ORVANA MINERALS CORP.

ANNUAL INFORMATION FORM

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2020

December 29, 2020

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FORWARD-LOOKING STATEMENTS DISCLAIMER

Certain statements in this Annual Information Form (“AIF”) 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.

Forward-looking statements relate to, among other things, the potential impact of the COVID-19 on the Company’s business and operations, including its ability to continue operations; the Company’s ability to manage challenges presented by COVID-19; the accounting treatment of COVID-19 related matters; Orvana’s ability to prevent and/or mitigate the impact of COVID-19 and other infectious diseases at or near the Company's mines and support the sustainability of its business including through the development of crisis management plans, increasing stock levels for key supplies, monitoring of guidance from the medical community, and engagement with local communities and authorities; the Company’s ability to achieve improvement in free cash flow, the potential to extend the mine life of El Valle Mine (together with Carlés Mine, “El Valle”) in Spain and Don Mario Mine (“Don Mario”) in Bolivia beyond their current life-of-mine estimates, including specifically, but not limited to in the case of Don Mario, the processing of the mineral stockpiles and the reprocessing of the tailings material; the Company’s ability to close the acquisition of the Taguas licenses in Argentina; the Company’s ability to optimize its assets to deliver shareholder value; the Company’s ability to optimize productivity at El Valle and Don Mario; 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; mine development plans and closing the New Facility. Among other places, forward-looking statements are included in the section of this AIF headed “Description of the Business - Outlook”.

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 AIF, 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 El Valle and/or Don Mario; the ability of the Company to successfully transition operations in Don Mario, from open pit to processing stockpiles and tailings; 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; and general economic conditions worldwide. 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 section of this AIF headed "Risk Factors" for a description of additional risk factors.

The forward-looking statements made in this AIF 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 AIF have been prepared in accordance with NI 43-101 (as defined below), 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.

EXPLANATORY NOTES

In this AIF, references to "Orvana" or the "Company" mean Orvana Minerals Corp. and, unless the context requires otherwise, include the subsidiaries of Orvana. Unless otherwise noted herein, information in this AIF is presented as at September 30, 2020.

As at September 30, 2020, the last business day of the Company's fiscal 2020 year, the value of one Canadian dollar was 0.7497 in US dollars and the value of one Euro was 1.1708 in US dollars, according to the Bank of Canada and European Central Bank, respectively.

References in this AIF (i) to gold and silver in ounces mean fine troy ounces and are referred to as "ounces" or "oz", (ii) to copper are in pounds also referred to as "lb", (iii) to the "MD&A" are to the Company's Management's Discussion and Analysis dated December 1, 2020 in respect of the Company's fiscal year ended September 30, 2020 filed at www.sedar.com, and (iv) to NI 43-101 are to *National Instrument 43-101 – Standards of Disclosure for Mineral Projects*.

Documents Incorporated by Reference

The information provided in this AIF is supplemented by disclosure contained in the documents listed below which are incorporated by reference into this AIF. These documents must be read together with the AIF in order to provide full, true and plain disclosure of all material facts relating to Orvana. The documents listed below are not contained within or attached to this document. The documents may be accessed on SEDAR at www.sedar.com under the Company's profile. The NI 43-101 technical reports listed below and incorporated in this AIF relate to the reported reserves and resources of the Company's two material properties, namely El Valle (Spain) and Don Mario (Bolivia).

Document	**Report Date**	**Date Filed on SEDAR website**	**Document Category on the SEDAR website**
NI 43-101 Technical Report on the Orovalle Operation, Asturias, Spain (the "Orovalle 43-101 Report")	November 30, 2020	December 29, 2020	Technical Report
NI 43-101 Technical Report on the Don Mario Oxide Stockpile Project (the "Don Mario Oxide Stockpile 43-101 Report")	December 29, 2020	December 29, 2020	Technical Report

METAL PRICES TABLE

The following table sets forth the closing spot prices for gold, silver and copper as at September 30, 2020:

Metal	**Price in US Dollars**	**Price in Euros at 1.1708 (3)**
Gold per ounce (1)	$1,886.90	€1,611.63
Silver per ounce (1)	$23.725	€20.264
Copper per pound (2)	$3.00	€2.56

(1) For gold and silver spot prices, please refer to the London Bullion Market Association on www.lbma.org.uk.

(2) For copper spot price, please refer to the London Metal Exchange on www.lme.com.

(3) For exchange rate, please refer to the European Central Bank on www.ecb.europa.eu.

UNIT CONVERSION TABLE

The following table sets forth certain standard conversions between Standard Imperial units and the International System of Units (or metric units):

To Convert From	**To**	**Multiply By**
Grams	Ounces (troy)	0.03215
Kilograms	pounds	2.20462

CORPORATE STRUCTURE

Name, Address and Incorporation

The Company was formed by the amalgamation of Pan Orvana Resources Inc. (“Pan Orvana”) and New Kelore Mines Limited (“New Kelore”) pursuant to articles of amalgamation dated February 24, 1992 under the *Business Corporations Act* (Ontario) and an amalgamation agreement between such parties dated December 30, 1991. The name of the amalgamated company was Orvana Minerals Corp.

Pan Orvana was incorporated under the laws of the Province of British Columbia on March 27, 1987 under the name Orvana Resources Inc. and changed its name to Pan Orvana Resources Inc. on September 4, 1987. New Kelore was incorporated by Letters Patent pursuant to the laws of the Province of Ontario on May 9, 1945 under the name Kelwren Gold Mines Limited. In 1948, it changed its name by Supplementary Letters Patent to Kelore Mines Limited and on March 27, 1953, it further changed its name to New Kelore Mines Limited.

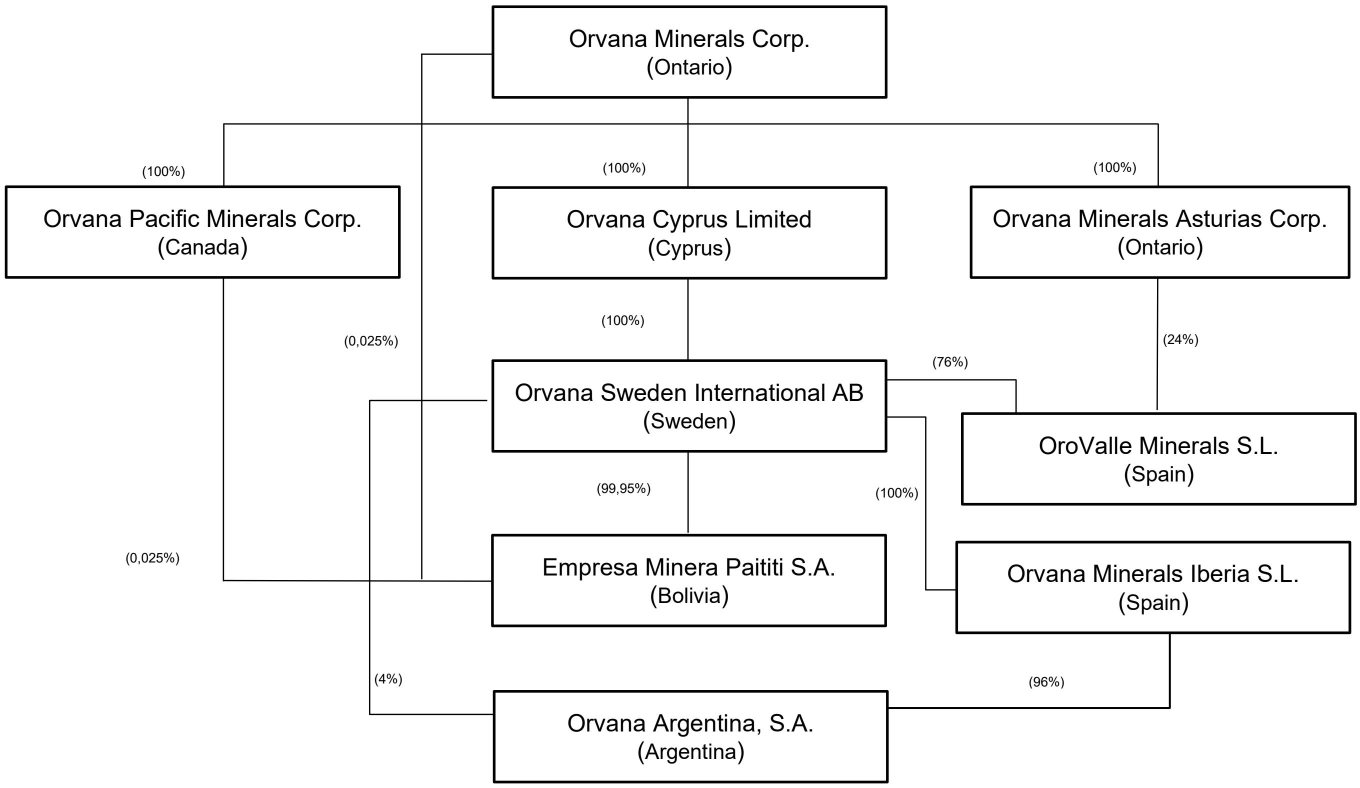
The registered and records office and the head office of the Company are located at 70 York Street, Suite 1710, Toronto, Ontario, Canada M5J 1S9.

The Company’s common shares (“Common Shares”) are listed on The Toronto Stock Exchange under the symbol TSX:ORV.

Intercorporate Relationships

Historically, Orvana has conducted its exploration, development and production activities in foreign jurisdictions through subsidiary companies incorporated in those jurisdictions. The Company's active subsidiaries and holding companies, all of which are wholly-owned, are as follows: (i) Canada: Orvana Pacific Minerals Corp.; (ii) Ontario: Orvana Minerals Asturias Corp.; (iii) Spain: Orovalle Minerals S.L. ("Orovalle") and Orvana Minerals Iberia, S.L.; (iv) Cyprus: Orvana Cyprus Limited; (v) Sweden: Orvana Sweden International AB; (vi) Bolivia: Empresa Minera Paititi S.A. ("EMIPA"); and (vii) Argentina: Orvana Argentina, S.A.

The inter-corporate relationships among Orvana and each of its active and holding subsidiaries are outlined in the diagram below. The diagram below also provides specific information on (i) the percentage of votes attaching to all voting securities of each subsidiary beneficially owned, controlled or directed by Orvana, which is the percentage of total securities owned of each such subsidiary, and (ii) the jurisdiction of incorporation or continuance, as the case may be, of Orvana and each of its subsidiaries (which is set out in parentheses)



Orvana has the following inactive subsidiaries: Minera Orvana Peru S.A, Clarendon Mining Limited, Minera Orvana S.A de CV in Peru, Jamaica, Mexico respectively

GENERAL DEVELOPMENT OF THE BUSINESS

Introduction

Orvana is a multi-mine gold-copper-silver producer with organic growth opportunities. Orvana's properties consist of:

1. El Valle and Carlés underground mines with their El Valle processing plant (collectively, "El Valle"), producer of copper concentrates and doré bars; located in Asturias, northern Spain; and
2. The Don Mario Mine Complex ("Don Mario"), a set of assets that includes Las Tojas ore body, and the previously mined out Lower Mineralized Zone ("LMZ"), Upper Mineralized Zone ("UMZ") and Cerro Felix mines, plus the processing facilities, which, as of September 30, 2020 is in care and maintenance.

Commercial production at El Valle commenced in August 2011. In fiscal 2020, Orvana completed its ninth full year of commercial production at El Valle Mine. Carlés Mine ("Carlés") was placed under care and maintenance during the second quarter of fiscal 2015 due to prevailing market conditions. Since 2016, the Company restarted mining activities at Carlés on four separate occasions on a short-term basis, the last one starting the last quarter of fiscal 2019, taking advantage of near surface mineralized tonnage. Carlés is expected to continue providing skarn material in the future.

At Don Mario, commercial production of the LMZ as an underground gold mine commenced in 2003. In 2011, production transitioned to open-pit mining of the UMZ. Commercial production of the UMZ ended in the first quarter of fiscal year 2017. 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. Mining of the LMZ deposit was completed and production began to ramp up from the Cerro Felix satellite deposit along the second quarter of fiscal 2018. Stripping activities were initiated 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 second quarter of fiscal 2018. During the fourth quarter of fiscal 2019, mining activities transitioned from Cerro Félix to open pit operations in Las Tojas. In the first quarter of fiscal 2020, the Company suspended mining operations at Las Tojas and placed Don Mario under care and maintenance. Since fiscal 2018, the Company has been evaluating metallurgical alternatives to process the oxide stockpile that has been accumulated from past mining activities and has recently concluded that a sulphidization circuit would maximize the value of the oxide stockpile. The development of the processing of the oxide stockpile remains subject to further technical and financial evaluation.

On May 14, 2019, the Company entered into a purchase agreement with Compañía Minera Taguas S.A. pursuant to which Orvana agreed to acquire the Taguas property ("Taguas") located in the Province of San Juan, Argentina. Taguas consists of 15 mining concessions over an area of 3,273.87 ha. It is located in the Province of San Juan, Argentina, on the eastern flank of the Andes, between 3,500 m to 4,300 m above sea level. On July 9, the Company filed a Preliminary Economic Assessment Report for the Taguas property. Closing of the acquisition of Taguas is subject to applicable local mining rights registrations and the final acceptance of the Toronto Stock Exchange. See "Transactions with Fabulosa Mines Limited - Related Party Transactions" below for further details.

Orvana's strategic focus is on initiatives and opportunities that deliver long-term shareholder value. In that regard, 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.

Three-Year History

Orovalle

During fiscal 2018, gold production was 58,259 ounces, 14% higher than previous year, primarily due to higher grades. Copper production decreased by 7% to 5.1 million pounds, primarily due to lower tonnes milled than the previous year. The Company restarted a sector of the Carlés Mine as a short-term project during the fourth quarter of fiscal 2018. Plant improvements were developed during fiscal 2018 in order to allow for the processing of a higher ratio of oxide ore. Metallurgical studies were conducted to reduce the buildup of in-process gold from the increase in oxide ore processed in the plant.

In fiscal 2019, the Company continued to target increasing oxide ore production as part of the initiatives to improve ore grade. During fiscal 2019, El Valle produced 64,327 ounces of gold and 5.0 million pounds of copper compared with 58,259 ounces of gold and 5.1 million pounds of copper during fiscal 2018. Gold production increased by 10%, primarily due to higher grades and tonnes milled. Copper production decreased by 2% primarily due to lower grades and recoveries, partially offset by higher tonnes milled.

Throughout fiscal 2019, the Company continued its plant improvements that were developed during fiscal 2018 in order to allow for the processing of a higher ratio of oxide ore. The Carlés short-term project that started in fiscal 2018 was completed in the second quarter of fiscal 2019. A new short-term project started in the fourth quarter of fiscal 2019, providing skarn until the beginning of fiscal 2020. Carlés is expected to continue to provide skarn in the future.

During fiscal 2020, gold production was 51,104 ounces, 21% lower than the previous year. Production decrease was due to a combination of 17% lower head grade and 4% lower throughput. Copper production was 5.6 million pounds, 12% higher than the previous year. Production increase was due to a combination of 10% and 6% higher head grade and recovery, partially off-set by 4% lower throughput.

Don Mario

During fiscal 2018, the Company initiated stripping activities at Cerro Felix and the transition of production from the LMZ to Cerro Felix was substantially completed in the second quarter. Mined ore from Cerro Felix benefited gold recovery results from the CIL circuit in fiscal 2018, exceeding the Company's expectations, due to its higher estimated gold grades with lower deleterious elements and demonstrated amenability to CIL processing.

During fiscal 2019, Don Mario produced 32,932 ounces of gold compared with 45,125 ounces of gold during fiscal 2018. Gold production decreased by 27% primarily due to the transition from mining LMZ and Cerro Felix satellite deposits during fiscal 2018 to mining Cerro Felix and Las Tojas deposits during fiscal 2019.

In the first quarter of fiscal 2020, the Company suspended mining operations at Las Tojas due to higher than expected mining dilution caused by narrow, erratic and discontinued mineralized structures, which resulted to be uneconomic. As a result of the suspension of mining operations, gold production in fiscal 2020 decreased at Don Mario to 2,317 ounces. A care and maintenance program was implemented at the end of first quarter of fiscal 2020. Critical areas of the program are: site security, environmental control, power generators maintenance, preventive maintenance of process plant, preventive maintenance of mine equipment and maintenance of camp facilities. A workforce restructuring program started in November 2019, with a reduction of 182 employees during fiscal 2020.

The UMZ deposit, depleted in 2017, generated during its mine life 2 million tonnes of mixed copper oxide stockpile (the "Oxide Stockpile"), with gold and silver grades. Since fiscal 2018, the Company was evaluating metallurgical alternatives to process the Oxides Stockpile, concluding that a sulphidization circuit would maximize the value of the stockpile. The Company plans the final evaluation of the Project in 2021, after completion of detailed engineering works, whose purpose is to de-risk technical CAPEX assumptions and sourcing costs. Subject to the favorable completion of technical, economic and funding analysis, the sulphidization circuit and ancillary facilities development is expected to require approximately twelve months to start the commercial production.

The following table includes consolidated operating and financial performance data for the Company for the periods set out below:

	FY2020	FY2019	FY2018
Operating Performance			
Gold			
Grade (g/t)	2.56	2.34	2.61
Recovery (%)	93.1	92.6	91.7
Production (oz)	53,421	97,259	103,384
Sales (oz)	55,344	96,540	102,018
Average realized price / oz	$1,647	$1,313	$1,281
Copper			
Grade (g/t)	0.45	0.45	0.60
Recovery (%)	80.8	76.3	65.9
Production (‘000 lbs)	5,611	5,015	8,233
Sales (‘000 lbs)	5,512	5,073	8,687
Average realized price / lb	$2.68	$2.77	$3.01
Financial Performance *(in 000’s, except per share amounts)*			
Revenue	$101,994	$136,400	$147,700
Mining costs	$82,240	$113,558	$120,946
Gross margin	($2,114)	($528)	$5,020
EBITDA (1)	$9,544	$18,065	$13,750
Net loss	($1,592)	($5,266)	(11,097)
Net loss per share (basic/diluted)	($0.01)	($0.04)	($0.08)
Operating cash flows before non-cash working capital changes (1)	$8,959	$18,312	$11,864
Operating cash flows	$11,435	$14,444	$1,800
Ending cash and cash equivalents	$15,572	$12,351	$11,634
Capital expenditures (2)	$8,681	$9,963	$19,613
Cash operating costs (by-product) ($/oz) gold (1) (3)	$1,278	$1,094	$1,021
All-in sustaining costs (by-product) ($/oz) gold (1) (3)	$1,582	$1,253	$1,259
All-in costs (by-product) ($/oz) gold (1) (3)	$1,614	$1,288	$1,358

(1) Earnings before interest, taxes, depreciation and amortization (“EBITDA”), operating cash flows before non-cash working capital changes, COC, AISC and AIC are non-IFRS performance measures.

(2) These amounts are presented in the consolidated cash flows in the audited consolidated financial statements of Orvana as at and for the year ended September 30, 2020 and related notes thereto (the “2020 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. The calculation of AISC and all-in costs (“AIC”) includes capex incurred (paid and unpaid) during the period.

(3) COC includes total production cash costs incurred. AISC includes COC plus sustaining capital expenditures, corporate administrative expense, exploration and evaluation costs, and reclamation cost accretion. AIC represents AISC plus non-sustaining capital expenditures, non-sustaining exploration and non-sustaining study costs. Certain other cash expenditures, including tax payments, debt payments, dividends and financing costs are not included in the calculation of AIC. The Company believes that COC plus AISC 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. The Company reports these measures on a gold ounces sold basis.

Orovalle

Through its wholly-owned subsidiary, Orovalle, the Company owns and operates its mines located in the Rio Narcea Gold Belt in northern Spain. At El Valle Mine, the Company mines sulphides (referred to hereinafter as “skarns”) and oxides underground. Since acquiring El Valle in 2009, the Company has hired essential personnel, rehabilitated the mill and plant, purchased or leased appropriate equipment, improved the stability of the tailings impoundment, and completed the sinking and subsequent upgrading of a 420-meter shaft to facilitate underground development and mining. The Company commissioned El Valle in May 2011 and advanced to commercial production in August 2011. At Carlés Mine, the Company mined skarns underground until February 2015 when the mine was placed on care and maintenance primarily due to market conditions. In the fourth quarter of fiscal 2016, mining activities restarted at Carlés Mine on a limited, short-term basis, that concluded late in fiscal 2017 and it was placed on care and maintenance. During the period between 2018 to 2020, the Company restarted again the activities at Carlés on two short-term projects. The Carlés Mine is expected to continue to deliver skarn material to El Valle in the future.

During fiscal 2020, the production from Orovalle of 51,104 ounces gold was 21% lower than the previous year, primarily due to 17% lower grade, 2% lower recoveries, and 5% lower tonnes milled. Production decrease was due to a combination of 17% lower head grade and 4% lower throughput. Gold head grade of 2.71 g/t, compared to 3.26 g/t reported in fiscal 2019. Copper production in fiscal 2020 was 5.6 million pounds, compared to 5.0 million pounds in fiscal 2019. Copper production increased by 12% primarily due to 10% higher grades and 6% higher recoveries. The ratio of oxides to skarns processed in the mill was at the level of 44% during fiscal 2020, slightly decreasing to 281,000 tonnes, compared to 43% and 282,000 tonnes during fiscal 2019.

Mechanical advance rates in oxide areas decreased by 6% to 7,499 meters during fiscal 2020, as compared to fiscal 2019.

In March 2020 the World Health Organization declared the COVID-19 outbreak to be a global pandemic. The situation remains dynamic with countries around the world responding in different ways to address the outbreak. The COVID-19 pandemic is causing significant financial market declines and social dislocation, globally.

Spain’s Government initially declared a lockdown on March 14, 2020, to contain the COVID-19 pandemic in Spain (the "Initial Lockdown"). The Initial Lockdown did not have a material impact on the Company's operations or logistics at its mining operations at El Valle. On March 29, 2020, Spain's Government passed new legislation extending and broadening the reach of the national lockdown (“Extended Lockdown Order”), including an order for all non-essential workers to stay at home until April 9, 2020. The Extended Lockdown Order halted all "non-essential" activities (which initially appeared to include extractive industries including mining) starting March 30, 2020. In compliance with the Extended Lockdown Order, the Company temporarily reduced its normal mining operations at El Valle to the minimum essential activities allowed under the Extended Lockdown Order.

On April 1, 2020, the Company was able to gradually re-start production activities at El Valle, after the Government passed clarifying rules allowing export industries to resume production where such production was subject to international contractual commitments. The Extended Lockdown Order expired on April 9, 2020 and the Initial Lockdown ended on June 21, 2020. During the fourth quarter of fiscal 2020, Spain entered in the so called “Second Wave” of the COVID-19 pandemic. National and Regional Governments implemented several rules to contain pandemic, focused on the reduction of the personal mobility and social interacting. The new rules were mainly focused on hospitality and commercial industries, and did not have a material impact on the Company's operations or logistics at its mining operations at El Valle. Production at El Valle has not experienced any significant disruption to product shipments since the onset of the COVID-19 pandemic in 2020.

At Orovalle, the Company made efforts to safeguard the health of its employees, while continuing to operate safely and responsibly maintain employment and economic activity. The Company continues to implement comprehensive and proactive measures to respond to the COVID-19 pandemic; and continues to work closely with local governments and authorities to ensure proper protocols are followed during the ongoing COVID-19 crisis.

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

More information about Orovalle is provided below under “Description of the Business - Principal Mineral Projects - Orovalle” and “Appendix B - Principal Mineral Projects - Orovalle”.

Don Mario

Through its wholly-owned subsidiary, EMIPA, the Company owns the Don Mario Operation, located in southeastern Bolivia, currently in care and maintenance.

During fiscal 2018, mining activities transitioned from the depleted LMZ to the open-pit Cerro Felix gold satellite deposit, and mine production increased to 856,018 tonnes, supported by the investments made into heavy equipment. Despite the grade reduction, gold production in fiscal 2018 increased to 45,125 ounces.

During fiscal 2019, production of 32,932 ounces gold at Don Mario was 27% lower than the previous year. Gold head grade was 1.51 g/t, compared to 2.16 g/t reported last year, with the decrease mainly due to lower ore grade on the last benches of Cerro Felix open pit. During the fourth quarter of fiscal 2019, mining activities transitioned from Cerro Félix to open pit operations in Las Tojas.

During fiscal 2020, Don Mario produced 2,317 ounces of gold compared with 32,932 ounces of gold during fiscal 2019. Gold production decreased by 93% primarily due to Don Mario being put temporarily under care and maintenance since the end of the first quarter of fiscal 2020 because of a higher than expected ore-grade operational mining dilution with more narrow, erratic and discontinued mineralized structures, which resulted in uneconomic unitary cost per ounce. A care and maintenance program was implemented at the end of first quarter of fiscal 2020. Critical areas of the program are: site security, environmental control, power generators maintenance, preventive maintenance of process plant, preventive maintenance of mine equipment and maintenance of camp facilities.

From fiscal 2018 the Company has been analyzing an economic way to treat its oxide stockpile accumulated from past mining activities (2 million tonnes, 1.85 g/t Au and 1.89% Cu), the Oxide Stockpile Project (“OSP”), concluding in fiscal 2020 that a sulphidization circuit would maximize the value of the stockpile. The Company plans to complete the final evaluation of the OSP by the end of the third quarter of fiscal 2021 (the Company’s fiscal year 2021 runs from October 2020 to September 2021), after completion of detailed engineering works; whose purpose is to de-risk technical CAPEX assumptions and sourcing costs. Subject to the favorable completion of technical, economic and funding analysis, the sulphidization circuit and ancillary facilities development is expected to require approximately twelve months to start the commercial production. The OSP is expected to provide three full production years for Don Mario.

In order to maximize the exploration potential of the 53,325 hectares available at Don Mario, the Company is reviewing all the historical exploration data and defining exploration targets for the short and medium terms, prioritizing geophysics updates.

An evaluation of re-processing tailings is in progress to determine the viability of recovering gold from material deposited in the tailings impoundment since the commencement of production at Don Mario. The Company targets the completion of the scoping study by the end of fiscal 2021.

More information about Don Mario is provided below under “Description of the Business - Principal Mineral Projects - Don Mario” and “Appendix B - Principal Mineral Projects - Don Mario”.

Taguas

In connection with the closing of the acquisition of Taguas, the Company is in the process of completing the required paperwork and registrations in Argentina (including the rights transfer registration and the TSX final acceptance). The delay in this process is due to COVID-19 related travel and business activity restrictions currently in force in Argentina. Subject to the resolution of the COVID-19 situation, the Company expects to complete the process during fiscal 2021.

Concurrent with the closing process described above, the Company is analyzing all the historic exploration data, using AI, to enhance target definition, and preparing a new structural analysis of the area, in order to optimize the definition of the next drilling phase. The drilling program will be defined to potentially expand the current resources and to support the potential upgrade in mineral resource confidence categories.

Changes in Board of Directors and Management

During fiscal 2020 there have not been any changes in the board of directors and management of the Company.

At the Company's annual and special shareholders' meeting held on March 5, 2020, the following members of the board of directors of the Company were re-elected: George Darling, Alan Edwards, Alfredo Garcia Gonzalez, Edmundo Guimaraes, Sara Magner and Gordon Pridham. On March 5, 2020, the board of directors of the Company re-appointed Mr. Juan Gavidia as its Chief Executive Officer and Ms. Nuria Menendez as its Chief Financial Officer.

Financing

Orovalle Revolving Facilities

In July 2019, Orovalle renewed a revolving credit facility with Banco Santander S.A. for an amount of €1,5 million for a one-year term bearing an annual rate of Euribor plus 2.27%. The credit facility is secured by Orovalle's VAT receivable from the Spanish government. In July 2020, this revolving credit facility was closed.

In January 2020, Orovalle renewed a revolving credit facility with Bankinter S.A. ("Bankinter") for an amount of €1 million, for a three-month renewable term and bearing no interest. An administration fee is charged for each renewal. Under the terms of the agreement, all or part of the financing received must be used for the remittance of payroll tax, VAT and corporate taxes to the Spanish tax agency with payment being processed through the Bankinter account. No security is required to be posted for this facility. As at September 30, 2020, this revolving facility has been closed.

In May 2020, Orovalle obtained a new revolving credit facility with Bankinter for an amount of €1.5 Million for a yearly renewable term, and bearing an annual interest of 1.95%. As of September, 30, 2020 this account has a balance of approximately $1.2 Million.

In June 2020, Orovalle renewed a revolving credit facility with Bankia S.A. ("Bankia") for an amount of €1.5 Million.

BISA TSF Loan, Heavy equipment Loan and Revolving Facility

In June 2017, EMIPA closed with Bisa Bank a loan denominated in Bolivian currency, of approximately $11.3 million, 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 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 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 TSF Loan has an interest rate of 5.3% per annum, with twelve quarterly repayments beginning in April 2018. As at September 30, 2020, $8.3 million were drawn down this facility and $6.2 million of principal were repaid.

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. As at September 30, 2020, the proceeds received ($2.0 million) have been fully repaid, leaving a nil outstanding balance.

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

In May 2018, EMIPA obtained a Bolivian loan with BISA of $2.4 million for heavy equipment purchases. This loan has thirty six equal monthly repayments, and an interest rate of 5.5% per annum. Security for the loan includes heavy equipment purchased. At September 30, 2020, the total amount was drawn from this loan and $1.7 million of principal were paid.

On April 1, 2020, the Bolivian Government issued Law 1294 Exceptional law of deferral of debt payments and temporary reduction of the payment of basic services allowing entities incorporated under the laws of Bolivia to reschedule debt repayments of principal and interests with a due date between April1, 2020 and the end of quarantine of COVID-19. On August 26, 2020 the Bolivian Government issued Law 1319, clarifying that the extension of the automatic deferral of repayments (principals and interests) will continue until December 31, 2020. EMIPA, based on Laws 1294 and 1319, deferred several installments of TSF and Heavy Equipment Loans due between April and December 2020, maintaining the remaining installments according to the existing terms of the loan agreements. This resulted in $0.9 Million deferred from fiscal 2020 to fiscal 2021. Interest will apply for the deferred periods at the originally agreed interest rate of 5.3% and 5.5%.

Restructuring Loan

In February 2020, EMIPA entered into a Bs.20,880,000 ($3.0 million) term facility with BISA in Bolivia, the proceeds of which were used to pay severances regarding restructuring process. The BISA Restructuring Loan bears an interest rate of 6% per annum and matures in February 2021 with repayment of the full amount and the accrued interests on the due date. Security for the BISA Restructuring Loan is tied to certain specific equipment that is currently under care and maintenance.

As at September 30, 2020, the full amount of the loan was drawn down and no repayments have been made.

Banco de Crédito Loan

In May 2019, EMIPA entered into a Bs.3,430,000 (approximately $493,000) term facility with Banco de Crédito in Bolivia. This loan bore an interest rate of 6% per annum. Initially it matured in August 2019, but a renewal was negotiated to extend the maturity date to January 2020, with a single repayment installment (jointly with the interests). As at September 30, 2020 EMIPA has fully repaid this loan.

Oxide Stockpile Project Facility

In February 2020, BISA approved a Bs.54,288,000 ($7.8 Million) facility to partially finance the Oxides Project. As at September 30, 2020, the administrative process to close the transaction was completed, and the funds will be gradually available according to the terms agreed in the financing contract.

Spanish banking facility

In January 2019 Orovalle closed a syndicated credit facility for a total amount of €6 million (in USD, $ 6,741). These funds were used to repay the Samsung Prepayment Facility. In May 2019, Orovalle increased the facility by €2 million, achieving a total aggregated amount of €8 million (approximately $ 9 million), with the same terms and conditions.

This facility is subject to a 2% bank opening commission fee, bears a fixed annual interest rate of 2.55%, semi-annual principal repayments and semi-annual interest payments over a term of four years. The Company's obligations to the lenders are secured by: (i) the pledge of all of Orvana's shares of Orovalle; (ii) the pledge of Orovalle's doré sale proceeds; and (iii) 12,5% restricted cash.

Amongst the obligations, Orovalle is required to comply with net finance debt to EBITDA proforma financial covenant calculated based on individual financial information. This resulting rate must be lower than 3.5 for fiscal 2020, and lower than 3 and 2 for fiscal 2021 and 2022, respectively. At September 30, 2020, Orovalle is in compliance with the Spanish Banking Facility covenants.

During fiscal 2019 Orovalle made principal repayments of €1 million (approximately $1.3 million), and during fiscal 2020 made principal repayments of €2 million ($2.3 million). The interests paid during fiscal 2020 were $197- (during fiscal 2019 $99). During the year ended September 30, 2020 the value of this liability increased by $93 due to: amortized cost adjustments ($23) and deferred finance fees accrued ($70).

As of September, 30 2020 the restricted cash linked to this financing is $1,6 million, representing 25% of the remaining principal (increased from 12.5% after a waiver signed with the bank entities to increase the intercompany transfers limit included as a covenant of the financing).

Bankinter Loan

On August 23, 2019, Orovalle entered into a new short-term loan with Bankinter. The principal amounted to approximately $420,000 and it bears a fixed annual interest rate of 1.5%. This loan matures on September 2020. During fiscal 2020 the company fully repaid this loan.

COVID-19 Related Financing

As part of the Spanish national program to mitigate economic impacts caused by the COVID-19 pandemic, the Spanish Government offered guaranteed lines to the Spanish banking sector through the Official Credit Institute "ICO", to facilitate companies to access funding. In the second half of fiscal 2020 Orovalle obtained several loans and revolving facilities for an amount of €5.6 Million.

Transactions with Fabulosa Mines Limited - Related Party Transactions

Current Ownership Interest

As at the date of this AIF, Fabulosa Mines Limited ("Fabulosa") holds 70,915,027 Common Shares, representing 51.9% of the currently outstanding Common Shares. Fabulosa does not hold any other securities of the Company as at the date of this AIF.

Agreement to Acquire the Taguas Property

On May 14, 2019, the Company entered into a purchase agreement with Compañía Minera Taguas S.A. (the "Vendor") pursuant to which Orvana agreed to acquire the Taguas property located in the Province of San Juan, Argentina. In consideration for 100% of Taguas, Orvana will grant the Vendor an indivisible net smelter royalty equal to 2.5% on all future metals production mined from Taguas.

Taguas consists of 15 mining concessions over an area of 3,273.87 ha. It is located in the Province of San Juan, Argentina, on the eastern flank of the Andes, between 3,500 m to 4,300 m above sea level. The Property is approximately 25km north of Barrick's Veladero operations.

Pursuant to Multilateral Instrument 61-101 – Protection of Minority Security Holders in Special Transactions ("MI 61-101"), entering into the Purchase Agreement with the Vendor is a "related party transaction" as the Vendor is indirectly owned by Orvana's 51.9% shareholder. The Company is exempt from the requirements to obtain a formal valuation or minority shareholder approval in connection with the transaction contemplated by the Purchase Agreement by virtue of sections 5.5(a) and 5.7(a), respectively, of MI 61-101, as neither the fair market value of the subject matter of the Purchase Agreement, nor the fair market value of the consideration for Taguas exceeds 25% of the Company's market capitalization as calculated in accordance with MI 61-101. The purchase agreement was considered and unanimously approved by the board of directors of the Company. Ms. Sara Magner abstained from voting on this matter.

Orvana Argentina, S.A. was incorporated on December 9, 2020 as a subsidiary of the Company to facilitate the purchase of the Taguas property. As at the date of this AIF, the Company is in the process of completing the necessary paperwork with the Vendor to transfer the Taguas property to Orvana Argentina, S.A. The Toronto Stock Exchange ("TSX") has provided conditional acceptance of Orvana's notice of the transaction, pursuant to the TSX Company Manual. Closing of the transaction is subject to the final acceptance of the TSX and a number of closing conditions including, without limitation, completion of applicable local mining rights registration.

The Company filed on July 9, 2019 a NI 43-101 preliminary economic assessment report on Taguas, which is available on www.sedar.com

DESCRIPTION OF THE BUSINESS

Principal Mineral Projects

The Company has two material properties described below. To satisfy the reporting requirements of National Instrument 51-102F2 with respect to the Company's material mineral projects, the Company has opted, as permitted by the Instrument, to reproduce the summaries from the technical reports on the respective material properties and to incorporate by reference each such technical report into this AIF. The reproduction of the summaries of the respective properties are set out at Appendix B – Principal Mineral Projects.

Orovalle

The following table includes consolidated operating and financial performance data for Orovalle for the periods set out below:

	FY2020	FY2019	FY2018
Operating Performance			
Ore mined (tonnes) (wmt)	677,894	713,818	647,852
Ore milled (tonnes) (dmt)	633,765	658,046	623,137
Daily average throughput (dmt)	1,823	1,898	1,830
Gold			
Grade (g/t)	2.71	3.26	3.13
Recovery (%)	92.7	93.2	92.9
Production (oz)	51,104	64,327	58,259
Sales (oz)	52,457	62,249	56,136
Copper			
Grade (%)	0.50	0.45	0.47
Recovery (%)	80.8	76.3	80.1
Production ('000 lbs)	5,611	5,015	5,123
Sales ('000 lbs)	5,512	5,073	4,901
Financial Performance *(in 000's, except per share amounts)*			
Revenue	$97,569	$91,115	$81,054
Mining costs	$69,128	$70,006	$72,722
Loss before income tax	($1,440)	$2,234	($9,390)
Capital expenditures	$10,371	$8,689	$5,736
Cash operating costs (by-product) ($/oz) gold (1)	$1,151	$1,004	$1,129
All-in sustaining costs (by-product) ($/oz) gold (1)	$1,385	$1,185	$1,331
All-in costs (by-product) ($/oz) gold (1)	$1,387	$1,190	$1,331

(1) COC includes total production cash costs incurred. AISC includes COC plus sustaining capital expenditures, corporate administrative expense, exploration and evaluation costs, and reclamation cost accretion. 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.

During fiscal 2020, Orovalle produced 51,104 ounces of gold and 5.6 million pounds of copper compared with 64,327 ounces of gold and 5.0 million pounds of copper during fiscal 2019. Gold production decreased by 21%, primarily due to 17% lower grade and 4% lower tonnes milled. Copper production increased by 12% primarily due to 10% higher grades and 6% higher recoveries. Mechanical advance rates in oxide areas decreased by 6% to 7,499 meters during fiscal 2020, as compared to fiscal 2019 meters

During the first quarter of fiscal 2020, Orovalle and its workers' legal representatives signed a new Collective Bargaining Agreement (the "CBA"), effective from January 1, 2020 to the later of December 31, 2022 or until the next CBA becomes effective. The CBA regulates labour conditions and includes regulations related to risk prevention, salaries and working hours. The CBA also strengthens the position of the mining safety officer present at all mining facilities and also focuses on employee training and diversity as key objectives.

Exploration

The Resources Estimate includes the drill hole information up to June 30, 2020. At the end of fiscal 2020, historical drilling within Orovalle's mining rights area totaled approximately 484,351 meters in 4,696 holes, of which Orovalle drilled approximately 220,632 meters in 1,601 holes. In fiscal 2020, El Valle completed 20,664 meters of infill definition and exploration diamond drilling over 125 drill holes and 2,367 meters were completed in Carles in one borehole plus 3 wedges. Practically the entire drilling program in El Valle was executed in oxides zones during FY2020.

15,648 mts were completed in Area 208 (52%), Area 107 (17%), High Angle (11%), S107 (9%), Villar zone (7%), El Valle Fault (3%) to convert Inferred resources into Measured and Indicated category in oxides areas. 343 mts were drilled in skarn areas with the same purpose, Boinas East (73%) and Black Skarn (27%). 4,673 meters were focused on defining new resources in High Angle East (89%), Area 208 (8%) and Boinas East (3%). 2,367 meters were completed in greenfield at Carles deposit in a deep hole with 3 wedges.

Most of the infill drilling program was executed in Area 208. 8,195 meters were completed to define this oxide structure located at the north of Area 107 to have a better understanding of the mineralization control. At the same time that the investigation gallery was advanced, the drilling campaign was executed to the North converting inferred resources into Measured and Indicated resources. The drilling program will continue during FY2021. Mineralization is open at depth. In addition to this, 389 meters were completed in two drill holes to explore the potential in this area looking for parallel oxides structures similar to A208 following the regional structural geology (N-S/N35E). Exploration drilling program is planned to execute in FY2021 to continue with this target.

2,731 meters were completed in A107, most of them were focused to convert Inferred resources into Measured and Indicated resources at the South of the structure and to increase the grade confidence for the mine plan production.

1,664 meters of infill drilling were drilled in High Angle. These meters are part of a drilling campaign that started in the second half of FY2019 and was completed in FY2020. Inferred resources were converted into Indicated resources defining the high-grade narrow bands that are part of these structures N35E. Orovalle has a drilling program planned to continue converting and defining resources in the Southwest part in FY2022 using galleries to be executed this Fiscal Year 2021. On the other hand, in this area, an exploration program was executed with successfully. Target was to look for parallel structures to High Angle (narrow and high-grade bands) follow the regional structural geology (N-S/N35). 4,137 meters were completed defining a new structure called High Angle East, which is open to the Norh, South, and at depth, so drilling program will continue in FY2021.

1,418 meters were carried out in S107. This oxide structure is located in the East part of the El Valle deposit, between Boinas East and Black Skarn. Inferred resources were converted into Measured and Indicated. This structure with Au and high Cu grades is open at depth so drilling campaign will continue in FY2021.

Villar zone is an oxide structure close to Area 107. In this zone 1,153 meters were carried out to convert Inferred resources into Measured and Indicated resources.

El Valle Fault is an oxide vertical structure located to the North of Area 107 and parallel to Area 208. 487 meters were drilled this fiscal year to the South part to define the limit of this structure. Strong drilling program is planned to start in the second half of FY2021 to convert the Inferred resources.

249 meters were drilled in Boinas East in stope definition and 94 meters in Black Skarn with the same purpose.

In Carlés deposit, an exploration campaign was completed with 2,367 meters. This campaign consisted in one borehole plus 3 wedges whose target was intersected the skarn at depth in Carlés North proving the continuity. All of these holes intercepted the skarn orebody. Although the mineralization has a slightly lower grade than in the upper levels, this campaign has been able to verify the continuity of the skarn 400 meters downdip.

The Company continues pursuing opportunities to define new resources in different satellite projects out of El Valle. An important number of environmental, archeological and other studies were done along FY2020 as requirement in order to start with greenfield drilling programs in the next fiscal year. Covid-19 pandemic has an effect in this activities causing delays in the administration process to obtain permits.

For the skarns and some of the epithermal oxide zones, drill holes tend to intercept the mineralization at varying angles relative to the core axis attributed to drill access and the irregular morphologies of the mineral zones. More regular, planar deposits such as A107 have better drilling angles. In general, drilling is spaced between 20 m and 40 m in active or exploited mining areas. Drilling density away from the core of the underground mine and beneath previous pits is generally greater than 40 m and can be in excess of 100 m in lesser explored areas.

The majority of the holes drilled are HQ diameter. When required due to ground conditions, NQ core is used to extend HQ holes to their target depth. PQ core is used for the initial few meters of exploration holes and for metallurgical purposes. Core boxes are transported daily from underground, delivered to the core shed and laboratory facility in Begega. The core is photographed wet with the name of the hole and the depth. The core is then laid on core logging benches awaiting both geotechnical and geological logging by the Orovalle geologists.

A Rock Mass Rating (RMR) is then determined by the geologist and is later entered into the geological database. The RMR is also stored in the block models and is used for mine planning purposes. Once the geotechnical logs are complete, geologists proceed to log lithology, alteration, mineralization and structure using pre-defined geological legends. The logs are hard copy hand written logs with graphical representations of the down hole geology. The start and end of geological units are marked on the boxes.Upon completion of the geotechnical logging, geological logging, sampling and density calculation, the hand-written logs are transferred to the senior geologist who scans the logs and enters the information into the Recmin database. Collar locations are measured during drilling by underground surveyors. The collar location, azimuth and inclination of the drill hole are measured and are subsequently used to replace pre-entered planned collar locations in the drill hole database. Down hole survey measurements are conducted using a Reflex Maxibor instrument. Data is exported from the instrument and then transferred to the drill hole database.

Sampling, Analysis and Data Verification

On average, 6,878 samples were assayed per month in fiscal 2020, consisting of exploration core, underground grade control samples, mill samples and environmental samples. Orovalle has its own on-site assay laboratory located on the hill side in Begega, above the El Valle open pit, approximately 15 minutes by road from the administration and processing facilities for the mine. Both sample preparation and analysis are performed at the laboratory. The laboratory is ISO 9001certified which is renewed each year.

Regarding the drill core sampling, intervals selected for assaying are marked on the boxes, the sample code corresponding to the drill hole identification number and the sample depth. The target sampling length is 1.5 meters, rarely exceeding two meters. The minimum sampling length is 25 cm. Samples are taken for 4.0 meters on either side of the mineralization. Any drill core zone not sent for assaying is discarded while the core selected for sampling is split, half the core is assayed and the remaining half of the core is returned to the core box and stored in covered core storage facilities near the logging facility.

No channel face sampling from Boinás is used in the resource estimation as sampling of the oxide faces is problematic due to the timing of ground support/heading availability and only partial exposure of the face due to shotcrete cover.

At Carlés, underground chip samples are taken honoring a nominal 1.5 m interval and litho- structural boundaries. Given the similarity in sample support and the layered nature of the Carlés zones, the underground chip samples are used for resource estimation.

Density information is collected after logging at a density measurement station within the core logging facility. Density measurements are taken on two to three lithologies different in every drill hole. The density sample is returned to the box after density measurement. For highly fractured zones where density measurements cannot be reliably measured using the methodology described, densities were determined based on production results.

In terms of sample preparation, once split, drill core samples are placed in a metallic sample tray with a large envelope containing two adhesive barcoded labels and one barcoded label pasted to the envelope. The remaining labels are stored within the envelope to accompany the sample throughout the sample preparation process.

The sample preparation procedure is as follows:

- Core samples are dried at a temperature of 105ºC.
- The entire dried sample is crushed through a jaw crusher to 95%<6 mm.
- The coarse-crushed sample is further reduced to 95%<425 microns using an LM5 bowl-and-puck pulverizer.
- An Essa rotary splitter is used to take a 450 g to 550 g sub-sample of each split for pulverizing. The remaining reject portion is bagged and stored.
- The sample is reduced to a nominal -200 mesh using an LM2 bowl-and-puck pulverizer.
- 150 g sub-samples are split using a special vertical-sided scoop to cut channels through the sample which has been spread into a pancake on a sampling mat.
- Samples are then sent to the laboratory for gold and base metal analysis. Leftover pulp is bagged and stored.

After sample preparation, 30 g samples are analyzed for Au by fire assay with an atomic absorption spectroscopy (AAS) finish and two-gram samples for Ag, As, Bi, Cu, Hg, Pb, Sb, Se, and Zn by ICP-optical emission spectroscopy (ICP-OES) after an aqua regia digestion. Sampling is carried out in batches of 26 with the first and last samples being analysed twice with the average of the two values being reported. Gold values exceeding 15 g/t A are automatically repeated to confirm the grade of the sample. Fluorine is also analysed, although by a different method. The sample is sintered with a mixture of zinc oxide and sodium carbonate and the soluble fluorine is leached with hot water and filtered. The fluorine solution is adjusted to pH 5.2 to pH 5.5 with nitric acid and an ionic strength adjusting buffer (TISAB III) before the final fluorine concentration being determined with a fluoride selective electrode.

Assay results are received by the mine site geological personnel to be entered into the drill hole database.

The quality assurance/quality control program involves submitting certified reference material (CRM), blanks, and duplicate samples into the sample stream. The on-site senior geologist reviews the results prior to acceptance of the assay results. Orovalle repeat the entire batch analysis if the standard falls outside of acceptable limits. If a blank or duplicate is observed to fail, 20% of the batch is re-assayed. If the 20% that is re-assayed does not match the original analysis, then the entire batch is re-analysed.

Orovalle currently performs the following data verification steps prior to finalization of the data:

- collar surveys conducted by in-house personnel are entered in a spreadsheet, transformed to UTM coordinates and checked by the project geologist;
- geological logs are entered into a spreadsheet by the geologist responsible for logging the hole, and when complete the database geologist checks and adds the data into the database;
- results received from the labs are subject to quality assurance/quality control which is reviewed by the project geologist;
- data entered into the RecMin database is subject to numerous controls to identify gaps, double- entry, overlaps, duplication, and absent values; and
    - When the information is verified, it is added to the Datamine database. There are two security database copies: one in RecMin and the other in Datamine.

Mineral Resources and Reserves Estimates

In fiscal 2020, Orovalle engaged an independent engineering firm, Roscoe Postle Associates Inc. ("RPA"), to complete mineral reserves and resources estimates and a life-of-mine-plan update, which were published in the "Technical Report on Orovalle Operation, Asturias, Spain" dated November 30, 2020 by: (i) Rick C. Taylor, P.Eng., of RPA, in respect of the estimated mineral reserves and the life of mine plan, and (ii) John Makin, P.Geo., of RPA, in respect of the estimated mineral resources. Each of Messrs. Taylor and Makin is a Qualified Person within the meaning of NI 43-101.

Reproduced at "Appendix B - Principal Mineral Projects - Orovalle" is the summary section of the Orovalle 43-101 Report. The full text of the Orovalle 43-101 Report is available for viewing on SEDAR at www.sedar.com and is incorporated by reference in this AIF. Defined terms and abbreviations used herein and not otherwise defined shall have the meanings ascribed to such terms in the Orovalle 43-101 Report.

SUMMARY OF MINERAL RESOURCES INCLUSIVE OF MINERAL RESERVES

SEPTEMBER 30, 2020 - Orovalle Minerals S.L. – Orovalle Operation

Measured Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	806	3.84	15.29	0.58	99	396	10,286
Boinás Skarn	2,146	2.69	16.54	0.78	186	1,141	36,741
Carlés	232	3.45	10.00	0.53	26	75	2,696
La Brueva							
Total	**3,184**	**3.04**	**15.75**	**0.71**	**311**	**1,612**	**49,723**

Indicated Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	3,025	4.78	4.94	0.34	465	480	22,356
Boinás Skarn	398	2.78	17.82	0.75	36	228	6,591
Carlés	1,327	3.37	7.64	0.38	144	326	10,971
La Brueva							
Total	**4,749**	**4.22**	**6.77**	**0.38**	**644**	**1,034**	**39,918**

Measured + Indicated Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	3,831	4.58	7.12	0.39	564	876	32,642
Boinás Skarn	2,544	2.70	16.74	0.77	221	1,370	43,332
Carlés	1,559	3.38	7.99	0.40	169	400	13,667
La Brueva							
Total	**7,934**	**3.74**	**10.38**	**0.51**	**955**	**2,646**	**89,641**

Inferred Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	1,665	4.36	8.62	0.30	233	461	11,057
Boinás Skarn	348	2.85	18.51	0.74	32	207	5,698
Carlés	1,163	3.26	4.62	0.30	122	173	7,703
La Brueva	187	3.90	15.53	0.09	23	93	357
Total	**3,362**	**3.80**	**8.64**	**0.33**	**410**	**934**	**24,816**

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a gold equivalent (AuEq) cut-off grade of 2.52 g/t AuEq for Boinás oxide, 2.20 g/t AuEq for Boinás skarn,1.96 g/t AuEq for Carlés skarn, and 2.52 g/t AuEq for La Brueva oxides.
3. Mineral Resources are estimated using long term prices of US$1,700/oz Au, US$20/oz Ag, and US$3.25/lb Cu. A US$/€ exchange rate of 1.20/1.00 was used.
4. Mineral Resources are inclusive of Mineral Reserves
5. Crown pillars of 60 m and 40 m are excluded from the Mineral Resource below the El Valle TSF and Boinás-East open pits, respectively.
6. Unrecoverable material in exploited mining areas has been excluded from the Mineral Resource.
7. Areas of contiguous blocks with volumes less than 500 m3 have been removed from the Mineral Resource report to ensure RPEEE.
8. Numbers may not add due to rounding.

Mineral Reserves were estimated by RPA, in conjunction with Orovalle personnel, for the Boinás and Carlés underground mines. Carlés open pit skarn material was not included in the Mineral Reserves estimate at this time as the necessary land and environment permits have not yet been obtained by Orovalle.

Mineral Reserve estimates were based on mine designs applied to Measured and Indicated Resources, with dilution and extraction factors applied based upon the designed mining method. Areas where stopes above cut-off grade were isolated, were removed from the Mineral Reserve estimate with stopes planned for mining up to September 30, 2020 also excluded.

MINERAL RESERVES – SEPTEMBER 30, 2020
Orovalle Minerals S.L. – Orovalle Operation

Category	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (t Cu)
Proven	1,156	2.14	11.61	0.51	79	431	12,922
Probable	2,275	3.1	4.44	0.29	227	325	14,668
Proven and Probable	**3,431**	**2.78**	**6.86**	**0.36**	**307**	**756**	**27,590**

Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.
2. Mineral Reserves are estimated using AuEq break-even cut-off grades by zone, consisting of 3.35 g/t AuEq for Boinás oxides (drift and fill (D&F)), 2.90 g/t AuEq for Boinás skarns (SLS), and 2.09 g/t AuEq for Carlés skarn (SLS). AuEq cut-offs are based on recent operating results for recoveries, off-site concentrate costs and on-site operating costs. AuEq factors are based on metal prices, metallurgical recoveries, metal payables, and selling costs.
3. Mineral Reserves are estimated using average long term prices of US$1,600/oz Au, US$18/oz Ag, and US$3.00/lb Cu. A US$/€ exchange rate of 1.20/1.00 was used.
4. A minimum mining width of 4 m was used.
5. Crown pillars of 75m and 42 m are excluded from the Mineral Reserve below the El Valle TSF and Boinás-East open pits, respectively.
6. A no-mining sterilisation zone of 10 m below mined out stopes and 5 m around waste filled stopes has been applied.
7. Numbers may not add due to rounding.

Growth Exploration

Ongoing brownfield and infill drilling in and around the El Valle and Carlés mines are expected to continue strong conversion of resources into reserves and adding new resources to the ore bodies extending the current mine life.

Orovalle has a robust regional exploration package consisting of 45,164 hectares which includes concessions and investigation permits, some of which are still in progress. Strategic near-term regional targets within our permits include:

- The drilling program in Lidia (Investigation Permit located in the “Navelgas Gold Belt”, 20 Km in a straight line from El Valle), that is starting in the first quarter of fiscal 2021.
- The exploration drilling program in Ortosa-Godan (located in “Río Narcea Gold Belt, close to Carles deposit), that it is expected to start in the second quarter of fiscal 2021.

Other

Additional information on Orovalle is provided below in “Appendix B - Principal Mineral Projects - Orovalle”.

Don Mario

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

	FY2020	FY2019	FY2018
Operating Performance			
Ore mined (tonnes) (dmt)	62,291	745,846	856,018
Ore milled (tonnes) (dmt)	64,875	739,635	719,328
Daily average throughput (dmt)	2,190	2,185	2,188
Gold			
Grade (g/t)	1.07	1.51	2.16
Recovery (%)	84.4	91.2	90.2
Production (oz)	2,317	32,932	45,125
Sales (oz)	2,887	34,291	48,882
Copper			
Grade (%)	-	-	0.72
Recovery (%)	-	-	53.7
Production (‘000 lbs)	-	-	3,110
Sales (‘000 lbs)	-	-	3,786
Financial Performance *(in 000’s, except per share amounts)*			
Revenue	$4,425	$45,287	$66,646
Mining costs	$13,112	$43,552	$48,224
Income (loss) before tax	$(10,638)	$(3,906)	$6,076
Capital expenditures	$759	$2,929	$12,652
Cash operating costs (by-product) ($/oz) gold	$3,600	$1,256	$890
All-in sustaining costs (by-product) ($/oz) gold	$4,214	$1,361	$1,087
All-in costs (by-product) ($/oz) gold	$4,472	$1,429	$1,287

During fiscal 2020, Don Mario produced 2,317 ounces of gold compared with 32,932 ounces of gold during fiscal 2019. Gold production decreased by 93% primarily due to Don Mario being put temporarily under care and maintenance since the second quarter of fiscal 2020.

Exploration

The Company is defining the exploration program for the 53,325 hectares available at the Don Mario Complex. The review of historical data is in progress, in order to prioritize targets and define exploration activities.

The Company has 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. The Company targets the completion of the scoping study by end of fiscal 2021.

Drilling

The Company did not conduct any drilling campaigns at Don Mario in fiscal 2020.

Mineral Resources and Reserves Estimates

In the first quarter of fiscal 2021, EMIPA engaged an independent engineering firm, DCGS Exploration and Mining Consulting ("DCGS"), to confirm the mineral resource and reserve estimates for the Oxide Stockpile at Don Mario as at September 30, 2020, which was published in the the "Technical Report on Don Mario Oxide Stockpile," dated December 29, 2020 by Mr. Gino Zandonai, M.Sc. Mining, CP, Mining Engineer, who is a qualified person independent of the Company for the purposes of NI 43-101 (Don Mario Oxide Stockpile 43-101 Report").

Reproduced at "Appendix B - Principal Mineral Projects – Don Mario" is the summary section of the Don Mario Oxide Stockpile 43-101 Report. The full text of the Don Mario Oxide Stockpile 43-101 Report is available for viewing on SEDAR at www.sedar.com and is incorporated by reference in this AIF. Defined terms and abbreviations used herein and not otherwise defined shall have the meanings ascribed to such terms in the Don Mario Oxide Stockpile 43-101 Report.

The following tables summarize the Mineral Resource and Mineral Reserve estimates for the Oxide Stockpile:

Mineral Resources

Oxide Stockpile Mineral Resources – September 30, 2020

Measured							
Location/Zone	**Tonnage (000 t)**	**Grade (g/t Au)**	**Grade (% Cu)**	**Grade (g/t Ag)**	**Contained Metal (000 oz Au)**	**Contained Metal (t Cu)**	**Contained Metal (000 oz Ag)**
DM1 Oxide	492	2.24	1.74	54.4	35.4	8,559.6	861.0
DM2 (Oxide Pre-strip)	278	1.90	1.98	17.9	17.0	5,508.8	160.5
DM3 (Dolomite Oxide)	190	1.89	1.96	21.6	11.5	3,724.0	132.1
Plant Stockpile Oxide)	515	1.61	1.57	57.8	26.7	8,108.3	958.3
DM4 Stock Talco	506	1.61	2.38	63.5	26.2	12,067.4	1,033.2
DM5 (Dolomite Oxide)	202	1.86	1.64	48.7	12.1	33,14.4	316.2
DM6 (Tremolite Oxide)							
Total	**2,184**	**1.84**	**1.89**	**49.3**	**129.0**	**41,282.6**	**3,461.2**

Notes:

1. 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.
2. Mineral Resources are estimated using a long-term gold price of US$ 1,700 per ounce, copper price of US$3.25 per pound and a silver price of US$20 per ounce.
3. Numbers may not add due to rounding.

Mineral Reserves

Stockpile Mineral Reserves - September 30, 2020							
Proven							
Location/Zone	**Tonnage (000 t)**	**Grade (g/t Au)**	**Grade (% Cu)**	**Grade (g/t Ag)**	**Contained Metal (000 oz Au)**	**Contained Metal (t Cu)**	**Contained Metal (000 oz Ag)**
DM1 Oxide	492	2.24	1.74	54.4	33.7	8,132	818.0
DM2 (Oxide Pre-strip)	264	1.90	1.98	17.9	16.1	5,233	152.5
DM3 (Dolomite Oxide)	181	1.89	1.96	21.6	11.0	3,538	125.5
Plant Stockpile Oxide)	490	1.61	1.57	57.8	25.4	7,703	910.3
DM4 Stock Talco	438	1.65	2.44	64.9	23.2	10,683	914.7
DM5 (Dolomite Oxide)	192	1.86	1.64	48.7	11.5	3,149	300.4
Total	**2,032**	**1.85**	**1.89**	**49.3**	**120.9**	**38,438**	**3,221.3**

Estimated metal recoveries based on processing by sulphidation.

Notes:

1. *CIM definitions were followed for Mineral Reserves and were prepared by G. Zandonai, a qualified person for the purposes of NI 43-101, who is an employee of DGCS SA and is independent of the Company.*
2. *Mineral Reserves are estimated using a long-term gold price of $ 1,600 per ounce, copper price of $3.00 per pound and a silver price of $18 per ounce.*
3. *Mineral Reserves (exclusive of in situ). Numbers may not add due to rounding.*

Mine Life Extension

Since fiscal 2018, the Company has been evaluating metallurgical alternatives to process the Oxide Stockpile, concluding that a sulphidization circuit would maximize the value of the stockpile. As at September 30, 2020, EMIPA had oxide stockpile resources (Measured) of approximately 2.18 million tonnes with an average gold grade of 1.84 g/t. Additional information on Don Mario is provided below in “Appendix B - Principal Mineral Projects - Don Mario”.

The Company has 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. The Company targets the completion of the scoping study by the second half of fiscal 2021.

Outlook

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

The Company continues to implement comprehensive and proactive measures to respond to the COVID-19 pandemic; and continues to work closely with local governments and authorities to ensure that proper protocols are followed during the ongoing COVID-19 crisis. The overall impact on each of our sites will depend on the progression of the COVID-19 pandemic and measures in place for preventing transmission.

At Orovalle, the primary objective for fiscal 2021 is to maintain stable production, and continuing a high level of safety and productivity, notwithstanding the COVID-19 situation in Spain and the related challenges to its global supply chain. Several initiatives are in progress, including the following: (i) ongoing brownfield and infill drilling in and around the El Valle and Carlés mines is expected to continue strong conversion of resources into reserves and adding new resources to the ore bodies extending the current mine life; and (ii) greenfield exploration programs for Lidia and Ortosa-Godán totaling 10,000 meters of DDH drilling, starting with Lidia in November 2020.

At EMIPA, in the first quarter of fiscal 2020, the Company made the decision to suspend mining operations at Las Tojas effective on or before December 31, 2019. Notwithstanding the suspension of mining operations, the development and engineering of the Oxide Stockpile that has accumulated from past mining activities at Don Mario (the “Oxide Stockpile Project” or “the Project”) continues to advance. The Company plans to complete the final evaluation of the Project by the end of the third quarter of fiscal 2021. Subject to the favorable completion of technical, economic and funding analysis, the OSP is expected to require approximately twelve months of development to start commercial production. The main exploration goal for fiscal 2021 is to define and prioritize targets inside the 53,325 hectares available in the Don Mario Complex. Based on the interpretation of historical geophysical data in the first quarter of fiscal 2021, the Company will define exploration targets and activities for the remaining fiscal year. Targets priorization will be based on: (i) potential identified from the data reinterpretation process; (ii) permitting and environmental evaluation; and (iii) distance to the current infrastructure. An evaluation of re-processing tailings is also in progress to determine the viability of recovering gold from material deposited in the tailings impoundment since the commencement of production at Don Mario. The Company targets the completion of the scoping study by the end of fiscal 2021.

At Taguas, the primary objective for the first half of fiscal 2021 is to complete the acquisition of the Taguas property (including the rights transfer registration and the TSX final acceptance). Subject to closing the transaction and securing the required financing, the Company is preparing a drilling program in order to potentially expand the current resources and to support the potential upgrade in Mineral Resource estimates.

The following table sets out Orvana’s fiscal 2020 results and guidance as well as its fiscal 2021 production and cost guidance:

	FY 2020 Actual(1)	FY 2021 Guidance(2)
El Valle Production		
Gold (oz)	51,104	50,000 – 55,000
Copper (million lbs)	5.6	7.0 – 8.5
Don Mario Production		
Gold (oz)	2,317	Nil
Total Production		
Gold (oz)	53,421	50,000 – 55,000
Copper (million lbs)	5.6	7.0 – 8.5
Capital Expenditures		
El Valle	$9,720	$14,000 – $15,000
Consolidated	$10,479	$14,000 – $15,000
Cash operating costs (by-product) ($/oz) gold (1) (2)(3)		
El Valle	$1,151	$1,050– $1,150
Consolidated	$1,278	$1,200– $1,300
All-in sustaining costs (by-product) ($/oz) gold (1) (2)		
El Valle	$1,385	$1,350– $1,450
Consolidated	$1,582	$1,500– $1,600

(1) Fiscal 2020 Guidance was suspended during the second quarter of fiscal 2020 due to the COVID-19 pandemic.

(2) Fiscal 2021 guidance assumptions for COC and AISC include by-product commodity prices of $2.90 per pound of copper and an average Euro to US Dollar exchange of 1.16.

Revenue

The Company has the following material off-take agreements for the sale of the products produced at Orovalle:

- In March 2011, the Company entered into a contract with a metals trader in Zug, Switzerland for the sale of the gold-copper-silver concentrates produced from Orovalle. The Company believes that, due to the availability of alternative purchasers, no material adverse effect would result if such off- taker was unable to purchase the gold-copper-silver concentrates from Orovalle.
- In May 2020, the Company entered into a contract with a metals trader in New Jersey, United States for the sale of the dore produced from Orovalle. The Company believes that, due to the availability of alternative purchasers, no material adverse effect would result if such off- taker was unable to purchase the dore from Orovalle.

Revenue for fiscal 2020 decreased by $34.4 million or 25% to $102 million from sales of 55,344 ounces of gold and 5.5 million pounds of copper, compared with revenue of $136.4 million from sales of 96,540 ounces of gold and 5.0 million pounds of copper in 2019. The decrease in revenue was primarily due to lower gold sales volume, partially off-set by higher copper sales volume and higher realized gold price.

Compared to fiscal 2018, revenue for fiscal 2019 decreased by $10.3 million or 7% to $135.5 million from sales of 96,540 ounces of gold and 5.0 million pounds of copper, compared with revenue of $145.8 million from sales of 102,018 ounces of gold and 8.7 million pounds of copper. The decrease in revenue was primarily due to lower gold sales volume and lower copper sales volume, partially off-set by higher realized gold price.

Compared to fiscal 2017, revenue for fiscal 2018 increased by $7.8 million or 6% to $145.8 million from sales of 102,018 ounces of gold and 8.7 million pounds of copper, compared with revenue of $138 million from sales of 88,636 ounces of gold and 14.7 million pounds of copper for fiscal 2017. The increase in revenue was primarily due to higher gold sales volume and realized metal prices, partially offset by lower copper sales volume.

Employees

As of September 30, 2020, Orvana and its subsidiaries employed a total of 521 full-time employees and 148 contract personnel for a total of 666 as follows: (i) 38 employees and 39 contractors providing mine, mill, camp and support services at Don Mario; (ii) 481 employees and 107 contractors providing mine, mill and support services at Orovalle; and (iii) two employees and two contractors (one of whom is the Chief Executive Officer of Orvana) at the Company's head office in Toronto, Canada. The Company employs a number of personnel who are experienced in open-pit and underground mining techniques as well as polymetallic mineral processing. The Company has skilled professionals in all the required technical and financial areas but will supplement with specialized consultants as required. Although the Company's business requires personnel with specialized skills, the Company believes that persons having the necessary skills are generally available.

Health, Safety, Environment and Social Practices

The board of directors of the Company has a Safety, Environment and Technical Committee. The purpose of this committee is to provide support and oversight for the Company's safety, health, environmental and sustainability programs, and to assist in reviewing the technical, safety, health, environmental and sustainability performance of the Company.

Orvana maintains various industry standard metrics to track its safety and health performance over time such as lost-time injury frequency rates and lost-time injury severity rates as well as environmental performance.

Health and Safety

The Company maintains health and workplace safety programs at each of its operations. In order to ensure that safety goals and optimal safety standards are achieved, comprehensive training programs for personnel take place on an ongoing basis. Regular operations inspections are performed by representatives from the mine operations, planning and safety departments as well as by regulatory authorities and independent third-party experts. These inspections review current conditions and trigger action on potential safety issues that arise as mine development progresses. The Company has also hired service providers to support the Company's safety department in risk assessment, training and work environment monitoring.

Environmental

Orvana is committed to developing and operating its mines and projects, including reclamation efforts, in full compliance with local environmental regulations and recognized international environmental standards. In furtherance of this commitment, Orvana regularly implements programs to protect and enhance natural habitats and sensitive species, including reclamation and reforestation efforts and the establishment of water sources for wildlife. The Company monitors the water and air quality on a frequent basis at Orovalle and Don Mario and these operations are also periodically inspected by environmental regulatory authorities. Third parties sample and analyze both surface and ground water following protocols established by the applicable regulatory authorities in order to provide the necessary information. Any regulated elements whose values are not in compliance in the subject jurisdictions, when detected, are evaluated.

Where the levels of certain regulated elements potentially exceed permitted levels, evaluations have been provided to the appropriate regulatory authorities and remedial actions have been sought out, evaluated and, where warranted in the circumstances, implemented. Orovalle is currently working through one such matter involving selenium discharges into the Cauxa River in Asturias, Spain, in respect of which it has received and may receive additional monetary sanctions and is subject to a criminal investigation. The Cauxa River flows past El Valle Mine operated by the Company's Spanish subsidiary, Orovalle, as well as certain other mining 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 maximum content level for selenium has been set (i) in drinking water at 50 micrograms per liter ("µg/L") by Health Canada and the Environmental Protection Agency in the United States (the "EPA") and (ii) in surface water with fish based on selenium levels in fish tissue and in lotic surface water without fish at 3.1 µg/L by the EPA. In 2011, Spain set the limit of selenium in inland surface water at 1 µg/L and in other surface water and drinking water at 10 µg/L. The Company believes that, based on recent scientific studies conducted by the Company under international standards, the levels of selenium in Cauxa River are not a health or environmental risk.

Spanish Water 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 (the "SE Discharge Matter"). In recent years, Orovalle has received approximately €1.0 million (approximately $1.1 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, approximately $0.7 million, and the enforcement of certain fines has been suspended pending the related criminal matter. A judge of the criminal court of Asturias conducted an investigation into the potential commission by Orovalle of a reckless crime under the Spanish penal code relating to the SE Discharge Matter. After six years of investigation, during the third quarter of fiscal 2020 the Grado's Court issued the order to commence an oral trial to address the SE Discharge Matter in a criminal court of Oviedo (the capital of Asturias). A date for the commencement of the oral trial has been set for March 2021. In connection with the pending oral trial, the Court set a requirement on Orovalle to provide a bond in the amount of €7 million as warranty for contingent liabilities, subject to the outcome of the oral trial. Orovalle has appealed the bond taking the position that past and prevailing levels of selenium in waterways impacted by Orovalle did not cause any damage to the environment. The appeal is in progress as of date hereof. With respect to the oral trial, Orovalle has filed its preliminary statement of defence asking for the acquittal on the basis that, among other things, there is absence of a committed criminal offence. If the Company 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, the Company 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 successfully achieve full compliance with local regulations. In addition, Orovalle has been seeking to either amend certain of its permits or, alternatively, to receive new permits, and to receive 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.

The Company must dispose, in a safe manner, of the tailings that part of the crushed rock leaves after the metals are extracted. This is typically done in an impoundment area that not only contains this material and waste water, but provides a contingency for extraordinary seismic and weather events so that this material remains contained. El Valle Mine must provide bonds to ensure that the impacted areas are remediated. Total cash deposited with Spanish financial institutions for reclamation bonds including in respect of the tailings impoundment area amounted to approximately $8.9 million at September 30, 2020 and these monies are expected to be released after all reclamation work at El Valle has been completed. Spanish regulatory authorities have demanded 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 the bond, including the consideration of alternatives to posting this bond, while preserving the Company's rights during the appeal process. The costs incurred by the Company in connection with environmental monitoring and maintenance related to environmental matters are generally treated as ordinary operating expenses.

Sustainability

Orvana is committed to the social development and well-being of the communities in which it operates. To this end, in addition to the payment of income taxes and other local community taxes such as land moving taxes, Orvana continues to support, financially and otherwise, local community endeavors associated with these objectives. In fiscal 2019, Orvana corporate leaders continued to be active in visiting and participating in sustainability initiatives in Spain and Bolivia. During fiscal 2020, participation in sustainability initiatives in Spain and Bolivia were limited due to the worldwide COVID-19 pandemic. The Company has supported the communities surrounding El Valle by donating funds to local museums and funding the re-stocking of fish species into local rivers. Additionally, Orovalle has continued its commitment to support cultural activities, including organizing the celebration of Santa Barbara Day, patron of Miners, sponsoring different Belmonte events and celebrations; collaborating with an archeological investigation in the Boinás area; supporting the Salas Salmon Fair and championship; supporting the Gold Panning Championship in Navelgas; and, for the second time in fiscal 2019, sponsoring Belmonte Marathon, which counted with more than 70 workers of Orovalle and relatives running it.

In the Chiquitos Province of Bolivia where the Don Mario is located, the Company is actively involved in working with communities to contribute to the improvement of their standard of living. In 2011, Orvana renewed its support of investing $1.8 million in the local communities over a five-year period. Projects supported by Orvana include supervision of and financial support for community development projects such as utilities and parks, education and information technology, cultural events and sporting initiatives, community business development initiatives, agricultural projects and maintenance of community roads. Projects were jointly monitored by the Company and community boards and funds were disbursed in accordance with the plan for the five-year period. In fiscal 2016, the Company entered into two agreements to fund a total of $0.3 million to community projects. One of the agreements was with the San José local government to support development projects, such as improvements in educational facilities and in a women's shelter, and the other agreement was with East Turubó communities to assist with projects related to an indigenous development plan. All projects are reviewed and approved by the Company and funds are disbursed based on project progress. In fiscal 2017, the Company proposed to the San José local government and East Turubó communities to develop projects together that are focused on health, education and sanitation (garbage management system), given that, based on international experience, these types of projects have a direct and positive impact on communities. The Company also proposed to use other sources of available funds for these types of projects. In fiscal 2018, the Company, as part of its vision of focusing on health, education and sanitation, supported projects directly related to those areas (new school classrooms, education programs base on local classical music) in coordination with San José local government and proposed a five years agreement to East Turubó communities. In 2019, nine projects were executed in coordination with the San José de Chiquitos Municipality. These projects are related to education (3), sanitation (3) and health (3). One of the projects of sanitation is related to the provision of water to the community of San Juan. These project were executed in the same city of San José as well as in all five communities of the TCO –T (Tierras Originarias de Origen – Turubó). As of September 2020, EMIPA maintains periodic conversations with communities to provide updates regarding the activities at Don Mario.

Foreign Operations

The Company's principal mineral projects are at Orovalle in Spain and Don Mario in Bolivia. The head office of Orvana is located in Toronto, Canada. Consequently, the Company is substantially dependent on its foreign operations.

RISK FACTORS

The following discussion summarizes the principal risk factors that apply to the Company's business and that may have a material adverse effect on the Company's business, financial condition and results of operations, or the trading price of the Common Shares. Enterprise risk management is carried out by management of the Company under policies approved by the board of directors thereof. Management of the Company identifies and evaluates risks in co-operation with the Company's operating units. The board of directors of the Company reviews the 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.

The Company's activities expose it to a variety of financial risks, market risks (including commodity price risks, currency risks and interest rate risks), credit risks, liquidity risks, financing risks and other risks. Orvana's business is subject to certain other risks in operational, strategic and regulatory areas. In managing risk, management of the Company focuses on the risk factors that impact the ability of the Company to operate in a safe, profitable and responsible manner.

Financial Risks

Currency Risk

Currency fluctuations may affect the costs Orvana incurs at its operations and may affect Orvana's operating results and cash flows. Orvana's functional currency is the US dollar. The Company operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar and the Euro. Orvana earns its revenue in US dollars. In respect of Orovalle, Orvana incurs most of its operating costs and capital expenditures in Euros, the value of which has varied against the US dollar since Orovalle commenced operations in 2011. Appreciation of certain non-US dollar currencies such as the Euro against the US dollar would increase the costs of production, making Orvana's mines less profitable. In respect of Don Mario, Orvana incurs most of its operating costs and capital expenditures in Bolivianos, the exchange rate for which has not varied materially against the US dollar in recent years, although inflation has been decreasing in Bolivia over the past three years.

Commodity Price Risks

The Company's business, its ability to generate positive cash flows and the value of the Company's mineral properties are heavily influenced by metal prices, particularly the prices of gold, copper and silver, as well as the cost and availability of commodities which are consumed or otherwise used in connection with Orvana's operations, including, fuel and electricity. If the world market price of gold, copper or silver were to drop and the prices realized by Orvana on gold, copper or silver sales were to decrease significantly and remain at such a level for any substantial period, Orvana's profitability and cash flow would be further adversely affected. An increase in worldwide demand for other critical resources such as input commodities, drilling equipment, tires and skilled labor may cause unanticipated cost increases and delays in delivery times, thereby impacting the Company's operating costs, capital expenditures and production schedules. Delays in delivery times may also occur as a result of lower supplies and materials in stock following the recent downturn in commodities.

Prices of metals and other commodities can and do change significantly over short periods of time and are affected by numerous factors beyond the control of the Company, including changes in the level of supply and demand, international economic and political trends, expectations of inflation, currency exchange fluctuations including the strength of the US dollar, interest rates, global or regional consumption patterns, speculative activities and increased production arising from improved methods and new discoveries. There can be no assurance that prices at which the Company can sell the mineral products it produces will be sufficient to ensure that the Company's properties can be mined profitably. A sustained or significant further decline in the price of gold, copper or silver would have adverse effects on the profitability of the Company and would negatively impact cash flows. To facilitate the management of certain of its price risk, the Company has hedged a portion of its gold and copper production.

The Company has no outstanding derivative instruments at September 30, 2020.The Company paid net cash of $5.3 million in settlement of the derivative instruments that matured in the period.

Management used a long-term price per ounce of gold of between $1,920 to $1,957 to perform its impairment assessments for Orovalle and EMIPA as at September 30, 2020. A 5% decrease in price per ounce would have resulted in no impairment at Orovalle or EMIPA. The 5% decrease in gold price was not modeled with a corresponding depreciation in EUR.

Management used long-term Euro/USD exchange rates between 1/1.15 to 1/1.19 to perform its impairment assessments for Orovalle as at September 30, 2020. A 5% depreciation of the annual Euro/USD exchange rates would have resulted in no impairment at Orovalle or EMIPA. The 5% depreciation in Euro/USD exchange rates was not modeled with a corresponding increase in gold price.

Use of Derivatives

As described in the section of this AIF headed “Risk Factors - Financial Risks – Commodity Price Risks,” Orvana has undertaken certain hedging activities to manage the risks associated with gold or copper price volatility and may undertake additional hedging activities and use certain derivative products solely for the purpose of managing the risks associated with gold or copper price volatility, changes in other commodity input prices, interest rates, foreign currency exchange rates and energy prices. The use of derivative instruments involves certain inherent risks including: (i) credit risk - the risk that the creditworthiness of a counterparty may adversely affect its ability to perform its payment and other obligations under its agreement with Orvana or adversely affect the financial and other terms the counterparty is able to offer to Orvana; (ii) market liquidity risk – the risk that Orvana has entered into a derivative position that cannot be closed out quickly, by either liquidating such derivative instrument or by establishing an offsetting position; and (iii) unrealized mark-to-market risk – the risk that, in respect of certain derivative products, an adverse change in market prices for commodities, currencies or interest rates will result in Orvana incurring an unrealized mark-to-market loss in respect of such derivative products. There can be no assurance that Orvana will undertake any further hedging activities or continue current hedging activities.

Credit Risk

The Company’s credit risk is primarily attributable to gold, copper and silver concentrate and gold doré sales and value-added tax receivables. The Company has a concentration of credit risk with two customers to which gold, copper and silver concentrate and gold doré are sold under agreements and who provide provisional payments to the Company upon each product shipment. Value-added taxes refundable or otherwise recoverable are collected from the Bolivian and Spanish governments, in accordance with applicable local laws, rules and procedures.

Liquidity and Financing Risks

Liquidity risk represents the risk that the Company will not be able to meet its financial obligations as they fall due. Financing risk represents the risk that, if unanticipated events occur that may impact the operations of El Valle and Don Mario and/or if the Company does not have adequate access to additional financing on terms acceptable to the Company, the Company may not have adequate resources to maintain its operations or advance its projects as currently anticipated. Cash flows forecasting is performed in the operating entities of the Company and aggregated at the Orvana corporate level. Management monitors these rolling forecasts to ensure the Company has sufficient cash to meet its financial obligations and operational needs at all times.

As at September 30, 2020, the Company’s outstanding debt totals $19 million. See “Development of the Business – Financing”.

Orvana may assume additional debt in future periods or reduce its holdings of cash and cash equivalents in connection with funding future acquisitions, existing operations, capital expenditures, dividends or in pursuing other business opportunities.

If unanticipated events occur that adversely impact the operations of Orovalle and Don Mario and/or if the Company does not have adequate access to financing on terms acceptable to the Company, the Company may not have adequate resources to maintain its operations or advance its projects as currently anticipated. In such circumstances, the Company may need to take additional measures to increase its liquidity and capital resources, including obtaining additional debt or equity financing, strategically disposing of assets or pursuing joint-venture partnerships, equipment financings or other receivables financing arrangements. The Company may experience difficulty in obtaining satisfactory financing terms or adequate project financing. Failure to obtain adequate financing on satisfactory terms could have a material adverse effect on Orvana’s results of operations or financial condition.

Internal Control Environment

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Disclosure controls and procedures are designed to ensure that information required to be disclosed by a company in reports filed with securities regulatory agencies is recorded, processed, summarized and reported on a timely basis and is accumulated and communicated to a company's management, including its chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure. Orvana has invested resources to document and analyze its system of disclosure controls and its internal control over financial reporting. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance with respect to the reliability of financial reporting and financial statement preparation.

Global Economic Issues

Global financial and economic conditions have been characterized by extreme volatility in recent years, including commodity-price fluctuations and the cost of debt and equity securities. Access to public and private debt and equity financing has been negatively impacted during this time. If such conditions persist or worsen, they could negatively impact the ability of the Company to obtain additional debt or equity financing in the future and, if obtained, on terms favourable to the Company. Additionally, global economic conditions may cause decreases in asset values that are deemed to be other than temporary, which may result in impairment losses. Changes in global economic conditions may also lead to significant changes in commodity prices. If these conditions and volatility persist or worsen, the Company's business, results of operations and financial condition could be adversely impacted and the value and price of the Company's Common Shares could be adversely affected.

Operational, Strategic and Regulatory Risks

New Diseases and Epidemics (Such as COVID-19)

In December 2019, a novel strain of coronavirus known as COVID-19 surfaced in Wuhan, China, and has spread around the world, with resulting business and social disruption. COVID-19 was declared a worldwide pandemic by the World Health Organization on March 11, 2020. The speed and extent of the spread of COVID-19, and the duration and intensity of resulting business disruption and related financial and social impact, are uncertain, and such adverse effects may be material. Efforts to slow the spread of COVID-19 could severely impact the operation and development of Company's mines and projects. To date, a number of governments have declared states of emergency and have implemented restrictive measures such as travel bans, quarantine and self-isolation. If the operation or development of one or more of the Company's properties is disrupted or suspended as a result of these or other measures, it may have a material adverse impact on the Company's profitability, results of operations, financial condition and stock price. While governmental agencies and private sector participants will seek to mitigate the adverse effects of COVID-19, and the medical community is seeking to develop vaccines and other treatment options, the efficacy and timing of such measures is uncertain.

The actual and threatened spread of COVID-19 globally could adversely affect global economies and financial markets resulting in a prolonged economic downturn and a decline in the value of the Company's stock price. The extent to which COVID-19 (or any other disease, epidemic or pandemic) impacts business activity or financial results, and the duration of any such negative impact, will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning COVID-19 and the actions required to contain or treat its impact, among others.

Mineral Resources and Reserves Estimates and Replacement of Depleted Reserves

Mineral resources and reserves provided by the Company are estimates and no assurances can be given that such estimated mineral resources and reserves are accurate or that the indicated level of minerals will be mined, milled or otherwise produced. Such estimates are, in part, based on interpretations of geological data obtained from drill holes and other sampling techniques. Actual mineralization or formations may be different from those predicted. Market price fluctuations of gold, copper and silver, as well as increased production, capital costs or reduced recovery rates, may result in Orvana's mineral resources and reserves becoming unprofitable to develop for periods of time or may render uneconomic certain mineral reserves containing relatively lower grade mineralization.

In addition, short term operating factors relating to mineral reserve estimates such as the need for the orderly development of orebodies, the processing of new or different ore grades, the technical complexity of ore bodies, unusual or unexpected ore body formations or ground conditions, ore dilution or varying metallurgical and other ore characteristics may cause mineral reserves to be reduced or Orvana to be unprofitable in any particular accounting period. Estimated mineral resources and reserves may have to be recalculated based on actual production experience and costs and/or the prevailing prices of the metals produced. Failure to obtain or maintain necessary permits or government approvals or changes to applicable laws or regulations could also cause Orvana to reduce its mineral reserves estimates. Any of these factors may require Orvana to reduce its mineral reserves and resources, which could have a negative impact on Orvana's financial results. Orvana's current life-of-mine plans are based on the mineral reserves estimates set out in this AIF. Changes in factors such as those noted above may result in changes in mine plans which could cause a reduction in mineral reserves.

Orvana's mineral reserves must be replaced to maintain production levels over the long term. Reserves can be replaced by expanding known orebodies, locating new deposits or making acquisitions. Exploration is highly speculative in nature. Exploration projects involve many risks and are frequently unsuccessful. Once a site with mineralization is discovered, it may take several years from the initial phases of drilling until production is possible, during which time the economic feasibility of production may change. Substantial expenditures are required to establish proven and probable reserves and to construct mining and processing facilities. As a result, there is no assurance that current or future exploration programs will be successful.

Depletion of reserves may not be offset by discoveries or acquisitions and divestitures of assets could lead to a lower reserve base. Reserves calculated in accordance with NI 43-101 may also decrease due to economic factors such as the use of a lower metal price assumption. The mineral base of Orvana will decline if reserves are mined without adequate replacement and Orvana may not be able to sustain production to or beyond the currently contemplated mine lives, based on current production rates.

Production Estimates

No assurance can be given that production estimates will be achieved. The Company's actual production volumes and production costs may vary from estimates for a variety of reasons including: attributes of the material mined varying from those used in estimations of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors relating to mineral resources, such as the need for orderly development of ore bodies or the processing of new or different grades; the inability to replicate small-scale laboratory tests under production scale conditions; fluctuations in the sales price of products or the availability of suppliers; risks and hazards associated with mining; inclement weather conditions; natural disasters, including floods, drought and earthquakes; unexpected labour shortages or disruptions; unanticipated technical issues or shutdowns; technical complexity in connection with mining or expansion activities; unusual or unexpected geological formations; shortages or interruptions in the supply of, and the price of, natural gas, water, fuel and other mining inputs, including critical parts or equipment; sequencing or processing challenges resulting in lower than expected recovery rates; and permitting regulations and requirements.

Development, Capital Projects and Operation of Mines

Mine development and operations involve considerable risks including technical, financial, legal and permitting. Substantial expenditures are usually required to establish mineral reserves and resources estimates, to evaluate metallurgical processes and to construct and commission mining and processing facilities at a particular site. Currently, the Company's revenue stream depends on production from Orovalle. These projects do not have extensive operating histories upon which to base estimates of future cash flow or extensive mine lives. It is not unusual in the mining industry for mining operations to experience unexpected problems following commencement of commercial production, resulting in delays and requiring more capital than anticipated. Actual costs and economic returns may differ materially from the Company's estimates. Risks associated with the operation of mines include, without limitation: unusual or unexpected geological formations; unstable ground conditions that could result in cave-ins or landslides; floods; power outages; shortages, restrictions or interruptions in supply of natural gas, cyanide, sulphur, iron sponge, lime, water or fuel; labour disruptions; social unrest in adjacent areas; equipment failure; fires; explosions; failure of tailings impoundment facilities; the inability to obtain suitable or adequate machinery, equipment or labour; and the near term ability to successfully transition operations in Don Mario, from open pit to processing stockpiles and tailings. Any of these risks could have a material adverse effect on the Company's results of operations or financial condition.

Infrastructure

Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants, which affect capital and operating costs. The lack of availability on acceptable terms or the delay in the availability of any one or more of these items could prevent or delay exploitation or development of the Company's projects. If adequate infrastructure is not available in a timely manner, there can be no assurance that the exploitation or development of the Company's projects will be commenced or completed on a timely basis, if at all; the resulting operations will achieve the anticipated production volume, or the construction costs and ongoing operating costs associated with the exploitation and/or development of the Company's advanced projects will not be higher than anticipated. In addition, unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's operations and profitability.

Competition

The Company faces considerable competition in acquiring promising mineral claims, mineral leases, exploration properties or other mining assets, access to water, power and other required infrastructure, engaging joint venture partners and obtaining funding support. As a result of this competition, some of which is against companies with substantial capabilities and greater financial and technical resources than Orvana, the Company's costs of such acquisitions may increase or Orvana may be unable to acquire mineral properties, engage joint venture partners or obtain funding on terms it considers acceptable. Orvana also competes with other mining companies to attract and retain key executives and employees. There can be no assurance that Orvana may be able to compete successfully with its competitors in acquiring properties, assets or access to infrastructure or in attracting and retaining skilled and experienced employees.

Acquisitions and Divestitures

From time to time, Orvana examines opportunities to acquire additional mining assets and businesses or divest business units. Any acquisition or divestiture that Orvana may choose to complete may be of significant size, may change the scale of Orvana's business and operations, and may expose Orvana to new or greater geographic, political, operating, financial, legal and geological risks. Orvana's success in its acquisition activities depends on its ability to identify suitable acquisition candidates, negotiate acceptable terms for any such acquisition, and integrate the acquired operations successfully with those of Orvana. Any acquisitions would be accompanied by risks. For example, there may be a significant change in commodity prices after Orvana completes an acquisition or divestiture and established a purchase price or exchange ratio; a material orebody may prove to be below expectations; Orvana may have difficulty integrating and assimilating the operations and personnel of acquired companies, realizing synergies and maximizing the financial and strategic position of the combined enterprise and maintaining uniform standards, policies and controls across the organization; the integration or divestiture may disrupt Orvana's ongoing business and its relationships with employees, customers, suppliers and contractors; and an acquired business or assets may have unknown liabilities which may be significant.

In the event that Orvana chooses to raise debt capital to finance any such acquisition, Orvana's leverage will be increased. If Orvana chooses to use equity as consideration for such acquisition, existing shareholders may suffer dilution. In addition, many companies in the mining industry have seen significant downward pressure on their equity values after announcing significant acquisitions. There is a risk that if Orvana were to announce a significant acquisition, the value of the Common Shares could decrease over the short, medium and/or long term. There can be no assurance that Orvana would be successful in overcoming these risks or any other problems encountered in connection with such acquisitions.

Title Matters

The Company's interests in mineral tenures grant it rights to the minerals discovered in the course of exploration. Obtaining and maintaining property and mineral rights is subject to ongoing compliance with the laws and regulations promulgated with respect to such rights by Orvana. While the Company believes that its title to each of its properties, mineral claims and concessions is generally in good standing, the Company's title to any of such properties, claims and concessions can be uncertain, may be contested and is not guaranteed. The Company's title to any of its properties, mineral claims and concessions may be challenged or impugned and properties, claims and concessions may be subject to prior unregistered agreements or transfers, or local land claims, and title may be affected by undetected defects.

Water Supply

The amount of ore processed at Don Mario is dependent on the volume of water available in nearby reservoirs, which depends on the amount and timing of seasonal rainfall. If a sufficient amount of water is not accumulated and maintained, Don Mario may not be able to operate at full capacity or may be able to do so only on an intermittent basis. El Valle is a no-discharge facility as process water is discharged into the tailings impoundment and sent back to the plant. If there is a water deficit in this closed system, the Company can use mine water to make up that deficit.

Regulatory and Other Risks

The Company is operating El Valle in Spain and Don Mario in Bolivia. As a result, the Company is subject to the laws and governmental regulations in those countries as well as those in Canada and in any other country in which it may develop operations. Changes to such laws or governmental regulations could have a material adverse effect on the Company's ability to obtain and maintain compliance with permits and licenses necessary to operate which could have a material adverse effect on Orvana's results of operations, liquidity or financial condition. Such changes could include changes in respect of: income taxes or royalties; environmental matters; license and permit requirements; human rights matters; repatriation of profits; export controls; restrictions on production; expropriation or nationalization of property; limitations on foreign ownership; and changes in governments or other intervention of governments or other political or economic developments in the jurisdictions in which Orvana carries or may carry on business in the future.

The applicable anti-corruption and anti-bribery laws generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business or other commercial advantage and require the reporting of certain government payments. Orvana's policies mandate compliance with such laws, which can give rise to substantial penalties or other consequences. Orvana operates in jurisdictions that have experienced governmental and private sector corruption to some degree, and, in certain circumstances, strict compliance with anti-bribery laws may conflict with certain local customs and practices. There can be no assurance that Orvana's internal control policies and procedures always will protect it from reckless or other inappropriate acts committed by the Company's affiliates, employees or agents. Violations of these laws, or allegations of such violations, could result in regulatory breaches, fines, temporary shut-down or suspension of operations, litigation or other administrative proceedings which could have a material adverse effect on Orvana's business, financial position and results of operations.

In Canada, the Extractive Sector Transparency Measures Act ("ESTMA"), a federal regime for the mandatory reporting of payments to government, came into force on June 1, 2015. ESTMA introduces new reporting and transparency obligations for the Canadian extractive sector, containing broad reporting obligations with respect to payments to governments and state owned entities worldwide. A failure to comply with ESTMA could result in significant monetary liability for the Company and its directors and officers. While Orvana has put in place processes to comply with ESTMA, there can be no guarantee that such processes will eliminate the risk of a failure to comply with ESTMA.

Permits

Orvana's mining and processing operations and development and exploration activities are subject to extensive permitting requirements. Failure to obtain required permits and/or to maintain compliance with permits once obtained could result in injunctions, fines, suspension or revocation of permits and other penalties. While Orvana strives to obtain and comply with all of its required permits, there can be no assurance that Orvana will obtain all such permits and/or achieve or maintain full compliance with such permits at all times.

The Company is working through such permitting issues at El Valle Mine in Spain. Spanish regulatory authorities have taken the position that Orovalle is not complying with all conditions of certain permits, including the discharge level of selenium and the posting of additional reclamation bonds. Orovalle is working with Spanish regulatory authorities to develop a solution for compliance. Orovalle is also appealing these permit conditions in courts. There can be no assurances that these actions will be successful in changing Spanish regulatory authorities' position on Orovalle's permit compliance. See "Health, Safety, Environment and Social Practices - Environment" above.

Activities required to obtain and/or achieve or maintain full compliance with such permits can be costly and involve extended timelines. Failure to obtain and/or comply with required permits can have serious consequences, including damage to Orvana's reputation; stopping Orvana from proceeding with the development of a project; negatively impacting the operation or further development of a mine; increasing the costs of development or production and litigation or regulatory action against Orvana and may materially adversely affect Orvana's business, results of operations or financial condition.

Orvana's ability to successfully obtain and maintain key permits and approvals will be impacted by its ability to develop, operate and close mines in a manner that is consistent with the creation of social and economic benefits in the surrounding communities and may be adversely impacted by real or perceived detrimental events associated with Orvana's activities or those of other mining companies affecting the environment, human health and safety or the surrounding communities.

Environmental, Health and Safety Regulations

Orvana's mining and processing operations and development and exploration activities are subject to extensive laws and regulations governing the protection of the environment, waste disposal, worker safety, mine development, water management and protection of endangered and other special status species. Failure to comply with applicable environmental and health and safety laws and regulations could result in injunctions, fines, suspension or revocation of permits and other penalties. Where the levels of certain regulated elements potentially exceed permitted levels, evaluations have been provided to the appropriate regulatory authorities and remedial actions have been evaluated and/or implemented, as warranted in the circumstances.

Orovalle is currently working through one environmental matter involving selenium discharges into the Cauxa River in Asturias, Spain in respect of which it has received and may receive additional monetary sanctions or other sanctions, including the revocation or suspension of certain permits, and is subject to a criminal investigation. 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 longer-term water management plan, which is in progress. To date, these remediation efforts have not fully addressed these matters and there can be no assurances that Orovalle's continuing remediation activities will be successful in the short term, or at all, to achieve full compliance with local regulations. In addition, Orovalle has been seeking changes to certain of its permits or, alternatively to receive new permits, relating to these matters, as well as extensions of deadlines to comply with local requirements. See "Health, Safety, Environment and Social Practices - Environment" above.

Activities required to achieve full compliance can be costly and involve extended timelines. Future changes in applicable environmental and health and safety laws and regulations could substantially increase costs and burdens to achieve compliance. Failure to comply with such laws, regulations and permits can have serious consequences, including damage to Orvana's reputation; stopping Orvana from proceeding with the development of a project; negatively impacting the operation or further development of a mine; increasing the costs of development or production; and civil, regulatory or criminal action against Orvana and may materially adversely affect Orvana's business, results of operations or financial condition.

Orvana may also be held responsible for the costs of addressing contamination at the site of current or former activities or at third party sites. Orvana could also be held liable for exposure to hazardous substances. The costs associated with such responsibilities and liabilities may be significant. While Orvana has implemented health and safety initiatives at its sites to ensure the health and safety of its employees, contractors and members of the communities affected by its operations, there is no guarantee that such measures will eliminate the occurrence of accidents or other incidents which may result in personal injuries or damage to property, and in certain instances such occurrences could give rise to regulatory fines and/or civil liability.

In certain of the countries in which Orvana has operations, it is required to submit, for government approval, a reclamation plan for each of its mining sites that establishes Orvana's obligation to reclaim property after minerals have been mined from the site. In Spain, bonds or other forms of financial assurances are required security for these reclamation activities. Orvana may incur significant costs in connection with these reclamation activities, which may materially exceed the provisions Orvana has made for such reclamation. In addition, the unknown nature of possible future additional regulatory requirements and the potential for additional reclamation activities create further uncertainties related to future reclamation costs, which may have a material adverse effect on Orvana's financial condition, liquidity or results of operations. On June 27, 2011, as a condition of receiving an environmental permit on that date, the Government of the Principality of Asturias, required Orovalle to commit to post an additional reclamation bond in the amount of €5.0 million (approximately $5.9 million). To satisfy this requirement, Orovalle deposited €5.0 million in September 2011 with a local bank in favour of the Spanish regulatory authorities. As referenced in “Health, Safety, Environment and Social Practices - Environment” above, Spanish regulatory authorities have demanded 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 the bond, including the consideration of alternatives to posting this bond, while preserving the Company’s rights during the appeal process. See “Health, Safety, Environment and Social Practices - Environment” above.

Political and Related Risks

Orvana’s international assets and operations are subject to various political, economic and other uncertainties, including, among other things, (i) risks of political instability and changing political or economic conditions; (ii) labour and civil unrest, acts of war, terrorism, sabotage, civil disturbances or loss due to theft; (iii) expropriation, nationalization, renegotiation, cancellation or forced modification of existing concessions, licenses, permits, approvals, contracts or property; (iv) adverse changes in laws or policies or increasing legal and regulatory requirements including those relating to taxation, royalties, imports, exports, duties, currency, repatriation restrictions, or other claims by government entities, including retroactive claims and/or changes in the administration of laws, policies and practices; (v) delays in obtaining or the inability to obtain or maintain necessary governmental permits or to operate in accordance with such permits or regulatory requirements; and (vi) restrictions on export of gold, copper or other minerals outside of the countries in which such minerals are mined, restrictions on foreign investment in or ownership of resources and other trade barriers or restrictions.

The Company also may be hindered or prevented from claiming against or enforcing its rights with respect to a government’s action because of the doctrine of sovereign immunity. It is not possible for the Company to accurately predict political or social conditions or developments or changes in laws or policy or to what extent, if any, such conditions, developments or changes may have a material adverse effect on the Company’s operations. Moreover, it is possible that deterioration in economic conditions or other factors could result in a change in government policies respecting the presently unrestricted repatriation of capital investments and earnings. These risks may limit or disrupt operating mines or projects, restrict the movement of funds, cause Orvana to have to expend more funds than previously expected or required, or result in the deprivation of contract rights or the taking of property by nationalization or expropriation without fair compensation, and may materially adversely affect Orvana’s financial position or results of operations.

In Bolivia, the Bolivian constitution provides that the government shall grant mining rights by means of mining contracts in place of the previously established process of granting mining concessions. A process for the migration of mining concessions into mining contracts has finished. Accordingly, previously acquired rights under mining concessions such as those of the Company in respect of “Don Mario” are respected and subject to this migration process.

On May 28, 2014, Law 535 of Mining and Metallurgy (the “New Mining Law”) was promulgated in Bolivia. Pursuant to the New Mining Law, the Company must develop its mining activities to comply with the economic and social function, which means observing the sustainability of the mining activities, work creation, respecting the rights of its mining workers, and ensuring the payment of mining patents and the continuity of existing activities. The New Mining Law does not make any substantial changes to the current tax and royalty regimes in relation to mining activities. The Company having met all the requirements under the new Mining Law and related regulation has completed the procedure and has signed with the Bolivian state 10 mining administrative contracts related to the 10 mining areas over which it has pre-constituted rights according to the Political Constitution of the State. The Company has been carrying out mining activities in Don Mario and has rights over other 9 mining areas with respect to which it has or it is planning to conduct certain exploration activities. In the past, the Bolivian government has nationalized the assets of certain companies in various industries.

In Bolivia, Supreme Decree 1802 provides that when annual gross domestic product (GDP) grows more than 4.5%, an extra month of salary must be paid to all salaried workers in Bolivia, including the private sector, in respect of the month of December (the “Esfuerzo por Bolivia”). In 2019, the GDP grew less than 4.5% and, therefore, the Ministry of Labor did not apply the Esfuerzo por Bolivia rule.

Insurance

Orvana is subject to significant risks and hazards, including environmental hazards, industrial accidents, unusual or unexpected geological conditions, labor force disruptions, civil strife, unavailability of materials, equipment, weather conditions, pit wall failures, rock bursts, cave-ins, flooding, seismic activity, water conditions, theft, terrorism, intrusion and sabotage, most of which are beyond Orvana's control. These risks and hazards could result in: damage to, or destruction of, mineral properties or producing facilities; personal injury or death; environmental damage; delays in mining; and monetary losses and possible legal liability.

The Company has comprehensive insurance coverage in support of its risk management program to cover some of these risks and hazards. The insurance is maintained in amounts that are believed to be reasonable depending on the circumstances surrounding each identified risk. There is no assurance that all circumstances of loss which may occur will be covered under the Company's insurance program or that, in the event of a claim, the amount of the Company's insurance coverage, if any, will be adequate to cover the full amount of the claim.

Reliance on Key Personnel and Labour Relations

The Company's operations are dependent on the abilities, experience and efforts of key personnel. If any of these individuals were to be unable or unwilling to continue to provide their services to the Company, there may be a material adverse effect on the Company's operations. The Company's success is dependent upon its ability to attract and retain qualified employees and personnel to meet its needs from time to time. The Company may be negatively impacted by the availability and potential increased costs that may be associated with experienced key personnel and general labour.

Orvana's ability to achieve its future goals and objectives is dependent, in part, on maintaining good relations with its employees and minimizing employee turnover. Work stoppages or other industrial relations events at either of Orvana's operations could lead to delayed revenues, increased costs and delayed operation cash flows. As a result, prolonged labor disruptions at either of Orvana's operations could have a material adverse impact on its operations as a whole.

Community Relations and Social License to Operate

The Company's relationship with the communities in which it operates are critical to ensure the future success of its existing operations and the construction and development of its projects. There is an increasing level of public concern relating to the perceived effect of mining activities on the environment and on communities impacted by such activities. Certain non-governmental organizations ("NGOs"), some of which oppose globalization and resource development, are often vocal critics of the mining industry and its practices, including the use of cyanide and other hazardous substances in processing activities. Adverse publicity generated by such NGOs or others related to extractive industries generally, or Orvana's operations specifically, could have an adverse effect on the Company's reputation or financial condition and may impact its relationship with the communities in which it operates. While Orvana is committed to operating in a socially responsible manner, there is no guarantee that the Company's efforts in this respect will mitigate this potential risk. Orvana has implemented community relations initiatives within its areas of influence in both Spain and Bolivia, in order to anticipate and manage social issues that may arise at its operations.

Litigation

Orvana is currently subject to certain litigation and may be involved in disputes with other parties in the future which may result in litigation. The results of litigation cannot be predicted with certainty. The costs of defending or settling such litigation can be significant. If Orvana is unable to resolve these disputes favourably, it may have a material adverse impact on Orvana's financial performance, cash flow and results of operations. See "Legal Proceedings".

Conflicts of Interest

Directors of the Company are or may become directors or officers of other mineral resource companies or have significant shareholdings in such other companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the Company's directors may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation.

Controlling Shareholder

As at the date of this AIF, Fabulosa owned approximately 51.9% of the outstanding Common Shares. In addition, as described above under the heading "Development of the Business - Transactions with Fabulosa Mines Limited - Related Party Transactions", Fabulosa has certain contractual rights entitling it to nominate directors of the Company. Consequently, Fabulosa currently has the ability to control the election of the Company's board of directors and may be able to cause the Company to undertake corporate transactions without the consent of the Company's other shareholders, including causing or preventing a change of control of the Company. The liquidity of the Common Shares may be adversely affected as only 48.1% of the Common Shares are being freely traded. This, together with Fabulosa's ability to influence the Company, may have a negative impact on the trading price of the Common Shares.

Share Trading Volatility

The securities of many mineral exploration and development companies, particularly those considered development stage companies, including Orvana's Common Shares, have experienced wide fluctuations in price that have not necessarily been related to the operating performance, underlying asset values or the prospects of such companies, but may be related to global financial and economic conditions, commodities price fluctuations and market liquidity. There can be no assurance that continued fluctuations in the price of Orvana's Common Shares will not occur.

DIVIDENDS

The Company has not declared any dividends to date. The payment of any future dividends by the Company will be considered by the board of directors having regard to the Company's earnings, financial requirements and other conditions at a future time.

DESCRIPTION OF CAPITAL STRUCTURE

The authorized capital of the Company consists of an unlimited number of Common Shares. As at September 30, 2020, there were 136,623,171 Common Shares outstanding. As at the date of this AIF, Fabulosa held 70,915,027 Common Shares, representing 51.9% of the currently outstanding Common Shares.

Each Common Share carries one vote at all meetings of shareholders, is entitled to receive dividends as and when declared by the Board, and is entitled to participation in in the remaining property and assets of the Company upon dissolution or winding-up.

As described above under the heading "Development of the Business - Transactions with Fabulosa Mines Limited - Related Party Transactions", Fabulosa has a pre-emptive right with respect to the issuance of additional Common Shares or securities convertible into Common Shares to other persons, entitling Fabulosa to acquire Common Shares or convertible securities on the same terms and conditions as those so issued by the Company, subject to applicable requirements of the Toronto Stock Exchange.

Orvana has adopted a 2006 stock option plan (the "2006 Option Plan"), a 2018 stock option plan ("2018 Stock Option Plan"), a Restricted Share Unit Plan for designated executives (the "RSU Plan"), a Deferred Share Unit Plan for directors (the "DSU Plan") and a Stock Appreciation Plan for designated executives (the "SAR Plan"). The 2018 Stock Option Plan was adopted by the shareholders of the Company at the annual general & special shareholders meeting held on February 14, 2018. Since the adoption of the 2018 Stock Option Plan, no further grants of options will be made by the Company under to the 2006 Stock Option Plan. Information relating to the Option Plan, the RSU Plan, the DSU Plan and the SAR Plan and securities outstanding thereunder is set out in Orvana's most recent management information circular filed at www.sedar.com.

MARKET FOR SECURITIES

The Common Shares are listed and traded on the Toronto Stock Exchange under the symbol “ORV”. The following table provides the historical monthly trading price ranges and volumes for the Common Shares during the fiscal year ended September 30, 2020:

Trade Date	Symbol	High Price	Low Price	Trade Volume
September 2020	ORV	0.29	0.225	831,998
August 2020	ORV	0.315	0.245	1,799,313
July 2020	ORV	0.28	0.205	3,107,157
June 2020	ORV	0.21	0.15	1,745,470
May 2020	ORV	0.195	0.15	2,018,553
April 2020	ORV	0.195	0.14	2,445,167
March 2020	ORV	0.225	0.11	4,226,800
February 2020	ORV	0.26	0.15	2,203,110
January 2020	ORV	0.255	0.155	3,224,512
December 2019	ORV	0.17	0.12	1,928,887
November 2019	ORV	0.19	0.12	4,259,779
October 2019	ORV	0.24	0.155	2,339,597

DIRECTORS AND OFFICERS

The names and provinces/states of residence of the directors and officers of the Company as at the date of this AIF, the positions and offices held by them with the Company, and their principal occupations for the past five years are set forth in the following table.

Name and Province or State and Country of Residence	Position with the Company (1)	Principal Occupation For Past Five Years
Darling, George(3)(4) British Columbia, Canada	Director since February 2017	Senior VP Engineering, Sandstorm Gold Ltd., a gold streaming and royalty company (current) Senior Mine Consultant and Regional Director at Hatch Ltd., a mining business and technical consulting company Senior Mine Consultant and Regional Director of SNC-Lavalin
Edwards, Alan (2) (4) Arizona, USA	Director since May 2016	President of AE Resources Corp., a mining consulting company (current) Director, Chairman of the Technical Committee of Entrée Resources Ltd., a mineral resource company (current) Director, Chairman of the Sustainability and Technical Committee of Americas Gold and Silver Corporation (current) Director and Non-Executive Chairman of Tonogold Resources, Inc. (current) Non-Executive Chairman of the Board of Rise Gold Corp. Non-Executive Chairman of the Board of Mason Resources Corp. Principal of Gladiator Mining Group LLC Director of Detour Gold Corporation Non-Executive Chairman of the Board of AQM Copper Inc. Non-Executive Chairman of the Board, Chairman of the Sustainability Committee of AuRico Gold Corporation Non-Executive Chairman of the Board Director, President, Chief Executive Officer, and Director of Oracle Mining Corp. (5)
Garcia Gonzalez, Alfredo(4) Santiago, Chile	Director since February 2018	Businessman with over 40 years' experience in the mining business, most of them related with base metals and gold exploration (current) Regional Exploration Manager (International Division) of Antofagasta plc, a Chilean copper mining group, from 2011 to 2017.
Guimaraes, Edmundo (2) Ontario, Canada	Director since February 2013	Chief Financial Officer of Sierra Metals Inc., precious and base metals producer in Latin America (current) Director of Aldridge Minerals Inc.

Name and Province or State and Country of Residence	Position with the Company (1)	Principal Occupation For Past Five Years
Magner, Sara (3) Virginia, U.S.A.	Director since November 2015	Trustee and member of the Executive Committee of The Langley School (current) Corporate Secretary and General Counsel of Minera S.A.(6), affiliate of Fabulosa Associate of Greenberg Traurig LLP
Pridham, Gordon (2) (3) Ontario, Canada	Chairman since February 2018 Director since November 2014	Director of America Gold and Silver Corporation (previously Scorpio Mining Corporation (current) Director of Tervita Corporation (current) Advisory board member of Enertech Capital (current) Principal of Edgewater Capital (current) Director and Chair of the board of CHC Student Housing Corp. Executive Chairman of Titanium Corporation Inc. Director of Roxgold Inc., a gold mining company with operations in West Africa.
Gavidia, Juan Florida, U.S.A.	Chief Executive Officer since January 2018	Vice-President, Operations of Orvana Minerals Corp. Independent consultant, general management & operations related to gold and copper projects
Menendez, Nuria Asturias, Spain	Chief Financial Officer since May 2018	General Manager of Orovalle Minerals, a subsidiary of Orvana Minerals Corp. Manager at Deloitte (Spain)
Vu, Binh Ontario, Canada	VP Legal Affairs since November 2018 General Counsel since December 2017	General Counsel of Alberta Oilsands Inc. Partner at Aird & Berlis LLP

(1) The term of office of each director expires at the close of the next annual meeting of shareholders of the Company. An officer of the Company serves until such officer resigns or his or her replacement is appointed.

(2) Member of the Audit Committee.

(3) Member of the Compensation, Nominating and Corporate Governance Committee.

(4) Member of the Safety, Environment and Technical Committee.

(5) Mr. Edwards was Chairman of the Board of Oracle Mining Corp. ("Oracle") until his resignation effective February 15, 2015. On December 23, 2015, Oracle announced that the Superior Court of Arizona had granted the application of Oracle's lender to appoint a receiver and manager over the assets, undertaking and property of Oracle Ridge Mining LLC.

(6) Minera S.A. is an international mining holding company.

As at the date of this AIF, to the knowledge of the Company, the directors and officers of the Company as a group beneficially owned, or exercised control or direction over, directly or indirectly, an aggregate of 677,650 Common Shares of the Company representing approximately 0.50% of the outstanding Common Shares of the Company.

LEGAL PROCEEDINGS

As disclosed in “Health, Safety, Environment and Social Practices - Environment” above, a judge of the criminal court of Asturias conducted an investigation into the potential commission by Orovalle of a reckless crime under the Spanish penal code relating to the SE Discharge Matter. After six years of investigation, during the third quarter of fiscal 2020 the Grado’s Court issued the order to commence an oral trial to address the SE Discharge Matter in a criminal court of Oviedo (the capital of Asturias). A date for the commencement of the oral trial has been set for March 2021. In connection with the pending oral trial, the Court set a requirement on Orovalle to provide a bond in the amount of €7 million as warranty for contingent liabilities, subject to the outcome of the oral trial. Orovalle has appealed the bond taking the position that past and prevailing levels of selenium in waterways impacted by Orovalle did not cause any damage to the environment. The appeal is in progress as of date hereof. With respect to the oral trial, Orovalle has filed its preliminary statement of defence asking for the acquittal on the basis that, among other things, there is absence of a committed criminal offence. 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. It has cooperated and will continue to cooperate with investigations and is defending itself vigorously. The Company may be involved in other legal proceedings from time to time, arising in the ordinary course of its business. The amount of ultimate liability with respect to these actions will not, in the opinion of management, materially affect the Company’s financial position, results of operations or cash flows. The Company does not believe that the outcome of any of the matters not recorded in its financial statements, individually or in aggregate, would have a material adverse effect.

Certain former employees of EMIPA affected by the restructuring process at Don Mario during the second quarter of fiscal 2020 (the “Former Employees”) decided not to accept the dismissal terms provided for under applicable employment laws in Bolivia. In respect of these Former Employees, the Company proceeded to deposit into a judicial account the compensation benefits to which the aforementioned employees were entitled within the period established by law and according to the terms defined by the local regulation. As a result of filings by the Former Employees under the labour administrative resolution process to dispute EMIPA’s dismissal process, the Santa Cruz Departmental Labor Authority notified EMIPA in July 2020 by way of “reinstatement resolutions” directing that the 78 Former Employee should be reinstated to their original job positions with the payment of the wages accrued since their dismissal. EMIPA subsequently filed an appeal to dispute the ”reinstatement resolutions” on the basis that the dismissal process conducted by EMIPA during the restructuring process is in compliance with applicable employment laws. The result of the administrative appeal was positive for EMIPA, therefore Former Employees filed a final appeal known as the “Hierarchical Resource” with the Ministry of Labor at La Paz (national administrative level), the last step of the labor administrative resolution process. During December 2020, the Ministry of Labor at La Paz ruled in favour of the Former Employees. EMIPA is currently reviewing its options to appeal the “Hierarchical Resource” ruling to seek a further determination of the matter through a judiciary and/or constitutional process.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

During fiscal 2020, 2019 and 2018, the Company entered into certain transactions with Fabulosa, a 51.9% shareholder of Orvana. For a description of these transactions, see “Development of the Business - Transactions with Fabulosa Mines Limited - Related Party Transactions”.

TRANSFER AGENT AND REGISTRAR

As at the date of this AIF, the Company’s transfer agent and registrar is AST Trust Company (Canada), Toronto Street, Suite 1200, Toronto, Ontario, M5C 2V6.

MATERIAL CONTRACTS

Other than contracts described in this AIF, there are no other material contracts entered into before fiscal 2020, but still in effect or entered into during fiscal 2020.

AUDIT COMMITTEE DISCLOSURE

The Audit Committee's Charter

The Charter of the Audit Committee of the Company is included in this AIF as Appendix A.

Composition of the Audit Committee

The Audit Committee members are Edmundo Guimaraes (Chair), Gordon Pridham and Alan Edwards, each of whom is "independent" and "financially literate", as such terms are defined in Multilateral Instrument 52-110 - Audit Committees of the Canadian Securities Administrators ("MI 52-110").

Mr. Edmundo Guimaraes is a Chartered Professional Accountant, Chartered Accountant and holds a Bachelor of Arts in Administrative and Commercial Studies. He is the Chair of the Audit Committee, the Chief Financial Officer of Sierra Metals Inc. and has been an independent business consultant since 2008. Prior to that, Mr. Guimaraes was Executive Vice President, Finance and Chief Financial Officer of Aur Resources Inc. Mr. Guimaraes is a director and member of audit committees of certain other Canadian public companies.

Mr. Gordon Pridham is a graduate of the University of Toronto and the Institute of Corporate Directors program. He has spent a career working for global financial institutions that financed and advised companies in public and private markets across a broad range of industry sectors. He has served on numerous other audit committees.

Mr. Alan Edwards holds an MBA, with an emphasis in Finance, and Bachelor of Science in Mining Engineering both from the University of Arizona in Tucson, Arizona. He has spent a career working in various positions including senior leadership and executive roles, such as CEO and president, with various companies in the global mining sector.

Pre-approval Policies and Procedures

The charter of the Audit Committee requires prior approval by the Audit Committee of non-audit services to be provided by the Company's auditors or, if the Audit Committee determines it to be appropriate, prior approval by the Chair of the Audit Committee. In the latter case, any pre-approval must be presented to the full Audit Committee at its next scheduled meeting.

External Auditor Service Fees

The following table sets forth the fees incurred by Orvana during fiscal 2019 and fiscal 2018 in respect of the services set out below provided by PwC, the Company's external auditors:

Fiscal Year ended September 30, (US$'000)	**2020**	**2019**
Audit fees (1)	330	332
Audit-related fees (2)	9	4
Tax fees (3)	37	18
All other fees (4)	-	-
Total fees(5)	**$376**	**$354**

(1) "Audit fees" include the aggregate professional fees billed by PwC for the audit of the annual consolidated financial statements of the Company. Audit fees are reflected according to the agreement for each fiscal year.

(2) "Audit-related fees" include the fees billed by PwC for assurance and related services that are reasonably related to the performance of the audit and are not included in "Audit fees".

(3) "Tax fees" include the aggregate fees billed by PwC for tax compliance, tax advice, tax planning and advisory services relating to the preparation of corporate income tax and capital tax returns.

(4) "All other fees" include the aggregate fees billed by PwC for all other products and services other than those presented in the categories of audit, audit-related fees and tax fees.

(5) Reimbursements of expenses are excluded from the above.

INTERESTS OF EXPERTS

PwC LLP is Orvana's external auditor and prepared the "Independent Auditors' Report to the Shareholders of Orvana Minerals Corp.", dated December 1, 2020 in respect of the 2020 Financials. PwC has informed Orvana that it is independent with respect to Orvana within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Ontario.

Each of the following individuals is a "qualified person" for the purposes of NI 43-101: (i) of RPA, Mr. Rick C. Taylor, P.Eng., in respect of the estimated mineral reserves and the life of mine plan; Mr. John Makin, P.Geo., in respect of the estimated mineral resources; Mr. Jack P. Lunnon, CGeol and EurGeol; Mr. Patrick Donlon, FAusIMM; and Ms. Alessandra (Alex) Pheiffer, M.Sc., PrSciNat, EAPAN (such individuals being the overall author of Orovalle 43-101 Report and having approved of the scientific and technical information from the Orovalle 43-101 Report disclosed in Appendix B of this AIF, unless otherwise indicated); and (ii) Mr. Gino Zandonai of DGCS (such individual being the author of the Don Mario Oxide Stockpile 43-101 Report and having approved of the scientific and technical information from the Don Mario Oxide Stockpile 43-101 Report disclosed in Appendix B of this AIF, unless otherwise indicated).

To the knowledge of Orvana, as of the date hereof, none of such individuals beneficially own, directly or indirectly, any Common Shares of Orvana or securities convertible into Common Shares of Orvana.

ADDITIONAL INFORMATION

Additional information with respect to Orvana, including directors' and officers' remuneration and indebtedness, principal holders of Orvana's securities and securities authorized for issuance under equity compensation plans, where applicable, is contained in Orvana's management information circular for its most recent annual meeting of shareholders that involved the election of directors. Additional financial information is provided in the 2020 Financials and management's discussion and analysis for fiscal 2020, the Company's most recently completed financial year. This information and additional information relating to Orvana are available on Sedar at www.sedar.com and on Orvana's website at www.orvana.com.

APPENDIX A

ORVANA MINERALS CORP. - ANNUAL INFORMATION FORM

APPENDIX A

ORVANA MINERALS CORP. - ANNUAL INFORMATION FORM

Charter of the Audit Committee

1. Purpose

The Audit Committee (the "Committee") of the Board of Directors (the "Board") of Orvana Minerals Corp. (the "Corporation") is appointed by the Board to assist the Corporation and the Board in fulfilling their respective obligations relating to the integrity of the internal financial controls and financial reporting of the Corporation.

2. Membership

Independence

The Committee shall consist of such number of members (at least three) as are appointed from time to time by the Board. Unless otherwise determined by the Board and permitted by Multilateral Instrument 52-110 - *Audit Committees* ("MI 52-110"), the Committee shall be composed solely of directors who have no direct or indirect material relationship with the Corporation which could, in the view of the Board, reasonably interfere with the exercise of such director's independent judgement, and are otherwise independent as determined in accordance with MI 52-110.

Financial Literacy

Unless otherwise determined by the Board and permitted by MI 52-110, all members of the Committee shall be financially literate, meaning they shall have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues generally comparable to the issues that can reasonably be expected to be raised by the Corporation's financial statements.

Chair of the Audit Committee

The Board shall appoint the Chair of the Committee. The Board may, by resolution, at any time remove any member of the Committee, with or without cause, or add to or otherwise change the membership of the Committee. Committee membership shall not, however, be reduced to less than three or vary from the qualification requirements specified above. A member of the Committee shall cease to be a member upon ceasing to be a director of the Corporation.

3. Duties and Responsibilities

The Committee shall have all the powers and duties conferred on it by the laws governing the Corporation and such other powers and duties as may be conferred on it from time to time by resolution of the Board. In addition to the foregoing powers and duties, the Committee shall have the following duties and responsibilities:

(a) To review, prior to approval thereof by the Board and public disclosure thereof, all financial statements of the Corporation, whether annual or periodic, and the external auditor's report, if any, thereon and any annual or interim MD&A (a) prepared for submission to a meeting of the directors of the Corporation, (b) which may be required by applicable law to be reviewed by the Committee or (c) which the Board may by resolution determine shall be so reviewed, and to report to the Board:

(i) if the same have been prepared in accordance with the laws to which the Corporation is subject and the policies from time to time adopted by the Board;

(ii) any significant changes in the form or content of such statements from the corresponding statements most recently approved by the Board and the reason(s) therefore, together with any intervening developments in relevant accounting principles, policies and practices which have been taken into account in preparing such financial statements or which, in the opinion of the Committee or the external auditor of the Corporation, might have been taken into account for that purpose; and

(iii) relating to the report of the external auditor as to form and content of such statements and as to the level of co-operation of management received by the external auditor in the conduct of the audit.

(b) To review all annual or periodic financial results press releases of the Corporation prior to public disclosure by the Corporation.

(c) To satisfy itself that adequate procedures are in place for the review of public disclosure of any financial information of the Corporation including the information listed in (1) and (2) above and to periodically assess such procedures.

(d) To review all financial statements of the Corporation, whether annual or periodic, appearing in a prospectus.

(e) To review estimates and judgments that are material to reported financial information and consider the quality and acceptability of the Corporation's accounting policies and procedures and the clarity of disclosure in financial statements.

(f) To review such investments and transactions that could adversely affect the well-being of the Corporation as the external auditor or any officers of the Corporation may bring to the attention of the Committee.

(g) To receive reports on the periodic findings of any regulatory authority and management's response and observations thereon.

(h) To meet with the external auditor to discuss the quarterly and annual statements and the transactions referred to in this Charter.

(i) To review the audit plan, including such factors as the integration of the external auditor's plan for procedures performed in Canada and elsewhere and whether the nature and scope of the planned audit procedures can be expected to detect material weaknesses in internal controls and determine if financial statements present fairly and accurately the Corporation's financial position in accordance with generally accepted accounting principles.

(j) To identify the risks inherent in the business of the Corporation and to review and approve management's risk philosophy and risk management policies necessary to address as much as reasonably possible those identified risks.

(k) To satisfy itself that management has taken appropriate actions to ensure the effective management of such risks and to review periodic reports received from management in order to perform its oversight role.

(l) To review periodically, but at least annually, management reports demonstrating compliance with risk management policies and confirm annually that management has taken reasonable steps to ensure compliance with standards.

(m) To review and recommend to the Board the appointment of an external auditor and the compensation of such external auditor.

(n) To review and evaluate the performance of the external auditor, including how and under what circumstances external auditors are to be rotated or removed, such review to include, but not be limited to:

  (i) a review of estimated and actual fees;

  (ii) a review of the engagement letter of the external auditor and the scope and timing of the audit work;

  (iii) pre-approval of all non-audit work to be performed by the external auditor and the fees to be paid therefor; and

  (iv) at least annually, obtaining and reviewing a report by the external auditor describing (A) the internal quality-control procedures of the external auditor; and (B) any material issues raised by the most recent internal quality-control review, peer review, review by any independent oversight body such as the Canadian Public Accountability Board or governmental or professional authorities within the preceding five years respecting one or more independent audits carried out by the external auditor and the steps taken to deal with any issues raised in these reviews.

(o) To ensure that the Corporation complies with the guidelines of the *Canadian Institute of Chartered Accountants* relating to the hiring of current and former partners and employees of the external auditor.

(p) To be directly responsible for overseeing the work of the external auditor including the resolution of disagreements between management and the external auditor regarding financial reporting.

(q) To review with the external auditor the performance of management involved in the preparation of financial statements, any problems encountered by the external auditor, any restrictions on the external auditor's work, the co-operation received in performance of the audit and the audit findings, any significant recommendations made to management on internal controls and other financial and business matters and management's response to the recommendations.

(r) To provide the external auditor with the opportunity to meet with the Committee without management present at least once per year for the purpose of discussing any issues.

(s) If determined appropriate by the Committee, to delegate authority to pre-approve non-audit services of the external auditor to the chair of the Committee, which pre-approval must be presented to the full Committee at its next scheduled meeting.

(t) To confirm the accountability of the external auditor to the Committee and the Board and to satisfy itself that the external auditor's independence in carrying out the audit function is not impaired by either management or the external auditor's own action or activities.

(u) To require the management of the Corporation to implement and maintain appropriate internal control and data security procedures and oversee their implementation and operation.

(v) To review periodic reports received from the internal auditor of the Corporation or a third party internal auditor (the "Internal Auditor") with respect to the Corporation's system of disclosure controls and procedures and internal control over financial reporting, including annual plans as applicable, and to review any material matters arising from any known or suspected violation of the Code of Business Conduct and Ethics of the Corporation with respect to financial and accounting matters raised through the Company's whistleblower line or otherwise.

(w) To review the competencies, skills, experience and areas of expertise of a potential candidate for the position of Chief Financial Officer of the Corporation.

(x) To conduct any investigation considered appropriate by the Committee.

(y) To review the competence and adequacy of the Corporation's staffing for the accounting, financial and internal audit functions.

(z) To establish a satisfactory procedure for the receipt, retention and handling of complaints received by the Corporation regarding accounting, internal accounting controls or auditing matters, which will include procedures for the confidential, anonymous submission of concerns by employees with regard to these matters.

(aa) To report and make recommendations to the Board arising from its responsibilities as the Committee considers appropriate.

(bb) The Committee shall complete any other duties and responsibilities delegated by the Board to the Committee from time to time.

To ensure that the Committee is able to discharge the foregoing duties and responsibilities, the Corporation shall require the external auditor and Internal Auditor to report periodically directly to the Committee.

4. Review of Internal Audit Function

The Committee shall review the mandate of the Internal Auditor, the annual budget and planned activities and organizational structure thereof to ensure that it is independent of management and has sufficient resources to carry out its mandate.

The Committee shall meet in camera with the Internal Auditor as frequently as the Committee determines is appropriate for the Committee to fulfil its responsibilities to discuss any areas of concern to the Committee or to the Internal Auditor to confirm that (i) significant resolved and any unresolved issues between the Internal Auditor and management have been brought to the attention of the Committee; (ii) the principal risks of the Company's businesses have been identified by management and appropriate policies and systems have been implemented to manage these risks; and (iii) the integrity of the Company's internal control and management information systems are satisfactory.

5. Minutes

Minutes shall be kept of all meetings of the Committee. The Chair of the Committee may appoint a Committee member or any other attendee to be the secretary of a meeting.

6. Meetings

Except as otherwise provided in this mandate, the rules and regulations relating to the calling and holding of and proceedings at meetings of the Committee shall be those, making allowance for the fact that it is a committee, that apply to meetings of the Board, subject to such modifications as may, from time to time, be determined by resolution of the Committee. Until otherwise determined by resolution of the Board:

(a) The quorum for meetings of the Committee shall be two of its members.

(b) Meetings of the Committee may be called by its Chair or Vice Chair, if any, or by any member of the Committee, or by the external auditor of the Corporation. The Committee may at any time request the attendance of any officer of the Corporation or any person at any meeting of the Committee. Any member of the Committee may request the external auditor of the Corporation to attend every meeting of the Committee held during the member's term of office.

(c) The external auditor of the Corporation shall receive notice of every meeting of the Committee and may attend and be heard at any meeting.

(d) Meetings of the Committee shall be held at such time and place as may be determined from time to time by the Committee or by the Chair or Vice Chair, if any, of the Committee (but in no event less than once quarterly), and notice thereof shall be given in the manner and with the length of notice provided in the resolution(s) of the Board relating to notices of meetings of directors.

7. Reports to the Board

The Committee shall report to the Board as follows:

(a) In the case of interim and annual statements and any returns that under applicable legislation must be approved by the Board, the Committee shall report thereon to the Board before approval is given.

(b) All significant actions of the Committee shall be reported to the Board preferably at its next succeeding regular Board meeting or, if not possible, at the following meeting of the Board and shall be subject to revision or alteration by the Board.

(c) The Committee may call a meeting of the Board to consider any matter of concern to the Committee.

8. Access to Information

In its discharge of the foregoing duties and responsibilities, the Committee shall have the authority to communicate directly with the external auditor and shall have free and unrestricted access at all times, either directly or through its duly appointed representatives, to the relevant accounting books, records and systems of the Corporation and shall discuss with the employees and auditors of the Corporation such books, records, systems and other matters considered appropriate.

9. Independent Advisors

The Committee shall have the authority to engage such independent counsel and other advisors as it may from time to time deem necessary or advisable for its purposes and to set and cause to be paid by the Corporation the compensation of any such counsel or advisors.

10. No Rights Created

This Charter is a broad policy statement and is intended to be part of Committee's flexible governance framework. While this Charter should comply with all applicable laws, regulations and listing requirements and the Company's articles and by-laws, this Charter does not create any legally binding obligations on the Committee, the Board or the Corporation.

11. Board Review of Charter

The Board shall review the adequacy of the Committee’s charter on at least an annual basis. In accordance with MI 52-110, the text of this Charter shall be included in the Corporation’s Annual Information Form.

APPENDIX B

ORVANA MINERALS CORP. - ANNUAL INFORMATION FORM

Principal Mineral Projects

Terms not otherwise defined herein are defined in the Annual Information Form of Orvana dated December 29, 2020.

Orovalle

The following is the summary section of the Orovalle 43-101 Report entitled "*Technical Report on the Orovalle Operation, Asturias, Spain*" dated November 30, 2020 prepared by Roscoe Postle Associates UK Ltd. (RPA), now part of SLR Consulting Ltd (SLR). The full text of the Orovalle 43-101 Report is available for viewing on SEDAR at www.sedar.com and is incorporated by reference in this AIF. Defined terms and abbreviations used herein and not otherwise defined shall have the meanings ascribed to such terms in the Orovalle 43-101 Report.

EXECUTIVE SUMMARY

Roscoe Postle Associates UK Ltd. (RPA), now part of SLR Consulting Ltd (SLR), was retained by Orovalle Minerals S.L. (Orovalle) to prepare an independent Technical Report on the Orovalle Operation. The purpose of this Technical Report is to disclose Mineral Resource and Mineral Reserve estimates for the Orovalle Operation, as at September 30, 2020. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects. RPA initially visited the property from June 1 to 13, 2014 and again from October 19 to 21, 2020.

The Orovalle Operation includes:

- El Valle Boinás and Carlés gold-copper-silver mines, located in Asturias, Spain in the municipalities of Belmonte de Miranda and Salas, along with the El Valle processing plant and El Valle tailings storage facility (TSF), collectively, the El Valle Operation.
- La Brueva and Quintana projects, located in Asturias, Spain in the municipality of Belmonte de Miranda, which consist of mineral rights not currently being exploited.
- La Ortosa-Godán project, located in Asturias, Spain in the municipality of Salas, which consists of mineral rights not currently being exploited.

- Lidia project, located in Asturias, Spain in the municipality of Allande, which consists of mineral rights not currently being exploited.

Orovalle is a wholly owned subsidiary of Orvana Minerals Corp. (Orvana). Orvana is an Ontario registered company and its common shares are listed on the Toronto Stock Exchange (TSX) under the symbol ORV.

Orvana is a gold, copper and silver producer with properties in Spain, Bolivia, and Argentina. In September 2009, Orvana acquired Orvana Minerals Asturias Corp. (previously Kinbauri Gold Corp. (KGC)) and with it the historically producing El Valle Operation. The El Valle Operation recommenced commercial production in August 2011.

The Boinás underground mine is a currently producing asset, with a nominal mining rate of 2,000 tonnes per day (tpd) ore. Mined ore is classified into oxide and skarn ore. The Carlés open pit and underground mines are currently on care and maintenance.

A gravity-flotation-leach processing plant, located at Boinás, produces doré bars and copper concentrate with gold and silver credits. Total production for the 2020 fiscal year (FY), which runs from October to September, was 51,104 ounces (oz) of gold and 5.6 million pounds (Mlb) of copper. A total of 633,765 tonnes (t) of ore were milled during the FY 2020.

Orovalle Operation Mineral Reserves total 3.4 Mt, at grades of 2.78 g/t Au, 6.86 g/t Ag, 0.36% Cu, and. A Life of Mine Plan (LOMP) for Orovalle forecasts five years of mining at similar production rates to the current operation.

CONCLUSIONS

RPA offers the following conclusions:

GEOLOGY AND MINERAL RESOURCES

- Measured and Indicated Mineral Resources, inclusive of Mineral Reserves, total 7.93 Mt, grading 3.74 g/t Au, 10.38 g/t Ag, and 0.51% Cu, containing 0.955 Moz Au, 2.646 Moz Ag, and 90 Mlb Cu.
- Inferred Mineral Resources total 3.36 Mt, grading 3.80 g/t Au, 8.64 g/t Ag, and 0.33% Cu, containing 0.410 Moz Au, 0.934 Moz Ag, and 24.8 Mlb Cu.
- Drilling, logging, and sampling methodologies meet industry standards and are suitable to support Mineral Resource and Mineral Reserve estimations.
- The sampling method and approach is reasonable to support Mineral Resource estimation.
- The sample preparation, analysis, and security procedures at the Orovalle Operation are adequate for use in Mineral Resource estimation.
- The quality assurance/quality control (QA/QC) program as designed and implemented by Orovalle is appropriate, and the assay results within the database are suitable for use in Mineral Resource and Mineral Reserve estimation.
- The database contains no significant errors and is suitable to support Mineral Resource and Mineral Reserve estimation.
- RPA undertook independent checks on the database, wireframing, capping, compositing, variography, and grade estimation and found all differences to be within acceptable limits. The Orovalle Operation database contains no significant errors and is suitable to support Mineral Resource and Mineral Reserve estimation.
- RPA considers the 2020 Mineral Resource to be free of material flaws and acceptable for use in estimating Mineral Reserves.
- The final variance between the Mineral Resource model and metal production from the El Valle processing plant is likely to be within 15% of the estimate. These results are acceptable as they are similar to other high nugget gold operations in comparable geological settings.

MINING AND MINERAL RESERVES

- Proven and Probable Mineral Reserves total 3.43 Mt, grading 2.78 g/t Au, 6.86 g/t Ag, and 0.36% Cu, containing 307,000 oz Au, 756,240 oz Ag, 27.6 Mlb Cu. Mineral Reserves are estimated at metal prices of US$1,600/oz Au, US$18/oz Ag, US$3.00/lb Cu, and a US$/€ exchange rate of 1.20/1.00.

- Some marginal grade material is included in Mineral Resources, and excluded from Mineral Reserves, due to application of dilution factors and higher cut-off grades.

- Mining unit costs are known to vary significantly by mining method, with low productivity drift and fill mining (D&F) via hydraulic hammer being considerably more expensive than higher productivity sub-level stoping (SLS) mining.

- The production schedule forecasts five years of mining at similar production rates to the current operation.

- Production activities are expected to continue at Boinás underground from developed areas through to the end of the mine life.

- There is potential to increase oxide ore extraction from within the TSF crown pillar exclusion zone. This is subject to a current investigation by an independent international consulting firm and could potentially increase Mineral Reserves further.

- The Carlés underground mine is currently on care and maintenance. Carlés underground Mineral Reserves as of September 2020 comprise 136,000 t at 2.56 g/t Au, 4.71 g/t Ag, and 0.20% Cu classified as Probable. Orovalle is currently evaluating the information obtained from the last drilling campaign in the FY 2020. Mine designs are under review in order to maximize the value of the Carlés orebody and to define the production future schedule. An additional 300,000 t of skarn ore could potentially be extracted from the Carlés open pit. However, this is contingent on Orovalle obtaining the required land and environmental permits. As such, these tonnes have been excluded from the Mineral Reserves estimate at this point in time.

- The average life of mine (LOM) operating cost is estimated to be US$102/t milled. Sustaining capital costs are estimated to total US$48.2 million, plus US$15.1 million (discounted) for reclamation and closure (including a total of US$8.9 million in bonds already lodged).

- Cash flow analysis of the production plan verified that Mineral Reserves are economically mineable, under the metal price and cost assumptions summarised in this Technical Report.

MINERAL PROCESSING AND METALLURGICAL TESTING

- The El Valle processing plant has historically processed three different types of ore: Boinás oxides, Boinás skarn, and Carlés skarn at varying ratios, and has generally demonstrated its ability to consistently achieve throughput and recovery targets. RPA is not aware of any circumstances that would prevent the El Valle processing plant from continuing to achieve its target performance metrics.

- Based on the gold mineralogy in the oxide and sulphide ores, it is anticipated that gold in oxide ore will generally be recovered as doré product from gravity and carbon in leach (CIL) circuits, while gold in sulphide skarn ore will be recovered into flotation concentrate. RPA analysed the available plant data for correlations, and it is evident that as expected the recovery of gold to copper concentrate and doré is influenced by the plant feed ore mix. A higher oxide to skarn ratio generally results in a higher recovery of gold to doré, with the converse also holding true.

- Recent mineralogical examinations of process streams and reviews of plant procedures are valuable sources of information that assist with improving plant performance. An independent plant metal accounting audit report was produced (SC242) in 2015.

- RPA is in agreement with the conclusions of the 2016, 911 Metallurgy Corp. (911 MC) Transition Ore Test, Report SC257, that transition ore can be processed through the El Valle processing plant as part of the ore feed mix. The gravity and flotation circuits should continue to be used in conjunction with the CIL circuit to ensure that minimal cyanide soluble copper minerals enter the leach.

- RPA has reviewed the independent Mine Laboratory ISO 9001 Audit Report prepared by Aenor and published in March 2020, and certificates for weight scale calibrations undertaken in 2019 by an independent third party. In RPA's opinion the ISO 9001 certification and ongoing audits and independent weight scale calibrations are good practice and contribute to the integrity of metal accounting processes.

ENVIRONMENT, PERMITTING, AND SOCIAL/COMMUNITY

- The Orovalle Operation is permitted and bonded, however Spanish regulatory authorities have taken the position that Orovalle is not complying with all conditions of their permits (as discussed below).
- Orovalle is working through an environmental matter involving selenium discharges to the Caúxa River, which has had financial implications and may have additional financial, permitting or legal consequences for the operations. Remediation activities including water treatment as well as ongoing permitting-related discussions with the Spanish regulatory authorities have been on-going since 2014. Orovalle has noted that there are uncertainties and risks associated with the outcomes of this matter that could significantly affect the Orovalle Operation's ability to continue mining.
- Contamination of receiving water resources (and subsequent downstream impacts) appears to be the main environmental risk identified at the Orovalle Operation. As a result, water treatment and management are identified as a focus area for the operations given the matter identified above.
- Reclamation plans and associated bonds are in place for the mine. The reclamation plans are reviewed every five years and are used to inform ongoing rehabilitation of areas no longer needed for mining activities. This is in line with good industry practise.
- In addition to the bonds already in place, Orovalle has noted that the Spanish regulatory authorities have requested an additional reclamation bond of €5 million (approximately US$5.854 million) be deposited in their favour to satisfy additional reclamation bond commitments in respect of the El Valle TSF. Orovalle has filed an appeal with the Spanish regulatory authorities against the assessment of the additional bond. Through the administrative appeal process, Orovalle is working with Spanish regulatory authorities to seek alternatives, which includes, without limitation, relief from posting the additional reclamation bond.
- To maintain a social license to operate, it is highly important that the surrounding municipalities and communities are supportive of mining activities at El Valle-Boinás and Carlés. Individually or collectively the social and community considerations discussed in this Technical Report (whether real or perceived, positive or negative) can have a material influence on the ongoing operations and development of the mine. These need to be closely monitored and actively managed to minimise the risk to the operations.

RECOMMENDATIONS

RPA offers the following recommendations:

GEOLOGY AND MINERAL RESOURCES

1. Further refinement of existing sub-domains, and additional sub-domains, where required, be generated to define high grade trends within the lithology wireframes.
2. A 2.5 m block size may better represent local grade variability, but greatly increase processing time. Smaller block sizes should be tested prior to future Mineral Resource updates.
3. Investigations should be undertaken to identify the source of higher copper failures in blank values.
4. A full variography review should be undertaken prior to the next resource estimate to consider the low nugget modelled by Orovalle.
5. Continue to improve the reconciliation process by monitoring the performance of the short term block model against grade control sampling and explore the use of high grade domain wireframes to restrict the interpolation of elevated grades.
6. Continue using underground stope optimization as a standard practice for Mineral Resource reporting to ensure Reasonable Prospects for Eventual Economic Extraction (RPEEE).

MINING AND MINERAL RESERVES

1. Investigate the potential to increase Mineral Reserves from within the current 75 m TSF crown pillar exclusion zone.

2. Incorporate truck tonne kilometres (TKm) reporting, in long term, and short term plans, for more transparency in cost forecasting.
3. Movement of waste is planned on a short term basis, however, the incorporation of waste handling in the long term planning for more accurate costing is recommended.
4. Investigate ways of increasing the utilisation of the rock hoist for transporting increased skarn and waste tonnage thus reducing truck cycles, traffic on the main ramps, and transportation costs.

MINERAL PROCESSING AND METALLURGICAL TESTING

1. Continue to periodically examine gold and copper deportment in process streams and adjust parameters accordingly.
2. Commission a metal accounting audit for FY 2020 as a follow up to the 2015 SC 242 report. It would be beneficial to use the "Amira P754 Metal Accounting Code of Practice and Guidelines" as a guide for best practice metal accounting.
3. A study should be carried out to better understand the source of the highest contributing penalty elements antimony (Sb), bismuth (Bi) and fluorine (F), their host mineralogy, upgrade ratio, and options to limit and control the deportment of these elements to concentrate.
4. Aim to increase run of mine pad mill feed stocks to aid blending of consistent ore feed to the mill.

ENVIRONMENT, PERMITTING, AND SOCIAL/COMMUNITY

1. Orovalle should continue actively engaging the Spanish regulatory authorities to resolve the on-going matter of the discharge level of selenium (first flagged in 2014) and the posting of additional reclamation bonds (first flagged in 2011).
2. Environmental monitoring and investigative studies should continue to further inform water contamination risks and related management thereof and to ensure compliance with applicable environmental standards.
3. Discussions with Orovalle employees for the purposes of this technical review suggest that management systems and processes are in place to continually identify, assess and mitigate potential risks arising from the operations. An opportunity exists for the mine to improve its record keeping.
4. To maintain a social license to operate, it is highly important that the surrounding municipalities and communities are supportive of mining activities at El Valle-Boinás and Carlés. Individually or collectively the social and community considerations discussed in this Technical Report (whether real or perceived, positive or negative) can have a material influence on the ongoing operations and development of the mine. These need to be closely monitored and actively managed to minimise the risk to the operations.

ECONOMIC ANALYSIS

This section is not required as Orovalle is a producing issuer, and the Orovalle Operation is currently in production and there is no material expansion of current production.

TECHNICAL SUMMARY

PROPERTY DESCRIPTION AND LOCATION

The Orovalle Operation is located in north western Spain within the Asturias Province, approximately 35 km west of the Asturian capital, Oviedo, and approximately 30 km south of the north coast of Spain along the Cantabrian Sea.

The mineral rights for the Orovalle Operation are held in the form of Exploitation Concessions (ECs) and Investigative Permits (IPs). The combined ECs occupy a total surface area of 3,812 ha, which includes the La Ortosa-Godán and La Brueva areas which are not currently being exploited. The Orovalle Operation includes three IPs comprising 3,327 ha.

LAND TENURE

ECs and IPs are granted by the regional authorities of Asturias, who maintain the power to oversee these licences.

An EC provides the holder of the concession with the right to extract minerals from a specified area, subject to approval of an Exploitation Plan by the Mining Authorities. ECs are granted on 30 year terms and renewable upon application. The Exploitation Plan includes an Environmental Impact Study and Restoration Plan, which requires approval by the Environmental Authorities. The Orovalle Operation Exploitation Plans and respective Environmental Studies and Restoration Plans, which were approved in 1996, 2000, and 2004, give the holder of the ECs the right to carry out further investigation activity inside the mining areas. Authorisation is required from the Mining Authorities, which is achieved by submitting an annual investigation plan. Work plans must be presented to the Directorate General of Energy, Mining, and Reactivation (DGEMR in Spanish) before January 31st of each year.

An IP provides the holder of the permit the right to investigate the resources in the permit area, subject to approval of an Investigation Plan by the Mining Authorities. The holder has the right to carry out exploration activities including geological studies, soil geochemistry, geophysics, and drilling. If there are any proposed surface activities that the Mining Authorities believe may affect the environment, the holder of the IP may be required to obtain additional approvals from the Environmental Authorities. IPs are granted on three year terms and renewable upon application.

ROYALTIES

There is a royalty agreement in place between Orovalle and Anglo Pacific Group PLC (APG). The net smelter return (NSR) royalty is 2.5% for gold prices up to US$1,100/oz Au, and 3.0% for gold prices above US$1,100/oz Au (based on the average gold price per quarter).

HISTORY

Prior to Orovalle's involvement, the Boinás and Carlés deposits have been subject to mining activities dating back to the Roman era. In the 1800s and early 1900s, several small copper mines were in production and mining for arsenopyrite was carried out during World War II.

Modern exploration commenced in the 1970s at Carlés. Sporadic drilling and sampling programs through the 1970s and 1980s gave way to underground exploration in 1990. Further drilling and engineering work by Rio Narcea Gold Mines Limited (RNGM) culminated in the commencement of production in the Boinás West Pit in 1997, followed by the Boinás East and El Valle Pits. Approximately 5.4 Mt of ore was mined from 1998 to 2006 producing approximately 973,000 oz Au.

Underground production began in 2003 at Carlés and 2004 at Boinás. Underground operations ceased in 2006. In 2009, Orvana acquired the mining rights and began underground mining in 2010.

GEOLOGY AND MINERALIZATION

The Río Narcea Gold Belt contains the El Valle-Boinás and Carlés mines, as well as the La Brueva, Quintana, and La Ortosa-Godán exploration projects. The Lidia project is located into Navelgas Gold Belt. Both belts are located in the western portion of the Cantabrian Zone in the north western part of the Hercynian-age Iberian Massif. The Cantabrian Zone and the nearby West Asturian-Leonese Zone consist of a stratigraphic section of Paleozoic sedimentary rocks that range in age from Middle Cambrian to Permian. The lower stratigraphic section of the Cantabrian Zone includes the Láncara Formation (Cambrian limestone), which is underlain by Cambrian feldspathic sandstone. The limestone has a total thickness of approximately 250 m and constitutes the principal host rock for gold and copper mineralisation at El Valle-Boinás.

The Navelgas Gold Belt, which hosts the intrusion-hosted Lidia early exploration project, was extensively mined during Roman times, with workings occurring in the northeast trending fracture system that defines this gold belt (18 km wide and 70 km long).

The 45 km long and four kilometre wide Río Narcea Gold Belt is characterised by the alignment of mineral occurrences, Paleozoic sediments, Tertiary Basins, fracture zones, and igneous intrusions. The most important igneous intrusions, from north to south, are the La Ortosa-Godán, Carlés, Pando, La Brueva, Villaverde-Pontigo, and El Valle-Boinás intrusives.

Metamorphism in the Río Narcea Gold Belt is related only to intrusion of the igneous rocks, which produced contact metamorphism in the sedimentary rocks. They produce hornfels in the clastic units and skarn in the carbonate units.

Gold mineralisation in the Río Narcea Gold Belt consists mainly of two types:

- **Gold-bearing copper skarn**: related to the interaction between late Hercynian intrusions, mesothermal solutions, and carbonate host rocks. This is the primary type of gold deposit that may be affected by later events (favourable host rocks for skarn include the Láncara Formation at El Valle-Boinás and the Rañeces Group Formation at Carlés).
- **Jasperoid type**: related to subvolcanic dykes and epithermal solutions which cause silicification with argillisation and sericitisation, plus epigenetic, hypogene oxidation. This type of mineralisation may overprint, remobilise, and enrich gold mineralisation within the skarn deposits, as happened at El Valle-Boinás. Also, this can form the breccia-style gold mineralisation that produced higher grades at El Valle-Boinás. Limited to structural zones of varying width, that dip at high angles. They are typically the sites of leaching and enrichment that extend as much as 400 m below the surface.

EL VALLE-BOINÁS

The gold mineralisation system has a strike length of two kilometres and a width of at least 0.5 km. The intrusive is elongated trending N35°E with a length of 500 m, and an average thickness of 300 m. A copper-gold mesothermal skarn was developed mainly along the contact between the igneous rock and the carbonate unit.

CARLÉS

The Carlés deposit is a gold and copper bearing skarn developed predominantly in the Devonian limestones of the lower portion of the Rañeces Formation along the north margin of the Carlés granodiorite. The Carlés intrusion is approximately circular in plan with a diameter of approximately 750 m.

Mineralisation is continuous for over 1,000 m, ranging in thickness from 1.5 m to over 25 m, dipping 50° to 90° away from the granitic intrusion. The skarn is known over a vertical continuity of 400 m and remains open at depth.

LA BRUEVA

La Brueva gold deposit is seven kilometres northeast of the El Valle mine on a 40 m wide, east-west trending fracture zone that cuts the Rio Narcea anticline almost perpendicular to the axial trend. At surface, the fracture zone is located in the contact between the Oville and Barrios Formations. Several million cubic metres of material were mined out from the La Brueva pit by the Romans.

At the eastern end of the historical La Brueva pit, an oxidised, quartz rich jasperoid breccia with partially oxidised patchy veins of arsenopyrite is prominently displayed in a road cut. A channel sample from the exposure assayed 4.15 g/t Au over a 15 m true width.

EXPLORATION STATUS

Drilling at the Orovalle Operation has totalled approximately 500,689 m in 3,538 holes of which 236,770 m in 1,768 holes have been drilled by Orovalle.

For the skarns and some of the epithermal oxide zones, drill holes tend to intercept the mineralisation at varying angles relative to the core axis depending on drill access and the irregular morphologies of the mineral zones. More regular, planar deposits such as A107 have better drilling angles, especially when drilling to depth. In general, drilling is spaced between 20 m and 40 m in active or exploited mining areas. Drilling density away from the core of the underground mine and beneath previous pits is generally greater than 40 m and can be in excess of 100 m in lesser explored areas.

Limited non-drilling exploration activity has been conducted since 2012, with early exploration being summarised in in Section 6 of this Technical Report.

The gold-copper deposits in the Río Narcea Gold Belt are complex deposits that present challenges for exploration. The original mineral deposits are typically internally complex skarn deposits that have been subjected to epithermal alteration and remobilisation of the mineralisation, plus displacement and distortion by both high angle reverse and thrust faults. In addition, individual zones of mineralisation may be high grade, but relatively small and difficult to locate.

Some regional exploration activities have been undertaken to better define regional targets that do not currently have Mineral Resources, such as Lidia, Quintana, and La Ortosa-Godán. Since the previous RPA 2014 Technical Report, Orovalle has undertaken geological mapping, rock samples, soil geochemistry, and geophysical surveys.

Mineral Resources have been declared at El Valle-Boinás, Carlés, and La Brueva. RPA considers that there is good exploration potential within regional targets. These include La Ortosa-Godán and which is part of the Rio Narcea gold belt and is located three kilometres northwest of Carlés. Several targets have been identified through drilling. The Quintana prospect located southwest of El Valle has been also been tested with drilling.

The Lidia prospect located 20 km west of El Valle is a target within the Navelgas gold belt and has been identified for potential skarn mineralization in the contact between intrusives and limestone.

Exploration is planned to further test the prospectivity of these deposits, and other potential regional targets are being investigated.

MINERAL RESOURCES

The 2020 updated Mineral Resource estimate for the Orovalle Operation was completed by Orovalle personnel and reviewed by RPA.

A summary of the updated Mineral Resources effective as of September 30, 2020 inclusive of Mineral Reserves is provided in Table 1-1.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification and estimation.

As discussed in greater detail Section 20, Orovalle is currently engaged in working through an environmental matter involving selenium discharges to the Caúxa River, which has had financial implications and may have additional financial, permitting or legal consequences for the operations which could materially affect the Mineral Resource estimate. RPA is not aware of any other permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

TABLE 1-1 SUMMARY OF MINERAL RESOURCES INCLUSIVE OF MINERAL RESERVES – SEPTEMBER 30, 2020

Orovalle Minerals S.L. – Orovalle Operation

Measured Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	806	3.84	15.29	0.58	99	396	10,286
Boinás Skarn	2,146	2.69	16.54	0.78	186	1,141	36,741
Carlés	232	3.45	10.00	0.53	26	75	2,696
La Brueva							
Total	**3,184**	**3.04**	**15.75**	**0.71**	**311**	**1,612**	**49,723**

Indicated Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	3,025	4.78	4.94	0.34	465	480	22,356
Boinás Skarn	398	2.78	17.82	0.75	36	228	6,591
Carlés	1,327	3.37	7.64	0.38	144	326	10,971
La Brueva							
Total	**4,749**	**4.22**	**6.77**	**0.38**	**644**	**1,034**	**39,918**

Measured + Indicated Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	3,831	4.58	7.12	0.39	564	876	32,642
Boinás Skarn	2,544	2.70	16.74	0.77	221	1,370	43,332
Carlés	1,559	3.38	7.99	0.40	169	400	13,667
La Brueva							
Total	**7,934**	**3.74**	**10.38**	**0.51**	**955**	**2,646**	**89,641**

Inferred Mineral Resources

Zone	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (000 lb Cu)
Boinás Oxide	1,665	4.36	8.62	0.30	233	461	11,057
Boinás Skarn	348	2.85	18.51	0.74	32	207	5,698
Carlés	1,163	3.26	4.62	0.30	122	173	7,703
La Brueva	187	3.90	15.53	0.09	23	93	357
Total	**3,362**	**3.80**	**8.64**	**0.33**	**410**	**934**	**24,816**

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a gold equivalent (AuEq) cut-off grade of 2.52 g/t AuEq for Boinás oxide, 2.20 g/t AuEq for Boinás skarn,1.96 g/t AuEq for Carlés skarn, and 2.52 g/t AuEq for La Brueva oxides.
3. Mineral Resources are estimated using long term prices of US$1,700/oz Au, US$3.25/lb Cu, and US$20/oz Ag. A US$/€ exchange rate of 1.20/1.00 was used.
4. Mineral Resources are inclusive of Mineral Reserves
5. Crown pillars of 60 m and 40 m are excluded from the Mineral Resource below the El Valle TSF and Boinás-East open pits, respectively.
6. Unrecoverable material in exploited mining areas has been excluded from the Mineral Resource.
7. Areas of contiguous blocks with volumes less than 500 m3 have been removed from the Mineral Resource report to ensure Reasonable Prospects for Eventual Economic Extraction.
8. Numbers may not add due to rounding.

MINERAL RESERVES

Mineral Reserves were estimated by RPA, in conjunction with Orovalle personnel, for the Boinás and Carlés underground mines. Carlés open pit skarn material was not included in the Mineral Reserves estimate at this time as the necessary land and environment permits have not yet been obtained by Orovalle.

Mineral Reserve estimates were based on mine designs applied to Measured and Indicated Resources, with dilution and extraction factors applied based upon the designed mining method. Areas where stopes above cut-off grade were isolated, were removed from the Mineral Reserve estimate with stopes planned for mining up to September 30, 2020 also excluded. Mineral Reserves are summarised in Table 1-2.

TABLE 1-2 MINERAL RESERVES – SEPTEMBER 30, 2020
Orovalle Minerals S.L. – Orovalle Operation

Category	Tonnage (000 t)	Grade (g/t Au)	Grade (% Cu)	Grade (g/t Ag)	Contained Metal (000 oz Au)	Contained Metal (000 oz Ag)	Contained Metal (t Cu)
Proven	1,156	2.14	11.61	0.51	79	431	12,922
Probable	2,275	3.1	4.44	0.29	227	325	14,668
Proven and Probable	**3,431**	**2.78**	**6.86**	**0.36**	**307**	**756**	**27,590**

Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.
2. Mineral Reserves are estimated using AuEq break-even cut-off grades by zone, consisting of 3.35 g/t AuEq for Boinás oxides (drift and fill (D&F)), 2.90 g/t AuEq for Boinás skarns (SLS), and 2.09 g/t AuEq for Carlés skarn (SLS). AuEq cut-offs are based on recent operating results for recoveries, off-site concentrate costs and on-site operating costs. AuEq factors are based on metal prices, metallurgical recoveries, metal payables, and selling costs.
3. Mineral Reserves are estimated using average long-term prices of US$1,600/oz Au, US$18/oz Ag, and US$3.00/lb Cu. A US$/€ exchange rate of 1.20/1.00 was used.
4. A minimum mining width of 4 m was used.
5. Crown pillars of 75m and 42 m are excluded from the Mineral Reserve below the El Valle TSF and Boinás-East open pits, respectively.
6. A no-mining sterilisation zone of 10 m below mined out stopes and 5 m around waste filled stopes has been applied.
7. Numbers may not add due to rounding.

MINING METHODS

The Orovalle Operation consists of underground mines at Boinás and Carlés and an open pit at Carlés. Currently the Boinás underground mine is the only producing asset, with a nominal mining rate of 2,000 tpd. Both Carlés mines are currently on care and maintenance with underground production planned to recommence in the near future subject to a review of recently acquired drilling data. There is also potential to mine additional skarn ore from the Carlés open pit, subject to land acquisition and mining permissions being obtained.

The current mining methods used at the Boinás underground mine are overhand D&F and transverse and longitudinal longhole sublevel stoping (SLS). The D&F mining method is utilised in the oxides and some transitional areas of the Boinás mine, as dictated by geological and geotechnical constraints. Longitudinal SLS is used exclusively in the more competent skarns. The Carlés mine is planned to utilise both SLS methods underground, where the orebody dip is suitable, and D&F where the orebody dip is too shallow for SLS mining. Should the open pit at Carlés recommence production in the future, then a conventional drill and blast, truck and shovel method will be used.

RPA has produced a production schedule in conjunction with Orovalle based upon the estimated Mineral Reserves. The schedule includes oxide and skarn ore mined from both the Boinás and Carlés underground mines at an average rate of 706,000 tpa for a period of five years and is shown in Table 1-3. The total production schedule shows 3,431,000 t of ore, mined from both Boinás and Carlés, containing an estimated 307,000 oz Au, 756,240 oz Ag, and 27.6 Mlb Cu.

In the LOMP, proposed Carlés skarn production averages 45,000 tpa over the last three years of the schedule producing 11,200 oz Au, 20,600 oz Ag, and 0.6 Mlb Cu.

Orovalle is currently undertaking a review of alternatives including mining skarn ore from the Carlés open pit which is also currently on care and maintenance. It is possible that approximately 300,000 t of skarn ore could be mined from the open pit, however, this is subject to the relevant permits, and land being obtained. For this reason, this additional potential has not been included in the Mineral Reserve estimates.

TABLE 1-3 LIFE OF MINE PLAN– OCTOBER 2020
Orovalle Minerals S.L. – Orovalle Operation

Item	Units	FY 2021	FY 202	FY 2023	FY 2024	FY 2025	Total
Mill Feed							
Tonnes	000 t	704	698	681	675	673	**3,431**
Gold Grade	g/t Au	2.64	2.93	2.68	2.90	2.75	**2.78**
Silver Grade	g/t Ag	8.24	9.76	6.68	4.88	4.55	**6.86**
Copper Grade	% Cu	0.42	0.47	0.33	0.32	0.28	**0.36**
Metal Production							
Gold	000 oz Au	60	66	59	63	60	**307**
Silver	000 oz Ag	187	219	146	106	98	**756**
Copper	000 lb Cu	6,552	7,238	4,882	4,829	4,088	**27,590**

MINERAL PROCESSING

The Orovalle El Valle processing plant consists of the following process stages:

- Single stage crushing
- Semi Autogenous Grinding (SAG) and pebble crushing
- Ball milling
- Gravity circuit

- Flotation circuit
- CIL circuit
- Desorption and regeneration circuit
- Electrowinning and smelting
- Tailings detox and disposal

The El Valle processing plant has a nameplate capacity of 600,000 tpa, however, subsequent expansions have increased throughput capacity to 750,000 tpa depending on ore types.

Gold recovery is consistently in the 90% to 95% range and averaged 92.4% for the 42 month period from October 2016 to May 2020. Copper and silver recoveries are influenced by the ratio of oxide and transition ore to sulphide ore, and as a result recovery fluctuates month to month, depending on the ore feed. The 42 month average recoveries over the same period were 78.7% for copper and 76.0% for silver.

PROJECT INFRASTRUCTURE

Surface and underground infrastructure at the Orovalle Operation include the following:

- A processing facility with a capacity of up to 750,000 tonnes per annum (tpa).
- A TSF located in the old El Valle open pit.
- Workshops, offices, warehouse facilities, and a mine changeroom facility.
- Site power supply to the Orovalle Operation
- A 420 m deep shaft at Boinás equipped for hoisting ore and waste.
- A decline and a series of ramp-connected levels at each mine site.
- Ventilation raises and escapeways.

The main access to the Boinás site is from the south on a public road that bypasses the village of Boinás; the site entrance includes a gate and security.

Auxiliary equipment includes pump systems to distribute water, water recovery systems, gas storage, control boilers, gas heaters, blowers, compressors, etc.

The office was expanded in 2011. Other surface facilities include changing rooms, lunch rooms, clinic, warehouses, maintenance shops, electromechanical workshops, a reverse osmosis water treatment plant, a shotcrete plant, a complete laboratory that includes a sample preparation area with jaw crusher, roll mill, LM5, LM2, rotary and manual splitter, etc., fire-assay laboratory, an Agilent Technologies (Varian Inc.) ICP emission spectrometer, and a core storage facility, electrical power lines and substations for the Orovalle Operation, and a complete telecommunication system providing phone lines and fast internet and intranet connections for the various offices.

The tailings storage facility (TSF) is located within the old El Valle pit and is lined with an appropriate synthetic geomembrane and clay cap. This is a no-discharge facility.

MARKETS

The principal products produced at the Orovalle Operation are freely traded, at prices that are widely known, so that prospects for sale of any product is virtually assured, subject to achieving product specifications.

As per industry standards for copper concentrate, penalty charges are incurred for various deleterious elements when they are over specified concentrations. There are also certain deleterious elements that include a hard cap, above which the concentrate is not readily saleable. These elements are: fluorine, chlorine, arsenic, and antimony.

Some concentrate lots have been above this cap from time to time, requiring amendments to the original smelter contracts to make allowances for certain deleterious elements. These amendments are agreed upon for specific time periods as opposed to specific concentrate lots.

RPA reviewed the current contracts (and amendments) for smelting and refining copper concentrate and doré bars and considers the terms, rates, and charges for the contracts to be within industry standards.

ENVIRONMENTAL, PERMITTING AND SOCIAL CONSIDERATIONS

Environmental studies comprising monitoring and impact assessments are undertaken for the Orovalle Operation. Additional studies have taken place since 2014 to understand and inform water contamination risks and related management thereof. These should continue.

Apart from the statements included under the "Conclusions" section above, RPA is not aware of any other items that would impact the ongoing operations.

CAPITAL AND OPERATING COST ESTIMATES

The estimated sustaining capital costs included in the LOMP total US$48.2 million and include the costs for mine development, mine infrastructure, equipment replacement and refurbishments, plant expansion, and tailings management.

In addition to sustaining capital costs, an estimated cost of US$15.1 million (discounted) for reclamation and closure is included of which US$8.9 million is currently held in bond. This estimate includes installation and operation of a post-closure water treatment plant, and decommissioning liabilities through until 2060.

Operating costs in the LOMP are based on recent operating history, and average approximately US$70 million per year for the next five years. Unit rates are summarised in Table 1-4. The average LOM operating cost is US$102/t milled.

TABLE 1-4 UNIT OPERATING COSTS – BOINÁS AND CARLÉS
Orovalle Minerals S.L. – Orovalle Operation

Item	Units	Boinás		
		Oxide	Skarn	Carlés Skarn
Geology & Mining	US$/t milled	75.96	58.55	50.28
Processing & Laboratory	US$/t milled	20.35	20.35	20.35
Environmental, Safety & G&A[1]	US$/t milled	13.37	13.37	0.00
Total	**US$/t milled**	**109.68**	**92.26**	**70.63**

Note:
1. 100% G&A costs allocated to Boinás Ore.

Don Mario

The following is the summary section of the Don Mario Oxide Stockpile 43-101 Report entitled "Don Mario Oxide Stockpile Project, Eastern Bolivia" dated December 29th, 2020 (effective date September 30th, 2020) prepared by Qualified Person, Gino Zandonai, M.Sc., C.P., Mining Engineer of DCGS Exploration and Mining Consulting. The full text of the Don Mario Oxide Stockpile 43-101 Report is available for viewing on SEDAR at www.sedar.com and is incorporated by reference in this AIF. Defined terms and abbreviations used herein and not otherwise defined shall have the meanings ascribed to such terms in the Don Mario 43-101 Report.

Executive Summary

DGCS S.A. ("DGCS") was retained by Empresa Minera Paititi S.A. ("EMIPA" or "the Company"), to prepare a technical report in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") for Don Mario Oxide Stockpile Project (the "Project" or "OSP"). Mr. Zandonai, principal of DGCS is an independent qualified person for the purposes of NI 43-101 who is the author of this report.

EMIPA is a wholly owned subsidiary of Orvana Minerals Corp. ("Orvana"). Orvana is an Ontario registered company and its common shares are listed on the Toronto Stock Exchange (TSX) under the symbol ORV.

EMIPA is the owner of the Don Mario Operation ("Don Mario"), a set of assets that includes Las Tojas ore body, and the previously mined out Lower Mineralized Zone ("LMZ"), Upper Mineralized Zone ("UMZ") and Cerro Felix mines, plus the Processing Plant and the Tailings Storage Facility. Don Mario temporarily suspended operations in the first quarter of fiscal 2020 (October to December 2019), and is currently in care and maintenance. Don Mario is located in the San Juan Canton, Chiquitos Province, Department of Santa Cruz, in eastern Bolivia.

The UMZ deposit, depleted in 2017, generated a 2Mton mixed copper oxide stockpile (the "Oxide Stockpile") with gold and silver grades during its mine life. The grades for copper, gold and silver grades are 1.89%, 1,85g/t and 49.3 g/t respectively (See Table 1.1). The Company plans to restart production in Don Mario by treating the Oxide Stockpile. Subject to the favorable completion of technical, economic and funding analysis, the OSP is expected to provide three full production years for Don Mario.

The stockpile resource had been estimated in the 2016 Technical Report "Don Mario Mine Operation 2016" dated January 27, 2017 (the "2016 Report"). A copy of the 2016 Report is posted under the Company's profile on www.sedar.com. The assumption was that the stockpile would be processed by flotation and would not be included in the carbon-in-leach circuit. However, since fiscal 2018, the Company has been evaluating metallurgical alternatives to process the Oxide Stockpile, involving different international metallurgical consultants. The evaluation concluded that a sulphidization circuit would maximize the value of the stockpile.

The Company plans to complete the final evaluation of the Project by the end of the third quarter of fiscal 2021 (the Company's fiscal year 2021 runs from October 2020 to September 2021), after completion of detailed engineering works; whose purpose is to de-risk technical CAPEX assumptions and sourcing costs. Subject to the favorable completion of technical, economic and funding analysis, the sulphidization circuit, and ancillary facilities development is expected to require approximately twelve months to then start commercial production.

The preliminary capital cost estimate for modification of the existing circuit to process the oxide ores with an acid leach/cyanidation process is approximately US$25.6 million (without first filling of the circuit and applicable taxes). DGCS evaluated the Stockpile Mineral Reserves in a cash flow analysis, and verified that they are economically treatable, under the metal price and cost assumptions summarized in this report.

All information and data were provided by EMIPA. Key reports, which the author has relied on, are as follows:

1. Torres. WR., 2020. EMIPA Internal Report- Informe de Pruebas Metalúrgicas cíclicas con agua tratada (Interim Report)

2. Zandonai, G., 2016. Don Mario Mine Operation 2016 Technical Report. NI 43-101-compliant report on mineral resources and reserves for the Total Don Mario Operation for Orvana by DGCS S.A., 130 p. ("DGCS -2016 report").

3. Zandonai, G., 2019. AIF _ EMIPA 2019 MRMR – Mineral Resources and Mineral Reserves Technical Report of the Don Mario Operation prepared for Orvana by DGCS S.A., 20 p. ("AIF- MRMR -2019 report").

4. Wright, C., Podhorski-Thomas, M., and Colquhoun, W., 2008, Technical Report for the Don Mario Property, Chiquitos Province, Bolivia: AMEC (Peru) 207 p. ("AMEC-2008 report").

This report summarizes the results of the metallurgical work developed by EMIPA team with support of external metallurgical consultants, which are the basis to recover the copper, gold and silver from the Oxide Stockpile. The positive technical and economic evaluation of the Project justifies the investment and necessary changes and improvements of the current processing plant, to recover the gold, silver and copper contained in the Oxide Stockpile.

Table 1.1:

Oxide Stockpile Mineral Reserves September 30, 2020

Proven							
Location/Zone	**Tonnage (000 t)**	**Grade (g/t Au)**	**Grade (% Cu)**	**Grade (g/t Ag)**	**Contained Metal (000 oz Au)**	**Contained Metal (t Cu)**	**Contained Metal (000 oz Ag)**
DM1 Oxide	492	2.24	1.74	54.4	33.7	8,132	818.0
DM2 (Oxide Pre-strip)	264	1.90	1.98	17.9	16.1	5,233	152.5
DM3 (Dolomite Oxide)	181	1.89	1.96	21.6	11.0	3,538	125.5
Plant Stockpile Oxide)	490	1.61	1.57	57.8	25.4	7,703	910.3
DM4 Stock Talco	438	1.65	2.44	64.9	23.2	10,683	914.7
DM5 (Dolomite Oxide)	192	1.86	1.64	48.7	11.5	3,149	300.4
Total	**2,032**	**1.85**	**1.89**	**49.3**	**120.9**	**38,438**	**3,221.3**

Estimated metal recoveries based on processing by sulphidization.

Notes:

1. *CIM definitions were followed for Mineral Reserves and were prepared by G. Zandonai, a qualified person for the purposes of NI 43-101, who is an employee of DGCS SA and is independent of the Company.*
2. *Mineral Reserves are estimated using a long-term gold price of $ 1,600 per ounce, copper price of $3.00 per pound and a silver price of $18 per ounce.*

Technical Summary

Property Description and Location

Don Mario is located in San Juan Canton, Chiquitos Province, Santa Cruz Department in Eastern Bolivia, about 458 km east of the department capital Santa Cruz de la Sierra. The operation commenced commercial production in July of 2003. The complex of mineral rights consists of 10 contiguous mineral concessions that cover approximately 53,325 ha ("Don Mario Complex").

The Company is currently defining the exploration program for the 53,325 hectares available at the Don Mario Complex. The review of historical data is in progress, in order to prioritize targets and define exploration activities. This exploration program is out of the scope of this Technical Report.

Existing Infrastructure

Surface infrastructure at the Don Mario Complex include the following:

- Processing/Comminution Plant of 2,000 tpd

- A tailings storage facility (TSF)
- Freshwater dam
- 300 person camp facility, consisting of sleeping accommodation (both single, double and multiple occupancy types), recreation facilities, kitchens and lunch rooms.
- Workshops, offices and warehouse facilities
- Natural gas power plant and substation
- De-commissioned sulfuric acid plant
- Carbon in leach ("CIL") circuit
- Flotation circuit

History

Cerro Pelado, also referred to as Cerro Don Mario, was a prominent hill formed by the Don Mario UMZ deposit. This location is known to be an ancient site of mining for oxidized copper mineralization. Following the discovery of gold at the site in 1991, the area was sequentially explored by three main companies, these being La Rosa, Billiton and Orvana. This resulted in the discovery and/or delineation of the LMZ, Cerro Felix ("CF") and Las Tojas ("LT") Au-Cu deposits and the UMZ Cu-Au deposit, plus several other prospects within 20 km of Don Mario. EMIPA acquired the property in 1996 from four Bolivian companies that jointly owned the Don Mario concessions; and initiated mining of the LMZ deposit in 2003. Underground mining of the LMZ deposit ceased in 2009 and was replaced by open pit production from the UMZ deposit, augmented by lesser open pit production from the LT and CF deposits.

Geology and Mineralization

The Don Mario property is underlain by Lower to Middle Proterozoic metamorphic rocks of the Cristal Sequence that comprise a portion of the Bolivian Shield's Aventura Complex. The Cristal Sequence is composed of medium to high grade metasedimentary units such as biotite schist, mica schist, quartzite, biotite–plagioclase gneiss and calcsilicates gneiss; as well as lesser amounts of pegmatite and amphibolite dikes. The Cristal Schist belt subunit hosts the Don Mario mine's Upper and Lower Mineralized Zones as well as the nearby CF, Don Mario North, and Don Mario South gold prospects (Wright et al., 2009).

Mining and exploration programs to date on the property have shown the Don Mario deposit to consist of the gold-enriched area (LMZ) and the copper-enriched area (UMZ). The LMZ was characterized by a well-developed northwest striking and steeply northeast dipping structural/lithologic corridor that constrains gold-copper-silver mineralization as well as distinctive alteration assemblages. Alteration associated with gold-copper-silver mineralization commonly takes the form of iron carbonate, white mica, biotite, quartz, albite, andalusite, staurolite, garnet, cordierite, gedrite and anthophyllite-cummingtonite. Spatial disposition of the LMZ and UMZ areas may be of structural derivation, with the calc-silicate dominated and synclinally folded UMZ host sequence representing a shearing-associated "flower structure" above the sheared LMZ.

Past geologists have characterized mineralization at the Don Mario deposit as being structurally focused or shear zone related. However, as outlined by Wright et al. (2009), alternative views on deposit genesis include skarn association, banded iron formation-hosted structural association, and deformed, syngenetic massive sulphide association. In contrast to these, the deposit was more recently classified by Arce Burgoa (2009) as being a deformed example of the Iron Ore copper Gold (IOCG) association.

Mineral Resources

Table 1.2

Oxide Stockpile Mineral Resources – September 30, 2020

	Measured						
Location/Zone	**Tonnage (000 t)**	**Grade (g/t Au)**	**Grade (% Cu)**	**Grade (g/t Ag)**	**Contained Metal (000 oz Au)**	**Contained Metal (t Cu)**	**Contained Metal (000 oz Ag)**
DM1 Oxide	492	2.24	1.74	54.4	35.4	8559.6	861.0
DM2 (Oxide Pre-strip)	278	1.90	1.98	17.9	17.0	5508.8	160.5
DM3 (Dolomite Oxide)	190	1.89	1.96	21.6	11.5	3724.0	132.1
Plant Stockpile Oxide)	515	1.61	1.57	57.8	26.7	8108.3	958.3
DM4 Stock Talco	506	1.61	2.38	63.5	26.2	12067.4	1033.2
DM5 (Dolomite Oxide)	202	1.86	1.64	48.7	12.1	3314.4	316.2
DM6 (Tremolite Oxide)							
Total	**2,184**	**1.84**	**1.89**	**49.3**	**129.0**	**41,282.6**	**3,461.2**

Notes:

1. 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.
2. Mineral Resources are estimated using a long-term gold price of US$ 1,700 per ounce, copper price of US$3.25 per pound and a silver price of US$20 per ounce.
3. Numbers may not add due to rounding.

The scope of analysis is limited to the Oxide Stockpile Project. Resources outside of the Oxide Stockpile are not reported in this Technical Report.

Mineral Reserves

Mineral Reserves were estimated by DGCS, in conjunction with EMIPA personnel, for the Oxide Stockpile Project. Mineral Reserve estimates as at September 30, 2020 were based on the updated metal recoveries considering the stockpile processing by Sulphidation. Mineral Reserves are summarized in Table 1.3:

Table 1.3

Stockpile Mineral Reserves - September 30, 2020

	Proven						
Location/Zone	**Tonnage (000 t)**	**Grade (g/t Au)**	**Grade (% Cu)**	**Grade (g/t Ag)**	**Contained Metal (000 oz Au)**	**Contained Metal (t Cu)**	**Contained Metal (000 oz Ag)**
DM1 Oxide	492	2.24	1.74	54.4	33.7	8,132	818.0
DM2 (Oxide Pre-strip)	264	1.90	1.98	17.9	16.1	5,233	152.5
DM3 (Dolomite Oxide)	181	1.89	1.96	21.6	11.0	3,538	125.5
Plant Stockpile Oxide)	490	1.61	1.57	57.8	25.4	7,703	910.3
DM4 Stock Talco	438	1.65	2.44	64.9	23.2	10,683	914.7
DM5 (Dolomite Oxide)	192	1.86	1.64	48.7	11.5	3,149	300.4
Total	**2,032**	**1.85**	**1.89**	**49.3**	**120.9**	**38,438**	**3,221.3**

Estimated metal recoveries based on processing by sulphidation

Notes:

1. *CIM definitions were followed for Mineral Reserves and were prepared by G. Zandonai, a qualified person for the purposes of NI 43-101, who is an employee of DGCS SA and is independent of the Company.*
2. *Mineral Reserves are estimated using a long-term gold price of $ 1,600 per ounce, copper price of $3.00 per pound and a silver price of $18 per ounce.*
3. *Mineral Reserves (exclusive of in situ). Numbers may not add due to rounding.*

Mining Methods

The method of Oxide Stockpile exploitation will be based on the blending, loading and haulage of different rock types, averaging grade for recovery of Au-Cu-Ag.

Mineral Processing

Basically, the Don Mario mill was based on closed-circuit SAG milling and a typical carbon-in- column (“CIC”)/carbon-in-leach (“CIL”) operation that produced a doré bar through electro- winning and smelting. The processing plant can process 708,750 tpa with a daily throughput of average 2,000 tpd.

Since 2018, the Company has been re-evaluating the economic potential of processing its existing mineral Oxide Stockpile. The preliminary assumption was that it would be processed by flotation and would not be included in the carbon-in-leach circuit. However, since 2018, the Company has been evaluating different metallurgical alternatives, concluding that a sulphidization circuit would maximize the value of the stockpile.

EMIPA’s original processing plant flowsheet will be extended by additional circuits in order to treat the Oxide Stockpile. The resulting sequence of macro unit operations will then consist of the following:

- Crushing and Screening
- Talc Flotation

- Acid Leaching
- Copper Electrowinning
- Neutralization
- Cyanide Leaching
- Filtering and Precipitation
- Carbon in Column (CIC)
- Carbon in Pulp (CIP)
- Strip Electrowinning & Smelt
- DETOX
- Tailings Storage Facility (TSF)

Project Infrastructure

Don Mario's main infrastructure was completed in 2003 for underground mining. During 2009, a ball mill was added to increase throughput capacity from 750 tpd to 2,000 tpd.

Surface facilities other than the process plant include a 300 person camp facility with kitchens, lunch rooms, changing rooms, clinic, warehouses, maintenance shops, electromechanical workshops, a laboratory, a core storage facility, a freshwater dam, a natural gas power plant, electrical power lines and substations, and a complete telecommunication system providing phone lines and fast internet and intranet connections for the various offices. The surface facilities also include a de-commissioned sulfuric acid plant and a CIL circuit which has been recommissioned in 2016.

The Tailings Storage Facility (TSF) is located approximately 1.0 km to the northeast of the processing plant, and is properly lined and has an adequate pumping system. The plant-tailings circuit is a no-discharge facility. The Company has 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. The Company targets the completion of the scoping study by the second half of fiscal 2021. The evaluation of the tailings re-processing viability is out of the scope of this report.

Markets

The principal commodities at the Don Mario Operation are freely traded, at prices that are widely known, so that prospects for sale of any production are virtually assured, subject to achieving product parameters.

As per industry norms for Au Dore, Cu Cathodes and Ag Concentrate, penalty charges are incurred for various deleterious elements when they are over specified concentrations.

Environmental, Permitting and Social Considerations

EMIPA has obtained all material permits to operate Don Mario: the mine, the processing plant, and the tailings storage facility. It does not require additional permits for the Oxide Stockpile Project, but it does require to update authorities of reagents consumption levels.

Capital and Operating Cost Estimates

The capital cost estimate for modification of the existing processing plant to process the Oxide Stockpile with acid leach/cyanidation is approximately US$25.6 million (without first filling of the circuit and taxes).

The breakdown of the initial CAPEX for the Oxide Stockpile Project is shown in table 1.4:

Table 1.4
CAPEX's Breakdown - Oxide Stockpile

Code	Items	Au/Ag Circuit	Cu Circuit	CAPEX USD M
1	ELECTRO WINING		10.0	10.0
2	FILTER PRESS	2.9	0.5	3.4
3	SX (SOLVENT EXTRACTION)		2.4	2.4
4	TF (TANK FARM)		3.2	3.2
5	PLANT WATER TREATMENT	1.6		1.6
6	OTHER EQUIPMENT & CIVIL WORKS	4.5	0.5	5.0
	TOTAL CAPEX	**9.0**	**16.6**	**25.6**

The unit operating cost for processing the Oxide Stockpile, is estimated at an average of US $93.1 per tonne. See Table 1.5.

Table 1.5
Unit Operation Costs

Items	Units	Average USD M
Processing	$/t	80.1
G&A	$/t	11.9
Stockpile Ore Consumptions	$/t	1.1
TOTAL OPEX	**$/t**	**93.1**

Conclusions

Based on the revision of the technical and economic analysis provided by EMIPA the Project to process the Oxide Stockpile ores is a profitable endeavor and it will extend the life of the operation by three years.

DGCS believes that advancing on the development of the Oxide Stockpile Project is the best valuable option for the interests for the Company.

Recommendations

DGCS has prepared the following recommendations with respect to the development and implementation of the Oxide Stockpile Project:

- Consider strict ore control when loading the ore from the stockpile to the crusher and eventually make an area next to the crusher that the ores can be subject to a second screening. Besides the sampling implementation already in place, consider providing the "ore control geologists" with a Niton XRF (portable sampling device) to reduce the risk of sending materials such as talc to the process. The experience of the LPF flotation in the past caused technical problems that ended up stopping the plant for several weeks.

- Acid leaching of oxides ores containing high levels of carbonates, compounded by the presence of talc, will generate an exothermic reaction with excessive frothing due to the release of carbon dioxide gas. EMIPA's mill staff feels that this can be mitigated by injection of the acid at the bottom of the agitator in the acid leach tanks.