# Management's Discussion and Analysis



# First quarter ended March 31, 2019

This Management's Discussion and Analysis ("MD&A") should be read in conjunction with the unaudited condensed interim consolidated financial statements of First Quantum Minerals Ltd. ("First Quantum" or "the Company") for the three months ended March 31, 2019. The Company's results have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and are presented in United States dollars, with tabular amounts in millions, except where noted.

For further information on First Quantum, reference should be made to its public filings (including its most recently filed AIF) which are available on SEDAR at <a href="www.sedar.com">www.sedar.com</a>. Information is also available on the Company's website at <a href="www.first-quantum.com">www.first-quantum.com</a>. This MD&A contains forward-looking information that is subject to risk factors, see <a href=""Cautionary statement on forward-looking information"">Cautionary statement on forward-looking information</a> for further discussion. Information on risks associated with investing in the Company's securities and technical and scientific information under National Instrument 43-101 concerning the Company's material properties, including information about mineral resources and reserves, are contained in its most recently filed AIF. This MD&A has been prepared as of April 29, 2019.

### **FIRST QUARTER 2019 HIGHLIGHTS**

### **Operational and Financial**

- The Company recorded copper production of 136,969 tonnes in the quarter, 6% lower than 2018, reflecting lower production at Las Cruces following the land slippage in January 2019, and lower production at Kansanshi which was impacted by the planned processing of lower grade oxide ore as well as lower throughput on each circuit. Despite the wet season in Zambia, Sentinel performed strongly, achieving record first quarter production, a 15% increase over the same period in 2018, reflecting higher grades and further operational optimization.
- Copper production at Las Cruces resumed on February 1, 2019, following the suspension after the land slippage that occurred on January 23, 2019. While awaiting the necessary regulatory approvals for the recommencement of mining activities, copper production is continuing from processing low and high grade stockpiles.
- The Kansanshi smelter maintained strong performance, with copper anode production of 83,134 tonnes and treated 342,307 dry metric tonnes ("DMT") of concentrate in the quarter.
- Quarterly gold production of 49,357 ounces was 7% higher than 2018, reflecting increased throughput and recoveries as a result of operational enhancements at Kansanshi, and higher grade and throughput at Guelb Moghrein.
- Gross profit of \$185 million and comparative EBITDA of \$368 million were 2% and 1% higher respectively, compared to 2018, despite the impact of the Las Cruces land slippage. Excluding Las Cruces, gross profit was 37% higher with increased net realized metal prices, lower costs and the positive impact of foreign exchange.
- Comparative earnings of \$95 million (\$0.14 per share), net earnings attributable to shareholders of the Company of \$53 million (\$0.08 per share), and cash flows from operating activities of \$159 million (\$0.23 per share) were achieved in the first quarter of 2019. Net earnings attributable to shareholders for the quarter were 13% higher than 2018, inclusive of a \$25 million loss on partial redemption of senior notes that was excluded from comparative earnings that were 94% higher than those achieved in 2018. Included within earnings for the period was a \$8 million gain realized by the corporate copper sales hedge program.

Copper all-in sustaining cost ("AISC") was \$1.77 per lb and cash cost of copper production ("C1") was \$1.34 per lb for the quarter, reflecting a \$0.05 per lb and \$0.07 per lb increase, respectively, compared to the same period in 2018. The increase in AISC and C1 cash cost reflect the impact of lower copper production at Las Cruces following the land slippage in January 2019.

### **Cobre Panama Development**

Cobre Panama produced its first copper concentrate in the quarter. Construction and commissioning of both sets of the power station is now complete. Ore commissioning for the first process plant train was completed, as well as the construction and lining of SAG mills 1 and 2 and ball mills 1, 2 and 3. Completion of all construction and commissioning of key process plant facilities remains a priority for the project team.

Consolidated Information	Q1 2019	Q4 2018	Q1 2018
Copper production (tonnes) <sup>1,2</sup>	136,969	158,304	145,358
Copper sales (tonnes) <sup>3</sup>	130,262	156,212	138,021
Cash cost of copper production (C1)(per lb) <sup>4, 5</sup>	\$1.34	\$1.23	\$1.27
Total cost of copper production (C3)(per lb) <sup>4, 5</sup>	\$2.21	\$2.04	\$2.16
All-in sustaining cost (AISC)(per lb) <sup>4,5</sup>	\$1.77	\$1.68	\$1.72
Realized copper price (per lb)	\$2.79	\$2.83	\$2.74
Gold production (ounces)	49,357	48,039	45,929
Gold sales (ounces)	46,790	53,221	48,815

Consolidated Financial Information <sup>1</sup>	Q1 2019	Q4 2018	Q1 2018
Sales revenues	857	1,054	885
Gross profit	185	280	181
Net earnings attributable to shareholders of the Company	53	198	47
Basic and diluted earnings per share	\$0.08	\$0.29	\$0.07
Comparative EBITDA <sup>6</sup>	368	481	363
Comparative earnings <sup>6</sup>	95	182	49
Comparative earnings per share <sup>6</sup>	\$0.14	\$0.26	\$0.07

<sup>1</sup> Copper production includes 25 tonnes of pre-commercial production from Cobre Panama, which is not included in earnings or C1, C3 and AISC calculations.

	Q1 2019	Q4 2018	Q1 2018
Copper production (tonnes) - operations	136,944	158,304	145,358
Copper production (tonnes) – pre-commercial	25	-	-
Copper production (tonnes)	136,969	158,304	145,358

 $<sup>^2\,</sup>Production\,is\,presented\,on\,a\,copper\,contained\,basis, and\,is\,presented\,prior\,to\,processing\,through\,the\,Kansanshi\,smelter.$ 

<sup>&</sup>lt;sup>6</sup> Net earnings (loss) attributable to shareholders of the Company has been adjusted to exclude items which are not reflective of underlying performance to arrive at comparative earnings (loss). Comparative earnings (loss), comparative earnings (loss) per share, comparative EBITDA and cash flows per share are not measures recognized under IFRS and do not have a standardized meaning prescribed by IFRS. The Company has disclosed these measures to assist with the understanding of results and to provide further financial information about the results to investors. See "Regulatory Disclosures" on pages 37-41 for a reconciliation of comparative EBITDA and comparative earnings. The use of comparative earnings and comparative EBITDA represents the Company's adjusted earnings metrics.



<sup>&</sup>lt;sup>3</sup> Copper sales exclude the sale of copper anode produced from third-party concentrate purchased at Kansanshi. Sales of copper anode attributable to third-party concentrate purchases were 1,182 tonnes for the three months ended March 31, 2019 (5,884 tonnes for the three months ended December 31, 2018).

<sup>&</sup>lt;sup>4</sup>C1 cash cost, C3 total cost, AISC exclude third-party concentrate purchased at Kansanshi.

<sup>&</sup>lt;sup>5</sup> C1 cash cost, C3 total cost, AISC are not recognized under IFRS. See "Regulatory Disclosures" on page 37 for further information.

	Q1 2019	Q4 2018	Q1 2018
Net earnings attributable to shareholders of the Company	53	198	47
Adjustments attributable to shareholders of the Company:			
Loss on partial redemption of senior notes	25	-	-
Finance expense on discounting of non-current VAT	-	5	
Total adjustments to comparative EBITDA excluding			-
depreciation <sup>7</sup>	21	(3)	(5)
Tax and minority interest relating to foreign exchange			
revaluation and comparative adjustments	(4)	(18)	7
Comparative earnings	95	182	49

<sup>&</sup>lt;sup>7</sup> Adjustments to comparative EBITDA relate principally to foreign exchange and write-off of assets and costs associated with the land slippage at Las Cruces, but also include other losses on disposal of assets, and movements in restoration provision estimates at closed either

### FINANCIAL SUMMARY

### Sales revenues decreased due to lower copper sales volumes

- Sales revenues of \$857 million in the quarter decreased by \$28 million compared to the same period in 2018. A 6% decrease in copper sales volumes was partially offset by a slightly higher realized copper price. The copper sales hedge program contributed \$8 million to revenues compared with a \$121 million reduction attributable to hedge losses in the corresponding period of 2018. The decrease in copper sales volumes was mainly from Sentinel and Las Cruces due to the timing of copper anode sales and reduced production, respectively.
- The realized price for copper of \$2.79 per lb in the first quarter of 2019 was \$0.05 per lb higher than the same period in 2018 with the sales hedge program increasing sales revenues by \$8 million for the quarter, resulting in a contribution of \$0.03 per lb. In the first quarter of 2018, revenues were reduced by a \$121 million loss on the copper sales hedge program, which lowered the net realized copper price by \$0.40 per lb. The average LME price of copper decreased by 11% in the quarter compared to the same period in 2018.

# Comparative EBITDA higher than Q1 2018

Comparative EBITDA was \$368 million compared to \$363 million in the same period in 2018. Comparative EBITDA excludes \$4 million of foreign exchange losses, \$13 million write-off of assets and other costs associated with the Las Cruces land slippage, a loss on disposal of assets of \$2 million, and a \$2 million charge for closed site restoration provisions.

# Gross profit higher than 2018 from higher realized copper prices

Gross profit in Q1 2018	181
Higher realized metal prices (net of hedges)	19
Lower sales volumes <sup>2</sup>	(8)
Higher by-product contribution	7
Lower cash costs (excluding Zambian royalties) <sup>2</sup>	13
Decrease in depreciation <sup>2</sup>	4
Impact of Las Cruces land slippage	(41)
Increase in Zambian royalty rate	(8)
Foreign exchange gain	18
Gross profit in Q1 2019 <sup>1</sup>	185

Gross profit is reconciled to comparative EBITDA by including exploration costs of \$4 million, general and administrative costs of \$18 million, other expense of \$10 million, adding back depreciation of \$194 million, and excluding a foreign exchange loss of \$4 million, write-off of assets and other costs associated with the land slippage of \$13 million, loss on disposal of assets of \$2 million, and revisions in estimates of restoration provisions at closed sites of \$2 million (a reconciliation of comparative EBITDA is included on page 41).

# Increase in comparative earnings to \$95 million

- Comparative earnings for the quarter ended March 31, 2019 of \$95 million compares to \$49 million in the first quarter of 2018.
   A reconciliation of comparative metrics is included on page 41.
- Net earnings attributable to shareholders of \$53 million for the quarter compared to \$47 million in the same period in 2018. The 2019 result includes \$8 million in sales hedge gains, a \$25 million loss on partial redemption of senior notes, \$13 million write-off of assets and other costs associated with the Las Cruces land slippage, a loss on disposal of assets of \$2 million, \$4 million in foreign exchange losses, a \$2 million charge for closed site restoration provisions, and \$4 million in tax and minority interest relating to foreign exchange revaluation and comparative adjustments.

### FINANCIAL POSITION AND OPERATING CASH FLOW

On February 6, 2019, the Company signed a new \$2.7 billion Term Loan and Revolving Credit Facility underwritten by three core relationship banks. This new Facility replaces the existing \$1.5 billion Revolving Credit Facility. The new \$2.7 billion Facility comprises a \$1.5 billion Term Loan Facility and a \$1.2 billion Revolving Credit Facility (the "Facility"), maturing on December 31, 2022.

This financing includes revised financial covenants, extends the debt maturity profile of the business, demonstrates the Company's access to a diverse range of capital markets, and improves the financial flexibility of the Company through the added liquidity. The Net Debt to EBITDA covenant ratio is 5.75x until December 2019. The ratio will then reduce to 5.25x until June 2020, then to 4.75x until December 2020, then to 4.0x until June 2021, and then to 3.5x until final maturity.

On March 27, 2019, \$821 million of the senior notes due February 2021 were redeemed at a price of 101.75 plus accrued interest.

- The Company ended the quarter with \$850 million of net unrestricted cash and cash equivalents in addition to \$520 million of committed undrawn facilities and was in compliance with all financial covenants.
- At March 31, 2019, 92,500 tonnes of unmargined zero cost copper collar sales contracts at weighted average prices of \$2.83 to \$3.06 per lb were outstanding with maturities to February 2020. The Company also has 41,250 tonnes of outstanding unmargined copper forward sales contracts at an average price of \$2.91 per lb with maturities to November 2019.
- Taking into account forecast operating cash inflows, capital expenditure outflows and available committed facilities, the
   Company expects to have sufficient liquidity through the next 12 months to carry out its operating and capital expenditure plans



 $<sup>^{\</sup>rm 2}\,\mbox{Excludes}$  the impact of the Las Cruces land slippage.

and remain in full compliance with financial covenants. The Company continues to take action to manage operational and price risk and further strengthen the balance sheet.

### OTHER DEVELOPMENTS

#### Zambian sales tax

Further to the changes to the mining tax regime that were enacted January 1, 2019, the Minister of Finance of Zambia also announced the abolition of value-added-tax ("VAT") and the proposed introduction of a non-refundable sales tax at rates of 9% and 16% for local goods and services, and imported goods and services, respectively. The Government Republic of Zambia ("GRZ") has confirmed that they plan for the sales tax to be effective July 1, 2019, but this is subject to the required laws being passed and implemented.

The Company's Zambian operations have continued to accrue VAT receivable amounts during the quarter with minimal cash refunds received or offsets to other tax liabilities approved. The total amount of VAT accrued by the Company's Zambian operations at March 31, 2019, was \$495 million, of which \$301 million related to Kansanshi. The Minister reaffirmed that the GRZ remains committed to settling outstanding VAT claims. The Company continues to engage in regular discussions with the relevant government authorities and considers that the outstanding VAT claims are fully recoverable. See additional disclosure *Liquidity and Capital Resources* on page 26.

### Assessment by Zambia Revenue Authority

On March 19, 2018, Kalumbila Minerals Ltd ("KML") (a subsidiary of the Company) received a letter of preliminary findings following an audit by the Zambia Revenue Authority ("ZRA") for ZMW 76.5 billion (approximately \$7.6 billion at the date of receipt of the letter, comprising \$5.5 billion in interest and \$2.0 billion in penalties on the \$150 million assessment claim on duties). The preliminary findings letter covers circa 22,700 import transactions relating to the import of capital items, consumables, and spare parts for use at Sentinel from January 2013 to December 2017.

A process for provision of relevant documentation was agreed between KML and the ZRA. KML, together with an external international accounting firm and a shipping agent completed a review of the documentation relating to the audited areas over the relevant period. KML's internal findings and relevant supporting documentation, which were voluminous, have been provided to the ZRA with discussions progressing on the documentation provided. KML continues to refute the preliminary assessment and the Company's view on the final value of the claim remains unchanged from that disclosed in the first quarter of 2018. KML remains engaged with the ZRA and committed to ensuring transparency in all discussions between the parties to bring the matter to a just and prompt resolution.

# **LEGAL PROCEEDINGS**

### Panama constitutional proceedings

In February 1996, the Republic of Panama and Minera Panama SA ("MPSA"), a Panamanian subsidiary of the Company, entered into a mining concession contract in respect of the Cobre Panama project.

On February 26, 1997, Contract-Law No. 9 ("Law 9") was passed by the Panamanian National Assembly. Law 9 granted the status of national law to the mining concession contract, establishing a statutory legal and fiscal regime for the development of the Cobre Panama project. On December 30, 2016 the Government of Panama signed and issued Resolution No. 128 by which it extended the mining concession contract held by Minera Panama SA for a second 20-year term commencing March 1, 2017 up to February 28, 2037. The Company remains eligible for consideration of a third 20-year term of the MPSA mining concession contract commencing March 1, 2037.

In September 2018 the Company became aware of a ruling of the Supreme Court of Panama ("Supreme Court") in relation to the constitutionality of Law 9. The Company understands that the ruling of the Supreme Court with respect to the constitutionality of Law



9 relates to the enactment of Law 9 and does not affect the legality of the MPSA mining concession contract itself, which remains in effect, and allows continuation of the development and operation of the Cobre Panama project by MPSA.

In respect of the Supreme Court ruling on Law 9, which remains subject to various procedural processes, the Company notes the following.

- The ruling is not yet in effect.
- The Supreme Court decision was in respect of ongoing legal filings made since 2009 with regard to specific environmental petitions.
- In reviewing the process of approval of Law 9 of 1997, the Supreme Court found that the National Assembly had failed to consider whether Law 9 complied with applicable legislation at the time, namely Cabinet Decree 267 of 1969.
- The applicable Cabinet Decree of 1969, which was repealed in 1997 by Law 9, required the Ministry of Commerce and Industry ("MICI") to issue a request for proposals before awarding the Law 9 mining concession.
- The Attorney General of Panama has provided two formal opinions favourable to the constitutionality of Law 9 as required in this type of proceedings by Panamanian law.
- The Supreme Court ruling did not make a declaration as to the annulment of the MPSA mining concession contract.

Subsequently, MPSA has submitted filings to the Supreme Court for ruling, which it has accepted, prior to the ruling in relation to the constitutionality of Law 9 taking effect. On September 26, 2018, the Government of Panama issued a news release affirming support for the Cobre Panama project. The release confirmed that MICI considers that the MPSA mining concession contract, and its extension, remains in effect in all its parts. Construction and commissioning are continuing while the Company seeks to clarify the legal position. (The MICI release is available at <a href="https://www.twitter.com/MICIPMA/status/1044915730209222657">www.twitter.com/MICIPMA/status/1044915730209222657</a>).

Based on support from the Government of Panama, the Chamber of Commerce and Industries of Panama, the Panamanian Mining Chamber, other Panamanian business and industry chambers and its legal advice, the Company is confident of resolving the Law 9 clarification in the near-medium term.

# Zambian power

In June 2018, without any warning, the state-owned power company ("ZESCO") reduced power supply to Kansanshi project. The reduction was due to Kansanshi and Sentinel's rejection of ZESCO's demand for payment of higher tariffs, contrary to the existing contractual agreements between the parties.

On June 26, 2018, Kansanshi sought an injunction against ZESCO before the English courts, as the contracts on tariff are governed by English law. On June 28, 2018, ZESCO resisted the application and requested an extension to respond. On July 6, 2018, the Court awarded Kansanshi's request by way of a sanctioned consent order ("Order") which requires ZESCO to restore the full capacity as demanded by Kansanshi. In turn, Kansanshi is required to deposit the difference between the contractual tariff and the disputed higher tariff into a segregated account until an arbitration between Kansanshi and ZESCO on these facts are concluded. The Order continues to apply as ZESCO is restrained from making any reductions without incurring further sanction from the Court.

On August 22, 2018, Kansanshi served on ZESCO a Notice of Arbitration in respect of these facts. A procedural timetable of the arbitration has been agreed, with the merits hearing set to summer 2020. Pursuant to the Procedural Order, Kansanshi has submitted its Statement of Claim and ZESCO's Reply is expected imminently.

Despite this dispute our operations generally maintain a constructive relationship with ZESCO, particularly with regards to the management of technical and supply issues. Operational and technical dialogue between the parties is expected to continue in the normal course.

### Kansanshi minority partner

In October 2016, the Company, through its subsidiary Kansanshi Holdings Limited, received a Notice of Arbitration from ZCCM International Holdings PLC ("ZCCM") under the Kansanshi Mining PLC ("KMP") Shareholders Agreement. ZCCM is a 20% shareholder in KMP and filed the Notice of Arbitration against Kansanshi Holdings Limited ("KHL"), the 80% shareholder, and against

KMP. The Company also received a Statement of Claim filed in the Lusaka High Court naming additional defendants from the group companies, including FQM Finance Ltd. ("FQM Finance"), and certain directors and an executive of the named corporate defendants. Aside from the parties, the allegations made in the Notice of Arbitration and the High Court for Zambia were the same. The Company is firmly of the view that the allegations are in their nature inflammatory, vexatious and untrue.

The dispute was stated as a request for a derivative action, requiring ZCCM to obtain permission to proceed in each forum of the Arbitration and the Lusaka High Court. The dispute arose from facts originating in 2007, and concerned the rate of interest paid on select deposits by KMP with the Company's treasury entity FQM Finance. The deposits were primarily retained for planned investment by KMP in Zambia. In particular, KMP deposits were used to fund a major investment program at Kansanshi, including the successful construction and commissioning of the Kansanshi smelter and expansion of the processing plant and mining operations. The entirety of the deposit sums has been paid down from FQM Finance to KMP, with interest. The interest was based on an assessment of an arm's length fair market rate, which is supported by independent third-party analysis. ZCCM disputed that interest rate paid to KMP on the deposits was sufficient.

Several preliminary procedural applications to dismiss the High Court Action were lodged on behalf of the Company, and other defendants, in the Lusaka High Court. By a decision dated January 25, 2018, the Lusaka High Court used its discretion to rectify ZCCM's procedural errors. The Court granted leave to the Company, FQM Finance and the individual defendants to appeal against this decision and the litigants have agreed to a stay pending the appeal. The appeal hearing took place on November 21, 2018, with submissions made by all parties. The Court of Appeal delivered judgment on January 11, 2019, dismissing the appeal, and an appeal to the Supreme Court of Zambia has been requested and will be heard on 24 April 2019.

The Arbitration required ZCCM to petition the Arbitral Tribunal for permission to maintain the derivative action. A three-day hearing on the Arbitration on whether permission is granted or denied took place in January 2018. On February 22, 2018, the Arbitral Tribunal issued a ruling denying ZCCM permission to continue the proceedings. On March 21, 2018, ZCCM served an application seeking to challenge the Arbitral Tribunal's ruling through the English court. On June 1, 2018, despite being severely out of time, ZCCM sought to amend its application for additional grounds on which to challenge the Arbitral Tribunal's ruling. ZCCM's arbitration challenge was resisted by KHL in a substantive hearing in the English High Court heard in London during March 26-28, 2019. KHL argued that ZCCM committed an abuse of process in trying to raise irrelevant circumstances which would not have affected the Tribunal's ruling, because the ruling was made on the weak facts ZCCM submitted in the arbitration. A decision from the High Court is expected during the second quarter.

Cooperative discussions between the parties, including representatives of the Zambian Government, took place in May 2017 and are expected to be repeated.

# **DEVELOPMENT ACTIVITIES**

### Cobre Panama Project, Panama

Cobre Panama project milled its first tonnes of ore in the first quarter of 2019 and produced its first copper concentrate. The project continues to focus on completion of any outstanding construction, along with commissioning of key process plant facilities. The ramp up is progressing well. The first power station generator set has successfully achieved full 150MW output on a consistent steady state basis. The second generator set has achieved 140MW output in the period. Optimization of the second generator set to reach full 150MW output is continuing, but is expected to follow similar optimization already completed on the first generator set.

Key milestones achieved through the first quarter of 2019 included:

- ore commissioning of the first "train" of the process plant, consisting of two primary crushers, multiple conveyors, one Semi-Autogenous Grinding ("SAG") mill and two ball mills, rougher and cleaner flotation cells, thickeners, tailings pumps and pipeline, concentrate pumps and pipeline, concentrate filtration systems and concentrate storage shed tripper conveyors;
- construction completion and lining of SAG mill 2 and ball mill 3 and construction completion of ball mill 4 (train 2); and
- receipt of the first bulk diesel shipment with offload at the port.



Construction workforce demobilization continued in the period with a planned accelerated reduction in the second and third quarters of 2019.

The tailings management facility construction phase earthworks were 99% complete at the end of the quarter, and work had commenced on rock pad preparations for the operations phase. Ore introduction to the second milling train, regrind mills, pebble crushers and second train of conveyors is planned for in the second quarter, augmenting the process plant throughput.

There are over 2,350 designated operations personnel currently engaged including all key management staff. The operations readiness plan includes establishment of operating systems, procedures, tooling and spares, and training of Panamanian employees. By end of the quarter the mine, port, power station and train 1 of the process plant was running under operational employee control. Project ramp-up is expected to continue throughout 2019 and 2020.

The total project capital expenditure in the quarter was \$133 million (First Quantum's share \$98 million). Project spending to date amounts to \$6.2 billion, including \$2.1 billion contributed by third parties. The Company's share of project capital expenditure increased following the acquisition from LS-Nikko of its 50% share in KPMC in November 2017.

Further to the above capital expenditure, \$198 million was capitalized to the Cobre Panama project with respect to interest costs incurred by the Company during the quarter.

#### **EXPLORATION**

The Company's exploration strategy includes work at advanced stage exploration projects at Haquira in Peru and Taca Taca in Argentina, near-mine resource expansion around Las Cruces, Pyhäsalmi and Kansanshi as well as an early stage exploration program concentrated on the search of high quality porphyry deposits in the Andean and Tethyan Cordilleras and sediment-hosted copper deposits in the basins of Central Africa and Australia.

At the Haquira project in Peru, the focus continues on the community and environmental aspects. The Environmental Impact Assessment ("EIA") studies continued during the period. Various access agreements with communities to maintain activities have now been successfully renegotiated.

At Taca Taca, the Company is continuing with the project pre-development and feasibility activities, focusing on an initial scope involving confirmatory work on the mineral resource, metallurgical sampling and testing, mine geotechnical studies, and other technical work required to increase the definition of project engineering, cost, and operating estimates. The primary Environmental and Social Impact Assessment ("ESIA") for the Taca Taca project, which covers the prinicipal proposed project sites, was submitted to the Secretariat of Mining of Salta Province in February 2019.

During 2019, near-mine exploration programs will be active at Las Cruces in Spain as well as on satellite targets around Kansanshi in Zambia. A modest global exploration program continues to be focused on identifying high quality porphyry and sediment hosted copper deposits in prospective belts around the world. In recent times this program has expanded to include reconnaissance exploration on properties throughout the Andean belt in Argentina, Chile, Peru, Ecuador and Colombia but has also included evaluation of high priority targets in several other jurisdictions. In the current quarter preparations were underway to commence drill testing of prospects in Argentina, Chile and Papua New Guinea.

# **HEALTH & SAFETY**

The health and safety of all of the Company's employees and contractors is our top priority and the Company is focused on the continual strengthening and improvement of the safety culture at all of our operations. The Lost Time Injury Frequency Rates ("LTIFR") is an area of continued focus and a key performance metric for the Company, our rolling 12-month LTIFR is 0.06 per 200,000 hours worked on average over the 12 month period to March 31, 2019.

### MARKET GUIDANCE

Market guidance for production, production cost and capital expenditure for the years 2019, 2020 and 2021 are unchanged from previously disclosed.

Guidance is based on a number of assumptions and estimates as of March 31, 2019, including among other things, assumptions about metal prices and anticipated costs and expenditures. Market guidance involves known and unknown risks uncertainties and other factors which may cause the actual results to be materially different.

# Cobre Panama milestones and continued ramp-up expectations

The following milestones are expected over the remainder of 2019:

- The first shipment of copper concentrate to offtake customers is expected within the second quarter of 2019;
- Start-up of train 3, the gold plant and completion of outstanding infrastructure will occur within the second and third quarters of 2019;
- Total 2019 copper production will vary according to the impact of known upsides, mitigated by as yet unknown ramp-up factors and final project completion. A range of 140,000 to 175,000 tonnes of copper production is considered achievable. Note that limited copper production is expected in the first half of 2019 while commissioning and start-up of the process plant continues. The second half of 2019 is expected to provide over 80% of the total copper production for the full 2019 year;
- Commercial production will be declared in arrears at a date yet to be determined and according to a number of factors, including performance of key assets, achievement of steady state production at a material proportion of nameplate plant capacity, and factors which indicate the mine is operating as intended by management. At this stage, while difficult to predict exactly, it is assumed that commercial production will be declared in the final quarter of the year.

By the end of 2019 the Cobre Panama mine is expected to be running at an annualized throughput rate of 72 million tonnes per annum ("mpta") and is expected to reach the 85 mtpa throughput rate by 2020. Contained copper production is estimated at between 140,000 tonnes and 175,000 tonnes in 2019, between 270,000 tonnes and 300,000 tonnes in 2020, approximately 300,000 tonnes in 2021 increasing to approximately 350,000 tonnes in 2022. In 2022, the C1 unit cost of production is estimated at \$1.20 per lb and \$1.50 per lb all-in sustaining. Both estimates are net of an assumed by-product credit, principally gold as well as some molybdenum and silver, of approximately \$0.25 per lb, which includes an allocation of the deferred revenue contribution from Franco-Nevada Corporation ("Franco-Nevada"). On a pure periodic cash basis the assumed by-product credit is approximately \$0.15/lb. Gold production in 2020 and 2021 is estimated at approximately 100,000 ounces.

### Production guidance

000's	2019	2020	2021
Total copper (tonnes) <sup>1</sup>	700 - 735	840 - 870	820
Copper (tonnes) - Cobre Panama <sup>1</sup>	140 - 175	270 - 300	300
Copper (tonnes) – excluding Cobre Panama	560	570	520
Gold (ounces) – excluding Cobre Panama	185	180	170
Zinc (tonnes)	12	2	-

<sup>&</sup>lt;sup>1</sup> Inclusive of pre-commercial production tonnes from Cobre Panama

# Production guidance by operation (excluding Cobre Panama)

# Copper

000's tonnes	2019	2020	2021
Kansanshi	235	235	235
Sentinel	230	250	250
Las Cruces	45	45	-
Guelb Moghrein	28	25	20
Çayeli	17	15	15
Pyhäsalmi	5	-	-

### Gold

000's ounces	2019	2020	2021
Kansanshi	135	135	135
Guelb Moghrein	47	45	35
Pyhäsalmi	3	-	-

### Zinc

000's tonnes	2019	2020	2021
Çayeli	2	2	-
Pyhäsalmi	10	-	-

# Cash cost and all-in sustaining cost

Cash costs and AISC guidance in the tables below does not include any costs in respect of Cobre Panama.

Copper – excluding Zambian sales tax	2019	2020	2021
C1 (per lb) – excluding Zambian sales tax	\$1.20 - \$1.40	\$1.20 - \$1.40	\$1.20 - \$1.40
AISC (per lb) -excluding Zambian sales tax	\$1.70 - \$1.85	\$1.70 - \$1.85	\$1.70 - \$1.85

Following the announcement of the draft Sales Tax Bill to the Zambian parliament on April 2, 2019, the proposed implementation date is July 1, 2019, with the supply of goods and services in Zambia to incur a 9% tax rate and the importation of goods and services to incur a 16% tax rate. The Company currently estimates that this will increase Group C1 and AISC by approximately \$0.10 per lb in 2019 and \$0.15 per lb to \$0.18 per lb per year thereafter, excluding Cobre Panama.

# Capital expenditure<sup>1</sup>

Capital expenditure guidance remains unchanged.

	2019	2020	2021
Total Cobre Panama project <sup>2</sup>	230	-	-
Third-party contribution <sup>3</sup>	(35)	-	-
First Quantum's share of Cobre Panama project <sup>4</sup>	195	-	-
Capitalized stripping	200	250	250
Sustaining capital and other projects	650	600	600
Total net capital expenditure	1,045	850	850

<sup>&</sup>lt;sup>1</sup> Excludes capitalization of any net pre-commercial production costs, revenue and interest.

Guidance on total Cobre Panama project capital expenditure is \$6.3 billion.

Guidance for the Company's sustaining capital and other projects includes expenditure relating to Cobre Panama which includes expenditure to enable commencement of the expansion to 100 mtpa capacity, which includes the initial development and engineering work allowing mining to proceed to the Colina Pit. Other projects in 2019 include: the fourth in-pit crusher and trolley assist expansion at Sentinel, a de-watering shaft at Kansanshi, remediation work at Las Cruces following the January land slippage, and costs to allow restart at Ravensthorpe. Underlying sustaining capital expenditure is expected to average approximately \$250 million per annum over the three-year period.

# Interest

Due to the current level of project capital expenditure, interest has largely been capitalized in the quarter and in previous years. This is expected to continue until declaration of commercial production at Cobre Panama, which is expected in the fourth quarter, and, in the absence of any major project capital expenditure, interest would then be expensed.

# Tax

Excluding the impact of the changes to the Zambian mining tax regime, the effective tax rate for 2019, excluding the sales hedge program and loss on partial redemption of senior notes, is expected to be in line with 2018, at approximately 31%. Including the impact of the changes to the Zambian mining tax regime, the expected effective rate excluding the sales hedge program and loss on partial redemption of senior notes, is approximately 45%.

### Depreciation

Depreciation expense for the first quarter was \$194 million, with the 2019 full year depreciation expense, excluding Cobre Panama, expected to range between \$800 million and \$825 million. Cobre Panama depreciation expense will commence following the declaration of commercial production, which is expected in the fourth quarter.

<sup>&</sup>lt;sup>2</sup> Reflects total capital expenditure estimate of \$6.3 billion.

<sup>&</sup>lt;sup>3</sup> Third-party contributions are from KORES' 10% indirect interest in the project.

<sup>&</sup>lt;sup>4</sup> Based on the current 90% ownership.

#### OPERATING REVIEW

### **Production Summary**

· · · · · · · · · · · · · · · · · · ·			
	Q1 2019	Q4 2018	Q1 2018
Copper production (tonnes) 1			
Kansanshi	53,913	61,780	63,585
Sentinel	57,716	60,840	50,310
Las Cruces	10,634	18,470	18,238
Guelb Moghrein	7,447	8,319	6,135
Çayeli	4,891	5,931	4,225
Pyhäsalmi	2,343	2,964	2,865
Total copper production (tonnes) – excluding pre-commercial production	136,944	158,304	145,358
Cobre Panama	25	-	-
Total copper production (tonnes) – including pre-commercial production	136,969	158,304	145,358
Total gold production (ounces)	49,357	48,039	45,929
Total zinc production (tonnes)	6,318	7,687	5,227

<sup>1</sup> Production is presented on a copper contained basis, and is presented prior to processing through the Kansanshi smelter.

#### First quarter

Copper production was 6% lower than the comparable period of 2018 due to lower production at Kansanshi and Las Cruces, offset by increased production at Sentinel despite significant rain in Zambia in January. Copper production at Las Cruces was 42% lower than the comparable period of 2018 due to the land slippage that occurred in January 2019 which halted mining and processing operations. Ore processed at Las Cruces following the resumption of production on February 1, 2019, is limited to lower grade ore stockpiles which are expected to be blended with higher grade stockpiled ore. Kansanshi copper production, 15% lower than 2018, was impacted by lower throughput, as well as reduced mixed and oxide ore grade processed. Production of copper cathode was lower in the quarter due to the availability of acid in the quarter resulting from high acid consuming ore being processed. It was a strong performance in the quarter from Sentinel with a 15% production increase compared to the same period in 2018, with further improvement expected through water management planning and ongoing optimization of the milling and flotation circuits.

The Kansanshi smelter performed well in the quarter, processing 342,307 DMT of concentrate and produced 322,000 tonnes of sulphuric acid, in line with the comparable period in 2018. Production of copper anode of 83,134 tonnes was 4% below the comparable period of 2018, attributable to a lower Kansanshi concentrate grade, the impact of which was reduced by increased recoveries. 1,182 tonnes of copper anode were produced from copper concentrate purchased from third parties.

Gold production of 49,357 ounces was 7% higher than the same period in 2018 mainly due to operational enhancements at Kansanshi and higher grade at Guelb Moghrein.

Ravensthorpe remains on care and maintenance throughout the quarter following the suspension of operations at the mine in October 2017. If market conditions continue, it is expected that operations could resume in the first quarter of 2020.

### **Cobre Panama production**

Cobre Panama produced its first copper concentrate in the quarter, 25 tonnes. It is expected that over 80% of the annual copper production will occur in the second half of the year as ramp-up and commissioning continues.

# **Sales Summary**

	Q1 2019	Q4 2018	Q1 2018
Copper sales (tonnes)			
Kansanshi <sup>1</sup>	53,033	56,330	51,684
Sentinel	51,187	60,257	58,342
Las Cruces	11,443	18,345	18,771
Guelb Moghrein	7,924	9,099	6,387
Çayeli	3,814	9,153	-
Pyhäsalmi	2,861	3,028	2,837
Total copper sales (tonnes) <sup>2</sup>	130,262	156,212	138,021
Total gold sales (ounces)	46,790	53,221	48,815
Total zinc sales (tonnes)	6,646	8,268	4,810

<sup>&</sup>lt;sup>1</sup> Copper sales exclude the sale of copper anode produced from third-party concentrate purchased at Kansanshi. Sales of copper anode attributable to third-party concentrate purchases were 1,182 tonnes and 5,884 tonnes tonnes for the three months ended March 31, 2019 and December 31, 2018, respectively.

### First quarter

Copper sales volumes for the quarter were 6% lower than the comparable quarter of 2018 driven by decreased production at Las Cruces following the land slippage in January 2019, and the timing of Sentinel copper anode sales, which were partly mitigated by an increase in copper concentrate sales.

Offsetting the above were Çayeli sales in the quarter, following the absence of sales in 2018 due to the timing of shipments.

Increased copper anode sales volumes by Kansanshi more than compensated for decreased sales volumes of copper cathode by Kansanshi due to lower cathode production, which led to a slight overall increase in total copper sales volumes in the quarter.

# **Unit Cost**

	Q1 2019	Q4 2018	Q1 2018
Copper C1 <sup>3</sup> cash cost (\$ per lb)			
Kansanshi <sup>1</sup>	\$1.24	\$1.04	\$1.00
Sentinel	\$1.60	\$1.55	\$1.83
Las Cruces	\$1.31	\$0.94	\$0.86
Other sites <sup>2</sup>	\$0.82	\$1.23	\$0.21
Total copper C1 cash cost (\$ per lb)¹	\$1.34	\$1.23	\$1.27
Copper AISC <sup>3</sup> (\$ per lb)			
Kansanshi <sup>1</sup>	\$1.73	\$1.61	\$1.46
Sentinel	\$2.07	\$2.02	\$2.36
Las Cruces	\$1.46	\$1.16	\$1.03
Other sites <sup>2</sup>	\$1.04	\$1.40	\$0.75
Total copper AISC (\$ per lb) <sup>1</sup>	\$1.77	\$1.68	\$1.72

<sup>&</sup>lt;sup>1</sup> Copper C1 cash cost and AISC for Kansanshi and total Group exclude purchases of copper concentrate from third parties treated through the Kansanshi smelter.

 $<sup>^{\</sup>rm 2}$  Other sites include Guelb Moghrein, Çayeli and Pyhäsalmi.

<sup>&</sup>lt;sup>3</sup>Copper production includes 25 tonnes of pre-commercial production from Cobre Panama, which is not included in C1, C3 and AISC calculations

Copper C1 cash cost was \$0.07 per lb higher in the period compared with the same period in 2018, reflecting the impact of lower production at Las Cruces following the land slippage. This resulted in an increase to Las Cruces C1 cash costs \$0.45 per lb compared with 2018.

AISC was \$0.05 per lb higher than the comparable period of 2018 due to increased C1 cash costs partially offset by lower deferred stripping costs at Guelb Moghrein and Kansanshi, which resulted in a decrease to AISC of \$0.04 per lb. Lower sustaining capital expenditure at Sentinel and Guelb Moghrein was offset by increases at Kansanshi.

AISC incorporates a \$0.01 per lb increase with respect to lease payments following the adoption of IFRS 16 Leases, which is offset by a corresponding decrease to C1 cash cost.

# **OPERATIONS**

Kansanshi	Q1 2019	Q4 2018	Q1 2018
Sulphide ore tonnes milled (000's)	3,084	3,301	3,182
Sulphide ore grade processed (%)	0.90	0.81	0.79
Sulphide copper recovery (%)	89	88	88
Mixed ore tonnes milled (000's)	1,870	2,165	2,009
Mixed ore grade processed (%)	1.00	1.08	1.16
Mixed copper recovery (%)	75	76	81
Oxide ore tonnes milled (000's)	1,534	1,668	1,791
Oxide ore grade processed (%)	1.14	1.33	1.59
Oxide copper recovery (%)	87	92	80
Copper production (tonnes) <sup>1</sup>	53,913	61,780	63,585
Copper smelter			
Concentrate processed (DMT) <sup>2</sup>	342,307	349,424	350,591
Copper anodes produced (tonnes) <sup>2</sup>	83,134	89,894	86,777
Smelter copper recovery (%)	97	97	97
Acid tonnes produced (000's)	322	320	325
Copper sales (tonnes) <sup>3,4</sup>	53,033	56,330	51,684
Gold production (ounces)	34,743	33,465	32,080
Gold sales (ounces)	31,082	35,616	33,666
All-in sustaining cost (AISC) (per lb) <sup>5, 6</sup>	\$1.73	\$1.61	\$1.46
Cash costs (C1) (per lb) <sup>5,6</sup>	\$1.24	\$1.04	\$1.00
Total costs (C3) (per lb) <sup>5, 6</sup>	\$1.98	\$1.71	\$1.82
Sales revenues	364	417	393
Gross profit	116	140	156
Comparative EBITDA <sup>5</sup>	169	198	212

<sup>1</sup> Production presented on a copper concentrate basis, i.e. mine production only. Production does not include output from the smelter.

# Kansanshi Mining Operations

### First quarter

Copper production was 15% lower than the comparable period in 2018, mainly due to lower throughput on each circuit and grade on the oxide and mixed ore circuits, as well as lower recoveries on the mixed ore circuit, partially offset by higher grade and recoveries on the sulphide circuit. Lower oxide grade ore was processed as the higher grade oxide ore requires increased volumes of acid for leaching, which was restricted to the acid available from the smelter. Lower throughput was due to coarser oxide ore feed, an extended sulphide shutdown and an unusually high number of power interruptions as a result of problems with the interconnector

<sup>&</sup>lt;sup>2</sup> Concentrate processed in smelter and copper anodes produced are disclosed on a 100% basis, inclusive of Sentinel and third-party concentrate processed. Concentrate processed is measured in dry metric tonnes ("DMT"). 1,881 DMT of third-party purchased copper concentrate was treated for the three months ended March 31, 2019 and 9,402 DMT for the three months ended December 31, 2018.

<sup>3</sup> Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded. For the three months ended March 31, 2019, sales of copper anode produced from purchased concentrate were 1,182 tonnes. For the three months ended December 31, 2018, sales of copper anode produced from purchased concentrate were

<sup>&</sup>lt;sup>4</sup> Sales include third-party sales of concentrate, cathode and anode attributable to Kansanshi (excluding copper anode sales attributable to Sentinel).

<sup>5</sup> AISC, C1 cash cost, and C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

<sup>&</sup>lt;sup>6</sup> Excluding purchases of copper concentrate from third parties treated through the Kansanshi smelter.

between the Democratic Republic of Congo and Zambia as well as lightning strikes. Lower plant recovery on the mixed ore circuit reflected a lower volume of mixed final tails processed through the atmospheric leach circuit.

Gold production was 8% higher than the same period of 2018 reflecting the impact of operational enhancements achieved through projects commissioned during the quarter.

AISC of \$1.73 per lb was \$0.27 per lb higher than the same period in 2018, due to higher C1 cash cost and sustaining capital expenditure, partially offset by lower deferred stripping costs. C1 cash cost was higher than the same period in 2018, mainly reflecting the impact of lower production and movements in the value of ore stockpiles processed during the quarter.

Sales revenues of \$364 million were 7% lower compared to the same period in 2018, reflecting lower realized metal prices, excluding the impact of the corporate sales hedge program, partially offset by higher copper sales volumes. Sales of copper anode attributable to anode produced from third-party purchased concentrate contributed revenues of \$7 million.

Gross profit of \$116 million was 26% lower than the same period in 2018, reflecting the decrease in sales revenues and the impact of the higher royalty rates introduced by the Zambian government from January 1, 2019, of \$5 million.

# Kansanshi Copper Smelter

#### First quarter

The smelter treated 342,307 DMT of concentrate, including 1,881 DMT purchased from third parties, and produced 83,134 tonnes of copper in anode and 322,000 tonnes of sulphuric acid. The smelter achieved an overall copper recovery rate of 97% in the first quarter.

#### Outlook

Production in 2019 is expected to be approximately 235,000 tonnes of copper, and approximately 135,000 ounces of gold.

A two week smelter shutdown is planned for the third quarter of 2019 to perform work on the acid plant catalyst screening.

Sentinel	Q1 2019	Q4 2018	Q1 2018
Copper ore processed (000's tonnes)	11,581	12,434	11,735
Copper ore grade processed (%)	0.54	0.53	0.47
Copper recovery (%)	92	92	91
Copper production (tonnes)	57,716	60,840	50,310
Copper sales (tonnes)	51,187	60,257	58,342
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	\$2.07	\$2.02	\$2.36
Cash cost (C1) (per lb) <sup>1</sup>	\$1.60	\$1.55	\$1.83
Total cost (C3) (per lb) <sup>1</sup>	\$2.34	\$2.26	\$2.60
Sales revenues	296	344	385
Gross profit	55	72	93
Comparative EBITDA <sup>1</sup>	112	141	159

AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Sentinel achieved record first guarter copper production of 57,716 tonnes. Copper production was 15% higher than the comparable period of 2018, reflecting record quarterly concentrate grades and recoveries that were achieved, despite the impact of the wet season, which is typically at its peak in the first quarter, as well as continued improvement in water management planning and implementation and ongoing optimization of the milling and flotation circuits. The increases in mined grade and recoveries were partially offset by lower throughput.

AISC of \$2.07 per lb was \$0.29 per lb lower than the same period of 2018, reflecting lower C1 cash cost and sustaining capital expenditure. C1 cash cost was \$0.23 per lb lower than the comparable period of 2018 reflecting lower mining costs as a result of reduced use of contractors, lower fuel and consumables costs, and the impact of higher copper production.

Sales revenues of \$296 million were 23% lower than the same period in 2018 due to both lower sales volumes and realized copper prices, excluding the impact of the corporate sales hedge program. Sales revenues comprised sales of both concentrate and anode, with a higher proportion of revenue realized from copper anode. The decrease in sales revenues flowed through to gross profit, which was 41% lower than the same period in 2018.

#### Outlook

Production in 2019 is expected to be approximately 230,000 tonnes of copper.

A 5-day planned shutdown took place in April 2019 for the completion of maintenance to the flotation pumps, as well as the primary and secondary crushers, and the relining of the mills.

Copper production is expected to continue to benefit from consistent ore supply, improved ore feed grades and recoveries with ongoing optimization of the milling and flotation circuits. Mining is expected to continue to focus on optimization of drilling and blasting as well as loading and hauling practices, in addition to the expansion of the trolley-assist program. Waste stripping in the east cutback is planned to continue throughout 2019.

Ongoing projects include additions to the secondary crusher and pebble conveying circuits to enhance operational flexibility and efficiency, as well as the construction of a fourth in-pit crusher, expected to be commissioned in 2020.

Las Cruces	Q1 2019	Q4 2018	Q1 2018
Ore tonnes processed (000's)	325	400	390
Copper ore grade processed (%)	3.75	5.00	5.07
Copper recovery (%)	87	93	92
Copper cathode production (tonnes)	10,634	18,470	18,238
Copper cathode sales (tonnes)	11,443	18,345	18,771
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	\$1.46	\$1.16	\$1.03
Cash cost (C1) (per lb) <sup>1</sup>	\$1.31	\$0.94	\$0.86
Total cost (C3) (per lb) <sup>1</sup>	\$3.19	\$2.28	\$2.15
Sales revenues	71	113	131
Gross profit	(6)	19	42
Comparative EBITDA <sup>1</sup>	39	76	94

AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Copper production for the quarter decreased by 42% compared to the same period in 2018. On January 23, a land slippage in the pit forced the suspension of both mine and plant production. A remediation plan is underway and plant production restarted on February 1, 2019 using available low grade stockpiles, which are expected to provide approximately seven months of production. It is expected that high grade stockpiled ore will be blended with the lower grade stockpiles for the plant feed during the coming months with an expected average grade of approximately 3.3%. Management is continuing to work to resolve the ongoing challenges associated with the processing of stockpiled ore.

AISC of \$1.46 per lb was \$0.43 per lb higher than the same period in 2018, reflecting higher C1 cash cost driven by lower copper production as a result of the land slippage. The increase in AISC was partially offset by lower deferred stripping costs and cost reduction programs.

Sales revenues of \$71 million decreased by 46% compared to the same period in 2018 due to lower realized copper prices, excluding the impact of the corporate sales hedge program, and lower copper sales volumes. The decrease in revenues resulted in a gross loss of \$6 million in the quarter.

\$13 million was recognized in the quarter with regard to the write-off of assets and other costs associated with the land slippage.

### Outlook

Copper production guidance for 2019 is expected to be 45,000 tonnes. Stockpiles are planned to be processed until the necessary regulatory approvals are obtained and there is a recommencement of mining activities in phase 6, an area unaffected by the land slippage, and ore is accessible. A focus on improvements to both plant equipment availability and recoveries will be necessary to achieve this level of production. Copper production for 2020 is expected to be 45,000 tonnes.

Remediation of the mine, cost optimization and capital expenditure management to mitigate the impact of the reduced production profile will continue to be the focus throughout the year as works towards obtaining the necessary approvals to restart mining during the second half of 2019 continues.

Research on the technical and economic feasibility of the polymetalic refinery project is expected to continue.

Guelb Moghrein	Q1 2019	Q4 2018	Q1 2018
Sulphide ore tonnes milled (000's)	994	983	861
Sulphide ore grade processed (%)	0.85	0.93	0.79
Sulphide copper recovery (%)	88	91	90
Copper production (tonnes)	7,447	8,319	6,135
Copper sales (tonnes)	7,924	9,099	6,387
Gold production (ounces)	12,498	12,236	11,740
Gold sales (ounces)	13,301	14,224	13,008
Magnetite concentrate production (WMT) <sup>1</sup>	119,169	97,052	93,472
Magnetite concentrate sales (WMT) <sup>1</sup>	89,631	85,914	79,560
All-in sustaining cost (AISC) (per lb) <sup>2</sup>	\$1.37	\$1.95	\$1.84
Cash costs (C1) (per lb) <sup>2</sup>	\$1.11	\$1.73	\$0.99
Total costs (C3) (per lb) <sup>2</sup>	\$2.22	\$2.79	\$1.86
Sales revenues	64	70	60
Gross profit	6	1	15
Comparative EBITDA <sup>1</sup>	23	13	24

<sup>&</sup>lt;sup>1</sup> Magnetite concentrate production and sales volumes are measured in wet metric tonnes ("WMT").

Copper production was 21% higher than the same period in 2018 despite a 7-day planned shutdown, attributable to a 15% increase in mill throughput, reflecting the processing of softer ore, and higher feed grade, partially offset by lower copper recovery.

Gold in concentrate production was 6% higher than the same period in 2018 due to higher throughput and feed grade. This was partially offset by lower gold circuit recovery due to higher magnetite content in the feed.

The magnetite plant produced 119,169 WMT of magnetite concentrate this quarter, 27% higher than the comparable period in 2018 due to higher feed grade and increased utilization of the magnetite plant.

AISC of \$1.37 per lb was \$0.47 per lb lower than the same period in 2018, mainly due to lower sustaining capital expenditure and no deferred stripping costs in the current period. This was partially offset by a \$0.12 per lb increase in C1 cash cost compared to the same period of 2018, reflecting higher consumables from the relining of the SAG mills, and lower by-product credits. The increase in C1 cash cost was partially offset by lower maintenance and fuel costs, and the impact of higher copper production.

Sales revenues of \$64 million were 7% higher than the comparable period of 2018 due to higher sales volumes, partially offset by lower realized metal prices excluding the impact of the corporate sales hedge program.

Gross profit of \$6 million was 60% lower than the same period in 2018, with the increase in sales revenues more than offset by higher depreciation.

### Outlook

Production in 2019 is expected to be approximately 28,000 tonnes of copper, 47,000 ounces of gold, and 570,000 WMT of magnetite concentrate. Magnetite concentrate sales of 320,000 WMT are expected in 2019.

In 2019, the focus will be on improving gold concentrator recoveries by installing an additional unit, and cost reduction through the review of contractors and further improvements to mining productivity.

<sup>&</sup>lt;sup>2</sup> AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

A total of 16 days of plant shutdown are planned for 2019, of which 7 days were completed during the first quarter, and relate mainly to relining of the SAG mills and the monthly planned maintenance schedule.

Çayeli	Q1 2019	Q4 2018	Q1 2018
Ore tonnes milled (000's)	241	252	257
Copper ore grade processed (%)	2.25	2.64	1.88
Copper recovery (%)	90	89	88
Zinc ore grade processed (%)	1.19	1.50	1.05
Zinc recovery (%)	26	27	26
Copper production (tonnes)	4,891	5,931	4,225
Copper sales (tonnes)	3,814	9,153	-
Zinc production (tonnes)	752	1,034	701
Zinc sales (tonnes)	-	2,154	-
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	\$1.68	\$1.28	\$1.56
Cash cost (C1) (per lb) <sup>1</sup>	\$1.42	\$1.09	\$1.31
Total cost (C3) (per lb) <sup>1</sup>	\$2.32	\$1.75	\$2.14
Sales revenues	18	52	(1)
Gross profit (loss)	3	19	(6)
Comparative EBITDA <sup>1</sup>	17	30	(4)

AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

# First quarter

Copper production increased by 16% compared to the same period in 2018 primarily due to higher copper grade and recovery. Copper grade has been positively impacted by the opening of new work areas, which has increased mining flexibility, as well as ground stability in the areas mined.

Zinc production increased 7% compared to the same period in 2018 due to higher zinc grade.

AISC of \$1.68 per lb in 2019 was \$0.12 per lb higher than the comparable period in 2018, resulting from a \$0.11 per lb increase in C1 cash cost which was mainly due to increased sales realization costs compared with the first quarter of 2018 when there were no sales due to vessel availability. The increase in C1 cash cost was partially offset by higher copper production volume and the depreciation of the Turkish lira against the US dollar. The increase in AISC per lb was also attributed to higher royalty costs, partially offset by lower deferred development costs.

Sales revenues of \$18 million was higher than the same period in 2018, which reflected an absence of sales in the first quarter of 2018 due to the availability of vessels. The absence of zinc sales volumes in the first quarter of 2019 reflects the timing of shipments.

# Outlook

Production for 2019 is expected to be 17,000 tonnes of copper and 2,000 tonnes of zinc, reflecting a declining number of work areas as the mine approaches mineral reserve depletion in 2022.

Production is expected to be challenging due to poor ground conditions in the areas forecast to be mined, therefore ground stabilization will be critical to achieving the expected production levels.

Pyhäsalmi	Q1 2019	Q4 2018	Q1 2018
Ore tonnes milled (000's)	303	312	301
Copper ore grade processed (%)	0.91	0.98	0.98
Copper recovery (%)	85	97	97
Zinc ore grade processed (%)	2.04	2.35	1.66
Zinc recovery (%)	90	91	91
Copper production (tonnes)	2,343	2,964	2,865
Copper sales (tonnes)	2,861	3,028	2,837
Zinc production (tonnes)	5,566	6,653	4,526
Zinc sales (tonnes)	6,646	6,114	4,810
Pyrite production (tonnes)	152,475	168,881	145,975
Pyrite sales (tonnes)	124,677	124,109	120,572
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	(\$0.39)	(\$0.59)	(\$0.81)
Cash cost (C1) (per lb) <sup>1</sup>	(\$0.39)	(\$0.59)	(\$0.81)
Total cost (C3) (per lb) <sup>1</sup>	\$1.67	\$1.57	\$1.24
Sales revenues	36	34	38
Gross profit	11	9	12
Comparative EBITDA <sup>1</sup>	22	23	24

AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Copper production decreased by 18% compared to the same period in 2018 due to lower copper grade and recovery. Zinc production was 23% higher compared to the same period in 2018 due to higher zinc grade.

AISC of (\$0.39) per lb was higher than the comparable period of 2018 mainly due to lower by-product credits and the impact of lower copper production.

Sales revenues of \$36 million were 5% lower than the comparable period of 2018 reflecting lower realized metal prices excluding the impact of the corporate sales hedge program, offsetting higher sales volumes. Gross profit of \$11 million was 8% lower than the same period in 2018, reflecting lower sales revenues partially offset by lower depreciation.

# Outlook

2019 is expected to be the operation's final year of underground production. Production is forecasted at 5,000 tonnes of copper, 3,000 ounces of gold, 10,000 tonnes of zinc and 250,000 tonnes of pyrite.

Throughput is expected to be 800,000 tonnes in 2019 in line with the anticipated depletion of mineral reserves.

18 days of plant shutdown time is planned for the second quarter of 2019.

# Ravensthorpe

Ravensthorpe remained on care and maintenance activities during the quarter, with the mine at a level ready for a resumption of operations should market conditions improve. Care and maintenance costs in the first quarter of the year were \$4 million. Contractor and maintenance costs were higher than expected due to increased repair activities within the process plant.

Refurbishment of the atmospheric leach reactors was completed during the quarter.

#### Outlook

Resource drilling of the Shoemaker Levy deposit will commence in the second quarter of 2019, concurrent to the capital works program for permitting, design and subsequent construction of the infrastructure requirements to bring Shoemaker Levy into production. Initial planning for the resumption of operations at Ravensthorpe has commenced following sustained higher commodity pricing and the positive outlook for nickel longer term. Should market conditions continue to improve, Ravensthorpe could resume operations in the first quarter of 2020.

# **SALES REVENUES**

		Q1 2019	Q4 2018	Q1 2018
Kansanshi	- copper	319	371	349
	- gold	39	41	42
	- acid	6	5	2
Sentinel	- copper	296	344	385
Las Cruces	- copper	71	113	131
Guelb Moghrein	- copper	42	48	39
	- gold	16	17	16
	- magnetite	6	5	5
Çayeli	- copper	18	44	(1)
	- zinc, gold and silver	-	8	-
Pyhäsalmi	- copper	16	17	16
	- zinc	12	11	12
	- pyrite, gold and silver	8	6	10
Ravensthorpe	- nickel	-	-	-
	- cobalt	-	-	-
Corporate <sup>1</sup>		8	24	(121)
Sales revenues		857	1,054	885
	Copper	770	963	798
	Gold	57	61	61
	Zinc	12	15	12
	Other	18	15	14
		857	1,054	885

<sup>&</sup>lt;sup>1</sup> Corporate sales include sales hedges (see "Hedging programs" for further discussion).

### First quarter

Sales revenues were 3% below the comparable period of 2018 driven by copper revenues that were \$28 million lower. A 6% decrease in copper sales volumes was partially offset by a slightly higher realized copper price. The copper sales hedge program contributed \$8 million to revenues compared with a \$121 million reduction attributable to hedge losses in the corresponding period of 2018.

A \$149 million reduction in revenues due to lower Las Cruces and Sentinel copper sales volumes than the comparable period of 2018, as well as realized copper price, was partially offset by a \$19 million favourable movement in Çayeli revenues in the current period as there were no sales in the comparable period of 2018 due to the timing of shipments. Las Cruces sales volumes were impacted by decreased copper production following the land slippage and Sentinel sales volumes which were 12% lower in the period due to a sell down of copper anode inventory in the comparable period of 2018.

Although Kansanshi sales volumes were 3% higher compared with 2018, copper sales revenues were \$30 million lower due to the copper price realized in the period.

# **REALIZED PRICES**

Copper selling price (per lb)	Q1 2019	Q4 2018	Q1 2018
Average LME cash price	\$2.82	\$2.80	\$3.16
Realized copper price Treatment/refining charges ("TC/RC") and freight charges	\$2.79 (\$0.13)	\$2.83 (\$0.14)	\$2.74 (\$0.12)
Net realized copper price	\$2.66	\$2.69	\$2.62

Given the volatility in copper prices, significant variances can arise between average LME cash price and net realized prices due to the timing of sales during the period.

The sales hedge program increased sales revenues by \$8 million for the quarter resulting in an increase of \$0.03 per lb.

Details of the Company's hedging program and the contracts held, are included on page 28.

# SUMMARY FINANCIAL RESULTS

	Q1 2019	Q4 2018	Q1 2018
Gross profit (loss)			
Kansanshi	116	140	156
Sentinel	55	72	93
Las Cruces	(6)	19	42
Guelb Moghrein	6	1	15
Çayeli	3	19	(6)
Pyhäsalmi	11	9	12
Ravensthorpe	(6)	(4)	(3)
Corporate <sup>1</sup>	6	24	(128)
Total gross profit	185	280	181
Exploration	(4)	(7)	(7)
General and administrative	(18)	(19)	(18)
Other income (expense)	(10)	6	7
Net finance expense	(1)	(6)	(5)
Loss on partial redemption of senior notes	(25)	-	-
Income tax expense	(62)	(41)	(86)
Net earnings	65	213	72
Net earnings attributable to:			
Non-controlling interests	12	15	25
Shareholders of the Company	53	198	47
Comparative earnings	95	182	49
Basic	\$0.08	\$0.29	\$0.07
Diluted	\$0.08	\$0.29	\$0.07
Comparative	\$0.14	\$0.26	\$0.07
Basic weighted average number of shares (in 000's)	687,100	687,074	686,387

<sup>&</sup>lt;sup>1</sup> Corporate gross (profit) loss relates primarily to the sales hedge contracts.

# First quarter

Despite the impact of the land slippage at Las Cruces, gross profit of \$185 million for the quarter was 2% higher than the comparable 2018 period. Excluding Las Cruces, gross profit was 37% higher due to higher realized copper prices, lower costs at Sentinel and Guelb Moghrein and positive foreign exchange.

Other expense in the period ended March 31, 2019 mainly comprises the write-off of assets and other costs associated with the Las Cruces land slippage.

Following partial repayment of the Company's 7.00% Notes due February 2021, a \$25 million loss on redemption has been recognized.

Net earnings of \$65 million included a tax expense of \$62 million reflecting applicable statutory tax rates, which range from 20% to 35% for the Company's operations. No tax charge has been recognized with respect to the gain realized on the Company's copper sales hedge program or the loss on the partial redemption of senior notes. The effective tax rate for the period, excluding the sales hedge program and loss on partial redemption of senior notes, was 43%. The effective tax rate excluding these items and the impact of Zambian mining tax regime changes effective January 1, 2019, was 30%.

# LIQUIDITY AND CAPITAL RESOURCES

	Q1 2019	Q4 2018	Q1 2018
Cash flows from operating activities	159	338	796
Cash flows from (used by) investing activities			
Purchase and deposits for property, plant and			
equipment	(447)	(606)	(439)
Interest paid and capitalized to property, plant			
and equipment	(216)	(49)	(72)
Acquisition of KPMC	-	(80)	(105)
Other investing activities	5	6	5
Cash flows from (used by) financing activities			
Net movement in debt and trading facilities	555	413	60
Early redemption costs on senior notes	(14)	-	-
Other financing activities	27	19	(148)
Exchange gains (losses) on cash and cash			
equivalents	(7)	(6)	11
Net cash inflow	62	35	108
Cash balance	850	788	810
Total assets	24,313	23,537	22,143
Total current liabilities	1,674	1,644	1,886
Total non-current liabilities	11,882	11,171	9,994
Net debt <sup>1</sup>	7,007	6,497	5,575
Cash flows from operating activities per share <sup>1</sup>	\$0.23	\$0.49	\$1.16

<sup>&</sup>lt;sup>1</sup> Cash flows per share and Net debt are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Cash flows from operating activities were \$637 million lower than 2018. Unfavourable working capital movements of \$201 million, which includes the build up of working capital as Cobre Panama ramps up, and a \$9 million increase in taxes paid were partially offset by higher cash generated from producing operations. Cash flows from operating activities, excluding funds received from Franco-Nevada under the precious metal stream agreement, were \$211 million lower than the same period in 2018.

The total VAT receivable accrued by the Company's Zambian operations at March 31, 2019, was \$495 million, of which \$301 million relates to Kansanshi. In February 2015, the Government of Zambia implemented a change in the Statutory Instrument regarding VAT. Claims totalling Zambian kwacha 1,585 million (currently equivalent to \$131 million) made by Kansanshi prior to this date remain outstanding. \$25 million has been previously recognized to reflect the impact of discounting the balance over the expected timeframe to repayment. Cash totalling \$99 million has been received to date for claims subsequent to February 2015. The accrual for historical VAT receivables stems from the application of discretionary rules established and applied by the Commissioner General relating to exports from Zambia. The Company is in regular discussions with the relevant government authorities and continues to consider that the outstanding claims are fully recoverable.

Zambian VAT	March 31, 2019	December 31, 2018
Receivable at date of claim	706	645
Impact of depreciation of Zambian kwacha against US\$	(186)	(177)
	520	468
Impact of discounting non-current portion	(25)	(25)
Total receivable	495	443
Comprising:		
Current portion, included within trade and other receivables	389	334
Non-current VAT receivable	106	109

Cash flows used by investing activities in the first quarter of 2019 included capital expenditure of \$447 million compared to \$439 million for the same period in 2018 and is comprised primarily of \$366 million of Cobre Panama capital expenditure, inclusive of \$133 million project capital expenditure. Interest capitalized to property, plant and equipment paid in the quarter amounted to \$216 million compared with \$72 million in 2018.

Cash flows from financing activities of \$568 million included proceeds from trading and other debt facilities of \$555 million, net of proceeds from KPMC of \$35 million, partially offset by \$14 million early redemption costs on senior notes.

# Liquidity outlook

At March 31, 2019, the Company had \$520 million of committed undrawn facilities, \$850 million in net unrestricted cash, and working capital of \$1,254 million. These, together with expected future cash flows, support the Company's belief in its ability to meet current obligations as they become due. The Company was in full compliance with all its financial covenants at March 31, 2019 and expects to remain in compliance throughout the next 12 months.

On February 6, 2019, the Company signed a new \$2.7 billion Term Loan and Revolving Credit Facility underwritten by three core relationship banks. This new Facility replaces the existing \$1.5 billion Revolving Credit Facility. The new \$2.7 billion Facility comprises a \$1.5 billion Term Loan Facility and a \$1.2 billion Revolving Credit Facility (the "Facility"), maturing on December 31, 2022.

This refinancing extends the debt maturity profile of the Company and provides liquidity headroom under the Company's Revolving Credit Facility. The new Facility includes revised financial covenants, an extended amortization schedule for the Term Loan Facility that starts in June 2020, and improves the financial flexibility of the Company through the added liquidity. The Net Debt to EBITDA covenant ratio is 5.75x until December 2019. The ratio will then reduce to 5.25x until June 2020, then to 4.75x until December 2020, then to 4.0x until June 2021, and then to 3.5x until final maturity.

On March 27, 2019, \$821 million of the senior notes due February 2021 were redeemed at a price of 101.75 plus accrued interest.

At March 31, 2019, the Company had total commitments of \$186 million, of which approximately \$173 million related to the 12 months following the period end.

Contractual and other obligations as at March 31, 2019 are as follows:

	Carrying	Contractual				
	value	cashflows	< 1 year	1 – 3 years	3 – 5 years	Thereafter
Debt – principal repayments	7,718	7,799	68	1,551	3,230	2,950
Debt - finance charges	-	2,323	533	955	581	254
Trading facilities	139	139	139	-	-	-
Trade and other payables	560	560	560	-	-	-
Derivative instruments	16	16	16	-	-	-
Liability to joint venture <sup>1</sup>	1,087	1,625	-	-	1,625	-
Joint venture consideration	269	300	100	200	-	-
Current taxes payable	147	147	147	-	-	-
Deferred payments	41	41	4	8	8	21
Lease Liability	33	41	14	12	8	7
Commitments	-	186	173	8	5	-
Restoration provisions	587	1,048	5	68	80	895

<sup>1</sup> Refers to distributions to KPMC, a joint venture that holds a 20% non-controlling interest in MPSA of which the Company has joint control, and not scheduled repayments.

#### **Hedging programs**

The Company has hedging programs in respect of future copper sales and provisionally priced sales contracts. Below is a summary of the fair values of unsettled derivative financial instruments for commodity contracts recorded on the consolidated balance sheet.

	March 31,	December 31,
Commodity contracts	2019	2018
Asset position	1	43
Liability position	(16)	(3)

The Company has entered into derivative contracts to ensure that the exposure to the price of copper on future sales is managed to ensure stability of cash flows as the development of the Cobre Panama project continues the commissioning phase ahead of commercial production, while maintaining compliance with financial covenants.

At April 29, 2019, the Company has zero cost collar unmargined sales contracts for 92,500 tonnes with maturities to February 2020 at average prices from low side (or put) prices of \$2.83 per lb to average high side (or call) prices of \$3.06 per lb. The Company also has 45,000 tonnes of unmargined copper forward sales contracts at an average price of \$2.91 per lb outstanding with periods of maturity to December 2019.

Approximately 30% of remaining expected copper sales in 2019 are hedged to unmargined forward and zero cost collar sales contracts, at an average floor price of \$2.86 per lb.

A gain of \$8 million for settled hedges was realized through sales revenues in the quarter. Fair value losses on outstanding contracts of \$5 million have been recognized as a derivative liability at March 31, 2019.

### Provisional pricing and derivative contracts

A portion of the Company's metal sales is sold on a provisional pricing basis whereby sales are recognized at prevailing metal prices when title transfers to the customer and final pricing is not determined until a subsequent date, typically two months later. The difference between final price and provisional invoice price is recognized in net earnings. In order to mitigate the impact of these adjustments on net earnings, the Company enters into derivative contracts to directly offset the pricing exposure on the provisionally priced contracts. The provisional pricing gains or losses and offsetting derivative gains or losses are both recognized as a component of cost of sales. Derivative assets are presented in other assets and derivative liabilities are presented in other liabilities with the exception of copper and gold embedded derivatives which are included within accounts receivable.

As at March 31, 2019, the following derivative positions in provisionally priced sales and commodity contracts not designated as hedged instruments were outstanding:

	Open Positions (tonnes/ozs)	Average Contract price	Closing Market price	Maturities Through
Embedded derivatives in provisionally priced sales contracts:				
Copper	69,837	\$2.90/lb	\$2.94/lb	July 2019
Gold	19,640	\$1,309/oz	\$1,295/oz	June 2019
Zinc	1,475	\$1.27/lb	\$1.36/lb	May 2019
Commodity contracts:				
Copper	69,850	\$2.90/lb	\$2.94/lb	July 2019
Gold	19,609	\$1,309/oz	\$1,295/oz	June 2019
Zinc	1,475	\$1.27/lb	\$1.36/lb	May 2019

As at March 31, 2019, substantially all of the Company's metal sales contracts subject to pricing adjustments were hedged by offsetting derivative contracts.

### **EQUITY**

At the date of this report, the Company had 689,390,565 shares outstanding.

# JOINT VENTURE

On November 8, 2017, the Company completed the purchase of a 50% interest in KPMC from LS-Nikko Copper Inc. KPMC is jointly owned and controlled with Korea Resources Corporation and holds a 20% interest in Cobre Panama. The purchase consideration was \$664 million, of which the remaining \$300 million has been discounted and is repayable in three instalments to November 2021.

The Company has recognized a \$600 million investment in the joint venture, representing the discounted consideration value, against which the Company's proportionate share of the profit or loss in KPMC is recognized. The assets and liabilities of KPMC are an investment in MPSA, a subsidiary of the Company, a loan receivable from MPSA, and loans due to shareholders. Interest income and expense earned on these loans is on the same terms.

# FRANCO-NEVADA STREAM

The Company, through its subsidiary, MPSA, has a precious metal streaming arrangement with Franco-Nevada. The arrangement comprises two tranches, the first of which ("Tranche 1") was finalized on October 5, 2015. Under the terms of Tranche 1 Franco-Nevada, through a wholly owned subsidiary, agreed to provide a \$1 billion deposit to be funded on a pro-rata basis of 1:3 with the Company's 80% share of the capital costs of Cobre Panama in excess of \$1 billion. The full Tranche 1 deposit amount has been fully funded to MPSA. The second ("Tranche 2") was finalized on March 16, 2018, and \$356 million was received on completion. Proceeds received from Franco-Nevada under the terms of the precious metals streaming agreement are accounted for as deferred revenue.

The amount of precious metals deliverable under both tranches is indexed to total copper-in-concentrate sold by Cobre Panama. Under the terms of Tranche 1 the ongoing payment of the Fixed Payment Stream is fixed per ounce payments of \$418.27 /oz gold and \$6.27/oz silver subject to an annual inflation adjustment for the first 1,341,000 ounces of gold and 21,510,000 ounces of silver (approximately the first 20 years of expected deliveries). Thereafter the greater of \$418.27/oz for gold and \$6.27/oz for silver, subject to an adjustment for inflation, and one half of the then prevailing market price. Under Tranche 2 the ongoing price per ounce for deliveries is 20% of the spot price for the first 604,000 ounces of gold and 9,618,000 ounces of silver (approximately the first 25 years of production), and thereafter the price per ounce rises to 50% of the spot price of gold and silver.

Although the market price feature represents an embedded derivative, the value of this derivative is not material. In all cases the amount paid is not to exceed the prevailing market price per ounce of gold and silver.

Deferred revenue will be recognized as revenue over the life of the mine, which is expected to be 36 years.

# **SUMMARY OF RESULTS**

The following unaudited tables set out a summary of quarterly and annual results for the Company:

Consolidated operations	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Sales revenues				•	•						
Copper	\$643	\$655	\$719	\$785	\$2,802	\$798	\$951	\$904	\$963	\$3,616	\$770
Nickel	43	39	58	8	148	-	-	-	-	-	-
Gold	54	66	63	53	236	61	59	47	61	228	57
Zinc and other elements	26	22	37	39	124	26	39	27	30	122	30
Total sales revenues	766	782	877	885	3,310	885	1,049	978	1,054	3,966	857
Gross profit	69	66	83	117	335	181	271	246	280	978	185
Comparative EBITDA	265	267	304	318	1,154	363	466	427	481	1,737	368
Net earnings (loss) attributable to											
shareholders of the Company	(114)	(35)	(52)	(115)	(316)	47	135	61	198	441	53
Comparative earnings (loss)	(29)	(18)	(28)	(36)	(111)	49	128	128	182	487	95
Basic earnings (loss) per share	(\$0.17)	(\$0.05)	(\$0.08)	(\$0.17)	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64	\$0.08
Comparative earnings (loss) per share	(\$0.04)	(\$0.03)	(\$0.04)	(\$0.05)	(\$0.16)	\$0.07	\$0.19	\$0.19	\$0.26	\$0.71	\$0.14
Diluted earnings (loss) per share Dividends declared per common share	(\$0.17)	(\$0.05)	(\$0.08)	(\$0.17)	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64	\$0.08
(CDN\$ per share)	\$0.005	-	\$0.005	-	\$0.010	\$0.005	-	\$0.005	-	\$0.010	\$0.005
Basic weighted average shares (000's) <sup>1</sup>	685,827	685,845	686,323	686,402	685,936	686,387	686,423	687,108	687,074	686,747	687,100
Cash flows per share from operating activities	\$0.35	\$0.30	\$0.39	\$0.30	\$1.33	\$1.16	\$0.59	\$0.64	\$0.49	\$2.88	\$0.23
Copper statistics											
Total copper production (tonnes) <sup>3</sup>	132,356	141,912	145,376	154,319	573,963	145,358	150,950	151,241	158,304	605,853	136,969
Total copper sales (tonnes)	139,810	139,521	148,894	151,905	580,130	138,021	152,403	149,877²	156,212 <sup>2</sup>	596,513²	130,262 <sup>2</sup>
Realized copper price (per lb)	\$2.20	\$2.24	\$2.37	\$2.50	\$2.33	\$2.74	\$2.95	\$2.84	\$2.83	\$2.84	\$2.79
TC/RC (per lb)	(0.08)	(0.09)	ψ2.37 (0.12)	(0.08)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)
Freight charges (per lb)	(0.04)	(0.03)	(0.06)	(0.08)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)
Net realized copper price (per lb)	\$2.08	\$2.12	\$2.19	\$2.34	\$2.19	\$2.62	\$2.83	\$2.71	\$2.69	\$2.71	\$2.66
Cash cost – copper (C1) (per lb) <sup>3</sup>	\$1.26	\$1.12	\$1.21	\$1.30	\$1.23	\$1.27	\$1.28	\$1.31	\$1.23	\$1.28	\$1.34
All-in sustaining cost (AISC) (per lb) <sup>3</sup>	\$1.59	\$1.50	\$1.75	\$1.76	\$1.65	\$1.72	\$1.76	\$1.80	\$1.68	\$1.74	\$1.77
Total cost – copper (C3) (per lb) <sup>3</sup>	\$2.05	\$1.95	\$2.03	\$2.19	\$2.06	\$2.16	\$2.11	\$2.11	\$2.04	\$2.11	\$2.21
Nickel statistics											
Nickel produced (contained tonnes)	5,592	5,920	6,325	-	17,837	-	-	-	-	-	-
Nickel sales (contained tonnes)	5,197	5,522	7,099	865	18,683	-	-	-	-	-	-
Nickel produced (payable tonnes)	4,291	4,537	4,866	_	13,694	_	_	_	_	_	_
Nickel sales (payable tonnes)	3,981	4,228	5,455	674	14,338	-	_	_	_	_	_
Realized nickel price (per payable lb)	\$4.93	\$4.17	\$4.77	\$5.37	\$4.67	-	_	_	_	-	_
TC/RC (per payable lb)	-	-	-	-	-	-	_	_	_	-	_
Net realized price (per payable lb)	\$4.93	\$4.17	\$4.77	\$5.37	\$4.67	-	-	-	-	-	-
Cash cost - (C1) (per lb)	\$4.84	\$4.43	\$4.16	\$(0.61)	\$4.45	-	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$5.81	\$5.60	\$4.67	\$(0.51)	\$5.29	-	-	-	-	-	-
Total cost - nickel (C3) (per lb)	\$6.57	\$6.09	\$5.77	\$(0.51)	\$6.17	-	-	-	-	-	-
Gold statistics											
Total gold production (ounces)	50,579	50,040	47,213	51,904	199,736	45,929	46,467	44,979	48,039	185,414	49,357
Total gold sales (ounces)	46,904	52,020	51,729	50,723	201,376	48,815	48,172	42,864	53,221	193,072	46,790
Net realized gold price (per ounce)	\$1,161	\$1,268	\$1,209	\$1,055	\$1,174	\$1,249	\$1,227	\$1,086	\$1,151	\$1,181	\$1,226
Zinc statistics											
Zinc production (tonnes)	6,253	6,538	4,376	3,556	20,723	5,227	6,545	7,348	7,687	26,807	6,318
Zinc sales (tonnes)	7,956	5,234	5,379	3,282	21,851	4,810	6,856	6,178	8,268	26,112	6,646

<sup>1</sup> Fluctuations in average weighted shares between quarters reflects shares issued and changes in levels of treasury shares held for performance share units



<sup>&</sup>lt;sup>2</sup> Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded.

<sup>&</sup>lt;sup>3</sup> Copper production includes 25 tonnes of pre-commercial production from Cobre Panama, which is not included in C1, C3 and AISC calculations

Kansanshi statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining											
Waste mined (000's tonnes)	13,656	17,028	15,864	8,707	55,255	10,941	14,692	13,175	9,911	48,719	10,249
Ore mined (000's tonnes)	7,008	10,078	9,039	10,478	36,603	9,846	10,082	9,631	8,922	38,481	7,363
Processing											
Sulphide ore processed (000's tonnes)	3,291	3,202	3,179	3,298	12,970	3,182	3,105	3,390	3,301	12,978	3,084
Sulphide ore grade processed (%)	0.74	0.76	0.74	0.76	0.75	0.79	0.81	0.72	0.81	0.78	0.90
Sulphide ore recovery (%)	93	90	88	94	91	88	91	95	88	91	89
Sulphide concentrate grade (%)	22.8	22.4	21.7	21.8	22.2	22.5	23.2	23.3	22.1	22.8	21.5
Mixed ore processed (000's tonnes)	2,010	1,992	1,983	2,012	7,997	2,009	1,930	2,082	2,165	8,186	1,870
Mixed ore grade processed (%)	1.05	1.08	1.09	0.99	1.05	1.16	0.93	1.04	1.08	1.06	1.00
Mixed ore recovery (%)	87	86	81	88	85	81	87	86	76	82	75
Mixed concentrate grade (%)	31.1	33.4	29.9	27.7	30.4	30.3	25.7	31.2	29.9	29.3	25.7
Oxide ore processed (000's tonnes)	1,650	1,750	1,705	1,811	6,916	1,791	1,708	1,749	1,668	6,916	1,534
Oxide ore grade processed (%)	1.46	1.57	1.49	1.51	1.51	1.59	1.53	1.31	1.33	1.44	1.14
Oxide ore recovery (%)	93	87	80	89	87	80	92	95	92	89	87
Oxide concentrate grade (%)	32.6	32.8	30.0	29.8	31.3	32.2	28.9	27.8	28.5	29.4	25.0
Copper cathode produced (tonnes) Copper in concentrate produced	17,882	19,858	17,128	23,874	78,742	22,514	18,528	16,303	15,049	72,394	10,705
(tonnes)	45,316	44,239	41,578	40,926	172,059	41,071	43,942	47,384	46,731	179,128	43,208
Total copper production (tonnes)	63,198	64,097	58,706	64,800	250,801	63,585	62,470	63,687	61,780	251,522	53,913
Gold produced (ounces)  Smelting <sup>1</sup>	36,017	34,918	33,297	36,363	140,595	32,080	33,536	30,938	33,465	130,019	34,743
Concentrate processed (DMT) <sup>1</sup>	327,095	334,269	202,093	348,283	1,211,740	350,591	326,187	355,435	349,424	1,381,637	342,307
Copper anodes produced (tonnes) <sup>1</sup>	83,070	82,383	48,819	83,281	297,553	86,777	80,097	90,269	89,894	347,037	83,134
Smelter copper recovery (%)	97	95	94	97	96	97	97	97	97	97	97
Acid tonnes produced (000's)	307	307	189	325	1,128	325	291	319	320	1,255	322
Cash Costs (per lb)											
Mining	\$0.66	\$0.46	\$0.55	\$0.54	\$0.54	\$0.56	\$0.58	\$0.52	\$0.53	\$0.55	\$0.64
Processing	0.50	0.50	0.51	0.46	0.49	0.49	0.49	0.47	0.49	0.49	0.58
Site administration	0.07	$(0.10)^2$	$(0.06)^2$	0.07	-	0.08	0.09	0.10	0.11	0.09	0.11
TC/RC and freight charges	0.16	0.15	0.23	0.18	0.18	0.14	0.14	0.14	0.14	0.14	0.16
By-product credits	(0.25)	(0.34)	(0.32)	(0.21)	(0.27)	(0.36)	(0.38)	(0.27)	(0.33)	(0.34)	(0.38)
Total smelter costs	0.14	80.0	0.08	0.12	0.11	0.09	0.10	0.10	0.10	0.10	0.13
Cash cost (C1) (per lb)	\$1.28	\$0.75	\$0.99	\$1.16	\$1.05	\$1.00	\$1.02	\$1.06	\$1.04	\$1.03	\$1.24
All-in sustaining cost (AISC) (per lb) Total cost (C3) (per lb)	\$1.59 \$1.89	\$1.18 \$1.41	\$1.79 \$1.64	\$1.55 \$1.86	\$1.54 \$1.71	\$1.46 \$1.82	\$1.55 \$1.70	\$1.59 \$1.73	\$1.61 \$1.71	\$1.55 \$1.74	\$1.73 \$1.98
	ψ1.09	Ψ1+1	Ψ1.04	Ψ1.00	Ψ1.71	Ψ1.02	ψ1.70	ψ1.75	Ψ1.71	Ψ1.7-	Ψ1.50
Revenues (\$ millions)	<b>0101</b>	<b>011</b>	<b>0101</b>	<b>0104</b>	6404	<b>Ф1</b> 4Б	<b>#100</b>	<b>#07</b>	фоо	\$452	ΦΕ-7
Copper cathodes Copper anode	\$101 285	\$115 183	\$101 201	\$164 303	\$481 972	\$145 194	\$128 251	\$97 295	\$82 289	ֆ452 1,029	\$57 245
Copper in concentrates	14	9	77	21	121	194	201	290	209	1,029	17
Gold	40	43	46	37	166	42	41	36	41	160	39
Acid	-	-	-	-	-	2	8	6	5	21	6
Total sales revenues	\$440	\$350	\$425	\$525	\$1,740	\$393	\$428	\$434	\$417	\$1,672	\$364
Copper cathode sales (tonnes)	17,903	20,661	16,511	24,660	79,735	21,334	19,172	16,461	13,698	70,665	9,452
Copper anode sales (tonnes)	51,299	33,250	32,531	46,480	163,560	28,846	37,828	48,357 <sup>3</sup>	42,632 <sup>3</sup>	157,663°	40,220 <sup>3</sup>
Copper in concentrate sales (tonnes)	3,074	2,228	15,269	3,834	24,405	1,504	-	-	-	1,504	3,361
Gold sales (ounces)	33,732	33,039	37,054	35,910	139,735	33,666	32,902	32,706	35,616	134,890	31,082
	•			*	-		-		•	•	

<sup>&</sup>lt;sup>1</sup> Concentrate processed in smelter and copper anodes produced are disclosed on a 100% basis, inclusive of Sentinel and third-party concentrate processed

<sup>&</sup>lt;sup>2</sup> Includes movements in previously recognized operational provisions in the second and third quarters that are not expected to continue in future periods

 $<sup>^3</sup>$  Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded

										_	
Sentinel statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining											
Waste mined (000's tonnes)	16,006	24,382	26,254	21,853	88,495	21,611	23,744	25,931	24,321	95,607	19,335
Ore mined (000's tonnes)	9,272	10,641	12,692	12,039	44,644	10,172	11,996	11,334	12,016	45,518	11,507
Processing											
Copper ore processed (000's tonnes)	8,800	10,019	11,434	11,834	42,087	11,735	11,979	12,602	12,434	48,750	11,581
Copper ore grade processed (%)	0.51	0.52	0.53	0.54	0.52	0.47	0.51	0.49	0.53	0.50	0.54
Recovery (%)	81	84	89	90	87	91	92	91	92	91	92
Copper concentrate produced (tonnes)	36,274	43,686	53,533	57,190	190,683	50,310	56,080	56,426	60,840	223,656	57,716
Concentrate grade (%)	26.4	24.0	23.5	24.2	24.4	24.9	25.6	25.3	24.5	25.0	26.9
Cash Costs (per lb)											
Mining	\$0.72	\$0.72	\$0.59	\$0.66	\$0.67	\$0.71	\$0.62	\$0.61	\$0.42	\$0.58	\$0.55
Processing	0.70	0.66	0.60	0.57	0.62	0.68	0.66	0.65	0.68	0.67	0.61
Site administration	(0.09)1	0.12	0.09	0.03	0.05	0.10	0.10	0.10	0.10	0.10	0.09
TC/RC and freight charges	0.20	0.19	0.22	0.27	0.22	0.21	0.23	0.25	0.24	0.23	0.23
Total smelter costs	0.14	0.17	0.12	0.14	0.14	0.13	0.13	0.11	0.11	0.12	0.12
Cash cost (C1) (per lb)	\$1.67	\$1.86	\$1.62	\$1.67	\$1.70	\$1.83	\$1.74	\$1.72	\$1.55	\$1.70	\$1.60
All-in sustaining cost (AISC) (per lb)	\$2.07	\$2.29	\$2.05	\$2.36	\$2.19	\$2.36	\$2.29	\$2.25	\$2.02	\$2.22	\$2.07
Total cost (C3) (per lb)	\$2.45	\$2.61	\$2.30	\$2.49	\$2.45	\$2.60	\$2.46	\$2.39	\$2.26	\$2.42	\$2.34
Revenues (\$ millions)											
Copper anode	\$170	\$239	\$229	\$213	\$851	\$328	\$321	\$254	\$266	\$1,169	\$237
Copper in concentrates	\$19	\$17	\$71	\$68	\$175	\$57	\$71	\$79	\$78	\$285	\$59
Total sales revenues	\$189	\$256	\$300	\$281	\$1,026	\$385	\$392	\$333	\$344	\$1,454	\$296
Copper anode sales (tonnes)	29,929	43,705	36,734	32,026	142,394	48,227	47,947	42,557	44,641	183,372	38,815
Copper concentrate sales (tonnes)	4,362	3,742	14,121	12,741	34,966	10,115	12,596	16,512	15,616	54,839	12,372
<sup>1</sup> Includes movements in previously recognized op	perational provisio	ons									
Las Cruces statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining				'							
Waste mined (000's tonnes)	1,870	4,383	5,067	3,269	14,589	1,631	4,835	6,268	2,202	14,936	460

Las Cruces statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining					•						
Waste mined (000's tonnes)	1,870	4,383	5,067	3,269	14,589	1,631	4,835	6,268	2,202	14,936	460
Ore mined (000's tonnes)	371	381	802	868	2,422	648	368	410	256	1,682	96
Processing											
Copper ore processed (000's tonnes)	398	409	392	420	1,619	390	416	338	400	1,544	325
Copper ore grade processed (%)	5.17	5.10	5.04	4.99	5.07	5.07	4.87	4.84	5.00	4.95	3.75
Recovery (%)	91	90	88	89	90	92	93	93	93	93	87
Copper cathode produced (tonnes)	18,793	18,683	17,488	18,700	73,664	18,238	18,849	15,181	18,470	70,738	10,634
Cash Costs (per lb)											
Cash cost (C1) (per lb)	\$0.78	\$0.79	\$0.93	\$0.93	\$0.86	\$0.86	\$0.83	\$1.02	\$0.94	\$0.90	\$1.31
All-in sustaining cost (AISC) (per lb)	\$0.93	\$1.00	\$1.20	\$1.12	\$1.06	\$1.03	\$1.09	\$1.41	\$1.16	\$1.16	\$1.46
Total cost (C3) (per lb)	\$1.89	\$2.09	\$2.25	\$2.40	\$2.15	\$2.15	\$2.11	\$2.50	\$2.28	\$2.25	\$3.19
Revenues (\$ millions)											
Copper cathode	\$119	\$111	\$109	\$122	\$461	\$131	\$133	\$93	\$113	\$470	\$71
Copper cathode sales (tonnes)	20,228	19,484	17,049	17,903	74,664	18,771	19,269	15,138	18,345	71,523	11,443

Guelb Moghrein statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
	Q1 17	Q2 17	Q3 17	G4 17	2017	QI 10	Q2 10	Q3 10	G4 10	2016	Qi 19
Mining											
Waste mined (000's tonnes)	4,041	3,349	3,055	3,607	14,052	3,961	2,737	4,277	4,087	15,062	3,581
Ore mined (000's tonnes)	810	983	792	519	3,104	97	296	445	752	1,590	953
Processing											
Sulphide ore processed (000's tonnes)	863	820	832	874	3,389	861	938	902	983	3,684	994
Sulphide ore grade processed (%)	0.95	0.97	0.88	0.90	0.93	0.79	0.73	0.94	0.93	0.85	0.85
Recovery (%)	92	92	92	91	92	90	85	94	91	90	88
Copper produced (tonnes)	7,533	7,347	6,756	7,155	28,791	6,135	5,781	7,902	8,319	28,137	7,447
Gold produced (ounces)	12,133	12,375	11,435	13,270	49,213	11,740	10,354	11,644	12,236	45,974	12,498
Magnetite concentrate produced (WMT)	-	-	-	-	-	93,472	123,100	111,765	97,052	425,389	119,169
Cash Costs (per lb)											
Mining	\$0.57	\$0.61	\$0.70	\$0.79	\$0.66	\$0.51	\$1.11	\$0.66	\$1.02	\$0.82	\$0.78
Processing	0.80	1.01	0.93	0.97	0.93	1.07	1.23	1.10	0.98	1.09	0.87
Site administration	0.16	0.17	0.20	0.19	0.18	0.19	0.24	0.17	0.17	0.19	0.18
TC/RC and freight charges	0.49	0.50	0.51	0.51	0.51	0.61	0.41	0.66	0.52	0.54	0.49
Gold and magnetite credit	(0.88)	(1.05)	(0.91)	(1.12)	(1.00)	(1.39)	(1.24)	(1.02)	(0.96)	(1.14)	(1.21)
Cash cost (C1) (per lb)	\$1.14	\$1.24	\$1.43	\$1.34	\$1.28	\$0.99	\$1.75	\$1.57	\$1.73	\$1.50	\$1.11
All-in sustaining cost (AISC) (per lb)	\$1.67	\$1.53	\$1.86	\$1.60	\$1.65	\$1.84	\$2.16	\$1.93	\$1.95	\$1.93	\$1.37
Total cost (C3) (per lb)	\$1.93	\$2.08	\$2.30	\$2.25	\$2.13	\$1.86	\$2.84	\$2.42	\$2.79	\$2.46	\$2.22
Revenues (\$ millions)											
Copper in concentrates	\$30	\$44	\$37	\$39	\$150	\$39	\$40	\$27	\$48	\$154	\$42
Gold	11	23	13	13	60	16	16	9	17	58	16
Magnetite concentrate	-	-	-	7	7	5	8	5	5	23	6
Total sales revenues	\$41	\$67	\$50	\$59	\$217	\$60	\$64	\$41	\$70	\$235	\$64
Copper sales (tonnes)	6,122	9,301	6,765	6,811	28,999	6,387	6,772	5,108	9,099	27,366	7,924
Gold sales (ounces)	10,293	16,160	11,616	12,384	50,453	13,008	12,863	8,100	14,224	48,195	13,301
Magnetite concentrate sold (WMT)	-	-	-	-	-	79,560	150,167	61,315	85,914	376,956	89,631

				Т							
Çayeli statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining											
Ore mined (000's tonnes)	207	253	279	202	941	259	250	242	249	1,000	242
Processing											
Ore milled (000's tonnes)	204	253	274	212	943	257	255	243	252	1,007	241
Copper ore grade processed (%)	1.70	2.07	2.24	1.72	1.96	1.88	2.13	2.39	2.64	2.26	2.25
Copper ore recovery (%)	89	88	90	90	89	88	86	87	89	88	90
Zinc ore grade processed (%)	1.09	1.41	0.90	0.78	1.05	1.05	1.37	1.69	1.50	1.40	1.19
Zinc ore recovery (%)	39	40	27	23	34	26	30	32	27	29	26
Copper produced (tonnes)	3,115	4,632	5,492	3,284	16,523	4,225	4,684	5,056	5,931	19,896	4,891
Zinc produced (tonnes)	867	1,427	653	379	3,326	701	1,051	1,305	1,034	4,091	752
Cash Costs (per lb)											
Cash cost – Copper (C1) (per lb)	\$1.52	\$1.44	\$1.21	\$2.05	\$1.50	\$1.31	\$1.29	\$1.18	\$1.09	\$1.21	\$1.42
All-in sustaining cost (AISC) (per lb)	\$1.64	\$1.73	\$1.41	\$2.48	\$1.75	\$1.56	\$1.59	\$1.45	\$1.28	\$1.48	\$1.68
Total cost – Copper (C3) (per lb)	\$2.53	\$2.34	\$2.50	\$2.06	\$2.37	\$2.14	\$2.15	\$2.05	\$1.75	\$2.03	\$2.32
Revenues (\$ millions)					_					_	
Copper	\$15	\$16	\$33	\$23	\$87	(\$1)	\$31	\$13	\$44	\$87	\$18
Zinc	4	-	5	-	9	-	4	-	4	8	-
Other	1	-	1	-	2	-	1	-	4	5	-
Total sales revenues	\$20	\$16	\$39	\$23	\$98	(\$1)	\$36	\$13	52	\$100	\$18
Copper sales (tonnes)	3,392	3,596	6,462	4,266	17,716	-	5,491	2,753	9,153	17,397	3,814
Zinc sales (tonnes)	2,491	-	1,944	-	4,435	-	2,159	-	2,154	4,313	-
Pyhäsalmi statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining											
Ore mined (000's tonnes)	345	335	319	316	1,315	323	299	318	297	1,237	292
Processing											
Ore milled (000's tonnes)	328	311	315	306	1,260	301	315	320	312	1,248	303
Copper ore grade processed (%)	1.08	1.15	1.13	1.07	1.11	0.98	1.02	0.98	0.98	0.99	0.91
Copper ore recovery (%)	97	97	96	97	97	97	96	95	97	96	85
Zinc ore grade processed (%)	1.82	1.83	1.34	1.17	1.55	1.66	1.94	2.07	2.35	2.01	2.04
Zinc ore recovery (%)	90	90	88	89	89	91	90	91	91	91	90
Copper produced (tonnes)	3,443	3,467	3,401	3,190	13,501	2,865	3,086	2,989	2,964	11,904	2,343
Zinc produced (tonnes)	5,386	5,111	3,723	3,177	17,397	4,526	5,494	6,043	6,653	22,716	5,566
Pyrite produced (tonnes)	184,464	168,319	184,486	154,855	692,124	145,975	159,674	171,355	168,881	645,885	152,475
Cash Costs (per lb)											
Cash cost - Copper (C1) (per lb)	(\$0.59)	(\$0.39)	\$0.03	(\$0.10)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)	(\$0.39)
All-in sustaining cost (AISC) (per lb)	(\$0.59)	(\$0.39)	\$0.03	(\$0.09)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)	(\$0.39)
Total cost - Copper (C3) (per lb)	\$1.57	\$1.92	\$2.43	\$2.35	\$2.06	\$1.24	\$2.23	\$1.67	\$1.57	\$1.70	\$1.67
Revenues (\$ millions)											
Copper	\$18	\$18	\$18	\$20	\$74	\$16	\$21	\$16	\$17	\$70	\$16
Zinc	10	12	7	8	37	12	12	10	11	45	12
Pyrite	4	3	3	6	16	6	3	4	4	17	4
Other	4	2	6	4	16	4	2	4	2	12	4
Total sales revenues	\$36	\$35	\$34	\$38	\$143	\$38	\$38	\$34	\$34	<b>\$144</b>	\$36
Copper sales (tonnes)	3,501	3,554	3,452	3,184	13,691	2,837	3,328	2,991	3,028	12,184	2,861
Zinc sales (tonnes)	5,465	5,234	3,435	3,282	17,416	4,810	4,697	6,178	6,114	21,799	6,646
Pyrite sales (tonnes)	105,449	107,013	91,569	114,712	418,743	120,572	99,606	100,894	124,109	445,181	124,667

Cobre Panama statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Mining											
Waste mined (000's tonnes)	-	-	-	-	-	-	-	-	-	-	18,815
Ore mined (000's tonnes)	-	-	-	-	-	-	-	-	-	-	8,841
Processing											
Copper produced (tonnes)	-	-	-	-	-	-	-	-	-	-	25

				_							
Ravensthorpe statistics	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19
Processing											
Beneficiated ore (000's tonnes)	619	800	792	-	2,211	-	-	-	-	-	-
Beneficiated ore grade (%)	1.13	1.10	1.10	-	1.11	-	-	-	-	-	-
Nickel recovery - leach feed to Nickel											
produced (%)	82	79	76	-	79	-	-	-	-	-	-
Nickel produced (contained tonnes)	5,592	5,920	6,325	-	17,837	-	-	-	-	-	-
Nickel produced (payable tonnes)	4,291	4,537	4,866	-	13,694	-	-	-	-	-	-
Cash Costs (per lb)											
Mining	\$1.17	\$1.19	\$1.01	-	\$1.12	-	-	-	-	-	-
Processing	3.41	3.20	3.17	-	3.25	-	-	-	-	-	-
Site administration	0.38	0.36	0.34	-	0.37	-	-	-	-	-	-
TC/RC and freight charges	0.34	0.24	0.26	0.10	0.27	-	-	-	-	-	-
Cobalt credit	(0.46)	(0.56)	(0.62)	(0.71)	(0.56)	-	-	-	-	-	-
Cash cost (C1) (per lb)	\$4.84	\$4.43	\$4.16	\$(0.61)	\$4.45	-	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$5.81	\$5.60	\$4.67	\$(0.51)	\$5.29	-	-	-	-	-	-
Total cost (C3) (per lb)	\$6.57	\$6.09	\$5.77	\$(0.51)	\$6.17	-	-	-	-	-	-
Revenues (\$ millions)											
Nickel	\$41	\$39	\$58	\$8	\$146	-	-	-	-	-	-
Cobalt	4	5	7	1	17	-	-	-	-	-	-
Total sales revenues	\$45	\$44	\$65	\$9	\$163	-	-	-	-	-	-
Nickel sales (contained tonnes)	5,197	5,522	7,099	865	18,683	-	-	-	-	-	-
Nickel sales (payable tonnes)	3,981	4,228	5,455	674	14,338	-	-	-	-	-	-

## REGULATORY DISCLOSURES

### Seasonality

The Company's results as discussed in this MD&A are subject to seasonal aspects, in particular the wet season in Zambia. The wet season in Zambia generally starts in November and continues through April, with the heaviest rainfall normally experienced in the months of December, January, February and March. As a result of the wet season, pit access and the ability to mine ore is lower in the first quarter of the year than other quarters and the cost of mining is higher.

## Off-balance sheet arrangements

The Company had no off-balance sheet arrangements as of the date of this report.

#### Non-GAAP financial measures

This document refers to cash cost (C1), all-in sustaining cost (AISC) and total cost (C3) per unit of payable production, operating cash flow per share, comparative EBITDA, Net debt and comparative earnings, which are not measures recognized under IFRS, do not have a standardized meaning prescribed by IFRS and are not necessarily comparable to similar measures presented by other issuers. These measures are used internally by management and serve to provide additional information and should not be considered in isolation to measures prepared under IFRS.

The calculation of these measures is described below, and may differ from those used by other issuers. The Company discloses these measures in order to provide assistance in understanding the results of the operations and to provide additional information to investors.

Calculation of cash cost, all-in sustaining cost, total cost, sustaining capital expenditure and deferred stripping costs capitalized

The consolidated cash cost (C1), all-in sustaining cost (AISC) and total cost (C3) presented by the Company are measures that are prepared on a basis consistent with the industry standard definitions but are not measures recognized under IFRS. In calculating the C1 cash cost, AISC and C3 total cost for each segment, the costs are measured on the same basis as the segmented financial information that is contained in the financial statements.

C1 cash cost includes all mining and processing costs less any profits from by-products such as gold, silver, zinc, pyrite, cobalt, sulphuric acid, or iron magnetite and is used by management to evaluate operating performance. TC/RC and freight deductions on metal sales, which are typically recognized as a component of sales revenues, are added to C1 cash cost to arrive at an approximate cost of finished metal.

AISC is defined as cash cost (C1) plus general and administrative expenses, sustaining capital expenditure, deferred stripping, royalties and lease payments and is used by management to evaluate performance inclusive of sustaining expenditure required to maintain current production levels.

C3 total cost is defined as AISC less sustaining capital expenditure, deferred stripping and general and administrative expenses net of insurance, plus depreciation and exploration. This metric is used by management to evaluate the operating performance inclusive of costs not classified as sustaining in nature such as exploration and depreciation.

Sustaining capital expenditure is defined as capital expenditure during the production phase, incurred to sustain and maintain the existing assets to achieve constant planned levels of production, from which future economic benefits will be derived. This includes expenditure for assets to retain their existing productive capacity, and to enhance assets to minimum reliability, environmental and safety standards.

Deferred stripping costs capitalized are defined as waste material stripping costs in excess of the strip ratio, for the production phase, and from which future economic benefits will be derived from future access to ore. Deferred stripping costs are capitalized to the mineral property, and will be depreciated on a units-of-production basis.

	Q1 2019	Q4 2018	Q1 2018
Purchase and deposits on property, plant and equipment	447	606	439
Sustaining capital expenditure and deferred stripping	49	32	62
Sustaining capital expenditure and deferred stripping – Panama	49	-	-
Project capital expenditure - Panama Development	133	212	338
Project capital expenditure - Other	182	255	39
Pre-commercial costs	34	107	-
Total capital expenditure	447	606	439

The following tables provide a reconciliation of C1, C3 and AISC to the consolidated financial statements:

For the three months ended				Guelb			Co	rporate &		
March 31, 2019 <sup>1</sup>	Kansanshi	Sentinel	Las Cruces	Moghrein	Çayeli	Pyhäsalmi	Copper	other R	avensthorpe	Total
Cost of sales	(248)	(241)	(77)	(58)	(15)	(25)	(664)	(2)	(6)	(672)
Adjustments:										
Depreciation	55	58	44	18	7	10	192	1	1	194
By-product credits	45	-	-	24	-	18	87	-	-	87
Royalties	26	24	1	2	1	-	54	-	-	54
Treatment and refining charges	(9)	(12)	-	(5)	(2)	(2)	(30)	-	-	(30)
Freight costs	(1)	(6)	-	-	(1)	-	(8)	-	-	(8)
Finished goods	(16)	(15)	1	1	(3)	1	(31)	-	-	(31)
Other¹	5	-	-	1	(1)	3	8	1	4	13
Cash cost (C1)	(143)	(192)	(31)	(17)	(14)	5	(392)	-	(1)	(393)
Adjustments:										
Depreciation (excluding depreciation										
in finished goods)	(57)	(62)	(43)	(15)	(8)	(10)	(195)	-	(1)	(196)
Royalties	(26)	(24)	(1)	(2)	(1)	-	(54)	-	-	(54)
Other	(2)	(2)	-	(1)	-	-	(5)	-	-	(5)
Total cost (C3)	(228)	(280)	(75)	(35)	(23)	(5)	(646)	-	(2)	(648)
Cash cost (C1)	(143)	(192)	(31)	(17)	(14)	5	(392)	-	(1)	(393)
Adjustments:										
General and administrative expenses Sustaining capital expenditure and	(6)	(9)	(1)	(1)	(1)	-	(18)	-	-	(18)
deferred stripping	(24)	(22)	(1)	(1)	(1)	-	(49)	-	-	(49)
Royalties	(26)	(24)	(1)	(2)	(1)	-	(54)	-	-	(54)
Lease payments	(1)	(1)	-	-	-	-	(2)	-	-	(2)
AISC	(200)	(248)	(34)	(21)	(17)	5	(515)	-	(1)	(516)
AISC (per lb)	\$1.73	\$2.07	\$1.46	\$1.37	\$1.68	(\$0.39)	\$1.77	-	-	
Cash cost - (C1) (per lb)	\$1.24	\$1.60	\$1.31	\$1.11	\$1.42	(\$0.39)	\$1.34	-	-	
Total cost - (C3) (per lb)	\$1.98	\$2.34	\$3.19	\$2.22	\$2.32	\$1.67	\$2.21	-	-	

<sup>&</sup>lt;sup>1</sup>C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

For the three months ended				Guelb			Co	rporate &		
March 31, 2018	Kansanshi	Sentinel	Las Cruces	Moghrein	Çayeli	Pyhäsalmi	Copper	other Rav	ensthorpe	Tota
Cost of sales	(237)	(292)	(89)	(45)	(5)	(26)	(694)	(7)	(3)	(704)
Adjustments:										
Depreciation	60	68	51	10	3	12	204	-	1	205
By-product credits	44	-	-	21	-	21	86	-	-	86
Royalties	29	24	2	2	1	-	58	-	-	58
Treatment and refining charges	(5)	(14)	-	(3)	-	(2)	(24)	-	-	(24)
Freight costs	(7)	(5)	-	-	-	-	(12)	-	-	(12)
Finished goods	(20)	16	1	2	(10)	1	(10)	-	-	(10)
Other	(3)	-	-	-	-	(1)	(4)	7	2	5
Cash cost (C1)	(139)	(203)	(35)	(13)	(11)	5	(396)	-	-	(396)
Adjustments: Depreciation (excluding depreciation										
in finished goods)	(75)	(60)	(50)	(9)	(7)	(12)	(213)	-	(1)	(214)
Royalties	(29)	(24)	(2)	(2)	(1)	-	(58)	-	-	(58)
Other	(2)	(1)	-	-	-	-	(3)	-	1	(2)
Total cost (C3)	(245)	(288)	(87)	(24)	(19)	(7)	(670)	-	-	(670)
Cash cost (C1)	(139)	(203)	(35)	(13)	(11)	5	(396)	-	-	(396)
Adjustments:										
General and administrative expenses Sustaining capital expenditure and	(6)	(9)	(2)	(1)	-	-	(18)	-	-	(18)
deferred stripping	(22)	(27)	(3)	(8)	(2)	-	(62)	-	-	(62)
Royalties	(29)	(24)	(2)	(2)	(1)	-	(58)	-	-	(58)
AISC	(196)	(263)	(42)	(24)	(14)	5	(534)	-	-	(534)
AISC (per lb)	\$1.46	\$2.36	\$1.03	\$1.84	\$1.56	(\$0.81)	\$1.72	-	-	
Cash cost - (C1) (per lb)	\$1.00	\$1.83	\$0.86	\$0.99	\$1.31	(\$0.81)	\$1.27	-	-	
Total cost - (C3) (per lb)	\$1.82	\$2.60	\$2.15	\$1.86	\$2.14	\$1.24	\$2.16	-	-	

# Comparative EBITDA and comparative earnings

Comparative EBITDA and comparative earnings are the Company's adjusted earnings metrics, and are used to evaluate operating performance by management. The Company believes that the comparative metrics presented are useful as the adjusted items do not reflect the underlying operating performance of its current business and are not necessarily indicative of future operating results.

## Calculation of operating cash flow per share, Net debt, comparative EBITDA and comparative earnings

In calculating the operating cash flow per share, the operating cash flow calculated for IFRS purposes is divided by the basic weighted average common shares outstanding for the respective period.

Net debt comprises unrestricted cash and cash equivalents, bank overdrafts and total debt.

Comparative EBITDA, comparative earnings and comparative earnings per share are non-GAAP measures which measure the performance of the Company. Comparative EBITDA, comparative earnings and comparative earnings per share exclude certain impacts which the Company believes are not reflective of the Company's underlying performance for the reporting period. These include impairment and related charges, foreign exchange gains and losses, gains and losses on disposal of assets and liabilities, one-time costs related to acquisitions, dispositions, restructuring and other transactions, revisions in estimates of restoration provisions at closed sites, debt extinguishment and modification gains and losses, and discounting of non-current VAT.

	Q1 2019	Q4 2018	Q1 2018
Operating profit from continuing operations	153	260	163
Depreciation	194	224	205
Other adjustments:			
Write-off of assets and other costs			
associated with land slippage	13	-	-
Foreign exchange loss (gain)	4	(13)	(4)
Loss on disposal of assets	2	2	1
Other expense	-	8	-
Revisions in estimates of restoration provisions at			
closed sites	2	-	(2)
Total adjustments excluding depreciation	21	(3)	(5)
Comparative EBITDA	368	481	363

	Q1 2019	Q4 2018	Q1 2018
Net earnings attributable to shareholders of the			
Company	53	198	47
Adjustments attributable to shareholders of the			
Company:			
Loss on partial redemption of senior notes	25	-	-
Finance expense on discounting non-current			
VAT	-	5	-
Total adjustments to comparative EBITDA excluding			
depreciation	21	(3)	(5)
Tax and minority interest relating to foreign			
exchange revaluation and comparative adjustments	(4)	(18)	7
Comparative earnings	95	182	49
Earnings per share as reported	\$0.08	\$0.29	\$0.07
Comparative earnings per share	\$0.14	\$0.26	\$0.07

### Adoption of new standards

#### IFRS 16 Leases

IFRS 16 has replaced IAS 17 Leases. On adoption of IFRS 16, the Company has recognized lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17. The Company has elected to apply the modified transition approach whereby no restatement of comparative periods is required. Right-of-use assets have been recognized at the amount of the liability on transition. These liabilities were valued at the present value of the remaining lease payments, discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

The adoption of IFRS 16 resulted in increases to property, plant and equipment and other liabilities on January 1, 2019 of \$20 million.

Each lease payment is allocated between the liability and the finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Leases with terms that end within 12 months of the mandatory transition date are accounted for by the Company as short-term leases. Payments associated with short-term leases and leases of low-value assets are recognized as expenses.

#### Significant judgments, estimates and assumptions

Many of the amounts disclosed in the financial statements involve the use of judgments, estimates and assumptions. These judgments and estimates are based on management's knowledge of the relevant facts and circumstances at the time, having regard to prior experience, and are continually evaluated.

- (i) Significant judgments
- Determination of ore reserves and resources

Judgments about the amount of product that can be economically and legally extracted from the Company's properties are made by management using a range of geological, technical and economic factors, history of conversion of mineral deposits to proven and probable reserves as well as data regarding quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand, commodity prices and exchange rates. This process may require complex and difficult geological judgments to interpret the data. The Company uses qualified persons (as defined by the Canadian Securities Administrators' National Instrument 43-101) to compile this data.

Changes in the judgments surrounding proven and probable reserves may impact the carrying value of property, plant and equipment, restoration provisions, recognition of deferred income tax amounts and depreciation.

Achievement of commercial production

Once a mine or smelter reaches the operating levels intended by management, depreciation of capitalized costs begins. Significant judgment is required to determine when certain of the Company's assets reach this level.

Management considers several factors, including, but not limited to the following:

- completion of a reasonable period of commissioning;
- consistent operating results achieved at a pre-determined level of design capacity and indications exist that this level will continue;
- mineral recoveries at or near expected levels;
- and the transfer of operations from development personnel to operational personnel has been completed.
- Taxes

Judgment is required in determining the recognition and measurement of deferred income tax assets and liabilities on the balance sheet. In the normal course of business, the Company is subject to assessment by taxation authorities in various

jurisdictions. These authorities may have different interpretations of tax legislation or tax agreements than those applied by the Company in computing current and deferred income taxes. These different judgments may alter the timing or amounts of taxable income or deductions. The final amount of taxes to be paid or recovered depends on a number of factors including the outcome of audits, appeals and negotiation. Amounts to be recovered with respect to indirect taxes, such as VAT, are subject to judgment which, in the instance of a change of circumstances, could result in material adjustments.

The Company operates in a specialized industry and in a number of tax jurisdictions. As a result, its income is subject to various rates of taxation. The breadth of its operations and the global complexity and interpretation of tax regulations require assessment and judgement of uncertainties and of the taxes that the Company will ultimately pay. These are dependent on many factors, including negotiations with tax authorities in various jurisdictions, outcomes of tax litigation and resolution of disputes. The resolution of these uncertainties may result in adjustments to the Company's tax assets and liabilities.

Management assesses the likelihood and timing of taxable earnings in future periods in recognizing deferred income tax assets on unutilized tax losses. Future taxable income is based on forecast cash flows from operations and the application of existing tax laws in each jurisdiction. Forecast cash flows are based on life of mine projections.

To the extent that future cash flows and taxable income differ significantly from forecasts, the ability of the Company to realize the net deferred income tax assets recorded at the balance sheet date could be impacted. In addition, future changes in tax laws could limit the ability of the Company to obtain tax deductions in future periods from deferred income tax assets.

## Precious metal stream arrangement

On October 5, 2015, the Company finalized an agreement with Franco-Nevada for the delivery of precious metals from the Cobre Panama project. Franco-Nevada have provided \$1 billion deposit to the Cobre Panama project against future deliveries of gold and silver produced by the mine. A further stream was completed on March 26, 2018, with an additional \$356 million received from Franco-Nevada.

Management has determined that the under the terms of the agreement the Company meets the 'own-use' exemption criteria under IFRS 9: Financial Instruments. The Company also retains significant business risk relating to the completion of the project and delivery of produced gold and silver and as such has accounted for the proceeds received as deferred

Management has exercised judgement in determining the appropriate accounting treatment for the Franco-Nevada streaming agreement. Management has determined, with reference to the agreed contractual terms in conjunction with the Cobre Panama reserves and mine plan, that the Franco-Nevada contribution to capital expenditure constitutes a prepayment of revenues deliverable from future Cobre Panama production.

# Assessment of impairment indicators

Management applies significant judgement in assessing each cash-generating units and assets for the existence of indicators of impairment at the reporting date. Internal and external factors are considered in assessing whether indicators of impairment are present that would necessitate impairment testing. Significant assumptions regarding commodity prices, operating costs, capital expenditures and discount rates are used in determining whether there are any indicators of impairment. These assumptions are reviewed regularly by senior management and compared, where applicable, to relevant market consensus views.

The Company's most significant CGUs are longer-term assets and therefore their value is assessed on the basis of longerterm pricing assumptions. Shorter-term assets are more sensitive to short term commodity prices assumptions that are used in the review of impairment indicators.

The carrying value of property, plant and equipment and goodwill at the balance sheet date are disclosed in the notes to the financial statements.

### Derecognition of financial liabilities

Judgement is required in determining if an exchange of issued listed tradeable bonds results in, amongst other factors, a change to the 'existing lender' and, if so, whether that constitutes an extinguishment of an existing financial liability and recognition of a new financial liability.

### (ii) Significant accounting estimates

Estimates are inherently uncertain and therefore actual results may differ from the amounts included in the financial statements, potentially having a material future effect on the Company's consolidated financial statements. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below:

Determination of ore reserves and life of mine plan

Reserves are estimates of the amount of product that can be economically and legally extracted from the Company's properties. Estimating the quantity and/or grade of reserves requires the size, shape and depth of ore bodies or fields to be determined by analyzing geological data such as drilling samples. Following this, the quantity of ore that can be extracted in an economical manner is calculated using data regarding the life of mine plans and forecast sales prices (based on current and long-term historical average price trends).

The majority of the Company's property, plant and equipment are depreciated over the estimated lives of the assets on a units-of-production basis. The calculation of the units-of-production rate, and therefore the annual depreciation expense could be materially affected by changes in the underlying estimates which are driven by the life of mine plans. Changes in estimates can be the result of actual future production differing from current forecasts of future production, expansion of mineral reserves through exploration activities, differences between estimated and actual costs of mining and differences in the commodity prices used in the estimation of mineral reserves.

Management made significant estimates of the strip ratio for each production phase. Waste material stripping costs in excess of this ratio, and from which future economic benefit will be derived from future access to ore, will be capitalized to mineral property and depreciated on a units-of-production basis.

Changes in the proven and probable reserves estimates may impact the carrying value of property, plant and equipment, restoration provisions, recognition of deferred income tax amounts and depreciation.

Review of asset carrying values and impairment charges

The Company reviews the carrying value of assets each reporting period to determine whether there is any indication of impairment using both internal and external sources of information. The Company has determined that each mining operation and smelter is a cash-generating unit.

External sources of information regarding indications of impairment include considering the changes in market, economic and legal environment in which the Company operates that are not within its control and affect the recoverable amount of, or the timing of economic benefits from mining assets. Internal sources of information include changes to the life of mine plans and economic performance of the assets.

Management's determination of recoverable amounts includes estimates of mineral prices, recoverable reserves, and operating, capital and restoration costs are subject to certain risks and uncertainties that may affect the recoverability of mineral property costs. The calculation of the recoverable amount can also include assumptions regarding the appropriate discount rate and inflation and exchange rates. Although management has made its best estimate of these factors, it is possible that changes could occur in the near term that could adversely affect management's estimate of the net cash flow to be generated from its projects.

The Ravensthorpe mine was placed in care and maintenance in October 2017 and an impairment test was performed as at September 30, 2017. As disclosed in the notes to the financial statements, its value is sensitive to longer term nickel price assumptions.

Estimation of the amount and timing of restoration and remediation costs

Accounting for restoration provisions requires management to make estimates of the future costs the Company will incur to complete the restoration and remediation work required to comply with existing laws, regulations and agreements in place at each mining operation and any environmental and social principles the Company is in compliance with. The calculation of the present value of these costs also includes assumptions regarding the timing of restoration and remediation work, applicable risk-free interest rate for discounting those future cash outflows, inflation and foreign exchange rates and assumptions relating to probabilities of alternative estimates of future cash outflows. Actual costs incurred may differ from those amounts estimated. Also, future changes to environmental laws and regulations could increase the extent of restoration work required to be performed by the Company. Increases in future costs could

materially impact the amounts charged to operations for restoration. A 10% increase in costs would result in an increase to restoration provisions of \$63 million at December 31, 2018.

The provision represents management's best estimate of the present value of the future restoration and remediation costs. The actual future expenditures may differ from the amounts currently provided; any increase in future costs could materially impact the amounts included in the liability disclosed in the consolidated balance sheet. The carrying amount of the Company's restoration provision is disclosed in the notes to the financial statements.

#### Financial instruments risk exposure

The Company's activities expose it to a variety of risks arising from financial instruments. These risks, and management's objectives, policies and procedures for managing these risks are disclosed as follows:

#### Credit risk

The Company's credit risk is primarily attributable to cash and bank balances, short-term deposits, derivative instruments, trade and other receivables and promissory note receivable. The Company's exposure to credit risk is represented by the carrying amount of each class of financial assets, including commodity contracts, recorded in the consolidated balance sheet.

The Company limits its credit exposure on cash held in bank accounts by holding its key transactional bank accounts with highly rated financial institutions. The Company manages its credit risk on short-term deposits by only investing with counterparties that carry investment grade ratings as assessed by external rating agencies and spreading the investments across these counterparties. Under the Company's risk management policy, allowable counterparty exposure limits are determined by the level of the rating unless exceptional circumstances apply. A rating of investment grade or equivalent is the minimum allowable rating required as assessed by international credit rating agencies. Likewise, it is the Company's policy to deal with banking counterparties for derivatives who are rated investment grade or above by international credit rating agencies and graduated counterparty limits are applied depending upon the rating.

Exceptions to the policy for dealing with relationship banks with ratings below investment grade are reported to, and approved by, the Audit Committee. As at March 31, 2019, substantially all cash and short-term deposits are with counterparties of investment grade.

The Company's credit risk associated with trade accounts receivable is managed through establishing long-term contractual relationships with international trading companies using industry-standard contract terms. Other accounts receivable consist of amounts owing from government authorities in relation to the refund of value-added taxes applying to inputs for the production process and property, plant and equipment expenditures and prepaid taxes.

### Liquidity risk

The Company manages liquidity risk by maintaining cash and cash equivalent balances and available credit facilities to ensure that it is able to meet its short-term and long-term obligations as and when they fall due. Company-wide cash projections are managed centrally and regularly updated to reflect the dynamic nature of the business and fluctuations caused by commodity price and exchange rate movements.

In addition, the Company was obligated under its corporate revolving credit and term loan facility to maintain liquidity and satisfy various covenant ratio tests on an historical and prospective cash flow basis. These ratios were in compliance during the three-months ended March 31, 2019, and the years ended December 31, 2018, and December 31, 2017. If the Company breaches a covenant in its Financing Agreements, this would be an event of default which, if un-addressed, would entitle the lenders to make the related borrowings immediately due and payable and if made immediately due and payable all other borrowings would also be due and payable.

## Market risks

# Commodity price risk

The Company is subject to commodity price risk from fluctuations in the market prices of copper, gold, nickel, zinc and other elements.

As part of the hedging program, the Company has elected to apply hedge accounting for a portion of copper and nickel sales. For the three months ended March 31, 2019, a fair value loss of \$5 million has been recognized on derivative instruments in designated hedge relationships through accumulated other comprehensive income and a fair value gain of \$8 million has been recognized

through sales revenues. At March 31, 2019 the Company had zero cost collar unmargined sales contracts for 92,500 tonnes at prices ranging from low side (or put) prices of \$2.70 per lb to high side (or call) prices of \$3.50 per lb with maturities to February 2020 and 41,250 tonnes of outstanding unmargined forward copper swap contracts at an average price of \$2.91 per lb, with maturities to November 2019.

The Company is also exposed to commodity price risk on diesel fuel required for mining operations and sulphur required for acid production. The Company's risk management policy allows for the management of these exposures through the use of derivative financial instruments. As at March 31, 2019, and December 31, 2018, the Company had not entered into any diesel or sulphur derivatives.

The Company's commodity price risk related to changes in fair value of embedded derivatives in accounts receivable reflecting copper, nickel, gold and zinc sales provisionally priced based on the forward price curve at the end of each quarter.

#### Interest rate risk

The majority of the Company's interest expense is fixed however it is also exposed to an interest rate risk arising from interest paid on floating rate debt and the interest received on cash and short-term deposits. The Company currently capitalizes the majority of interest charges, and therefore the risk exposure is primarily on cash, and net earnings in relation to the depreciation of capitalized interest charges.

Deposits are invested on a short-term basis to ensure adequate liquidity for payment of operational and capital expenditures. To date, no interest rate management products, such as swaps, are used in relation to deposits.

The Company manages its interest rate risk on borrowings on a net basis. The Company has a policy allowing floating-to-fixed interest rate swaps targeting 50% of exposure over a five-year period. As at March 31, 2019, and December 31 2018, the Company held no floating-to-fixed interest rate swaps.

### Foreign exchange risk

The Company's functional and reporting currency is USD. As virtually all of the Company's revenues are derived in USD and the majority of its business is conducted in USD, foreign exchange risk arises from transactions denominated in currencies other than USD. Commodity sales are denominated in USD, the majority of borrowings are denominated in USD and the majority of operating expenses are denominated in USD. The Company's primary foreign exchange exposures are to the local currencies in the countries where the Company's operations are located, principally the Zambian kwacha ("ZMW"), Australian dollar ("A\$") Mauritanian ouguiya ("MRU"), the euro ("EUR") and the Turkish lira ("TRY"); and to the local currencies suppliers who provide capital equipment for project development, principally the A\$, EUR and the South African rand ("ZAR").

The Company's risk management policy allows for the management of exposure to local currencies through the use of financial instruments at a targeted amount of up to 100% for exposures within one year down to 50% for exposures in five years.

### **Disclosure Controls and Procedures**

The Company's disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is communicated to senior management, to allow timely decisions regarding required disclosure.

An evaluation of the effectiveness of the Company's disclosure controls and procedures, as defined under the rules of the Canadian Securities Administration, was conducted as of December 31, 2018, under the supervision of the Company's Audit Committee and with the participation of management. Based on the results of the evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of the end of the period covered by this report in providing reasonable assurance that the information required to be disclosed in the Company's annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported in accordance with the securities legislation.

Since the December 31, 2018 evaluation, there have been no adverse changes to the Company's controls and procedures and they continue to remain effective.

## Internal Control over Financial Reporting

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements in compliance with IFRS. The Company's internal control over financial reporting includes policies and procedures that:

- pertain to the maintenance of records that accurately and fairly reflect the transactions of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS;
- ensure the Company's receipts and expenditures are made only in accordance with authorization of management and the Company's directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized transactions that could have a material effect on the annual or interim financial statements.

An evaluation of the effectiveness of the Company's internal control over financial reporting was conducted as of December 31, 2018 by the Company's management, including the Chief Executive Officer and Chief Financial Officer, based on the Control - Integrated Framework (2013) established by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Based on this evaluation, management has concluded that the Company's internal controls over financial reporting were effective.

There were no changes in the Company's business activities during the period ended March 31, 2019, that have materially affected, or are reasonably likely to materially affect, its internal controls over financial reporting.

#### **Limitations of Controls and Procedures**

The Company's management, including the Chief Executive Officer and Chief Financial Officer, believe that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable and not absolute assurance that the objectives of the control system are met. Further, the design of a control system reflects the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of the control. The design of any systems of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and not be detected.

## Cautionary statement on forward-looking information

Certain statements and information herein, including all statements that are not historical facts, contain forward-looking statements and forward-looking information within the meaning of applicable securities laws. The forward-looking statements include estimates, forecasts and statements as to the Company's expectations of production and sales volumes, and expected timing of completion of project development at Cobre Panama and Enterprise and are subject to the impact of ore grades on future production, the potential of production disruptions (including at Cobre Las Cruces as a result of the land slippage in January 2019), capital expenditure and mine production costs, the outcome of mine permitting, other required permitting, the outcome of legal proceedings which involve the Company, information with respect to the future price of copper, gold, silver, nickel, zinc, pyrite, cobalt, iron and sulphuric acid, estimated mineral reserves and mineral resources, First Quantum's exploration and development program, estimated future expenses, exploration and development capital requirements, the Company's hedging policy, and goals and strategies. Often, but not always, forward-looking statements or information can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate" or "believes" or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

With respect to forward-looking statements and information contained herein, the Company has made numerous assumptions including among other things, assumptions about continuing production at all operating facilities, the price of copper, gold, silver, nickel, zinc, pyrite, cobalt, iron and sulphuric acid, anticipated costs and expenditures and the ability to achieve the Company's goals. Forward-looking statements and information by their nature are based on assumptions and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. These factors include, but are not limited to, future production volumes and costs, the temporary or

permanent closure of uneconomic operations, costs for inputs such as oil, power and sulphur, political stability in Zambia, Peru, Mauritania, Finland, Spain, Turkey, Panama, Argentina and Australia, adverse weather conditions in Zambia, Finland, Spain, Turkey, Mauritania and Panama, labour disruptions, potential social and environmental challenges, power supply, mechanical failures, water supply, procurement and delivery of parts and supplies to the operations, and the production of off-spec material.

See the Company's Annual Information Form for additional information on risks, uncertainties and other factors relating to the forward-looking statements and information. Although the Company has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking statements or information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Also, many of these factors are beyond First Quantum's control. Accordingly, readers should not place undue reliance on forward-looking statements or information. The Company undertakes no obligation to reissue or update forward-looking statements or information as a result of new information or events after the date hereof except as may be required by law. All forward-looking statements and information made herein are qualified by this cautionary statement.