

# MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE AND SIX MONTHS ENDED MARCH 31, 2018

#### Introduction

This management's discussion and analysis ("MD&A") of results of operations and financial condition of Orvana Minerals Corp. and its consolidated subsidiaries ("Orvana" or the "Company") describes the operating and financial results of Orvana for the three and six months ended March 31, 2018.

This MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements of Orvana for the three and six months ended March 31, 2018 and related notes thereto (the "Q2 Financials"). The Q2 Financials are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board.

In this MD&A, all currency amounts (except per unit amounts) unless otherwise stated, are in United States dollars ("US dollars"). Production and sales in respect of gold and silver are in fine troy ounces referred to as "ounces" or "oz" and in respect of copper are in pounds also referred to as "lbs". The information presented in this MD&A is as of May 8, 2018, unless otherwise stated.

A cautionary note regarding forward-looking statements follows this MD&A.

## **Company Overview**

Orvana is a multi-mine gold and copper producer with organic growth opportunities. Orvana's operating properties consist of (i) the El Valle Mine and Carlés Mine (collectively, "El Valle"), two underground gold-copper-silver mines with process facilities that produce copper concentrates and gold doré, located in the northern part of Spain; and (ii) the Don Mario Mine Complex ("Don Mario"), a set of gold-copper concessions that include the Cerro Felix satellite gold deposit, the Las Tojas property and the previously mined Lower Mineralized Zone ("LMZ") and Upper Mineralized Zone ("UMZ"), with process facilities that currently produce gold doré and previously produced copper concentrates, located in the south-eastern part of Bolivia. Orvana's strategic focus is on initiatives and opportunities to deliver long-term shareholder value. To achieve this, Orvana is currently working to optimize its operations, reduce its unitary operating costs and realize growth in its future production base through exploration within and in proximity to its existing operations. Orvana is an Ontario registered company and its common shares ("Common Shares") are listed on the Toronto Stock Exchange under the symbol TSX:ORV.

# Second Quarter of Fiscal 2018 Consolidated Operating Highlights and Financial Results

The Company's strategy to further increase production at its El Valle operation targets oxides productivity enhancements to allow for delivery of higher gold ore grades to the mill, which is expected to result in higher gold ounces to be produced and reduced unitary costs. At Don Mario, the Company commenced production from Cerro Felix as the first phase of its mine life extension. On-going work continues to focus on exploring its gold deposits and concessions to extend its mine life. The Company reports the following developments in the second quarter of fiscal 2018 as follows:

■ El Valle – Delivers higher gold production due to 25% gold grade improvement: The progress made to increase the proportion of oxides production delivered to the mill from the El Valle Mine was sustained, averaging 34% over the second quarter of fiscal 2018. This allowed for the 25% gold grade improvement during the second quarter to 3.36 g/t. Along with an increase in milling rates, gold production improved by 40% compared to the first quarter of fiscal 2018, reaching its highest level since 2014. A number of geological and geotechnical process changes in the mine, metallurgical process changes to improve recovery of in-process gold and maintenance investments are expected to allow El Valle to progress towards a targeted 50% oxides processing blend.

- **Don Mario Production from Cerro Felix begins:** During the second quarter of fiscal 2018, mining activities transitioned from the depleted LMZ to the open-pit Cerro Felix gold satellite deposit. Although gold recoveries exceeded 90%, lower realized grades due to ore dilution caused by stripping activities during the ramp up of Cerro Felix impacted gold production during the second quarter.
- Fiscal 2018 Guidance Maintained: Based on operating results generated from the first half of fiscal 2018, the Company believes that it will be within its stated fiscal 2018 consolidated production and cost guidance. Consolidated cash operating costs ("COC") and all-in sustaining costs ("AISC") per ounce of gold sold for the first half of fiscal 2018 were \$1,029 and \$1,283, respectively (refer to Outlook section of this MD&A, below).

	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Operating Performance					
Gold					
Grade (g/t)	2.54	2.57	2.55	2.55	2.24
Recovery (%)	92.2	89.8	81.2	91.1	77.4
Production (oz)	24,788	23,172	20,513	47,960	36,212
Sales (oz)	25,489	21,995	20,773	47,484	34,710
Average realized price / oz	\$1,304	\$1,280	\$1,238	\$1,293	\$1,247
Copper					
Grade (%)	0.57	0.64	0.66	0.60	0.76
Recovery (%)	63.0	63.1	63.7	63.1	59.4
Production ('000 lbs)	2,609	2,759	2,867	5,368	6,455
Sales ('000 lbs)	2,531	2,700	3,032	5,231	6,592
Average realized price / lb	\$2.80	\$2.82	\$2.50	\$2.81	\$2.40
Financial Performance (in 000's, except per share	e amounts)				
Revenue	\$36,930	\$34,170	\$31,714	\$71,100	\$55,172
Mining costs	\$30,525	\$28,060	\$26,272	\$58,585	\$50,628
Gross margin	(\$394)	\$458	\$8	\$64	(\$6,845)
Net loss	(\$3,505)	(\$3,379)	(\$2,233)	(\$6,884)	(\$10,387)
Net loss per share (basic/diluted)	(\$0.03)	(\$0.02)	(\$0.02)	(\$0.05)	(\$0.08)
EBITDA (1)	\$4,473	\$4,182	\$4,774	\$8,655	\$1,440
Operating cash flows before non-cash working					
capital changes	\$2,447	\$2,086	\$3,683	\$4,533	\$389
Operating cash flows	(\$5,486)	\$2,147	\$928	(\$3,339)	\$629
Ending cash and cash equivalents	\$12,482	\$20,617	\$14,210	\$12,482	\$14,210
Capital expenditures (2)	\$5,462	\$6,207	\$4,501	\$11,669	\$12,220
Cash operating costs (by-product) (\$/oz) gold (1)	\$1,055	\$999	\$993	\$1,029	\$1,099
All-in sustaining costs (by-product) (\$/oz) gold (1)(2)	\$1,309	\$1,253	\$1,214	\$1,283	\$1,422

<sup>(1)</sup> Earnings before interest, taxes, depreciation and amortization ("EBITDA"), cash operating costs and all-in sustaining costs are non-IFRS performance measures. For further information and a detailed reconciliation of these measures not presented elsewhere, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

# **Operational Results**

Production of 24,788 ounces of gold and 2.6 million pounds (1,183 tonnes) of copper during the second quarter of fiscal 2018, an increase in gold production of 21% and a decrease in copper production of 9% compared with the second quarter of fiscal 2017.

These amounts are presented in the consolidated cash flows in the Q2 Financials on a cash basis. Each reported period excludes capital expenditures incurred in the period which will be paid in subsequent periods and includes capital expenditures incurred in prior periods and paid for in the applicable reporting period. See the "Cash Flows, Commitments and Liquidity - Capital Expenditures" section of this MD&A. The calculation of AISC includes capex incurred (paid and unpaid) during the period.

- Production of 31,905 gold equivalent ounces during the second quarter of fiscal 2018, compared with 27,683 gold equivalent ounces during the second quarter of fiscal 2017. (1)
- Sales of 25,489 ounces of gold and 2.5 million pounds (1,148 tonnes) of copper during the second quarter of fiscal 2018, an increase in gold sales of 23% and a decrease in copper sales of 17% compared with the second quarter of fiscal 2017.
- Gold and copper production of 47,960 ounces and 5.4 million pounds (2,435 tonnes), respectively, during the first half of fiscal 2018, an increase of 32% to gold production and a decrease to copper production of 17%, compared to the first half of fiscal 2017.
- Production of 62,562 gold equivalent ounces during the first half of fiscal 2018, compared with 51,904 gold equivalent ounces during the first half of fiscal 2017.
- Sales of 47,484 ounces of gold and 5.2 million pounds (2,373 tonnes) of copper during the first half of fiscal 2018, an increase of 37% to gold production and a decrease of 21% to copper production, compared with the first half of fiscal 2017.

#### El Valle

- Gold and copper production increased by 40% and 55%, respectively, compared with the first quarter
  of fiscal 2018, driven by higher gold and copper grades, as well as a 15% improvement in tonnes
  milled.
- The ratio of oxides to skarns processed in the mill was sustained at 34% over the second quarter of fiscal 2018, increasing to 52,000 tonnes. The increase in tonnage quarter over quarter resulted in a 25% increase to gold grade, allowing for a significant increase to gold production during the second quarter of fiscal 2018. Historically, the ratio of mined oxide to skarn ore has been approximately 20%. The Company is targeting a ratio of 50% of oxides or more as part of the initiatives to improve ore grade in fiscal 2018.
- Mechanical advance rates in oxide areas continued to improve, increasing by 12% to 1,594 meters during the second quarter of fiscal 2018, as compared to the first quarter of fiscal 2018.
- The construction of the new power line was completed in the second quarter of fiscal 2018, improving power stability, providing access to additional power capacity and reducing reliance upon on-site generators. The current set of generators on-site will be maintained for backup purposes. The final regulatory authorization for the use of the recently constructed aboveground explosives magazine was also completed in the second quarter of fiscal 2018, allowing for the decommissioning of the underground magazine which is expected to improve ventilation capacity and efficiency.

#### Don Mario

- At Don Mario, the LMZ was depleted and production began to ramp up from the Cerro Felix satellite deposit. As a result of the transition process, lower than expected gold grades were experienced. Consequently, gold production in the quarter fell by 22% to 9,649 ounces, despite average recovery rates increasing to 91.3%. The absence of copper in the processing circuit positively impacted gold recoveries from the Cerro Felix ore.
- Copper production fell by 34% compared to the first quarter of fiscal 2018, primarily as a result of planned depletion of by-product copper mined from the LMZ. This was the final quarter of planned copper concentrate production at Don Mario in fiscal 2018.

#### **Financial Results**

Net revenue of \$36.9 million for the second quarter of fiscal 2018, or 16% higher, compared with \$31.7 million for the second quarter of fiscal 2017, primarily due to higher gold sales volumes and realized prices, partially offset by lower copper sales volumes.

<sup>&</sup>lt;sup>(1)</sup> Gold equivalent ounces include copper pounds and silver ounces produced and are converted to a gold equivalent based on a ratio of the average market price for the commodities for the period discussed.

- Mining costs of \$30.5 million for the second quarter of fiscal 2018, or 16% higher, compared with \$26.3 million for the second quarter of fiscal 2017 primarily due to exchange movements in the Euro to USD rate at El Valle, as well as higher underlying mining costs at Don Mario as a result of increased reagents, supplies and labour required by the re-commissioned CIL circuit.
- Net loss for the second quarter of fiscal 2018 of \$3.5 million compared with \$2.2 million for the second quarter of fiscal 2017.
- EBITDA for the second quarter of fiscal 2018 of \$4.5 million compared with \$4.8 million for the second quarter of fiscal 2017.
- Cash flows used in operating activities of \$5.5 million for the second quarter of fiscal 2018, compared with cash flows provided by operating activities of \$0.9 million for the second quarter of fiscal 2017 and cash flows provided by operating activities before changes in non-cash working capital of \$2.4 million in the second quarter of fiscal 2018, compared with \$3.7 million for the second quarter of fiscal 2017. (2)
- Capital expenditures of \$5.5 million for the second quarter of fiscal 2018 compared with \$4.5 million for the second quarter of fiscal 2017.
- COC and AISC on a by-product basis (net of copper and silver by-product revenue from EI Valle and Don Mario) per ounce of gold sold for the second quarter of fiscal 2018 of \$1,055 and \$1,309, respectively, compared with COC and AISC (by-product) of \$993 and \$1,214, respectively, for the second quarter of fiscal 2017. Increased mining costs at Don Mario and lower by-product revenue negatively impacted both COC and AISC. (2)
- Net revenue of \$71.1 million for the first half of fiscal 2018, or 29% higher, compared with \$55.2 million for the first half of fiscal 2017, primarily due to higher gold sales volumes and realized prices.
- Mining costs of \$58.6 million for the first half of fiscal 2018, or 16% higher, compared with \$50.6 million for the first half of fiscal 2017 primarily due to exchange movements in the Euro to USD rate at El Valle, as well as higher costs at Don Mario for reagents and labour required for the CIL plant.
- Net loss for the first half of fiscal 2018 of \$6.9 million compared with \$10.4 million for the first half of fiscal 2017.
- EBITDA for the first half of fiscal 2018 of \$8.7 million compared with \$1.4 million for the first half of fiscal 2017.
- At March 31, 2018, consolidated cash and cash equivalents were \$12.5 million, a decrease of \$11.3 million from September 30, 2017.
- Cash flows used in operating activities of \$3.3 million in the first half of fiscal 2018, compared with cash flows provided by operating activities of \$0.6 million for the first half of fiscal 2017 and cash flows provided by operating activities before changes in non-cash working capital of \$4.5 million in the first half of fiscal 2018, compared with \$0.4 million in the first half of fiscal 2017. (2)
- Capital expenditures of \$11.7 million for the first half of fiscal 2018 compared with \$12.2 million in the first half of fiscal 2017.
- COC and AISC on a by-product basis (net of copper and silver by-product revenue from EI Valle and Don Mario) per ounce of gold sold in the first half of fiscal 2018 of \$1,029 and \$1,283, respectively, compared with COC and AISC (by-product) of \$1,099 and \$1,422, respectively. Higher gold volumes sold resulted in lower COC and AISC but were partially offset by higher mining costs at Don Mario and lower by-product costs. (2)

<sup>(2)</sup> EBITDA, cash flows provided by operating activities before non-cash working capital, COC and AISC are non-IFRS performance measures. The Company believes that, in addition to conventional measures prepared in accordance with IFRS, the Company and certain investors use this information to evaluate the Company's performance including the Company's ability to generate cash flows from its mining operations. Accordingly, it is intended to provide additional information and should not be considered in isolation or as substitutes for measures of performance prepared in accordance with IFRS. For further information and detailed reconciliations, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

# **Growth Initiatives Highlights**

#### El Valle

- A number of important productivity improvements and initiatives are expected to be made during fiscal 2018, including the following:
  - Addressing grade variability risk through additional geological review steps in the mine planning phase, in addition to introducing conservatism in high grade zone planning where ore bodies have been known to be non-homogenous or non-contiguous.
  - Making further investments into the existing fleet and enhancing preventive maintenance.
  - Reorganizing labour and available equipment to allow cut and fill crews in oxide zones to address the variability of rock hardness encountered.
  - The Company is restarting the Carlés Mine as a short-term project during the remainder of fiscal 2018 to take advantage of near surface underground mineralized tonnage. Carlés is expected to continue to provide skarn material in the future.

#### Don Mario

- Targeted development and infill drilling at the Las Tojas property was completed during the second quarter of fiscal 2018. The Company previously identified the Las Tojas property as a potential, near-term opportunity to extend the life of mine of Don Mario. Work efforts are now focused on analysis of the drilling results, estimation of potential mineral resources, open pit mine design work and completion of economic analysis of the potential for mining at the Las Tojas property.
- The Company has recently been re-evaluating the economic potential of its existing mineral stockpiles at Don Mario. Initial testing results have yielded mixed indications, and the Company expects to complete further tests in the coming months. The Company has also commenced an evaluation of re-processing tailings to determine the viability of recovering gold from material deposited in the tailings impoundment since the commencement of production at Don Mario.

#### **Outlook**

The Company continues to pursue its objectives of optimizing production, lowering unitary cash costs, maximizing free cash flow, extending the life-of-mine of its operations and growing its operations to deliver shareholder value.

At El Valle, the primary objective in fiscal 2018 continues to be replacing mined skarn tonnes with higher gold grade oxides in order to bring the proportion of oxide ore processed in the plant up to a target of 50%, thereby substantially increasing ore grades delivered to the mill and increasing gold ounce production. Through additional geological and geotechnical work, the Company also expects to significantly increase the reliability of the mine plan by minimizing the proportion of inferred material in its mine planning and taking additional measures to address grade variability. Infrastructure and fleet maintenance investments to improve productivity and efficiency will continue to be made through fiscal 2018 as planned.

At Don Mario, the Company continues to produce consistent results from its re-commissioned CIL circuit, with a recovery rate averaging above 90% during the second quarter of fiscal 2018. Don Mario continues to pursue realization of a number of known opportunities for mine life extension, including processing existing mineral stockpiles, potential mining of the Company's Las Tojas deposit and reprocessing gold bearing tailings. With regards to exploration activities on the Las Tojas property, the Company expects to release full exploration results by the end of fiscal 2018.

The following table sets out Orvana's results for the second quarter of fiscal 2018 as well as its fiscal 2018 production and cost guidance.

	YTD 2018	FY 2018
	Actual	Guidance
El Valle Production		
Gold (oz)	25,923	65,000 - 72,000
Copper (million lbs)	2.3	4.1 – 4.5
Don Mario Production		
Gold (oz)	22,037	45,000 - 48,000
Copper (million lbs)	3.1	2.0 - 2.3
Total Production		
Gold (oz)	47,960	110,000 - 120,000
Copper (million lbs)	5.4	6.1 – 6.8
Total capital expenditures	\$11,669	\$24,000 - \$27,000
Cash operating costs (by-product) (\$/oz) gold (1)	\$1,029	\$950 - \$1,050
All-in sustaining costs (by-product) (\$/oz) gold (1)	\$1,283	\$1,150 - \$1,250

<sup>(1)</sup> FY 2018 guidance assumptions for COC and AISC include by-product commodity prices of \$2.75 per pound of copper and an average Euro to US Dollar exchange of 1.20.

#### **Overall Performance**

The key factors affecting Orvana's operating and financial performance are tonnages mined and treated, metal grade and recoveries, quantities of metals produced and sold, realized metals prices, costs (including labour, energy and other supplies and material), mine development and other capital expenditures, foreign exchange rates and tax rates.

Second Quarter Ended March 31, 2018 Compared with Second Quarter Ended March 31, 2017

The Company recorded a net loss of \$3.5 million or \$0.03 per share for the second quarter of fiscal 2018 compared with \$2.2 million or \$0.02 per share for the second quarter of fiscal 2017. The Company's net loss was impacted significantly by the following factors:

- Revenue for the second quarter of fiscal 2018 increased by \$5.2 million or 16% to \$36.9 million from sales of 25,489 ounces of gold and 2.5 million pounds of copper from El Valle and Don Mario compared with revenue of \$31.7 million from sales of 20,773 ounces of gold and 3.0 million pounds of copper in the second quarter of fiscal 2017. The increase in revenue was primarily due to higher gold sales volume and realized prices, partially offset by lower copper sales volumes.
- Mining costs were \$30.5 million or \$4.3 million higher for the second quarter of fiscal 2018 compared with \$26.3 million for the second quarter of fiscal 2017, primarily due to exchange movements in the Euro to USD rate at El Valle, as well as higher mining costs at Don Mario as a result of increased reagent, supplies and labour costs required by the re-commissioned CIL circuit.
- Depreciation increased by \$1.4 million to \$6.8 million for the second quarter of fiscal 2018 compared with \$5.4 million for the second quarter of fiscal 2017, primarily due to depletion at Don Mario.
- Gross margin decreased by \$0.4 million to negative \$0.4 million for the second quarter of fiscal 2018, compared with nil for the second quarter of fiscal 2017.

Total consolidated COC (by-product) of \$1,015 per ounce of gold sold in the second quarter of fiscal 2018 were \$22 or 2% higher than the second quarter of fiscal 2017. Total AISC (by-product) of \$1,309 per ounce of gold sold in the second quarter of fiscal 2018 were \$95 or 8% higher than in the second quarter of fiscal 2017. Increased mining costs at Don Mario and lower by-product revenue negatively impacted both COC and AISC.

# First Half Ended March 31, 2018 Compared with First Half ended March 31, 2017

The Company recorded a net loss of \$6.9 million or \$0.05 per share for the first half of fiscal 2018 compared with \$10.4 million or \$0.08 per share for the first half of fiscal 2017. The Company's net loss was impacted significantly by the following factors:

- Revenue for the first half of fiscal 2018 increased by \$15.9 million or 29% to \$71.1 million on sales of 47,484 ounces of gold and 5.2 million pounds of copper from El Valle and Don Mario compared with revenue of \$55.2 million on sales of 34,710 ounces of gold and 6.6 million pounds of copper.
- Mining costs were \$58.6 million or \$8.0 million higher for the first half of fiscal 2018 compared with \$50.6 million for the first half of fiscal 2017, primarily due to exchange movements in the Euro to USD rate at El Valle, as well as higher labour and reagent costs associated with the CIL plant at Don Mario.
- Depreciation increased by \$1.1 million to \$12.5 million for the first half of fiscal 2018 compared with \$11.4 million for the first half of fiscal 2017.
- Gross margin increased by \$6.9 million to \$0.1 million for the first half of fiscal 2018 compared with negative \$6.8 million for the first half of fiscal 2017.

Total consolidated COC (by-product) of \$1,029 per ounce of gold sold in the first half of fiscal 2018 were \$70 or 6% lower than the first half of fiscal 2017. Total AISC (by-product) of \$1,283 per ounce of gold sold in the first half of fiscal 2018 were \$139 or 10% higher than in the first half of fiscal 2017. Higher gold volumes sold resulted in lower COC and AISC, but were partially offset by higher mining costs at Don Mario and lower by-product costs.

# Second Quarter Ended March 31, 2018 Compared with First Quarter Ended December 31, 2017

The Company recorded a net loss of \$3.5 million or \$0.03 per share for the second quarter of fiscal 2018 compared with \$3.4 million or \$0.02 per share for the first quarter of fiscal 2018. The Company's net loss was impacted significantly by the following factors:

- Revenue for the second quarter of fiscal 2018 increased by \$2.8 million or 8% to \$36.9 million from sales of 25,489 ounces of gold and 2.5 million pounds of copper from El Valle and Don Mario compared with revenue of \$34.2 million from sales of 21,995 ounces of gold and 2.7 million pounds of copper in the first quarter of fiscal 2018. The increase in revenue was primarily due to higher gold sales volume and realized prices, partially offset by lower copper sales volumes.
- Mining costs were \$30.5 million or \$2.5 million higher for the second quarter of fiscal 2018 compared with \$28.1 million for the first quarter of fiscal 2018, primarily due to exchange movements in the Euro to USD rate at El Valle.
- Depreciation increased by \$1.1 million to \$6.8 million for the second quarter of fiscal 2018 compared with \$5.7 million for the first quarter of fiscal 2018, primarily due to depletion at Don Mario.
- Gross margin decreased by \$0.9 million to negative \$0.4 million for the second quarter of fiscal 2018, compared with \$0.5 million for the first quarter of fiscal 2018.

Total consolidated COC (by-product) of \$1,015 per ounce of gold sold in the second quarter of fiscal 2018 were \$16 or 2% higher than the first quarter of fiscal 2018. Total AISC (by-product) of \$1,309 per ounce of gold sold in the first quarter of fiscal 2018 were \$56 or 4% higher than in the first quarter of fiscal 2018. Increased mining costs at Don Mario and lower by-product revenue negatively impacted both COC and AISC.

#### El Valle

Through its wholly-owned subsidiary, OroValle Minerals S.L. ("OroValle"), the Company owns and operates the El Valle and Carlés mines located in the Rio Narcea Gold Belt in northern Spain, where the Company mines skarns and oxides underground.

The following table includes consolidated operating and financial performance data for El Valle for the periods set out below.

	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Operating Performance					
Ore mined (tonnes) (wmt)	156,120	138,909	177,572	295,029	347,596
Ore milled (tonnes) (dmt)	150,966	131,286	157,621	282,252	319,742
Daily average throughput (dmt)	1,766	1,582	1,844	1,632	1.850
Gold					
Grade (g/t)	3.36	2.69	2.60	3.05	2.41
Recovery (%)	92.9	95.0	90.4	93.9	91.4
Production (oz)	15,139	10,784	11,917	25,923	22,640
Sales (oz)	13,805	10,198	12,218	24,003	21,046
Copper					
Grade (%)	0.51	0.38	0.58	0.45	0.46
Recovery (%)	80.4	81.2	74.1	80.8	72.3
Production ('000 lbs)	1,372	886	1,503	2,258	2,350
Sales ('000 lbs)	1,234	863	1,441	2,097	2,232
Financial Performance (in 000's, except per share	amounts)				
Revenue	\$19,915	\$14,747	\$17,435	\$34,662	\$29,413
Mining costs	\$17,780	\$16,297	\$17,232	\$34,077	\$33,049
Loss before tax	(\$834)	(\$4,704)	(\$3,456)	(\$5,538)	(\$11,332)
Capital expenditures	\$1,900	\$2,701	\$2,253	\$4,601	\$5,678
Cash operating costs (by-product) (\$/oz) gold (1)	\$1,150	\$1,427	\$1,215	\$1,268	\$1,393
All-in sustaining costs (by-product) (\$/oz) gold (1)	\$1.356	\$1,781	\$1,484	\$1,536	\$1,759
All-in costs (by-product) (\$/oz) gold (1)	\$1.356	\$1,781	\$1,484	\$1,536	\$1,759

<sup>(1)</sup> For further information and a detailed reconciliation of COC, AISC and AIC, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

# El Valle Operating Performance

During the second quarter of fiscal 2018, El Valle produced 15,139 ounces of gold and 1.4 million pounds of copper compared with 11,917 ounces of gold and 1.5 million pounds of copper during the second quarter of fiscal 2017. Gold production increased by 27%, primarily due to higher grades and recoveries, while copper production decreased by 9% primarily due to lower tonnes milled and lower grades.

Consistent with the first quarter of fiscal 2018, the Company mined higher gold grade oxide tonnes and blended them with a ratio of 34% together with skarn ore, allowing for gold production to increase with higher tonnes milled. Historically, the ratio of mined oxide to skarn ore has been approximately 20%. The Company is targeting a ratio of 50% of high gold grade oxides ore or more as part of the initiatives to improve ore grade in fiscal 2018.

Mechanical advance rates in oxide areas continued to improve, increasing by 12% to 1,594 meters during the second guarter of fiscal 2018, as compared to the first guarter of fiscal 2018.

At El Valle, a number of infrastructure projects and improvements continue to be underway.

The construction of a surface explosives magazine was completed in the second half of fiscal 2017, with final regulatory authorization for usage obtained in the second quarter of fiscal 2018. This magazine is replacing the current underground magazine, improving the efficiency of access to explosives. The removal of the underground magazine is also expected to improve the efficiency of the main ventilation fan when completed.

Licensing, permitting and the construction of a new power line was completed in the first quarter of fiscal 2018, and the connection of the line to OroValle's substation was completed in the second quarter of fiscal

2018. The completion of this power line is expected to enhance power stability, provide access to additional power capacity and reduce reliance upon on-site generators.

Plant improvements to improve recoveries are planned during fiscal 2018 in order to allow for the processing of a higher ratio of oxide ore. Studies are underway to improve copper recoveries in a higher oxide blend, targeting 68% to 72%. Metallurgical studies are also underway to reduce the buildup of inprocess gold from the increase in oxide ore processed in the plant.

El Valle expects to further increase mine production flexibility and grade control by significantly reducing the proportion of inferred ore material in its mine planning through planned infill drilling campaigns, as well as addressing grade variability risk through additional geological review steps in the mine planning phase, in addition to introducing conservatism in high grade zone planning where ore bodies have been known to be non-homogenous or non-contiguous.

El Valle is also planning to restart a portion of the Carlés Mine as a short-term project during the second half of fiscal 2018. The Carlés Mine is expected to continue to deliver skarn material to El Valle.

# El Valle Financial Performance

Revenue from El Valle for the second quarter of fiscal 2018 increased by 14% to \$19.9 million on sales of 13,805 ounces of gold and 1.2 million pounds of copper from \$17.4 million for the second quarter of fiscal 2017 on sales of 12,218 ounces of gold and 1.4 million pounds of copper.

Mining costs increased by 3% from \$17.2 million for the second quarter of fiscal 2017 to \$17.8 million for the second quarter of fiscal 2018, primarily due to the impact of higher sales volumes.

Loss before tax for the second quarter of fiscal 2018 was \$0.8 million compared with \$3.5 million for the second quarter of fiscal 2017.

Total capital expenditures at El Valle during the second quarter of fiscal 2018 were \$1.9 million compared with \$2.3 million for the second quarter of fiscal 2017. Capital expenditures in fiscal 2018 consisted substantially of primary development, mining infrastructure upgrades and a tailings dam lift.

Total COC (by-product) of \$1,150 per ounce of gold sold in the second quarter of fiscal 2018 were \$65 or 5% lower than in the second quarter of fiscal 2017. Total AISC (by-product) of \$1,356 per ounce of gold sold in the second quarter of fiscal 2018 were \$128 or 9% lower than in the second quarter of fiscal 2017. COC and AISC were positively impacted by higher gold ounces sold.

## El Valle Growth Exploration

Approximately 6,700 meters of drilling was completed during the second quarter of fiscal 2018, consisting primarily of 5,700 meters of infill definition drilling in the El Valle Mine. Infill efforts were focused on the Black Skarn and A107 zones of the El Valle Mine, supporting production from those areas over the upcoming months. Infill definition drilling was also completed in the Villar zone in order to define the oxide mineralization in this area.

Brownfield exploration drilling was completed in the Villar and East Breccia zones during the second quarter of fiscal 2018. At Villar, the target is to evaluate the extension of its structure towards the south and to the north, while at East Breccia, the objective is to search for continuity of the oxide structure towards the north.

Greenfield exploration continues on the Company's investigation permits in the immediate vicinity of the El Valle Mine. A drilling program is being defined for the Company's Lidia investigation permit based on the geophysical program completed in the first half of fiscal 2018. With respect to the Company's Quintana investigation permit, the Company is seeking local authorization to proceed.

#### **Don Mario**

Through its wholly-owned subsidiary, Empresa Minera Paititi S.A. ("EMIPA"), the Company owns and operates Don Mario under a number of concessions in the Don Mario district located in south-eastern Bolivia. Fiscal 2009 marked the last year of six years of production from the Company's LMZ underground gold mine at Don Mario with some gold production from lower-grade open pit satellite deposits and lower grade stockpiles continuing into fiscal 2010 and 2011. From 2012 to the end of 2016, EMIPA mined the UMZ as an open-pit mine. From 2016 to 2018, EMIPA mined new material at the upper extension of the LMZ as an open-pit mine. EMIPA is currently focused on mining at its Cerro Felix property within the Don Mario area.

The following table includes operating and financial performance data for Don Mario for the periods set out below.

	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Operating Performance					
Ore mined (tonnes) (dmt)	769,071	220,375	162,246	989,446	373,625
Ore milled (tonnes) (dmt)	178,698	181,090	150,231	359,788	328,711
Daily average throughput (dmt)	2,191	2,143	1,911	2,167	2,105
Gold					
Grade (g/t)	1.84	2.48	2.50	2.16	2.08
Recovery (%)	91.3	85.8	71.1	88.5	59.7
Production (oz)	9,649	12,388	8,596	22,037	13,572
Sales (oz)	11,684	11,797	8,555	23,481	13,664
Copper					
Grade (%)	0.62	0.82	0.75	0.72	1.05
Recovery (%)	50.3	57.0	54.6	53.7	53.8
Production ('000 lbs)	1,237	1,873	1,364	3,110	4,105
Sales ('000 lbs)	1,297	1,837	1,591	3,134	4,360
Financial Performance (in 000's, except per share a	mounts)				
Revenue	\$17,015	\$19,423	\$14,279	\$36,438	\$25,759
Mining costs	\$12,745	\$11,763	\$9,040	\$24,508	\$17,579
Income (loss) before tax	(\$314)	\$4,544	\$3,082	\$4,230	\$2,194
Capital expenditures	\$3,176	\$3,218	\$1,472	\$6,394	\$6,227
Cash operating costs (by-product) (\$/oz) gold (1)	\$942	\$630	\$676	\$785	\$647
All-in sustaining costs (by-product) (\$/oz) gold (1)	\$1,179	\$753	\$836	\$965	\$915
All-in costs (by-product) (\$/oz) gold (1)	\$1,350	\$1,016	\$912	\$1,182	\$1,187

<sup>(1)</sup> For further information and a detailed reconciliation of COC, AISC and AIC, please see the "Other Information - Non-IFRS Measures" section of this MD&A.

#### Don Mario Operating Performance

During the second quarter of fiscal 2018, 9,649 ounces of gold and 1.2 million pounds of copper were produced at Don Mario compared with 8,596 ounces of gold and 1.4 million pounds of copper in the second quarter of fiscal 2017.

Gold production increased by 12% while copper production decreased by 9% compared with the second quarter of fiscal 2017. Higher gold recoveries from the CIL process resulted in the improvement of gold production but were offset by the reduction in gold grade during the transition to the Cerro Felix area impacted by ore dilution caused by stripping activities. Lower by-product grades and recoveries negatively impacted the production of copper. This was the final quarter of planned copper concentrate production in fiscal 2018.

## Don Mario Financial Performance

Revenue from Don Mario increased by 19% from \$14.3 million in the second quarter of fiscal 2017 to \$17.0 million on sales of 11,684 ounces of gold and 1.3 million pounds of copper in the second quarter of fiscal 2018 compared with sales of 8,555 ounces of gold and 1.6 million pounds of copper in the second quarter of fiscal 2017.

Mining costs of \$12.7 million for the second quarter of fiscal 2018 increased by \$3.7 million or 41%

compared with \$9.0 million for the second quarter of fiscal 2017 primarily due to increases in labour and reagent costs in connection with the re-commissioned CIL plant.

Loss before tax for the second quarter of fiscal 2018 was \$0.3 million compared with income before tax of \$3.1 million for the second quarter of fiscal 2017.

Total capital expenditures at Don Mario in the second quarter of fiscal 2018 were \$3.2 million compared with \$1.5 million in the second quarter of fiscal 2017. Capital expenditures in the second quarter of fiscal 2018 related primarily to tailings facility expansion projects and purchases of mining equipment.

For the second quarter of fiscal 2018, COC (by-product) were \$942 per ounce of gold or 39% higher compared to the second quarter of fiscal 2017. Total AISC (by-product) were \$1,179 per ounce of gold or 41% higher compared to the second quarter of fiscal 2017. The increase in COC and AISC were driven by higher mining costs and lower by-product revenues.

# Don Mario Exploration and Mine Life Extension

As described above, the Company began mining the upper extension of the LMZ in the second quarter of fiscal 2016, and the LMZ continued to be Don Mario's primary source of ore up to mid-fiscal 2018. Historically, ore previously mined from the LMZ was processed through a CIL circuit, realizing gold recoveries of over 80%. The re-commissioned CIL circuit completed during fiscal 2017, together with the existing flotation circuit, exceeded these historical recoveries, and it is expected that Don Mario now has the required infrastructure to maximize the Company's ability to realize on its known opportunities for mine life extension.

A mine plan for the Company's Cerro Felix deposit, located 500 meters from the current operations at Don Mario, was completed during the fourth quarter of fiscal 2017. The Company initiated stripping activities at Cerro Felix during the second quarter of fiscal 2018, and the transition of production from the LMZ to Cerro Felix was substantially completed in the quarter. Mined ore from Cerro Felix is expected to benefit from the re-commissioning of the CIL circuit due to its higher estimated gold grades and demonstrated amenability to CIL processing.

The second phase of a drilling campaign was completed at Don Mario's Las Tojas deposit during the first quarter of fiscal 2018, with the objective of providing sufficient information to define a mineral reserve estimate for this deposit by the end of fiscal 2018. The Company plans to spend approximately \$2.0 million on greenfield exploration, including Las Tojas, at Don Mario during fiscal 2018.

The Company also continues to re-evaluate the economic potential of processing existing mineral stockpiles, including the oxide material previously treated through the leach-precipitation-flotation process. Initial testing results have yielded mixed indications, and the Company expects to conclude further tests in the coming months. As at September 30, 2017, EMIPA had oxide stockpile mineral resources of approximately 2.2 million tonnes with an average gold grade of 1.84 g/t. The Company has also commenced an evaluation of reprocessing of tailings, to determine the viability of recovering gold from the material deposited in the tailings impoundment since the commencement of production at Don Mario.

In support of the mine life extension projects described above, the Company determined that the construction of a major tailings storage facility expansion would be required to add sufficient capacity of up to three years of operations beyond the second quarter of fiscal 2018. The Company engaged Amec Foster Wheeler ("AMEC") to evaluate alternatives, provide design parameters and engineer this project. As a result, AMEC developed a capital cost estimate of \$9.7 million within 10% accuracy, including owner's costs and 10% contingency. Execution of the construction project commenced in the fourth quarter of fiscal 2017, in order to take advantage of the favorable dry season in Bolivia, and the tailings project was substantially completed by the end of the second quarter of fiscal 2018. Construction is being financed through the \$8.3 million BISA TSF facility closed in the third quarter of fiscal 2017.

#### **Market Review and Trends**

#### Metal Prices

The market prices of gold and copper are primary drivers of Orvana's earnings and ability to generate free cash flows. During the second quarter of fiscal 2018, gold traded in a range from \$1,308 to \$1,360 per ounce and averaged \$1,330 per ounce compared with \$1,219 per ounce in the second quarter of fiscal 2017. Orvana's average gold realized price in the second quarter of fiscal 2018 was \$1,304 per ounce, as compared to \$1,238 per ounce in the second quarter of fiscal 2017. The Company derived approximately 75% of its revenue from sales of gold in the first half of fiscal 2018.

Copper prices during the second quarter of fiscal 2018 traded in a range of \$2.95 to \$3.27 per pound and averaged \$3.16 per pound compared with \$2.65 per pound in the second quarter of fiscal 2017. Orvana's average copper realized price in the second quarter of fiscal 2018 was \$2.80 per pound. The Company derived approximately 20% of its revenue from sales of copper in the first half of fiscal 2018.

# **Currency Exchange Rates**

The results of Orvana's operations are affected by US dollar exchange rates. Orvana's largest exposure is to the Euro/US Dollar exchange rate. The Company incurs operating and administration costs at El Valle in Euros, while revenue is denominated in US dollars. Orvana's Euro costs increased year over year, with the Euro to US Dollar exchange rate moving from an average of 1.06 in the second quarter of fiscal 2017 to 1.23 in the second quarter of fiscal 2018. As a result of foreign exchange movements, mining costs at El Valle were higher by approximately \$4.5 million in the second quarter of fiscal 2018 compared with the second quarter of fiscal 2017.

Orvana also has a minor exposure to the Canadian dollar and the Swedish krona through corporate administration costs. Orvana's exposure to the US Dollar to Bolivianos exchange rate is limited as this exchange rate has not fluctuated significantly during previous reporting periods.

#### FINANCIAL CONDITION REVIEW

#### **Balance Sheet Review**

The following table provides a comparison of key elements of Orvana's balance sheet at March 31, 2018 and September 30, 2017.

(in 000's)	March 31, 2018	September 30, 2017
Cash and cash equivalents	\$12,482	\$23,811
Restricted cash (short term)	\$146	\$1,027
Non-cash working capital (1)	(\$2,472)	(\$9,732)
Total assets	\$163,542	\$171,363
Total liabilities	\$81,717	\$82,753
Shareholders' equity	\$81,825	\$88,610

(1) Working capital represents current assets of \$45.0 million less cash and cash equivalents and short-term restricted cash totaling \$12.6 million and less \$34.9 million in current liabilities composed of accounts payable and accrued liabilities, income taxes payable and derivative instruments (not including current debt).

Total assets decreased by \$7.9 million from \$171.4 million to \$163.5 million primarily as a result of the decrease in (i) cash and cash equivalents of \$11.3 million (ii) plant, property and equipment of \$1.4 million and (iii) restricted cash of \$2.5 million, offset by increases in (iv) VAT receivables of \$3.9 million and (iv) inventory of \$3.1 million.

Total liabilities decreased by \$1.0 million or 1% to \$81.7 million at March 31, 2018 from \$82.8 million at September 30, 2017 primarily as a result of a decrease in (i) income taxes payable at Don Mario of \$2.4 million offset by (ii) an increase to the credit line at OroValle of \$1.0 million.

# BISA TSF Loan and Revolving Facility

In June 2017, EMIPA closed Boliviano denominated debt facilities of approximately \$11.3 million with BISA, comprised of an \$8.3 million term facility (the "BISA TSF Loan") and a \$3.0 million revolving working capital facility.

The proceeds of the BISA TSF Loan were used to fund a major tailings storage facility expansion project that will add sufficient capacity to support future operations. Under the terms of the BISA TSF Loan, seven disbursements of specified amounts will be drawn down as expenditures are incurred for the tailings storage facility expansion, with the first draw down occurring on June 30, 2017. The BISA TSF Loan matures in January 2021 and has an interest rate of 5.3% per annum, with twelve quarterly repayments beginning in April 2018.

The revolving working capital facility of up to \$3.0 million can be drawn down in the form of cash of up to \$2.0 million, bank guarantees of \$3.0 million or a combination of the two up to the limit of \$3.0 million. The revolving working capital facility is renewable every six months until November 2020 and interest will be determined at the date of drawdown and is dependent on the form of the drawdown. As at March 31, 2018, no amounts were drawn down from this facility.

Security for both the BISA TSF Loan and the revolving working capital facility include the CIL asset and other equipment at Don Mario.

# Samsung C&T Prepayment Facility

In August 2016, the Company entered into a \$12.5 million copper concentrates and gold doré prepayment agreement ("Prepayment Facility") with Samsung C&T U.K. Ltd. ("Samsung C&T"), the proceeds of which were invested at El Valle for its ongoing development activities and infrastructure projects.

Under the terms of the Prepayment Facility, Orvana is selling gold doré from its El Valle Mine in Spain and copper concentrate from its Don Mario Mine in Bolivia to Samsung C&T, on an exclusive basis for a period of thirty months. In exchange, Orvana received \$12.5 million in prepayment financing from Samsung C&T in two instalments. The first instalment of \$8.0 million was drawn on closing and the second instalment of \$4.5 million was drawn down in February 2017. Interest payments and principal repayments under the terms of the Prepayment Facility are made against Orvana's on-going shipments of copper concentrates and/or gold doré. Samsung C&T has agreed to pay for copper concentrates and gold doré at a price based on the prevailing metal prices for the gold, silver and copper content around time of shipment, less customary treatment, refining and shipping charges, and pursuant to the terms of the Prepayment Facility.

The Prepayment Facility was amended in March 2018 such that the payments on the remaining principal outstanding at March 2018 was reschedule and extended by two months, in exchange for a higher interest rate and an extension of gold doré deliveries to April 2020, amongst other terms.

The Company's obligations to Samsung C&T under the Prepayment Facility are secured by the pledge to Samsung C&T of all of Orvana's shares of OroValle, which owns the El Valle and Carlés Mines in Spain.

#### Shareholders' Equity

Shareholders' equity at March 31, 2018 decreased by 8% to \$81.8 million compared with \$88.6 million at September 30, 2017. The table below sets out the number of each class of securities of the Company outstanding at March 31, 2018 and as at the date hereof.

	At March 31, 2018
Common Shares	136,623,171
Warrants (1)	600,000
Options (2)	2,985,666

- (1) All of the outstanding warrants are held by Fabulosa Mines Limited, the Company's majority shareholder. Warrants were issued in connection with amendments to the Fabulosa Loan in 2013 and 2014 as follows: i) warrants to purchase 500,000 Common Shares were issued on August 22, 2013 with an exercise price of C\$0.49 until August 22, 2018, and ii) warrants to purchase 100,000 Common Shares were issued on July 11, 2014 at an exercise price of C\$0.54 until July 11, 2019.
- (2) The options have a weighted average exercise price of \$0.23 and expiry dates ranging from 2019 to 2022.

#### **Derivative Instruments**

The Company had the following derivative instruments outstanding as at March 31, 2018:

	Contract Prices	Cash Settlement	Contract Amounts
Gold			
Gold forwards (April 2018 – June 2018)	€1,081.50 – €1,082.50 / troy oz	Monthly	5,100 troy oz

The Company paid net cash proceeds of \$1.5 and \$2.2 million during the second quarter and first half of fiscal 2018, respectively, in settlement of the derivative instruments that matured in the period.

As at March 31, 2018, the Company's outstanding derivative instruments were valued on the balance sheet as follows:

	Spot Price	Contract Price	Avg. Forward Price	Fair Value
Derivative instrument liabilities				
		€1,081.50 -		
Gold forwards	\$1,324 / troy oz	€1,082.50 / troy oz	\$1,324 / troy oz	\$38
Total fair value of derivative instrume	nt liabilities			\$38

Changes in the fair value of the Company's outstanding derivative instruments are recognized through the Company's income statement as non-cash derivative instrument gains or losses. At maturity of each contract, a cash settlement takes place resulting in a corresponding reduction in the carrying value of the derivative instruments. The mark-to-market fair value of the Company's outstanding derivative instruments is based on independently provided market rates and determined using standard valuation techniques, including the impact of counterparty credit risk.

The Company recorded fair value adjustments on its outstanding derivative instruments as follows:

(in 000's)	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Change in unrealized fair value	\$1,174	(\$290)	(\$222)	\$884	(\$509)
Realized gain (loss) on cash settlements of derivative instruments	(1,478)	(760)	(446)	(2,238)	119
Derivative instruments loss	(\$304)	(\$1,050)	(\$668)	(\$1,354)	(\$390)

### **Capital Resources**

At March 31, 2018, the Company had cash and cash equivalents of \$12.5 million and restricted cash of \$0.5 million. The Company considers its capital employed to consist of shareholders' equity (including share capital, contributed surplus and retained earnings) and total debt net of cash and cash equivalents as follows:

(in 000's)	March 31, 2018	September 30, 2017
Shareholders' equity	\$81,825	\$88,610
Revolving facilities	2,950	2,000
Capital leases	1,361	1,359
BISA TSF Loan	6,505	3,352
Prepayment Facility	8,632	11,502
	\$101,273	\$106,823
Less: Cash and cash equivalents	(12,482)	(23,811)
Capital employed	\$88,791	\$83,012

The Company's financial objective when managing capital is to ensure that it has the cash and debt capacity and financial flexibility to fund its ongoing business objectives including operating activities, investments and growth in order to provide returns for shareholders. In order to maintain or adjust the capital structure, in addition to using cash flows from operating activities for this purpose, the Company may issue new shares or obtain additional debt. In fiscal 2016, the Company closed the \$12.5 million Prepayment Facility, and during fiscal 2017 the Company closed the \$11.3 million BISA TSF Loan and revolving working capital facility.

The Company monitors its capital structure and makes adjustments according to market conditions in an effort to meet its objectives given the Company's operating and financial performance and current outlook for the business and industry in general. The Company's alternatives to fund future capital needs include cash flows from operating activities, debt or equity financing or adjustments to capital spending. The capital structure and these alternatives are reviewed by management and the board of directors of the Company on a regular basis to ensure the best mix of capital resources to meet the Company's needs.

The Company manages capital through its operating and financial budgeting and forecasting processes. The Company reviews its working capital and forecasts its future cash flows on a periodic basis, based on operating expenditures and other investing and financing activities. The forecast is regularly updated based on the results of El Valle and Don Mario. Information is regularly provided to the board of directors of the Company.

The Company's strategy during fiscal 2018 is to manage its existing capital resources and liquidity in a prudent fashion to sustain ongoing capital projects and exploration programs at EMIPA and OroValle, and to meet all of its existing debt repayment obligations. In connection with this, the Company is currently evaluating possible, near-term financing alternatives with the objective of re-financing the Prepayment Facility and securing access to additional liquidity for advancement of the Company's strategic objectives.

# Cash Flows, Commitments, Liquidity and Contingencies

#### Cash Flows

Total cash and cash equivalents as at March 31, 2018 was \$12.5 million, primarily denominated in US dollars, representing a decrease of \$11.3 million from \$23.8 million at September 30, 2017. Short-term restricted cash was \$0.1 million at March 31, 2018 compared with \$1.0 million at September 30, 2017. The Company's total debt was \$18.1 million at March 31, 2018. This compares with total debt as at September 30, 2017 of \$16.9 million.

The following table summarizes the principal sources and uses of cash for the periods specified below:

(in 000's)	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Cash provided by operating activities before changes in non-cash working capital	\$2,447	\$2,086	\$3,683	\$4,533	\$389
Cash provided by (used in) operating activities	(5,486)	2,147	928	(3,339)	629
Cash used in investing activities (1)	(2,708)	(6,480)	(579)	(9,188)	(11,145)
Cash provided by financing activities	117	1,171	4,418	1,288	5,522
Change in cash	(\$8,077)	(\$3,162)	\$4,767	(11,239)	(4,994)

(1) These amounts are presented on a cash basis. Each reported period excludes unpaid capital expenditures incurred in the period which will be paid in subsequent periods and includes capital expenditures incurred in prior periods and paid for in the applicable reported period. See "Cash Flows, Commitments and Liquidity - Capital Expenditures".

Orvana's primary source of liquidity continues to be from operating cash flows. Cash flows provided by operating activities before changes in non-cash working capital were \$2.4 and \$4.5 million for the second quarter and first half of fiscal 2018, respectively, compared with \$3.7 and \$0.4 million for the second quarter and first half of fiscal 2017, respectively. Cash flows used in operating activities were \$5.5 and \$3.3 million for the second quarter and first half of fiscal 2018, respectively, compared with cash flows provided by operating activities of \$0.9 and \$0.6 million for the second quarter and first half of fiscal 2017, respectively.

Significant drivers of the change in operating cash flow are production and realized gold and copper prices on sales. Future changes in the market price of gold and copper, either favourable or unfavourable, will continue to have a material impact on the Company's cash flows and liquidity. The principal uses of operating cash flows have been working capital and the funding of the Company's planned capital expenditures.

Cash used in investing activities was \$2.7 and \$9.2 million in the second quarter and first half of fiscal 2018, respectively, compared with \$0.6 and \$11.1 million in the second quarter and first half of fiscal 2017, respectively. Capital expenditures and movements in the Company's restricted cash and reclamation bond accounts drive the majority of cash flows used in investing activities.

Cash provided by financing activities was \$0.1 and \$1.3 million in the second quarter and first half of fiscal 2018, respectively, compared with \$4.4 and \$5.5 million in the second quarter and first half of fiscal 2017,

respectively, and is driven primarily by the timing of drawdowns and repayments by the Company's debt facilities.

## Capital Expenditures

The following table sets forth Orvana's capital expenditures for the periods specified below for El Valle and Don Mario:

(in 000's)	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
El Valle	\$1,900	\$2,701	\$2,253	\$4,601	\$5,678
Don Mario	3,176	3,218	1,472	6,394	6,227
Corporate	9	10	2	19	2
Sub-total capital expenditures	\$5,087	\$5,929	\$3,727	\$11,104	\$11,907
Accounts payable adjustments (1)	377	278	774	655	313
Total capital expenditures (1)	\$5,462	\$6,207	\$4,501	\$11,669	\$12,220

(1) These amounts are presented on a cash basis. Each reported period excludes unpaid capital expenditures incurred in the period which will be paid in subsequent periods and includes capital expenditures incurred in prior periods and paid for in the applicable reported period.

At El Valle, capital expenditures in the second quarter of fiscal 2018 consisted mainly of primary development and updates to its underground mining fleet. Significant capital expenditures at Don Mario included a tailings facility expansion, acquisitions of mining equipment and a warehouse expansion.

The Company expects sustaining capital expenditures for fiscal 2018 to be in the range of \$24.0 million to \$27.0 million. Refer to the "Outlook" section of the MD&A.

#### Other Commitments

The Company's current contractual obligations are summarized in the following table:

As at March 31, 2018	Payment Due by Period				
(in 000's)	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
BISA TSF Loan	\$6,505	\$1,626	\$3,252	\$1,627	-
Prepayment Facility	\$8,632	\$7,988	\$644	-	-
Operating leases	\$3,450	\$2,282	\$1,057	\$111	-
Finance leases	\$1,380	\$941	\$440	-	-
Decommissioning liabilities (1)	\$23,559	\$180	\$335	\$742	\$22,302
Reclamation bond (2)	\$6,161	\$6,161	-	-	-
Purchase obligations	\$2,610	\$2,610	-	-	-
Provision for statutory labour obligations (3)	\$3,506	-	\$3,506	-	-
Long-term compensation	\$610	\$114	\$33	-	\$463
Total contractual obligations (4)	\$56,413	\$21,901	\$9,267	\$2,480	\$22,765

- (1) Decommissioning liabilities are undiscounted. Total cash deposited with a Spanish financial institution for Euro denominated reclamation bonds amounted to approximately \$9.3 million at March 31, 2018 (September 30, 2017 \$8.9 million). Decommissioning liabilities are discussed below under "Other Information Critical Accounting Estimates Decommissioning Liabilities".
- (2) Spanish regulatory authorities have requested that an additional reclamation bond of €5.0 million be deposited by the Company under Spanish mining regulations in respect of El Valle. The Company is challenging the requirement to fund the additional reclamation bond through an administrative appeal process. The Company is also working with the Spanish regulatory authorities to come to an agreement regarding posting this bond, including the consideration of alternatives to posting this bond.
- (3) Under Bolivian law, EMIPA has an obligation to make payments to employees in the amount of one month's wages for each year of service. The employee can elect to receive payment after five years of service in the amount of five months of wages while continuing employment with EMIPA.
- (4) Production from El Valle and Don Mario is subject to certain royalties for which amounts have not been included in total contractual obligations at March 31, 2018. For a description of such royalties and amounts payable, see "Royalties" below.

## Royalties

Production from El Valle is subject to a 3% net smelter return royalty ("NSR"), referred to herein as the El Valle Royalty. The El Valle Royalty rate decreases to 2.5% for any quarter in which the average price of gold is below \$1,100 per ounce. The El Valle Royalty expense totaled \$0.7 and \$1.1 million for the second quarter and first half of fiscal 2018, respectively, compared with \$0.5 and \$0.8 million for the second quarter and first half of fiscal 2017, respectively.

Production from Don Mario is subject to a 3% NSR. This expense totaled \$0.6 and \$1.2 million for the second quarter and first half of fiscal 2018, respectively, compared with \$0.5 and \$0.9 million for the second quarter and first half of fiscal 2017, respectively. The Bolivian government collects a mining royalty tax on the revenue generated from copper, gold and silver sales from Don Mario at rates of 5%, 7% and 6%, respectively. These amounts totaled \$1.3 and \$2.7 million for the second quarter and first half of fiscal 2018, respectively, compared with \$1.0 and \$1.9 million for the second quarter and first half of fiscal 2017, respectively.

# Liquidity

Orvana's primary sources of liquidity in the first half of fiscal 2018 were operating cash flows, generating cash of \$4.5 million from operating activities before changes in non-cash working capital. Financing activities generated \$1.3 million in the first half of fiscal 2018, and together with operating cash flows and cash on hand, supported investing activities totaling \$9.2 million in the first half of fiscal 2018.

As at March 31, 2018, the Company had cash of \$12.5 million, and together with forecasted operating cash flows, expects to cover the Company's commitments due in less than one year of \$21.9 million.

In August 2016, the Company entered into the \$12.5 million Prepayment Facility with Samsung C&T, the proceeds of which were invested into El Valle. The acceleration of underground mine development and the execution of water and power infrastructure projects allowed El Valle to improve its ore production to sustain throughput in excess of nameplate capacity of 2,000 tonnes per day during fiscal 2017, improving gold production despite mining through lower gold grade skarn areas. El Valle is currently focused on reducing reliance of inferred material in mine production and increasing the amount of high gold grade oxide ore processed relative to skarn ore, improving average gold head grades. These efforts are expected to continually increase gold production and decrease unitary costs through fiscal 2018. As a result of these efforts taking longer than planned, the Company closed an amendment to the Prepayment Agreement in March 2018, deferring repayment until fiscal 2019.

At Don Mario, the Company concluded the re-commissioning of the CIL circuit in fiscal 2017, with gold recovery results from the CIL circuit exceeding the Company's expectations. Mine life extension projects are currently underway at Don Mario, beginning with the Cerro Felix gold deposit that began production during the second quarter of fiscal 2018. Next efforts target the Las Tojas deposit and the oxides stockpile at Don Mario. Future working capital requirements at Don Mario are expected to be covered by operating cash flows and available credit facilities.

Through the continuing completion and amendment of debt financings, the Company believes, based on its current cash flow forecasts, that it has sufficient financial resources to fully realize its current business plans. The Company's cash flow forecasts are developed using best available information at the time of their preparation and rely on certain material assumptions, such as gold and copper market prices and the ability to achieve planned production of gold and copper. There can be no assurances that the Company's cash flow forecasts will not change materially in the future and that the effect of changes to the Company's forecasts, if negative, could result in future financing requirements for the Company.

If (i) unanticipated events occur that may impact the operations of El Valle and Don Mario and/or (ii) if the Company does not have adequate access to financing on terms acceptable to the Company, the Company may need to take additional measures to increase its liquidity and capital resources, including obtaining additional debt or equity financing, pursuing joint-venture partnerships, equipment financings or other receivables financing arrangements. The Company may experience difficulty in obtaining satisfactory financing terms. Failure to obtain adequate financing on satisfactory terms could have a material adverse effect on Orvana's results of operations or financial condition.

## Contingencies

The Company is currently working through one environmental matter involving selenium discharges into the Cauxa River in Asturias, Spain. The Cauxa River flows past the El Valle Mine operated by the Company's Spanish subsidiary, OroValle, as well as other industrial properties owned by third parties. Selenium is a naturally occurring element that is found in rocks, land and water and thus is also naturally found in certain food supplies. The results of recent scientific studies conducted by the Company have confirmed the Company's belief that past and prevailing levels of selenium in waterways impacted by the OroValle operations do not constitute a health or environmental risk.

Spanish regulatory authorities have taken the position that the levels of selenium in the river flowing past the El Valle Mine exceed the levels permitted by applicable regulations as a result of discharges attributed to OroValle which may not be in compliance with certain of OroValle's permits. In recent years, OroValle has received approximately €1.0 million (approximately \$1.2 million) in fines relating to these matters and may face further additional fines or other sanctions, including the revocation or suspension of certain permits, in the future. OroValle is appealing the outstanding fines and the enforcement of certain fines has been suspended pending the related criminal matter. A judge of the criminal court of Asturias is conducting an investigation into the potential commission by OroValle of a reckless crime under the Spanish penal code relating to these matters. The judge may decide to dismiss the matter, conduct a further investigation and/or charge OroValle and/or certain OroValle individuals. If OroValle is ultimately found responsible, monetary penalties, amongst other sanctions, may be applied. These sanctions could have a material impact on the Company. At this time, OroValle has not been charged. OroValle has cooperated and will continue to cooperate with investigations and is defending itself vigorously.

OroValle has been working to remediate this matter through various activities including the implementation of a reverse osmosis water treatment plant in September 2014 and the development of a long-term water management plan which is in progress. While it appears that these remediation efforts are addressing these matters, there can be no assurances that OroValle's continuing remediation activities will be judged to successfully comply with local regulations. In addition, OroValle has been seeking amendments to certain of its permits or, alternatively to receive new permits, and extensions of deadlines to comply with local requirements. Orvana is committed to developing and operating its mines and projects in full compliance with local environmental regulations and recognized international environmental standards.

#### SUMMARY OF QUARTERLY RESULTS

The following two tables include results for the eight quarters ended March 31, 2018:

		Quarters ended					
(in 000's, except per share amounts)	Q2 2018	Q1 2018	Q4 2017	Q3 2017			
Revenue	\$36,930	\$34,170	\$46,156	\$36,671			
Net loss	(\$3,505)	(\$3,379)	(\$1,722)	(\$3,446)			
Loss per share (basic and diluted)	(\$0.03)	(\$0.02)	(\$0.01)	(\$0.03)			
Total assets	\$163,542	\$171,035	\$171,363	\$171,429			
Total financial liabilities (1)	\$19,486	\$20,751	\$19,135	\$19,019			
		Quarters en	ded				
	Q2 2017	Q1 2017	Q4 2016	Q3 2016			
Revenue	\$31,714	\$23,458	\$24,044	\$26,030			
Net loss	(\$2,233)	(\$8,154)	(\$1,528)	(\$1,181)			
Loss per share (basic and diluted)	(\$0.02)	(\$0.06)	(\$0.01)	(\$0.01)			
Total assets	\$174,767	\$171,155	\$174,262	\$161,910			
Total financial liabilities (1)	\$20,449	\$15,626	\$14,113	\$2,957			

Financial liabilities include current and long-term portions of debt, obligations under finance leases and derivative liabilities.

# FINANCIAL AND OTHER RISKS AND UNCERTAINTIES

#### **Financial Risks**

The Company's activities expose it to a variety of financial market risks (including commodity price risks, currency risk and interest rate risk), credit risks, liquidity risks, financing risks and other risks. Enterprise

risk management is carried out by management of the Company under policies approved by the board of directors thereof. Management identifies and evaluates the financial risks in co-operation with the Company's operating units. The Board of Directors of the Company reviews management's risk management programs and provides oversight on specific areas. The Company's overall risk management program seeks to minimize potential adverse effects on the Company's financial and operating performance.

#### Other Risks

The Company identified a variety of additional risks and uncertainties in the most recent Annual Information Form ("AIF") including, but not limited to, (i) mineral resources and reserves estimates and replacement of depleted reserves, (ii) production estimates, (iii) development, capital projects and operations of mines, (iv) competition, (v) acquisitions and divestitures, (vi) title matters, (vii) water supply, (viii) regulatory and other risk, (ix) permits, (x) environmental, health and safety regulations, (xi) political and related risks, (xii) insurance, (xiii) reliance on key personnel and labor relations, (xiv) community relations and license to operate, (xv) litigation, (xvi) conflicts of interest, (xvii) controlling shareholder, and (xviii) share trading volatility.

In respect of regulatory and other risks and environmental regulations risks, see "Contingencies" above.

For a more detailed discussion of such financial and other business risks, please see the "Risk Factors" in Orvana's most recent AIF at www.sedar.com.

#### OTHER INFORMATION

# **Critical Accounting Estimates**

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of certain assets and liabilities at the date of the financial statements and the reported amounts of certain revenues and expenses during the period. Actual results could differ significantly from those estimates. Specific items requiring estimates are mineral reserves, accounts receivable, property, plant and equipment, depreciation and amortization, forward metals prices, decommissioning liabilities, future income taxes, stock-based compensation and other accrued liabilities and contingent liabilities.

# Net Realizable Amounts of Property, Plant and Equipment

At March 31, 2018, the net carrying value of the property, plant and equipment in respect of El Valle and Don Mario amounted to \$81.1 million and \$16.8 million, respectively. Effective from the point that they are ready for their intended use, property, plant and equipment are amortized on a straight-line basis or using the units-of-production method over the shorter of the estimated economic life of the asset or mineral property. The method of depreciation is determined based on that which best represents the use of the assets.

The reserve and resource estimates for each operation are the prime determinants of the life of a mine. In general, a mineralized deposit where the mineralization is reasonably well defined is amortized over its proven and probable mineral reserves. Non-reserve material may be included in the depreciation calculations in limited circumstances where there is a high degree of confidence in economic extraction. The expected economic life of these mines is dependent upon, among other things, the estimated remaining ore; gold, copper and silver prices; cash operating costs and capital expenditures.

The Company assesses each mine development project to determine when a mine is substantially complete and ready for its intended use and has advanced to the production stage. In its assessment, the Company considers relevant criteria based on the nature of each project, including the completion of a reasonable period of testing of mine plant and equipment, the ability to produce materials in saleable form (within specifications) and the ability to sustain ongoing production of minerals. When a mine development project moves into the production stage, the capitalization of certain mine construction costs ceases and costs are either capitalized to inventory or expensed, except for sustaining capital costs and underground mine or reserve development, which are capitalized to property, plant and equipment.

## **Decommissioning Liabilities**

Decommissioning liabilities relate to the dismantling of the mine facilities and environmental reclamation of the areas affected by mining operations. Mine facilities include structures and the tailings dam. Environmental reclamation requirements include mine water treatment, reforestation and dealing with soil contamination. It is possible that the Company's estimates of the ultimate amounts required to decommission its mines could change as a result of changes in regulations, the extent of environmental remediation required, the means of reclamation, cost estimates or the estimated remaining ore reserves. The following table sets out the Company's estimates, prepared by management with the assistance of independent third-party experts, of the undiscounted and discounted cash flows required to settle such decommissioning liabilities in respect of El Valle and Don Mario at March 31, 2018.

As at March 31, 2018	Undiscounted Cash Flows Estimated to Settle Decommissioning Liabilities	Discount Rate	Discounted Cash Flows Required to Settle Decommissioning Liabilities
(in 000's)			
El Valle (1)	\$15,546	1.54%	\$13,403
Don Mario (1)	\$8,013	3.20%	\$6,745
Total	\$23,559		\$20,148

(1) Accretion expense is recorded using the discount interest rate set out above. It is estimated that these amounts will be incurred beginning in 2018 and 2019 at Don Mario and El Valle, respectively. The discount rate used to measure decommissioning liabilities under IFRS is based on current interest rates of government bonds of the applicable country and of term that matches the time period to the commencement of the decommissioning liability being incurred.

#### Stock-based compensation

The Company recorded a stock-based compensation expense of \$49.3 thousand and \$98.7 thousand in the second quarter and first half of fiscal 2018, respectively, compared with \$11.5 thousand and \$52.0 thousand in the second quarter and first half of fiscal 2017, respectively. The stock-based compensation expense is based on an estimate of the fair value of stock options issued and expensed over the vesting period. The accounting for stock options requires estimates of interest rates, life of options, stock price volatility and the application of the Black-Scholes option pricing model.

## Long-term Compensation

The Company established a Deferred Share Unit ("DSU") plan, effectively a phantom stock plan, for directors, effective October 1, 2008. For grants subsequent to December 1, 2015, the fair value of the units issued is expensed over the fiscal year in which they are issued and is included in long-term compensation expense under general and administrative expenses in the statement of income. The fair value of the DSUs are marked to the quoted market price of Common Shares at each reporting date and changes in their fair value are also recorded under general and administrative expenses. Payouts are settled in cash within a specified period following a director's departure, based on the market price of the Common Shares at exercise.

The Company established a Restricted Share Unit ("RSU") plan, effectively a phantom stock plan, for designated executives, effective October 1, 2008. The initial fair value of units issued is expensed and is included in long-term compensation expense under general and administrative expenses in the statement of income. The fair value of the RSUs are marked to the quoted market price of the Common Shares at each reporting date and changes in their fair value are recorded under general and administrative expenses. Payouts are settled in cash after a specified period of vesting, based on the market price of the Common Shares at vesting.

The Company established a Share Appreciation Rights ("SAR") plan for designated executives, effective in respect of fiscal 2013. Unless otherwise determined by the directors of the Company, designated participants are granted SARs in such number equal to two times the number of RSUs granted to such participant in respect of compensation for a particular fiscal year. The Initial Fair Market Value as defined in the SAR plan is determined based on the closing price of the Common Shares on the date of grant. The fair value of the SARs are measured using an option pricing model at each period end, and to the extent that employees have rendered services over a three year vesting period, an expense is recorded under general and administrative expenses in the statement of net income over such vesting period. Vested SARs

may be exercised provided there has been an appreciation in the market price of the Common Shares from the Initial Fair Market Value on the grant date and payouts are settled in cash as vested SARs are exercised.

## **Impairment**

The Company assesses the carrying values of each cash-generating unit ("CGU") at each reporting period end date to determine whether any indication of impairment exists. Where an indicator of impairment exists, a formal estimate of the recoverable amount is made which is considered to be the higher of the fair value less costs to sell ("FVLCS") or value-in-use. These assessments require the use of estimates and assumptions such as long-term commodity prices, discount rates, future capital requirements, the resale market for certain property, plant and equipment of the Company and operating performance. Fair value under FVLCS is determined as the amount that would be obtained from the sale, less costs, of the asset in an arm's length transaction between knowledgeable and willing parties. When observable market prices are not available for the asset, value-in-use for mineral properties is generally determined as the present value of estimated future cash flows arising from the continued use of the asset, which includes estimates such as the cost of future expansion plans and eventual disposal, using assumptions that are specific to the Company's circumstances with respect to each CGU. Cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Management of the Company has assessed its CGUs to be its minesites (El Valle and Don Mario), which are the lowest level for which cash inflows and outflows are expected to be largely independent of those of other assets. Management projected cash flows over the remaining life-of-mine in respect of El Valle and Don Mario using forecasted production and costs per the current life-of-mine plans and the long-term forecasted price of gold, copper and silver to project future revenues. The key assumptions used in making this assessment at March 31, 2018 included commodity prices, operating costs, capital expenditures, foreign exchange rates and discount rates.

Although the total public market capitalization of the Company was below the carrying amount of Orvana's net assets at March 31, 2018 of \$81.2 million, following the completion of an impairment test in respect of each CGU at the end of the second quarter of fiscal 2018, the Company estimated that the net recoverable amounts are greater than the carrying values of such assets based on the Company's current life-of-mine plans and the assumptions set out above at March 31, 2018. As such, there was no impairment of such carrying values as at March 31, 2018.

In light of a continued volatile metal price environment, and notwithstanding that the Company concluded that there was no impairment of carrying values at the end of the second quarter of fiscal 2018, there can be no assurances that an impairment adjustment may not be taken at either or both CGUs in future periods.

#### Internal Controls over Financial Reporting and Disclosure Controls and Procedures

Management is responsible for the design and effectiveness of disclosure controls and procedures ("DC&P") and the design of internal control over financial reporting ("ICFR") to provide reasonable assurance that material information related to the Company, including its consolidated subsidiaries, is made known to the Company's certifying officers. The Company uses the *Internal Control – Integrated Framework* (COSO Framework) published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to design its ICFR. Based on a review of internal control procedures at the end of the period covered by this MD&A, management believes its internal controls and procedures are appropriately designed as at March 31, 2018.

There were no significant changes in the Company's internal controls or in other factors that could significantly affect those controls subsequent to the date the Chief Executive Officer and Chief Financial Officer completed their evaluation, nor were there any significant deficiencies or material weaknesses in the Company's internal controls requiring material corrective actions.

Management of the Company was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. The result of the inherent limitations in all control systems means no evaluation of controls can provide absolute assurance that all control issues, errors and instances of fraud, if any, have been detected and that all of the objectives of the internal controls over financial reporting have been achieved or will be achieved in the future.

#### **Non-IFRS Measures**

#### COC, AISC and AIC

The Company, in conjunction with an initiative undertaken within the gold mining industry, began reporting COC, AISC and AIC non-IFRS performance measures as set out in the guidance note released by the World Gold Council in June 2013. The Company believes that these performance measures more fully define the total costs associated with producing gold, copper and silver, however, these performance measures have no standardized meaning. Accordingly, they are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

COC include total production cash costs incurred at the Company's mining operations, which form the basis of the Company's cash costs. AISC includes COC plus sustaining capital expenditures, corporate administrative expenses, costs of community relations, exploration and evaluation costs and reclamation cost accretion. The Company believes that this measure represents the total costs of producing gold from current operations and provides the Company and other stakeholders of the Company with additional information relating to the Company's operational performance and ability to generate cash flows. As the measure seeks to reflect the full cost of gold production from current operations, new project capital is not included in AISC. AIC represents AISC plus non-sustaining capital expenditures and non-sustaining exploration. Certain other cash expenditures including tax payments, debt payments, dividends and financing costs are also not included in the calculation of AIC. The Company reports these measures on a gold ounces sold basis.

Orvana Consolidated	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Cash operating costs, all-in sustaining costs and all-in costs (by-product) (1) (in 000's)					
Total mining costs (sales based)	\$30,525	\$28,060	\$26,272	\$58,585	\$50,628
Deductions, refining, treatment, penalties, freight & other costs	3,825	3,545	3,637	7,370	8,079
Sub-total - other operating costs	\$3,825	\$3,545	\$3,637	\$7,370	\$8,079
Copper sales - gross revenue value	(6,500)	(8,436)	(7,612)	(14,936)	(16,955)
Silver sales - gross revenue value	(965)	(1,187)	(1,653)	(2,152)	(3,552)
Other by-product gross revenue value	-	-	(21)	-	(43)
Sub-total by-product revenue	(\$7,465)	(\$9,623)	(\$9,286)	(\$17,088)	(\$20,550)
Cash operating costs	\$26,885	\$21,982	\$20,623	\$48,867	\$38,157
Corporate general & administrative costs	1,484	1,161	761	2,645	1,480
Community costs related to current operations	508	457	133	965	319
Reclamation, accretion & amortization	424	398	511	822	1,030
Exploration and study costs (sustaining)	101	23	117	124	182
Primary development (sustaining)	896	733	1,107	1,629	2,233
Other sustaining capital expenditures (2) (3)	3,064	2,798	1,968	5,862	5,961
All-in sustaining costs	\$33,362	\$27,552	\$25,220	\$60,914	\$49,362
Exploration and study costs (non-sustaining)	886	714	-	1,600	-
Capital expenditures (non-sustaining) (3)	1,116	2,388	649	3,504	3,711
All-in costs	\$35,364	\$30,654	\$25,869	\$66,018	\$53,073
Au/oz sold	25,489	21,995	20,773	47,484	34,710
Cash operating costs (\$/oz) gold	\$1,055	\$999	\$993	\$1,029	\$1,099
All-in sustaining costs (\$/oz) gold	\$1,309	\$1,253	\$1,214	\$1,283	\$1,422
All-in costs (\$/oz) gold	\$1,309	\$1,394	\$1,245	\$1,390	\$1,529

<sup>(1)</sup> Costs are reported per ounce of gold sold in the period.

<sup>(2)</sup> Sustaining capital expenditures are those expenditures which do not increase annual gold ounce production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

<sup>(3)</sup> Capital expenditures include unpaid capital expenditures incurred in the period.

The following table provides a reconciliation of COC, AISC and AIC (by-product) per ounce of gold sold for EI Valle for the periods set out below:

El Valle	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Cash operating costs, all-in sustaining costs and all-in costs (by-product) (in 000's)					
Total mining costs	\$17,780	\$16,297	\$17,232	\$34,077	\$33,049
Deductions, refining, treatment, penalties,					
freight & other costs	2,005	1,547	2,112	3,552	3,258
Sub-total - other operating costs	\$2,005	\$1,547	\$2,112	\$3,552	\$3,258
Copper sales - gross revenue value	(3,294)	(2,479)	(3,645)	(5,773)	(5,725)
Silver sales - gross revenue value	(612)	(810)	(856)	(1,422)	(1,264)
Sub-total by-product revenue	(\$3,906)	(\$3,289)	(\$4,501)	(\$7,195)	(\$6,989)
Cash operating costs	\$15,879	\$14,555	\$14,843	\$30,434	\$29,318
Corporate general & administrative costs	625	625	625	1,250	1,250
Reclamation, accretion & amortization	281	254	396	535	752
Exploration and study costs (sustaining)	37	23	11	60	31
Primary development (sustaining)	896	733	1,107	1,629	2,233
Other sustaining capital expenditures (2) (3)	1,004	1,968	1,145	2,972	3,444
All-in sustaining costs	\$18,722	\$18,158	\$18,127	\$36,880	\$37,028
All-in costs	\$18,722	\$18,158	\$18,127	\$36,880	\$37,028
Au/oz sold	13,805	10,198	12,218	24,003	21,046
Cash operating costs (\$/oz) gold	\$1,150	\$1,427	\$1,215	\$1,268	\$1,393
All-in sustaining costs (\$/oz) gold	\$1,356	\$1,781	\$1,484	\$1,536	\$1,759
All-in costs (\$/oz) gold	\$1,356	\$1,781	\$1,484	\$1,536	\$1,759

<sup>(1)</sup> Costs are reported per ounce of gold sold in the period.

The following table provides a reconciliation of COC, AISC and AIC (by-product) per ounce of gold sold for Don Mario for the periods set out below:

Don Mario Mine	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Cash operating costs, all-in sustaining costs and all-in costs (by-product) (in 000's)					
Total mining costs	\$12,745	\$11,763	\$9,040	\$24,508	\$17,579
Deductions, refining, treatment, penalties,					
freight & other costs	1,820	1,998	1,525	3,818	4,821
Sub-total - other operating costs	\$1,820	\$1,998	\$1,525	\$3,818	\$4,821
Copper sales – gross revenue value	(3,206)	(5,957)	(3,967)	(9,163)	(11,230)
Silver sales – gross revenue value	(353)	(377)	(797)	(730)	(2,288)
Other by-product gross revenue value	-	-	(21)	-	(43)
Sub-total by-product revenue	(\$3,559)	(\$6,334)	(\$4,785)	(\$9,893)	(\$13,561)
Cash Operating Costs	\$11,006	\$7,427	\$5,780	\$18,433	\$8,839
Corporate general & administrative costs	59	22	195	81	403
Community costs related to current operations	508	457	133	965	319
Reclamation, accretion & amortization	143	144	115	287	278
Capital expenditures (sustaining) (2)(3)	2,060	830	823	2,890	2,517
Exploration and study costs (sustaining)	-	-	106	-	151
All-in sustaining costs	\$13,776	\$8,880	\$7,152	\$22,656	\$12,507
Capital expenditures (non-sustaining)	886	2,388	649	1,600	3,711

<sup>(2)</sup> Sustaining capital expenditures are those expenditures which do not increase annual gold ounce production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

<sup>(3)</sup> Capital expenditures include unpaid capital expenditures incurred in the period.

Don Mario Mine	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Exploration and study costs (non-sustaining)	1,116	714	-	3,504	-
All-in costs	\$15,778	\$11,982	\$7,801	\$27,760	\$16,218
Au/oz sold	11,684	11,797	8,555	23,481	13,664
Cash operating costs (\$/oz) gold	\$942	\$630	\$676	\$785	\$647
All-in sustaining costs (\$/oz) gold	\$1,179	\$753	\$836	\$965	\$915
All-in costs (\$/oz) gold	\$1,350	\$1,016	\$912	\$1,182	\$1,187

<sup>(1)</sup> Costs are reported per ounce of gold sold in the period.

# **EBITDA**

The Company has included Earnings before Interest, Taxes, Depreciation and Amortization ("EBITDA") as a non-IFRS performance measure in this MD&A. The Company excludes these items from net loss to provide a measure which allows the Company and investors to evaluate the results of the underlying core operations of the Company and its ability to generate cash flows. Accordingly, it is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

The following table provides a reconciliation of EBITDA to the Company's consolidated financial statement for their respective periods:

(in 000's)	Q2 2018	Q1 2018	Q2 2017	YTD 2018	YTD 2017
Net loss	(\$3,505)	(\$3,379)	(\$2,233)	(\$6,884)	(\$10,387)
Less:					
Finance costs	495	394	424	889	761
Income taxes	684	1,515	1,149	2,199	(323)
Depreciation and amortization	6,799	5,652	5,434	12,451	11,389
EBITDA	\$4,473	\$4,182	\$4,774	\$8,655	\$1,440

# Other Information

Other operating and financial information with respect to the Company, including the AIF, is available on SEDAR at www.sedar.com and on the Company's website at www.orvana.com.

# Cautionary Statements – Forward-Looking Information

Certain statements in this MD&A constitute forward-looking statements or forward-looking information within the meaning of applicable securities laws ("forward-looking statements"). Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, potentials, future events or performance (often, but not always, using words or phrases such as "believes", "expects", "plans", "estimates" or "intends" or stating that certain actions, events or results "may", "could", "would", "might", "will" or "are projected to" be taken or achieved) are not statements of historical fact, but are forward-looking statements.

The forward-looking statements herein relate to, among other things, Orvana's ability to achieve improvement in free cash flow; the potential to extend the mine life of El Valle and Don Mario beyond their current life-of-mine estimates including specifically, but not limited to in the case of Don Mario, the completion of the major tailings storage facility expansion, the mining of the Cerro Felix deposit, the processing of the mineral stockpiles and the reprocessing of the tailings material; Orvana's ability to optimize its assets to deliver shareholder value; the Company's ability to optimize productivity at Don Mario and El Valle; estimates of future production, operating costs and capital expenditures; mineral resource and reserve estimates; statements and information regarding future feasibility studies and their results; future transactions; future metal prices; the ability to achieve additional growth and geographic diversification; future financial performance, including the ability to increase cash flow and profits; future financing requirements; and mine development plans.

<sup>(2)</sup> Sustaining capital expenditures are those expenditures which do not increase annual gold ounce production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

<sup>(3)</sup> Capital expenditures includes unpaid capital expenditures incurred in the period.

Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The estimates and assumptions of the Company contained or incorporated by reference in this MD&A, which may prove to be incorrect, include, but are not limited to, the various assumptions set forth herein or as otherwise expressly incorporated herein by reference as well as: there being no significant disruptions affecting operations, whether due to labour disruptions, supply disruptions, power disruptions, damage to equipment or otherwise; permitting, development, operations, expansion and acquisitions at El Valle and Don Mario being consistent with the Company's current expectations; political developments in any jurisdiction in which the Company operates being consistent with its current expectations; certain price assumptions for gold, copper and silver; prices for key supplies being approximately consistent with current levels; production and cost of sales forecasts meeting expectations; the accuracy of the Company's current mineral reserve and mineral resource estimates; and labour and materials costs increasing on a basis consistent with Orvana's current expectations.

A variety of inherent risks, uncertainties and factors, many of which are beyond the Company's control, affect the operations, performance and results of the Company and its business, and could cause actual events or results to differ materially from estimated or anticipated events or results expressed or implied by forward looking statements. Some of these risks, uncertainties and factors include fluctuations in the price of gold, silver and copper; the need to recalculate estimates of resources based on actual production experience; the failure to achieve production estimates; variations in the grade of ore mined; variations in the cost of operations; the availability of qualified personnel; the Company's ability to obtain and maintain all necessary regulatory approvals and licenses; the Company's ability to use cyanide in its mining operations; risks generally associated with mineral exploration and development, including the Company's ability to continue to operate the El Valle and/or Don Mario and/or ability to resume long-term operations at the Carlés Mine; the Company's ability to acquire and develop mineral properties and to successfully integrate such acquisitions; the Company's ability to execute on its strategy; the Company's ability to obtain financing when required on terms that are acceptable to the Company; challenges to the Company's interests in its property and mineral rights; current, pending and proposed legislative or regulatory developments or changes in political, social or economic conditions in the countries in which the Company operates; general economic conditions worldwide; and the risks identified in the Company's AIF under the heading "Risks and Uncertainties". This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements and reference should also be made to the Company's AIF for a description of additional risk factors.

The forward-looking statements made in this MD&A with respect to the anticipated development and exploration of the Company's mineral projects are intended to provide an overview of management's expectations with respect to certain future activities of the Company and may not be appropriate for other purposes.

Forward-looking statements are based on management's current plans, estimates, projections, beliefs and opinions and, except as required by law, the Company does not undertake any obligation to update forward-looking statements should assumptions related to these plans, estimates, projections, beliefs and opinions change. Readers are cautioned not to put undue reliance on forward-looking statements.

## Cautionary Notes to Investors – Reserve and Resource Estimates

In accordance with applicable Canadian securities regulatory requirements, all mineral reserve and mineral resource estimates of the Company disclosed in this MD&A have been prepared as at September 30, 2017 in accordance with NI 43-101, classified in accordance with Canadian Institute of Mining Metallurgy and Petroleum's "CIM Standards on Mineral Resources and Reserves Definitions and Guidelines" (the "CIM Guidelines").

Pursuant to the CIM Guidelines, mineral resources have a higher degree of uncertainty than mineral reserves as to their existence as well as their economic and legal feasibility. Inferred mineral resources, when compared with measured or indicated mineral resources, have the least certainty as to their existence, and it cannot be assumed that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource as a result of continued exploration. Pursuant to NI 43-101, inferred mineral resources may not form the basis of any economic analysis, including any feasibility study.

Accordingly, readers are cautioned not to assume that all or any part of a mineral resource exists, will ever be converted into a mineral reserve, or is or will ever be economically or legally mineable or recovered.