

Management's Discussion and Analysis

Three and nine months ended September 30, 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 and nine months ended September 30, 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 www.sedar.com. Information is also available on the Company's website at www.first-quantum.com. This MD&A contains forward-looking information that is subject to risk factors, see *"Cautionary statement on forward-looking information"* 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 October 28, 2019.

THIRD QUARTER 2019 HIGHLIGHTS

Operational and Financial

- Cobre Panama was declared in commercial production from September 1, 2019. It produced 56,221 tonnes of copper and 21,484 ounces of gold in its second full quarter of production, of which 19,438 tonnes of copper and 7,914 ounces of gold were deemed commercial.
- The Company's total copper production of 192,510 tonnes exceeded that of the same period in 2018 by 27% as Cobre Panama's strong ramp-up more than offset lower contributions from Las Cruces and Kansanshi. These reductions were due principally to Las Cruces, where mining activity was interrupted until July and where there was a ball mill failure in September, and lower recoveries at Kansanshi.
- The Kansanshi smelter processed 281,800 dry metric tonnes ("DMT") of copper concentrate and produced 69,952 tonnes of copper anode and 264,000 tonnes of sulphuric acid during the quarter which included a planned two-week maintenance shutdown of the smelter acid plant.
- Total gold production of 70,120 ounces exceeded that of the same period in 2018 by 56%, reflecting Cobre Panama's contribution of 21,484 ounces and higher gold production at Kansanshi following operational enhancements.
- Gross profit of \$150 million and comparative EBITDA of \$354 million reflect an 8% reduction in realized copper prices while gross profit benefited from a \$36 million contribution from Cobre Panama subsequent to the declaration of commercial production, and an \$18 million gain realized by the corporate copper sales hedge program.
- Financial results include comparative earnings of \$32 million (\$0.05 per share), net loss attributable to shareholders of the Company of \$73 million (\$0.11 per share), and cash flows from operating activities of \$151 million (\$0.22 per share). Comparative earnings include an interest charge of \$69 million which includes \$64 million that would previously have been eligible for capitalization but is now expensed following declaration of commercial production at Cobre Panama on September 1, 2019. Net loss attributable to shareholders for the quarter includes a \$160 million charge for the discounting of Zambian value-added tax ("VAT") balances

- Copper all-in sustaining cost ("AISC") was \$1.86 per lb and cash cost of copper production ("C1") was \$1.36 per lb for the quarter, reflecting a \$0.06 per lb and \$0.05 per lb increase, respectively, compared to the same period in 2018. The C1 cash cost includes one month of commercial production at Cobre Panama at \$1.34 per lb and the impact of lower quarter-over-quarter production at Las Cruces and Kansanshi. AISC was impacted further by the timing of sustaining capital expenditure at Kansanshi as well as the increased Zambian royalty rate.

Consolidated Operational Information	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Copper production (tonnes) ^{1,2}	192,510	151,241	497,878	447,549
Copper sales (tonnes) ^{2,4}	203,827	149,877	483,422	440,301
Cash cost of copper production (C1)(per lb) ^{5,6}	\$1.36	\$1.31	\$1.34	\$1.29
Total cost of copper production (C3)(per lb) ^{5,6}	\$2.20	\$2.11	\$2.19	\$2.13
All-in sustaining cost (AISC)(per lb) ^{5,6}	\$1.86	\$1.80	\$1.80	\$1.76
Realized copper price (per lb)	\$2.62	\$2.84	\$2.73	\$2.85
Gold production (ounces) ²	70,120	44,979	179,124	137,375
Gold sales (ounces) ^{2,3}	71,664	42,864	175,376	139,851

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Copper production (tonnes) – commercial	155,727	151,241	430,174	447,549
Copper production (tonnes) – pre-commercial	36,783	-	67,704	-
Copper production (tonnes)	192,510	151,241	497,878	447,549
Gold production (ounces) – commercial	56,550	44,979	155,004	137,375
Gold production (ounces) – pre-commercial	13,570	-	24,120	-
Gold production (ounces)	70,120	44,979	179,124	137,375

Consolidated Financial Information ¹	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Sales revenues	987	978	2,783	2,912
Gross profit	150	246	531	698
Net earnings (loss) attributable to shareholders of the Company	(73)	61	58	243
Basic and diluted earnings (loss) per share	(\$0.11)	\$0.09	\$0.08	\$0.35
Comparative EBITDA ⁷	354	427	1,098	1,256
Comparative earnings ⁷	32	128	214	305
Comparative earnings per share ⁷	\$0.05	\$0.19	\$0.31	\$0.44

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Net earnings (loss) attributable to shareholders of the Company	(73)	61	58	243
Adjustments attributable to shareholders of the Company:				
Finance charge on discounting Zambian VAT	160	-	160	-
(Gain) or loss on debt instruments	(3)	-	19	-
Total adjustments to comparative EBITDA excluding depreciation ⁸	21	75	76	67
Tax and minority interest relating to foreign exchange revaluation and comparative adjustments	(73)	(8)	(99)	(5)
Comparative earnings	32	128	214	305

¹ Production is presented on a contained basis, and is presented prior to processing through the Kansanshi smelter.

² Copper production volumes includes production from Cobre Panama of 56,221 tonnes and 87,142 tonnes for the three and nine months ended September 30, 2019, respectively (nil production to September 30, 2018). Copper sales volumes include sales from Cobre Panama of 77,481 tonnes and 84,023 tonnes for the three and nine months ended September 30, 2019, respectively (nil sales to September 30, 2018). Gold production volumes includes production from Cobre Panama of 21,484 ounces and 32,034 ounces for the three and nine months ended September 30, 2019, respectively (nil production to September 30, 2018). Gold sales volumes include sales from Cobre Panama of 29,106 ounces and 31,733 ounces for the three and nine months ended September 30, 2019, respectively (nil sales to September 30, 2018).

The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019, therefore, revenue and operating costs at Cobre Panama have been recorded for the period September 1, 2019 to September 30, 2019 in the Statement of Earnings (Loss). Consequently, production and sales at Cobre Panama that is pre-commercial production is excluded from earnings, C1 cash cost, AISC and C3 total cost and net realized copper price. Please see Cobre Panama operation summary on page 21 below for further discussion.

³ Excludes gold delivered to Franco-Nevada Corporation ("Franco-Nevada").

⁴ 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 nine months ended September 30, 2019 (1,465 tonnes for the nine months ended September 30, 2018). There were no sales of copper anode attributable to third-party concentrate purchases in the three months to September 30, 2019 (1,465 tonnes for the three months ended September 30, 2018).

⁵ C1 cash cost, C3 total cost, AISC exclude third-party concentrate purchased at Kansanshi. C1 cash cost, C3 total cost and AISC for the three and nine months ended September 30, 2018 have been revised from amounts previously disclosed to exclude the \$0.03 per lb and \$0.01 per lb respective impacts of third-party concentrate purchased.

⁶ C1 cash cost, C3 total cost, AISC are not recognized under IFRS. See "Regulatory Disclosures" on page 44 for further information.

⁷ 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. Comparative earnings, comparative earnings 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 44-50 for a reconciliation of comparative EBITDA and comparative earnings. The use of comparative earnings and comparative EBITDA represents the Company's adjusted earnings metrics.

⁸ Adjustments to comparative EBITDA relate principally to foreign exchange, write-off of assets and costs associated with the land slippage at Las Cruces, and also include other losses on disposal of assets, and movements in restoration provision estimates at closed sites.

FINANCIAL SUMMARY

Sales revenues benefit from start of commercial production at Cobre Panama

- Sales revenues of \$987 million in the quarter increased by \$9 million compared to the same period in 2018. Underlying the higher result was an 8% increase in commercial copper sales volumes due to the commercial contribution from Cobre Panama following the declaration of commercial production, offset by the lower realized copper price. Gold revenues increased revenues by \$39 million compared with the same period in 2018, due to a higher realized gold price and increased sales volumes attributable to Cobre Panama, which contributed \$26 million to gold sales revenues following the declaration of commercial production.
- The Company's realized price for copper of \$2.62 per lb in the third quarter of 2019 was 8% lower than the same period in 2018. This compares to a decrease of 5% in the average LME price of copper for the same period in 2018. The Company's copper sales hedge program contributed \$18 million, \$0.05 per lb, to sales revenues in the quarter compared to \$31 million, \$0.09 per lb in the same period of 2018.

Comparative EBITDA totals \$354 million

- Comparative EBITDA was \$354 million compared to \$427 million in the same period in 2018. The current period's result excludes \$12 million of foreign exchange losses, loss on disposal of assets of \$8 million and revisions in estimates of restoration provisions at closed sites of \$1 million.

Gross profit below 2018 from lower realized copper prices and Las Cruces

Gross profit in Q3 2018	246
Lower realized metal prices	(26)
Movement in hedge program	(13)
Change in sales volumes mix ¹	(60)
Lower by-product contribution	(11)
Panama contribution	36
Las Cruces movement	(30)
Higher cash costs (excluding Zambian royalties) ¹	(6)
Decrease in depreciation ¹	17
Increase in Zambian royalty rate	(10)
Positive impact of foreign exchange on operating costs	7
Gross profit in Q3 2019 ²	150

¹ Excludes the impact of the Las Cruces movement and Cobre Panama contribution.

² Gross profit is reconciled to comparative EBITDA by including exploration costs of \$4 million, general and administrative costs of \$21 million, other income of \$4 million, adding back depreciation of \$225 million (a reconciliation of comparative EBITDA is included on page 50).

Comparative earnings of \$32 million

- Comparative earnings for the quarter ended September 30, 2019, of \$32 million compares to \$128 million in the third quarter of 2018. A reconciliation of comparative metrics is included on page 50. Included within earnings was an interest cost of \$64 million for the month of September that was expensed rather than capitalized following the declaration of commercial production at Cobre Panama on September 1, 2019, which contributed to the reduction.
- Net loss attributable to shareholders of \$73 million for the quarter compared to net earnings attributable to shareholders of \$61 million in the same period in 2018. The 2019 result includes \$160 million with respect to the discounting of Zambian VAT balances, \$12 million in foreign exchange losses, a \$3 million modification gain on the senior revolving credit facility, a loss on disposal of assets of \$8 million and \$73 million loss in tax and minority interest relating to foreign exchange revaluation and comparative adjustments.

FINANCIAL POSITION AND OPERATING CASH FLOW

- The Company ended the quarter with \$406 million of net unrestricted cash and cash equivalents in addition to \$470 million of committed undrawn facilities and was in compliance with all financial covenants.
- At September 30, 2019, the Company had 20,000 tonnes of unmargined zero cost copper collar sales contracts with weighted average prices of \$2.80 to \$3.02 per lb outstanding with maturities to February 2020. The Company also had 7,500 tonnes of outstanding unmargined copper forward sales contracts at an average price of \$2.96 per lb at September 30, 2019, with maturities to December 2019. The Company also has unmargined nickel forward sales contracts for 12,046 tonnes at an average price of \$6.77 per lb outstanding with maturities to February 2021.
- 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 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

Changes to the Zambian tax regime

In its 2020 National Budget presented on September 27, the Government of the Republic of Zambia ("GRZ") announced that the sales tax, which was intended to be introduced in January 2020, will no longer be implemented and the current VAT regime will be maintained, with the following changes that are expected to impact the Company:

- Introduction of a 0% VAT rate for capital equipment and machinery for the mining sector.
- Disallowance of claims of VAT on consumables such as stationery, lubricants and spare parts.
- Limitation on input VAT claims by mining companies on diesel to 70%. This was previously limited to 90%.
- Limitation on input VAT claims by mining companies on electricity to 80%. This was not previously restricted.
- Introduction of 10% import duty on specified capital equipment and machinery imported by mining companies which are currently duty free or attract 5% import duty.
- Reduction in annual capital allowances claimed by mining companies from 25% to 20%.

Detailed guidance on these changes has not yet been issued by the Zambian Revenue Authority and the Company is continuing to assess the expected impact of the proposed changes. The expected introduction date is January 1, 2020, following enactment of the new laws in December 2019.

The Company's Zambian operations have continued to accrue VAT receivable amounts during the quarter with no cash refunds received and limited offsets to other tax liabilities approved. The Company considers that the outstanding VAT claims are fully recoverable and has reclassified all VAT balances due to the Zambian operations as non-current. A finance charge of \$160 million has been recognized in the quarter ended September 30, 2019, representing the discounting over the expected timeframe to repayment. The Minister reaffirmed that the GRZ remains committed to settling outstanding VAT claims and the Company continues to engage in regular discussions with the relevant government authorities. See additional disclosure *Liquidity and Capital Resources* on page 32. The total amount of VAT accrued by the Company's Zambian operations at September 30, 2019, was \$412 million, of which \$246 million is related to Kansanshi.

Zambian power supply

Low water levels in the Kariba Dam resulted in the country's state-owned power company ("ZESCO") implementing load shedding for domestic users but no restrictions are currently in place for mining operations.

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 MPSA 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, commissioning and operations ramp-up are continuing while the Company seeks to clarify the legal position. (The MICI release is available at www.twitter.com/MICIPMA/status/1044915730209222657).

The newly elected Government of Panama, inaugurated on July 1, 2019, has established a multidisciplinary high-level commission including the Minister of Commerce and Industries (mining regulator), Minister of Environment, and Minister of Employment to discuss the Law 9 matter and seek resolution. 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 matter in the near-medium term.

Zambian power

In June 2018, without any warning, ZESCO reduced power supply to the 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 for summer 2020. Pursuant to the Procedural Order, Kansanshi has submitted its Statement of Claim and ZESCO has submitted its response and the parties have exchanged evidence. Following exchange of documents, the parties each will make one further written submission later this year, and will submit fact and expert evidence in the first part of 2020.

Despite this dispute the Company's 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, including the Company, 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. 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 the Company 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.

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. On May 22, 2019, the High Court denied all aspects of ZCCM's appeal, which has been communicated back to the Arbitral Tribunal. The parties have reached an agreement on costs, in total exceeding \$1 million payable by ZCCM, bringing this particular matter to an end.

In parallel, 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, a wholly-owned subsidiary of the Company, 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. An appeal to the Supreme Court of Zambia was heard on April 24, 2019, and has been dismissed. The High Court was scheduled to resume hearing two further procedural applications, including whether ZCCM is allowed to

maintain the derivative action at a hearing in Lusaka on August 19, 2019, however the hearing has been deferred as ZCCM required more time in order to prepare. The hearing on the substantive issues has not been slated.

DEVELOPMENT ACTIVITIES

Cobre Panama Project, Panama

Please see Cobre Panama operation summary on page 21 below for discussion of operational performance.

Cobre Panama now has its three milling trains operational, comprising seven operating mills. The eighth mill (a ball mill) is part of the 85 million tonnes per annum ("mtpa") expansion project and is on track to become fully operational during the fourth quarter of 2019. Daily process plant throughput during the ramp-up phase has regularly averaged or exceeded 200,000 tonnes per day.

Key milestones achieved through the third quarter of 2019 include:

- Fourth (and final) in pit primary crusher operational.
- Third (and final) SAG mill now operational.
- Achieved daily peak mill throughput of 220,000 tonnes per day.
- First gold pour occurred in the gold plant.
- Tailings management facility cyclone sand plant is operational and placement of first trial sand pads have commenced. Tailings are now being deposited in all areas of the facility.
- Commissioning of the emulsion facility commenced and will be operational in the fourth quarter which will have a positive impact on the drill and blast costs in the mine.

Construction workforce demobilization continued during the quarter. Remaining works to be commissioned and made operational are the permanent mine services facility, the expansion project ball mill, and non-process infrastructure - administration building, visitors centre, entry gate house and final road paving. The construction of the molybdenum plant has been re-scheduled for the first half of 2020.

Approximately 83% of the operational workforce is in place of which more than 85% are Panamanian. Some supplementary skills and labour are also assisting with the transition from commissioning into operations.

The total project capital expenditure for the nine months ended September 30, 2019, is \$554 million (First Quantum's share \$519 million). Project spending to date amounts to \$6.6 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 Korea Panama Mining Corporation ("KPMC") in November 2017.

Further to these capital expenditures, \$549 million was capitalized to the Cobre Panama project with respect to interest costs incurred by the Company during the nine months ended September 30, 2019. Subsequent to the declaration of commercial production on September 1, 2019, the interest expense recognized by the Company in the income statement was \$64 million.

EXPLORATION

A global exploration program continues to be focused on identifying high quality porphyry and sediment hosted copper deposits in prospective belts around the world. This program includes work at advanced stage exploration projects at Taca Taca in Argentina and Haquira in Peru as well as near-mine resource expansion around Las Cruces and Kansanshi.

In recent years, this program has expanded to cover systematic exploration of properties throughout the Andean belt in Argentina, Chile, Peru, Ecuador and Colombia but also includes evaluation of high priority targets in several other jurisdictions. Exploration in the current quarter includes drill programs to test greenfield targets in Argentina, Chile, Peru, Ecuador, Zambia, Ireland and Papua New Guinea.

At Taca Taca, located in the Salta province of Argentina, the Company is continuing with the project pre-development and feasibility activities, focusing on confirming 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 project, which covers the principal proposed project sites, was submitted to the Secretariat of Mining of Salta Province in February 2019.

At the Haquira project located 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.

Near mine exploration programs are planned during the year at Las Cruces, in Spain, as well as on satellite targets around Kansanshi, in Zambia.

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 0.04 per 200,000 hours worked on average over the 12-month period to September 30, 2019.

2019 MARKET GUIDANCE

Market guidance for production, production costs and capital expenditure for 2019 is unchanged from previously disclosed.

Guidance for three years will be given once a year in February. Guidance for the current year is updated or reaffirmed every quarter.

Guidance is based on a number of assumptions and estimates as of September 30, 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.

Production guidance

000's	2019
Total copper (tonnes) ¹	700 – 735
Copper (tonnes) - Cobre Panama ¹	140 – 175
Copper (tonnes) – excluding Cobre Panama	560
Gold (ounces) – excluding Cobre Panama	185
Zinc (tonnes)	12

¹ Inclusive of pre-commercial production tonnes from Cobre Panama.

Production guidance by operation (excluding Cobre Panama)

Copper

000's tonnes	2019
Kansanshi	235
Sentinel	230
Las Cruces	45
Other sites	50

Gold

000's ounces	2019
Kansanshi	135
Other sites	50

Zinc

000's tonnes	2019
Other sites	12

Cash cost and all-in sustaining cost – including and excluding Cobre Panama

Copper	2019
C1 (per lb)	\$1.20 - \$1.40
AISC (per lb)	\$1.70 - \$1.85

Capital expenditure ¹	2019
Total Cobre Panama project ²	630
Third-party contribution ³	(35)
First Quantum's share of Cobre Panama project ⁴	595
Capitalized stripping	200
Sustaining capital and other projects	650
Total net capital expenditure	1,445

¹ Excludes capitalization of any net pre-commercial production costs, revenue and interest.

² Reflects total capital expenditure estimate of \$6.7 billion.

³ Third-party contributions are from KORES' 10% indirect interest in the project.

⁴ Based on the current 90% ownership.

Guidance on total Cobre Panama project capital expenditure is \$6.7 billion, with forecast expenditure in 2019 expected to be \$630 million.

Guidance for the Company's sustaining capital and other projects includes expenditure relating to Cobre Panama to enable commencement of the expansion to 100 mtpa capacity, incorporating the initial development and engineering work allowing mining to proceed to the Colina Pit. Other projects in 2019 include: the trolley assist expansion at Sentinel, 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.

Pre-commercial operating results are excluded from the above capital expenditure guidance but resulted in a reduction to capital expenditure of \$137 million and \$91 million for the three and nine months ended September 30, 2019, respectively.

Interest

Due to the current level of project capital expenditure, interest has largely been capitalized in the quarter and in previous years. Interest expense of \$146 million and \$549 million was capitalized to the Cobre Panama project for the three and nine months ended September 30, 2019, respectively. From September 1, 2019, the date of declaration of commercial production at Cobre Panama, all interest was expensed to the income statement rather than being capitalized. Interest expense for September was \$64 million. The majority of the Company's interest expense is incurred by Canadian entities, where no tax credit is recognized.

Tax

Excluding the impact of the changes to the Zambian mining tax regime, the sales hedge program, comparative finance charges and the impact of interest expense no longer capitalized following declaration of commercial production at Cobre Panama, the effective tax rate for 2019 is expected to be approximately 30%.

Including the impact of the changes to the Zambian mining tax regime, which increased mineral royalties by 1.5% and made them non-deductible for tax purposes, and excluding the impact of interest being expensed following the declaration of commercial

production at Cobre Panama, the expected effective rate excluding the sales hedge program and comparative finance charges, is approximately 45%.

Depreciation

Depreciation expense for the nine months was \$585 million, with the 2019 full year depreciation expense, excluding Cobre Panama, expected to range between \$800 million and \$825 million.

Cobre Panama depreciation expense commenced in September 2019 following the declaration of commercial production. The depreciation expense was \$32 million for the month of September and is expected to range between \$145 million to \$165 million for the four months ending December 31, 2019.

OPERATING REVIEW

	Three months ended September 30		Nine months ended September 30	
Production Summary	2019	2018	2019	2018
Copper production (tonnes)¹				
Kansanshi	58,888	63,687	171,435	189,742
Sentinel	56,439	56,426	169,132	162,816
Cobre Panama	19,438	-	19,438	-
Las Cruces	9,479	15,181	30,479	52,268
Guelb Moghrein	6,203	7,902	21,400	19,818
Çayeli	3,218	5,056	11,981	13,965
Pyhäsalmi	2,062	2,989	6,309	8,940
Total copper production (tonnes) – commercial	155,727	151,241	430,174	447,549
Cobre Panama – pre-commercial	36,783	-	67,704	-
Total copper production (tonnes) - including pre-commercial	192,510	151,241	497,878	447,549
Total gold production (ounces) – commercial²	56,550	44,979	155,004	137,375
Cobre Panama – pre-commercial	13,570	-	24,120	-
Total gold production (ounces) - including pre-commercial	70,120	44,979	179,124	137,375
Total zinc production (tonnes)	4,429	7,348	14,870	19,120

¹ Production is presented on a contained basis, and is presented prior to processing through the Kansanshi smelter.

² Commercial gold production for the three and nine months ended September 30, 2019, includes 7,914 ounces from Cobre Panama that was declared in commercial production September 1, 2019.

Third quarter

Production at Cobre Panama continued to ramp up and copper production was 82% higher than the previous quarter. Commercial production was declared effective September 1, 2019, and it is the continued expectation that over 80% of the 2019 annual copper production at Cobre Panama will be achieved in the second half of the year.

Copper production was 27% higher than the comparable period of 2018 reflecting the contribution from Cobre Panama in the quarter, offset by lower production at Las Cruces and Kansanshi.

Las Cruces copper production was 38% below the comparable period of 2018 as a result of continued processing of lower grade ore stockpiles prior to the recommencement of mining of high grade ore in July, following the land slippage that halted mining in January 2019. A ball mill failure in September resulted in the loss of several days of production, though mining and processing were fully operational by the end of the quarter.

At Kansanshi, although the sulphide ore grade was higher in the period compared with 2018, it was more than offset by lower oxide ore grades and lower overall recoveries resulting in 8% lower copper production in the quarter. Reduced recoveries were as a result of higher acid-consuming ores processed.

There was a planned two-week maintenance shutdown of the Kansanshi smelter acid plant during the period resulting in a 21% reduction to the volume of copper concentrate treated compared with the same period of 2018. A total of 281,800 DMT of copper concentrate was processed to produce 69,952 tonnes of copper anode and 264,000 tonnes of sulphuric acid.

Lower copper production at Cayeli was attributable to lower throughput and grade. At Guelb Moghrein lower production was the result of a stockpile conveyor failure.

Gold production was 56% higher than the comparable period in 2018 due to Cobre Panama and the benefits from operational enhancements at Kansanshi. This was partially offset by Guelb Moghrein which was impacted by lower throughput and rates of recovery. Cobre Panama produced 21,484 ounces.

Ravensthorpe remained on care and maintenance throughout the quarter following the suspension of operations at the mine in October 2017. Restart activities are expected to fully commence in the fourth quarter ahead of the anticipated recommencement of operations in the first quarter of 2020.

Nine months

Production at Cobre Panama ramped up well during the second and third quarters, and produced 87,142 tonnes of copper in concentrate for the period, including 19,438 tonnes of commercial production in September.

Copper production for the year to date was 11% higher than the comparable period of 2018 due to Cobre Panama and Sentinel, offset by lower production at Kansanshi and Las Cruces.

Copper production at Las Cruces was 42% lower than the comparable period of 2018 due to the interruption to mining activities until July 2019, following the land slippage in January 2019, and the processing of lower grade ore stockpiles instead of higher grade ore from the pit. Production was further impacted by a ball mill failure in September.

Kansanshi copper production was 10% below that of the comparable period in 2018, due to lower ore grades processed on the oxide circuit and lower plant recoveries reported in the oxide and mixed ore circuits. These are reflective of the higher volume of acid-consuming ore mined, depletion of high grade areas and restricted sulphuric acid availability.

Sentinel production was 4% higher than the comparable period in 2018, as a result of the processing of higher ore grade in the first quarter of the year.

Gold production was 30% higher than the comparable period of 2018 as a result of Cobre Panama and Kansanshi.

	Three months ended September 30		Nine months ended September 30	
Sales Volume Summary	2019	2018	2019	2018
Copper sales volume (tonnes)				
Kansanshi ¹	47,138	64,818	161,395	173,502
Sentinel	58,201	59,069	165,010	177,954
Cobre Panama	35,056	-	35,056	-
Las Cruces	10,405	15,138	31,960	53,178
Guelb Moghrein	5,969	5,108	22,036	18,267
Çayeli	2,934	2,753	12,565	8,244
Pyhäsalmi	1,699	2,991	6,433	9,156
Total copper sales (tonnes) – commercial	161,402	149,877	434,455	440,301
Cobre Panama – pre-commercial	42,425	-	48,967	-
Total copper sales volume (tonnes) – including pre-commercial	203,827	149,877	483,422	440,301
Total gold sales volume (ounces) – commercial^{2,3}	55,632	42,864	156,717	139,851
Cobre Panama – pre-commercial ³	16,032	-	18,659	-
Total gold sales volume (ounces) – including pre-commercial³	71,664	42,864	175,376	139,851
Total zinc sales volume (tonnes)	2,297	6,178	13,393	17,844

¹ 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 nine months ended September 30, 2019 (1,465 tonnes to September 30, 2018). There were no sales of copper anode attributable to third-party concentrate purchases in the three months ended September 30, 2019 (1,465 tonnes for the three months ended September 30, 2018).

² Commercial gold sales for the three and nine months ended September 30, 2019, includes 13,074 ounces from Cobre Panama that was declared in commercial production September 1, 2019.

³ Excludes gold delivered to Franco-Nevada.

Sales Summary

Third quarter

Cobre Panama recorded copper and gold sales volumes of 35,056 tonnes and 13,074 ounces, respectively, in the month of September following the declaration of commercial production, effective September 1, 2019.

Commercial copper sales volumes were 8% higher for the quarter than the comparable quarter of 2018, due to Cobre Panama, offset by Las Cruces, where mining activity was interrupted until July and where there was a ball mill failure in September, and lower production at Kansanshi.

Nine months

Commercial copper sales were in line with the same period in 2018, reflecting Cobre Panama and higher sales volumes at Guelb Moghrein. Offsetting these was decreased production at Kansanshi and Las Cruces, as well as the phasing of Sentinel sales.

Unit Cost

Unit Cost Summary	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Copper C1¹ cash cost (\$ per lb)				
Kansanshi ²	\$1.10	\$1.06	\$1.17	\$1.03
Sentinel	\$1.58	\$1.72	\$1.58	\$1.76
Cobre Panama ³	\$1.34	-	\$1.34	-
Las Cruces	\$1.46	\$1.02	\$1.43	\$0.89
Other sites ⁴	\$1.23	\$0.83	\$1.01	\$0.80
Total copper C1 cash cost (\$ per lb)²	\$1.36	\$1.31	\$1.34	\$1.29
Copper AISC¹ (\$ per lb)				
Kansanshi ²	\$1.74	\$1.59	\$1.71	\$1.53
Sentinel	\$2.12	\$2.25	\$2.09	\$2.30
Cobre Panama ³	\$1.56	-	\$1.56	-
Las Cruces	\$1.74	\$1.41	\$1.61	\$1.17
Other sites ⁴	\$1.60	\$1.09	\$1.28	\$1.14
Total copper AISC (\$ per lb)²	\$1.86	\$1.80	\$1.80	\$1.76

¹ Copper production for the three and nine months ended September 30, 2019 includes 36,783 tonnes and 67,704 tonnes, respectively, of pre-commercial production from Cobre Panama, which is not included in C1, C3 and AISC calculations.

² Copper C1 cash cost and AISC for Kansanshi and total copper exclude purchases of copper concentrate from third parties treated through the Kansanshi smelter. Group C1 cash cost and AISC for the three and nine months ended September 30, 2018, have been revised from amounts previously disclosed to exclude the \$0.03 per lb and \$0.01 per lb respective impacts of third-party concentrate purchased. Kansanshi C1 cash cost and AISC for the three and nine months ended September 30, 2018 have been revised from amounts previously disclosed to exclude the following impacts of third-party concentrate purchased: for the three months ended September 30, 2018, \$0.06 per lb for C1 cash cost and \$0.05 per lb for AISC, and for the nine months ended September 30, 2018, \$0.02 per lb for C1 cash cost and AISC.

³ Copper C1 cash cost and AISC for Cobre Panama are calculated from the date of commercial production, September 1, 2019.

⁴ Other sites include Guelb Moghrein, Çayeli and Pyhäsalmi.

Third quarter

Total copper C1 cash cost of \$1.36 per lb in the third quarter includes the impact of one month of commercial production at Cobre Panama from September 1, 2019, of \$1.34 per lb. The increase compared to the same period of 2018 reflects mainly the impact of lower production at Las Cruces and Kansanshi. The lower production at Las Cruces increased its C1 cash cost by \$0.44 per lb and total copper C1 cash cost by \$0.04 per lb. The increase in total C1 cash cost was partially offset by a \$0.14 per lb decrease at Sentinel due to lower fuel, consumables, employee and contractor costs compared to the same period in 2018.

Total AISC of \$1.86 per lb includes AISC at Cobre Panama of \$1.56 per lb from the date of commercial production. Total AISC was \$0.06 per lb higher compared to the same period in 2018. Factors in the increase were the higher C1 cash cost, the timing of sustaining capital expenditure at Kansanshi, and the increased Zambian royalty rate. Lower deferred stripping and sustaining capital expenditure at Las Cruces provided some offset.

Total AISC for 2019 includes 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.

Nine months

Total copper C1 cash cost of \$1.34 per lb in the period includes the impact of one month of commercial production at Cobre Panama from September 1, 2019 of \$1.34 per lb. The higher C1 cash cost reflects lower production at Las Cruces, which resulted in an increase to its C1 cash cost of \$0.54 per lb and increased total copper C1 cash cost by \$0.08 per lb. Total C1 cash cost was further

impacted by lower copper production in the period at Kansanshi. These increases were partially offset by a \$0.18 per lb reduction to Sentinel C1 cash cost due to various cost improvements.

Total AISC of \$1.80 per lb includes AISC at Cobre Panama of \$1.56 per lb from the date of commercial production. Total AISC was \$0.04 per lb higher compared to the same period in 2018. This increase reflects the higher C1 cash cost, higher sustaining capital expenditure at Kansanshi and the increase in royalties in Zambia, with partial offset from lower deferred stripping at Las Cruces and Guelb Moghrein and lower sustaining capital expenditure at Sentinel.

Total AISC for 2019 includes 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

	Three months ended September 30		Nine months ended September 30	
Kansanshi	2019	2018	2019	2018
Sulphide ore milled (000's tonnes) ¹	3,301	3,390	9,697	9,677
Sulphide ore grade processed (%)	0.86	0.72	0.87	0.77
Sulphide copper recovery (%)	92	95	91	91
Mixed ore milled (000's tonnes) ¹	1,939	2,082	5,799	6,021
Mixed ore grade processed (%)	1.02	1.04	1.03	1.05
Mixed copper recovery (%)	81	86	77	84
Oxide ore milled (000's tonnes) ¹	1,918	1,749	5,308	5,248
Oxide ore grade processed (%)	1.04	1.31	1.14	1.48
Oxide copper recovery (%)	85	95	82	88
Copper production (tonnes) ²	58,888	63,687	171,435	189,742
Copper smelter				
Concentrate processed (DMT) ³	281,800	355,435	975,276	1,032,213
Copper anode produced (tonnes) ³	69,952	90,269	237,591	257,143
Smelter copper recovery (%)	97	97	97	97
Acid tonnes produced (000's)	264	319	909	935
Copper sales (tonnes) ^{4, 5}	47,138	64,818	161,395	173,502
Gold production (ounces)	38,925	30,938	109,281	96,554
Gold sales (ounces)	32,022	32,706	101,021	99,274
All-in sustaining cost (AISC) (per lb) ^{6, 7}	\$1.74	\$1.59	\$1.71	\$1.53
Cash costs (C1) (per lb) ^{6, 7}	\$1.10	\$1.06	\$1.17	\$1.03
Total costs (C3) (per lb) ^{6, 7}	\$1.84	\$1.73	\$1.90	\$1.75
Sales revenues	314	434	1,086	1,255
Gross profit	74	146	306	483
Comparative EBITDA ⁶	126	210	473	661

¹ DMT² Production presented on a copper concentrate basis, i.e. mine production only. Production does not include output from the smelter.³ 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 DMT. 1,881 DMT of third-party purchased copper concentrate was treated for the nine months ended September 30, 2019 (2,280 DMT third-party concentrate purchased in the three and nine months to September 30, 2018). There was no third-party purchased concentrate treated for the three months ended September 30, 2019.⁴ Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded. For the nine months ended September 30, 2019, sales of copper anode produced from purchased concentrate were 1,182 tonnes (1,465 tonnes attributable to third-party concentrate purchased to September 30, 2018). There were no sales of copper anode attributable to third-party concentrate purchases in the three months to September 30, 2019 (1,465 tonnes attributable to third-party concentrate purchases for the three months ended September 30, 2018).⁵ Sales include third-party sales of concentrate, cathode and anode attributable to Kansanshi (excluding copper anode sales attributable to Sentinel).⁶ AISC, C1 cash cost, and C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.⁷ Excluding purchases of copper concentrate from third parties treated through the Kansanshi smelter. C1 cash cost, C3 total cost and AISC for the three and nine months ended September 30, 2018, have been revised from amounts previously disclosed to exclude the following impacts of third-party concentrate purchased: for Q3 2018 \$0.06 per lb for C1 cash cost, C3 total cost and \$0.05 per lb for AISC, and for the nine month period \$0.02 per lb for C1 cash cost, C3 total cost and AISC.

Kansanshi Mining Operations

Copper production was 8% lower than the comparable period in 2018, mainly due to lower ore grade on the oxide circuit and lower plant recoveries across all circuits, partially offset by higher ore grade on the sulphide ore circuit. The declining oxide grade was

expected due to the depletion of higher grade areas as the mine ages. Lower oxide ore grade combined with high acid-consuming ore impacted the leach efficiencies and circuit recovery of the oxide circuit. Lower plant recovery on the mixed ore circuit, compared to the same period of 2018, was the result of limited capacity to leach mixed tailings, due to the nature of oxide ore. The high pressure leach unit was in use during this quarter with one autoclave in operation.

Gold production was 26% higher than the same period of 2018, reflecting the impact of operational enhancements achieved through projects commissioned during the previous quarter.

AISC of \$1.74 per lb was \$0.15 per lb higher than the same period in 2018, due to higher sustaining capital expenditure. C1 cash cost was \$0.04 per lb higher than the same period in 2018, mainly reflecting the impact of lower copper production, movements in the value of ore stockpiles processed during the quarter, partially offset by higher by-product credits and lower fuel price.

Sales revenues of \$314 million were 28% lower compared to the same period in 2018, reflecting lower copper sales volumes and lower realized copper prices, excluding the impact of the corporate sales hedge program. These were partially offset by higher realized gold prices.

Gross profit of \$74 million was 49% lower than the same period in 2018, reflecting the decrease in sales revenues, the negative impact of the higher royalty rates introduced by the Zambian government from January 1, 2019, of \$6 million, and movements in the value of ore stockpiles in the quarter.

Nine months

Copper production during the first nine months of the year was 10% lower than the comparable period in 2018, mainly due to lower grade processed through the oxide circuit and lower plant recoveries reported in the oxide and mixed ore circuits, reflecting high acid-consuming ore mined and the restriction of acid consumption to the acid available from the smelter, partially offset by higher throughput and grade on the sulphide circuit.

AISC of \$1.71 per lb was \$0.18 per lb higher than the same period in 2018, due to higher underlying C1 cash cost and sustaining capital expenditure. C1 cash cost was higher than the same period in 2018, mainly on the impact of lower production and movements in the value of ore stockpiles processed during the period.

Sales revenues of \$1,086 million were 13% lower compared to the same period in 2018, reflecting lower realized copper prices, excluding the impact of the corporate sales hedge program, and lower copper sales volumes, partially offset by higher gold sales volumes and realized gold prices. Sales of copper anode attributable to anode produced from third-party purchased concentrate contributed revenues of \$7 million.

Gross profit of \$306 million was 37% lower than the same period in 2018, reflecting the decrease in sales revenues, the negative impact of the higher royalty rates introduced by the Zambian government from January 1, 2019, of \$16 million, and movements in the value of ore stockpiles in the period.

Kansanshi Copper Smelter

Third quarter

In the third quarter of 2019, the smelter treated 281,800 DMT of concentrate, a decrease of 21% from the third quarter of 2018 due to the planned two-week maintenance shutdown of the smelter acid plant in the quarter, and produced 69,952 tonnes of copper in anode and 264,000 tonnes of sulphuric acid. The quality of concentrate treated was 25.9% copper in concentrate grade for the current quarter. The smelter achieved a consistent higher overall copper recovery rate of 97%.

Nine months

In the first nine months of 2019, the smelter treated 975,276 DMT of concentrate, representing a 6% decrease from the first nine months of 2018, and produced 237,591 tonnes of copper in anode and 909,000 tonnes of sulphuric acid.

Outlook

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

Sentinel	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Copper ore processed (000's tonnes) ¹	13,005	12,602	36,473	36,316
Copper ore grade processed (%)	0.47	0.49	0.51	0.49
Copper recovery (%)	91	91	92	91
Copper production (tonnes)	56,439	56,426	169,132	162,816
Copper sales (tonnes)	58,201	59,069	165,010	177,954
All-in sustaining cost (AISC) (per lb) ²	\$2.12	\$2.25	\$2.09	\$2.30
Cash cost (C1) (per lb) ²	\$1.58	\$1.72	\$1.58	\$1.76
Total cost (C3) (per lb) ²	\$2.29	\$2.39	\$2.30	\$2.48
Sales revenues	303	333	918	1,110
Gross profit	40	55	151	216
Comparative EBITDA ¹	110	116	337	412

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Third quarter

Copper production for the quarter was in line with the comparable period of 2018 with higher throughput offset by lower grades processed. Overall mining production was impacted by increased average haul cycle time and distances, as mining activities were carried out deeper in the pit compared to the same period in 2018. This was partially offset by improved average truck fleet availability and reliability during the quarter, as well as increased mining from the shallower stage 2 cutback and the commencement of mining in the east cutback from August. Throughput benefited from higher availability and utilization of the primary crushers and improved grinding efficiency on the mills.

AISC of \$2.12 per lb was \$0.13 per lb lower than the same period of 2018, reflecting lower underlying C1 cash cost, partially offset by the higher Zambian royalty rate. C1 cash cost was \$0.14 per lb lower than the comparable period of 2018, reflecting cost improvements mainly in the areas of fuel, consumables, employees and contractors.

Sales revenues of \$303 million were 9% lower than the same period in 2018 due to lower realized copper prices, excluding the impact of the corporate sales hedge program, and lower sales volumes. Sales revenues comprised sales of both concentrate and anode, with a higher proportion of revenue realized from anode. The decrease in sales revenues flowed through to gross profit and combined with the \$4 million negative impact from the higher royalty rates enacted on January 1, 2019 to produce a 27% lower result than the same period in 2018.

Nine months

Copper production for the nine months ended September 30, 2019, increased by 4% compared to the same period in 2018, as consistent throughput was augmented by higher copper grades and recoveries.

AISC of \$2.09 per lb was \$0.21 per lb lower than the same period of 2018, reflecting lower underlying C1 cash cost and sustaining capital expenditure, partially offset by higher royalties. C1 cash cost was \$0.18 per lb lower than the comparable period of 2018, due to cost improvements mainly in the areas of fuel, consumables, employees and contractors.

Sales revenues of \$918 million were 17% 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 copper concentrate and anode, with a higher proportion of revenue realized from anode. The decrease in sales revenues flowed through to gross profit, which was 30% lower than the same period in 2018, with the negative impact of the higher royalty rates introduced by the Zambian government from January 1, 2019, of \$14 million.

Outlook

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

Copper production is expected to benefit from consistent ore supply and ore feed grades. Mining plan is to continue to focus on operational improvement and fleet reliability with the trolley assist program expansion as well as a major component replacement program on the shovel fleet. Waste stripping in the east cutback is planned to continue throughout 2019.

Ongoing projects include the construction of a fourth in-pit crusher, installation of additional cleaning circuit capacity and continued trolley assist expansion. The fourth in-pit crusher is now expected to be installed and commissioned during the first half of 2021 following a change to the crusher location in order to optimize the future productivity of the crusher.

A planned 4-day annual maintenance shutdown of the plant will take place in the fourth quarter.

Cobre Panama	Three months ended September 30			Nine months ended September 30		
	2019 Post- commercial production	2019 Pre- commercial production	2018	2019 Post- commercial production	2019 Pre- commercial production	2018
Copper ore processed (000's tonnes) ¹	4,437	8,375	-	4,437	17,653	-
Copper ore grade processed (%)	0.49	0.51	-	0.49	0.47	-
Copper recovery (%)	89	86	-	89	85	-
Copper production (tonnes)	19,438	36,783	-	19,438	67,704	-
Copper sales (tonnes)	35,056	42,425	-	35,056	48,967	-
Gold production (ounces)	7,914	13,570	-	7,914	24,120	-
Gold sales (ounces) ²	13,074	16,032	-	13,074	18,659	-
Silver production (ounces)	152,243	269,800	-	152,243	527,341	-
Silver sales (ounces) ²	271,774	350,982	-	271,774	406,135	-
All-in sustaining cost (AISC) (per lb) ³	\$1.56	-	-	\$1.56	-	-
Cash cost (C1) (per lb) ³	\$1.34	-	-	\$1.34	-	-
Total cost (C3) (per lb) ³	\$2.28	-	-	\$2.28	-	-
Sales revenues	210	-	-	210	-	-
Gross profit	36	-	-	36	-	-
Comparative EBITDA ³	67	-	-	67	-	-

¹ DMT

² Excludes gold and silver delivered to Franco-Nevada.

³ AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Three and nine months

Production at Cobre Panama ramped up well during the second and third quarters, in line with expectations and commercial production was declared at Cobre Panama effective September 1, 2019, with 19,438 tonnes and 7,914 ounces of commercial copper and gold production, respectively.

Revenue and operating costs have been recorded for the period from September 1, 2019, to September 30, 2019, in the Statement of Earnings. Comparative financial information has not been presented as all pre-commercial production revenue and costs have been capitalized.

Copper production in the third quarter took a marked step-up and was 56,221 tonnes, including 19,438 tonnes produced subsequent to the declaration of commercial production. During the quarter, 12.8 million tonnes of ore with a grade of 0.51% were processed, and recoveries of 87% were achieved.

By the end of September 2019, there were three SAG mills and four ball mills in operation. The first test smelt of gold doré was performed on September 27, 2019 as part of the commissioning of the gold plant.

Initial post-commercial production AISC and C1 cash cost were \$1.56 per lb and \$1.34 per lb, respectively, in line with expectations.

Sales revenues for the period September 1 to September 30, 2019, post-declaration of commercial production, amounted to \$210 million. Gross profit for the same period was \$36 million. Cobre Panama has dispatched 11 shipments in the nine months ended September 30, 2019, reflecting a total of 84,023 tonnes of contained copper sold. A total of 35,056 tonnes of contained copper were sold in the post-commercial production period.

Outlook

Cobre Panama is on track to produce between 140,000 and 175,000 tonnes of copper in 2019.

The eighth mill is expected to be operational in the fourth quarter of 2019. Throughput is expected to be running at an annualized throughput rate of at least 72 mtpa by the end of 2019, increasing to 85 mtpa during 2020 after the eighth mill is fully ramped up. C1 cash cost in 2022, when the operation is fully ramped up is expected to be \$1.20 per lb and all-in sustaining costs of \$1.50 per lb. By 2023 annual throughput is expected to reach 100 mtpa, through upgrades to the mobile fleet and equipment, resulting in copper production of over 350,000 tonnes per year.

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Las Cruces				
Copper ore processed (000's tonnes) ¹	305	338	990	1,144
Copper ore grade processed (%)	3.73	4.84	3.60	4.93
Copper recovery (%)	83	93	86	93
Copper cathode production (tonnes)	9,479	15,181	30,479	52,268
Copper cathode sales (tonnes)	10,405	15,138	31,960	53,178
All-in sustaining cost (AISC) (per lb) ²	\$1.74	\$1.41	\$1.61	\$1.17
Cash cost (C1) (per lb) ²	\$1.46	\$1.02	\$1.43	\$0.89
Total cost (C3) (per lb) ²	\$3.61	\$2.50	\$3.46	\$2.24
Sales revenues	61	93	194	357
Gross profit (loss)	(20)	11	(45)	97
Comparative EBITDA ²	29	60	96	250

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Third quarter

Copper production for the three months ended September 30, 2019 decreased by 38% compared to the same period in 2018. Following the interruption to mining since the January land slippage, mining activities recommenced following the receipt of the required regulatory approvals in July and first ore was extracted from the pit in August. Prior to the recommencement of mining activities, plant production continued in the third quarter with the processing of lower and higher grade ore stockpiles, and subsequently with a blending of fresh ore extracted from the pit and the stockpile. Reduced plant throughput and recovery have been impacted by challenges caused by sticky ore feed as well as a failure in the ball mill, which resulted in several days of lost production in September. Abnormal wearing of the cylinder inside the ball mill was repaired, and is planned to be replaced in the first quarter of 2020.

AISC of \$1.74 per lb for the last three months ended September 30, 2019 was \$0.33 per lb higher compared to the same period in 2018, reflecting higher underlying C1 cash cost mainly driven by lower cathode production, while lower deferred stripping and sustaining capital expenditure, and cost reduction efforts provided partial offset.

Sales revenues of \$61 million decreased by 34% for the three months ended September 30, 2019, compared with 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 lower sales revenues contributed to a gross loss of \$20 million in the quarter.

Nine months

Copper production for the nine months ended September 30, 2019, decreased by 42% compared to the same period in 2018, resulting from the interruption to mining from the land slippage in January. Mining activities recommenced in July following the receipt of the required regulatory approvals. A remediation plan was implemented during the suspension of mining activities, with continued plant production using available lower and higher grade ore stockpiles until fresh ore was available from the mine in August. Remediation activities are expected to be completed in the fourth quarter. Plant throughput, grade and recovery have been further impacted by problems caused by sticky ore feed as well as the unplanned repair in the ball mill caused by abnormal wear in its cylinder.

AISC of \$1.61 per lb was \$0.44 per lb higher compared to the same period in 2018, mainly due to higher underlying C1 cash cost driven by lower cathode production as a result of land slippage, partially offset by lower deferred stripping, royalties and cost reduction efforts.

Sales revenues of \$194 million decreased by 46% compared with the same period in 2018, due to lower copper cathode sales volumes and realized copper prices, excluding the impact of the corporate sales hedge program. The decrease in revenues contributed to a gross loss of \$45 million in the period.

\$13 million was recognized in the nine months ended September 30, 2019, with regard to the write-off of assets and other costs associated with the mining interruption caused by the land slippage.

Outlook

Copper production for 2019 is expected to be 45,000 tonnes.

Finalizing the remediation of the mine, cost optimization efforts and reduced capital expenditures to compensate for the reduced production volume will continue to be the focus for the remainder of 2019.

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

Guelb Moghrein	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Sulphide ore milled (000's tonnes) ¹	810	902	2,822	2,701
Sulphide ore grade processed (%)	0.88	0.94	0.86	0.82
Sulphide copper recovery (%)	87	94	88	90
Copper production (tonnes)	6,203	7,902	21,400	19,818
Copper sales (tonnes)	5,969	5,108	22,036	18,267
Gold production (ounces)	8,187	11,644	32,646	33,738
Gold sales (ounces)	9,074	8,100	36,531	33,971
Magnetite concentrate production (WMT) ²	106,634	111,765	389,358	328,337
Magnetite concentrate sales (WMT) ²	123,274	61,315	435,667	291,042
All-in sustaining cost (AISC) (per lb) ³	\$1.62	\$1.93	\$1.38	\$1.91
Cash costs (C1) (per lb) ³	\$1.11	\$1.57	\$1.03	\$1.39
Total costs (C3) (per lb) ³	\$1.93	\$2.42	\$1.93	\$2.31
Sales revenues	52	41	193	165
Gross profit	12	1	36	29
Comparative EBITDA ³	19	7	71	53

¹ DMT

² Magnetite concentrate production and sales volumes are measured in wet metric tonnes ("WMT").

³ AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Three and nine months

Copper production for the three and nine months ended September 30, 2019, was 22% lower and 8% higher, respectively, than the same periods in 2018. The decrease in the third quarter was due to lower throughput, primarily due to a two-week shutdown in September for repairs to the stockpile feed conveyor, as well as lower feed grade and recovery. Higher copper production for the nine month period resulted from higher throughput and feed grade.

Gold in concentrate production for the three and nine months ended September 30, 2019, was 30% and 3% lower, respectively, than the same periods in 2018 primarily due to decreased throughput and gold circuit recovery related to higher magnetite content in the feed. Recoveries are expected to improve with the installation of additional gravity gold concentrators.

The magnetite plant produced 5% less and 19% more magnetite concentrate in the three and nine months ended September 30, 2019, respectively, than the same periods in 2018. The lower production in the third quarter was mainly due to lower throughput, partially offset by higher magnetite feed grade. Higher production in the nine month period reflected higher feed grade.

AISC for the three and nine months ended September 30, 2019, were \$0.31 per lb and \$0.53 per lb lower, respectively, than the same periods in 2018, reflecting lower underlying C1 cash cost including higher by-product credits and, for the nine month period, lower deferred stripping costs. C1 cash costs for the three and nine months ended September 30, 2019, were \$0.46 per lb and \$0.36 per lb lower, respectively, than the same periods in 2018, due to lower fuel, contractor and reagent costs. For the nine month period, C1 cash cost and AISC were positively impacted by higher copper production.

Sales revenues for the three and nine months ended September 30, 2019, were 27% and 17% higher, respectively, than the comparable periods of 2018 due to higher copper, gold and magnetite sales volumes, and higher realized prices for gold and

magnetite, partially offset by lower realized copper prices, excluding the impact of the corporate sales hedge program. The increase in sales revenues flowed through to gross profit for the three and nine months ended September 30, 2019.

Outlook

Production in 2019 is expected to be approximately 28,000 tonnes of copper, 47,000 ounces of gold, and 520,000 WMT of magnetite concentrate.

The plan for the fourth quarter of 2019 is to focus on improving gold recovery by installing additional gravity concentrators and steady operations in the milling and flotation circuits.

Shutdowns totalling three days are scheduled for the remainder of 2019, related mainly to the monthly planned maintenance schedule.

Çayeli	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Copper ore milled (000's tonnes) ¹	207	243	680	755
Copper ore grade processed (%)	1.78	2.39	1.99	2.13
Copper recovery (%)	87	87	88	87
Zinc ore grade processed (%)	1.37	1.69	1.37	1.37
Zinc recovery (%)	41	32	36	30
Copper production (tonnes)	3,218	5,056	11,981	13,965
Copper sales (tonnes)	2,934	2,753	12,565	8,244
Zinc production (tonnes)	1,176	1,305	3,356	3,057
Zinc sales (tonnes)	-	-	1,833	2,159
All-in sustaining cost (AISC) (per lb) ²	\$2.12	\$1.45	\$1.71	\$1.56
Cash cost (C1) (per lb) ²	\$1.82	\$1.18	\$1.46	\$1.23
Total cost (C3) (per lb) ²	\$2.83	\$2.05	\$2.39	\$2.14
Sales revenues	13	13	63	48
Gross profit (loss)	(1)	-	11	4
Comparative EBITDA ²	4	5	39	21

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Three and nine months

Copper production for the three and nine months ended September 30, 2019, were 36% and 14% lower, respectively, compared to the same periods in 2018 due to lower throughput as a result of production from fewer mining locations and smaller stope dimensions, as well as lower copper grade.

Zinc production for the nine months ended September 30, 2019, was 10% higher than the comparable period of 2018 due to higher recovery rates achieved. This compares with zinc production for the three months ended September 30, 2019, that was 10% lower than the comparable period in 2018, reflecting lower zinc grade ore processed. Continuous running of the zinc circuit has yielded improved rates of recovery for the three and nine months ended September 30, 2019, compared with 2018.

AISC for the three and nine months ended September 30, 2019, increased by \$0.67 per lb and \$0.15 per lb, respectively, compared to the same periods in 2018, mainly due to higher underlying C1 cash cost, partially offset by lower royalties, and for the nine month

period, lower sustaining capital expenditures compared to the same period in 2018. C1 cash cost for the three and nine months ended September 30, 2019, increased by \$0.64 per lb and \$0.23 per lb, respectively, compared to the same periods in 2018, mainly due to the impact of lower copper production and lower by-product credits.

Sales revenues for the three months ended September 30, 2019, were on par with the same period of 2018, with the increase in copper sales volumes offset by lower realized copper prices excluding the impact of the corporate sales hedge program. Sales revenue for the nine months ended September 30, 2019, were \$15 million higher compared to the same period in 2018 due to higher copper sales volumes, partially offset by lower realized copper prices excluding the impact of the corporate sales hedge program.

Outlook

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

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	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Copper ore milled (000's tonnes) ¹	248	320	836	936
Copper ore grade processed (%)	0.90	0.98	0.85	1.00
Copper recovery (%)	94	95	89	96
Zinc ore grade processed (%)	1.50	2.07	1.54	1.89
Zinc recovery (%)	88	91	90	91
Copper production (tonnes)	2,062	2,989	6,309	8,940
Copper sales (tonnes)	1,699	2,991	6,433	9,156
Zinc production (tonnes)	3,253	6,043	11,514	16,063
Zinc sales (tonnes)	2,297	6,178	11,560	15,685
Pyrite production (tonnes)	127,960	171,355	432,957	477,004
Pyrite sales (tonnes)	90,619	100,894	312,507	321,072
All-in sustaining cost (AISC) (per lb) ²	\$0.64	(\$0.48)	\$0.08	(\$0.41)
Cash cost (C1) (per lb) ²	\$0.61	(\$0.48)	\$0.05	(\$0.41)
Total cost (C3) (per lb) ²	\$1.62	\$1.67	\$1.61	\$1.74
Sales revenues	16	34	73	110
Gross profit	6	9	22	31
Comparative EBITDA ²	10	21	43	71

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Three and nine months

Copper production was 31% and 29% lower in the three and nine months ended September 30, 2019, respectively, due to lower throughput, lower copper grade and, for the nine month period, lower copper recovery. Zinc production in the three and nine months ended September 30, 2019, decreased by 46% and 28%, respectively, compared to the same periods in 2018 due to lower throughput and lower zinc grade.

AISC of \$0.64 per lb and \$0.08 per lb for the three and nine months ended September 30, 2019, were higher than the comparable periods of 2018, due to higher C1 cash cost, which reflected lower by-product credits and the impact of lower copper production.

Sales revenues for the three and nine months ended September 30, 2019, were 53% and 34% lower, respectively, than the comparable periods of 2018, reflecting lower sales volumes and lower realized metal prices, excluding the impact of the corporate sales hedge program.

Outlook

The life of the mine has been extended into 2020 with an assumed lower copper cut-off grade. Production guidance for the year was set as 5,000 tonnes of copper, 3,000 ounces of gold and 10,000 tonnes of zinc. Due to the mine life extension, guidance has been exceeded. The operation is expected to produce 550,000 tonnes of pyrite.

Planned shutdown periods for the remainder of 2019 include 17 days in the fourth quarter.

Ravensthorpe

Ravensthorpe remains in care and maintenance. Operational readiness work continued during the third quarter in preparation for a restart of operations in the first quarter of 2020. Critical refurbishment work in the atmospheric leach circuit was completed during the quarter and the focus is now on the crushing, beneficiation and pressure acid leaching circuits. Care and maintenance costs in the third quarter and nine months of 2019 were \$6 million and \$15 million, respectively.

Outlook

It is expected that the mining contracts will be confirmed by the end of the year and restart work is anticipated to ramp up throughout the fourth quarter ahead of expected first nickel and cobalt production during the first quarter of 2020.

The capital works program to bring Shoemaker Levy into production continues, with first ore to the plant scheduled for early 2021.

SALES REVENUES

		Three months ended September 30		Nine months ended September 30	
		2019	2018	2019	2018
Kansanshi	- copper	265	392	939	1,120
	- gold	45	36	132	119
	- acid	4	6	15	16
Sentinel	- copper	303	333	918	1,110
Cobre Panama	- copper	178	-	178	-
	- gold	26	-	26	-
	- other	6	-	6	-
Las Cruces	- copper	61	93	194	357
Guelb Moghrein	- copper	30	27	115	106
	- gold	12	9	46	41
	- magnetite	10	5	32	18
Çayeli	- copper	13	13	59	43
	- zinc, gold and silver	-	-	4	5
Pyhäsalmi	- copper	9	16	35	53
	- zinc	2	10	21	34
	- pyrite, gold and silver	5	8	17	23
Corporate ¹		18	30	46	(133)
Sales revenues ²		987	978	2,783	2,912
	Copper	877	904	2,483	2,653
	Gold	86	47	210	167
	Zinc	2	10	24	38
	Other	22	17	66	54
		987	978	2,783	2,912

¹ Corporate sales include sales hedges (see "Hedging programs" for further discussion).

² The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019. Pre-commercial sales revenues attributable to Cobre Panama are capitalized and are excluded from earnings.

Three month review of sales revenues

Overall sales revenues were 1% higher than comparable period in 2018 including Cobre Panama, which was declared in commercial production September 1, 2019, and contributed \$210 million in sales revenues during the quarter. Lower copper revenues with an 8% lower realized copper price and lower zinc sales were offset by higher gold and magnetite sales.

The lower realized copper price reduced revenues by \$72 million compared with the same period of 2018, partially offset by the impact of increased sales volumes of \$58 million. In addition, the copper sales hedge program contributed \$18 million to revenues compared with \$31 million in the corresponding period of 2018.

Kansanshi sales revenues were \$120 million lower compared with the same period in 2018, due mainly to lower copper sales volumes as a result of decreased production, and lower realized copper prices. Sales revenues were 34% lower at Las Cruces than the corresponding period of 2018, reflecting lower copper sales volumes due to the reduced production following the suspension of mining between January and July 2019 and the ball mill failure in September 2019.

Gold revenues, including Cobre Panama, which contributed gold revenues of \$26 million subsequent to the declaration of commercial production, were 83% higher than the comparable period of 2018, as a result of increased gold sales volumes and a higher realized

gold price. Magnetite sales revenues by Guelb Moghrein and post-commercial production silver sales revenues from Cobre Panama offset decreased zinc revenues, attributable to lower sales volumes, and reduced acid sales resulting from the planned Kansanshi smelter acid plant shutdown.

Nine month review of sales revenues

Sales revenues of \$2,783 million for the year to date, including \$210 million in September at Cobre Panama, compared with \$2,912 million in the comparable period of 2018, as a result of a decrease to copper sales revenues, partially offset by increased gold sales revenues, which included \$26 million gold sales revenues from Cobre Panama.

Commercial copper sales volumes were in line with the comparable period of 2018. Cobre Panama contributed 35,056 tonnes to copper sales volumes in September following declaration of commercial production. Offsetting this were decreases in sales volumes by Las Cruces attributable to lower production following the interruption to mining between January and July 2019 and the ball mill failure in September 2019, as well as lower sales volumes at Kansanshi and Sentinel.

Compared with the corresponding nine month period of 2018, the realized copper price was 4% lower as the average LME price of copper was 9% lower compared to the same period in 2018. The copper sales hedge program contributed \$45 million to revenues compared with a \$135 million loss in 2018.

REALIZED PRICES

	Three months ended September 30		Nine months ended September 30	
Copper selling price (per lb)	2019	2018	2019	2018
Average LME cash price	\$2.63	\$2.77	\$2.74	\$3.01
Realized copper price	\$2.62	\$2.84	\$2.73	\$2.85
Treatment/refining charges ("TC/RC") and freight charges	(\$0.16)	(\$0.13)	(\$0.14)	(\$0.13)
Net realized copper price	\$2.46	\$2.71	\$2.59	\$2.72

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 copper sales hedging program added \$18 million and \$45 million to sales revenues for the quarter and the nine months, respectively. The impact on net realized copper price was an increase of \$0.05 per lb for both the quarter and the nine months.

Details of the Company's hedging program and the contracts held are included on page 34.

SUMMARY FINANCIAL RESULTS¹

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Gross profit (loss)				
Kansanshi	74	146	306	483
Sentinel	40	55	151	216
Cobre Panama	36	-	36	-
Las Cruces	(20)	11	(45)	97
Guelb Moghrein	12	1	36	29
Çayeli	(1)	-	11	4
Pyhäsalmi	3	9	19	31
Ravensthorpe	(8)	(5)	(20)	(12)
Corporate ²	14	29	37	(150)
Total gross profit	150	246	531	698
Exploration	(4)	(6)	(12)	(19)
General and administrative	(21)	(20)	(57)	(55)
Other income (expense)	(17)	(79)	(57)	(75)
Net finance expense	(59)	(5)	(61)	(12)
Loss on partial redemption of senior notes	-	-	(25)	-
Finance charge on discounting of Zambian VAT	(160)	-	(160)	-
Income tax credit (expense)	33	(66)	(87)	(242)
Net earnings (loss)	(78)	70	72	295
Net earnings (loss) attributable to:				
Non-controlling interests	(5)	9	14	52
Shareholders of the Company	(73)	61	58	243
Comparative earnings	32	128	214	305
Earnings (loss) per share				
Basic	(\$0.11)	\$0.09	\$0.08	\$0.35
Diluted	(\$0.11)	\$0.09	\$0.08	\$0.35
Comparative	\$0.05	\$0.19	\$0.31	\$0.44
Basic weighted average number of shares (in 000's)	688,425	687,108	687,556	686,649

¹ The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019. Pre-commercial production operating results attributable to Cobre Panama are capitalized and are excluded from earnings.

² Corporate gross profit (loss) relates primarily to the sales hedge contracts.

Third quarter

Gross profit for the quarter of \$150 million including Cobre Panama, which contributed \$36 million following the declaration of commercial production on September 1, 2019, was 39% lower than the comparable quarter of 2018. Gross profit in the quarter was impacted by a lower realized copper price and lower Las Cruces and Kansanshi production. The depreciation charge for Cobre Panama, inclusive of inventory movements, in the first month of commercial production was \$32 million.

Included within other expense in the quarter is a \$12 million foreign exchange loss, mainly attributable to the depreciation of the Zambian kwacha against the US dollar and the impact on the locally denominated VAT balances due to Kansanshi and Sentinel, compared with a \$74 million loss in the comparable period of 2018. Sentinel and Guelb Moghrein recognized losses on disposal of assets of \$8 million. A \$3 million modification gain was recognized in the quarter on the senior revolving credit facility, as a result of adjustments to the timings of drawdowns on the senior revolving credit facility.

Following the declaration of commercial production, effective September 1, 2019, at Cobre Panama, and in the absence of any major project capital expenditure, an interest expense of \$64 million for the month of September was recognized.

Net loss of \$78 million included a finance charge of \$160 million with respect to the discounting of Zambian VAT balances. Also included is a tax credit of \$33 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 modification gain on the senior revolving credit facility.

Nine month review of financial results

Including the impact of Cobre Panama which contributed \$36 million to gross profit following the declaration of commercial production on September 1, 2019, the 24% decrease in gross profit for the period compared with the same period for 2018 is principally attributable to lower net realized copper prices.

Contributing to the reduction in gross profit for the period were lower sales volumes attributable to the impact of the interruption to mining at Las Cruces from January until July 2019, together with lower Kansanshi production. This was partially offset by lower operating costs at Sentinel as well as decreased depreciation at Pyhäsalmi due to the extension of the mine life.

Included within other expense in the period is a \$49 million foreign exchange loss, due mainly to the depreciation of the Zambian kwacha against the US dollar and the impact on the VAT balances due to Kansanshi and Sentinel, compared with a \$77 million loss in the comparable period of 2018. Also reflected in other expense is a \$13 million write-off of assets and other costs that were recognized following the mining interruption at Las Cruces caused by the land slippage in January 2019, and losses on disposal of assets of \$11 million.

Net finance expense includes modification gains totalling \$6 million that were recognized in the second and third quarters on the senior revolving credit facility, as a result of adjustments to the timings of drawdowns on the facility. A \$25 million loss on partial redemption of the Company's 7.00% Notes due February 2021, was recognized in the first quarter of 2019.

Net earnings of \$72 million included a finance charge of \$160 million with respect to the discounting of Zambian VAT balances. Also included is a tax expense of \$87 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, the modification gains on the senior revolving credit facility, or the loss on partial redemption of the senior notes.

The effective tax rate, excluding the sales hedge program, comparative finance charges, and the impact of Zambian mining tax regime changes effective January 1, 2019, which increased mineral royalties by 1.5% and made them non-deductible for tax, and the impact of interest that would previously have been eligible for capitalization but is now expensed following declaration of commercial production at Cobre Panama on September 1, 2019, was approximately 25%. The effective tax rate, including the impact of the Zambian mining tax regime changes effective January 1, 2019, and including interest expense for the month of September was approximately 40%.

LIQUIDITY AND CAPITAL RESOURCES

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Cash flows from operating activities	151	439	489	1,642
Cash flows from (used by) investing activities				
Payments and deposits for property, plant and equipment	(270)	(523)	(1,130)	(1,537)
Capitalized borrowing costs paid in cash	(101)	(198)	(388)	(392)
Acquisition of KPMC	-	-	-	(105)
Other investing activities	2	6	14	11
Cash flows from (used by) financing activities				
Net movement in debt and trading facilities	(122)	318	680	535
Early redemption costs on senior notes	-	-	(14)	-
Other financing activities	(56)	31	(33)	(87)
Exchange gains (losses) on cash and cash equivalents	-	(2)	-	(16)
Net cash inflow (outflow)	(396)	71	(382)	51
Cash balance	406	753	406	753
Total assets	24,453	22,864	24,453	22,864
Total current liabilities	2,081	1,487	2,081	1,487
Total long-term liabilities	11,614	10,850	11,614	10,850
Net debt ¹	7,579	6,116	7,579	6,116
Cash flows from operating activities per share ¹	\$0.22	\$0.64	\$0.71	\$2.39

¹ Cash flows per share and Net debt are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Cash flows from operating activities in the quarter excluding \$89 million received from Franco-Nevada under the precious metal stream agreement in the comparable period of 2018, were \$199 million lower in the current period, largely due to a \$115 million reduction in cash generated from operations and \$80 million unfavourable movement in working capital.

The total VAT receivable accrued by the Company's Zambian operations at September 30, 2019, was \$412 million, of which \$246 million relates to Kansanshi. A finance charge of \$25 million had previously been recognized to reflect the impact of discounting the balance over the expected timeframe to repayment. A further \$160 million finance charge was recognized in the quarter ended September 30, 2019, representing the discounting of all Zambian VAT balances over the expected timeframe to repayment, using a Zambian kwacha risk-free rate. 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 \$120 million) made by Kansanshi prior to this date remain outstanding. 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.

	September 30, 2019	December 31, 2018
Zambian VAT		
Receivable at date of claim	823	645
Impact of depreciation of Zambian kwacha against US\$	(226)	(177)
	597	468
Impact of discounting non-current portion	(185)	(25)
Total receivable	412	443
<i>Comprising:</i>		
Current portion, included within trade and other receivables	-	334
Non-current VAT receivable	412	109

Cash flows used by investing activities in the third quarter of 2019 included capital expenditure of \$270 million compared to \$523 million for the same period in 2018, inclusive of \$183 million project capital expenditure. Interest capitalized to property, plant and equipment, and paid in the quarter amounted to \$101 million compared with \$198 million in 2018.

Following the declaration of commercial production at Cobre Panama, effective September 1, 2019, and the cessation of capitalization, interest paid is included within cash flows from financing activities.

Cash outflows from financing activities of \$178 million included net repayments of debt of \$122 million and interest paid of \$89 million.

Liquidity outlook

At September 30, 2019, the Company had \$470 million of committed undrawn facilities, \$406 million in net unrestricted cash, and current working capital of \$960 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 September 30, 2019, and expects to remain in compliance throughout the next 12 months.

The company continuously manages its capital structure and assesses its liquidity and financing sources regularly. Pricing, covenant flexibility and prevailing market conditions are all among considerations that are analyzed when assessing the Company's funding sources. The Company may issue new senior notes or purchase, tender for, redeem or satisfy and discharge its existing senior notes, from time to time.

At September 30, 2019, the Company had total commitments of \$208 million, of which \$194 million related to the 12 months following the period end.

Contractual and other obligations as at September 30, 2019, are as follows:

	Carrying value	Contractual cashflows	< 1 year	1 – 3 years	3 – 5 years	Thereafter
Debt – principal repayments	7,766	8,025	351	2,339	3,235	2,100
Debt – finance charges	-	2,069	541	937	447	144
Trading facilities	219	219	219	-	-	-
Trade and other payables	570	570	570	-	-	-
Derivative instruments	26	26	26	-	-	-
Liability to joint venture ¹	1,179	1,686	-	-	-	1,686
Joint venture consideration	278	300	100	200	-	-
Current taxes payable	129	129	129	-	-	-
Deferred payments	42	42	4	8	8	22
Lease liabilities	32	37	13	11	7	6
Commitments	-	208	194	9	4	1
Restoration provisions	584	1,048	5	90	59	894

¹ Refers to distributions to KPMC, a joint venture that holds a 20% non-controlling interest in MPSPA 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.

	September 30, 2019	December 31, 2018
Commodity contracts		
Asset position	27	43
Liability position	(26)	(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 ramps up to commercial production, while maintaining compliance with financial covenants.

At October 28, 2019, the Company has 50,000 tonnes of unmargined zero cost copper collar sales contracts with maturities to February 2020 at weighted average prices of \$2.65 per lb to \$2.81 per lb. In addition, the Company has 37,500 tonnes of unmargined copper forward sales contracts at an average price of \$2.66 per lb outstanding with periods of maturity to December 2019. The Company also has unmargined nickel forward sales contracts for 12,046 tonnes at an average price of \$6.77 per lb outstanding with maturities to February 2021.

Approximately a third of remaining expected copper sales in 2019, are hedged to unmargined forward and zero cost collar sales contracts, at an average floor price of \$2.65 per lb.

A gain of \$18 million for settled hedges was realized through copper sales revenues in the quarter. Fair value losses of \$32 million and \$10 million have been recognized on derivative instruments in designated hedge relationships through accumulated other comprehensive income for the three and nine months ended September 30, 2019, respectively.

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 September 30, 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	121,462	\$2.62/lb	\$2.60/lb	January 2020
Gold	25,170	\$1,523/oz	\$1,485/oz	November 2019
Zinc	250	\$1.04/lb	\$1.08/lb	November 2019
Commodity contracts:				
Copper	119,800	\$2.62/lb	\$2.60/lb	January 2020
Gold	25,169	\$1,523/oz	\$1,485/oz	November 2019
Zinc	250	\$1.04/lb	\$1.08/lb	November 2019

As at September 30, 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 689,401,007 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 \$599 million investment in the joint venture, representing the discounted consideration value, adjusted for the Company's proportionate share of the profit or loss in KPMC. 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 similar 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 ("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 \$424.54/oz gold and \$6.36/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 \$424.54/oz for gold and \$6.36/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. The Company recognized the first delivery obligation to Franco-Nevada under the terms of the arrangement in June 2019 following the first sale of copper concentrate.

SUMMARY OF RESULTS

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

Consolidated operations	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Sales revenues</i>											
Copper	\$785	\$2,802	\$798	\$951	\$904	\$963	\$3,616	\$770	\$836	\$877	\$2,483
Nickel	8	148	-	-	-	-	-	-	-	-	-
Gold	53	236	61	59	47	61	228	57	67	86	210
Zinc and other elements	39	124	26	39	27	30	122	30	36	24	90
Total sales revenues	885	3,310	885	1,049	978	1,054	3,966	857	939	987	2,783
Gross profit	117	335	181	271	246	280	978	185	196	150	531
Comparative EBITDA	318	1,154	363	466	427	481	1,737	368	376	354	1,098
Net earnings (loss) attributable to shareholders of the Company	(115)	(316)	47	135	61	198	441	53	78	(73)	58
Comparative earnings (loss)	(36)	(111)	49	128	128	182	487	95	87	32	214
Basic earnings (loss) per share	(\$0.17)	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64	\$0.08	\$0.11	(\$0.11)	\$0.08
Comparative earnings (loss) per share	(\$0.05)	(\$0.16)	\$0.07	\$0.19	\$0.19	\$0.26	\$0.71	\$0.14	\$0.13	\$0.05	\$0.31
Diluted earnings (loss) per share	(\$0.17)	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64	\$0.08	\$0.11	(\$0.11)	\$0.08
Dividends declared per common share (CDN\$ per share)	-	\$0.010	\$0.005	-	\$0.005	-	\$0.010	\$0.005	-	\$0.005	\$0.010
Basic weighted average shares ('000's) ¹	686,402	685,936	686,387	686,423	687,108	687,074	686,747	687,100	687,130	688,425	687,556
Cash flows per share from operating activities	\$0.30	\$1.33	\$1.16	\$0.59	\$0.64	\$0.49	\$2.88	\$0.23	\$0.26	\$0.22	\$0.71
<i>Copper statistics</i>											
Total copper production (tonnes) ²	154,319	573,963	145,358	150,950	151,241	158,304	605,853	136,969	168,399	192,510	497,878
Total copper sales (tonnes)	151,905	580,130	138,021	152,403	149,877 ²	156,212 ²	596,513²	130,262 ²	149,333 ²	203,827 ²	483,422²
Realized copper price (per lb)	\$2.50	\$2.33	\$2.74	\$2.95	\$2.84	\$2.83	\$2.84	\$2.79	\$2.80	\$2.62	\$2.73
TC/RC (per lb)	(0.08)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.10)	(0.12)	(0.10)
Freight charges (per lb)	(0.08)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)
Net realized copper price (per lb)	\$2.34	\$2.19	\$2.62	\$2.83	\$2.71	\$2.69	\$2.71	\$2.66	\$2.66	\$2.46	\$2.59
Cash cost – copper (C1) (per lb) ³	\$1.30	\$1.23	\$1.27	\$1.28	\$1.31	\$1.23	\$1.28	\$1.34	\$1.32	\$1.36	\$1.34
All-in sustaining cost (AISC) (per lb) ³	\$1.76	\$1.65	\$1.72	\$1.76	\$1.80	\$1.68	\$1.74	\$1.77	\$1.77	\$1.86	\$1.80
Total cost – copper (C3) (per lb) ³	\$2.19	\$2.06	\$2.16	\$2.11	\$2.11	\$2.04	\$2.11	\$2.21	\$2.17	\$2.20	\$2.19
<i>Nickel statistics</i>											
Nickel produced (contained tonnes)	-	17,837	-	-	-	-	-	-	-	-	-
Nickel sales (contained tonnes)	865	18,683	-	-	-	-	-	-	-	-	-
Nickel produced (payable tonnes)	-	13,694	-	-	-	-	-	-	-	-	-
Nickel sales (payable tonnes)	674	14,338	-	-	-	-	-	-	-	-	-
Realized nickel price (per payable lb)	\$5.37	\$4.67	-	-	-	-	-	-	-	-	-
TC/RC (per payable lb)	-	-	-	-	-	-	-	-	-	-	-
Net realized price (per payable lb)	\$5.37	\$4.67	-	-	-	-	-	-	-	-	-
Cash cost – (C1) (per lb)	\$(0.61)	\$4.45	-	-	-	-	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$(0.51)	\$5.29	-	-	-	-	-	-	-	-	-
Total cost – nickel (C3) (per lb)	\$(0.51)	\$6.17	-	-	-	-	-	-	-	-	-
<i>Gold statistics</i>											
Total gold production (ounces)	51,904	199,736	45,929	46,467	44,979	48,039	185,414	49,357	59,647	70,120	179,124
Total gold sales (ounces) ⁴	50,723	201,376	48,815	48,172	42,864	53,221	193,072	46,790	56,922	71,664	175,376
Net realized gold price (per ounce)	\$1,055	\$1,174	\$1,249	\$1,227	\$1,086	\$1,151	\$1,181	\$1,226	\$1,235	\$1,388	\$1,287
<i>Zinc statistics</i>											
Zinc production (tonnes)	3,556	20,723	5,227	6,545	7,348	7,687	26,807	6,318	4,123	4,429	14,870
Zinc sales (tonnes)	3,282	21,851	4,810	6,856	6,178	8,268	26,112	6,646	4,450	2,297	13,393

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

² Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded.

³ Copper production includes production from Cobre Panama of 56,221 tonnes and 87,142 tonnes for the three and nine months ended September 30, 2019, respectively, of which 19,438 tonnes are commercial (nil production to September 30, 2018). Copper sales include sales from Cobre Panama of 77,481 tonnes and 84,023 tonnes for the three and nine months ended September 30, 2019, respectively (nil sales to September 30, 2018), of which 35,056 tonnes are commercial. Pre-commercial production and sales volumes and operating results at Cobre Panama are not included in earnings or C1, C3 and AISC calculations.

⁴ Excludes gold delivered to Franco-Nevada

Kansanshi statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Mining</i>											
Waste mined (000's tonnes)	8,707	55,255	10,941	14,692	13,175	9,911	48,719	10,249	12,210	17,232	39,691
Ore mined (000's tonnes)	10,478	36,603	9,846	10,082	9,631	8,922	38,481	7,363	11,252	8,995	27,610
<i>Processing</i>											
Sulphide ore processed (000's tonnes)	3,298	12,970	3,182	3,105	3,390	3,301	12,978	3,084	3,312	3,301	9,697
Sulphide ore grade processed (%)	0.76	0.75	0.79	0.81	0.72	0.81	0.78	0.90	0.85	0.86	0.87
Sulphide ore recovery (%)	94	91	88	91	95	88	91	89	91	92	91
Sulphide concentrate grade (%)	21.8	22.2	22.5	23.2	23.3	22.1	22.8	21.5	21.7	23.3	22.1
Mixed ore processed (000's tonnes)	2,012	7,997	2,009	1,930	2,082	2,165	8,186	1,870	1,990	1,939	5,799
Mixed ore grade processed (%)	0.99	1.05	1.16	0.93	1.04	1.08	1.06	1.00	1.06	1.02	1.03
Mixed ore recovery (%)	88	85	81	87	86	76	82	75	74	81	77
Mixed concentrate grade (%)	27.7	30.4	30.3	25.7	31.2	29.9	29.3	25.7	26.5	28.8	27.0
Oxide ore processed (000's tonnes)	1,811	6,916	1,791	1,708	1,749	1,668	6,916	1,534	1,856	1,918	5,308
Oxide ore grade processed (%)	1.51	1.51	1.59	1.53	1.31	1.33	1.44	1.14	1.24	1.04	1.14
Oxide ore recovery (%)	89	87	80	92	95	92	89	87	76	85	82
Oxide concentrate grade (%)	29.8	31.3	32.2	28.9	27.8	28.5	29.4	25.0	26.3	27.7	26.4
Copper cathode produced (tonnes)	23,874	78,742	22,514	18,528	16,303	15,049	72,394	10,705	11,325	11,526	33,556
Copper in concentrate produced (tonnes)	40,926	172,059	41,071	43,942	47,384	46,731	179,128	43,208	47,309	47,362	137,879
Total copper production (tonnes)	64,800	250,801	63,585	62,470	63,687	61,780	251,522	53,913	58,634	58,888	171,435
Gold produced (ounces)	36,363	140,595	32,080	33,536	30,938	33,465	130,019	34,743	35,613	38,925	109,281
<i>Smelting¹</i>											
Concentrate processed (DMT) ¹	348,283	1,211,740	350,591	326,187	355,435	349,424	1,381,637	342,307	351,169	281,800	975,276
Copper anodes produced (tonnes) ¹	83,281	297,553	86,777	80,097	90,269	89,894	347,037	83,134	84,505	69,952	237,591
Smelter copper recovery (%)	97	96	97	97	97	97	97	97	97	97	97
Acid tonnes produced (000's)	325	1,128	325	291	319	320	1,255	322	323	264	909
<i>Cash Costs (per lb)</i>											
Mining	\$0.54	\$0.54	\$0.56	\$0.58	\$0.52	\$0.53	\$0.55	\$0.64	\$0.64	\$0.68	\$0.66
Processing	0.46	0.49	0.49	0.49	0.47	0.49	0.49	0.58	0.49	0.50	0.53
Site administration ²	0.07	-	0.08	0.09	0.10	0.11	0.09	0.11	0.10	0.10	0.10
TC/RC and freight charges	0.18	0.18	0.14	0.14	0.14	0.14	0.14	0.16	0.18	0.14	0.16
By-product credits	(0.21)	(0.27)	(0.36)	(0.38)	(0.27)	(0.33)	(0.34)	(0.38)	(0.38)	(0.46)	(0.41)
Total smelter costs	0.12	0.11	0.09	0.10	0.10	0.10	0.10	0.13	0.12	0.14	0.13
Cash cost (C1) (per lb)	\$1.16	\$1.05	\$1.00	\$1.02	\$1.06	\$1.04	\$1.03	\$1.24	\$1.15	\$1.10	\$1.17
All-in sustaining cost (AISC) (per lb)	\$1.55	\$1.54	\$1.46	\$1.55	\$1.59	\$1.61	\$1.55	\$1.73	\$1.66	\$1.74	\$1.71
Total cost (C3) (per lb)	\$1.86	\$1.71	\$1.82	\$1.70	\$1.73	\$1.71	\$1.74	\$1.98	\$1.87	\$1.84	\$1.90
<i>Revenues (\$ millions)</i>											
Copper cathodes	\$164	\$481	\$145	\$128	\$97	\$82	\$452	\$57	\$71	\$65	\$193
Copper anode	303	972	194	251	295	289	1,029	245	252	200	697
Copper in concentrates	21	121	10	-	-	-	10	17	32	-	49
Gold	37	166	42	41	36	41	160	39	48	45	132
Acid	-	-	2	8	6	5	21	6	5	4	15
Total sales revenues	\$525	\$1,740	\$393	\$428	\$434	\$417	\$1,672	\$364	\$408	\$314	\$1,086
Copper cathode sales (tonnes)	24,660	79,735	21,334	19,172	16,461	13,698	70,665	9,452	12,160	11,412	33,024
Copper anode sales (tonnes) ³	46,480	163,560	28,846	37,828	48,357	42,632	157,663	40,220	42,610	35,726	118,556
Copper in concentrate sales (tonnes)	3,834	24,405	1,504	-	-	-	1,504	3,361	6,454	-	9,815
Total copper sales (tonnes)	74,974	267,700	51,684	57,000	64,818	56,330	229,832	53,033	61,224	47,138	161,395
Gold sales (ounces)	35,910	139,735	33,666	32,902	32,706	35,616	134,890	31,082	37,917	32,022	101,021

¹ Concentrate processed in smelter and copper anodes produced are disclosed on a 100% basis, inclusive of Sentinel and third-party concentrate processed.² Includes movements in previously recognized operational provisions in 2017 that are not expected to continue in future periods.³ Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded.

Sentinel statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
Mining											
Waste mined (000's tonnes)	21,853	88,495	21,611	23,744	25,931	24,321	95,607	19,335	23,609	24,970	67,914
Ore mined (000's tonnes)	12,039	44,644	10,172	11,996	11,334	12,016	45,518	11,507	12,017	12,704	36,228
Processing											
Copper ore processed (000's tonnes)	11,834	42,087	11,735	11,979	12,602	12,434	48,750	11,581	11,887	13,005	36,473
Copper ore grade processed (%)	0.54	0.52	0.47	0.51	0.49	0.53	0.50	0.54	0.50	0.47	0.51
Recovery (%)	90	87	91	92	91	92	91	92	92	91	92
Copper in concentrate produced (tonnes)	57,190	190,683	50,310	56,080	56,426	60,840	223,656	57,716	54,977	56,439	169,132
Concentrate grade (%)	24.2	24.4	24.9	25.6	25.3	24.5	25.0	26.9	26.5	26.3	26.6
Cash Costs (per lb)											
Mining	\$0.66	\$0.67	\$0.71	\$0.62	\$0.61	\$0.42	\$0.58	\$0.55	\$0.51	\$0.47	\$0.52
Processing	0.57	0.62	0.68	0.66	0.65	0.68	0.67	0.61	0.61	0.61	0.61
Site administration	0.03	0.05	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.13	0.10
TC/RC and freight charges	0.27	0.22	0.21	0.23	0.25	0.24	0.23	0.23	0.23	0.28	0.25
Total smelter costs	0.14	0.14	0.13	0.13	0.11	0.11	0.12	0.12	0.11	0.09	0.10
Cash cost (C1) (per lb)	\$1.67	\$1.70	\$1.83	\$1.74	\$1.72	\$1.55	\$1.70	\$1.60	\$1.55	\$1.58	\$1.58
All-in sustaining cost (AISC) (per lb)	\$2.36	\$2.19	\$2.36	\$2.29	\$2.25	\$2.02	\$2.22	\$2.07	\$2.06	\$2.12	\$2.09
Total cost (C3) (per lb)	\$2.49	\$2.45	\$2.60	\$2.46	\$2.39	\$2.26	\$2.42	\$2.34	\$2.29	\$2.29	\$2.30
Revenues (\$ millions)											
Copper anode	\$213	\$851	\$328	\$321	\$254	\$266	\$1,169	\$237	\$251	\$198	\$686
Copper in concentrates	\$68	\$175	\$57	\$71	\$79	\$78	\$285	\$59	\$68	\$105	\$232
Total sales revenues	\$281	\$1,026	\$385	\$392	\$333	\$344	\$1,454	\$296	\$319	\$303	\$918
Copper anode sales (tonnes)	32,026	142,394	48,227	47,947	42,557	44,641	183,372	38,815	42,410	35,087	116,312
Copper concentrate sales (tonnes)	12,741	34,966	10,115	12,596	16,512	15,616	54,839	12,372	13,212	23,114	48,698

in United States dollars, tabular amounts in millions, except where noted

Cobre Panama statistics	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19 ¹	Q3 19 ¹	2019
							Pre-commercial production	Post- commercial production	
<i>Mining</i>									
Waste mined (000's tonnes)	-	-	-	-	18,815	18,590	9,579	3,636	50,620
Ore mined (000's tonnes)	-	-	-	-	8,841	11,580	7,767	5,252	33,440
<i>Processing</i>									
Copper ore processed (000's tonnes)	-	-	-	-	1,055	8,223	8,375	4,437	22,090
Copper ore grade processed (%)	-	-	-	-	-	0.43	0.51	0.49	0.47
Copper Recovery (%)	-	-	-	-	-	82	86	89	85
Concentrate grade (%)	-	-	-	-	-	21.5	22.0	21.8	21.8
Copper in concentrate produced (tonnes)	-	-	-	-	25	30,896	36,783	19,438	87,142
Gold produced (ounces)	-	-	-	-	-	10,550	13,570	7,914	32,034
Silver produced (ounces)	-	-	-	-	175	257,366	269,800	152,243	679,584
<i>Cash Costs (per lb)</i>									
Mining	-	-	-	-	-	-	-	\$0.44	\$0.44
Processing	-	-	-	-	-	-	-	0.46	0.46
Site administration	-	-	-	-	-	-	-	0.38	0.38
TC/RC and freight charges	-	-	-	-	-	-	-	0.32	0.32
By-product credits	-	-	-	-	-	-	-	(0.26)	(0.26)
Cash cost (C1) (per lb)	-	-	-	-	-	-	-	\$1.34	\$1.34
All-in sustaining cost (AISC) (per lb)	-	-	-	-	-	-	-	\$1.56	\$1.56
Total cost (C3) (per lb)	-	-	-	-	-	-	-	\$2.28	\$2.28
<i>Revenues (\$ millions)</i>									
Copper in concentrates	-	-	-	-	-	-	-	\$178	\$178
Gold	-	-	-	-	-	-	-	26	26
Silver	-	-	-	-	-	-	-	6	6
Total sales revenues	-	-	-	-	-	-	-	\$210	\$210
Copper sales (tonnes)	-	-	-	-	-	6,542	42,425	35,056	84,023
Gold sales (ounces) ²	-	-	-	-	-	2,627	16,032	13,074	31,733
Silver sales (ounces) ²	-	-	-	-	-	55,153	350,982	271,774	677,909

¹ The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019.

² Excludes gold and silver delivered to Franco-Nevada

Las Cruces statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Mining</i>											
Waste mined (000's tonnes)	3,269	14,589	1,631	4,835	6,268	2,202	14,936	460	-	2,082	2,542
Ore mined (000's tonnes)	868	2,422	648	368	410	256	1,682	96	-	355	451
<i>Processing</i>											
Copper ore processed (000's tonnes)	420	1,619	390	416	338	400	1,544	325	360	305	990
Copper ore grade processed (%)	4.99	5.07	5.07	4.87	4.84	5.00	4.95	3.75	3.35	3.73	3.60
Recovery (%)	89	90	92	93	93	93	93	87	86	83	86
Copper cathode produced (tonnes)	18,700	73,664	18,238	18,849	15,181	18,470	70,738	10,634	10,366	9,479	30,479
<i>Cash Costs (per lb)</i>											
Cash cost (C1) (per lb)	\$0.93	\$0.86	\$0.86	\$0.83	\$1.02	\$0.94	\$0.90	\$1.31	\$1.51	\$1.46	\$1.43
All-in sustaining cost (AISC) (per lb)	\$1.12	\$1.06	\$1.03	\$1.09	\$1.41	\$1.16	\$1.16	\$1.46	\$1.65	\$1.74	\$1.61
Total cost (C3) (per lb)	\$2.40	\$2.15	\$2.15	\$2.11	\$2.50	\$2.28	\$2.25	\$3.19	\$3.59	\$3.61	\$3.46
<i>Revenues (\$ millions)</i>											
Copper cathode	\$122	\$461	\$131	\$133	\$93	\$113	\$470	\$71	\$62	\$61	\$194
Copper cathode sales (tonnes)	17,903	74,664	18,771	19,269	15,138	18,345	71,523	11,443	10,112	10,405	31,960

Guelb Moghrein statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Mining</i>											
Waste mined (000's tonnes)	3,607	14,052	3,961	2,737	4,277	4,087	15,062	3,581	3,107	2,528	9,216
Ore mined (000's tonnes)	519	3,104	97	296	445	752	1,590	953	1,345	1,265	3,563
<i>Processing</i>											
Sulphide ore processed (000's tonnes)	874	3,389	861	938	902	983	3,684	994	1,018	810	2,822
Sulphide ore grade processed (%)	0.90	0.93	0.79	0.73	0.94	0.93	0.85	0.85	0.84	0.88	0.86
Recovery (%)	91	92	90	85	94	91	90	88	90	87	88
Copper produced (tonnes)	7,155	28,791	6,135	5,781	7,902	8,319	28,137	7,447	7,750	6,203	21,400
Gold produced (ounces)	13,270	49,213	11,740	10,354	11,644	12,236	45,974	12,498	11,961	8,187	32,646
Magnetite concentrate produced (WMT)	-	-	93,472	123,100	111,765	97,052	425,389	119,169	163,555	106,634	389,358
<i>Cash Costs (per lb)</i>											
Mining	\$0.79	\$0.66	\$0.51	\$1.11	\$0.66	\$1.02	\$0.82	\$0.78	\$0.57	\$0.52	\$0.63
Processing	0.97	0.93	1.07	1.23	1.10	0.98	1.09	0.87	1.00	1.06	0.97
Site administration	0.19	0.18	0.19	0.24	0.17	0.17	0.19	0.18	0.18	0.22	0.19
TC/RC and freight charges	0.51	0.51	0.61	0.41	0.66	0.52	0.54	0.49	0.35	0.35	0.40
Gold and magnetite credit	(1.12)	(1.00)	(1.39)	(1.24)	(1.02)	(0.96)	(1.14)	(1.21)	(1.19)	(1.04)	(1.16)
Cash cost (C1) (per lb)	\$1.34	\$1.28	\$0.99	\$1.75	\$1.57	\$1.73	\$1.50	\$1.11	\$0.91	\$1.11	\$1.03
All-in sustaining cost (AISC) (per lb)	\$1.60	\$1.65	\$1.84	\$2.16	\$1.93	\$1.95	\$1.93	\$1.37	\$1.19	\$1.62	\$1.38
Total cost (C3) (per lb)	\$2.25	\$2.13	\$1.86	\$2.84	\$2.42	\$2.79	\$2.46	\$2.22	\$1.65	\$1.93	\$1.93
<i>Revenues (\$ millions)</i>											
Copper in concentrates	\$39	\$150	\$39	\$40	\$27	\$48	\$154	\$42	\$43	\$30	\$115
Gold	13	60	16	16	9	17	58	16	18	12	46
Magnetite concentrate	7	7	5	8	5	5	23	6	16	10	32
Total sales revenues	\$59	\$217	\$60	\$64	\$41	\$70	\$235	\$64	\$77	\$52	\$193
Copper sales (tonnes)	6,811	28,999	6,387	6,772	5,108	9,099	27,366	7,924	8,143	5,969	22,036
Gold sales (ounces)	12,384	50,453	13,008	12,863	8,100	14,224	48,195	13,301	14,156	9,074	36,531
Magnetite concentrate sold (WMT)	-	-	79,560	150,167	61,315	85,914	376,956	89,631	222,762	123,274	435,667

Çayeli statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Mining</i>											
Ore mined (000's tonnes)	202	941	259	250	242	249	1,000	242	236	218	696
<i>Processing</i>											
Ore milled (000's tonnes)	212	943	257	255	243	252	1,007	241	232	207	680
Copper ore grade processed (%)	1.72	1.96	1.88	2.13	2.39	2.64	2.26	2.25	1.92	1.78	1.99
Copper ore recovery (%)	90	89	88	86	87	89	88	90	87	87	88
Zinc ore grade processed (%)	0.78	1.05	1.05	1.37	1.69	1.50	1.40	1.19	1.55	1.37	1.37
Zinc ore recovery (%)	23	34	26	30	32	27	29	26	40	41	36
Copper produced (tonnes)	3,284	16,523	4,225	4,684	5,056	5,931	19,896	4,891	3,872	3,218	11,981
Zinc produced (tonnes)	379	3,326	701	1,051	1,305	1,034	4,091	752	1,428	1,176	3,356
<i>Cash Costs (per lb)</i>											
Cash cost – Copper (C1) (per lb)	\$2.05	\$1.50	\$1.31	\$1.29	\$1.18	\$1.09	\$1.21	\$1.42	\$1.32	\$1.82	\$1.46
All-in sustaining cost (AISC) (per lb)	\$2.48	\$1.75	\$1.56	\$1.59	\$1.45	\$1.28	\$1.48	\$1.68	\$1.54	\$2.12	\$1.71
Total cost – Copper (C3) (per lb)	\$2.06	\$2.37	\$2.14	\$2.15	\$2.05	\$1.75	\$2.03	\$2.32	\$2.25	\$2.83	\$2.39
<i>Revenues (\$ millions)</i>											
Copper	\$23	\$87	(\$1)	\$31	\$13	\$44	\$87	\$18	\$28	\$13	\$59
Zinc	-	9	-	4	-	4	8	-	3	-	3
Other	-	2	-	1	-	4	5	-	1	-	1
Total sales revenues	\$23	\$98	(\$1)	\$36	\$13	\$52	\$100	\$18	\$32	\$13	\$63
Copper sales (tonnes)	4,266	17,716	-	5,491	2,753	9,153	17,397	3,814	5,817	2,934	12,565
Zinc sales (tonnes)	-	4,435	-	2,159	-	2,154	4,313	-	1,833	-	1,833
Pyhäsalmi statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Mining</i>											
Ore mined (000's tonnes)	316	1,315	323	299	318	297	1,237	292	267	264	823
<i>Processing</i>											
Ore milled (000's tonnes)	306	1,260	301	315	320	312	1,248	303	285	248	836
Copper ore grade processed (%)	1.07	1.11	0.98	1.02	0.98	0.98	0.99	0.91	0.74	0.90	0.85
Copper ore recovery (%)	97	97	97	96	95	97	96	85	90	94	89
Zinc ore grade processed (%)	1.17	1.55	1.66	1.94	2.07	2.35	2.01	2.04	1.05	1.50	1.54
Zinc ore recovery (%)	89	89	91	90	91	91	91	90	90	88	90
Copper produced (tonnes)	3,190	13,501	2,865	3,086	2,989	2,964	11,904	2,343	1,904	2,062	6,309
Zinc produced (tonnes)	3,177	17,397	4,526	5,494	6,043	6,653	22,716	5,566	2,695	3,253	11,514
Pyrite produced (tonnes)	154,855	692,124	145,975	159,674	171,355	168,881	645,885	152,475	152,522	127,960	432,957
<i>Cash Costs (per lb)</i>											
Cash cost – Copper (C1) (per lb)	(\$0.10)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)	(\$0.39)	\$0.21	\$0.61	\$0.05
All-in sustaining cost (AISC) (per lb)	(\$0.09)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)	(\$0.39)	\$0.25	\$0.64	\$0.08
Total cost – Copper (C3) (per lb)	\$2.35	\$2.06	\$1.24	\$2.23	\$1.67	\$1.57	\$1.70	\$1.67	\$1.75	\$1.62	\$1.61
<i>Revenues (\$ millions)</i>											
Copper	\$20	\$74	\$16	\$21	\$16	\$17	\$70	\$16	\$10	\$9	\$35
Zinc	8	37	12	12	10	11	45	12	7	2	21
Pyrite	6	16	6	3	4	4	17	4	3	3	10
Other	4	16	4	2	4	2	12	4	1	2	7
Total sales revenues	\$38	\$143	\$38	\$38	\$34	\$34	\$144	\$36	\$21	\$16	\$73
Copper sales (tonnes)	3,184	13,691	2,837	3,328	2,991	3,028	12,184	2,861	1,873	1,699	6,433
Zinc sales (tonnes)	3,282	17,416	4,810	4,697	6,178	6,114	21,799	6,646	2,617	2,297	11,560
Pyrite sales (tonnes)	114,712	418,743	120,572	99,606	100,894	124,109	445,181	124,667	97,221	90,619	312,507

Ravensthorpe statistics	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	2019
<i>Processing</i>											
Beneficiated ore (000's tonnes)	-	2,211	-	-	-	-	-	-	-	-	-
Beneficiated ore grade (%)	-	1.11	-	-	-	-	-	-	-	-	-
Nickel recovery – leach feed to Nickel produced (%)	-	79	-	-	-	-	-	-	-	-	-
Nickel produced (contained tonnes)	-	17,837	-	-	-	-	-	-	-	-	-
Nickel produced (payable tonnes)	-	13,694	-	-	-	-	-	-	-	-	-
<i>Cash Costs (per lb)</i>											
Mining	-	\$1.12	-	-	-	-	-	-	-	-	-
Processing	-	3.25	-	-	-	-	-	-	-	-	-
Site administration	-	0.37	-	-	-	-	-	-	-	-	-
TC/RC and freight charges	0.10	0.27	-	-	-	-	-	-	-	-	-
Cobalt credit	(0.71)	(0.56)	-	-	-	-	-	-	-	-	-
Cash cost (C1) (per lb)	\$(0.61)	\$4.45	-	-	-	-	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$(0.51)	\$5.29	-	-	-	-	-	-	-	-	-
Total cost (C3) (per lb)	\$(0.51)	\$6.17	-	-	-	-	-	-	-	-	-
<i>Revenues (\$ millions)</i>											
Nickel	\$8	\$146	-	-	-	-	-	-	-	-	-
Cobalt	1	17	-	-	-	-	-	-	-	-	-
Total sales revenues	\$9	\$163	-	-	-	-	-	-	-	-	-
Nickel sales (contained tonnes)	865	18,683	-	-	-	-	-	-	-	-	-
Nickel sales (payable tonnes)	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.

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Purchase and deposits on property, plant and equipment	270	523	1,130	1,537
Sustaining capital expenditure and deferred stripping excluding Cobre Panama	87	139	197	288
Sustaining capital expenditure and deferred stripping – Cobre Panama	6	-	92	-
Project capital expenditure – Cobre Panama development	183	339	554	1,120
Project capital expenditure – other ¹	131	45	378	129
Pre-commercial costs	(137)	-	(91)	-
Total capital expenditure	270	523	1,130	1,537

¹ Represents other project capital expenditure at all sites including expenditure at Cobre Panama to enable commencement of the expansion to 100mtpa capacity, including the initial development and engineering work allowing mining to proceed to the Colina pit.

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

For the three months ended September 30, 2019	Kansanshi	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales	(240)	(263)	(174)	(81)	(40)	(14)	(13)	(825)	(4)	(8)	(837)
Adjustments:											
Depreciation	55	72	32	47	8	6	4	224	-	1	225
By-product credits	49	-	32	-	22	(1)	7	109	-	-	109
Royalties	25	17	3	1	2	-	-	48	-	-	48
Treatment and refining charges	(7)	(17)	(14)	-	(3)	(1)	(1)	(43)	-	-	(43)
Freight costs	-	(12)	-	-	-	(1)	-	(13)	-	-	(13)
Finished goods	(27)	8	63	3	(3)	(3)	(1)	40	-	-	40
Other	2	4	2	(1)	(1)	2	-	8	4	7	19
Cash cost (C1)	(143)	(191)	(56)	(31)	(15)	(12)	(4)	(452)	-	-	(452)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(62)	(68)	(35)	(44)	(9)	(6)	(5)	(229)	-	(1)	(230)
Royalties	(25)	(17)	(3)	(1)	(2)	-	-	(48)	-	-	(48)
Other	(1)	(2)	(2)	-	-	1	-	(4)	-	-	(4)
Total cost (C3)	(231)	(278)	(96)	(76)	(26)	(17)	(9)	(733)	-	(1)	(734)
Cash cost (C1)	(143)	(191)	(56)	(31)	(15)	(12)	(4)	(452)	-	-	(452)
Adjustments:											
General and administrative	(6)	(9)	(3)	(1)	(1)	(1)	-	(21)	-	-	(21)
Sustaining capital expenditure and deferred stripping	(42)	(40)	(6)	(2)	(2)	(1)	-	(93)	-	-	(93)
Royalties	(25)	(17)	(3)	(1)	(2)	-	-	(48)	-	-	(48)
Lease payments	-	(1)	-	(1)	(1)	-	-	(3)	-	-	(3)
AISC	(216)	(258)	(68)	(36)	(21)	(14)	(4)	(617)	-	-	(617)
AISC (per lb)	\$1.74	\$2.12	\$1.56	\$1.74	\$1.62	\$2.12	\$0.64	\$1.86	-	-	
Cash cost – (C1) (per lb)	\$1.10	\$1.58	\$1.34	\$1.46	\$1.11	\$1.82	\$0.61	\$1.36	-	-	
Total cost – (C3) (per lb)	\$1.84	\$2.29	\$2.28	\$3.61	\$1.93	\$2.83	\$1.62	\$2.20	-	-	

For the nine months ended September 30, 2019 ¹	Kansanshi	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales	(780)	(767)	(174)	(239)	(157)	(52)	(54)	(2,223)	(9)	(20)	(2,252)
Adjustments:											
Depreciation	174	190	32	137	37	21	20	611	2	4	617
By-product credits	147	-	32	-	78	4	38	299	-	-	299
Royalties	79	66	3	3	6	1	-	158	-	-	158
Treatment and refining charges	(27)	(42)	(14)	-	(12)	(7)	(4)	(106)	-	-	(106)
Freight costs	(4)	(24)	-	-	-	(4)	(1)	(33)	-	-	(33)
Finished goods	(24)	6	63	3	1	(2)	(1)	46	-	-	46
Other ¹	5	5	2	-	1	2	2	17	7	16	40
Cash cost (C1)	(430)	(566)	(56)	(96)	(46)	(37)	-	(1,231)	-	-	(1,231)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(181)	(191)	(35)	(134)	(34)	(22)	(21)	(618)	-	(4)	(622)
Royalties	(79)	(66)	(3)	(3)	(6)	(1)	-	(158)	-	-	(158)
Other	(4)	(4)	(2)	-	(1)	-	-	(11)	-	-	(11)
Total cost (C3)	(694)	(827)	(96)	(233)	(87)	(60)	(21)	(2,018)	-	(4)	(2,022)
Cash cost (C1)	(430)	(566)	(56)	(96)	(46)	(37)	-	(1,231)	-	-	(1,231)
Adjustments:											
General and administrative expenses	(20)	(26)	(3)	(4)	(2)	(2)	-	(57)	-	-	(57)
Sustaining capital expenditure and deferred stripping	(95)	(89)	(6)	(4)	(6)	(3)	-	(203)	-	-	(203)
Royalties	(79)	(66)	(3)	(3)	(6)	(1)	-	(158)	-	-	(158)
Lease payments	(3)	(2)	-	(1)	(2)	-	-	(8)	-	-	(8)
AISC	(627)	(749)	(68)	(108)	(62)	(43)	-	(1,657)	-	-	(1,657)
AISC (per lb)	\$1.71	\$2.09	\$1.56	\$1.61	\$1.38	\$1.71	\$0.08	\$1.80	-	-	
Cash cost – (C1) (per lb)	\$1.17	\$1.58	\$1.34	\$1.43	\$1.03	\$1.46	\$0.05	\$1.34	-	-	
Total cost – (C3) (per lb)	\$1.90	\$2.30	\$2.28	\$3.46	\$1.93	\$2.39	\$1.61	\$2.19	-	-	

¹ C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

For the three months ended September 30, 2018 ¹	Kansanshi	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales	(288)	(278)	-	(82)	(40)	(13)	(25)	(726)	(1)	(5)	(732)
Adjustments:											
Depreciation	69	65	-	48	8	6	14	210	-	1	211
By-product credits	42	-	-	-	14	-	18	74	-	-	74
Royalties	27	20	-	1	1	1	-	50	-	-	50
Treatment and refining charges	(8)	(16)	-	-	(3)	(1)	(1)	(29)	-	-	(29)
Freight costs	(4)	(9)	-	-	-	(1)	(1)	(15)	-	-	(15)
Finished goods	7	6	-	(2)	(10)	(4)	-	(3)	-	-	(3)
Other ¹	8	3	-	1	2	1	(2)	13	1	4	18
Cash cost (C1)	(147)	(209)	-	(34)	(28)	(11)	3	(426)	-	-	(426)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(64)	(60)	-	(48)	(12)	(8)	(14)	(206)	-	(1)	(207)
Royalties	(27)	(20)	-	(1)	(1)	(1)	-	(50)	-	-	(50)
Other	(1)	(1)	-	(1)	(1)	-	-	(4)	-	-	(4)
Total cost (C3)	(239)	(290)	-	(84)	(42)	(20)	(11)	(686)	-	(1)	(687)
Cash cost (C1)	(147)	(209)	-	(34)	(28)	(11)	3	(426)	-	-	(426)
Adjustments:											
General and administrative expenses	(7)	(9)	-	(1)	(2)	(1)	-	(20)	-	-	(20)
Sustaining capital expenditure and deferred stripping	(39)	(35)	-	(11)	(2)	(1)	-	(88)	-	-	(88)
Royalties	(27)	(20)	-	(1)	(1)	(1)	-	(50)	-	-	(50)
AISC	(220)	(273)	-	(47)	(33)	(14)	3	(584)	-	-	(584)
AISC (per lb)	\$1.59	\$2.25	-	\$1.41	\$1.93	\$1.45	(\$0.48)	\$1.80	-	-	
Cash cost – (C1) (per lb)	\$1.06	\$1.72	-	\$1.02	\$1.57	\$1.18	(\$0.48)	\$1.31	-	-	
Total cost – (C3) (per lb)	\$1.73	\$2.39	-	\$2.50	\$2.42	\$2.05	\$1.62	\$2.11	-	-	

¹ C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

For the nine months ended September 30, 2018 ¹	Kansanshi	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales	(772)	(894)	-	(260)	(136)	(44)	(79)	(2,185)	(17)	(12)	(2,214)
Adjustments:											
Depreciation	190	207	-	150	29	19	41	636	-	4	640
By-product credits	135	-	-	-	59	5	57	256	-	-	256
Royalties	82	66	-	5	5	2	-	160	-	-	160
Treatment and refining charges	(18)	(44)	-	-	(11)	(5)	(6)	(84)	-	-	(84)
Freight costs	(17)	(19)	-	-	-	(2)	(1)	(39)	-	-	(39)
Finished goods	(34)	58	-	-	(8)	(10)	-	6	-	-	6
Other ¹	10	3	-	2	1	-	(3)	13	17	8	38
Cash cost (C1)	(424)	(623)	-	(103)	(61)	(35)	9	(1,237)	-	-	(1,237)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(201)	(184)	-	(149)	(32)	(23)	(41)	(630)	-	(4)	(634)
Royalties	(82)	(66)	-	(5)	(5)	(2)	-	(160)	-	-	(160)
Other	(5)	(4)	-	(1)	(1)	-	-	(11)	-	-	(11)
Total cost (C3)	(712)	(877)	-	(258)	(99)	(60)	(32)	(2,038)	-	(4)	(2,042)
Cash cost (C1)	(424)	(623)	-	(103)	(61)	(35)	9	(1,237)	-	-	(1,237)
Adjustments:											
General and administrative expenses	(19)	(27)	-	(5)	(3)	(1)	-	(55)	-	-	(55)
Sustaining capital expenditure and deferred stripping	(98)	(99)	-	(22)	(13)	(5)	-	(237)	-	-	(237)
Royalties	(82)	(66)	-	(5)	(5)	(2)	-	(160)	-	-	(160)
AISC	(623)	(815)	-	(135)	(82)	(43)	9	(1,689)	-	-	(1,689)
AISC (per lb)	\$1.53	\$2.30	-	\$1.17	\$1.91	\$1.56	(\$0.41)	\$1.76	-	-	
Cash cost – (C1) (per lb)	\$1.03	\$1.76	-	\$0.89	\$1.39	\$1.23	(\$0.41)	\$1.29	-	-	
Total cost – (C3) (per lb)	\$1.75	\$2.48	-	\$2.24	\$2.31	\$2.14	\$1.74	\$2.13	-	-	

¹ C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

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.

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Operating profit	108	141	405	549
Depreciation	225	211	617	640
Other adjustments				
Write-off of assets and other costs associated with land slippage	-	-	13	-
Foreign exchange loss	12	74	49	77
(Gain) loss on disposal of assets	8	-	11	(8)
Revisions in estimates of restoration provisions at closed sites	1	1	3	(2)
Total adjustments excluding depreciation	21	75	76	67
Comparative EBITDA	354	427	1,098	1,256

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Net earnings (loss) attributable to shareholders of the Company	(73)	61	58	243
Adjustments attributable to shareholders of the Company:				
Finance charge on discounting Zambian VAT	160	-	160	-
(Gain) loss on debt instruments	(3)	-	19	-
Total adjustments to comparative EBITDA excluding depreciation	21	75	76	67
Tax and minority interest relating to foreign exchange revaluation and comparative adjustments	(73)	(8)	(99)	(5)
Comparative earnings	32	128	214	305
Earnings (loss) per share as reported	(\$0.11)	\$0.09	\$0.08	\$0.35
Comparative earnings per share	\$0.05	\$0.19	\$0.31	\$0.44

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.

During the quarter ended September 30, 2019, the Company assessed that the Cobre Panama mine was operating in a manner intended by management and commercial production was declared effective from September 1, 2019.

- 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 revenue.

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.

Following the commencement of sales of copper concentrate by Cobre Panama in June 2019, the Company has recognized delivery obligations to Franco-Nevada under the terms of the arrangement and has commenced amortization of the deferred revenue balance.

- 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 longer-term 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.

- 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 September 30, 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 and nine months ended September 30, 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. A gain of \$18 million for settled hedges was realized through copper sales revenues in the quarter and fair value losses of \$32 million and \$10 million have been recognized on derivative instruments in designated hedge relationships through accumulated other comprehensive income for the three and nine months ended September 30, 2019, respectively. At September 30, 2019, the Company had 20,000 tonnes of unmargined zero cost copper collar sales contracts with average low side (or put) prices of \$2.80 per lb and average high side (or call) prices of \$3.02 per lb. Copper sales are hedged with maturities until February 2020. The Company also had 7,500 tonnes of outstanding unmargined copper forward sales contracts at an average price of \$2.96 per lb with maturities to December 2019 and unmargined nickel forward sales contracts for 12,046 tonnes at an average price of \$6.77 per lb outstanding with maturities to February 2021.

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 September 30, 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 September 30, 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 September 30, 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 Enterprise and post completion of construction activity at Cobre Panama 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.