



(US dollars, except where noted)

(Unit of weight is US short tons)

## Management's Discussion and Analysis Year Ending December 31, 2016

The following discussion and analysis of the financial condition and operations of Polaris Materials Corporation, (the "Company", "Polaris" or "we") has been prepared by management as of March 14, 2017, and should be read in conjunction with the Company's audited annual consolidated financial statements for the year ended December 31, 2016, which have been prepared in accordance with International Financial Reporting Standards ("IFRS"). This Management's Discussion and Analysis contains "forward-looking statements" that are subject to risk factors set out in a cautionary note contained herein. All amounts are in United States dollars unless otherwise noted.

### Executive Summary

#### *Financial highlights*

- Net increase in cash of \$2.4 million in 2016 and free cash flow of \$2.6 million versus a net decrease in cash of \$3.7 million and free cash flow usage of \$2.7 million in 2015
- 2016 revenue increased 5% to \$45.2 million versus \$43.1 million in 2015, driven by changes in mix, including the start-up of our Long Beach terminal
- Successful start-up of Long Beach terminal servicing prestigious major contracts in Los Angeles; higher unit costs during start-up of this operation impacted overall gross profit which declined to \$2.9 million from \$4.9 million in 2015
- Adjusted EBITDA of \$2.4 million in 2016 versus \$5.7 million in 2015 was impacted by Long Beach start-up, cost of management transition at Orca, other non-recurring charges as well as unrealized foreign exchange
- Net loss in 2016 of \$4.0 million (\$0.04/share loss) versus net income of \$0.9 million (\$0.01/ share gain) in 2015 was driven primarily by the above noted factors

The Company's annual and fourth quarter results for 2016 reflect solid underlying operating performance, with unit costs at the Orca Quarry and for our northern California sales comparing favourably to 2015. Improvements in these areas were offset by costs related to the start-up of our Long Beach terminal, foreign exchange headwinds, and non-recurring items including costs related to the management transition at Orca, resulting in a net loss for the year. Gross profit for 2016 declined approximately \$2 million versus 2015, with the start-up of Long Beach adding fixed costs that were not fully recovered by sales at this terminal in 2016. Gross margins at Long Beach were also impacted by higher logistics costs which resulted from the deferral of certain customer projects in LA into 2017 and the resulting need to adapt our shipping schedule to meet customer requirements. As we continue to increase throughput at this terminal, we expect the increased volumes to dilute unit operating costs and to provide significant shipping cost savings, resulting in a significant improvement in gross margin contribution. While construction activity in 2016 was softer than originally expected, resulting in a modest decline in activity in the San Francisco Bay Area, the start-up of Long Beach allowed us to achieve a 3% increase in sales volumes versus 2015.

Looking forward to 2017, while we currently expect volumes could decline modestly due to non-renewal of an ex-quarry supply contract, increased same-site pricing with certain customers, increased volumes through our Richmond and Long Beach terminals, and the commencement of sales of our fine sand product by mid-year should result in an improvement in profitability versus 2016. We continue to be well funded to pursue growth opportunities, including Black Bear and potential new market developments, with over \$12.9 million on our balance sheet as of December 31, 2016 and no long-term debt.

#### *2017 Key value drivers*

- Strong financial position and robust balance sheet with a year-end cash balance of \$12.9 million and no long-term debt (excluding equipment financing leases).
- Improvement in gross margins through improved same-site prices, increased volumes at our terminals, and the sale of our unique fine sand product.
- Continue to carefully manage operating costs at our quarry to ensure we realize on the benefits of the current weaker Canadian dollar.



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- Identify new market opportunities along the west coast that allow us to realize the value of our high quality concrete aggregate.
- Position ourselves to take advantage of expected increases in infrastructure spending resulting from the FAST Act and other US federal and state-level infrastructure initiatives.
- Continue to work with our customers and end users to realize the significant value provided by using a high quality concrete aggregate in a performance concrete design.

We maintain our position of strength with superior aggregate quality, consistent and reliable operations, and proven logistics to several buoyant markets which continue to face a variety of supply issues. We are well positioned to capitalize on material shortages in the near-term on quality and longer term on availability in construction markets that continue to show signs of improvement. The Orca Quarry has substantial additional available production capacity that provides us the opportunity to achieve significant unit cost savings as we grow sales volumes past 4 million tons per annum in the coming years. Polaris' operating expertise and differentiated product has enabled a marketing strategy that captures the value of our high quality aggregates for both ourselves and the end-users while providing attractive opportunities for increased unit profitability. The ongoing diversification of our product offerings and renewed management focus at the quarry, as well as our strong balance sheet positions the Company to pursue attractive bolt-on opportunities which can provide increased flexibility in product mix and market potential.

### ***Market developments***

The ongoing development in the San Francisco / San Jose corridor continues to be the main driver of construction activity in the San Francisco bay area, however throughout 2016, we noted that activity began to shift to the east Bay market as housing cost increases in the south Bay drove builders to find more economical areas for new construction. Volume indications from our customers in this market are consistent overall with estimates received early in 2016 although we see a number of opportunities for improvement. Richmond has seen sales continue at a pace consistent with the healthy level of activity achieved in the second half of 2016 and we have received indications that there are further opportunities available in this market which we will be pursuing through the balance of 2017. The conclusion of sales to Hanson means that we will need to work closely with our customers to ensure that we are making best utilization of our available lightening capacity to meet demand.

Funding from the FAST Act is now reaching state-level budgets and driving increased infrastructure construction bid activity. Our expectation is that this increase in activity should remain steady through the 5-year life of the Act, with potential incremental activity in 2018 or 2019 as the current administration moves to implement further infrastructure spending programs. A number of legislative measures in California were approved totaling over \$1 billion per year in new infrastructure funding, including Measure M for improvements to the LA Metro, and Proposition 51, a \$9 billion bond measure that is earmarked for infrastructure spending state-wide. Governor Jerry Brown has proposed a new state budget that would add \$4.3 billion of transportation spending, per year, for the next decade in California, and state legislators have agreed to an April 6, 2017 deadline for any transportation funding deal. The recent crisis at the Oroville Dam has highlighted the need for robust spending programs to ensure that the state's infrastructure can keep up with ongoing population growth and economic activity. While it is difficult to directly relate state infrastructure bills to aggregate demand, we expect that a significant portion of activity will be focused on roads, bridges, and other important infrastructure in markets where our, and our customers', facilities are well positioned to compete.

In southern California, we achieved 223,000 tons of sales in 2016, and already have over 400,000 tons of orders booked for 2017. With a robust pipeline and increasing adoption of our high performance concrete aggregate for use in performance concrete mix designs, we expect to see significant growth in this market in 2017. Key projects for 2017 include the Silver Lake water treatment facility, LA Rams stadium, Fig + Park development in South Park, as well as several additional multi-use and infrastructure projects where we are exceptionally well positioned. California was noted in late 2016 as the state with the largest level of construction job creation in the United States, with Orange County, located near our Long Beach terminal, as the county with the second highest level of construction job creation in the country, based on US federal employment data. Construction activity in this market is thought to be at the highest level since the 1920s, and the above mentioned state-level budget measures and infrastructure spending are expected to provide further upside to current expectations. Voters in the state also recently defeated Measure S, which was proposed to halt approval of new high-rise developments in LA, meaning the environment in this market will remain supportive for high specification concrete. Later in 2017, we will be closely watching the award of the 2024 Summer Olympics. Should this event be awarded to LA, we would expect a significant uptick in private and public construction activity as the city prepares for the influx of hundreds of thousands of visitors.

As expected, 2016 ultimately caught up to 2015 on overall construction starts, with full year construction starts coming in at 1% over 2015. The Dodge Momentum Index, which measures non-residential building projects in the planning



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stage, and is a leading indicator for non-residential construction activity, reached its highest level in 8 years in January 2017, although remains below the peak level reached at the end of 2007. For 2017, Dodge Data and Analytics is predicting activity to increase by 5% versus 2016, with activity led by residential and non-residential building construction. In particular, institutional building as well as public works construction (led by highway and bridge work) will be significant contributors to growth in 2017.

On the permitting front in California, the Madera County Board of Supervisors approved a proposed 2.5 million ton per annum quarry in a 3-2 vote. As expected, opponents of the quarry have since initiated a lawsuit alleging flaws in the approval process. This action and others continues to demonstrate the difficulties in permitting new quarry projects in California, however, the Madera location in the San Joaquin valley is unlikely to have any impact on our markets should it ultimately be permitted. Also during the quarter, a proposed seaborne aggregate quarry development in Desolation Sound, British Columbia, was withdrawn after significant local opposition. A new quarry development has been proposed for Howe Sound, but is also facing significant opposition and is not targeted for deep-sea shipments.

## Selected Annual Information

	2016	2015	2014
<b>Consolidated financial information</b>			
(\$000's, except per share amounts)			
Revenue	45,233	43,085	45,241
Cost of goods sold	(42,335)	(38,229)	(44,048)
Gross profit	2,898	4,856	1,193
Selling, general and administrative expenses	(5,950)	(5,251)	(6,571)
Operating income (loss)	(3,974)	1,017	(6,837)
Net income (loss) attributable to shareholders	(3,925)	491	(6,685)
<i>per share (basic)</i>	<i>(0.04)</i>	<i>0.01</i>	<i>(0.08)</i>
<i>per share (diluted)</i>	<i>(0.04)</i>	<i>0.01</i>	<i>(0.08)</i>
EBITDA	833	4,724	(2,003)
Adjusted EBITDA	2,399	5,715	540
Cash flows from (used in) operating activities	4,288	668	(3,773)
Cash and cash equivalents	12,863	10,501	14,231
Working capital	17,132	17,803	19,025
Total assets	77,496	77,501	83,878
Total non-current liabilities	5,043	4,268	4,974
<b>Key performance indicators</b>			
Sales of aggregates (000's tons)	3,023	2,946	3,434
Production of aggregates (000's tons)	3,093	3,183	3,418
Average selling price (\$/ton)	14.96	14.62	13.17
Cost of goods sold (\$/ton)	14.00	12.98	12.83
Gross profit (\$/ton)	0.96	1.65	0.35
Gross margin (%)	6.4%	11.3%	2.6%
EBITDA (\$/ton)	0.28	1.60	(0.58)
Adjusted EBITDA (\$/ton)	0.79	1.94	0.16



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## Review of Annual Financial Results

### **Sales of aggregates**

Aggregate sales for 2016 of 3.0 million tons were a 3% increase over 2015. Aggregate sales increased as the start-up of our Long Beach terminal was offset by a modest decline in volumes in the San Francisco Bay Area, driven primarily by the wind-down of deliveries to Hanson as our contract with them reached a conclusion at the end of 2016.

### **Revenue and pricing**

Revenue for the year ended 2016 increased by 5% to \$45.2 million, compared with \$43.1 million in 2015. Sales increased compared to the prior year due to increased delivered shipments into San Francisco and the Long Beach Terminal, which were offset by a decline in ex-quarry sales.

Average selling price ("ASP") during 2016 of \$14.96 per ton increased \$0.34 per ton from \$14.62 per ton in 2015. As a percentage of overall revenue, price variance was an unfavorable 1.8% due to decreasing fuel charges. A favorable sales mix variance of 4.4% was due to increased sales to customers with delivered pricing.

Revenue and ASP per ton are influenced on an annual basis by; base pricing, shipping fuel surcharges, the distribution of tonnage to the various California terminals, and the proportion of delivered and ex-quarry sales.

### **Cost of goods sold**

Cost of goods sold for the year ended 2016 increased by 11% to \$42.3 million, compared with \$38.2 million in 2015. Cost of goods sold per ton in 2016 increased to \$14.00 compared to \$12.98 in 2015. Higher delivery costs due to an increased proportion of sales to customers that include freight was the largest contributor to the increase, as well as the addition of higher unit costs for sales via our Long Beach terminal due to higher shipping costs and costs related to the start-up of the facility.

### **Gross profit and gross margin**

Gross profit for 2016 was \$2.9 million or \$0.96 per ton, compared with a gross profit of \$4.9 million or \$1.65 per ton in 2015. Gross margin was 6.4% in 2016 compared with 11.3% in 2015. The decline is largely due to increased terminal costs attributable to Long Beach.

### **Selling, general and administrative costs**

During the year ended December 31, 2016, selling, general and administrative ("SG&A") expenses were \$6.0 million, including \$0.9 million of non-cash stock based compensation and \$0.3 million of non-recurring severance costs, compared with \$5.3 million, including \$0.8 million of stock based compensation and \$0.2 million of non-recurring severance costs, during 2015. SG&A increased primarily due to the addition of management personnel to position us for future growth. SG&A during 2016 was 13.2% of sales compared to 12.2% of sales during 2015. Net of non-cash charges for stock based compensation, 2016 SG&A represented 11.3% of sales compared with 10.3% last year.

### **Net income (loss)**

The net loss attributable to shareholders during the year ended December 31, 2016 was \$3.9 million (\$0.05 per share loss) compared to a net income attributable to shareholders of \$491,000 (\$0.01 per share, net income) during the year ended December 31, 2015. The year-on-year net loss comparison was impacted primarily by reduced gross profit as described above, and the impact of foreign exchange.

### **EBITDA and Adjusted EBITDA**

Adjusted EBITDA and EBITDA for 2016 was positive (see *Non-IFRS Measures for details*). Notably, the Company recorded its fourth consecutive year of positive adjusted EBITDA at \$2.4 million (\$0.79 per ton). Before adjustments for share-based employee benefits and non-recurring charges, EBITDA for 2016 was \$0.8 million (\$0.28 per ton), with the decline from 2015 levels driven primarily by the reduction in gross margin and increases in SG&A as outlined above.

### **Segmented analysis**

The Company operates in one segment: the development and operation of construction aggregate properties and projects located in the western North America.



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## Summary of Quarterly Results

The selected financial information set out below is based on and derived from the unaudited consolidated financial statements of the Company for each of the quarters listed:

	2016				2015			
	Dec 31	Sept 30	June 30	Mar 31	Dec 31	Sept 30	June 30	Mar 31
<b>Consolidated financial information</b>								
(\$000's, except per share amounts)								
Revenue	11,701	12,272	13,311	7,949	11,848	10,395	10,328	10,514
Cost of goods sold	(10,751)	(11,057)	(12,270)	(8,257)	(10,246)	(8,837)	(9,277)	(9,869)
Gross profit (loss)	950	1,215	1,041	(308)	1,602	1,558	1,051	645
Selling, general and administrative expenses	(1,768)	(1,604)	(1,292)	(1,286)	(1,183)	(1,280)	(1,387)	(1,401)
Operating income (loss)	(759)	(127)	(370)	(2,718)	504	1,130	(835)	218
Net income (loss) attributable to shareholders of Polaris	(839)	(162)	(429)	(2,495)	294	954	(847)	90
<i>per share (basic)</i>	(0.01)	(0.00)	(0.00)	(0.03)	0.01	0.01	(0.01)	-
<i>per share (diluted)</i>	(0.01)	(0.00)	(0.00)	(0.03)	0.00	0.01	(0.01)	-
EBITDA	372	1,067	839	(1,445)	1,402	1,935	238	1,143
Adjusted EBITDA	1,221	1,539	912	(1,273)	1,467	2,225	514	1,509
Cash flows from (used in) operating activities	6,698	977	(2,728)	(659)	1,670	(1,061)	1,431	(1,372)
Cash and cash equivalents	12,863	6,605	6,435	9,752	10,501	9,019	11,343	11,301
Working capital	17,132	17,546	17,283	17,073	17,803	16,874	17,383	17,516
Total assets	77,496	76,534	78,880	77,544	77,501	78,452	79,269	80,094
Total non-current liabilities	5,043	4,165	4,715	4,431	4,268	4,321	4,640	4,655
<b>Key performance indicators</b>								
Sales of aggregates (000's tons)	751	810	946	516	830	730	668	718
Production of aggregates (000's tons)	670	795	1,000	637	791	957	710	725
Average selling price (\$/ton)	15.58	15.15	14.07	15.41	14.27	14.24	15.46	14.64
Cost of goods sold (\$/ton)	14.32	13.65	12.97	16.00	12.34	12.11	13.89	13.75
Gross profit (\$/ton)	1.26	1.50	1.10	(0.60)	1.93	2.13	1.57	0.90
Gross margin (%)	8.1	9.9	7.8	(3.8)	13.5	15.0	10.2	6.1
EBITDA (\$/ton)	0.50	1.32	0.89	(2.80)	1.69	2.65	0.36	1.59
Adjusted EBITDA (\$/ton)	1.63	1.90	0.96	(2.47)	1.77	3.05	0.77	2.10



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#### **Fourth quarter 2016, compared to 2015**

Aggregate sales for the quarter were 751,000 tons, an 10% decrease from sales of 830,000 tons in same quarter for 2015. The difference amounts to approximately a single shipload and is accounted for by variances in delivery timing between quarters.

Revenue for the quarter decreased slightly by 1% to \$11.7 million compared with \$11.8 million in the comparable quarter for the previous year as lower volumes were offset by increased pricing. ASP during the fourth quarter increased \$1.31 per ton to \$15.58 from \$14.27 in the same period of 2015, with the changes in ASP driven primarily by changes in mix during the quarter as ex-quarry sales to Hanson wound down.

Cost of goods sold in the quarter increased by 5.0% to \$10.8 million compared with \$10.2 million in the same quarter of the previous year. Cost of goods sold per ton of \$14.32 was an increase of \$1.98/ton compared to \$12.34/ton for the same period in 2015. Higher delivery costs due to an increased proportion of sales to customers that include freight was the largest contributor to the increase, as well as the addition of higher unit costs for sales via our Long Beach terminal driven by a longer shipping distance and costs related to the start-up of the terminal.

During the fourth quarter of 2016 the Company's gross profit was \$1.0 million, or \$1.26/ton, compared with a gross profit of \$1.6 million or \$1.93/ton in the comparative period. SG&A expenses represented 15.1% of sales and were \$0.6 million higher than in the same period of 2015 when they represented 10.0% of sales. SG&A included \$0.3 million of non-recurring charges related to the management transition at Orca in Q4. Net of non-cash charges for stock based compensation, SG&A represented 13.0% of sales in this current quarter compared with 9.7% last year.

Net loss attributable to shareholders was \$0.8 million (\$0.01 per share loss) during the three months ended December 31, 2016, compared to net income attributable to shareholders of \$0.3 million (\$0.01 per share, net income) during the three months ended December 31, 2015. The quarter was negatively impacted by non-recurring costs including those related to the transition at the Orca Quarry as well as the unfavourable impact of foreign exchange.

#### **Selling price and fuel surcharge indices**

	2016				2015			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Selling Price Index (Q1 2013=100)	107.1	105.8	103.8	107.5	109.0	111.4	110.0	112.2
Fuel Surcharge Index (Q1 2013=100)	39.1	29.7	17.3	46.4	57.6	75.6	65.3	92.3

In the fourth quarter of 2016, the quarter-on-quarter average delivered selling price increased by 1.2% as a consequence of passing through higher shipping fuel surcharges from the third quarter, which reflected the increasing trend in the world crude oil price.

#### **Seasonality**

The Company's Orca sand and gravel quarry operates year-round, however, sales demand is seasonal due to the impact of poor weather conditions, particularly in the first (winter) quarter which have an impact on production volumes and demand for the Company's products. As a consequence the Company's financial results for any individual quarter are not necessarily indicative of results to be expected for that year. Sales and earnings are typically sensitive to regional and local weather, market conditions, and, in particular, to cyclical variations in construction spending.

## **Results of Operations**

#### **Orca quarry**

The Orca quarry continues to be a safe, efficient aggregates production and shipping operation. The quarry operated safely and efficiently during 2016 and as of March 2017 has achieved 17 consecutive months without any lost time incidents. In February, 2017, the Orca Quarry was awarded the Stewart/O'Brian Provincial Safety Award by the British Columbia Ministry of Mines, recognizing zero lost time incidents for the year 2016. This is the 5<sup>th</sup> time that Orca has won this award.





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We have identified an exciting opportunity that will expand the range of products at the Orca Quarry. Discussions are advancing regarding potential sales for a fine sand product that has been exposed by previous quarrying activity of concrete-grade materials. In support of this opportunity, Polaris approved a capital project to expand on our product stockpiling capability at the Orca quarry through the expansion of the existing surge tunnel and stacker system. The expanded load-out facility will stage the fine sand product as well as additional products for loading via our world-class shiploader, including fill materials and manufactured sand and stone products from the Black Bear Project. Long-lead items were ordered early in 2017 and we expect to be in a position to make our first delivery of this new product in the first half of 2017.

### ***Marine terminals and ship lightering***

Marine receiving terminals are a crucial component in the Company's logistics and opportunities to develop further suitable terminals are scarce and may require substantial investment.

#### *Long Beach, California*

On February 1<sup>st</sup>, 2016 the company began commercial operation at its new Long Beach terminal. Sales from the terminal totaled approximately 223,000 tons in 2016, at the top of our revised target range of 150,000 – 225,000 tons of sales. We successfully delivered to a number of large foundation mat concrete pours at large projects, as well as continuing daily sales. We finished the year with a solid pipeline of projects and have also improved our logistics at this terminal to reduce costs and help facilitate additional deliveries to our other points of sale. The Long Beach terminal has operated accident and injury free and continues to demonstrate its ability to deliver to large and high specification construction projects. We continue to optimize our delivery capabilities from the site to reduce unit costs towards long-term targets.

#### *Port of Redwood City, California*

Dredging of the Federal Channel in the Port of Redwood City has improved our logistical flexibility, as expected, although balancing deliveries to this facility with available lightering capacity remains one of our most important logistical challenges. The US Army Corps of Engineers completed its maintenance dredging program during Q4 2016 and successfully increased the depth of the channel to its original target of 30 feet. A longer term project to deepen the overall target depth of this channel to 32 feet from its present 30 foot target depth is currently undergoing evaluation by the Port of Redwood City and Army Corps of Engineers. Improved depth in this channel directly increases the tonnage we can deliver directly into Redwood City.

#### *Richmond Terminal, California*

We have recently finalized plans for dredging at our Richmond Terminal, which provides us access to markets in the east Bay and acts as an important lightering point ahead of deliveries to Redwood City. The dredging is expected to take place during Q2 of 2017 and will add over 10,000 tons to the arrival capacity of ships that we can receive at Richmond and further improve our flexibility, reducing costs.

#### *Lightering*

On arrival in San Francisco Bay, fully laden Panamax vessels are partially unloaded while at anchor ("lightered") into barges provided by either Shamrock Materials Inc., or Cemex, under the terms of the long term aggregate supply agreements with each company. When required, barges are occasionally chartered from an independent operator to balance availability of customer barging capacity and shipping needs. After lightering, the balance of the cargo is unloaded at the Company's Richmond Terminal and finally at Cemex's Redwood City terminal. These arrangements offer the most economic shipping solution by utilizing fully loaded Panamax vessels from Vancouver Island to San Francisco Bay. The increasing demand for Orca Quarry products in northern California assists in maximizing shipping efficiency, although the balance between the individual terminals requires careful management as market forces can make each point of sale highly variable. The access to secured lightering capacity is an important barrier to entry into this market.

Fully laden Panamax vessels can dock directly at the Company's Long Beach terminal, so lightering is not required to support shipments to this operation. This can provide additional logistical flexibility as we have the option to deliver first to Long Beach and send the balance to San Francisco. This is an alternative to lightering in the Bay and an option for additional flexibility rather than previous planned shipping routines.

Discussions with Cemex are ongoing with a goal to maximizing future sales performance from our Richmond terminal. The Company has re-balanced its lightering arrangements in the Bay Area following the completion of the Hanson contract on December 31, 2016 and is confident it can meet customer requirements in this important market.



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### **Customers**

The Company's Strategic Alliance with Cemex, established in 2007, provides for the joint development of new port receiving terminals on the US west coast. Either company may proceed on its own with a legitimate terminal development project should the other alliance partner decline the right to participate for any reason; which is the situation in Long Beach, CA, where Cemex declined to participate. Cemex, a public company, headquartered in Monterrey, Mexico, is one of a small number of major international cement manufacturers and a significant producer of construction aggregate and ready mix concrete in markets throughout the world. The most significant aspect of this Strategic Alliance is that Cemex was granted exclusive marketing rights for the Company's aggregate products in California (excluding four northern counties reserved for Shamrock Materials) as well as Washington and Oregon. On declining to participate in the Long Beach development, Cemex automatically relinquished the marketing rights in the area serviced by that terminal. The Strategic Alliance has a mutual option for renewal at its 10-year anniversary in September 2017, and the sales agreement in respect of the San Francisco Bay Area is subject to a 5-year review due January 1, 2018. This review will present both parties an opportunity to update the agreements and ensure that both parties' interests continue to be represented, following significant compromises made in order to survive the Great Recession.

A long-term supply agreement was entered into with Shamrock Materials in 2005 under which deliveries commenced in 2007. Orca Quarry products are unloaded from Panamax vessels, at anchorage in San Francisco Bay, into Shamrock's own barges for transportation to their Landing Way aggregate terminal on the Petaluma River. Shamrock Materials, headquartered in Petaluma, CA, is a well-established private company supplying ready mixed concrete in the north San Francisco Bay area. The agreement with Shamrock also granted them exclusive marketing rights to the Company's aggregates in the counties of Marin, Napa, Sonoma and Mendocino.

In December 2012, the Company entered into a sales agreement with Hanson Aggregates Mid-Pacific Inc., a subsidiary of a major international building materials company headquartered in Heidelberg, Germany. The agreement had an initial term of three years from the commencement of sales in February 2013. In January of 2016, the Company and Hanson agreed that purchases would continue past the third year anniversary date in February 2016 and this sales agreement expired on December 31, 2016. While we believe that the commercial case for renewing this contract exists, we are proceeding on the basis that these sales will not take place in 2017.

The Los Angeles market is host to several competing ready-mix concrete producers, including CalPortland, A&A Ready Mixed Concrete, Robertson's Ready-mix, Standard Concrete, and Cemex. The Company believes that in this market, where vertical integration of the existing concrete companies is highly developed, it is important to remain independent. We, therefore, do not intend to enter into long-term marketing arrangements with individual companies, and will instead work with our customers to structure competitive bids on a project by project basis.

### **Other quarry projects**

In 2015, the Company identified a potential source of an igneous hard rock that is of similar geology to the Orca gravel and therefore possibly interchangeable from a market perspective. This hard rock deposit is also in close proximity to the Orca Quarry. The deposit, since named Black Bear, received an Investigative License of Occupation on December 18, 2015. The Company has also received initial letters of support for the project from our partners in the Orca Quarry, the Kwakiutl Band and 'Namgis First Nation. A small scale exploratory drilling program was completed in the first quarter of 2016, targeted at confirming the quality and consistency of the surface samples collected. Results from the drilling program were incorporated into a maiden NI 43-101 Mineral Resource Estimate the results of which were disclosed on October 3, 2016. A Technical Report supporting the resource estimate was published on November 16, 2016 and is available on SEDAR ([www.sedar.com](http://www.sedar.com)) and the Company's website ([www.polarismaterials.com](http://www.polarismaterials.com)).

In the near term, and subject to receiving all the necessary permits, the Black Bear deposit is expected to provide a potential source of crushed stone and manufactured sand products, and may also represent a bolt-on source of stone to improve utilization of the Orca Quarry plant capacity and better balance the sand/stone production ratio to market demands. The long term potential of the deposit could also provide the opportunity for the Company to begin marketing materials for asphalt and other construction markets. Utilizing the existing Orca infrastructure and ship loading facilities, with the same high quality material properties as the Orca Quarry, Black Bear improves the Company's capacity to supply its current customers and add additional sales opportunities with a relatively modest capital outlay.





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## Outlook Update

Management currently anticipates that 2017 volumes in aggregate could decline approximately 5% from 2016 levels. Volumes into the San Francisco market are expected to decline approximately 15-20% as a result of the conclusion of sales to Hanson, however growth at our Long Beach terminal as well as the start of sales of fine sand in 2017 are expected to substantially replace this volume. We continue to pursue a number of attractive opportunities for additional sales in 2017 but these discussions remain subject to uncertainty as to timing and quantity.

We expect to see our gross margins improve in 2017, with incremental volumes at our Long Beach and Richmond terminals helping to absorb fixed costs at these operations, as well as the start of sales of our unique fine sand product. We continue to have success demonstrating the value proposition of our high performance concrete aggregate to customers in Los Angeles and will be working closely with our customers in the San Francisco Bay Area to achieve incremental value for our products in 2017.

We expect to continue to advance permitting and engineering of Black Bear during 2017 and have laid out an aggressive work plan which targets completion of the permitting process for this project by the end of 2017. We continue to work closely with our First Nations partners, local stakeholders and the BC Government to ensure that we develop this project in a responsible fashion, consistent with our current operations and past development practice.

## Non-IFRS Measures

### *Adjusted net income (loss)*

The Company has prepared a calculation of adjusted net income for the period in order to better reflect underlying business performance by removing certain non-cash adjustments from its IFRS calculation of net income as it believes this is a useful indicator for investors. Adjusted net income may not be comparable to other similarly titled measures of other companies.

	Three months ended December 31,		Twelve months ended December 31,	
(\$000's, except per share and per ton amounts)	2016	2015	2016	2015
Net income (loss) for the period attributable to shareholders of Polaris	(839)	294	(3,925)	491
Adjustments				
Severance costs	259	-	309	180
Share-based employee benefits	252	37	861	792
Other losses	338	28	396	19
Adjusted net income (loss) for the period	10	359	(2,359)	1,482
<i>per share</i>	<i>0.00</i>	<i>0.00</i>	<i>(0.03)</i>	<i>0.02</i>
<i>per ton</i>	<i>0.01</i>	<i>0.43</i>	<i>(0.78)</i>	<i>0.50</i>

### *EBITDA and Adjusted EBITDA*

EBITDA, adjusted EBITDA, EBITDA per share and adjusted EBITDA per share ("EBITDA Metrics") are non-IFRS financial measures. EBITDA and EBITDA per share represent net income, excluding income tax expense, interest expense and amortization and accretion. Adjusted EBITDA and adjusted EBITDA per share better reflects the underlying business performance of the Company by removing certain adjustments from the calculation of EBITDA and EBITDA per share. The Company believes that the EBITDA Metrics trends are valuable indicators of whether its operations are generating sufficient operating cash flow to fund working capital needs and to fund capital expenditures. The Company uses the results depicted by the EBITDA Metrics for these purposes, an approach utilized by the majority of public companies in the construction materials sector. The EBITDA Metrics are intended to provide additional information, do not have any standardized meaning prescribed by IFRS and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. These measures are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS. Other companies may calculate these measures differently.

The following table reconciles these non-IFRS measures to the most directly comparable IFRS measure.

(\$000's except per share and per ton amounts)	Three months ended December 31,		Twelve months ended December 31,	
	2016	2015	2016	2015
Net income (loss) for the period attributed to shareholders of Polaris	(839)	294	(3,925)	491
Interest expense	101	93	137	147
Income tax (recovery) expense	7	40	(37)	-
Amortization, depletion and accretion	1,103	975	4,658	4,086
EBITDA	372	1,402	833	4,724
<i>per share</i>	0.00	0.02	0.01	0.05
<i>per ton</i>	0.50	1.69	0.28	1.60
Adjustments				
Severance costs	259	-	309	180
Share-based employee benefits	252	37	861	792
Other losses	338	28	396	19
Adjusted EBITDA	1,221	1,467	2,399	5,715
<i>per share</i>	0.01	0.02	0.03	0.07
<i>per ton</i>	1.63	1.77	0.79	1.94

## Liquidity

### Cash and cash equivalents

At December 31, 2016, the Company had cash and cash equivalents of \$12.9 million. Comparatively, at December 31, 2015 the Company had cash and cash equivalents of \$10.5 million. During 2016, cash and cash equivalents have been invested in property, plant, and equipment at the Company's Long Beach terminal and Orca quarry along with permitting costs for the Black Bear project.

### Operating, financing and investing activities

During the year ended December 31, 2016 cash from operating activities provided \$4.3 million (\$1.42 per ton), a \$3.6 million increase compared with cash provided for in operations during 2015 of \$0.7 million (\$0.23 per ton). Operating cash flows during the year were favourably impacted by price increases, operating efficiencies and a reduction in accounts receivable.

For the year ended December 31, 2016 financing activities used cash of \$0.5 million compared to cash provided by financing activities of \$0.3 million for the year ended 2015. Financing activities for 2016, related to principal repayments on finance leases for equipment used at the Orca Quarry and the Long Beach terminal.

Investing activities during the year ended December 31, 2016, used cash of \$1.7 million compared to cash used of \$3.4 million for 2015. Investing activities for the year ended December 31, 2016 are mainly attributable to purchases of plant and equipment at the Orca quarry and the Long Beach terminal and are reduced from 2015 due to the completion of construction and start-up of commercial operations at Long Beach.



(US dollars, except where noted)

(Unit of weight is US short tons)

### **Contractual obligations**

As at December 31, 2016, the Company's contractual obligations are outlined in the following table:

(\$000's)	Within 1 year	Between 1 – 2 years	Between 2 – 3 years	Between 3 – 4 years	Between 4 – 5 years	Over 5 years
Trade and other payables	5,005	-	-	-	-	-
Finance leases	530	506	194	41	-	-
Property taxes payable	379	141	-	-	-	-
Restoration provision	-	-	-	-	-	3,936
Commitments relating to operating and through-put agreements	2,295	2,279	2,318	1,746	1,141	6,845
	8,209	2,926	2,512	1,787	1,141	10,781

### **Capital Resources**

The Company's primary sources of capital resources are finance leases for the procurement of heavy equipment and access to capital markets. The Company manages its long-term capital structure and resources in order to minimize the cost of capital while properly managing credit, liquidity, and other market risks. To effectively manage capital requirements, the Company has in place a planning and budgeting process which determines the funds required to ensure the Company has the appropriate liquidity to meet its operating objectives. The Company ensures there are sufficient resources to meet its short-term business requirements, taking into account its anticipated cash flows from operations and its holdings of cash and cash equivalents.

At December 31, 2016, the Company expects it has capital resources and future cash flows from operations to support its normal operating requirements on an ongoing basis, along with planned development and exploration related to quarrying projects. At December 31, 2016, the Company was not subject to any externally imposed capital requirements.

### **Finance Leases**

During the year, the Company financed \$493,000 for a lease on terminal equipment at 0.00% interest. The new lease has been accounted for as finance leases and terminates March 2020. Monthly lease payments are \$10,285. The equipment is the security for the indebtedness.

### **Equity**

Common share issuances are summarized below:

(000's)	2016	2015
Common shares issued and outstanding at January 1	88,335	87,665
<b>Common share issuances</b>		
Warrants exercised	-	625
Options exercised	-	45
Common shares issued and outstanding at December 31	88,335	88,335

At December 31, 2016, there are no warrants outstanding and exercisable.

### **Capital Expenditures**

During the year ended December 31, 2016, the Company invested a total of \$1.7 million in plant and equipment, of which \$1.4 million related to processing plant equipment at Orca quarry and \$0.3 related to terminal site equipment at the Long Beach terminal.



(US dollars, except where noted)

(Unit of weight is US short tons)

## Commitments

### *Lease and through-put agreements*

For the Richmond Terminal the Company has a 20 year ground lease with Levin Enterprises Inc. and a 20 year facilities use agreement with Pacific Atlantic Terminals LLC, both ending January 2028, however, the Company has the option to extend the ground lease for two additional ten-year periods to 2048 and to extend the facilities use agreement by ten years to 2038. Base rent and through-put charges based on minimum aggregate volumes purchased and/or sold through the Richmond Terminal, are payable in monthly payments.

In July 2010, the Company entered into a lease at commercial annual rates, with L.G. Everist, Inc. for Berth D-44, an 8.3 acre site in the Port of Long Beach, California. The lease has an initial term of five years with three additional five-year extension options, exercisable by the Company, which would extend the tenure to June 30, 2030.

### *Shipping tonnage*

The Company has an exclusive Contract of Affreightment ("CoA") with CSL International, Ltd. ("CSL"), which is effective from January 1, 2010 with a term of 20 years. As of January 1, 2017, the CoA requires the Company to declare shipping tonnage amounts in the range of 2,755,750 to 3,196,670 short tons for each remaining year of the contract. Prior to and for 2015, the Company had the option in any given year to then increase or decrease the annual commitment by 10% without penalty. The Company and its shipper have agreed that after 2015, the future latitude in minimum annual tonnages increases to plus or minus 15% without penalty. Failure by the Company to ship its annual cargo commitment will result in a dead-freight charge equal to 75% of the freight rate for the unshipped tons. Minimum freight volume penalties are payable annually in the year in which freight volumes do not meet the minimum volume requirements in the CoA. No penalties were paid by the Company in respect of the 2016 contract year.

### *Strategic alliance and supply agreements*

The Company has a long-term alliance with Cemex Inc. ("Cemex"), an international construction materials company. The alliance consists of a 10 year strategic alliance agreement, a standstill agreement, a 20 year supply and distribution agreement for northern California and a 10 year joint cooperation and development agreement. These agreements were executed with an effective date of September, 25, 2007. The Company also has a 20 year aggregates supply agreement with Shamrock Materials Inc., a well-established construction aggregates consumer located in the San Francisco Bay, area that commenced in April 2007. See "Commitments and contingencies" (note 22) in the Company's December 31, 2016 financial statements for additional disclosures.

The supply and distribution agreement with Cemex, for their northern California exclusive territory, contained both target tonnages that would be expected to be purchased in normal economic conditions and also minimum tonnages that each party was required to supply, or purchase, as appropriate. During 2008 the minimum tonnage was exceeded but in 2009 it quickly became apparent that the magnitude of the collapse in demand in California was such that the contract numbers were unrealistic in the short term. Because this change was forced by circumstances beyond the control or influence of either party, it was agreed that revised tonnage commitments would be negotiated on an annual basis to reflect market conditions prevailing at the time. A similar situation arose with the Shamrock supply agreement with market changes effectively representing a "force majeure" situation. Tonnage expectations are now negotiated annually.

## Contingencies

### *Royalty assessment for Eagle Rock Quarry project*

The Company is disputing a royalty assessment related to the period from 2012 to October 2016. In 2014 the Company's subsidiary Eagle Rock Materials Ltd. ("ERM") was notified by the British Columbia Ministry of Forests, Lands and Natural Resource Operations that royalties of CAD\$456,000 were due for 2012 and CAD\$496,000 for 2013, based on the tenure date, in respect of the Company's quarrying lease for the Eagle Rock Quarry project. During the fourth quarter of 2016 the Company's subsidiary ERM was notified that royalties were due of CAD\$529,896 for 2014, CAD\$537,419 for 2015 and CAD\$446,816 for 2016 (up to October) based on the tenure date. The total royalties claimed amount to CAD\$2,466,131. The Company's position is that royalties are only payable based on actual production, in accordance with a written undertaking from the responsible government agency prior to commencement of the lease, and as the project has not been developed, no royalties are currently due. Accordingly, the Company has not recorded a provision for the royalties.



(US dollars, except where noted)

(Unit of weight is US short tons)

## Related Party Transactions

During the year ended December 31, 2016, the Company accrued for or paid the following for services provided by related parties. David Singleton, a director of a subsidiary, provided to the Company, management and marketing services at a cost of \$58,582 (year ended December 31, 2015 - \$72,432). Navigator Management Ltd. ("Navigator"), a company controlled by Marco Romero, provided to the Company, consulting services at a cost of CAD\$39,900 (year ended December 31, 2015 – CAD\$36,000). The Company has agreed to pay Navigator a retainer of CAD\$3,000 per month plus expenses.

These costs are included in general and administrative expenses. Transactions with related parties are recorded at the price agreed between the parties.

At December 31, 2016, accounts payable included; \$Nil due to David Singleton, (December 31, 2015 - \$1,500) and CAD\$3,000 due to Navigator, (December 31, 2015 – CAD\$3,000).

## Significant Accounting Judgments and Estimates

The preparation of financial statements requires management to use judgment in applying its accounting policies, determining estimates and making assumptions about the future. Estimates and other judgments are continuously evaluated and are based on management's experience and other factors, including expectations about future events that are believed to be reasonable under the circumstances. The following discusses the most significant accounting judgments and estimates that the company has made in the preparation of the financial statements:

(i) Determination of mineral reserves

Reserves are estimates of the amount of product that can be economically and legally extracted from the Company's properties. In order to estimate reserves, estimates are required about a range of geological, technical and economic factors, including quantities, production techniques, production costs, capital costs, transport costs, demand, prices and exchange rates. Estimating the quantity of reserves requires the size, shape and depth of deposits to be determined by analyzing geological data. This process may require complex and difficult geological judgments to interpret the data. As a result, management will form a view of forecast sales prices, based on current and long-term historical average price trends. Changes in the proven and probable reserves estimates may impact the carrying value of property, plant and equipment, restoration provisions, recognition of deferred tax amounts and depreciation, depletion and amortization.

(ii) Asset values and impairment charges

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. An impairment loss is recognized immediately in the statement of comprehensive income. Management's determination of recoverable amounts include estimates of sales volumes and prices, costs to sell, recoverable reserves, operating costs and capital costs. Although management has made its best estimate of these factors, it is possible that changes could occur that could adversely affect management's estimate of the net cash flow to be generated from its assets or cash-generating units.

For quarrying property interests the Company considers both external and internal sources of information in assessing whether there are any indications of impairment. External sources of information the Company considers include changes in the market, economic and legal environment in which the Company operates that are not within its control and affect the recoverable amount of quarrying property interests. Internal sources of information the Company considers include indications of economic performance of the assets. In determining the recoverable amounts of the Company's quarrying property interests, the Company's management makes estimates of the discounted future after-tax cash flows expected to be derived from the Company's properties, costs to sell the quarrying properties and the appropriate discount rate. Reductions in price forecasts, increases in estimated future costs of production, increases in estimated future non-expansory capital expenditures, reductions in the amount of recoverable reserves and resources, and/or adverse current economics may result in a write-down of the carrying amounts of the Company's quarrying interests.

(iii) Estimated Reclamation and Closure Costs

The Company's provision for reclamation and closure cost obligations represents management's best estimate of the present value of the future cash outflows required to settle the liability which reflects estimates of future costs, inflation, and assumptions of risks associated with the future cash outflows, and the applicable risk-free interest rates for discounting the future cash outflows. Changes in the above factors may result in a change to the provision recognized by the Company. Changes to reclamation and closure cost obligations are recorded with a

corresponding change to the carrying amounts of related quarrying properties. Adjustments to the carrying amounts of related quarrying properties can result in a change to future depletion expense.

**Accounting standards and amendments issued but not yet adopted**

Unless otherwise noted, the following revised standards and amendments are effective for annual periods beginning on or after January 1, 2015.

- (i) IFRS 9, *Financial Instruments* addresses classification and measurement of financial instruments and provides guidance on hedge accounting. For financial assets, it replaces the multiple category and measurement models in IAS 39, *Financial Instruments – Recognition and Measurement* for debt instruments with a new mixed measurement model having only two categories: amortized cost and fair value through profit or loss. IFRS 9 also replaces the models for measuring equity instruments. Such instruments are either recognized at fair value through profit or loss or at fair value through other comprehensive income. Where equity instruments are measured at fair value through other comprehensive income, dividends are recognized in profit or loss to the extent that they do not clearly represent a return of investment; however, other gains and losses (including impairments) associated with such instruments remain in accumulated comprehensive income indefinitely. Requirements for financial liabilities largely carry forward existing requirements in IAS 39 except that fair value changes due to credit risk for liabilities designated at fair value through profit and loss are generally recorded in other comprehensive income. IFRS 9 is effective for annual periods beginning on or after January 1, 2018. The Company is currently assessing the effect of this standard on its financial statements.
- (ii) IFRS 15, *Revenue from Contracts with Customers* (IFRS 15), replaces IAS 18, *Revenue* and IAS 11, *Construction Contracts* and the related interpretations on revenue recognition.

The new revenue standard introduces a single, principles based, five-step model for the recognition of revenue when control of a good or service is transferred to the customer. The five steps are; identify the contract(s) with the customer, identify the performance obligations in the contract, determine transaction price, allocate the transaction price and recognize revenue when the performance obligation is satisfied. IFRS 15 also requires enhanced disclosures about revenue to help investors better understand the nature, amount, timing and uncertainty of revenue and cash flows from contracts with customers and improves the comparability of revenue from contracts with customers.

IFRS 15 will be effective for annual periods beginning on or after January 1, 2018. The Company is currently assessing the effect of this standard on its financial statements.

- (iii) In January 2016, the IASB issued IFRS 16 *Leases*. This standard is effective for annual periods beginning on or after January 1, 2019, and permits early adoption, provided IFRS 15, has been applied, or is applied at the same date as IFRS 16. IFRS 16 requires lessees to recognize assets and liabilities for most leases. The Company is in the process of determining the impact of IFRS 16 on its consolidated financial statements.



## Financial Instruments and Related Risk

### *Fair value of financial instruments*

The carrying amounts and fair values of financial instruments at yearend are as follows:

(\$000's)	2016		2015	
	Carrying amount	Fair value	Carrying amount	Fair value
Loans and receivables:				
Cash and cash equivalents	12,863	12,863	10,501	10,501
Trade and other receivables	5,119	5,119	7,035	7,035
Security deposits	847	847	821	821

The fair values of cash, trade and other receivables, and security deposits, approximate their carrying values due to their short-term maturities.

### *Credit risk*

Credit risk is the risk that the Company will incur a loss due to a customer or other third party failing to discharge their obligation due to the Company. The Company's cash and cash equivalents consists of demand deposit accounts with major banks in Canada and the USA as well as Canadian government treasury bills. The Company has four significant customers, which at December 31, 2016 comprise 98% (2015 – three customers comprise 100%) of trade receivables. The Company's largest customer is one of the world's largest international construction materials companies and the remaining customers are significant construction materials companies within their respective markets.

The Company's maximum exposure to credit risk at yearend is comprised of the following:

(\$000's)	2016	2015
Demand deposits	12,863	8,335
Trade and other receivables	5,119	7,035
Security deposits	847	821
	18,829	16,191

No collateral or other form of security is held in respect of the amounts that comprise the Company's exposure to credit risk.

### *Liquidity risk*

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities. The Company manages its liquidity risk by continuing to seek sources of financing at appropriate costs of capital.

A maturity analysis of the undiscounted cash flows of the Company's financial liabilities at December 31, 2016 is as follows:

(\$000's)	Within 1 year	Between 1 – 2 years	Between 2 – 3 years	Between 3 – 4 years	Between 4 – 5 years	Over 5 years
Trade and other payables	5,005	-	-	-	-	-
Finance leases	530	506	194	41	-	-
Property taxes payable	379	141	-	-	-	-
	5,914	647	194	41	-	-



(US dollars, except where noted)

(Unit of weight is US short tons)

### *Market risks*

#### Foreign currency risk

The Company reports in US dollars while operating in both the United States and Canada. The Canadian operations use the Canadian dollar as their functional currency while the US operations have a US dollar functional currency. As a result, the Company is exposed to foreign currency gains and or losses affecting net income and cumulative translation adjustments which affect other comprehensive income. The Company does not use any derivative instruments to reduce its exposure to fluctuations in foreign currency exchange rates.

For the year ended December 31, 2016 a \$0.01 change in the US/Canadian exchange rate, assuming all other variables did not change, would affect net gain/(loss) by \$144,000.

#### Interest rate risk

The Company's interest rate risk arises primarily from the interest received on demand deposit accounts which are at floating rates.

For the year ended December 31, 2016 a 100 basis point change in interest rates, assuming all other variables did not change, would affect annual interest income by \$129,000.

## **Capital Stock**

As at the date of this report, the Company had unlimited common shares authorized, of which 88,334,686 were issued and outstanding. The Company also has 5,772,833 options outstanding, exercisable into 5,772,833 common shares, of which 4,852,498 are currently vested. The Company has a deferred share unit ("DSU") plan which has DSUs outstanding, exercisable into 260,000 common shares, of which 260,000 are currently vested. There are no warrants outstanding.

## **Risks and Uncertainties**

Investment in the securities of the Company involves a high degree of risk and should be regarded as speculative due to the nature of the Company's business. The Company has incurred losses and expects to incur further losses. Prior to making an investment in the Company's securities, prospective investors should carefully consider the information described in this Annual Information Form and documents incorporated by reference, including the risk factors set out below. Such risk factors could have a material adverse effect on, among other things, the operating results, earnings, properties, business and condition (financial or otherwise) of the Company.

### **The Company's operations will require further capital**

The quarrying, processing and development of the Company's properties and terminals, including any future terminals which may be acquired and developed by the Company, will require substantial additional financing. Failure to obtain sufficient financing may result in delaying or indefinite postponement of development or production of the Company's properties and terminals or even a loss of those property interests. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the Company. Any future financing may be dilutive to existing shareholders.

### **Reliance on Certain Customers**

The Company generates the major proportion of its revenue, approximately 81% and 88% in 2016 and 2015 respectively, from sales to two customers, Cemex and Shamrock. The ability of these customers to continue in business, or to retain third party sales, could have a material effect on the Company and no assurance can be given in that respect.

### **The Company may not secure additional construction aggregates sales volumes and prices projected for the Orca Quarry**

The value and price of the Common Shares, the Company's financial results, and the Company's development and quarrying activities may be significantly adversely affected if the Company does not secure the sales volumes and prices of construction aggregates intended for the Orca Quarry. Demand for construction aggregates products in the Company's target markets fluctuates and is affected by numerous factors beyond the Company's control such as



(US dollars, except where noted)

(Unit of weight is US short tons)

private sector residential and commercial construction, and public sector construction, including roads, bridges, services, and other infrastructure. The supply of construction aggregates to the Company's target markets may also fluctuate and may be affected by new or expanded local production, or supplies of construction aggregates brought into the target markets by road, rail or vessel. Depending on the sales volumes and prices of construction aggregates, cash flow from quarrying operations may not be sufficient and the Company could be forced to discontinue production and may lose its interest in, or may be forced to sell, some or all of its properties. Future production from the Company's Orca Quarry is dependent on applicable construction aggregates sales volumes and prices being sufficient to make materials extraction from the Orca Quarry economic.

In addition to adversely affecting the Company's financial condition, declining construction aggregates sales volumes and prices can impact operations by requiring a reassessment of the feasibility of the Orca Quarry. Such a reassessment may be the result of a management decision or may be required under financing arrangements related to the Orca Quarry. The need to conduct such a reassessment may cause substantial delays or may interrupt operations until the reassessment can be completed.

### **The assumptions made in AMEC's financial analysis of the Orca Project may no longer be reasonable**

The financial analysis completed by AMEC of the Orca Project detailed in the Orca Report relies on certain underlying assumptions which may no longer be reasonable as a result of the global economic recession since 2008. The analysis undertaken by AMEC was completed in 2008. The cash flow projections were based on various assumptions including assumptions on the capital costs, operating costs, production and sales volumes and sales revenues over the life of the project which were reasonable at the time the financial analysis was completed. Since 2008, the actual sales values suggest that the assumptions made may no longer be reasonable. Therefore, undue reliance should not be given to AMEC's financial analysis of the Orca Project.

### **The Company must secure access to discharge points and additional shipping volumes for its products**

The Company's business plan includes discharges of Orca Quarry construction aggregates to barges, the Richmond Terminal and to Cemex through its Strategic Alliance with Cemex. Although the Company has access to certain terminals through its Strategic Alliance, there is no certainty that its strategic alliance will secure further joint terminals to meet the increasing deliveries and sales incorporated by the Company in its business plan. If the Company is unable to continue to secure access to additional discharge terminals, or acquire its own discharge terminals, its revenues, operations and financial condition could be materially adversely affected.

When the Eagle Rock Shareholders Agreement was entered into in 2002, it did not contemplate the construction or use of the Richmond Terminal or other terminals by third parties (including the Orca Partnership) prior to the construction of the Eagle Rock Quarry Project. In addition, the Eagle Rock Shareholders Agreement did not contemplate the marketing, shipment and sale of construction aggregates from other projects prior to the commencement of operations at the Eagle Rock Quarry Project. Eagle Rock Aggregates, Inc., a subsidiary of Eagle Rock Materials Ltd., holds the Richmond Terminal Lease, the corresponding easement and facilities use agreements, and the Company's other potential port interests. Eagle Rock Aggregates, Inc. also holds the marketing interests of the Company and it is expected that it will continue to manage the Company's operations in the United States, including the shipment and sale of construction aggregates from the Orca Quarry.

The parties to the Eagle Rock Shareholders Agreement have been negotiating, and will continue to negotiate, the terms and conditions of an arrangement with respect to Eagle Rock Aggregates, Inc. and the financing, construction, and operation of the Richmond Terminal, and the purchase, shipping, distribution and sales of construction aggregates from the Orca Partnership. There is no certainty when or if an agreement will be reached.

Under the Company's revised CoA its exclusive shipper must provide volume capacity to transport approximately 3.3 million short tons of construction aggregates per annum. To achieve the anticipated sales from the Orca Quarry and the Eagle Rock Quarry Project, the Company will have to secure additional shipping capacity. If the Company is unable to secure the additional shipping volumes, or fails to meet the contracted annual minimum volumes, its revenues, operations and financial condition could be materially adversely affected.

### **The quarrying industry is competitive**

The quarrying industry is competitive and the Company faces strong competition from other quarrying companies, or prospective quarrying companies, in connection with the supply of construction aggregates to the Company's target markets. A number of these companies may have greater financial resources, operational experience and technical capabilities than the Company. As a result of this competition, the Company may be unable to maintain quarrying operations on terms it considers acceptable or at all. Consequently, the Company's revenues, operations and financial condition could be materially adversely affected.

### **Government regulation and assessments may adversely affect the Company**

The Company's construction aggregates quarrying, processing, and development activities are subject to extensive laws governing prospecting, quarrying, development, production, taxes, labour standards and occupational health, quarry safety, waste disposal, toxic substances, land use, environmental protection and remediation, endangered and protected species, water use, aboriginal rights, land claims of First Nations and local people and other matters. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit, curtail or prevent production, development or exploration. Amendments to current laws, regulations and permits governing operations and activities of quarrying and exploration companies, or more stringent implementation thereof, could have a material adverse impact on the Company and cause increases in exploration expenses, capital expenditures or production costs or reduction in levels of production at producing properties or require abandonment or delays in development of new quarrying properties. Failure to comply with the conditions set out in any permit or failure to comply with the applicable statutes and regulations may result in orders to cease or curtail production, development or exploration.

### **The Company's title to its properties may be subject to disputes or other claims including land title claims of First Nations**

Although the Company has exercised the usual due diligence with respect to determining title to properties in which it has a material interest, there is no guarantee that title to such properties will not be challenged or impugned. Title to and the area of resource claims may be disputed. The Company's construction aggregates property interests may be subject to prior unregistered agreements or transfers, aboriginal rights and title and, in the case of the Orca Quarry, treaty rights, and title may be affected by undetected defects. There may be valid challenges to the title of the Company's properties, which, if successful, could impair their development and/or operations.

First Nations in British Columbia have made claims of aboriginal rights and title to substantial portions of land and water in the Province including areas where the Company's operations are situated, creating uncertainty as to the status of competing property rights. The Supreme Court of Canada has held that aboriginal groups may have a spectrum of aboriginal rights in lands that have been traditionally used or occupied by their ancestors; however, such aboriginal rights or title are not absolute and may be infringed by government in furtherance of a valid legislative objective, subject to meeting a justification test. The effect on any particular lands will not be determinable until the exact nature of historical use, occupancy and rights in any particular piece of property have been clarified. First Nations are seeking settlements including compensation from governments with respect to these claims, and the effect of these claims cannot be estimated at this time. The Federal Government and Provincial Government have been seeking to negotiate settlements with aboriginal groups throughout British Columbia in order to resolve many of these claims. Any settlements that may result from these negotiations may involve a combination of cash, resources, grants of conditional rights to gather food on public lands, and some rights of self-government. The issues surrounding aboriginal title and rights are not likely to be resolved by the Federal Government or Provincial Government in the near future.

Additional uncertainty has arisen due to the decision in the Supreme Court of Canada in *Tsilhqot'in Nation v. British Columbia* (2014 SCC 44) which represents the first successful claim for aboriginal title in Canada and may lead other First Nations in British Columbia to pursue aboriginal title claims in their traditional land-use areas.

In a landmark decision in 2004, the Supreme Court of Canada determined that there is a duty on government to consult with and, where appropriate, accommodate First Nations where government decisions may impact on claimed, but as yet unproven, aboriginal rights or title. This decision also provided much needed clarification of the duties of consultation and accommodation. The Court found that third parties (such as the Company) are not responsible for consultation or accommodation of aboriginal interests and that this responsibility lies with government. However, government permits, including environmental and mine permits, will not be granted by provincial and federal agencies unless they are satisfied that the duty to consult and accommodate has been fully met. In 2005, the Supreme Court of Canada confirmed this duty exists with respect to claimed treaty rights.

The Tseshah First Nation has asserted aboriginal rights and title over the Eagle Rock Quarry Project site. The Hupacasath First Nation and the Ucluelet First Nation, who are shareholders of Eagle Rock Materials Ltd., have also asserted aboriginal rights and title over the Eagle Rock Quarry Project site. The Company has agreed, pursuant to the Eagle Rock Shareholders Agreement, to seek the participation of the Tseshah in the Eagle Rock Quarry Project. The Company has been engaged in negotiations with the Tseshah, however, to date there has been no agreement with respect to any participation. The terms of any participation have not been agreed upon, and the Tseshah may, therefore, seek to dispute the Company's title in the Eagle Rock Quarry Project, despite the fact that the Company has received the environmental assessment certificate for the Eagle Rock Quarry Project. Any such dispute could delay or, if resolved in a manner adverse to the Company, impair the development and operation of the Eagle Rock Quarry Project.



(US dollars, except where noted)

(Unit of weight is US short tons)

### **Quarrying involves a high degree of risk**

Quarrying operations involve a degree of risk. The Company's operations will be subject to all the hazards and risks normally encountered in the development and production of construction aggregates, including, without limitation, unusual and unexpected geologic formations, seismic activity, pit-wall failures, cave-ins, flooding and other conditions involved in the drilling and removal of material, any of which could result in damage to, or destruction of, quarries and other producing facilities, damage to life or property, environmental damage and legal liability. In addition to these risks stated above, processing operations are subject to various hazards, including, without limitation, equipment failure, labour disputes and industrial accidents. Should any of these risks occur, it may result in increased cost of production, delays, write-down of an industrial property, work stoppages, legal liability or injury or death to personnel, all of which may have an adverse effect on the Company's operations and financial condition.

### **Construction aggregates resources are estimates only**

There is no certainty that the construction aggregates resource represented at the Company's properties will be realized or that such resource can be economically quarried. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. Until a deposit is actually mined and processed, the quantity of construction aggregates resources must be considered as estimates only. There is a risk that the actual deposits encountered and the economic viability of the deposits may differ materially from the resource estimates. Any material change in quantity of construction aggregates resources may affect the economic viability of the Company's properties.

The volume of construction aggregates quarried and processed may not be the same as currently anticipated in the Company's resource estimates. Any material reductions in estimates of construction aggregates resources, or of the Company's ability to extract these construction aggregates, could have a material adverse effect on the Company's results of operations and financial condition.

### **Currency fluctuations may adversely affect the Company's revenues**

The effects on financial performance and cash flows from the Canadian dollar foreign exchange rate versus the U.S. dollar are significant. The Company does not enter into hedging contracts in connection with foreign currencies. Changes in the Canadian dollar against the U.S. dollar could materially affect the Company's U.S. dollar-reported operational profitability and financial condition.

### **The Company currently depends on a single property**

The Company's only material mineral producing property is the East Cluxewe Deposit. Unless the Company acquires or develops additional material properties or projects, the Company will be solely dependent upon the operation of the Orca Quarry for its revenue and profits, if any.

### **The actual costs of reclamation are uncertain**

The actual costs of reclamation included in the Company's plan for the Orca Quarry are estimates only and may not represent the actual amounts required to complete all reclamation activity. It is not possible to determine the exact amount that will be required, and the amount that the Company is required to spend could be materially different than current estimates. Reclamation bonds or other forms of financial assurance represent only a portion of the total amount of money that will be spent on reclamation over the life of the operation of the Orca Quarry. Although the Company has included estimated reclamation amounts in its plan for the Orca Quarry, it may be necessary to revise the planned expenditures, and the operating plan for the Orca Quarry, in order to fund required reclamation activities. Any additional amounts required to be spent on reclamation may have a material adverse effect on the Company's financial condition and results of operations.

### **The Company will require other construction aggregates resources in the future**

According to the Orca Report, the Orca Quarry has an estimated quarry life of 17 years, which may not prove to be accurate. Because quarries have limited lives based on proven and probable construction aggregates reserves, in the longer term, the Company will have to replace and expand its construction aggregates resources as the Orca Quarry depletes. The Company's ability to maintain or increase its annual production of construction aggregates will be dependent almost entirely on its ability to bring new quarries into production.

There is, however, a risk that depletion of reserves will not be offset by future discoveries of mineral reserves. Exploration for minerals is highly speculative in nature and the projects involve many risks. Many projects are unsuccessful and there are no assurances that current or future exploration programs will be successful. Further, significant costs are incurred to establish mineral reserves and to construct mining and processing facilities. Development projects have no operating history upon which to base estimates of future cash flow and are subject to



the successful completion of feasibility studies, obtaining necessary government permits, obtaining title or other land rights and availability of financing. In addition, assuming discovery of an economic reserve, depending on the type of mining operation involved, many years may elapse from the initial phases of drilling until commercial operations are commenced. Accordingly, there can be no assurances that the Company's current work programs will result in any new commercial mining operations or yield new reserves to replace and/or expand current reserves.

### **The Company's operations are subject to environmental risks**

All phases of the Company's operations are subject to Federal, Provincial and local environmental regulation in the various jurisdictions in which it operates which could potentially make operations expensive or prohibit them all together. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation. They also set forth limitations on the generation, transportation, storage and disposal of solid and hazardous waste. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's operations or prevent operations all together. Environmental hazards may exist on the properties on which the Company holds and will hold interests which are unknown to the Company at present and which have been caused by previous or existing owners or operators of the properties.

Government approvals and permits are currently, and may in the future be, required in connection with the Company's operations, which could potentially make operations expensive or prohibit them altogether. To the extent such future approvals are required and not obtained, the Company may be curtailed or prohibited from restarting or continuing its quarrying operations or from proceeding with planned exploration or development of construction aggregates properties.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in quarrying operations or in the development of construction aggregates properties may be required to compensate those suffering loss or damage by reason of the quarrying activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

### **The Company does not insure against all risks**

The Company's insurance will not cover all the potential risks associated with a quarrying company's operations. The Company may also be unable to maintain insurance to cover these risks at economically feasible premiums. Insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to the Company or to other companies in the quarrying industry on acceptable terms. The Company might also become subject to liability for environmental occurrences pollution or other hazards which may not be insured against or which the Company may elect not to insure against because of premium costs or other reasons. Losses from these events may cause the Company to incur significant costs that could have a material adverse effect upon its financial condition and results of operations.

### **Certain groups are opposed to quarrying**

In North America there are organizations opposed to quarrying, particularly open pit quarries such as the Orca Quarry and the Eagle Rock Quarry Project. The Company believes it has the support of representatives from the community and First Nation groups nearest these quarries and from various levels of government in British Columbia having jurisdiction over these quarries. Although the Company believes that it is complying with all environmental laws and permitting obligations in conducting its business, there is a risk that those opposed to its operation at these quarries will attempt to interfere with the Company's operations, whether by legal process, regulatory process or otherwise. Such interference could have an impact on the Company's ability to operate its properties in the manner that is most efficient or appropriate, if at all, and any such impact could materially adversely affect the financial condition and results of operations of the Company.

### **The Company is dependent on its key personnel**

The Company is dependent upon certain of its executive management team. The loss of the services of its executive officers could have a material adverse effect on the Company. The Company's ability to manage its development and operating activities, and hence its success, will depend in large part on the efforts of its executive officers and other members of management of the Company. The Company faces intense competition for qualified personnel, and there





(US dollars, except where noted)

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can be no assurance that it will be able to attract and retain such personnel. The Company does not yet have in place formal programs for succession or training of management.

### **The Company's growth will require new personnel**

The Company initially experienced significant growth in its number of employees as a result of the development of its construction aggregate production and marine export business and may experience significant growth in the future as the Company develops its aggregate resource. The Company's ability to assimilate this new personnel will be critical to its performance. The Company will be required to recruit additional personnel and to train, motivate and manage its employees. The Company may also have to adopt and implement new systems in all aspects of its operations. There can be no assurance that the Company will be able to recruit or retain personnel required to execute its programs or to manage these changes successfully.

### **The Company may not meet minimum freight contract volumes**

The Company's freight contract provides for minimum annual volumes of construction aggregates. If the Company is unable to secure sufficient sales volumes to meet contracted minimum freight volumes, its revenues, operations and financial condition could be materially adversely affected.

### **The Company's directors and officers may have conflicts of interest**

Certain of the directors and officers of the Company also serve as directors, officers and/or significant shareholders of other companies involved in natural resource exploration and development and consequently there exists the possibility for such directors and officers to be in a position of conflict.

### **Eagle Rock Quarry Project Royalty Assessment**

The Company is disputing a royalty assessment from 2012 to October 2016. In 2014 the Company's subsidiary Eagle Rock Materials Ltd. ("ERM") was notified by the British Columbia Ministry of Forests, Lands and Natural Resource Operations that royalties were due of CAD\$456,000 for 2012 and CAD\$496,000 for 2013, based on the tenure date, in respect of the Company's quarrying lease for the Eagle Rock Quarry project. During the fourth quarter of 2016 the Company's subsidiary ERM was notified that royalties were due of CAD\$529,896 for 2014, CAD\$537,419 for 2015 and CAD\$446,816 for 2016 (up to October) based on the tenure date. The total royalties amount to CAD\$2,466,131. The Company's position is that royalties are only payable based on actual production, in accordance with a written undertaking from the responsible government agency prior to commencement of the lease, and as the project has not been developed, no royalties are currently due. Accordingly, the Company has not recorded a provision for the royalties. The amount of any payment, if required, is currently uncertain and it may be necessary to record a provision in future periods. There can be no assurance that the Company's position will prevail.

## **Controls and Procedures**

### ***Disclosure controls and procedures***

Disclosure Controls and Procedures ("DC&P") are designed to provide reasonable assurance that information required to be disclosed is recorded, processed, summarized and reported within the time periods specified in accordance with the Canadian securities legislation, and include controls and procedures designed to ensure that information required to be disclosed is accumulated and communicated to management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

As at December 31, 2016, an evaluation of the design and effectiveness of the Company's DC&P was carried out under the supervision and with the participation of management including its certifying officers. Based on that evaluation, the Company's certifying officers concluded that the design and operation of the Company's DC&P were effective as at December 31, 2016 and would provide reasonable assurance that material information relating to the Company and its consolidated subsidiaries would be made known to them by others within those entities during the period in which the annual filings were prepared, and that information required to be disclosed by the Company would be recorded, processed, summarized and reported within the time periods specified in the applicable securities legislation.

### ***Internal controls over financial reporting***

Internal Controls over Financial Reporting ("ICFR") is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. ICFR can only provide reasonable assurance and may not prevent or detect misstatements. Projections of an evaluation of effectiveness to



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future periods are subject to the risk that controls may become inadequate due to changes in conditions, or that the degree or compliance with the policies and procedures may deteriorate.

As at December 31, 2016, an evaluation of the design and operating effectiveness of the Company's internal controls over financial reporting was carried out under the supervision and with the participation of the Company's management including its certifying officers. This evaluation included confirmation of the Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") control framework (2013) used to design the ICFR. Based on the evaluation, the CEO and CFO concluded that the Company's ICFR was effective as at December 31, 2016. During the year ended December 31, 2016, there were no changes in the Company's internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, the internal control over financial reporting.

Based on their inherent limitation, disclosure controls and procedures and internal control over financial reporting may not prevent or detect misstatements, errors or fraud. Control systems, no matter how well conceived or operated, can provide only reasonable, but not absolute, assurance that the objectives of the control systems are met.

## Cautionary Note Regarding Forward Looking Statements

This Management's Discussion and Analysis release contains "forward-looking statements" and "forward-looking information" within the meaning of applicable securities laws. These statements and information appear in a number of places in this document and include estimates, forecasts, information and statements as to management's expectations with respect to, among other things the future financial or operating performance of the Company, costs and timing of the development of the construction aggregate quarry, the timing and amount of estimated future production, costs of production, capital and operating expenditures, requirements for additional capital, government regulation of quarrying operations, environmental risks, reclamation expenses, and title disputes. Often, but not always, forward-looking statements and information can be identified by the use of words such as "may", "will", "should", "plans", "expects", "intends", "anticipates", "believes", "budget", and "scheduled" or the negative thereof or variations thereon or similar terminology. Forward-looking statements and information are necessarily based upon a number of estimates and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Readers are cautioned that any such forward-looking statements and information are not guarantees and there can be no assurance that such statements and information will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations are disclosed under the heading "Risks and Uncertainties" in the Company's Annual Report and under the heading "Risk Factors" in the Company's Annual Information Form (AIF) in respect of its financial year-ended December 31, 2016, both of which are filed with Canadian regulators on SEDAR ([www.sedar.com](http://www.sedar.com)). The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements and information whether as a result of new information, future events or otherwise. All written and oral forward-looking statements and information attributable to us or persons acting on our behalf are expressly qualified in their entirety by the foregoing cautionary statements.

## Other Information

Additional information related to the Company is available for viewing on SEDAR at [www.sedar.com](http://www.sedar.com) and at the Company's website at [www.polarmin.com](http://www.polarmin.com).

## Glossary of Terms

**Ton** – the unit of weight used in the US consisting of 2,000 imperial pounds, often referred to as a 'Short Ton'.

**Metric Tonne** – a unit of weight commonly used in Canada and worldwide in shipping operations consisting of 1,000 kilograms (2,205 imperial pounds).