Updated PEA Study Enhances Seabridge Gold's KSM Project

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A Larger Iron Cap Mine Improves Production and Dramatically Boosts Economics

Total Cost (Net of By-Product Credits) Estimated at US$4 per Ounce (US$358 in 2016 PEA)

After-Tax NPV@5% Increases ~80% (US$3.4B to US$6.0B) vs the 2016 PEA

After-Tax IRR Improves 40% (from 10% to 14%) vs the 2016 PEA

After-Tax projected payback shrinks from 6.4 to 4.0 years, only 9% of projected mine life

Toronto, April 27, 2020 - Seabridge Gold announced today that an updated Preliminary Economic Assessment (the "2020 PEA") for its 100%-owned KSM project has confirmed the potential for a dramatic improvement in project economics by incorporating the recently expanded, higher grade Iron Cap deposit into mine plans. This alternate scenario does not impact the current Preliminary Feasibility Study (the "2016 PFS") which remains in effect and will be included with the 2020 PEA in an updated NI 43-101 Technical Report to be filed on SEDAR within 45 days.

KSM is located in mining friendly British Columbia, Canada near existing and past producers as well as valuable transportation and energy infrastructure. KSM is the world's largest undeveloped gold/copper project measured by Mineral Reserves, which do not include a sizeable Inferred Mineral Resource at the project's four deposits. The project has both Federal and Provincial Environmental Assessment (EA) certificates and the Company is maintaining a strong social license, having signed Impact Benefit Agreements with the Nisg̱a'a and Tahltan First Nations, an environmental agreement with the Gitanyow Nation and receiving letters of support from the Gitxsan Nation.

Chairman and CEO Rudi Fronk noted that the 2020 PEA was undertaken to assess an alternate approach to developing KSM by incorporating a much larger Iron Cap block cave mine into the production schedule accompanied by smaller open pits compared to prior studies and developing this opportunity much earlier in the project's mine life. "The benefits of incorporating Iron Cap into mine plans at an early stage have exceeded the upper end of our expectations, not only for the improvements in projected economics but also for the reduction in environmental impact. The PEA is based on Iron Cap's inferred resource estimate but we are very confident these resources will upgrade to higher categories with further drilling as they have in the past at the project's other deposits. We therefore think the new Technical Report gives investors a compelling view of the project's potential," Fronk said.

"I would like to recognize the outstanding effort by our engineering team and our consultants for these results while working under the constraints imposed by COVID-19 and also the impressive success of our exploration team for their expansion of the Iron Cap resource," Fronk continued.

2020 PEA Highlights

- After Tax NPV at a 5% discount rate of US$6.0 billion using Base Case three-year average price assumptions of US$1,340/oz gold, US$2.80/lb copper and foreign exchange rate of US$0.76 per C$1.00:
- 44 year mine production plan capturing 19.6 million ounces of gold and 5.4 billion pounds of copper from the measured and indicated categories plus an additional 20.8 million ounces of gold and 13.8 billion pounds of copper from the inferred category:

- Life of mine recovered production of 27.6 million ounces gold and 17.0 billion pounds copper:
- 170,000 tonne per day processing rate capturing 2.4 billion tonnes (Bt) of mill feed, or only 30% of the total mineral resource:
- 4.0-year payback on US$5.2 billion initial capital:
- Average annual pre-tax Free Cash Flow of US$1.45 billion from 1.3 million oz gold and 265 million pounds copper produced per year during the initial 5 years of production:
- Life of mine average operating cost of negative US$472 per ounce of gold produced, net of copper and silver by-product revenues:
- Life of mine total cost of US$4 per ounces of gold produced, inclusive of all project capital and net of copper and silver by-product revenues;
- 57% reduction in mine waste rock compared to the approved EA;
- 33% reduction in greenhouse gas emissions from mine operations compared to the approved EA.

"These PEA economic projections, if achieved, would rank KSM among the best large-scale producing mines in the world," Fronk concluded.

The 2020 PEA evaluates an alternate development approach to KSM and validates the 2017-2018 investment in Iron Cap exploration drilling that resulted in a significantly larger Iron Cap Mineral Resource with improved grade (March 12, 2019 Iron Cap News Release). The larger Iron Cap block cave reduces underground mine development per unit capital cost and benefits from an electrified and partially automated mine which improves Iron Cap profitability compared to the 2016 PEA. The 2020 PEA production plan transitions to block cave mining early in the mine life and maintains the concept of less total disturbance area relative to the 2016 PFS by reducing the size of open pits and consolidating all mine waste rock into a single location in the Mitchell Valley.

The 2020 PEA assesses the potential impacts of incorporating Inferred Mineral Resources into project design, capital and operating cost estimates and projected economics. The 2019 Mineral Resource estimate is the current and only resource estimate used in this study. The results of the 2016 PFS remain valid and represent a viable option for developing the KSM project while the 2020 PEA assesses an alternative development option at a scoping level. The 2020 PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the results of the 2020 PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The 2020 PEA envisages a combined open pit and underground block cave mining operation planned to operate for 44 years. Over this mine life, mill feed delivered to the process plant is planned principally for gold and copper extraction with silver produced as a by-product. The mill would produce a flotation copper concentrate containing precious metals for transport by truck to a nearby seaport at Stewart, B.C. for shipment to Pacific Rim smelters, and a gold/silver doré produced from the carbon-in-leach (CIL) process on pyritic concentrates. Metallurgical testing indicates that KSM can produce a clean copper concentrate at an average copper grade of 25% with relatively high gold and silver content, making it readily saleable.

The NI 43-101 Technical Report summarizing the results of the 2020 PEA in Chapter 24, as well as the 2016 PFS, will be filed at www.sedar.com with a Report Effective Date of April 30, 2020. Key Findings from the 2020 PEA include:

- In the 2020 PEA, open pit mining accounts for a third of production while underground mining comprises the balance. This is the reverse of the 2016 PFS plan where two thirds of production were derived from open pit mining. Smaller open pits allow the 2020 PEA mine plan to reduce the waste rock storage volume by 57% compared to the 2016 PFS, with a corresponding reduction to environmental impact.
- Initial mill feed is mined exclusively from Mitchell pit, allowing for a streamlined mine to mill material flow through the payback period. The initial phases of Mitchell pit mining have been redesigned to integrate recent geotechnical data and improve pit wall designs, improve the variable cutoff strategy, and improve the efficiency of waste pre-stripping from upper pit benches. These changes have resulted in reduced initial mining costs and an improvement in the payback period mill feed grades.
- An improved mining sequence has been achieved by deferring the Sulphurets pit and initiating earlier development of Iron Cap and Deep Kerr block caves. Construction rock sourced from the Sulphurets pit in the 2016 PEA is quarried from within the Mitchell pit in the 2020 PEA allowing for re-sequencing of open pit mining to only the Mitchell pit until the initial capital payback has been achieved.

- Electrification of the Iron Cap block cave mine equipment with partial automation results in significant diesel consumption reduction replaced by lower cost green power supplied by BC Hydro. The electrified mine design has an 11% higher capital cost versus a conventionally developed and operated mine design but these costs are offset by much lower operating costs, leveraging savings on diesel consumption, ventilation, equipment maintenance and labor, yielding an approximately 11% lower total cost per tonne mined.
- In the 2020 PEA, large footprints of the Iron Cap and Deep Kerr block cave mines support the high production rates required to meet the designed mill throughput rate of 170,000 tonnes per day ("tpd"), the same mill throughput as the 2016 PEA. The 2020 PEA design includes dedicated processing lines to treat Mitchell and Sulphurets mill feed separate from Iron Cap and Kerr mill feed. This design concept reflects recent metallurgical test work that suggests incremental CIL gold production is marginal or sub-economic from the copper rich Iron Cap and Deep Kerr block caves. The 2020 PEA process plan therefore excludes CIL processing of Iron Cap and Deep Kerr mill feeds.
- Mine site water tunnel alignments are revised in the 2020 PEA to incorporate recent field data, avoid mineralized deposits and reflect the mine development plan, resulting in improved constructability and reliability over the 2016 PEA design. One dual bore tunnel has been changed to a single bore, concrete lining was added to multiple tunnels and tunnel system expansions were removed as a result of the reduction in the size of the Rock Storage Facility (RSF). Commensurate with these design changes and life of mine plan requirements, the cumulative length of water diversion mine site tunnels has been reduced from 51 km to 20 km.
- In the 2020 PEA, estimated initial capital costs including pre-production mining are 6% improved over the 2016 PEA (from US$5.5 billion down to US$5.2 billion), reflecting changes in initial mine design. Sustaining capital shows a significant 31% reduction (from US$10 billion down to US$6.9 billion) derived mostly from production plan improvements related to underground mining, focusing on more profitable Iron Cap and Deep Kerr block cave mines, and limiting cave development to three separate cave horizons through the life of mine instead of the five described in the 2016 PEA.
- As a result of mine plan extraction from the larger Iron Cap block cave mine, the life of mine copper grade in the 2020 PEA increased 16% (from 0.32% to 0.37%), delivering 2.5 B lb more copper to the mill (from 16.7 to 19.2 B lb) versus the 2016 PEA.
- Base Case operating cost and total cost per ounce of gold produced (net of copper and silver by-products) dramatically improve in the 2020 PEA. The life of mine estimated average operating cost is reduced from negative US$179 to negative US$472 per ounce of gold produced, while the estimated life of mine total cost, inclusive of all capital, is reduced from US$358 to US$4 per ounce compared to the 2016 PEA. The change in Base Case operating and total cost is due to higher by-product credits from significantly higher copper production more than offsetting reduced gold production because no incremental gold production is taken from the CIL circuit for two deposits plus the application of an improved price scenario.
- For a primary copper producer reporting costs per pound of copper produced (net of gold and silver by-products) the Base Case total life of mine average operating cost is negative US$0.14 per pound and total life of mine average cost inclusive of all capital is US$0.63 per pound.
- For a diversified mining company reporting costs on a co-product basis, the Base Case total life of mine average operating costs are US$511 per ounce for gold production and $1.17 per pound for copper production. Total life of mine average costs, inclusive of all capital, are US$717 per ounce of gold produced and US$1.59 per pound of copper produced.

Attached to this news release is an addendum (https://orders.newsfilecorp.com/files/4600/54910_101386_sea-addendum.pdf) providing additional details relating to the 2020 PEA's mineral resources, mine design, production plan, capital costs, operating costs and economic projections.

KSM 2016 PFS Remains Current

Seabridge engaged independent consultants to conduct an extensive data verification exercise on the 2016 PFS to determine whether there had been any material changes to the information used in the 2016 PFS and whether the study could be considered current. The results of the exercise verified that if the 2016 PFS were to be updated using the 2020 information, there would be no material change to outcomes of the 2016 PFS, its capital and operating costs, mineral reserves, or financial analysis, and therefore the 2016 PFS remains current and is suitable to be used unchanged in the 2020 Technical Report.

The data verification checks used updated resource models with updated process recoveries and escalated cost assumptions and estimated that variances in total mill feed would be limited to +1.3% on mill feed tonnes, no change on gold grade, and +2.4% on copper grade. These overall differences are not material to the 2016 PFS Mineral Reserves. The financial results using the 2016 PFS mine plan with updates to capital

and operating costs, 3-year average metal prices and tax code revisions are also not materially different from the 2016 PFS financial results.

The 2016 PFS was designed to align with regulatory approvals for project construction and operation included in federal and provincial Environmental Assessments. The scope of the 2016 PFS mine design included open pits and underground mines to extract ore from the Mitchell, Sulphurets, Kerr and Iron Cap deposits. Ore is transported through access tunnels to a processing plant located in the Teigen Creek valley nearby provincial infrastructure where it is processed to produce saleable concentrate and doré. Process waste is stored in a tailings management facility. The 2020 PEA is an alternative development option to the 2016 PFS, with a significantly higher plant throughput rate, exploitation of deeper Inferred Mineral Resources maximizing underground mass mining techniques over open-pit mining, and changes to the life of mine plan and infrastructure design. The 2020 PEA is a standalone, alternative development option that does not invalidate the 2016 PFS which remains as a viable option.

National Instrument 43-101 Disclosure

The 2020 PEA and 2016 PFS incorporate the work of a number of industry-leading consulting firms. These firms and their Qualified Persons (as defined under National Instrument 43-101) are independent of Seabridge and have reviewed and approved this news release. The principal consultants who contributed to the 2020 PEA and 2016 PFS, and their Qualified Persons, are listed below along with their areas of responsibility:

- Wood under the direction of Kirk Hanson, MBA, P.E. (capital and operating costs; financial model; 2020 PEA only); Alan Keylock P.Eng. (process design, water treatment and operating costs; 2020 PEA only)
- Moose Mountain Technical Services under the direction of James Gray, P.Eng. (mine design; capital and operating costs for open pit mines and tunnels).
- Resource Modeling Inc. under the direction of Michael Lechner P.Geo. (Mineral Resources).
- Golder Associates Ltd. under the direction of Ross Hammett P.Eng. (block caving assessments).
- Klohn Crippen Berger Ltd. under the direction of Graham Parkinson P.Geo. (design of surface and tunnel diversion infrastructure, Rock Storage Facility, Tailing Management Facility and Water Storage Dam).
- W.N. Brazier Associates Inc. under the direction of Neil Brazier, P. Eng. (power infrastructure).
- Tetra Tech under the direction Hassan Ghaffari, P. Eng (process design, capital and operating costs, financial model; 2016 PFS)

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Seabridge Gold holds a 100% interest in several North American gold resource projects. The Company's principal assets are the KSM and Iskut properties located near Stewart, British Columbia, Canada and the Courageous Lake gold project located in Canada's Northwest Territories. For a breakdown of Seabridge's mineral reserves and resources by project and category please visit the Company's website at http://www.seabridgegold.net/resources.php.

Neither the Toronto Stock Exchange, New York Stock Exchange, nor their Regulation Services Providers accepts responsibility for the adequacy or accuracy of this release.

All reserve and resource estimates reported by the Corporation were calculated in accordance with the Canadian National Instrument 43-101 and the Canadian Institute of Mining and Metallurgy Classification system. These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

This document contains "forward-looking information" within the meaning of Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. This information and these statements, referred to herein as "forward-looking statements" are made as of the date of this document. Forward-looking statements relate to future events or future performance and reflect current estimates, predictions, expectations or beliefs regarding future events and include, but are not limited to, statements with respect to: (i) the estimated amount and grade of mineral reserves and mineral resources and the potential to upgrade inferred resources to higher resource categories; (ii) estimates of the capital costs of constructing mine facilities and bringing a mine into

production, of sustaining capital and the duration of financing payback periods; (iii) the estimated amount of future production, both ore processed and metal recovered; and (iv) estimates of operating costs, life of mine costs, net cash flow, net present value (NPV) and economic returns from an operating mine. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives or future events or performance (often, but not always, using words or phrases such as "expects", "anticipates", "plans", "projects", "estimates", "envisages", "assumes", "intends", "strategy", "goals", "objectives" or variations thereof or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved, or the negative of any of these terms and similar expressions) are not statements of historical fact and may be forward-looking statements.

All forward-looking statements are based on Seabridge's or its consultants' current beliefs as well as various assumptions made by them and information currently available to them. The most significant assumptions are set forth above, but generally these assumptions include: (i) the presence of and continuity of metals at the Project at estimated grades; (ii) the geotechnical and metallurgical characteristics of rock conforming to sampled results; including the quantities of water and the quality of the water that must be diverted or treated during mining operations; (iii) the capacities and durability of various machinery and equipment; (iv) the availability of personnel, machinery and equipment at estimated prices and within the estimated delivery times; (v) currency exchange rates; (vi) metals sales prices; (vii) appropriate discount rates applied to the cash flows in the economic analysis; (viii) tax rates and royalty rates applicable to the proposed mining operation; (ix) the availability of acceptable financing under assumed structure and costs; (ix) anticipated mining losses and dilution; (x) metallurgical performance; (xi) reasonable contingency requirements; (xii) success in realizing proposed operations; (xiii) receipt of permits and other regulatory approvals on acceptable terms; and (xiv) the successful conclusion of consultation with impacted Treaty and First Nations groups. Although management considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect. Many forward-looking statements are made assuming the correctness of other forward looking statements, such as statements of net present value and internal rates of return, which are based on most of the other forward-looking statements and assumptions herein. The cost information is also prepared using current values, but the time for incurring the costs will be in the future and it is assumed costs will remain stable over the relevant period.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that estimates, forecasts, projections and other forward-looking statements will not be achieved or that assumptions do not reflect future experience. We caution readers not to place undue reliance on these forward-looking statements as a number of important factors could cause the actual outcomes to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates assumptions and intentions expressed in such forward-looking statements. These risk factors may be generally stated as the risk that the assumptions and estimates expressed above do not occur as forecast, but specifically include, without limitation: risks relating to variations in the mineral content within the material identified as mineral reserves or mineral resources from that predicted; variations in rates of recovery and extraction; the geotechnical characteristics of the rock mined or through which infrastructure is built differing from that predicted, the quantity of water that will need to be diverted or treated during mining operations being different from what is expected to be encountered during mining operations or post closure, or the rate of flow of the water being different; developments in world metals markets; risks relating to fluctuations in the Canadian dollar relative to the US dollar; increases in the estimated capital and operating costs or unanticipated costs; difficulties attracting the necessary work force; increases in financing costs or adverse changes to the terms of available financing, if any; tax rates or royalties being greater than assumed; changes in development or mining plans due to changes in logistical, technical or other factors; changes in project parameters as plans continue to be refined; risks relating to receipt of regulatory approvals or the conclusion of successful consultation with impacted First Nations groups; changes in regulations applying to the development, operation, and closure of mining operations from what currently exists; the effects of competition in the markets in which Seabridge operates; operational and infrastructure risks and the additional risks described in Seabridge's Annual Information Form filed with SEDAR in Canada (available at www.sedar.com) for the year ended December 31, 2019 and in the Corporation's Annual Report Form 40-F filed with the U.S. Securities and Exchange Commission on EDGAR (available at www.sec.gov/edgar.shtml). Seabridge cautions that the foregoing list of factors that may affect future results is not exhaustive.

When relying on our forward-looking statements to make decisions with respect to Seabridge, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Seabridge does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by Seabridge or on our behalf, except as required by law.

ON BEHALF OF THE BOARD

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