

## Cleantech

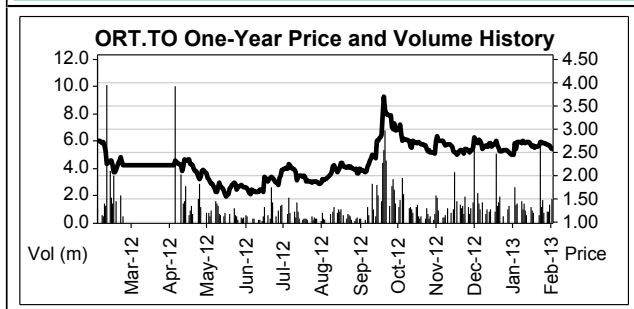
# Orbite Aluminae Inc. (OTCQX: EORBF) | ORT.TO - \$2.57 - TSX |

## Buy

### Company Update

Estimates Changed

Stock Data					
52-Week Low - High	\$1.53 - \$3.94				
Shares Out. (mil)	184.17				
Mkt. Cap.(mil)	\$473.3				
3-Mo. Avg. Vol.	1,438,100				
12-Mo.Price Target	\$10.00				
Cash (mil)	\$43.0				
Tot. Debt (mil)	\$2.4				
EPS \$					
Yr Dec	—2011—	—2012E—		—2013E—	
		Curr	Prev	Curr	Prev
1Q	(0.02)A	(0.02)A	(0.02)A	(0.06)E	(0.03)E
2Q	(0.01)A	(0.03)A	(0.03)A	(0.05)E	(0.02)E
3Q	(0.02)A	(0.02)A	(0.05)E	(0.03)E	(0.01)E
4Q	(0.03)A	(0.03)E	(0.05)E	(0.05)E	(0.03)E
YEAR	(0.08)A	(0.12)E	(0.17)E	(0.19)E	(0.09)E
Revenue (\$ millions)					
Yr Dec	—2011—	—2012E—		—2013E—	
		Curr	Curr	Prev	
1Q	0.0A	0.0A	0.0E	7.5E	
2Q	0.0A	0.0A	0.6E	11.3E	
3Q	0.0A	0.0A	8.3E	19.5E	
4Q	0.0A	0.0E	18.0E	27.0E	
YEAR	0.0A	0.0E	26.8E	65.3E	



## EORBF: Steady Progress, One Leaching at a Time; Reiterate Buy

Last week, we toured Orbite's HPA facility, and we are encouraged by the company's progress. While there is more work to be done, the company is producing 4N+ HPA. Prospective customers are evaluating its product, and management expects them to take between one and three months to validate. We reiterate our Buy rating.

- Orbite is making steady progress...** On 1/22, the company announced that independent experts confirmed that Orbite's HPA was 4N+ quality (Evans Analytical Group) and that its process recycled 99.99% of the HCl used (CMI-UVK). On 1/31, we toured the HPA plant in Cap-Chat, Quebec. Much of the equipment is in place, and we witnessed HPA being produced and collected.
- ...though there is more work ahead.** The plant is currently being run in a batch process. Denis Primeau, the Chief Engineer, plans to optimize operating conditions before connecting everything in an effort to avoid rework. Additionally, Outotec's fluidized bed reactor, the ion exchanger, and the clean room are not in place. In spite of all this, the plant is producing nearly all of its product at 4N quality, highlighting what the company believes to be an achievable path to higher quality HPA.
- Opex expectations remain in place.** When asked about how opex expectations may have changed, Mr. Primeau spoke with a very high degree of certitude that management's original expectations are realistic.
- Capex is coming in higher than expected, but it is primarily driven by greater capacity.** When the HPA plant was first announced in Jun'12, management expected HPA capex to be \$26-30mn, net of investment tax credits (40% of the total cost), or ~\$43-50mn without tax credits for a 3tpd facility. Current expectations are for capex to be \$45mn, net of credits, and \$75mn without credits for a 5tpd facility, which is 66% larger. On a unit basis, management expects it to cost about \$15mn per tpd of capacity, which is in line with original expectations.
- Offtake agreements should be around the corner.** With production in the commercial facility ramping up, customers are currently validating the company's HPA. Management believes validation should take between one and three months. Orbite has sold 100-300kgs of HPA to a number of its customers to evaluate.
- Model adjustments.** Commercial production is now expected to be at least a quarter later than we originally expected. Given this and conservatism, we lower our 2013 revenues to \$27mn from \$65mn and EPS to -19c from -9c.

## VALUATION

- Using a DCF valuation approach by forecasting free cash flow through FY'18 and applying a 15% WACC, we arrive at a \$10 price target on shares of EORBF.
- Factors that would prevent shares of Orbite from reaching our price target include (1) slower-than-expected ramp or delays in HPA production; (2) delays with the company's SGA project; (3) higher-than-expected capital expenditures during the development and construction phases; (4) weaker-than-expected product quality; and (5) lower-than-expected pricing in global markets for Orbite's products.

## RISKS

- **Technical risk.** Several steps in Orbite's process may present challenges to the economic production of alumina and byproducts, including but not limited to the preparation of the clay input material, silica filtration, and the closed-loop acid recovery systems.
- **IP risk.** If Orbite is not able to protect its intellectual property using a combination of global patents and trade secrets, a rival company could develop a competitive process.
- **SGA scalability.** Detailed engineering and design work are still required to build Orbite's SGA production process. Any challenges or technical difficulties in scaling the company's closed-loop production process could create significant delays and push out full scale production.
- **HPA scalability.** The company may experience difficulty in scaling up its HPA production process to several tonnes per day at its Cap Chat facility. This could delay production and negatively affect earnings.
- **Product quality.** The company may be unable to scale its process to produce the expected quality and purity of minerals and metals.
- **Management talent.** Orbite relies on several key members of its management team to develop and implement its technology. Any unexpected departure by a key member represents a material risk in our view.
- **Business development.** Given the low global production volumes of some of Orbite's expected byproducts, marketplaces for these materials are less developed and require additional investment in the customer procurement process.
- **Fuel supply.** Orbite's processing technology requires a substantial amount of energy from a fuel supply such as natural gas. Infrastructure development near the SGA plant is necessary before production can commence as there is currently no production facility for the delivery of natural gas in the Gaspé region.
- **Electricity infrastructure.** According to the company's NI 43-101, Orbite will need access to an industrial scale electricity source at its SGA facility, which is currently unavailable at the proposed site.
- **Permitting delays.** Orbite will need to obtain several permits for the mine site and production facilities before the company can begin production. Any significant or protracted delays could push out the production date of the HPA or SGA facilities and negatively impact earnings.
- **Implementation of Bill 14.** The bill subjects all mining projects and mineral treatment plants to an environmental impact assessment without regard to production threshold. The associated consultations and public hearings from the assessment could cause a material delay in Orbite's projects.
- **Market prices of minerals and metals.** Orbite's profitability is directly related to the prices of the minerals and metals it will produce, which are set by global markets and primarily determined by global macroeconomic conditions.
- **Higher-than-expected capital expenditures.** Orbite expects to spend approximately \$500mn (+/- 30%) to develop its first SGA facility. Increases in cost outside of the expected range could decrease return on invested capital metrics.

## COMPANY DESCRIPTION

Orbite Aluminae (TSX: ORT; OTCQX: EORBF) is a Canadian resources and technology company that focuses on the production of high-purity alumina (HPA), smelter grade alumina (SGA), and value-added by-products such as rare metals. Orbite has developed a potentially disruptive alumina extraction alternative to the Bayer process, the 125 year-old method currently used to extract alumina from bauxite ore that produces a toxic

residue. Orbite's patented technology can produce alumina (1) using a variety of inputs, including aluminous clays, low grade bauxite, and red mud; (2) at lower cost than conventional producers; and (3) with no hazardous byproducts. Orbite owns the rights to the Grande-Vallée property, a resource that contains more than one billion tonnes of aluminous clay. The company expects to complete construction of its 1,500 tpa HPA facility in Cap-Chat, Quebec in 2013, and is targeting 2015 for its 540,000 tpa SGA plant. Orbite is headquartered in Montreal and was founded in 1983.

Orbite Aluminae Inc.  
(TSX: ORT)

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Income Statement	FY'11	Q1'12	Q2'12	Q3'12	Q4'12E	FY'12E	Q1'13E	Q2'13E	Q3'13E	Q4'13E	FY'13E	FY'14E	FY'15E	FY'16E	FY'17E	FY'18E
<i>CAD in millions (except per share data)</i>	<i>Dec-11</i>	<i>Mar-12</i>	<i>Jun-12</i>	<i>Sep-12</i>	<i>Dec-12</i>	<i>Dec-12</i>	<i>Mar-13</i>	<i>Jun-13</i>	<i>Sep-13</i>	<i>Dec-13</i>	<i>Dec-13</i>	<i>Dec-14</i>	<i>Dec-15</i>	<i>Dec-16</i>	<i>Dec-17</i>	<i>Dec-18</i>
HPA unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	8.3	18.0	26.8	120.0	120.0	120.0	120.0	120.0
SGA unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	133.5	410.6	462.0	821.3
<b>Total revenues</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.6</b>	<b>8.3</b>	<b>18.0</b>	<b>26.8</b>	<b>120.0</b>	<b>253.5</b>	<b>530.6</b>	<b>582.0</b>	<b>941.3</b>
YoY growth	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	347.7%	111.2%	109.4%	9.7%	61.7%
COGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.1	9.0	13.4	60.0	113.4	224.3	244.8	388.5
<b>Gross profit</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>4.1</b>	<b>9.0</b>	<b>13.4</b>	<b>60.0</b>	<b>140.1</b>	<b>306.4</b>	<b>337.2</b>	<b>552.8</b>
Gross margin	NA	NA	NA	NA	NA	NA	NA	50.0%	50.0%	50.0%	50.0%	50.0%	55.3%	57.7%	57.9%	58.7%
Selling & marketing	0.0	0.0	0.0	0.0	1.5	1.5	2.0	2.5	3.0	3.5	11.0	12.0	22.0	32.0	34.0	40.0
% of sales	NA	NA	NA	NA	NA	NA	NA	452.0%	36.4%	19.4%	41.0%	10.0%	8.7%	6.0%	5.8%	4.2%
R&D charges, net of gov't help	2.9	1.4	3.6	0.6	0.6	6.2	4.5	4.5	5.0	5.0	19.0	25.0	32.0	32.0	32.0	32.0
% of sales	NA	NA	NA	NA	NA	NA	NA	813.6%	60.6%	27.8%	70.9%	20.8%	12.6%	6.0%	5.5%	3.4%
General and administrative charges	3.4	2.6	3.2	3.5	3.5	12.8	3.5	3.5	3.5	3.5	14.0	18.0	20.0	22.0	24.0	28.0
% of sales	NA	NA	NA	NA	NA	NA	NA	632.8%	42.4%	19.4%	52.2%	15.0%	7.9%	4.1%	4.1%	3.0%
Total operating expenses	12.0	4.0	6.8	4.1	5.6	20.5	10.0	10.5	11.5	12.0	44.0	55.0	74.0	86.0	90.0	100.0
% of sales	NA	NA	NA	NA	NA	NA	NA	1898.3%	139.4%	66.7%	164.2%	45.8%	29.2%	16.2%	15.5%	10.6%
<b>EBIT</b>	<b>(12.0)</b>	<b>(4.0)</b>	<b>(6.8)</b>	<b>(4.1)</b>	<b>(5.6)</b>	<b>(20.5)</b>	<b>(10.0)</b>	<b>(10.2)</b>	<b>(7.4)</b>	<b>(3.0)</b>	<b>(30.6)</b>	<b>5.0</b>	<b>66.1</b>	<b>220.4</b>	<b>247.2</b>	<b>452.8</b>
Operating margin	NA	NA	NA	NA	NA	NA	NA	-1848.3%	-89.4%	-16.7%	-114.2%	4.2%	26.1%	41.5%	42.5%	48.1%
Interest income/(expense)	0.3	0.2	0.1	0.1	(0.1)	0.3	(0.1)	(0.1)	(0.1)	(8.0)	(8.3)	(32.0)	(40.0)	(48.0)	(48.0)	(48.0)
Other income	(0.1)	(0.0)	(0.5)	0.0	0.0	(0.6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBT</b>	<b>(11.5)</b>	<b>(3.8)</b>	<b>(6.1)</b>	<b>(4.0)</b>	<b>(5.7)</b>	<b>(20.8)</b>	<b>(10.1)</b>	<b>(10.3)</b>	<b>(7.5)</b>	<b>(11.0)</b>	<b>(38.9)</b>	<b>(27.0)</b>	<b>26.1</b>	<b>172.4</b>	<b>199.2</b>	<b>404.8</b>
Income taxes	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	46.5	53.8	109.3
Effective tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.0%	27.0%	27.0%	27.0%
<b>Net income -- Continuing</b>	<b>(11.6)</b>	<b>(3.8)</b>	<b>(6.1)</b>	<b>(4.0)</b>	<b>(5.7)</b>	<b>(20.8)</b>	<b>(10.1)</b>	<b>(10.3)</b>	<b>(7.5)</b>	<b>(11.0)</b>	<b>(38.9)</b>	<b>(27.0)</b>	<b>19.0</b>	<b>125.8</b>	<b>145.4</b>	<b>295.5</b>
Net margin	NA	NA	NA	NA	NA	NA	NA	-1866.4%	-90.6%	-61.1%	-145.1%	-22.5%	7.5%	23.7%	25.0%	31.4%
Extraordinary items/Non-recurring items	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discounted operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income -- Reported</b>	<b>(11.6)</b>	<b>(3.8)</b>	<b>(6.1)</b>	<b>(4.0)</b>	<b>(5.7)</b>	<b>(20.8)</b>	<b>(10.1)</b>	<b>(10.3)</b>	<b>(7.5)</b>	<b>(11.0)</b>	<b>(38.9)</b>	<b>(27.0)</b>	<b>19.0</b>	<b>125.8</b>	<b>145.4</b>	<b>295.5</b>
<b>EPS -- Continuing, diluted shares</b>	<b>(\$0.08)</b>	<b>(\$0.02)</b>	<b>(\$0.03)</b>	<b>(\$0.02)</b>	<b>(\$0.03)</b>	<b>(\$0.12)</b>	<b>(\$0.06)</b>	<b>(\$0.05)</b>	<b>(\$0.03)</b>	<b>(\$0.05)</b>	<b>(\$0.19)</b>	<b>(\$0.11)</b>	<b>\$0.08</b>	<b>\$0.47</b>	<b>\$0.55</b>	<b>\$1.11</b>
YoY growth	-38.5%	-33.1%	-144.9%	-47.6%	-3.9%	-51.2%	-163.3%	-50.5%	-53.4%	-57.0%	-63.8%	40.1%	166.1%	528.4%	15.5%	103.2%
Extraordinary items/Non-recurring items	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Discounted operations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>EPS -- Reported</b>	<b>(\$0.08)</b>	<b>(\$0.02)</b>	<b>(\$0.03)</b>	<b>(\$0.02)</b>	<b>(\$0.03)</b>	<b>(\$0.12)</b>	<b>(\$0.06)</b>	<b>(\$0.05)</b>	<b>(\$0.03)</b>	<b>(\$0.05)</b>	<b>(\$0.19)</b>	<b>(\$0.11)</b>	<b>\$0.08</b>	<b>\$0.47</b>	<b>\$0.55</b>	<b>\$1.11</b>
Weighted average shares -- Basic	152.2	178.5	178.7	180.2	180.1	179.4	180.1	200.1	220.1	220.1	205.1	237.6	240.1	240.1	240.1	240.1
Weighted average shares -- Diluted	152.2	178.5	178.7	180.2	180.1	179.4	180.1	200.1	220.1	220.1	205.1	237.6	253.3	266.5	266.5	266.5

Source: Company filings and press releases; ROTH Capital Partners estimates.

Orbite Aluminae Inc.  
(TSX: ORT)

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Balance Sheet	FY'11	Q1'12	Q2'12	Q3'12	Q4'12E	FY'12E	Q1'13E	Q2'13E	Q3'13E	Q4'13E	FY'13E	FY'14E	FY'15E	FY'16E	FY'17E	FY'18E
<i>CAD in millions (except per share data)</i>	<i>Dec-11</i>	<i>Mar-12</i>	<i>Jun-12</i>	<i>Sep-12</i>	<i>Dec-12</i>	<i>Dec-12</i>	<i>Mar-13</i>	<i>Jun-13</i>	<i>Sep-13</i>	<i>Dec-13</i>	<i>Dec-13</i>	<i>Dec-14</i>	<i>Dec-15</i>	<i>Dec-16</i>	<i>Dec-17</i>	<i>Dec-18</i>
<b>Surplus funds</b>					15.6	15.6	3.0	82.9	152.4	89.4	89.4	19.3	0.0	70.6	27.4	290.1
Cash & cash equivalents	8.3	5.5	0.1	37.6												
<b>Total cash</b>	<b>8.3</b>	<b>5.5</b>	<b>0.1</b>	<b>37.6</b>	<b>15.6</b>	<b>15.6</b>	<b>3.0</b>	<b>82.9</b>	<b>152.4</b>	<b>89.4</b>	<b>89.4</b>	<b>19.3</b>	<b>0.0</b>	<b>70.6</b>	<b>27.4</b>	<b>290.1</b>
Short-term investments	65.5	62.9	60.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Accounts receivable					0.0	0.0	0.0	0.4	5.4	11.8	11.8	19.7	70.4	87.2	121.0	154.7
Exploration funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Taxes recoverable/Sales taxes & other receivables	0.4	1.9	1.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Inventories					0.0	0.0	0.0	0.1	2.0	4.4	4.4	7.4	22.6	27.6	37.8	47.9
Investment tax credits and other assistance receivable	1.4	1.3	3.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Prepaid expenses and deposits	0.3	0.4	0.3	0.3	0.0	0.0	0.0	0.0	0.5	1.1	1.1	1.8	5.5	6.7	9.2	11.7
<b>Total current assets</b>	<b>76.0</b>	<b>72.0</b>	<b>65.5</b>	<b>56.4</b>	<b>34.0</b>	<b>34.0</b>	<b>21.4</b>	<b>101.9</b>	<b>178.8</b>	<b>125.2</b>	<b>125.2</b>	<b>66.7</b>	<b>116.9</b>	<b>210.7</b>	<b>213.8</b>	<b>522.8</b>
PPE	5.8	6.1	9.1	21.7	29.5	29.5	33.1	36.4	84.6	130.4	130.4	365.9	557.7	760.3	916.1	916.1
Patents	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Mining properties	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Exploration and evaluation assets	5.0	8.6	8.6	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
<b>Total assets</b>	<b>87.1</b>	<b>87.1</b>	<b>83.8</b>	<b>90.7</b>	<b>76.2</b>	<b>76.2</b>	<b>67.1</b>	<b>150.9</b>	<b>276.0</b>	<b>268.2</b>	<b>268.2</b>	<b>445.1</b>	<b>687.2</b>	<b>983.6</b>	<b>1,142.5</b>	<b>1,451.5</b>
<i>Necessary to finance</i>					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0
Accounts payable and accrued liabilities	2.5	4.1	5.2	13.8	5.0	5.0	6.0	0.2	2.7	5.9	5.9	9.9	30.1	36.9	50.4	63.9
Short-term portion of LTD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred revenue	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total current liabilities</b>	<b>2.7</b>	<b>4.2</b>	<b>5.2</b>	<b>13.9</b>	<b>5.1</b>	<b>5.1</b>	<b>6.1</b>	<b>0.3</b>	<b>2.8</b>	<b>6.0</b>	<b>6.0</b>	<b>10.0</b>	<b>36.4</b>	<b>37.0</b>	<b>50.5</b>	<b>64.0</b>
Deferred revenue	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Convertible debentures	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest payable on convertible debentures					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Derivative financial instruments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTD	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	132.4	132.4	132.4	132.4	332.4	502.4	502.4	502.4
Deferred income taxes	0.7	1.3	1.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<b>Total liabilities</b>	<b>6.5</b>	<b>8.6</b>	<b>8.9</b>	<b>18.2</b>	<b>9.5</b>	<b>9.5</b>	<b>10.5</b>	<b>4.7</b>	<b>137.2</b>	<b>140.4</b>	<b>140.4</b>	<b>144.4</b>	<b>370.8</b>	<b>541.4</b>	<b>554.9</b>	<b>568.4</b>
<b>Total equity</b>	<b>80.6</b>	<b>78.5</b>	<b>74.9</b>	<b>72.4</b>	<b>66.7</b>	<b>66.7</b>	<b>56.6</b>	<b>146.3</b>	<b>138.8</b>	<b>127.8</b>	<b>127.8</b>	<b>300.8</b>	<b>316.4</b>	<b>442.2</b>	<b>587.6</b>	<b>883.1</b>
<b>Total liabilities and equity</b>	<b>87.1</b>	<b>87.1</b>	<b>83.8</b>	<b>90.7</b>	<b>76.2</b>	<b>76.2</b>	<b>67.1</b>	<b>150.9</b>	<b>276.0</b>	<b>268.2</b>	<b>268.2</b>	<b>445.1</b>	<b>687.2</b>	<b>983.6</b>	<b>1,142.5</b>	<b>1,451.5</b>

Source: Company filings and press releases; ROTH Capital Partners estimates.

Orbite Aluminae Inc.  
(TSX: ORT)

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Cash Flow Statement	FY'11	Q1'12	Q2'12	Q3'12	Q4'12E	FY'12E	Q1'13E	Q2'13E	Q3'13E	Q4'13E	FY'13E	FY'14E	FY'15E	FY'16E	FY'17E	FY'18E
CAD in millions (except per share data)	Dec-11	Mar-12	Jun-12	Sep-12	Dec-12	Dec-12	Mar-13	Jun-13	Sep-13	Dec-13	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
Net income	(11.6)	(3.8)	(6.1)	(4.0)	(5.7)	(20.8)	(10.1)	(10.3)	(7.5)	(11.0)	(38.9)	(27.0)	19.0	125.8	145.4	295.5
Adj to reconcile NI to cash used in operating activities																
D&A of PPE	0.1	0.0	2.3	0.1	2.2	4.6	1.5	1.7	1.8	4.2	9.2	44.5	88.2	127.4	164.2	80.0
Stock-based compensations	5.6	1.5	1.6	1.1		4.2					0.0	0.0	0.0	0.0	0.0	0.0
Amortization of deferred revenues	(0.1)	(0.0)	(0.5)	0.0		(0.6)					0.0	0.0	0.0	0.0	0.0	0.0
Net finance (income) expense	(0.3)	(0.2)	(0.1)	(0.1)		(0.4)					0.0	0.0	0.0	0.0	0.0	0.0
Interest capitalized on convertible debentures and LTD	0.0					0.0					0.0	0.0	0.0	0.0	0.0	0.0
Deferred income taxes	0.5	0.6	0.1	0.6		1.3					0.0	0.0	0.0	0.0	0.0	0.0
<b>Changes in non-cash working-capital items</b>																
Sales taxes and other receivables	(0.1)	(0.6)	0.3	(1.2)		(1.5)					0.0	0.0	0.0	0.0	0.0	0.0
Current income taxes recoverable		(0.6)	(0.1)	(0.6)												
Investment tax credits an other assistance receivable	(1.0)	(0.2)	(0.0)	(0.4)		(0.6)					0.0	0.0	0.0	0.0	0.0	0.0
Prepaid expenses and deposits	(0.2)	(0.1)	0.1	0.0		0.1					0.0	0.0	0.0	0.0	0.0	0.0
Accounts payable and accrued liabilities	0.3	0.6	0.0	0.7		1.3					0.0	0.0	0.0	0.0	0.0	0.0
Interest payable on convertible debentures	0.0					0.0					0.0	0.0	0.0	0.0	0.0	0.0
Interest received	0.1	0.1	0.1	0.8		0.9					0.0	0.0	0.0	0.0	0.0	0.0
Interest paid	(0.0)	(0.0)	(0.0)	(0.0)		(0.0)					0.0	0.0	0.0	0.0	0.0	0.0
<b>Net changes in non-cash working-capital items</b>	<b>(0.8)</b>	<b>(0.8)</b>	<b>0.4</b>	<b>(0.7)</b>	<b>(8.5)</b>	<b>51.7</b>	<b>1.0</b>	<b>(6.4)</b>	<b>(4.9)</b>	<b>(6.2)</b>	<b>(16.4)</b>	<b>(7.6)</b>	<b>(49.3)</b>	<b>(16.4)</b>	<b>(32.8)</b>	<b>(32.8)</b>
<b>Cash flows used in operating activities</b>	<b>(6.8)</b>	<b>(2.6)</b>	<b>(2.3)</b>	<b>(3.0)</b>	<b>(12.1)</b>	<b>(20.0)</b>	<b>(7.6)</b>	<b>(15.0)</b>	<b>(10.5)</b>	<b>(13.0)</b>	<b>(46.2)</b>	<b>9.9</b>	<b>57.9</b>	<b>236.8</b>	<b>276.8</b>	<b>342.6</b>
Changes in short-term investments	(64.3)	2.8	2.9	54.0		59.7					0.0	0.0	0.0	0.0	0.0	0.0
Additions to patents	(0.1)	(0.0)	(0.1)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchases of PPE	(3.5)	(0.5)	(3.5)	(10.7)	(10.0)	(24.8)	(5.0)	(5.0)	(50.0)	(50.0)	(110.0)	(280.0)	(280.0)	(330.0)	(320.0)	(80.0)
Changes in exploration funds	0.2				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additions to deferred exploration expenses and mining properties	(2.2)	(2.6)	(2.6)	(3.1)												
<b>Cash flows (used in) from investing activities</b>	<b>(69.8)</b>	<b>(0.3)</b>	<b>(3.3)</b>	<b>40.2</b>	<b>(10.0)</b>	<b>26.6</b>	<b>(5.0)</b>	<b>(5.0)</b>	<b>(50.0)</b>	<b>(50.0)</b>	<b>(110.0)</b>	<b>(280.0)</b>	<b>(280.0)</b>	<b>(330.0)</b>	<b>(320.0)</b>	<b>(80.0)</b>
Proceeds from convertible debentures	0.0					0.0					0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from LTD	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	130.0	0.0	130.0	0.0	200.0	170.0	0.0	0.0
Repayment of LTD	(0.0)	(0.0)	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Issuance of capital stock and warrants	74.3	0.1	0.3	0.3	0.0	0.7	0.0	100.0	0.0	0.0	100.0	200.0	0.0	0.0	0.0	0.0
Share issue expenses	(4.3)					0.0					0.0	0.0	0.0	0.0	0.0	0.0
Necessary to finance					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	(6.2)	0.0	0.0
<b>Cash flows from financing activities</b>	<b>72.2</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.0</b>	<b>0.7</b>	<b>0.0</b>	<b>100.0</b>	<b>130.0</b>	<b>0.0</b>	<b>230.0</b>	<b>200.0</b>	<b>206.2</b>	<b>163.8</b>	<b>0.0</b>	<b>0.0</b>
Effect of exchange rate changes																
Cash at beginning of period	12.7	8.3	5.4	0.1	37.6	8.3	15.5	2.9	82.9	152.4	15.5	89.4	19.3	3.4	74.0	30.8
<b>Cash at end of period</b>	<b>8.3</b>	<b>5.4</b>	<b>0.1</b>	<b>37.6</b>	<b>15.5</b>	<b>15.5</b>	<b>2.9</b>	<b>82.9</b>	<b>152.4</b>	<b>89.4</b>	<b>89.4</b>	<b>19.3</b>	<b>3.4</b>	<b>74.0</b>	<b>30.8</b>	<b>293.4</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>(4.4)</b>	<b>(2.8)</b>	<b>(5.4)</b>	<b>37.5</b>	<b>(22.1)</b>	<b>7.3</b>	<b>(12.6)</b>	<b>80.0</b>	<b>69.5</b>	<b>(63.0)</b>	<b>73.8</b>	<b>(70.1)</b>	<b>(15.9)</b>	<b>70.6</b>	<b>(43.2)</b>	<b>262.6</b>
B/S Beginning cash and equivalents	12.7	8.3	5.5	0.1	37.6	8.3	15.6	3.0	82.9	152.4	15.6	89.4	19.3	0.0	70.6	27.4
B/S Ending cash and equivalents	8.3	5.5	0.1	37.6	15.6	15.6	3.0	82.9	152.4	89.4	89.4	19.3	0.0	70.6	27.4	290.1
<b>B/S Net change in cash</b>	<b>(4.4)</b>	<b>(2.8)</b>	<b>(5.4)</b>	<b>37.5</b>	<b>(22.1)</b>	<b>7.3</b>	<b>(12.6)</b>	<b>80.0</b>	<b>69.5</b>	<b>(63.0)</b>	<b>73.8</b>	<b>(70.1)</b>	<b>(19.3)</b>	<b>70.6</b>	<b>(43.2)</b>	<b>262.6</b>

Source: Company filings and press releases; ROTH Capital Partners estimates.

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### Distribution of IB Services Firmwide

Rating	Count	Percent	IB Serv./Past 12 Mos. as of 02/01/13	
			Count	Percent
Buy [B]	180	72.58	80	44.44
Neutral [N]	45	18.15	6	13.33
Sell [S]	0	0.00	0	0
Under Review [UR]	23	9.27	8	34.78

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