Vale S.A.
Form 6-K
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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

February 2013

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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4Q12 Production Report

A STRONG IRON ORE PERFORMANCE

Rio de Janeiro, February 1, 2013 Vale S.A. (Vale) delivered a very good operational performance in 4Q12. Iron ore production reached the highest level for a fourth quarter, at 85.5 Mt, allowing for a larger exposure to the price rally of the final months of last year.

Due to seasonality, iron ore output in the last quarter of each year is normally lower than in the third quarter. This was the first time since 2003 that the performance in a fourth quarter was better than in 3Q, being 1.9% higher.

Two factors were instrumental to this achievement: (a) after the conclusion of the pre-stipping the operation of the N5 South mine in Carajás contributed not only to the output increase, but to better quality and lower costs; (b) below normal rainfall during the quarter.

Coal production also reached a quarterly all-time high mostly due to the successful ramp-up of Carborough Downs, after the issues which determined its shutdown in 2Q12.

2012 was a challenging year in view of the adverse weather conditions which affected iron ore production in Brazil in the first quarter, and the stoppages of Sudbury, Carborough Downs, VNC and Onça Puma caused by safety and operational problems. With the exception of Onça Puma, all of them returned to operation.

Our iron ore production was 320.0 Mt in 2012, slightly lower than 2011. Nickel output, at 237,000 t, fell 1.9% in relation to the previous year.

On the other hand, three annual production records were achieved pellets (55.1 Mt), coal (7.1 Mt) and phosphate rock (8.0 Mt).

At the moment, there are four operations ramping up: Salobo I, copper and gold, Lubambe, copper, VNC, nickel oxide and Moatize, coal.

Salobo I and Lubambe are ramping up smoothly, according to the plans. VNC produced 1,200 t of its final product, nickel oxide, in December. Repairs to the acid plant and the installation of the refining columns of the solvent extraction circuit were concluded. As planned, the output of VNC is processed at the Dalian refinery, in China, into finished nickel. Moatize delivered 3.768 Mt of coal in its first year of operation.

In 2H13, two iron ore projects will come on stream: Carajás Additional 40 Mtpy and Conceição Itabiritos, which will contribute to the enhancement of our iron ore operations, through production increase, higher average Fe grade and lower costs. These effects on our performance will be material from 2014 onwards.

The prospects of a moderate expansion of the global demand for minerals and metals over the medium-term do require a stricter discipline in capital allocation and a stronger focus on maximizing efficiency and minimizing costs. Our growth plans reflect the priority shifting from the marginal volume to the capital efficient volume, a move that is expected to have significant positive implications for our operating and financial performance.

In this scenario, innovation, such as CORe, implemented in 4Q12 in our Sudbury operations, and truckless mining, to be employed in the Carajás S11D project, became an important driver of competitiveness in the mining industry.

Mt= million metric tons.

Kt = thousand metric tons

t = metric tons

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Production(1)

000 metric tons	4Q11	4Q12	% change 4Q12/4Q11	2011	2012	% change 2012/2011
Iron ore(a)	82,944	85,498	3.1%	322,632	319,960	-0.8%
Pellets(a)	12,344	12,090	-2.1%	53,817	55,067	2.3%
Manganese	757	668	-11.8%	2,556	2,365	-7.5%
Coal	1,608	1,951	21.3%	3,707	7,082	91.0%
Nickel	69	64	-6.6%	242	237	-1.9%
Copper(b)	85	81	-4.6%	302	292	-3.5%
Potash	180	161	-10.6%	625	549	-12.3%
Phosphate rock	1,833	2,060	12.4%	7,359	7,982	8.5%

(a) Including Samarco s attributable production.

(b) Including Lubambe s attributable production.

(1) Rounded numbers.

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BULK MATERIALS

- ***Iron ore***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
IRON ORE	**82,944**	**83,926**	**85,498**	**322,632**	**319,960**	**1.9%**	**3.1%**	**-0.8%**
Northern System	**30,232**	**27,635**	**30,078**	**109,795**	**106,786**	**8.8%**	**-0.5%**	**-2.7%**
Carajás	30,232	27,635	30,078	109,795	106,786	8.8%	-0.5%	-2.7%
Southeastern System	**29,635**	**30,144**	**30,389**	**120,153**	**115,587**	**0.8%**	**2.5%**	**-3.8%**
Itabira	9,508	10,302	10,041	40,007	37,682	-2.5%	5.6%	-5.8%
Mariana	9,838	9,099	9,706	38,996	37,224	6.7%	-1.3%	-4.5%
Minas Centrais	10,289	10,743	10,642	41,150	40,681	-0.9%	3.4%	-1.1%
Southern System	**18,778**	**21,485**	**20,405**	**76,253**	**80,300**	**-5.0%**	**8.7%**	**5.3%**
Minas Itabirito	7,635	7,938	8,497	30,420	31,774	7.0%	11.3%	4.4%
Vargem Grande	5,015	6,308	5,551	21,425	22,609	-12.0%	10.7%	5.5%
Paraopeba	6,128	7,239	6,357	24,408	25,917	-12.2%	3.8%	6.2%
Midwestern System	**1,610**	**1,871**	**1,836**	**5,583**	**6,376**	**-1.9%**	**14.0%**	**14.2%**
Corumbá	1,234	1,376	1,345	4,074	4,611	-2.3%	9.0%	13.2%
Urucum	376	495	491	1,509	1,765	-0.8%	30.6%	16.9%
Samarco(1)	**2,689**	**2,791**	**2,791**	**10,847**	**10,912**	**0.0%**	**3.8%**	**0.6%**

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

Iron ore output in 4Q12, of 85.5 Mt, was the highest for a fourth quarter with year-over-year gains in almost all Systems. Production increased 1.9% on a quarter-on-quarter basis and 3.1% year-on-year.

Vale s iron ore production was 320.0 Mt in 2012, slightly lower than 2011, primarily as a consequence of the abnormal heavy rainfall in the Brazilian states of Minas Gerais, Rio de Janeiro and Espírito Santo, which seriously constrained mining and logistics activity.

Carajás, a unique mining site given the size and quality of its reserves, produced 106.8 Mt in 2012, 2.7% below 2011. With the N5 South operation and the weaker impact of the rainy season, output in 4Q12 increased to 30.1 Mt, 8.8% above 3Q12. Rainfall in Carajás fell to its lowest level for a fourth quarter since 2008.

N5 South, with 1.025 billion metric tons of proven and probable reserves and an average Fe content of 67.1%, is estimated to provide some 25% of run-of-mine (ROM) ores to be extracted from Carajás in 2013, boosting quality while leading to lower operating costs.

The Southeastern System, which encompasses the Itabira, Mariana and Minas Centrais mining sites, produced 115.6 Mt in 2012, a decrease of 3.8% compared to 2011, given that it was severely impacted by the rainfall in the beginning of 2012. In a quarterly comparison, output in 4Q12 was in line with 3Q12 and 2.5% higher than the same period of the previous year.

The Southern System produced 80.3 Mt in 2012, its best performance since 2008. Output in 4Q12 rose 8.7% versus 4Q11 helped by the start-up of new mobile processing plants in Minas Itabirito, with crushing and screening capacity. Production from Minas Itabirito in 4Q12 reached 8.5 Mt, the highest mark for a fourth quarter.

However, Southern System output decreased 5.0% against 3Q12 as a result of corrective maintenance stoppages in Vargem Grande and a scheduled maintenance stoppage in Paraopeba in 4Q12.

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The Midwestern System, comprised of Urucum and Corumbá, produced 6.4 Mt in 2012, 14.2% higher than 2011 due to the start-up of a new processing plant in Urucum in February and overall operational improvements.

- ***Pellets***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
PELLETS	**12,344**	**14,962**	**12,090**	**53,817**	**55,067**	**-19.2%**	**-2.1%**	**2.3%**
Tubarão I and II	1,393	1,461	597	5,730	4,650	-59.1%	-57.1%	-18.9%
Fábrica	971	945	826	3,943	3,634	-12.5%	-14.9%	-7.8%
São Luís	1,046	1,131	46	5,060	3,511	-96.0%	-95.6%	-30.6%
Vargem Grande	504	1,276	1,028	4,071	4,510	-19.4%	103.9%	10.8%
Oman	607	1,845	1,763	2,097	6,616	-4.4%	190.5%	215.5%
Nibrasco	2,123	2,335	2,260	9,337	8,829	-3.2%	6.4%	-5.4%
Kobrasco	1,168	1,197	803	4,558	4,398	-32.9%	-31.2%	-3.5%
Hispanobras(1)	832	1,022	1,067	4,064	4,261	4.4%	28.3%	4.8%
Itabrasco	974	985	983	4,231	4,007	-0.2%	0.9%	-5.3%
Samarco(2)	2,726	2,766	2,717	10,726	10,652	-1.8%	-0.3%	-0.7%

(1) Production attributable to Vale on a pro forma basis. In July 2012, we entered into a leasing contract for the Hispanobras pelletizing operation. As a consequence, their production is being consolidated 100% on a pro forma basis.

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

In 2012, pellet production reached 55.1 Mt, an all-time high figure, surpassing by 2.3% the previous record reached in 2011, chiefly due to the ramp-up of the Oman operations.

As released in the 3Q12 production report, in response to the steel cycle global output grew only 1.2% and European steel consumption is estimated to have dropped by 10% - the pace of operating activity at all of our pellet plants was moderated and three plants were shutdown, Tubarão I and II and São Luís, giving room to expand the availability of ROM to produce sinter feed.

Simultaneously, the profile of our production was changed, given the stronger demand for direct reduction (DR) pellets - driven by the Middle East and the US - versus blast furnace pellets. DR pellets accounted for 45.5% of our total pellet output, excluding Samarco, against 26.2% in the previous quarter.

The attributable production from the three Samarco plants was in line with the previous year, reaching 10.7 Mt.

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- ***Manganese ore and ferroalloys***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
MANGANESE ORE	**757**	**629**	**668**	**2,556**	**2,365**	**6.2%**	**-11.8%**	**-7.5%**
Azul	628	497	523	2,065	1,863	5.3%	-16.7%	-9.8%
Urucum	80	86	92	302	327	7.1%	15.8%	8.2%
Other mines	50	46	52	189	176	14.0%	4.7%	-7.2%
FERROALLOYS	**106**	**116**	**59**	**436**	**390**	**-49.2%**	**-44.6%**	**-10.6%**
Brazil	49	52	59	204	206	13.7%	19.7%	1.1%
Dunkerque	30	40	0	131	104			-20.3%
Mo I Rana	27	25	0	101	79			-21.6%

In 2012, manganese ore production decreased 7.5% compared with 2011. On a quarter-on-quarter basis, output reached 668,000 t against 629,000 t in 3Q12.

In 4Q12, output of the Carajás manganese mine Azul was 5.3% higher than the previous quarter, reaching 523,000 t, influenced by the recovery from a maintenance stoppage in 3Q12.

Production from Urucum was the best performance since 1Q06, rising 7.1% over 3Q12, reflecting the arrival of new equipment. This contributed to an output increase of 8.2% versus 2011.

Morro da Mina output, which is part of other mines , was 14.0% above 3Q12, as a result of operational improvements.

Ferroalloy quarterly production was comprised of 32,000 t of ferrosilicon manganese alloys (FeSiMn), 22,100 t of high-carbon manganese alloys (FeMnHc) and 4,600 t of medium-carbon manganese alloys (FeMnMC).

In 2012, ferroalloy production from our Brazilian operations was in line with 2011. However, 4Q12 output was the best performance since 4Q08, being 13.7% higher than the previous quarter, due to the start-up of a fourth furnace at Simões Filho.

The sale of the European ferroalloys operations Dunkerque and Mo I Rana was concluded, as released on October 31, 2012. This was a step in our continuous efforts to optimize the asset portfolio.

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- ***Coal***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
METALLURGICAL COAL	**1,174**	**1,209**	**1,471**	**2,766**	**5,083**	**21.7%**	**25.3%**	**83.8%**
Moatize	275	624	648	275	2,501	4.0%	136.1%	810.9%
Carborough Downs	514	131	373	1,390	911	185.3%	-27.4%	-34.5%
Integra Coal	169	285	286	467	962	0.3%	68.9%	106.1%
Others	216	169	163	635	709	-3.7%	-24.6%	11.7%
THERMAL COAL	**434**	**524**	**480**	**941**	**1,999**	**-8.2%**	**10.8%**	**112.4%**
Moatize	212	365	319	342	1,267	-12.6%	50.1%	270.4%
Integra Coal	122	78	71	325	351	-8.5%	-41.8%	7.9%
Others	99	81	91	274	381	11.8%	-8.7%	39.2%

Vale achieved a new record for coal production in 2012, 7.1 Mt, of which 5.1 Mt was metallurgical coal and 2.0 Mt thermal coal. This was a consequence of the ramp-up of Moatize, and the significant improvement in the performance of Integra Coal and other mines in Australia.

In its first full year of operation Moatize produced 3.768 Mt, of which 2.501 Mt of met coal and 1.267 Mt of thermal coal.

The ramp-up of the first phase of the Moatize coal project, in Tete, Mozambique, is restricted by the availability of railroad and port capacity. Improvements in the Linha do Sena railroad, which is operated by a Mozambican state-owned company, expected from the conclusion of investments in signaling and higher efficiency will allow for some increase in the volumes of coal carried by our trains to the port of Beira.

Given these limitations, we have been concentrating our shipments on the higher priced Chipanga premium hard coking coal (HCC) and typical HCC.

Overall, the conclusion of the Nacala corridor project is critical for the extraction of maximum value from our coal assets in Mozambique, as it will eliminate the logistics bottleneck. The required licenses have already been granted by the governments of Mozambique and Malawi and construction is underway.

Production of Integra Coal rose 65.8% in 2012, with 962,000 t of coking coal and 351,000 t of thermal coal. Coking coal output doubled compared to 2011, due to continuous improvement in geological conditions in both the underground and open cut mines and the better performance of longwall operations.

Production of our other Australian mines was 1.344 Mt, rising 47.9% against 2011.

In 4Q12, our coal output totaled 2.0 Mt versus 1.7 Mt in the previous quarter due to the improved performance of Carborough Downs (CD).

CD, whose production is 100% coking coal, increased its output by 185.3% in 4Q12, to 373,000 t from 131,000 t in 3Q12. The sharp increase is a consequence of the successful ramp-up from the stoppage of operations in 2Q12.

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BASE METALS

- ***Nickel***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
Nickel	**69**	**49**	**64**	**242**	**237**	**31.0%**	**-6.6%**	**-1.9%**
Sudbury	19	10	15	60	65	53.1%	-20.4%	9.6%
Thompson	6	5	6	25	24	24.6%	4.5%	-3.2%
Voisey s Bay	21	14	18	69	62	29.7%	-13.3%	-10.2%
Sorowako	15	17	23	68	69	36.2%	51.6%	1.8%
VNC	1	0	0	5	4			-11.7%
Onça Puma	3	0	0	7	6			-13.5%
Others(1)	2	2	1	8	6	-66.9%	-65.7%	-25.8%

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

Total finished nickel production in 2012 was 237,000 t, 1.9% below the previous year, mainly as a consequence of a longer than expected temporary suspension of mining operations in Sudbury during 1Q12.

In 4Q12, finished nickel production totaled 64,000 t, significantly improving from 3Q12, after scheduled maintenances were performed in most of the Sudbury and Thompson mines during the summer in the Northern Hemisphere - when the demand for nickel is seasonally weak.

Finished nickel production from Sudbury was 53.1% higher in 4Q12, at 15,500 t, against 10,100 t in the previous quarter, recovering from planned maintenance shutdowns.

Compared to 4Q11, output from Sudbury decreased by 4,000 t. This was caused by the challenges in integrating process enhancements in the Clarabelle mill. During the maintenance shutdown, the Challenging Ore Recovery (CORe) project was implemented. It involves a simpler flowsheet with lower operating costs, increasing nickel recovery by some 6,000 t per year, improving concentrate quality and reducing the variability for downstream smelter operations.

Clarabelle is fully operational, the implementation of CORe completed and its benefits will be delivered from 2013 onwards. Investment in innovation has become an important driver of competitive advantage for mining companies. A project such as CORe contributes to operational excellence, as it reduces costs and raises efficiency.

The output of Thompson in 4Q12 returned to normal levels after the planned maintenance shutdown in 3Q12. Production was slightly above the same period of last year, at 6,400 t.

Voisey s Bay production was 18,500 t in 4Q12, an increase of 29.7% t from 3Q12, when output was lower due to maintenance at the Thompson refinery. Nickel production was lower compared to 4Q11, as the basis for comparison was inflated by the decision to produce and sell nickel in nickel concentrates instead of shipping it to be refined at Sudbury, which involves a longer production cycle.

In 4Q12, finished nickel production sourced from our Indonesian operations at Sorowako totaled 23,000 t, an increase of 36.2% against 3Q12 as a result of process improvements. Output rose by 51.6% relative to 4Q11, when there was a metal cut-out.

The VNC integrated operation is running. The refinery is now operating using acid from our own acid plant. The main focus for 1Q13 will be achieving process stability and continuing to

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increase the throughput of the plant. Repairs to the acid plant and the installation of the refining columns of the solvent extraction circuit were concluded and we produced 1,200 t of nickel oxide in December. It is not accounted for as production until it is processed into utility nickel at the Dalian refinery.

The Onça Puma operations remain shut down, after issues with both furnaces were detected. After analyzing the case, we decided to rebuild one of the furnaces and plan to resume operations by the end of this year.

- ***Copper***

000 metric tons	**4Q11**	**3Q12**	**4Q12**	**2011**	**2012**	**% Change 4Q12/3Q12**	**% Change 4Q12/4Q11**	**% Change 2012/2011**
COPPER	**85**	**68**	**81**	**302**	**292**	**19.9%**	**-4.6%**	**-3.5%**
Sossego	32	29	28	109	110	-4.6%	-14.4%	1.2%
Salobo	0	5	8	0	13	64.3%	-	-
Sudbury	27	14	19	101	79	31.9%	-30.2%	-21.7%
Thompson	0	0	0	1	3	26.0%	1404.7%	105.0%
Voisey s Bay	14	9	14	51	42	48.3%	-1.0%	-18.0%
Tres Valles	3	3	4	9	14	16.8%	14.7%	59.7%
Lubambe(1)	0	0	1	0	1	-	-	-
Others	8	6	7	31	29	11.7%	-12.8%	-5.6%

(1) Vale s attributable production capacity of 40%.

In 2012, copper production was 291,531 t, decreasing by 3.5% against 2011, also reflecting the longer than expected temporary suspension of mining operations in Sudbury during 1Q12.

Copper output in 4Q12 totaled 81,000 t, 19.9% higher than 3Q12, primarily due to maintenance stoppages in the Sudbury and Thompson mines in the previous quarter, and the start-up of Salobo.

Production of copper in concentrates from the Sossego mine at Carajás totaled 27,800 t. The SAG mill underwent scheduled maintenance during 4Q12, which resulted in lower output relative to 3Q12 and 4Q11.

We received the operating license (LO) for Salobo on November 6, 2012. We are currently ramping up production to full capacity, and 4Q12 copper output reached 7,900 t while gold production was 13,000 troy ounces (oz).

Salobo II is expected to come on stream in 1H14. Salobo I and II have an estimated total nominal capacity of 200,000 t of copper in concentrates. Gold, produced as a by-product, is expected to reach an average annual production of 286,000 oz over the next ten years, peaking in 2016 at 327,000 oz.

Lubambe, in Zambia, is also ramping up, delivering 3,221 t of copper in concentrates on a 100% basis (attributable production of 1,288 t. Lubambe has a nominal capacity of 45,000 t per year).

In 4Q12, production from our Canadian operations, excluding copper ores purchased from third parties, was 33,000 t, rising 38.1% on a quarter-on-quarter basis, as the scheduled maintenance shutdown in Sudbury and Thompson was concluded.

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Output at Tres Valles, in Chile, was 3,800 t of copper cathodes in 4Q12 and totaled 14,100 t in 2012, increasing by 16.8% quarter-over-quarter and 59.7% on a yearly basis, as a result of the ramp-up to nominal capacity.

- ***Nickel and copper by-products***

	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
COBALT (metric tons)	**787**	**409**	**579**	**2,675**	**2,343**	**41.7%**	**-26.4%**	**-12.4%**
Sudbury	247	112	105	593	589	-6.8%	-57.6%	-0.6%
Thompson	31	29	22	158	96	-22.9%	-28.4%	-39.5%
Voisey s Bay	448	252	343	1,585	1,221	36.1%	-23.5%	-23.0%
VNC	51	0	98	245	385		92.4%	57.0%
Others	10	15	11	93	52	-27.1%	15.1%	-44.5%
PLATINUM (000 oz troy)	**41**	**35**	**22**	**174**	**134**	**-39.2%**	**-47.5%**	**-23.0%**
Sudbury	41	35	22	174	134	-39.2%	-47.5%	-23.0%
PALLADIUM (000 oz troy)	**64**	**71**	**55**	**248**	**251**	**-23.0%**	**-14.3%**	**1.3%**
Sudbury	64	71	55	248	251	-23.0%	-14.3%	1.3%
GOLD (000 oz troy)	**52**	**46**	**47**	**189**	**165**	**3.5%**	**-9.6%**	**-12.9%**
Sudbury	30	18	14	109	69	-25.8%	-55.6%	-37.0%
Sossego	22	21	20	80	75	-0.7%	-7.3%	-6.5%
Salobo	0	7	13	0	21	92.2%		
SILVER (000 oz troy)	**683**	**461**	**390**	**2,535**	**2,012**	**-15.3%**	**-42.9%**	**-20.6%**
Sudbury	683	461	390	2,535	2,012	-15.3%	-42.9%	-20.6%

Output of cobalt increased to 579 t, 41.7% above 3Q12, when we had a maintenance stoppage in Sudbury and Thompson. VNC cobalt production totaled 98 t. Compared to 4Q11, output was 26.4% lower, mainly due to integration issues faced in 4Q12 related to the process improvements made in the Clarabelle Mill in Sudbury. The improvements have been completed and the mill is fully operational.

Platinum output was 22,000 oz and palladium was 55,000 oz, 39.2%, and 23.0% below 3Q12, respectively.

Gold production was 47,000 oz in 4Q12, 3.5% higher than 3Q12. The beginning of Salobo operations more than offset lower output from Sudbury and Sossego. In 2012, gold production totaled 165,000 oz.

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FERTILIZER NUTRIENTS

- ***Potash***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
POTASH	**180**	**141**	**161**	**625**	**549**	**14.2%**	**-10.6%**	**-12.3%**
Taquari-Vassouras	180	141	161	625	549	14.2%	-10.6%	-12.3%

- ***Phosphates***

	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
PHOSPHATE ROCK	**1,833**	**2,078**	**2,060**	**7,359**	**7,982**	**-0.9%**	**12.4%**	**8.5%**
Brazil	1,120	1,235	1,188	4,815	4,772	-3.8%	6.0%	-0.9%
Bayóvar	713	843	872	2,544	3,209	3.4%	22.4%	26.1%
MAP(1)	266	297	307	823	1,201	3.4%	15.4%	45.8%
TSP(2)	205	212	247	811	913	16.5%	20.8%	12.5%
SSP(3)	649	648	587	2,638	2,226	-9.5%	-9.7%	-15.6%
DCP(4)	111	119	113	580	511	-5.0%	1.9%	-11.8%

(1) Monoammonium phosphate

(2) Triple superphosphate

(3) Single superphosphate

(4) Dicalcium phosphate

In 2012, production from the Taquari-Vassouras potash operation was 549,000 t. Fundamentally, the lower production level reflects the impact of low-grade ores, a phenomenon caused by ageing of the mine.

In 4Q12, production was 161,000 t, 14.2% higher than the previous quarter, after investment in infrastructure and equipment led to improvement in operations and a higher ore grade.

In 2012, total production of phosphate rock, which is used as feed for the production of phosphate nutrients, increased by 8.5% over 2011, achieving a new record, influenced by the ramp-up of Bayóvar.

Output from our Brazilian operations was slightly below the 2011 figures. Production in 4Q12 was 3.8% below the previous quarter due to a scheduled maintenance stoppage in December.

The production of MAP (monoammonium phosphate) totaled 1.2 Mt in 2012, 45.8% higher than 2011, and 307,000 t in 4Q12, rising 3.4% quarter-over-quarter, as a consequence of the start-up of Phase III of Uberaba.

TSP (triple superphosphate) production was 16.5% above 3Q12. In 2012, we produced 913,000 t of TSP.

In 4Q12, production of SSP (single superphosphate) was 9.5% lower than 3Q12, as a result of a scheduled stoppage for maintenance. Output was 2.2 Mt in 2012, decreasing 15.6% against 2011 due to the shutdown of the Vale Cubatão plant.

DCP (dicalcium phosphate) production was 5.0% below 3Q12. In 2012, output was 11.8% below 2011, reflecting production adjustments due to weaker demand.

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- ***Nitrogen***

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
AMMONIA	157	99	143	619	475	45.3%	-8.7%	-23.3%
UREA	159	90	143	628	483	59.9%	-10.0%	-23.0%
NITRIC ACID	122	123	117	468	478	-4.7%	-4.1%	2.3%
AMMONIUM NITRATE	127	128	120	458	490	-6.2%	-6.0%	6.9%

In 4Q12, ammonia production increased 45.3% compared to 3Q12, after recovery from an equipment maintenance stoppage.

The output of urea was 59.9% higher than the previous quarter and also related to recovery from a scheduled stoppage for maintenance in the ammonia plant, which consequently affects urea production.

In 2012, output of nitric acid and ammonium nitrate rose 2.3% and 6.9%, respectively.

In December we signed an agreement to sell the Araucária operation as part of the optimization of our asset portfolio.

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BULK MATERIALS

Iron ore

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
IRON ORE	**82,944**	**83,926**	**85,498**	**322,632**	**319,960**	**1.9%**	**3.1%**	**-0.8%**
Northern System	**30,232**	**27,635**	**30,078**	**109,795**	**106,786**	**8.8%**	**-0.5%**	**-2.7%**
Carajás	30,232	27,635	30,078	109,795	106,786	8.8%	-0.5%	-2.7%
Southeastern System	**29,635**	**30,144**	**30,389**	**120,153**	**115,587**	**0.8%**	**2.5%**	**-3.8%**
Itabira	9,508	10,302	10,041	40,007	37,682	-2.5%	5.6%	-5.8%
Mariana	9,838	9,099	9,706	38,996	37,224	6.7%	-1.3%	-4.5%
Minas Centrais	10,289	10,743	10,642	41,150	40,681	-0.9%	3.4%	-1.1%
Southern System	**18,778**	**21,485**	**20,405**	**76,253**	**80,300**	**-5.0%**	**8.7%**	**5.3%**
Minas Itabirito	7,635	7,938	8,497	30,420	31,774	7.0%	11.3%	4.4%
Vargem Grande	5,015	6,308	5,551	21,425	22,609	-12.0%	10.7%	5.5%
Paraopeba	6,128	7,239	6,357	24,408	25,917	-12.2%	3.8%	6.2%
Midwestern System	**1,610**	**1,871**	**1,836**	**5,583**	**6,376**	**-1.9%**	**14.0%**	**14.2%**
Corumbá	1,234	1,376	1,345	4,074	4,611	-2.3%	9.0%	13.2%
Urucum	376	495	491	1,509	1,765	-0.8%	30.6%	16.9%
Samarco(1)	**2,689**	**2,791**	**2,791**	**10,847**	**10,912**	**0.0%**	**3.8%**	**0.6%**

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

Pellets

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
PELLETS	**12,344**	**14,962**	**12,090**	**53,817**	**55,067**	**-19.2%**	**-2.1%**	**2.3%**
Tubarão I and II	1,393	1,461	597	5,730	4,650	-59.1%	-57.1%	-18.9%
Fábrica	971	945	826	3,943	3,634	-12.5%	-14.9%	-7.8%
São Luís	1,046	1,131	46	5,060	3,511	-96.0%	-95.6%	-30.6%
Vargem Grande	504	1,276	1,028	4,071	4,510	-19.4%	103.9%	10.8%
Oman	607	1,845	1,763	2,097	6,616	-4.4%	190.5%	215.5%
Nibrasco	2,123	2,335	2,260	9,337	8,829	-3.2%	6.4%	-5.4%
Kobrasco	1,168	1,197	803	4,558	4,398	-32.9%	-31.2%	-3.5%
Hispanobras(1)	832	1,022	1,067	4,064	4,261	4.4%	28.3%	4.8%
Itabrasco	974	985	983	4,231	4,007	-0.2%	0.9%	-5.3%
Samarco(2)	2,726	2,766	2,717	10,726	10,652	-1.8%	-0.3%	-0.7%

(1) Production attributable to Vale on a pro forma basis. On July, 2012, we entered into a leasing contract for the Hispanobras pelletizing operation. As a consequence, their production is being consolidated 100% on a pro forma basis.

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

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Manganese ore and ferroalloys

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
MANGANESE ORE	**757**	**629**	**668**	**2,556**	**2,365**	**6.2%**	**-11.8%**	**-7.5%**
Azul	628	497	523	2,065	1,863	5.3%	-16.7%	-9.8%
Urucum	80	86	92	302	327	7.1%	15.8%	8.2%
Other mines	50	46	52	189	176	14.0%	4.7%	-7.2%
FERROALLOYS	**106**	**116**	**59**	**436**	**390**	**-49.2%**	**-44.6%**	**-10.6%**
Brazil	49	52	59	204	206	13.7%	19.7%	1.1%
Dunkerque	30	40	0	131	104			-20.3%
Mo I Rana	27	25	0	101	79			-21.6%

Coal

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
METALLURGICAL COAL	**1,174**	**1,209**	**1,471**	**2,766**	**5,083**	**21.7%**	**25.3%**	**83.8%**
Moatize	275	624	648	275	2,501	4.0%	136.1%	810.9%
Carborough Downs	514	131	373	1,390	911	185.3%	-27.4%	-34.5%
Integra Coal	169	285	286	467	962	0.3%	68.9%	106.1%
Others	216	169	163	635	709	-3.7%	-24.6%	11.7%
THERMAL COAL	**434**	**524**	**480**	**941**	**1,999**	**-8.2%**	**10.8%**	**112.4%**
Moatize	212	365	319	342	1,267	-12.6%	50.1%	270.4%
Integra Coal	122	78	71	325	351	-8.5%	-41.8%	7.9%
Others	99	81	91	274	381	11.8%	-8.7%	39.2%

BASE METALS

Nickel

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
Nickel	**69**	**49**	**64**	**242**	**237**	**31.0%**	**-6.6%**	**-1.9%**
Sudbury	19	10	15	60	65	53.1%	-20.4%	9.6%
Thompson	6	5	6	25	24	24.6%	4.5%	-3.2%
Voisey s Bay	21	14	18	69	62	29.7%	-13.3%	-10.2%
Sorowako	15	17	23	68	69	36.2%	51.6%	1.8%
VNC	1	0	0	5	4			-11.7%
Onça Puma	3	0	0	7	6			-13.5%
Others(1)	2	2	1	8	6	-66.9%	-65.7%	-25.8%

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

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Copper

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
COPPER	**85**	**68**	**81**	**302**	**292**	**19.9%**	**-4.6%**	**-3.5%**
Sossego	32	29	28	109	110	-4.6%	-14.4%	1.2%
Salobo	0	5	8	0	13	64.3%		
Sudbury	27	14	19	101	79	31.9%	-30.2%	-21.7%
Thompson	0	0	0	1	3	26.0%	1404.7%	105.0%
Voisey s Bay	14	9	14	51	42	48.3%	-1.0%	-18.0%
Tres Valles	3	3	4	9	14	16.8%	14.7%	59.7%
Lubambe(1)	0	0	1	0	1			
Others	8	6	7	31	29	11.7%	-12.8%	-5.6%

(1) Vale s attributable production capacity of 40%.

Nickel and copper by-products

	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
COBALT (metric tons)	**787**	**409**	**579**	**2,675**	**2,343**	**41.7%**	**-26.4%**	**-12.4%**
Sudbury	247	112	105	593	589	-6.8%	-57.6%	-0.6%
Thompson	31	29	22	158	96	-22.9%	-28.4%	-39.5%
Voisey s Bay	448	252	343	1,585	1,221	36.1%	-23.5%	-23.0%
VNC	51	0	98	245	385		92.4%	57.0%
Others	10	15	11	93	52	-27.1%	15.1%	-44.5%
PLATINUM (000 oz troy)	**41**	**35**	**22**	**174**	**134**	**-39.2%**	**-47.5%**	**-23.0%**
Sudbury	41	35	22	174	134	-39.2%	-47.5%	-23.0%
PALLADIUM (000 oz troy)	**64**	**71**	**55**	**248**	**251**	**-23.0%**	**-14.3%**	**1.3%**
Sudbury	64	71	55	248	251	-23.0%	-14.3%	1.3%
GOLD (000 oz troy)	**52**	**46**	**47**	**189**	**165**	**3.5%**	**-9.6%**	**-12.9%**
Sudbury	30	18	14	109	69	-25.8%	-55.6%	-37.0%
Sossego	22	21	20	80	75	-0.7%	-7.3%	-6.5%
Salobo	0	7	13	0	21	92.2%		
SILVER (000 oz troy)	**683**	**461**	**390**	**2,535**	**2,012**	**-15.3%**	**-42.9%**	**-20.6%**
Sudbury	683	461	390	2,535	2,012	-15.3%	-42.9%	-20.6%

FERTILIZER NUTRIENTS

Potash

000 metric tons	4Q11	3Q12	4Q12	2011	2012	% Change 4Q12/3Q12	% Change 4Q12/4Q11	% Change 2012/2011
POTASH	**180**	**141**	**161**	**625**	**549**	**14.2%**	**-10.6%**	**-12.3%**
Taquari-Vassouras	180	141	161	625	549	14.2%	-10.6%	-12.3%

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Phosphates

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For further information. please contact:

+55-21-3814-4540

Roberto Castello Branco: roberto.castello.branco@vale.com

Viktor Moszkowicz: viktor.moszkowicz@vale.com

Carla Albano Miller: carla.albano@vale.com

Andrea Gutman: andrea.gutman@vale.com

Christian Perlingiere: christian.perlingiere@vale.com

Marcelo Bonança Correa: marcelo.correa@vale.com

Marcio Loures Penna: marcio.penna@vale.com

Rafael Rondinelli: rafael.rondinelli@vale.com

Samantha Pons: samantha.pons@vale.com

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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.

Vale S.A.
(Registrant)

Date: February 1, 2013

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