



Q4 and Year 2019 Results

FORWARD LOOKING STATEMENTS

FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking information and forward-looking statements (together, “forward-looking statements”) within the meaning of applicable Canadian securities laws and the United States Private Securities Litigation Reform Act of 1995. All statements in this presentation, other than statements of historical fact, that address future events, developments or performance that Osisko expects to occur including management’s expectations regarding Osisko’s growth, results of operations, estimated future revenue, carrying value of assets, requirements for additional capital, production estimates, production costs and revenue, business prospects and opportunities are forward-looking statements. In addition, statements relating to gold equivalent ounces (“GEOs”) are forward-looking statements, as they involve implied assessment, based on certain estimates and assumptions, and no assurance can be given that the GEOs will be realized. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words “expects”, “is expected” “plans”, “anticipates”, “believes”, “intends”, “estimates”, “projects”, “potential”, “scheduled” and similar expressions or variations (including negative variations of such words and phrases), or may be identified by statements to the effect that certain actions, events or conditions “will”, “would”, “may”, “could” or “should” occur including, without limitation, the performance of the assets of Osisko, the estimate of GEOs to be received in 2019, that the required regulatory and shareholders approvals will be obtained in connection with the proposed transaction with Barkerville Gold Mines Ltd. (“Barkerville”), that sufficient funding will be available to fund work at Barkerville, that significant value will be created within the accelerator group of companies and Osisko’s ability to seize future opportunities. Although Osisko believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements involve known and unknown risks, uncertainties and other factors and are not guarantees of future performance and actual results may accordingly differ materially from those in forward-looking statements. Factors that could cause the actual results deriving from Osisko’s royalties, streams and other interests to differ materially from those in forward-looking statements include, without limitation: influence of political or economic factors including fluctuations in the prices of the commodities and in value of the Canadian dollar relative to the U.S. dollar, continued availability of capital and financing and general economic, market or business conditions; regulations and regulatory changes in national and local government, including permitting and licensing regimes and taxation policies; whether or not Osisko is determined to have “passive foreign investment company” (“PFIC”) status as defined in Section 1297 of the United States Internal Revenue Code of 1986, as amended; potential changes in Canadian tax treatments of offshore streams or other interests, litigation, title, permit or license disputes; risks and hazards associated with the business of exploring, development and mining on the properties in which Osisko holds a royalty, stream or other interest including, but not limited to development, permitting, infrastructure, operating or technical difficulties, unusual or unexpected geological and metallurgical conditions, slope failures or cave-ins, flooding and other natural disasters or civil unrest, rate, grade and timing of production differences from mineral resource estimates or production forecasts or other uninsured risks; risk related to business opportunities that become available to, or are pursued by Osisko and exercise of third party rights affecting proposed investments. The forward-looking statements contained in this presentation are based upon assumptions management believes to be reasonable, including, without limitation: the ongoing operation of the properties in which Osisko holds a royalty, stream or other interest by the owners or operators of such properties in a manner consistent with past practice; the accuracy of public statements and disclosures made by the owners or operators of such underlying properties; no material adverse change in the market price of the commodities that underlie the asset portfolio; Osisko’s ongoing income and assets relating to the determination of its PFIC status, no material changes to existing tax treatments; no adverse development in respect of any significant property in which Osisko holds a royalty, stream or other interest; the accuracy of publicly disclosed expectations for the development of underlying properties that are not yet in production; and the absence of any other factors that could cause actions, events or results to differ from those anticipated, estimated or intended. However, there can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Investors are cautioned that forward-looking statements are not guarantees of future performance. Osisko cannot assure investors that actual results will be consistent with these forward-looking statements and investors should not place undue reliance on forward-looking statements due to the inherent uncertainty therein.

For additional information with respect to these and other factors and assumptions underlying the forward-looking statements made in this presentation, see the section entitled “Risk Factors” in the most recent Annual Information Form of Osisko which is filed with the Canadian securities commissions and available electronically under Osisko’s issuer profile on SEDAR at www.sedar.com and with the U.S. Securities and Exchange Commission on EDGAR at www.sec.gov. The forward-looking information set forth herein reflects Osisko’s expectations as at the date of this presentation and is subject to change after such date. Osisko disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required by law.

SAFE HARBOUR STATEMENT

This presentation has been prepared for informational purposes only in order to assist prospective investors in evaluating an investment in Osisko Gold Royalties Ltd. Inquiries regarding this confidential presentation can be made to the senior management of the Corporation.

CAUTIONARY NOTE TO U.S. INVESTORS REGARDING MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

Osisko is subject to the reporting requirements of the applicable Canadian securities laws, and as a result, reports its mineral resources and reserves according to Canadian standards. Canadian reporting requirements for disclosure of mineral properties are governed by National Instrument 43-101 (“NI 43-101”). The definitions of NI 43-101 are adopted from those given by the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”). U.S. reporting requirements are governed by the Industry Guide 7 (“Guide 7”) of the Security and Exchange Commission (“SEC”). This presentation includes estimates of mineral reserves and mineral resources reported in accordance with NI 43-101. These reporting standards have similar goals in terms of conveying an appropriate level of confidence in the disclosures being reported, but embody different approaches and definitions. For example, under Guide 7, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Consequently, the definitions of “Proven Mineral Reserves” and “Probable Mineral Reserves” under CIM standards differ in certain respects from the standards of the SEC. Osisko also reports estimates of “mineral resources” in accordance with NI 43-101. While the terms “Mineral Resource,” “Measured Mineral Resource,” “Indicated Mineral Resource” and “Inferred Mineral Resource” are recognized by NI 43-101, they are not defined terms under standards of the SEC and, generally, U.S. companies are not permitted to report estimates of mineral resources of any category in documents filed with the SEC. As such, certain information contained in this presentation concerning descriptions of mineralization and estimates of mineral reserves and mineral resources under Canadian standards is not comparable to similar information made public by United States companies subject to the reporting and disclosure requirements of the SEC. Readers are cautioned not to assume that all or any part of Measured Mineral Resources or Indicated Mineral Resource exists, or is economically or legally mineable. Further, an “Inferred Mineral Resource” has a great amount of uncertainty as to its existence and as to its economic and legal feasibility, and a reader cannot assume that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or other economic studies.

Mr. Luc Lessard is the qualified person for this presentation as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects and has reviewed and verified the technical information contained herein. Mr. Luc Lessard is an employee of Osisko Gold Royalties and is non-independent.

HIGHLIGHTS

Q4 2019

- **20,479 GEOs¹ earned**
Compared to 20,005 in Q4 2018
- **Revenues from royalties and streams of C\$38.9 M**
Compared to C\$30.7 M in Q4 2018
- **Net cash flows from operating activities of C\$17.2 M**
Compared to C\$18.6 M in Q4 2018
- **Net loss of C\$155.2 M or C\$1.04 per basic and diluted share, reflecting non-cash impairment charges of C\$93.9 M on stream and offtake interests + C\$50 M on the Coulon zinc project + C\$4.7 M on other assets**
Compared to net loss of C\$113.9 M or C\$0.73 per basic and diluted share in Q4 2018
- **Adjusted earnings² of C\$10.3M or C\$0.07 per basic share²**
Compared to C\$13.0 M or C\$0.08 in Q4 2018

2019

- **78,006 GEOs earned – Met revised guidance**
Compared to 80,553 in 2018
- **RECORD revenues from royalties and streams of C\$140.1 M**
Compared to C\$127.6 M in 2018
- **RECORD cash flows from operating activities of C\$91.6 M**
Compared to C\$82.2 M in 2018
- **Net loss of C\$234.2 M or C\$1.55 per basic share, reflecting impairment of stream and offtake interests of C\$193.6 M, impairment of exploration and evaluation assets of C\$50.0 M, impairment of net investment in an associate of C\$12.5 M and other impairments of C\$4.7 M**
Compared to net loss of C\$105.6 M or C\$0.67 per basic share in 2018
- **Adjusted earnings of \$41.9 million, \$0.28 per basic share**
Compared to \$31.4 million, \$0.20 per basic share in 2018

1. GEOs are calculated on a quarterly basis and include royalties, streams and offtakes. Silver earned from royalty and stream agreements was converted to gold equivalent ounces by multiplying the silver ounces by the average silver price for the period and dividing by the average gold price for the period. Diamonds, other metals and cash royalties were converted into gold equivalent ounces by dividing the associated revenue by the average gold price for the period. Offtake agreements were converted using the financial settlement equivalent divided by the average gold price for the period. Refer to the Portfolio of royalty, stream and other interests section of the Management's Discussion and Analysis for average metal prices used.

2. "Adjusted earnings" and "Adjusted earnings per basic share" are non-IFRS financial performance measures which have no standard definition under IFRS. Refer to the non-IFRS measures provided under the Non-IFRS Financial Performance Measures section of the Management's Discussion and Analysis.

2019 ACHIEVEMENTS – AMONG THE MOST ACTIVE ROYALTY COMPANIES

◆ **Q4**

- ✓ Santana Royalty transaction with Minera Alamos Inc. (closed in Q1 2020)
- ✓ Pine Point 1.5 % NSR with Osisko Metals (closed in Q1 2020)
- ✓ Bralorne 1.2% NSR royalty with Talisker
- ✓ Acquisition of Barkerville Gold Mines Ltd.

◆ **Q3**

- ✓ First gold pour at Eagle Mine, 5% NSR
- ✓ Sale of Pretivm offtake agreement
- ✓ Renard credit bid
- ✓ Mantos Blancos stream enhancement
- ✓ Sable Resources strategic investment – 2% NSR

◆ **Q2**

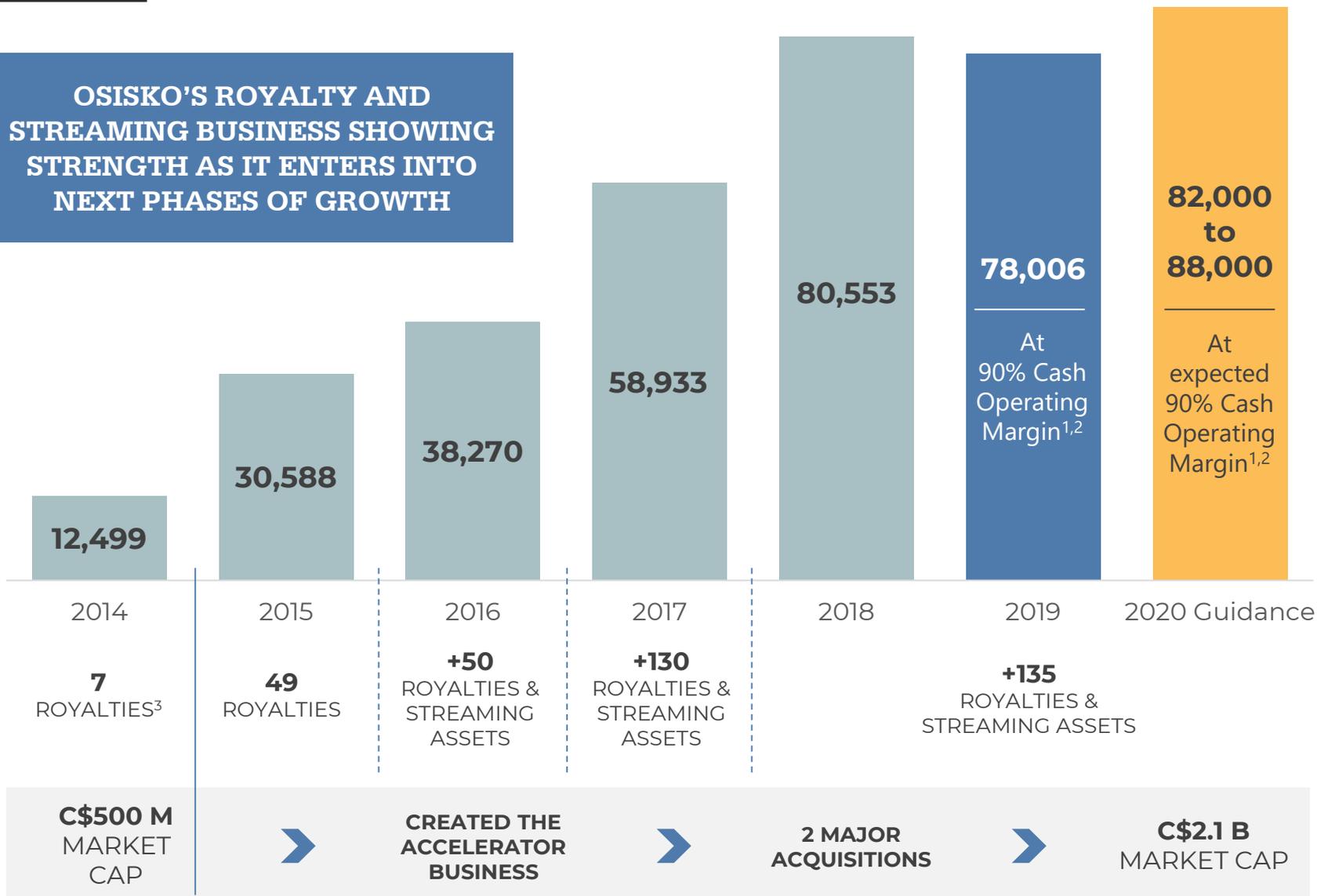
- ✓ \$175 million share buyback with Orion Mine Finance & concurrent secondary offering

◆ **Q1**

- ✓ Closed silver stream financing with Falco Resources
- ✓ Announced intention to repurchase up to \$100 million in common shares

PRODUCTION (GEOs) AND GUIDANCE

OSISKO'S ROYALTY AND STREAMING BUSINESS SHOWING STRENGTH AS IT ENTERS INTO NEXT PHASES OF GROWTH



1. Cash margin is a non-IFRS financial performance measure which has no standard definition under IFRS. It is calculated by deducting the cost of sales from the revenues. Please refer to the Overview of Financial Results section of the MD&A for a reconciliation of the cash margin per interest.

2. For royalties and streams

3. At year end

2019 REVENUE BREAKDOWN

| (C\$ 000) | 3 MONTHS ENDED | | YEARS ENDED | |
|--|------------------|------------------|------------------|------------------|
| | Dec. 31, 2019 | Dec. 31, 2018 | Dec. 31, 2019 | Dec. 31, 2018 |
| ROYALTIES: | | | | |
| Revenues | \$26,327 | \$22,456 | \$97,146 | \$92,110 |
| Cost of Sales | (\$18) | (\$118) | (\$272) | (\$245) |
| CASH MARGIN: | \$26,309 | \$22,338 | \$96,874 | \$91,865 |
| STREAMS: | | | | |
| Revenues | \$12,593 | \$8,282 | \$42,976 | \$35,457 |
| Cost of Sales | (\$3,527) | (\$2,823) | (\$13,437) | (\$13,181) |
| CASH MARGIN: | \$9,066 | \$5,459 | \$29,539 | \$22,276 |
| OFFTAKES: | | | | |
| Revenues | \$12,112 | \$84,599 | \$252,477 | \$362,905 |
| Cost of Sales | (\$11,720) | (\$83,659) | (\$249,172) | (\$357,879) |
| CASH MARGIN: | \$392 | \$940 | \$3,305 | \$5,026 |
| TOTAL CASH MARGIN: | \$35,767 | \$28,737 | \$129,718 | \$119,167 |
| CASH MARGIN EXCLUDING OFFTAKES: | 90.9% | 90.4% | 90.2% | 89.5% |

2019 FINANCIAL PERFORMANCE

RECORD REVENUES FROM ROYALTIES AND STREAMS (C\$ M)¹

RECORD CASH FLOWS FROM OPERATING ACTIVITIES (C\$ M)



1. \$392.6 million including offtakes for 2019 (\$490.5 million for 2018)

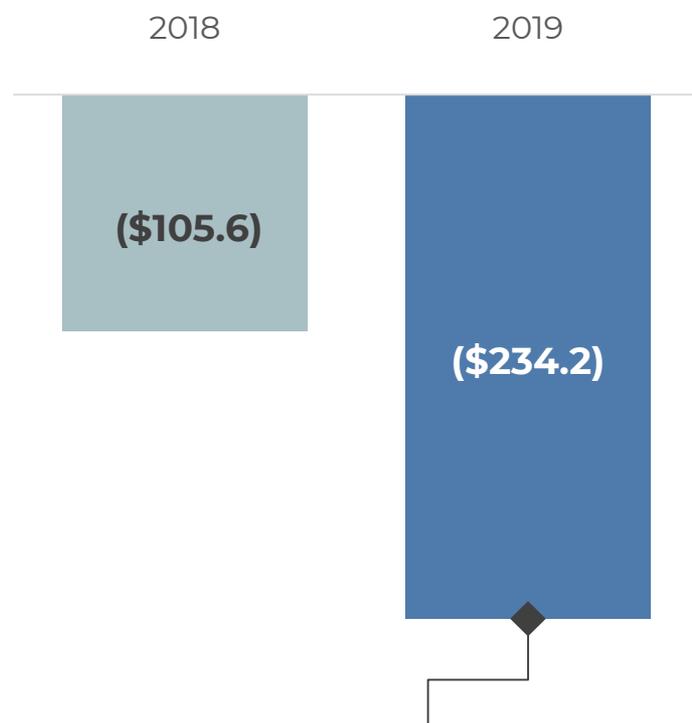
IMPAIRMENT OF ASSETS

(C\$ M)

| | Q4 | | 2019 | |
|---------------------------------|--------------|---------------------|--------------|---------------------|
| | Impairment | Net of income taxes | Impairment | Net of income taxes |
| AMULSAR STREAM AND OFFTAKE | 66.7 | 66.7 | 79.8 | 79.8 |
| ÉLÉONORE ROYALTY | 27.2 | 20.0 | 27.2 | 20.0 |
| COULON ZINC PROJECT | 50.0 | 37.6 | 50.0 | 37.6 |
| RENARD STREAM | - | - | 86.1 | 63.2 |
| OTHER | - | - | 0.5 | 0.4 |
| IMPACT ON OPERATING LOSS | 143.9 | 124.3 | 243.6 | 201.0 |
| IMPAIRMENT OF AN ASSOCIATE | - | - | 12.5 | 10.8 |
| OTHER | 4.7 | 4.7 | 4.7 | 4.7 |
| TOTAL IMPAIRMENTS | 148.6 | 129.0 | 260.8 | 216.5 |

2019 FINANCIAL PERFORMANCE

EARNINGS (LOSS)
(C\$ M)



Due to operating loss in 2019 (resulting of impairment charges on royalty, stream and other interests) and the impairment charge of \$10.8 M (net of income taxes) on the net investment in Falco and other impairments of \$4.7 M

ADJUSTED EARNINGS
(C\$ M)¹



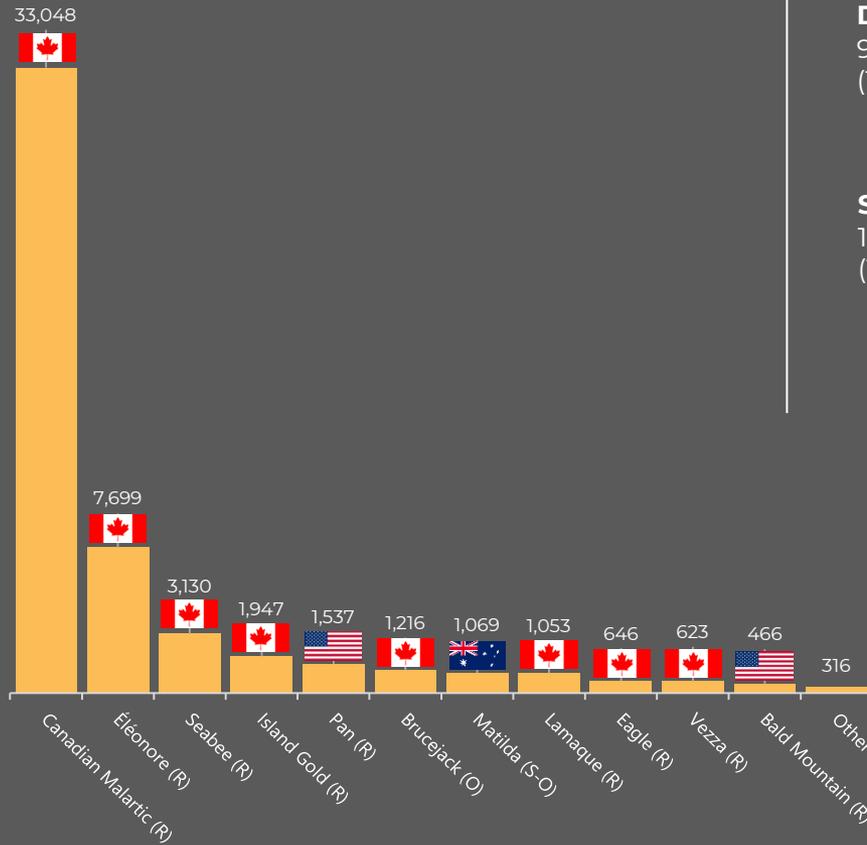
1. "Adjusted earnings" and "Adjusted earnings per basic share" are non-IFRS financial performance measures which have no standard definition under IFRS. Refer to the non-IFRS measures provided under the Non-IFRS Financial Performance Measures section of the Management's Discussion and Analysis.

2019 RESULTS

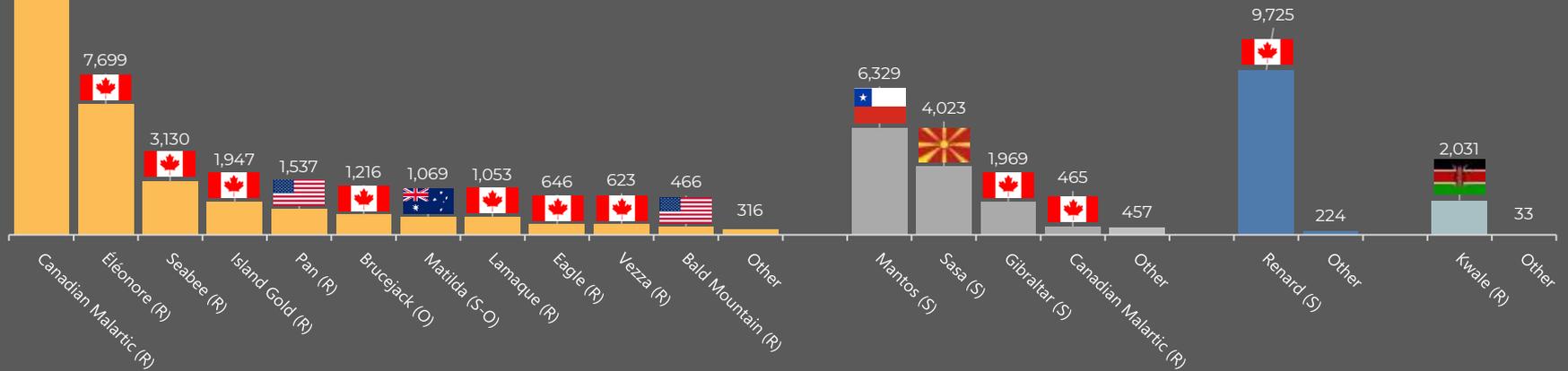
| (C\$ 000) | 3 MONTHS ENDED | | YEARS ENDED | |
|---|--------------------|---------------|--------------------|---------------|
| | Dec. 31, 2019 | Dec. 31, 2018 | Dec. 31, 2019 | Dec. 31, 2018 |
| GOLD PRODUCTION (oz) | 13,571 | 14,284 | 52,750 | 55,848 |
| SILVER PRODUCTION (oz AuEq) | 3,839 | 3,014 | 13,243 | 13,258 |
| DIAMONDS PRODUCTION (oz AuEq) | 2,627 | 2,006 | 9,949 | 8,751 |
| OTHER METALS (oz AuEq) | 442 | 701 | 2,064 | 2,696 |
| REALIZED GOLD PRICE (C\$ per oz) | \$1,945 | \$1,638 | \$1,817 | \$1,649 |
| REVENUES FROM ROYALTIES AND STREAMS | \$38,920 | \$30,738 | \$140,122 | \$127,567 |
| GROSS PROFIT | \$23,924 | \$15,762 | \$82,709 | \$66,555 |
| NET CASH FLOW FROM OPERATING ACTIVITIES | \$17,204 | \$18,559 | \$91,598 | \$82,158 |
| NET LOSS | (\$155,175) | (\$113,882) | (\$234,195) | (\$105,587) |
| NET LOSS PER SHARE BASIC AND DILUTED | (\$1.04) | (\$0.73) | (\$1.55) | (\$0.67) |
| ADJUSTED EARNINGS | 10,345 | 13,032 | 41,895 | 31,353 |
| ADJUSTED EARNINGS PER BASIC SHARE | 0.07 | 0.08 | 0.28 | 0.20 |

PRODUCING ROYALTIES AND STREAMS

2019 GEOs BY ASSET



2019 GEOs BY PRODUCT



GOLD

SILVER

DIAMONDS

OTHER

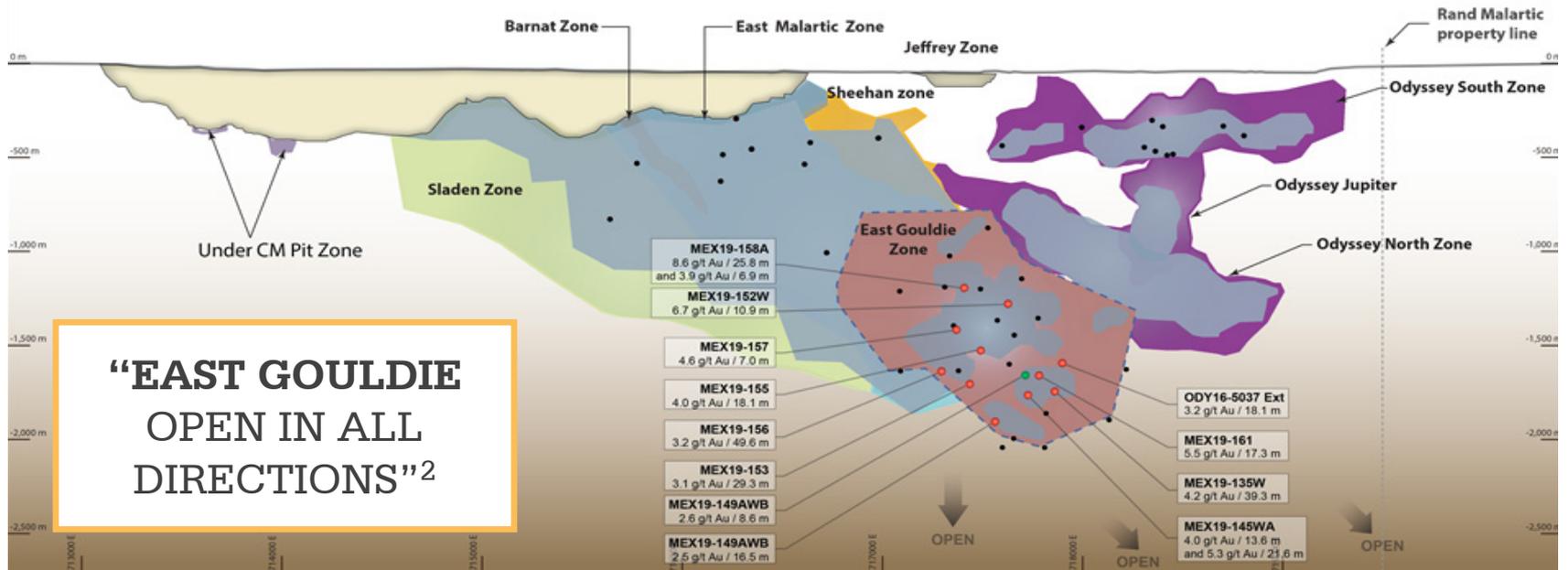
(R) = Royalty, (S) = Stream, (O) = Offtake

CORNERSTONE ROYALTY – 5% NSR ON CANADIAN MALARTIC



SIGNIFICANT MALARTIC UNDERGROUND RESOURCE

| MINERAL RESOURCES ¹ : | ODYSSEY | | | EAST MALARTIC | | | EAST GOULDIE | | |
|----------------------------------|-----------|-------------|-------------|---------------|-------------|-------------|--------------|-------------|-------------|
| | Au (K oz) | Tonnes (Mt) | Grade (g/t) | Au (K oz) | Tonnes (Mt) | Grade (g/t) | Au (K oz) | Tonnes (Mt) | Grade (g/t) |
| M&I | 136 | 2,022 | 2.10 | 694 | 9,924 | 2.18 | - | - | - |
| INFERRED | 1,666 | 22,368 | 2.22 | 5,192 | 78,764 | 2.05 | 2,738 | 25,520 | 3.34 |



SYNERGIES BETWEEN CANADIAN MALARTIC, ODYSSEY, EAST MALARTIC AND EAST GOULDIE ARE BEING EVALUATED.

INITIAL PRODUCTION POTENTIALLY STARTING IN 2023^{2,3}

1. Agnico Eagle mineral reserves and resources disclosure as at December 31, 2019
 2. Refer to Agnico Eagle press release dated February 13, 2020
 3. East Gouldie 5% NSR, North Odyssey & East Malartic 3% NSR, South Odyssey 5% NSR to Osisko

EAGLE PROJECT - CANADA'S NEWEST GOLD MINE



OPEN PIT MINING



HEAP LEACH FACILITY



PRIMARY CRUSHER



MOBILE EQUIPMENT



GOLD RECOVERY PLANT

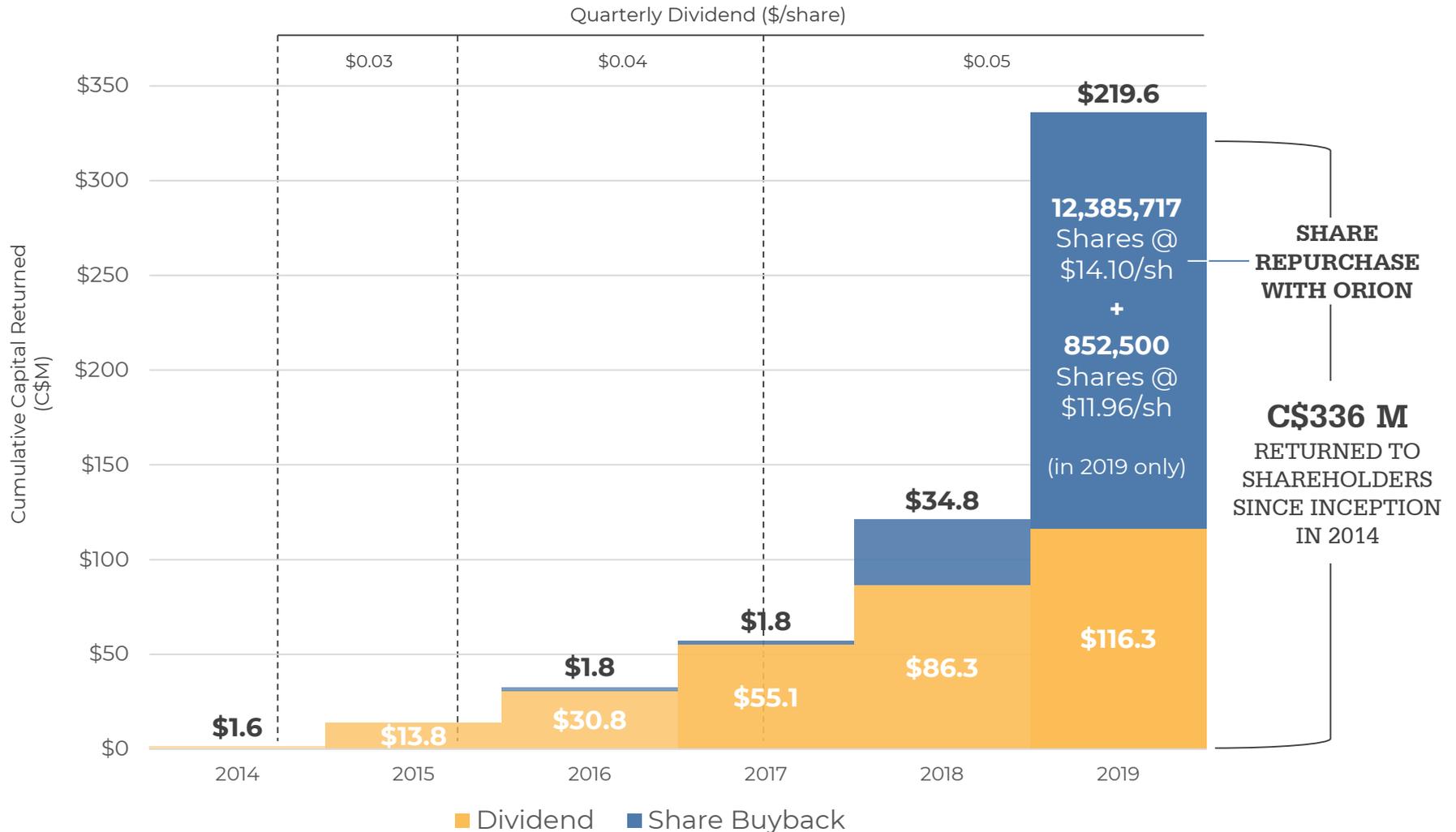
RAMPING
UP TO
220,000 oz
AU PER
YEAR

FIRST
GOLD
POURED



RETURNING CAPITAL TO SHAREHOLDERS

CUMULATIVE CAPITAL RETURNED – AS AT FEBRUARY 20, 2020



FINANCIAL POSITION

BALANCE SHEET ITEMS

Dec. 31, 2019

Cash (C\$ M) \$108.2

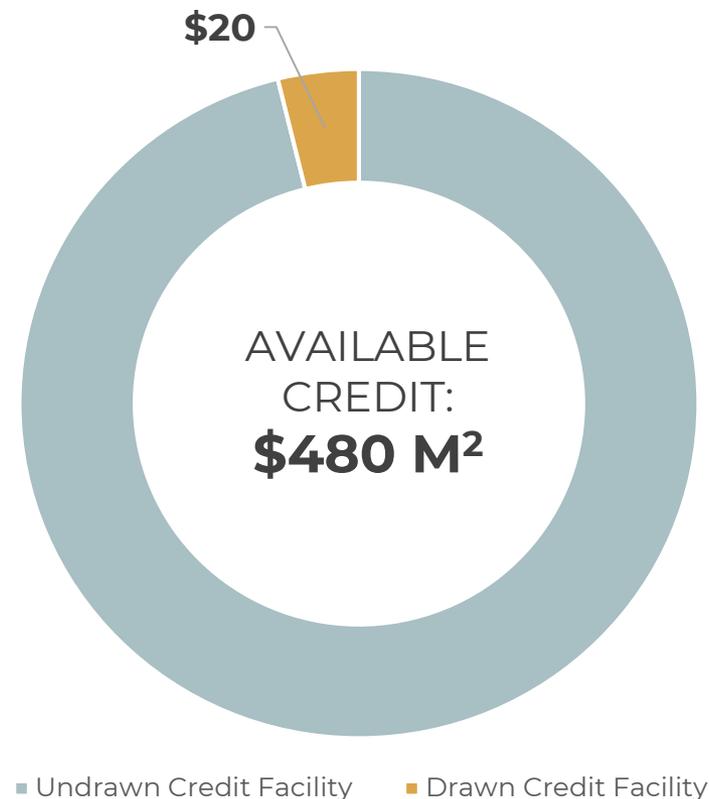
Debt (C\$ M) \$349.0

Investments (C\$ M)¹ \$277.4

Basic Shares Outstanding (M)
(as at Feb. 14, 2020) 157.5

Quarterly Dividend (C\$/Share) \$0.05

CREDIT FACILITY (C\$ M)



1. The fair value corresponds to the quoted price of the investments in a recognized stock exchange as at December 31, 2019.
2. Including the C\$100 million accordion.

2020 OUTLOOK

GEO GUIDANCE¹

| | LOW | HIGH | CASH MARGIN |
|--------------------------|---------------|---------------|-----------------------|
| | (GEOs) | (GEOs) | (%) |
| ROYALTY INTERESTS | 57,500 | 61,700 | 100 |
| STREAM INTERESTS | 23,800 | 25,500 | 68 |
| OFFTAKE INTERESTS | 700 | 800 | 3 |
| | 82,000 | 88,000 | 90² |

1. For the 2020 guidance, silver, diamonds and cash royalties have been converted to GEOs using commodity prices of US\$1,450 per ounce of gold, US\$17.00 per ounce of silver and US\$70 per carat for diamonds from the Renard mine (blended sales price) and an exchange rate (US\$/C\$) of 1.30.

2. Excluding offtake interests

SUMMARY

OVER **135**
ROYALTY,
STREAM AND
OFFTAKE
ASSETS

PEER-LEADING
EXPOSURE TO
CANADIAN
ASSETS

76%
ASSET NPV IN
NORTH
AMERICA

64%
ASSET NPV IN
CANADA



78,006
ATTRIBUTABLE
GEOs EARNED
FOR 2019

C\$91.6 M
RECORD
OPERATING
CASH FLOW
FOR 2019

90%
CASH MARGIN¹
EARNED ON
GEOs RECEIVED
IN 2019

HIGHEST
DIVIDEND
YIELD IN PEER
GROUP
~1.6%

C\$277.4
IN INVESTMENTS
As at Dec. 31, 2019

C\$108.2 M
IN CASH
As at Dec. 31, 2019

OVER C\$850 M
IN FINANCIAL CAPACITY AVAILABLE
FOR DEPLOYMENT INTO HIGH
QUALITY OPPORTUNITIES

1. Cash margin is a non-IFRS financial performance measure which has no standard definition under IFRS. It is calculated by deducting the cost of sales from the revenues. The calculation of cash margins excludes offtakes.