>408</b>	<b>454</b>	<b>-11.5%</b>	<b>21.6%</b>	<b>11.1%</b>
<b>SSP(3)</b>	<b>666</b>	<b>484</b>	<b>507</b>	<b>1,212</b>	<b>991</b>	<b>4.7%</b>	<b>-23.9%</b>	<b>-18.2%</b>
<b>DCP(4)</b>	<b>158</b>	<b>144</b>	<b>136</b>	<b>315</b>	<b>280</b>	<b>-5.5%</b>	<b>-14.1%</b>	<b>-11.1%</b>

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(1) Monoammonium phosphate

(2) Triple superphosphate

(3) Single superphosphate

(4) Dicalcium phosphate

As our sales are primarily destined to the Brazilian market, where the demand for nutrients is more concentrated in the second half of the year, our production tends to be weaker in the first half.

Production of potash was 129,000 t in 2Q12, increasing 8.9% quarter-over-quarter and decreasing 11.2% year-over-year. The output increase reflected the improvement in infrastructure, the acquisition of equipment and the results of maintenance work in Taquari-Vassouras.

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In 2Q12, total production of phosphate rock, which is used to feed the output of phosphate nutrients, achieved a record high figure, reflecting the ramp-up of Bayóvar. Total production of phosphate rock in 2Q12 was 10.4% higher than 1Q12. Output from Brazilian operations increased 11.2% on a quarterly basis, recovering from the maintenance stoppages and the rainy season in Brazil. Additionally, production from Bayóvar, which is ramping up, increased 9.2% over 1Q12.

The production of MAP (monoammonium phosphate) amounted to 286,000 t, down 8.3% on a quarter-over-quarter basis, due to the annual maintenance stoppage at Uberaba, which happened in June.

TSP (Triple superphosphate) production was 11.5% lower than 1Q12, also showing the effects of the maintenance work at Uberaba.

In 2Q12, the production of SSP (single superphosphate) was 4.7% higher than 1Q12, recovering from the maintenance stoppages in the Guará and Catalão units which took place in February 2012.

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DCP (dicalcium phosphate) production decreased 5.5% compared to 1Q12, showing production adjustments due to weaker demand.

- *Nitrogen*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
AMMONIA	167	132	101	325	233	-23.4%	-39.5%	-28.1%
UREA	175	107	143	335	250	32.8%	-18.5%	-25.2%
NITRIC ACID	121	118	120	228	238	1.5%	-0.6%	4.4%
AMMONIUM NITRATE	114	119	124	217	242	4.2%	8.5%	11.8%

In 2Q12, ammonia production was 23.4% lower when compared to 1Q12, as a result of low availability of steam from the Araucária refinery. Urea production increased 32.8% when compared to 1Q12, recovering from a scheduled stoppage for maintenance, which took place in 1Q12.

The output of nitric acid and ammonium nitrate was 1.5% and 4.2%, respectively, higher than last quarter.

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## BULK MATERIALS

*Iron ore*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>IRON ORE</b>	<b>80,257</b>	<b>69,994</b>	<b>80,542</b>	<b>151,797</b>	<b>150,536</b>	<b>15.1%</b>	<b>0.4%</b>	<b>-0.8%</b>
<b>Northern System</b>	<b>26,019</b>	<b>21,711</b>	<b>27,362</b>	<b>48,670</b>	<b>49,073</b>	<b>26.0%</b>	<b>5.2%</b>	<b>0.8%</b>
Carajás	26,019	21,711	27,362	48,670	49,073	26.0%	5.2%	0.8%
<b>Southeastern System</b>	<b>30,528</b>	<b>26,759</b>	<b>28,296</b>	<b>59,222</b>	<b>55,054</b>	<b>5.7%</b>	<b>-7.3%</b>	<b>-7.0%</b>
Itabira	10,499	8,154	9,184	19,581	17,338	12.6%	-12.5%	-11.5%
Mariana	9,861	9,340	9,080	19,234	18,420	-2.8%	-7.9%	-4.2%
Minas Centrais	10,168	9,265	10,032	20,407	19,297	8.3%	-1.3%	-5.4%
<b>Southern System</b>	<b>19,496</b>	<b>17,667</b>	<b>20,743</b>	<b>36,275</b>	<b>38,409</b>	<b>17.4%</b>	<b>6.4%</b>	<b>5.9%</b>
Minas Itabirito	7,691	7,345	7,993	14,868	15,338	8.8%	3.9%	3.2%
Vargem Grande	5,784	4,800	5,950	10,242	10,750	24.0%	2.9%	5.0%
Paraopeba	6,021	5,521	6,800	11,165	12,321	23.2%	12.9%	10.4%
<b>Midwestern System</b>	<b>1,417</b>	<b>1,302</b>	<b>1,366</b>	<b>2,331</b>	<b>2,668</b>	<b>4.9%</b>	<b>-3.6%</b>	<b>14.5%</b>
Corumbá	1,028	975	915	1,637	1,890	-6.2%	-11.0%	15.5%
Urucum	389	327	451	694	778	38.1%	16.0%	12.1%
<b>Samarco(1)</b>	<b>2,798</b>	<b>2,556</b>	<b>2,775</b>	<b>5,300</b>	<b>5,331</b>	<b>8.6%</b>	<b>-0.8%</b>	<b>0.6%</b>

(1) Vale's attributable production capacity of 50%.

*Pellets*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>PELLETS</b>	<b>13,140</b>	<b>12,692</b>	<b>14,256</b>	<b>25,656</b>	<b>26,949</b>	<b>12.3%</b>	<b>8.5%</b>	<b>5.0%</b>
Tubarão I and II	1,440	1,062	1,530	2,776	2,592	44.1%	6.3%	-6.6%
Fábrica	992	907	956	1,939	1,863	5.4%	-3.6%	-3.9%
São Luís	1,349	962	1,373	2,686	2,334	42.7%	1.7%	-13.1%
Vargem Grande	1,321	823	1,383	2,597	2,206	68.2%	4.7%	-15.0%
Oman	336	1,415	1,593	336	3,008	12.6%	374.8%	796.5%
Nibrasco	2,291	2,257	1,977	4,699	4,234	-12.4%	-13.7%	-9.9%
Kobrasco	1,001	1,139	1,258	2,224	2,397	10.5%	25.6%	7.8%
Hispanobras(1)	544	540	565	1,086	1,105	4.7%	4.0%	1.8%
Itabasco	1,135	1,019	1,020	2,155	2,039	0.1%	-10.1%	-5.4%
Samarco(2)	2,731	2,570	2,599	5,159	5,169	1.2%	-4.8%	0.2%

(1) Vale's attributable production capacity of 50.89%.

(2) Vale's attributable production capacity of 50%.

*Manganese ore and ferroalloys*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>MANGANESE ORE</b>	<b>619</b>	<b>484</b>	<b>584</b>	<b>1,117</b>	<b>1,068</b>	<b>20.6%</b>	<b>-5.6%</b>	<b>-4.4%</b>
Azul	486	379	463	902	843	22.2%	-4.6%	-6.6%
Urucum	82	67	81	134	148	22.1%	-0.7%	10.2%
Other mines	51	38	39	81	78	3.0%	-23.3%	-3.8%
<b>FERROALLOYS</b>	<b>114</b>	<b>106</b>	<b>109</b>	<b>227</b>	<b>215</b>	<b>2.7%</b>	<b>-4.2%</b>	<b>-5.3%</b>
Brazil	52	50	46	104	96	-6.7%	-11.6%	-7.8%
Dunkerque	37	30	35	74	64	17.1%	-4.9%	-12.4%
Mo I Rana	25	27	28	50	55	4.3%	12.2%	10.1%

Table of Contents*Coal*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>METALLURGICAL</b>								
<b>COAL</b>	<b>518</b>	<b>1,127</b>	<b>1,277</b>	<b>1,007</b>	<b>2,403</b>	<b>13.3%</b>	<b>146.3%</b>	<b>138.8%</b>
Moatize	0	501	728	0	1,229	45.2%	n.m.	n.m.
Carborough Downs	368	325	82	599	407	-74.8%	-77.8%	-32.1%
Integra Coal	30	124	266	216	390	115.0%	793.5%	80.9%
Others	121	177	201	192	378	13.6%	66.3%	96.6%
<b>THERMAL COAL</b>								
<b>THERMAL COAL</b>	<b>787</b>	<b>1,223</b>	<b>1,190</b>	<b>1,720</b>	<b>2,414</b>	<b>-2.7%</b>	<b>51.3%</b>	<b>40.3%</b>
Moatize	0	193	390	0	583	101.7%	n.m.	n.m.
El Hatillo	698	848	571	1,533	1,419	-32.7%	-18.2%	-7.5%
Integra Coal	25	81	121	96	202	50.5%	381.9%	110.9%
Others	63	102	108	91	210	6.5%	70.9%	130.8%

## BASE METALS

*Nickel*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>NICKEL</b>	<b>56</b>	<b>63</b>	<b>61</b>	<b>115</b>	<b>124</b>	<b>-3.6%</b>	<b>8.4%</b>	<b>7.9%</b>
Sudbury	10	23	17	25	40	-22.6%	69.1%	62.5%
Thompson	7	6	7	15	13	12.6%	1.0%	-14.0%
Voisey s Bay	15	14	15	32	29	1.9%	-5.2%	-7.7%
Sorowako	19	12	17	37	29	36.3%	-11.6%	-20.6%
VNC	2	2	2	2	4	-17.5%	-5.9%	73.7%
Onça Puma	1	4	2	1	6	-56.3%	62.0%	316.7%
Others(1)	2	2	2	4	3	-1.3%	-2.0%	-9.3%

(1) External feed purchased from third parties and processed into finished nickel in our operations

*Copper*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>COPPER</b>	<b>63</b>	<b>73</b>	<b>70</b>	<b>133</b>	<b>143</b>	<b>-4.4%</b>	<b>11.0%</b>	<b>7.4%</b>
Sossego	23	25	28	46	53	11.5%	22.7%	16.8%
Sudbury	22	24	22	47	46	-7.2%	0.4%	-3.4%

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Thompson	0	1	1	1	2	-28.4%	242.0%	166.8%
Voisey s Bay	11	11	8	25	19	-31.6%	-31.6%	-21.8%
Tres Valles	2	4	3	3	7	-2.5%	58.3%	126.1%
Others	4	8	8	11	15	-4.9%	80.2%	36.5%



Table of Contents*Nickel by-products*

	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>COBALT (metric tons)</b>	<b>640</b>	<b>592</b>	<b>693</b>	<b>1,221</b>	<b>1,285</b>	<b>17.0%</b>	<b>8.2%</b>	<b>5.3%</b>
Sudbury	57	206	166	98	372	-19.2%	190.8%	279.2%
Thompson	41	22	22	92	44	0.7%	-46.1%	-52.2%
Voisey Bay	410	310	316	838	626	1.9%	-22.9%	-25.3%
VNC	114	40	177	136	217	343.0%	55.7%	59.4%
Others	18	14	11	56	25	-21.4%	-39.0%	-55.5%
<b>PLATINUM (000 oz troy)</b>	<b>51</b>	<b>38</b>	<b>39</b>	<b>108</b>	<b>77</b>	<b>2.8%</b>	<b>-22.7%</b>	<b>-28.4%</b>
Sudbury	51	38	39	108	77	2.8%	-22.7%	-28.4%
<b>PALLADIUM (000 oz troy)</b>	<b>72</b>	<b>59</b>	<b>66</b>	<b>144</b>	<b>125</b>	<b>11.9%</b>	<b>-8.0%</b>	<b>-13.3%</b>
Sudbury	72	59	66	144	125	11.9%	-8.0%	-13.3%
<b>GOLD (000 oz troy)</b>	<b>95</b>	<b>19</b>	<b>18</b>	<b>125</b>	<b>37</b>	<b>-5.8%</b>	<b>-81.2%</b>	<b>-70.5%</b>
Sudbury	95	19	18	125	37	-5.8%	-81.2%	-70.5%
<b>SILVER (000 oz troy)</b>	<b>686</b>	<b>595</b>	<b>567</b>	<b>1,281</b>	<b>1,162</b>	<b>-4.7%</b>	<b>-17.3%</b>	<b>-9.3%</b>
Sudbury	686	595	567	1,281	1,162	-4.7%	-17.3%	-9.3%

## FERTILIZER NUTRIENTS

*Potash*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>POTASH</b>	<b>145</b>	<b>118</b>	<b>129</b>	<b>279</b>	<b>247</b>	<b>8.9%</b>	<b>-11.2%</b>	<b>-11.6%</b>
Taquari-Vassouras	145	118	129	279	247	8.9%	-11.2%	-11.6%

*Phosphates*

	2Q11	1Q12	2Q12	1H11	1H12	% Change 2Q12/1Q12	% Change 2Q12/2Q11	% Change 1H12/1H11
<b>PHOSPHATE ROCK</b>	<b>1,858</b>	<b>1,826</b>	<b>2,017</b>	<b>3,601</b>	<b>3,843</b>	<b>10.4%</b>	<b>8.5%</b>	<b>6.7%</b>
Brazil	1,272	1,112	1,237	2,420	2,349	11.2%	-2.8%	-2.9%
Bayóvar	586	714	779	1,180	1,493	9.2%	33.1%	26.5%
MAP(1)	131	311	286	341	597	-8.3%	118.3%	75.3%
TSP(2)	175	241	213	408	454	-11.5%	21.6%	11.1%
SSP(3)	666	484	507	1,212	991	4.7%	-23.9%	-18.2%
DCP(4)	158	144	136	315	280	-5.5%	-14.1%	-11.1%

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(1) Monoammonium phosphate

- (2) Triple superphosphate
- (3) Single superphosphate
- (4) Dicalcium phosphate

*Nitrogen*

000 metric tons	2Q11	1Q12	2Q12	1H11	1H12	% change 2Q12/1Q12	% change 2Q12/2Q11	% change 1H12/1H11
<b>AMMONIA</b>	167	132	101	325	233	-23.4%	-39.5%	-28.1%
<b>UREA</b>	175	107	143	335	250	32.8%	-18.5%	-25.2%
<b>NITRIC ACID</b>	121	118	120	228	238	1.5%	-0.6%	4.4%
<b>AMMONIUM NITRATE</b>	114	119	124	217	242	4.2%	8.5%	11.8%

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This press release may include statements that present Vale's expectations about future events or results. All statements, when based upon expectations about the future and not on historical facts, involve various risks and uncertainties. Vale cannot guarantee that such statements will prove correct. These risks and uncertainties include factors related to the following: (a) the countries where we operate, especially Brazil and Canada; (b) the global economy; (c) the capital markets; (d) the mining and metals prices and their dependence on global industrial production, which is cyclical by nature; and (e) global competition in the markets in which Vale operates. To obtain further information on factors that may lead to results different from those forecast by Vale, please consult the reports Vale files with the U.S. Securities and Exchange Commission (SEC), the Brazilian Comissão de Valores Mobiliários (CVM), the French Autorité des Marchés Financiers (AMF), and The Stock Exchange of Hong Kong Limited, and in particular the factors discussed under "Forward-Looking Statements" and "Risk Factors" in Vale's annual report on Form 20-F.

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**Signatures**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: July 18, 2012

By:

Vale S.A.  
(Registrant)

/s/ Roberto Castello Branco  
Roberto Castello Branco  
Director of Investor Relations