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

April 2016

Vale S.A.

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VALE PRODUCTION IN 1Q16

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Form 20-F.

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Production highlights

Rio de Janeiro, April 20, 2016 Vale S.A. (Vale) reached 77.5 Mt of iron ore production(1) in the first quarter of 2016 (1Q16), representing the highest first quarter production in Vale s history.

Carajás achieved a production record for a first quarter of 32.4 Mt in 1Q16, representing an increase of 4.9 Mt (or 17.7%) in relation to 1Q15, mainly due to the excellent performance of the N4WS and N5S mines.

Tubarão pellet plants Tubarão 3, 4, 5, 6, 7 and 8 achieved a production record for a first quarter of 7.2 Mt in 1Q16, representing an increase of 100,000 t in relation to 1Q15, mainly due to overall higher performance in the plants.

Nickel production achieved a record for a first quarter of 73,500 t in 1Q16, representing an increase of 4,300 t in relation to 1Q15, mainly due to the operational performance of Sudbury and the record production in Vale New Caledonia (VNC).

Copper production was a record for a first quarter of 109,900 t in 1Q16, representing an increase of 5,300 t in relation to 1Q15, mainly due to the successful ramp-up of Salobo.

Gold production reached a record 118,100 oz in 1Q16, mainly due to the operational performance of Sudbury and the successful ramp-up of Salobo.

Coal production reached 1.7 Mt in 1Q16, 4.9% higher than in 4Q15, due to higher metallurgical coal production in Australia but 1.9% lower than in 1Q15 due to lower production in Moatize.

(1) Excluding Samarco s attributable production and including iron ore acquired from third parties

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Production summary

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
Iron ore(1)	77,544	88,411	77,417	-12.3%	0.2%
Pellets(1)	11,478	10,377	11,388	10.6%	0.8%
Manganese Ore	596	651	592	-8.4%	0.8%
Coal	1,663	1,585	1,695	4.9%	-1.9%
Nickel	73.5	82.7	69.2	-11.1%	6.2%
Copper(2)	111.9	112.5	107.2	-0.6%	4.4%
Cobalt	1.400	1.271	970	10.1%	44.3%
Gold (000 oz troy)	118	117	103	0.6%	15.1%
Potash	111	137	108	-19.4%	2.4%
Phosphate rock	1,615	2,122	1,992	-23.9%	-18.9%

(1) Excluding Samarco s attributable production and including third party purchases.

(2) Including Lubambe s attributable production.

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Iron Ore

				% change	
000 metric tons	**1Q16**	**4Q15**	**1Q15**	**1Q16/4Q15**	**1Q16/1Q15**
Northern System	32,385	36,534	27,521	-11.4%	17.7%
Carajás	32,385	36,534	27,521	-11.4%	17.7%
Southeastern System	22,544	26,616	25,918	-15.3%	-13.0%
Itabira	7,512	9,041	7,323	-16.9%	2.6%
Minas Centrais	9,987	11,197	8,919	-10.8%	12.0%
Mariana	5,045	6,378	9,676	-20.9%	-47.9%
Southern System	22,033	24,404	22,643	-9.7%	-2.7%
Paraopeba	5,630	6,301	6,533	-10.7%	-13.8%
Vargem Grande	7,323	8,487	5,888	-13.7%	24.4%
Minas Itabirito	9,080	9,616	10,221	-5.6%	-11.2%
Midwestern System	582	857	1,335	-32.1%	-56.4%
Corumbá	253	408	893	-37.8%	-71.6%
Urucum	329	449	442	-26.8%	-25.5%
IRON ORE	**77,544**	**88,411**	**77,417**	**-12.3%**	**0.2%**

Production summary

Vale s iron ore production, including third party purchases and excluding Samarco s attributable production, achieved a record for a first quarter of 77.5 Mt in 1Q16, 10.9 Mt lower than in 4Q15 due to weather-related seasonality and 0.1 Mt higher than in 1Q15. Production increased in the Northern System offsetting the halt in ROM production to Samarco and the decrease in production in the Mariana mining hub after the Samarco dam failure. Production in 1Q16 and its profile for the remainder of 2016 indicates an annual production at the lower limit of the original guidance range of 340-350Mt for 2016.

Average Fe content decreased slightly from 63.7% in 4Q15 to 63.5% in 1Q16 due to mine plan adjustments in the Southern and Southeastern systems as a response to the increase in market premiums for Vale s iron ore fines with higher silica content.

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Northern system

Carajás achieved a new production record for a first quarter of 32.4 Mt in 1Q16, 11.4% lower than in 4Q15 but 17.7% higher than in 1Q15. The increase vs. 1Q15 is mostly due to the ramp-up of the N4WS and N5S mines. The decrease vs. 4Q15 was due to the impact of the rainy season (the standard precipitation index increased from 57 mm in 4Q15 to 1,065 mm in 1Q16).

Production at the N4WS mine reached 15.5 Mt in 1Q16, 19.6% higher than in 4Q15 whilst production from the N5S extension mine reached 10.4 Mt in 1Q16, 20.5% higher than in 4Q15.

Southeastern system

The Southeastern System, which encompasses the Itabira, Minas Centrais and Mariana mining hubs, produced 22.5 Mt in 1Q16, 4.1 Mt and 3.4 Mt lower than in 4Q15 and 1Q15, respectively.

Production at the Itabira mining hub was 7.5 Mt, 16.9% lower than in 4Q15 and 2.6% higher than in 1Q15. The production decrease in 1Q16 was mostly driven by a planned stoppage of the existing production lines for the start-up of the revamped Cauê Itabiritos plant. The stoppage was a one-off event as the Cauê Itabiritos plant successfully initiated its ramp up.

Production at the Minas Centrais mining hub was 10.0 Mt in 1Q16, 1.2 Mt lower than in 4Q15 due to the gradual exhaustion of the Gongo Soco mine. Production in 1Q16 was 1.1 Mt higher than in 1Q15 as a result of the ramp-up of the 5th beneficiation line at the Brucutu processing plant, which produced 1.3 Mt in 1Q16. Brucutu´s new tailings dam was licensed at the beginning of April, thus not impacting production volumes.

Production at the Mariana mining hub was 5.0 Mt in 1Q16, 20.9% and 47.9% lower than in 4Q15 and 1Q15, respectively, mainly due the stoppage of Vale´s Fazendão mine which supplied ROM to Samarco. Vale´s Alegria mine is operating a dry beneficiation process at a lower mine productivity and the Timbopeba plant restarted operations benefiting ROM from its own pit.

Southern system

The Southern System, composed of the Paraopeba, Vargem Grande and Minas Itabirito mining hubs, produced 22.0 Mt in 1Q16, 9.7% and 2.7% lower than in 4Q15 and 1Q15, respectively.

Production at the Paraopeba mining hub was 0.7 Mt lower than in 4Q15, as a result of the end of a ROM sales contract and of stronger rainfall. Production in 1Q16 was 0.9 Mt lower

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than in 1Q15, due to the stoppage of the Jangada processing plant. The shutdown of this plant was a result of Vale s strategy of reducing production of lower margin products, which is continuously reassessed as market conditions and competitiveness evolve.

Production at the Vargem Grande mining hub was 7.3 Mt in 1Q16, 13.7% lower than in 4Q15 due to stronger rainfall but 24.4% higher than in 1Q15 as a result of the ramp-ups of the Vargem Grande Itabiritos project and the Abóboras II dry processing plant.

Production at the Minas Itabirito mining hub totaled 9.1 Mt, 5.6% and 11.2% lower than in 4Q15 and 1Q15, respectively, as a result of our strategy to reduce inventory levels and to focus on contribution margins.

Midwestern system

The Midwestern System, composed of the Urucum and the Corumbá mines, produced 0.6 Mt in 1Q16, 0.3 Mt and 0.7 Mt lower than in 4Q15 and 1Q15, respectively, as a result of Vale s strategy to optimize inventory levels and margins.

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Pellets

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
Southeastern System	**7,221**	**6,414**	**7,121**	**12.6%**	**1.4%**
Itabrasco (Tubarão 3)	1,100	953	1,125	15.4%	-2.3%
Hispanobras (Tubarão 4)	1,128	992	1,053	13.7%	7.1%
Nibrasco (Tubarão 5 and 6)	2,159	1,752	2,241	23.2%	-3.7%
Kobrasco (Tubarão 7)	1,088	1,100	1,088	-1.1%	0.0%
Tubarão 8	1,746	1,616	1,614	8.0%	8.2%
Southern System	**2,330**	**2,462**	**2,372**	**-5.4%**	**-1.8%**
Fabrica	861	978	855	-11.9%	0.7%
Vargem Grande	1,469	1,484	1,517	-1.0%	-3.2%
Oman	1,927	1,502	1,895	28.3%	1.7%
TOTAL PELLETS	**11,478**	**10,377**	**11,388**	**10.6%**	**0.8%**
Samarco (1)		1,605	3,497	n.m.	n.m.

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

Production overview

Vale s pellet production, excluding Samarco s attributable production, reached 11.478 Mt in 1Q16. Production in 1Q16 was 10.6% higher than in 4Q15, mainly due to scheduled maintenance stoppages at certain plants in 4Q15. Production in 1Q16 was in line with 1Q15.

Southeastern system

Production at the Tubarão pellet plants Tubarão 3, 4, 5, 6, 7 and 8 was a record for a first quarter of 7.2 Mt in 1Q16, 12.6% higher than in 4Q15 mainly due to the maintenance stoppages occurred in 4Q15. Production in 1Q16 was 1.4% higher than in 1Q15 due to overall higher performance in the plants.

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Southern system

Production at the Fábrica pellet plant was 0.9 Mt in 1Q16, 11.9% lower than in 4Q15 and in line with 1Q15. As of 28th of March the operation was suspended due to delays in environmental licensing of the mine expansion projects.

Production at the Vargem Grande pellet plant amounted to 1.5 Mt, in line with 4Q15 and 3.2% lower than in 1Q15, mainly as a result of a scheduled maintenance stoppage in 1Q16.

Oman operations

Production at the Oman pellet plant reached 1.9 Mt in 1Q16, 28.3% higher than in 4Q15 due to the scheduled maintenance stoppages in 4Q15 and productivity gains in the pellet plant in 1Q16. Production in 1Q16 was in line with 1Q15.

Samarco

Samarco s operations were suspended as a result of the failure of the Fundão tailings dam on November 5th, 2015. Samarco plans to resume operations by the end of the year, although timing is uncertain.

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Manganese ore and ferroalloys

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
MANGANESE ORE	**596**	**651**	**592**	**-8.4%**	**0.8%**
Azul	434	485	407	-10.5%	6.5%
Urucum	162	166	184	-2.2%	-12.0%
FERROALLOYS	**25**	**20**	**27**	**24.3%**	**-8.9%**
Brazil	25	20	27	24.3%	-8.9%

Production overview

Manganese ore production decreased by 8.4% in 1Q16 vs. 4Q15 and was in line with 1Q15.

The Barbacena plant resumed production in February with the lower spot energy prices, while the Ouro Preto ferroalloy plant in Minas Gerais remains shut as market demand was not strong enough to enable the resumption of the operations at both plants.

Manganese ore production

Production at the Azul manganese mine reached 434,000 t in 1Q16, 10.5% lower than in 4Q15 as a result of lower sinter feed availability, and 6.5% higher than in 1Q15.

Production at the Urucum mine reached 162,000 t in 1Q16, 2.2% and 12.0% lower than in 4Q15 and 1Q15, respectively, as a result of lower operational performance of mine equipment.

Ferroalloy production

Ferroalloy production in 1Q16 was 25,000 t, 24.3% higher than in 4Q15, due to the reopening of the Barbacena plant in February, as the operation became economically viable with lower energy prices, and 8.9% lower than in 1Q15.

Production was comprised of 14,650 t of ferrosilicon manganese alloys (FeSiMn), 8,000 t of high-carbon manganese alloys (FeMnHC) and 2,150 t of medium-carbon manganese alloys (FeMnMC).

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Nickel

Finished production by source

				% change	
000 metric tons	**1Q16**	**4Q15**	**1Q15**	**1Q16/4Q15**	**1Q16/1Q15**
Canada	40.5	39.7	38.6	2.0%	4.9%
Sudbury	19.5	13.0	11.4	49.5%	70.8%
Thompson	6.2	7.1	5.8	-12.7%	7.7%
Voisey s Bay	10.9	14.7	13.5	-25.9%	-18.8%
Feed from third parties(1)	3.9	4.8	7.9	-19.4%	-51.5%
Indonesia	17.8	28.3	18.0	-37.0%	-1.2%
New Caledonia(2)	9.7	8.3	6.5	16.6%	48.1%
Brazil	5.6	6.4	6.1	-13.7%	-8.8%
TOTAL NICKEL	**73.5**	**82.7**	**69.2**	**-11.1%**	**6.2%**

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

(2) Production at VNC reached 9,000 t in 1Q16, whereas production of finished nickel from VNC totaled 9,700 t in 1Q16; the differences stem from the time required for processing into finished nickel.

Production overview

Production of nickel reached a record for a first quarter of 73,500 t in 1Q16, being 11.1% lower than in 4Q15 and 6.2% higher than in 1Q15, mainly due to the good operational performance at Sudbury, combined with the production record from Vale New Caledonia (VNC).

Canadian operations

Production from the Sudbury mines reached 19,500 t in 1Q16, 49.5% and 70.8% higher than in 4Q15 and in 1Q15, respectively. Production was positively impacted by the higher utilization rates at both the Sudbury and Clydach refineries in 1Q16 compared to 1Q15 and 4Q15 when the operations were impacted by seismic events and weather-related events.

Production from the Thompson mines reached 6,200 t in 1Q16, 12.7% lower than in 4Q15 as the Thompson smelter experienced operational issues in the quarter. Production in 1Q16 was 7.7% higher than in 1Q15.

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Production from the Voisey s Bay mine reached 10,900 t in 1Q16, 25.9% and 18.8% lower than in 4Q15 and in 1Q15, respectively. Production from Voysey´s Bay sourced ore was negatively affected by the severe winter weather on the Labrador coast which delayed shipments of Voisey s Bay concentrates, by the operational issues in the Thompson smelter and by the commissioning of a cobalt recovery circuit at Long Harbour in 1Q16. On-site inventories increased and should be drawn down during 2016.

Production at the Long Harbour processing plant reached 2,216 t in 1Q16, 55.7% lower than in 4Q15 due to a stoppage to install the cobalt recovery circuit. Long Harbour operated fed solely by nickel concentrate from Voisey s Bay in 1Q16.

Indonesian operation (PTVI)

Production of finished nickel from PTVI reached 17,800 t in 1Q16, 37.0% and 1.2% lower than in 4Q15 and in 1Q15, respectively, mainly as a result of the scheduled annual maintenance shutdown of a kiln at PTVI and at the Matsusaka refinery.

New Caledonia operation (VNC)

Production of finished products from VNC reached a record 9,700 t in the quarter, 16.6% and 48.1% higher than in 4Q15 and 1Q15, respectively. Production of NiO and NHC at VNC reached 9,000 t in 1Q16. NiO represented 78% and NHC 22% of VNC s 1Q16 production.

Brazilian operation (Onça Puma)

Production from the Onça Puma operation reached 5,600 t in 1Q16, 13.7% and 8.8% lower than in 4Q15 and in 1Q15, respectively, as a result of short circuits in furnace electrodes in February which resulted in 1,300 t of production loss. Onça Puma operations have achieved planned rates since then and will recover the lost production over the remainder of the year.

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Copper

Finished production by source

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
BRAZIL	**63.4**	**64.8**	**62.4**	**-2.1%**	**1.6%**
Sossego	22.3	22.8	27.1	-1.8%	-17.6%
Salobo	41.1	42.0	35.3	-2.3%	16.4%
CANADA	**46.5**	**45.5**	**42.2**	**2.1%**	**10.2%**
Sudbury	30.9	31.3	25.3	-1.3%	21.9%
Thompson	0.6	0.3	0.1	94.0%	465.7%
Voisey s Bay	7.8	10.8	7.5	-27.3%	4.9%
Feed from third parties	7.1	3.1	9.3	128.4%	-23.0%
TOTAL EX-LUBAMBE	**109.9**	**110.3**	**104.6**	**-0.4%**	**5.1%**
Lubambe(1)	2.0	2.2	2.6	-10.1%	-21.7%
TOTAL COPPER	**111.9**	**112.5**	**107.2**	**-0.6%**	**4.4%**

(1) Attributable production.

Production overview

Production of copper(2) reached a first quarter record of 109,900 t in 1Q16, being 0.6% lower than in 4Q15 and 4.4% higher than in 1Q15, mainly due to the successful ramp-up of Salobo.

Brazilian operations

Production of copper in concentrate at Sossego totaled 22,300 t in 1Q16, 1.8% and 17.6% lower than in 4Q15 and in 1Q15, respectively, as a result of lower ore grade that was partially offset by high metal recoveries and high production yield.

Production of copper in concentrate at Salobo totaled 41,100 t in 1Q16, 2.3% lower than in 4Q15 and 16.4% higher than in 1Q15. Salobo is expected to improve copper production throughout 2016 as rainfall decreases. Salobo achieved the monthly production record of

(2) Excluding Lubambe attributable production

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14,100 t in copper concentrates in March 2016 and is expected to reach its full production capacity in 2H16.

Canadian operations

Production of copper from Sudbury reached 30,900 t in 1Q16, 1.3% lower than in 4Q15, as nickel ore with less copper units was mined in 1Q16. Production was 21.9% higher than in 1Q15.

Production of copper from Voisey s Bay reached 7,800 t in 1Q16, 27.3% lower than in 4Q15, as less Voisey s Bay material was delivered to Sudbury due to the severe winter weather conditions in Labrador. Production was 4.9% higher than in 1Q15.

African operation (Lubambe)

Lubambe delivered 5,000 t of copper in concentrate on a 100% basis (attributable production of 2,000 t).

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Nickel and copper by-products

Finished production by source

				% change	
	1Q16	4Q15	1Q15	1Q16/4Q15	1Q16/1Q15
COBALT (metric tons)	**1,400**	**1,271**	**970**	**10.1%**	**44.3%**
Sudbury	173	272	212	-36.4%	-18.2%
Thompson	182	86	41	111.2%	340.9%
Voisey s Bay	145	90	128	60.9%	13.6%
VNC	849	780	559	8.9%	51.8%
Others	50	43	29	15.9%	70.0%
PLATINUM (000 oz troy)	**46**	**37**	**42**	**23.8%**	**11.7%**
Sudbury	46	37	42	23.8%	11.7%
PALLADIUM (000 oz troy)	**100**	**79**	**97**	**26.4%**	**2.8%**
Sudbury	100	79	97	26.4%	2.8%
GOLD (000 oz troy)	**118**	**117**	**103**	**0.6%**	**15.1%**
Sudbury	23	24	27	-5.1%	-15.6%
Sossego	19	18	21	8.5%	-8.0%
Salobo	76	75	54	0.5%	39.3%
SILVER (000 oz troy)	**516**	**518**	**482**	**-0.5%**	**7.1%**
Sudbury	516	518	482	-0.5%	7.1%

Cobalt

Cobalt production totaled 1,400 t in 1Q16, 10.1% and 44.3% higher than in 4Q15 and 1Q15, respectively, driven by the higher production at Manitoba, Voisey s Bay and VNC.

Cobalt production from Voisey s Bay increased to 145 t in 1Q16 from the 90 t in 4Q15 since the refinery was equipped with the circuits required to extract and recover cobalt. Cobalt production from VNC increased to 849 t in 1Q16, up from 780 t in 4Q15, as VNC continues to ramp-up its production.

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Platinum and palladium

Platinum production was 46,000 oz and palladium production was 100,000 oz, 23.8% and 26.4% higher than in 4Q15, respectively.

Gold

Gold production reached a record 118,100 oz in 1Q15. Production increased with the successful ramp-up of Salobo.

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Coal

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
METALLURGICAL COAL	**1,366**	**1,244**	**1,268**	**9.8%**	**7.7%**
Moatize	603	873	727	-31.0%	-17.1%
Carborough Downs	763	371	541	105.7%	41.1%
THERMAL COAL	**297**	**341**	**427**	**-12.8%**	**-30.4%**
Moatize	297	341	427	-12.8%	-30.4%
TOTAL COAL	**1,663**	**1,585**	**1,695**	**4.9%**	**-1.9%**

Production overview

Coal production reached 1.7 Mt in 1Q16, 4.9% higher than in 4Q15, due to higher metallurgical coal production in Australia and 1.9% lower than in 1Q15 due to lower production in Moatize.

Australian operations

Carborough Downs in Australia reached its second highest quarterly production mark of 763,000 t in 1Q16, 105.7% and 41.1% higher than in 4Q15 and 1Q15 respectively, due to excellent operational performance at the mine, after longwall moves which occurred in March, October and November of 2015, impacting production in 1Q15 and 4Q15.

Moatize operations

Production at Moatize was 900,000 t in 1Q16, with a decline in both metallurgical and thermal coal production, due to the prioritization of waste movement of around 7.6 Mt in order to prepare the mine for the start-up of the coal handling facility scheduled for May and an unscheduled six-day maintenance stoppage at the plant in January to increase its availability. Since the maintenance stoppage the plant has been operating at appropriate levels.

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Production of metallurgical coal was 31.0% and 17.1% lower than in 4Q15 and 1Q15, respectively, and production of thermal coal was 12.8% and 30.4% lower compared to the same quarters.

The ramp-up of the Nacala Logistics Corridor continued as planned, transporting 747,000 t on the railway in 1Q16 against 241,000 t in 4Q15 and concluding thirteen shipments in 1Q16 compared with one shipment in 4Q15.

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Fertilizer Nutrients

Potash

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
POTASH	**111**	**137**	**108**	**-19.4%**	**2.4%**
Taquari-Vassouras	111	137	108	-19.4%	2.4%

Phosphates

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
PHOSPHATE ROCK	**1,615**	**2,122**	**1,992**	**-23.9%**	**-18.9%**
Brazil	702	1,102	1,101	-36.4%	-36.3%
Bayóvar	913	1,019	892	-10.4%	2.4%
MAP(1)	**258**	**276**	**291**	**-6.7%**	**-11.4%**
TSP(2)	**213**	**206**	**231**	**3.6%**	**-7.7%**
SSP(3)	**326**	**523**	**464**	**-37.7%**	**-29.8%**
DCP(4)	**122**	**129**	**137**	**-4.9%**	**-10.9%**

(1) Monoammonium phosphate

(2) Triple superphosphate

(3) Single superphosphate

(4) Dicalcium phosphate

Potash

Potash production reached 111,000 t in 1Q16, 19.4% lower than in 4Q15 due to a six-day unscheduled maintenance stoppage at the beneficiation plant in 1Q16. Production was 2.4% higher than in 1Q15.

Phosphate Rock

Production of phosphate rock was 1.6 Mt in 1Q16, 23.9% and 18.9% lower than in 4Q15 and 1Q15 respectively. The overall decline was caused by lower production in Brazil and in Peru (Bayóvar) in 1Q16.

Production in Brazil was 702,000 t in 1Q16, 36.4% and 36.3% lower than in 4Q15 and 1Q15 respectively. The decline was mainly caused by the scheduled maintenance stoppage of the

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Araxá plant throughout 1Q16 and unscheduled maintenance stoppage at Cajati, Tapira and Catalão.

Production in Bayóvar was 913,000 t in 1Q16, 10.4% lower than in 4Q15 but 2.4% higher than in 1Q15. The decrease relative to 4Q15 was caused by the interruption of ship loadings due to bad weather conditions. The increase relative to 1Q15 was a result of production losses and a prolonged maintenance stoppage in that quarter.

MAP

Production of MAP totaled 258,000 t in 1Q16, 6.7% and 11.4% lower than in 4Q15 and 1Q15 respectively due to the unscheduled maintenance stoppage at the sulphuric acid plant in Uberaba. The lower availability of sulphuric acid impacted the production of phosphoric acid leading to a prioritization of TSP production rather than MAP, due to better market conditions for TSP.

TSP

Production of TSP (triple superphosphate) totaled 213,000 t in 1Q16, 3.6% higher than in 4Q15, due to better productivity at the plant, but 7.7% lower than in 1Q15 due to the low production level of phosphate rock from Tapira, the lack of phosphoric acid for the plant, and the high level of contaminants in the phosphate rocks, which impacted the productivity of the plants.

SSP

Production of SSP (single superphosphate) totaled 326,000 t in 1Q16, 37.7% and 29.8% lower than in 4Q15 and 1Q15, respectively. Production decreased mainly on the back of a prolonged maintenance stoppage followed by an unscheduled maintenance stoppage at the Araxá plant.

DCP

DCP (dicalcium phosphate) production totaled 122,000 t in 1Q16, 4.9% and 10.9% lower than in 4Q15 and 1Q15 respectively, due to the lack of phosphoric acid for the Cajati plant and higher than expected rainfall in Cajati, which caused water contamination in the area and impacted plant s productivity.

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Nitrogen

000 metric tons	1Q16	4Q15	1Q15	% change 1Q16/4Q15	% change 1Q16/1Q15
AMMONIA	26	6	43	343.8%	-39.8%
NITRIC ACID	120	116	114	2.7%	5.1%
AMMONIUM NITRATE	135	130	119	4.5%	13.5%

Ammonia production

Ammonia production totaled 26,000 t in 1Q16, 343.8% higher than in 4Q15 due to the resumption of production after a prolonged maintenance stoppage at the Cubatão plant in 4Q15, but 39.8% lower than in 1Q15 due to the need for corrective stoppages throughout 1Q16.

Nitric acid and ammonium nitrate production

Nitric acid production totaled 120,000 t in 1Q16, 2.7% and 5.1% higher than in 4Q15 and 1Q15, respectively, as in both quarters there were maintenance stoppages at the Cubatão and Piaçaguera plants.

Ammonium nitrate production totaled 135,000 t in 1Q16, 4.5% and 13.5% higher than in 4Q15 and 1Q15, due to higher availability of diluted nitric acid.

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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)

By: /s/ Rogerio Nogueira
Director of Investor Relations

Date: April 20, 2016