

# Investing in our future

Precious Metals Summit - Beaver Creek, Colorado

September 18-20, 2017

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#### FORWARD LOOKING STATEMENTS

#### All monetary amounts in U.S. dollars unless otherwise stated.

Certain statements in this information 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 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.

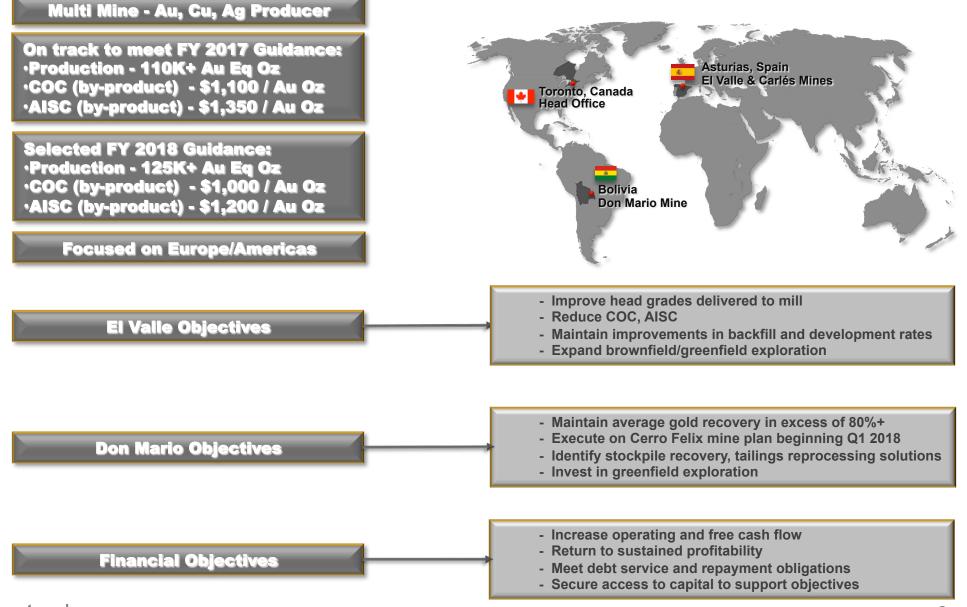
Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The estimates and assumptions of the Company contained or incorporated by reference in this information, which may prove to be incorrect, include, but are not limited to, the various assumptions set forth herein and in Orvana's most recently filed Management's Discussion & Analysis and Annual Information Form (the "Company Disclosures") 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 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 Disclosures. 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 Disclosures for a description of additional risk factors.

The forward-looking statements made in this information 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.

# ORVANA

### **INVESTMENT HIGHLIGHTS**



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All in US\$ unless otherwise noted

Ticker	TSX:ORV
Common Shares O/S	136.6M
Options / Warrants (09/08/17)	1.6M/0.6M
Stock Price (09/08/17)	C\$0.25
Market Capitalization (09/08/17)	C\$34.2M
3 Month Avg. Trading Volume	0.1M

ORV	Unrestricted Cash (06/30/17)	\$18.5M
6.6M	Total Debt (06/30/17)	\$17.4M
).6M	Fiscal Year End	Sept 30
0.25	Majority Shareholder (51.9%)	Fabulosa Mines Ltd.
4.2M		
) 1M		





#### SENIOR MANAGEMENT

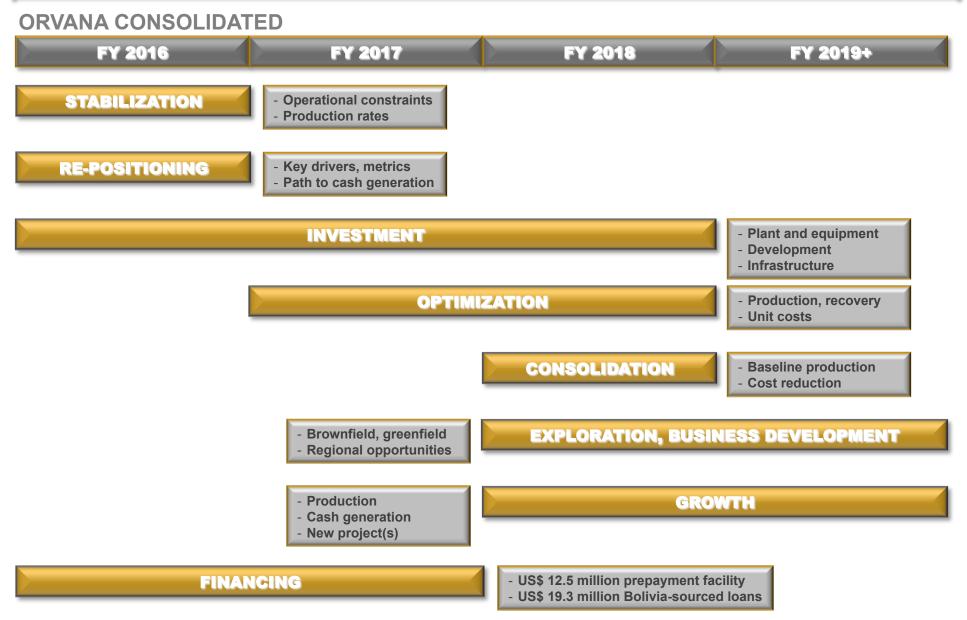
James Gilbert CEO & Chairman	<ul> <li>Over 25 years mining sector experience. Chief Investment Officer of Minera S.A., Partner in Global Energy Metals Corp, Director of AQM Copper Inc. and Director and former President &amp; CEO of First Point Minerals Corp. Formerly President &amp; CEO of Minera S.A. Held senior positions with Gerald Metals, Rothschild and Coopers &amp; Lybrand.</li> </ul>
Jeffrey Hillis Chief Financial Officer	<ul> <li>Over 10 years senior management and mining financial experience. Executive roles including as CFO of Potash Ridge Corp., Iberian Minerals and Excellon Resources. Proven track record of debt and equity raising to support strategic plans.</li> </ul>
Juan Gavidia Vice President, Operations	<ul> <li>Over 20 years mining sector experience. Spearheaded business initiatives and provided operational support for international mining projects. Formerly worked as an independent consultant in relation to gold and copper projects in a variety of countries and held positions with Newmont Mining.</li> </ul>

#### DIRECTORS

Gordon Pridham Lead Independent Director	Over 25 years mining/finance sector experience. Principal of Edgewater Capital, Chairman of Newalta Corp and Director of Americas Silver. Former Director of Roxgold and a number of other boards. Held senior positions in a number of finance companies and has advised public companies across a broad range of industry sectors.
Alan Edwards	Over 35 years mining sector experience. President of AE Consulting, Chairman of AQM Copper, Director of Entrée Gold and Americas Silver Corp. Former CEO of Oracle Mining, President and CEO of Copper One. Has held a number of senior management positions for senior companies in the mining sector.
Ed Guimaraes	Over 25 years mining sector experience. CFO of Sierra Metals, Director of Aldridge Minerals. Formerly held senior management positions at Aur Resources.
George Darling	Over 30 years mining sector experience. Senior Mine Consultant and Regional Director of Hatch, a mining business and technical consulting company. Formerly held senior positions at a variety of international mining consulting companies. Has in-depth base of knowledge and extensive background in underground mining operations and project management.
Sara Magner	Over 15 years experience in corporate transactional, securities law. Corporate Counsel of Minera S.A. Formerly held positions at Greenberg Taurig and Siemens AG.
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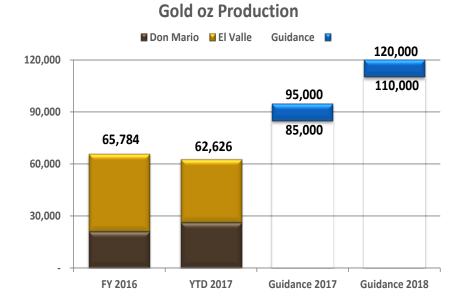


### STRATEGIC PLAN: KEY ELEMENTS

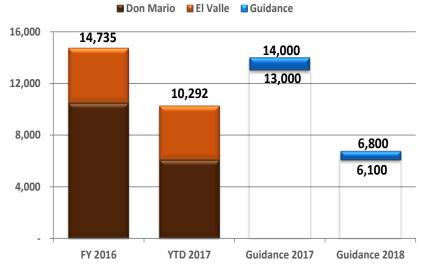




## **OPERATING PERFORMANCE / 2018 GUIDANCE**



#### Copper Ibs Production (thousands)



#### copper ins rioduction (thousands)

COC/AISC per Au/oz sold, By-product

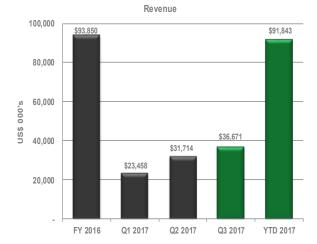
COC AISC Guidance

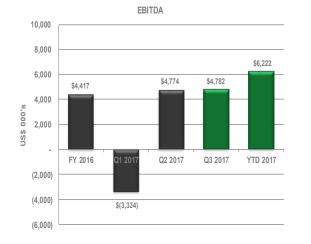


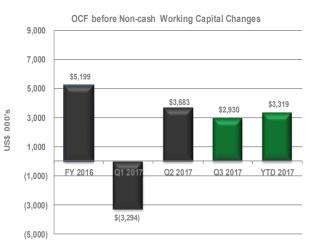
CAPEX Guidance	Low	High
FY 2017	\$27M	\$30M
FY 2018	\$24M	\$27M



**SELECTED FINANCIALS** 







Financial Performance (in 000's except /share amounts)	FY 2016	Q1 2017	Q2 2017	Q3 2017	YTD 2017
Revenue	\$93,850	\$23,458	\$31,714	\$36,671	\$91,843
Gross margin	(\$7,883)	(\$6,853)	\$8	(\$1,909)	(\$8,754)
EBITDA	\$4,417	(\$3,334)	\$4,774	\$4,782	\$6,222
Net loss	(\$8,455)	(\$8,154)	(\$2,233)	(\$3,446)	(\$13,833)
Net loss per share (basic/diluted)	(\$0.06)	(\$0.06)	(\$0.02)	(\$0.03)	(\$0.10)
Capital expenditures	\$14,977	\$7,719	\$4,501	\$3,294	\$15,514

Refer to Orvana's financial statements and MD&A for complete financial information.



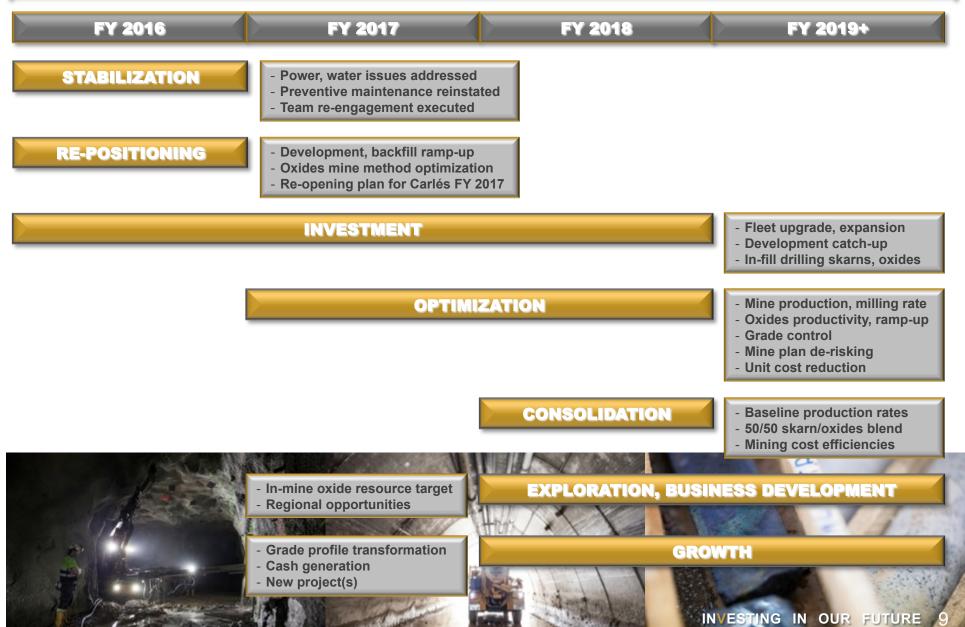
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#### **SPAIN: EL VALLE MINE**

#### Gijon 🗡 El Valle Au, Cu, Ag **SPAIN EL VALLE UNDERGROUND MINE OVERVIEW** 100% Ownership FY 2016 Au / Cu Production 44,682 Au oz / 4.3M Cu lbs 36,345 Au oz / 4.2M Cu lbs YTD 2017 Au / Cu Production 65 - 72,000 Au oz / 4.1 - 4.5M Cu lbs Guidance - 2018 - 2017 50 - 55,000 Au oz / 6.0 - 6.5M Cu lbs FY 2016 COC / AISC \$1,172 / \$1,468 oz Au YTD 2017 COC / AISC \$1,282 / \$1,609 oz Au **YTD 2017 Plant Recoveries** 91.6% Au / 74.9% Cu **Plant Capacity** 2,000 tpd INVESTING IN OUR FUTURE YTD 2017 Grade 2.39 g/t Au / 0.49% Cu 8

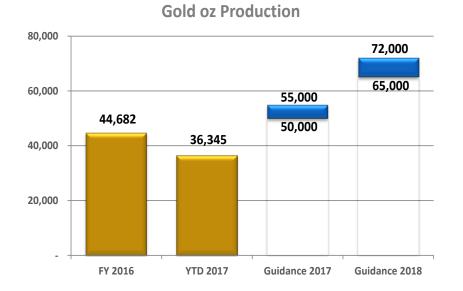
# OROVALLE DRVANA - ESPAÑA

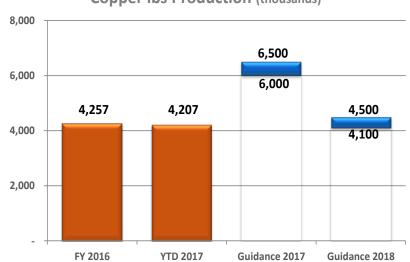
#### EL VALLE STRATEGIC PLAN





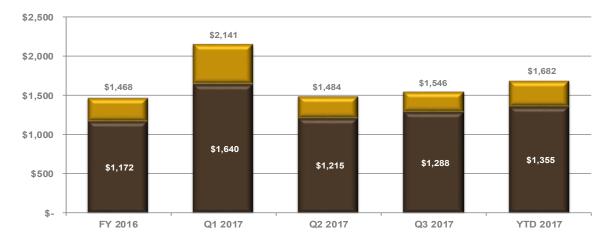
## **EL VALLE PRODUCTION / GUIDANCE / COSTS**





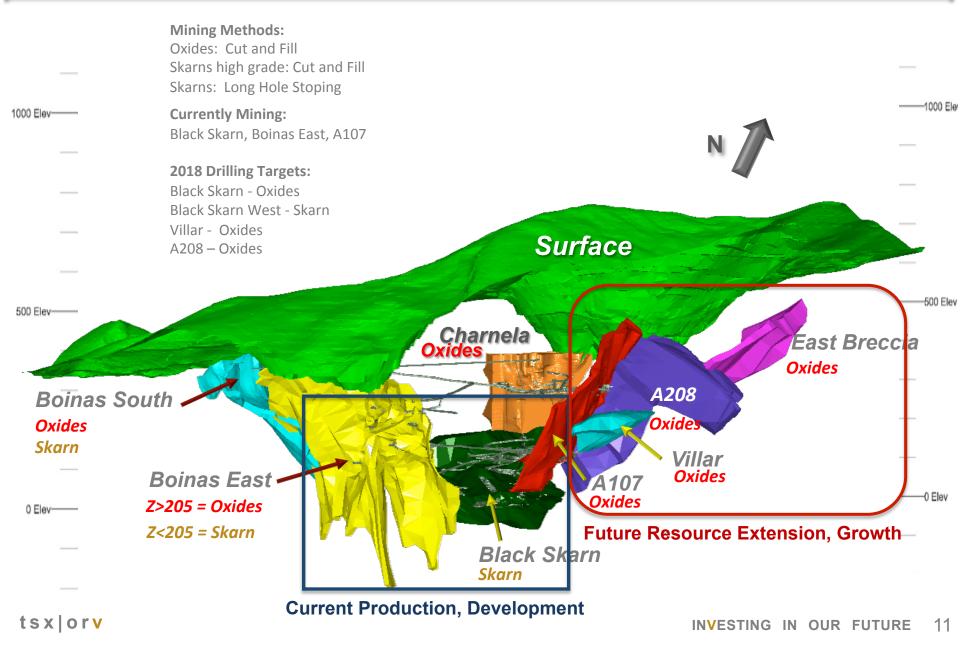
Copper lbs Production (thousands)

COC/AISC (By-Product) per oz Au Sold





#### **EL VALLE MINING AREA**





#### **BOLIVIA: DON MARIO MINE**

La Paz

Santa Cruz

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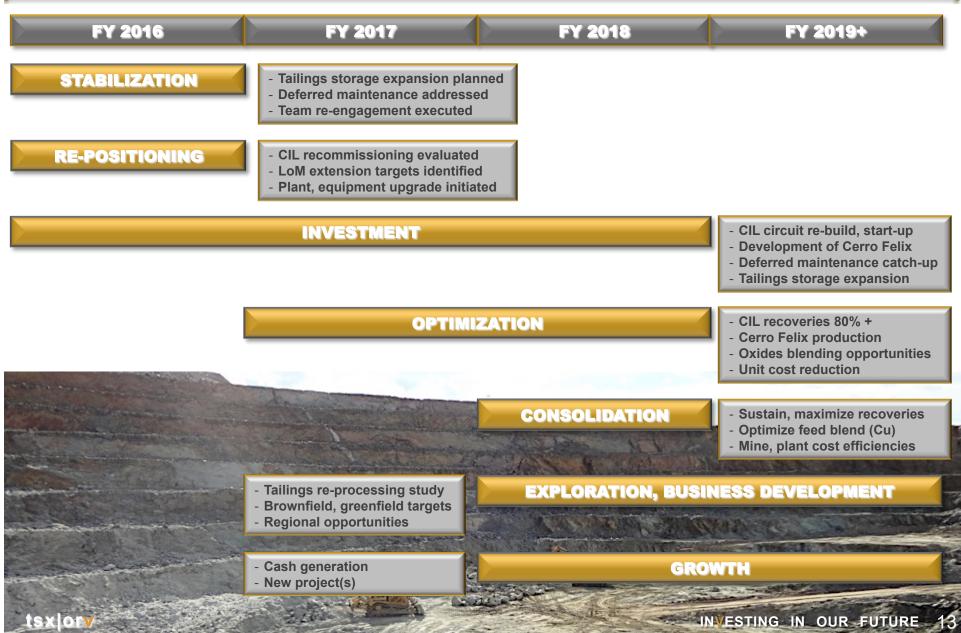
Arica

Don Mario Mine Au, Cu, Ag

DON MARIO OPEN PIT MINE OVERVIEW						
Ownership	100%					
FY 2016 Au / Cu Production YTD 2017 Au / Cu Production	21,102 Au oz / 10.5M Cu lbs 26,281 Au oz/ 6.1M Cu lbs					
Guidance - 2018 - 2017	45 – 48,000 Au oz / 2.0 – 2.3M Cu lbs 35 – 40,000 Au oz / 7.0 – 7.5M Cu lbs					
FY 2016 COC / AISC YTD 2017 COC / AISC	\$861 / \$1,248 oz Au \$712 / \$881 oz Au					
YTD 2017 Plant Recoveries	69.7% Au / 58.7% Cu					
Plant Capacity	2,600 tpd					
YTD 2017 Grade	2.28 g/t Au / 0.97% Cu					

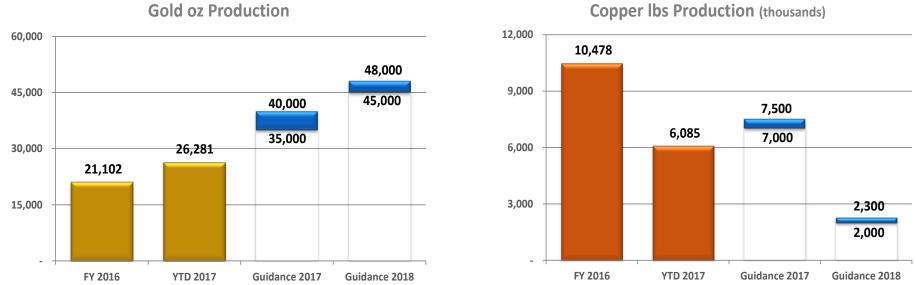


#### DON MARIO STRATEGIC PLAN



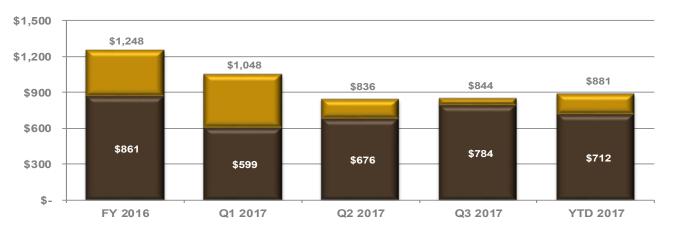


# **DON MARIO PRODUCTION / GUIDANCE / COSTS**



**Gold oz Production** 

Don Mario COC/AISC (By-Product) per oz Au Sold COC AISC





# DON MARIO GROWTH

#### Mine Life Extension Initiatives Cerro Felix Deposit

- Pre-stripping to commence Q1 2018
- Processing subsequent to depletion of LMZ

#### **Oxide Stockpiles**

- Metallurgical, economic studies underway
- Stockpile mineral resources (Measured):
  - 2.2M tonnes
  - Contained metal :
    - ✓ 129k oz Au, 96M lbs copper
    - ✓ Au 1.84 g/t / Cu 1.89% / Ag 49.30 g/t

#### **Tailings Re-processing**

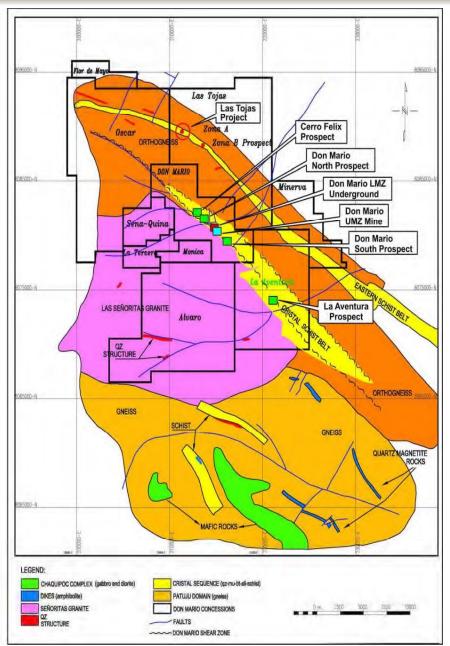
- Evaluation underway
  - Significant gold content; prior low gold recoveries

#### Las Tojas

Drilling program underway (34 holes, 4,000 meters)

#### **Greenfield Targets**

• Variety of greenfield targets within concessions



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# ORVANA

#### SUMMARY

Multi Mine Producer - Gold, Copper, Silver

**Focused on Europe/Americas** 

Organic Growth Don Mario: CIL completed, extending LoM El Valle: Production, development optimization Lowering unitary costs and increasing production profile

**PRODUCTION / COST GUIDANCE FY 2018** 

110 - 120K Au oz

6.1 - 6.8M Cu lbs

COC/AISC: \$950 - \$1,050 / \$1,150 - \$1,250

CAPEX: \$24M - \$27M



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# appendix



ORVANA CONSOLIDATED GUIDANCE			OROVALLE (El Valle Mine)			EMIPA (Don Mario Mine)			
2018 Guidance	Low	High	YTD 2017 Actual	Low	High	YTD 2017 Actual	Low	High	YTD 2017 Actual
Gold oz Production	110,000	120,000	62,626	65,000	72,000	36,345	45,000	48,000	26,281
Copper 000's Ibs Production	6,100	6,800	10,292	4,100	4,500	4,207	2,000	2,300	6,085
COC \$/oz Au (by-product) *	\$950	\$1,050	\$1,071						
AISC \$/oz Au (by-product) <sup>*</sup>	\$1,150	\$1,250	\$1,330						
Capital Expenditures	\$24 M	\$27 M	\$15.5 M						

\* 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.



#### **EL VALLE RESERVES & RESOURCES**

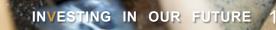
El Valle Mineral Reserve Estimates <sup>2</sup> – Sept. 30, 2016									
	Tonnes Grade Contained Metal								
Category	(000's)	s) Au Cu Ag Au Ounces (g/t) (%) (g/t) (000's)				Cu Tonnes (000`s)			
Total Proven Reserves	1,334	2.49	0.63	13.06	106.9	8.4			
Total Probable Reserves	1,231	314.130.398.98163.3		163.3	4.8				
Total P+P Reserves	2,565 3.28 0.52 11.10 270.2 13.2								

#### El Valle Mineral Resource Estimates<sup>1, 2</sup> – Sept. 30, 2016

	Tonnes	Grade			Contained Metal	
Category	(000's)	Au (g/t)	Cu (%)	Ag (g/t)	Au Ounces (000's)	Cu Tonnes (000's)
Total Measured Resources	3,267.7	3.04	0.69	15.24	318.9	22.6
Total Indicated Resources	3,542.3	4.95	0.49	9.96	564.3	17.5
Total M+I Resources	6,810.0	4.03	0.59	12.49	883.2	40.2
Total Inferred Resources	5,822.1	4.72	0.48	9.35	883.7	28.1

Mineral Resources are inclusive of Mineral Reserves.
 Notes to the Reserves & Resources can be found in the next slide of this presentation







Notes to the El Valle Mineral Reserve and Mineral Resource table:

•Mineral Reserves and Mineral Resources have been stated as at September 30, 2016.

•Mineral resources are estimated at gold equivalent ("AuEq") cut-off grades of 3.5 g/t for El Valle oxides, 2.1 g/t for El Valle skarns and 2.6 g/t for Carlés skarns. AuEq cut-offs are based on recent operating results for recoveries, off-site concentrate costs and on-site operating costs.

•Mineral resources are estimated using a long-term gold price of US\$1,350 per ounce; copper price of US\$2.50 per pound; and a silver price of US\$19 per ounce. A US\$/Euro exchange rate of 1/1.20 was used.

•Mineral resources are inclusive of mineral reserves.

•A crown pillar of 50 m is excluded from the mineral resource below El Valle open pit.

•A crown pillar of 42m is excluded from the mineral resource below El Valle East open pit.

•Unrecoverable material in exploited mining areas has been excluded from the mineral resource.

•Inferred mineral resources do not include inferred mineral resources at La Brueva.

•Mineral reserves are estimated using gold equivalent break-even cut-off grades by zone, consisting of 4.5 g/t AuEq for El Valle oxides, 2.6 g/t AuEq for El Valle skarns, and 2.7 g/t AuEq for Carlés longhole stoping. Gold equivalent cut-offs are based on recent operating results for recoveries, off-site concentrate costs and on-site operating costs.

•Mineral reserves are estimated using average long-term prices of US\$1,250 per ounce gold, US\$2.00 per lb copper, and US\$17.00 per ounce silver. A US \$/Euro exchange rate of 1/1.1 was used.

•A minimum mining width of 4 m was used.

•Certain incremental material (below break-even cut-off grade) was included in the estimated mineral reserves in order to maintain production levels.

•Mineral Resources and Mineral Reserves have been classified in accordance with Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards – For Mineral Resources and Mineral Reserves" adopted by the CIM Council in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"), as is required by Canadian securities regulatory authorities. In addition, while the terms "Measured", "Indicated and "Inferred" Mineral Resources are required pursuant to NI 43-101, the SEC does not recognize such terms. Canadian standards differ significantly from the requirements of the SEC, and mineral resource information contained herein is not comparable to similar information regarding mineral reserves disclosed in accordance with the requirements of the SEC. Investors should understand that "Inferred" Mineral Resources have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. In addition, investors are cautioned not to assume that any part or all of Orvana's Mineral Resources constitute or will be converted into Reserves.

•Mineral Reserve and Resource tonnage and contained metal have been rounded to reflect accuracy of the estimate, and numbers may not add due to rounding.

•The scientific and technical information contained in the El Valle reserve and resource estimates has been reviewed and approved (i) in respect of the estimated mineral reserves by Dave Duncan, Professional Mining Engineer of Canada, and (ii) in respect of the estimated mineral resources, by Guadalupe Collar Menéndez, European Geologist. Both D. Duncan and G. Collar are employees of OroValle and thus not independent of the company. Both D. Duncan and G. Collar are a Qualified Person within the meaning of NI 43-101.

•For more details regarding the Mineral Reserve and Mineral Resource estimates please refer to the company's fiscal year 2016 Annual Information Form ("AIF") filed on SEDAR.



### **DON MARIO RESERVES & RESOURCES**

In-Situ Don Mario Mineral Reserves & Mineral Resource Estimates <sup>1,2</sup> – Sept. 30, 2016								
	Tonnes		Grade			ed Metal		
Category	(000's)	Au (g/t)	Cu (%)	Ag (g/t)	Au Ounces (000's)	Cu Tonnes (t)		
Total Proven Reserves	51	1.35	1.10	30.70	2.2	563.1		
Total Probable Reserves	793	2.62	0.60	5.94	66.8	4,794.6		
Total P+P Reserves	844	2.54	0.63	7.43	69.0	5,357.7		
Total Measured Resources	51	1.35	1.10	30.70	2	563.1		
Total Indicated Resources	1,283	2.82	0.41	4.64	116.5	5,325.6		
Total M+I Resources	1,334	2.77	0.43	5.63	118.6	5,798.7		
Total Inferred Resources	80	3.14	0.14	3.21	8.1	112.0		

Mineral Resources are inclusive of Mineral Reserves and consist of UMZ, LMZ and Cerro Felix estimates.
 Notes to the Reserves & Resources can be found in the next slide of this presentation.





## **NOTES TO DON MARIO RESERVES & RESOURCES**

#### Notes to the Don Mario Mineral Reserve and Mineral Resource table:

Notes applicable to LMZ and Cerro Felix mineral resource estimates::

- An average block density factor of 2.89 was applied for both estimates.
- The resource estimate cut-off value of 0.70 g/t Au is reflective of open-pit mining methods and resource estimate values are bolded.
- Both resource estimates are based on validated core drilling program results and do not incorporate production sampling data.
- Contained copper tonnes were calculated from original resource statement pound values by the factor 2204.62lb/tonne.

Notes applicable to UMZ mineral resource estimates:

- Mineral Resources are estimated at a Cu equivalent cut-off grade of 0.85% for the UMZ.
- Mineral Resources are estimated using a long-term gold price of US\$1,300 per ounce, copper price of US\$3.00 per pound and a silver price of US\$18 per ounce. Notes applicable to all mineral resource estimates:
- Mineral resources are considered to have reasonable expectation for economic development by open-pit mining methods based on recent Don Mario open pit mine production history, resource amounts and metal grades, and current metal pricing.
- Mineral resources that are not mineral reserves do not have demonstrated economic viability. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred mineral resources as indicated or measured mineral resources; it is uncertain if further exploration will result in upgrading of inferred resources to indicated or measured status.
- Tonnes are rounded to nearest 10,000. Ounces are rounded to the nearest 1,000 and pounds are rounded to the nearest 10,000.
- Mineral Resources are inclusive of Mineral Reserves.
- Mineral Resources contained in stockpiles are exclusive of In-situ Mineral Resources.

Notes applicable to mineral reserve estimates:

- Mineral Reserves are estimated using copper equivalent cut-off grade of 1.0% CuEq for the UMZ and cut-off grade of 0.70g/t AU for the LMZ. Copper equivalent cut-offs were calculated using recent operating results for recoveries, off-site concentrate costs, and on-site operating costs.
- Mineral Reserves are estimated using average long-term prices of US\$1,100 per ounce gold, US\$2.75 per lb copper, and US\$16.50 per ounce silver.
- The mineral reserves at the LMZ have been based on processing by the CIL and flotation methods.
- Notes applicable to all mineral resource and mineral reserve estimates:
- Mineral reserves and mineral resources have been stated as at September 30, 2016 and consist of in-situ material for the UMZ, LMZ and Cerro Felix deposits.
- CIM definitions were followed.
- Numbers may not add due to rounding.
- Mineral Resources and Mineral Reserves have been classified in accordance with Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards For Mineral Resources and Mineral Reserves" adopted by the CIM Council in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"), as is required by Canadian securities regulatory authorities. In addition, while the terms "Measured", "Indicated and "Inferred" Mineral Resources are required pursuant to NI 43-101, the SEC does not recognize such terms. Canadian standards differ significantly from the requirements of the SEC, and mineral resource information contained herein is not comparable to similar information regarding mineral reserves disclosed in accordance with the requirements of the SEC. Investors should understand that "Inferred" Mineral Resources have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. In addition, investors are cautioned not to assume that any part or all of Orvana's Mineral Resources constitute or will be converted into Reserves.
- The scientific and technical information contained in the Don Mario reserve and resource estimates has been reviewed and approved by G. Zandonai, CP, of DGCS SA. DGCS SA is an independent mining consulting firm and Mr. Zandonai is a Qualified Person within the meaning of NI 43-101.
- For more details regarding the Mineral Reserve and Mineral Resource estimates please refer to the company's fiscal year 2016 Annual Information Form ("AIF") filed on SEDAR.



## **DON MARIO RESERVES & RESOURCES**

Stockpile Don Mario Mineral Reserves & Mineral Resource Estimates <sup>1,2</sup> – Sept. 30, 2016						
	Tonnes	Grade			Contained Metal	
Category	(000's)	Au (g/t)	Cu (%)	Ag (g/t)	Au Ounces (000's)	Cu Tonnes (t)
Total Proven Reserves	212	1.94	1.59	16.20	13.2	3,374.1
Total Probable Reserves	0	0	0	0	0	0
Total P+P Reserves	212	1.94	1.59	16.20	13.2	3,374.1
Total Measured Resources	2,184	1.84	1.89	49.30	129.0	41,282.6
Total Indicated Resources	0	0	0	0	0	0
Total M+I Resources	2,184	1.84	1.89	49.30	129.0	41,282.6

Mineral Resources are inclusive of Mineral Reserves.
 Notes to the Reserves & Resources can be found in the next slide of this presentation.



# ENTRA NOTES TO DON MARIO STOCKPILE RESERVES & RESOURCES

Notes to the Don Mario Mineral Stockpile Reserve and Mineral Resource table:

#### Notes to stockpile mineral resources:

•CIM definitions were followed for Mineral Resources and were prepared by G. Zandonai, a qualified person for the purposes of NI43-101, who is an employee of DGCS SA and is independent of the Company.

•Mineral resources contained in stockpiles are estimated at a Cu equivalent cut-off grade of 0.85% CuEq.

•Mineral resources are estimated using a long-term gold price of US\$1,300 per ounce, copper price of US\$3.00 per pound and a silver price of US\$18 per ounce.

•Mineral resources contained in stockpiles are exclusive of In-situ Mineral Resources. Mineral Resources that are not mineral reserves do not have demonstrated economic viability. The UMZ Oxide Stockpile resources are currently not economically viable to process through the gravity flotation plant.

•Numbers may not add due to rounding

Notes to stockpile mineral reserves:

•CIM definitions were followed for Mineral Resources and were prepared by G. Zandonai, a qualified person for the purposes of NI43-101, who is an employee of DGCS SA and is independent of the Company.

•Mineral Reserves are estimated using a copper equivalent cut-off grade of 1.0% CuEq. Copper equivalent cutoffs were calculated using recent operating results for recoveries, off-site concentrate costs, and on-site operating costs.

•Mineral Reserves are estimated using average long-term prices of US\$1,100 per ounce gold, US\$2.75 per lb copper, and US\$16.50 per ounce silver.

•Numbers may not add due to rounding.

UMZ stock for processing Flotation

•LMZ Stock for processing by CIL

# ORVANA



**Orvana Minerals Corp** 

170 University Avenue, Suite 900 Toronto, Ontario Canada M5H 3B3 T 416-369-6275 W orvana.com CONTACT: Jeffrey Hillis Chief Financial Officer jhillis@orvana.com

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