



**ALEXCO**

**ALEXCO RESOURCE CORP.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**FOR THE THREE MONTH PERIOD ENDED MARCH 31, 2019**

This Management's Discussion and Analysis ("MD&A") of Alexco Resource Corp. ("Alexco" or the "Corporation") is dated May 8, 2019 and provides an analysis of Alexco's unaudited condensed consolidated financial results for the three month period ended March 31, 2019 compared to the three month period ended March 31, 2018.

The following information should be read in conjunction with the Corporation's March 31, 2019 unaudited interim condensed consolidated financial statements with accompanying notes (the "2019-Q1 Interim F/S"), which have been prepared in accordance with IAS 34 Interim Financial Reporting, and with the Corporation's audited consolidated financial statements with accompanying notes and related MD&A for the fiscal year ended December 31, 2018, which were prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. The 2019-Q1 Interim F/S follow the same accounting policies and methods of computation as compared with the most recent fiscal financial statements, except for those policies disclosed in Note 3 of the 2019-Q1 Interim F/S. All dollar figures are expressed in Canadian dollars unless otherwise stated. These documents and additional information on the Corporation are available on the Corporation's website at [www.alexcoresource.com](http://www.alexcoresource.com) and on the SEDAR website at [www.sedar.com](http://www.sedar.com) and Edgar at [www.sec.gov](http://www.sec.gov).

Except where specifically indicated otherwise, the disclosure in this MD&A of scientific and technical information regarding exploration projects on Alexco's mineral properties has been reviewed and approved by Alan McOnie, FAusIMM, Vice President, Exploration, while that regarding mine development and operations has been reviewed and approved by Neil Chambers, P.Eng., Mine Superintendent, both of whom are Qualified Persons as defined by National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101").

All dollar figures are expressed in Canadian dollars unless otherwise stated.

## **2019-Q1 HIGHLIGHTS AND OVERALL PERFORMANCE**

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### **CORPORATE**

- Overall, Alexco reported net income of \$1,207,000 (\$0.01 per share) for the three month period ended March 31, 2019 and income before tax expense of \$1,769,000 including net non-cash adjustments of \$3,523,000. In the prior year the Corporation incurred a loss before taxes for three months ended March 31, 2018 of \$3,589,000 (including non-cash costs of \$2,020,000). The increase in net income in the 2019 period compared to the 2018 period was mainly attributed to non-cash fair value gain of \$5,482,000 on the embedded derivative related to the Wheaton Precious Metals Corp. ("Wheaton") streaming agreement.
- The Corporation's cash and cash equivalents at March 31, 2019 totaled \$6,392,000 compared to \$8,576,000 at December 31, 2018, while net working capital (*see Non-GAAP Measures on page 19*) totaled \$7,114,000 compared to \$10,188,000 at December 31, 2018. The Corporation's restricted cash and deposits at March 31, 2019 totaled \$2,739,000 compared to \$2,725,000 at December 31, 2018.
- Subsequent to quarter end, the Corporation completed a private placement, on a bought deal basis, of 1,842,200 flow-through common shares at a price of \$1.90 per share for gross proceeds of \$3,500,000. The flow-through common shares comprise: (i) 1,579,000 flow-through shares with respect to "Canadian exploration expenses" (the "CEE Shares") priced at \$1.90 per CEE Share; and (ii) 263,200 flow-through shares with respect to "Canadian development expenses" (the "CDE Shares") priced at \$1.90 per CDE Share.

- On February 14, 2019 the Corporation extended the availability period of draw-down on its credit facility (the "Credit Facility") with Sprott Private Resource Lending (Collector), L.P. ("Sprott") to August 23, 2019 from February 23, 2019 by issuing to Sprott 171,480 common shares of Alexco.

#### *MINE OPERATIONS AND EXPLORATION*

- The Corporation announced the results of an independent pre-feasibility study ("PFS") on its 100% owned Keno Hill Silver project (see press release dated March 28, 2019 entitled "Alexco Announces Positive Pre-Feasibility Study for Expanded Silver Production at Keno Hill Silver District") and on May 8, 2019 the Corporation released an independent technical report. The results are discussed on detail under 2019 Developments on page 5.
- Assay results were announced from the 2018 reconnaissance drill program at Husky, No Cash, Townsite, Eagle, Bellekeno South and Black Cap comprising 26 holes for 7,687 meters ("m") (see news release dated January 21, 2019, entitled "Alexco 2018 Reconnaissance Drilling Confirms Continuation of Bermingham Mineralization at Depth and Identifies an Offset Extension, Identifies New Gold Targets").

#### *ALEXCO ENVIRONMENTAL GROUP*

- Alexco Environmental Group ("AEG") recognized revenues of \$7,233,000 for the three month period ended March 31, 2019 for a gross profit of \$1,472,000 achieving a gross margin of 20%, compared to revenues of \$2,764,000 for the three month period ended March 31, 2018 for a gross profit of \$830,000 achieving a gross margin of 30%. AEG incurred an operating loss before taxes for the three month period ended March 31, 2019 of \$52,000 excluding non-cash costs of \$136,000 (see Note 21 in the financial statements for the three month period ended March 31, 2019).
- Subsequent to quarter end, AEG and a joint venture partner, JDS Energy and Mining Inc. ("JDS"), entered into agreement to acquire the abandoned Mount Nansen Mine site ("Mount Nansen") from the Federal Government of Canada ("Canada"). AEG and JDS formed a limited partnership called Mount Nansen Remediation Limited Partnership ("MNR") to enter into the agreement with Canada whereby Canada will pay MNR to remediate environmental contamination from previous mining activities at Mount Nansen. AEG and JDS each own 50% in MNR as well as a newly formed general partnership and will be jointly responsible for Mount Nansen project remediation work and will share equally in the project's profitability. Working alongside Canada, the Yukon Government and Little Salmon/Carmacks First Nations, AEG will be primarily responsible for permitting, design and care and maintenance while JDS will be responsible for the construction aspect of the Mount Nansen project. This long-term project is expected to take up to 10 years to complete.
- Subsequent to quarter end, AEG entered into an agreement with the Bank of Montreal ("BMO") for a revolving line of credit ("LOC") for up to \$4 million. The LOC has an interest rate of approximately 5.7% on drawn funds, is secured against AEG assets, and has customary covenants in place. AEG utilized the LOC capacity to post a \$1,000,000 letter of credit for Mount Nansen.

#### **OVERVIEW OF THE BUSINESS**

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Alexco owns substantially all of the historic Keno Hill Silver District ("KHSD" or the "District"), located in Canada's Yukon Territory. The Bellekeno silver mine, one of the world's highest-grade silver mines with a production grade averaging 779 grams per tonne ("g/t") silver ("Ag"), commenced commercial production at the beginning of 2011 and was Canada's only operating primary silver mine from 2011 to 2013,

producing a total of 5.6 million ounces of silver during the 2010 – 2013 period. In September 2013 Alexco suspended Bellekeno mining operations in light of a sharply reduced silver and base metal prices. Since the suspension Alexco has focused on evaluating the Flame & Moth and the Bermingham deposits, renegotiating third party contracts and reviewing other opportunities to reduce future mining operating costs for future operations at Keno Hill. This work culminated with the announcement of PFS results in March 2019 and the publication of a technical report in May 2019. With the PFS completed, Alexco is moving toward resumption of silver production in at Keno Hill, including production from the Flame & Moth, Bermingham, Lucky Queen and Bellekeno silver deposits.

Alexco also owns and operates an environmental consulting business, AEG, which provides a variety of mine and industrial related environmental services, including management of the regulatory and environmental permitting process, remediation technologies and reclamation and mine closure services. AEG provides these services to both government and industry clients through its wholly owned subsidiaries, Alexco Environmental Group Holding Inc. (“AEG Holdings”) which wholly owns Alexco Environmental Group Inc. (“AEG Canada”), Alexco Water and Environment Inc. (“AWE”) and Contango Strategies Ltd. (“Contango”). Alexco also owns certain patent rights related to mine reclamation and closure processes including the in-situ immobilization of metals in groundwater, soils, waste stacks and pit lakes.

Alexco is a public company which is listed on the NYSE American Stock Exchange (under the symbol AXU) and the Toronto Stock Exchange (under the symbol AXR).

## **OUTLOOK AND STRATEGY**

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### ***Keno Hill Silver District***

Alexco’s current primary focus is to re-start mining operations at Keno Hill. Alexco has the requisite permits and authorizations for future ore production from the Flame & Moth, Lucky Queen, Bellekeno and Onek deposits. In November 2017 a project proposal for environmental assessment was submitted to Yukon Environmental and Socio-economic Assessment Board (“YESAB”) for future production and processing of ore from the Bermingham deposit. A positive Decision Document was issued by the Yukon Government on July 27, 2018. Completion of the amendments to Alexco’s Quartz Mining Licence (“QML”) is now expected in Q2 2019, and a renewal of the WUL is expected in Q3 2019. At that point Alexco will be fully permitted for ore production and processing from the Bermingham deposit in addition to the previously mentioned Flame & Moth, Lucky Queen, Bellekeno and Onek deposits.

The KHSD is located in the Yukon Territory approximately 330 kilometers north of Whitehorse in the vicinity of the communities of Mayo and Keno City and lies within the traditional territory of the First Nation of Na-Cho Nyak Dun (“FNNND”). Alexco is party to a Comprehensive Cooperation and Benefits Agreement (“CCBA”) with the FNNND, setting out common understandings, obligations and opportunities arising from all of Alexco’s activities within the District including exploration, care and maintenance, District closure activities and mine production.

### ***Alexco Environmental Group***

Alexco owns and operates AEG which carries out a variety of fee for service and turnkey project activities related to environmental management and assessment, project permitting, remediation, water treatment and project closure requirements in North America and elsewhere. AEG has developed a strong client base within the mining industry and has also been able to establish new lines of business related to industrial site soil remediation, water treatment and historical mine pool remediation as well as emergency water treatment services. With the acquisition of Contango in June 2018, AEG has expanded its business lines into specialized biological water treatment systems for mining, oil and gas, and industrial operations.

AEG provides consulting services to Alexco's wholly owned subsidiary, Elsa Reclamation and Development Ltd. ("ERDC"), on the on-going environmental care and maintenance program and reclamation and closure projects at Keno Hill with Canada and in accordance with the amended and restated Subsidiary Agreement ("ARSA").

### **ERDC**

As part of Alexco's 2006 acquisition of the United Keno Hill Mines ("UKHM") mineral rights in the District, ERDC is party to the ARSA with Canada. Under the ARSA, ERDC is retained by Canada as a paid contractor responsible on a continuing basis for the environmental care and maintenance and ultimate closure reclamation of the former UKHM mineral properties. The ARSA provides that ERDC share the responsibility for the development of the ultimate closure plan with Canada. Upon regulatory approval, the closure plan will be implemented by ERDC. During the period required to develop the plan and until the closure plan is executed, ERDC is also responsible for carrying out the environmental care and maintenance at various sites within the UKHM mineral rights, for a fixed annual fee established on a per-site basis totaling \$850,000, adjustable for material changes in scope. ERDC receives agreed-to commercial contractor rates when retained by Canada to provide environmental services in the District outside the scope of care and maintenance and closure and reclamation planning under the ARSA.

ERDC currently holds a Type B WUL under the Yukon Waters Act to undertake care and maintenance activities in the Keno Hill area. The final Existing State of Mine ("ESM") Reclamation Plan at Keno Hill was completed in September 2018 and was subsequently submitted for environmental assessment by the YESAB. The ESM Project Proposal to YESAB was declared adequate in February 2019. Subsequent to completion of the YESAB environmental assessment process, a WUL amendment will be required from the Yukon Water Board to authorize the activities necessary to effect closure of the site. After licencing, funding approval from Crown-Indigenous Relations and Northern Affairs Canada ("CIRNAC") for the final cleanup project will be subject to review and acceptance of the project by the Treasury Board of Canada. The final ESM Reclamation Plan is subject to amendment that may result from requirements during the assessment, licencing, and funding approval processes.

### **Economic Climate**

Silver, lead and zinc are the primary metals found within the District historically. With respect to the economic climate during the first quarter of 2019, prices have stayed relatively flat with an average silver price of US\$15.57 per ounce of silver during the quarter. Silver traded from a high of US\$16.08 per ounce of silver on January 31, 2019 to a low of US\$15.08 per ounce of silver on March 7, 2019, while lead traded between US\$1.22 to US\$0.87 per pound and zinc traded between US\$1.31 to US\$1.10 per pound. As at the date of this MD&A, spot commodity prices are approximately US\$14.90 per ounce silver, US\$0.85 per pound for lead and US\$1.25 per pound for zinc and the Canadian-US exchange rate is approximately US\$0.74 per CAD. Consensus investment analyst forecasts over the next two years for silver average approximately US\$16.38 per ounce of silver, for lead average approximately US\$0.95 per pound, and for zinc US\$1.23 per pound, with the Canadian-US exchange rate forecast at US\$0.76 per CAD (see "Risk Factors" in the MD&A for the year ended December 31, 2018, including but not limited to "Potential Profitability Of Mineral Properties Depends Upon Other Factors Beyond the Control of the Corporation" and "General Economic Conditions May Adversely Affect the Corporation's Growth and Profitability" thereunder).

## **2019 DEVELOPMENTS**

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### *2019 Pre-Feasibility Study*

On March 28 2019, Alexco announced the results of an independent PFS on the Keno Hill Silver Project (the "Project"), entitled "Alexco Announces Positive Pre-Feasibility Study for Expanded Silver Production at Keno Hill Silver District" and on May 8, 2019 the Corporation released an updated National Instrument

43-101 compliant technical report entitled “NI 43-101 Technical Report on Preliminary Feasibility Study of the Keno Hill Silver District Project, Yukon Territory, Canada”.

The Project contemplates the conventional mining and milling of silver-lead-zinc ore from four deposits in the District. There is an existing mill which will process a high grade silver-lead-zinc ore from four deposits across the District. Over the eight year mine life contemplated in this PFS, the mines will produce 1.18 M tonnes of ore at an average 805 g/t silver (“Ag”), 2.98% lead (“Pb”), 4.13% zinc (“Zn”) and 0.34 g/t gold (“Au”). Following commissioning, the mill will produce two concentrates; a high grade lead-silver concentrate averaging 15,890 g/t Ag, 54% Pb, and 3.7 g/t Au, and a zinc-silver concentrate averaging 649 g/t Ag and 53% Zn. The annualized silver product in concentrate is 4.0 M ounces (“oz”).

The mine plan is based on conventional mining methods. Based on the orientation, width of the veins, review of historic mining in the District, and geotechnical information, a combination of mechanized overhand cut and fill, and longhole stoping with cemented rock fill have been selected as the appropriate mining methods for all four deposits. The deposits require the use of mining methods that can adequately support the vein and that are flexible and selective while minimizing the direct mining costs. The backfill is planned to be a mixture of waste rock fill and tailings from the dry stack tailings facility (“DSTF”) with cement added as required.

The initial capital cost is \$23.2 M. This initial capital (pre-production prior to achieving positive cash flow) comprises \$17.9 M of mine development and PP&E and \$5.3 M of net working capital for the initial construction and ramp up period of five months. The life-of-mine (“LOM”) sustaining capital is estimated at \$76.5 M, primarily for ongoing mine development.

The direct operating costs for the Project are estimated at a total of \$362 M or \$312 per tonne of ore. These comprise \$226 M direct mine costs, \$70 M of direct mill costs, and \$67 M for site general and administrative (“G&A”) costs (excluding corporate). All-in sustaining costs (“AISC”) were estimated at CDN\$17.98/oz Ag (based on the Study metal prices).

The project economics show this to be a robust project with low capital and high returns with a pre-tax net present value at a 5% discount rate (“NPV<sub>5</sub>”) of \$136.2 M and after-tax NPV<sub>5</sub> of \$101.2 M. The pre-tax internal rate of return (“IRR”) is 84% and after-tax IRR is 74%. Considering the Project on a stand-alone basis, the undiscounted after-tax cash flow totals \$129.3 M over the mine life. Simple payback occurs approximately two years from start of production, approximately 26 months after the end of the initial capital period.

A summary of the mineral reserve estimates are below:

**Summary of Mineral Reserves Estimates**

Category	Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
<i>Probable</i>	Bellekeno	40,109	843	-	11.8	6.3	1,087,000
	Lucky Queen	70,717	1,244	0.12	2.6	1.4	2,828,000
	Flame & Moth	704,211	672	0.49	2.7	5.7	15,215,000
	Birmingham	362,343	972	0.13	2.6	1.3	11,324,000
<b>Total Mineral Reserves</b>		<b>1,177,380</b>	<b>804</b>	<b>0.34</b>	<b>3.0</b>	<b>4.1</b>	<b>30,454,000</b>

Notes: See page 21 and 22 for full disclosure on estimated mineral reserves and resources.

The PFS has been prepared in compliance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“NI 43-101”), and was compiled by Mining Plus Consulting Ltd. (“Mining Plus”) with contributions from a team of Qualified Persons as defined by NI 43-101. All mineral resources are classified following the CIM Definition Standards for Mineral Resources and Mineral Reserves (May

2014), in accordance with the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines and with NI 43-101. The Technical Report is available on the Company's website at <https://www.alexcoresource.com/> as well as under the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### *Development Strategy*

The Corporation is moving towards production in a two (2) phased approach while also mitigating risk of further delay for the renewal of the WUL licence for Bermingham. Phase 1 work will commence in May 2019 and will focus on surface and mill capital improvements, while Phase 2 will commence only when the timing and certainty of the Bermingham WUL is established. Phase 2 work will focus on underground development in preparation for production from the Bellekeno and Flame & Moth deposits, mill commissioning and final underground development of the Bermingham deposit.

## **2019 OUTLOOK**

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### ***Keno Hill Silver District***

#### *2019 Flame & Moth Development*

Flame & Moth has underground development totaling 452 m driven, comprising 371 m of linear decline advance and 81 m included in support infrastructure. Approximately 336 m of ramp and infrastructure development remains to reach the first ore level access at the Lightning Zone. In addition, a 100 m ventilation raise to surface will be required before commercial ore production can be achieved. Completion of the remaining ramp development, raise and infrastructure will commence in Phase II of the development strategy once certainty of timing of the WUL renewal for Bermingham is established.

The Flame & Moth decline will be constructed at a design of 15% grade and sized 3.7 m wide x 4.0 m high and will accommodate new underground drilling headings as well as haulage up to 250 to 400 tonnes of ore per day to the primary crusher which is located within 200 m of the mine portal.

#### *2019 Bermingham Development*

The Bermingham deposit has underground development totaling a 550 m of decline driven. Approximately 210 m of ramp and infrastructure development remains to reach the first ore level access. In addition, a 170 m ventilation raise to surface will be required before commercial ore production can be achieved. Completion of the remaining ramp development, raise and infrastructure will commence in Phase II of development strategy once certainty of timing of amended WUL for Bermingham is established.

The Bermingham decline is constructed at a design of 15% grade and sized 3.7 m wide x 4.0 m high and will accommodate new underground drilling headings as well as haulage up to 250 to 400 tonnes of ore per day to the primary crusher.

#### *Permitting Update*

Alexco has the requisite permits and authorizations for future ore production from the Bellekeno, Flame & Moth, Lucky Queen, and Onek deposits. Permitting for production from the Bermingham deposit is ongoing with a positive Decision Document issued by the Yukon Government on July 27, 2018. The Decision Document outlines a number of standard terms and conditions for development and mine production from the Bermingham deposit.

With the issuance of the Decision Document, Alexco submitted a water licence renewal application to the Yukon Water Board for processing and milling ore and discharging treated water from the Bermingham mine.

Completion of the amendments to Alexco's QML is expected in Q2 2019, and a renewal of the WUL is expected in Q3 2019.

### *Exploration*

#### *i. 2019 Surface Drill Program*

For 2019 the Corporation has planned a 7,500 m, \$3,000,000 surface exploration diamond drilling program that will focus on potential reserve/resource expansion as well as the deeper targets in the vicinity of the Birmingham deposit as well as following up on reconnaissance drilling from the 2018 program. The surface exploration program will commence in June and operate through September 2019 with results expected to be finalized in the fourth quarter of 2019.

#### *ii. 2018 Final Drill Program Results*

- On January 21, 2019 final assay results were announced from the 2018 drill program at Birmingham, Husky, No Cash, Townsite, Brefalt, Eagle and Black Cap comprising 26 holes for 7,687 m (see news release dated January 21, 2019, entitled "Alexco 2018 Reconnaissance Drilling Confirms Continuation of Birmingham Mineralization at Depth and Identifies an Offset Extension, Identifies New Gold Targets"). This included: Significantly mineralized intercepts at depth below and along strike of the current mineral resources at Birmingham.
- The confirmation of possible fault offset of the Hector-Calumet / Birmingham structures at Brefalt, located 2 km southwest of Birmingham, indicating a significant new exploration opportunity.

## **RESULTS OF OPERATIONS**

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### *Mine Site Care and Maintenance*

Mine site care and maintenance costs for first quarter of 2019 totaled \$624,000 compared to \$681,000 for the first quarter of 2018. The costs were consistent between 2019 and 2018 as the Corporation continues with site-based expenditures and mill maintenance and refurbishment initiatives related to future recommissioning of the mill and related plant. Included in mine site care and maintenance costs is depreciation expense of \$308,000 for the 2019 period compared to \$301,000 for the 2018 period.

### *General and Administrative Expenses*

#### *Corporate:*

Corporate general and administrative expenses during first quarter of 2019 totaled \$2,668,000 compared to \$2,729,000 for first quarter of 2018. This includes non-cash costs in the amounts of \$1,166,000 in the first quarter of 2019 and \$1,164,000 in the first quarter of 2018, which relate to share-based compensation and amortization and depreciation expenses. The higher costs in 2018 primarily relate to the Corporation incurring costs related to restructuring AEG and incurring fees related to securing the Credit Facility with Sprott.

### *Environmental Services:*

Environmental Services general and administrative expenses during the first quarter of 2019 totaled \$1,644,000 compared to \$679,000 for the first quarter of 2018. The increase in general and administrative expenses in 2019 is attributable to the additional overheads associated with operation of the Contango business and additional investment in professional employees and support functions required to meet demand and growth in the business.

### **Alexco Environmental Group (AEG) and ERDC**

#### *Highlights during and subsequent to Q1-2019:*

- AEG recognized revenues of \$7,233,000 in the first quarter of 2019 for a gross profit of \$1,472,000 achieving a gross margin of 20% compared to revenues of \$2,764,000 for a gross profit of \$830,000 achieving a gross margin of 30% in the first quarter of 2018. The increase in gross profit during the 2019 period was primarily due to work performed on the Schwartzwalder Mine and the former Canon City Uranium Mill reclamation and cleanup projects as well as construction work continuing on a water treatment plant in Ontario, Canada. The gross margin percentage reduced during the quarter as the Corporation increased the use of third party services, most notably relating to projects with significant construction work in the first quarter.
- On April 30, 2019, AEG entered into an agreement with the BMO for a revolving LOC for up to \$4 million with an interest rate of approximately 5.7% on drawn funds.
- During the quarter, under the contract with Canada for the historical cleanup at Keno Hill, ERDC's submission of the ESM Reclamation Plan for environmental assessment was deemed adequate by YESAB and entered the Seeking Views and Information phase of the assessment that included public meetings on the project. In addition, ERDC continued with detailed engineering related to the closure plan.
- AEG is successfully operating two water treatment facilities in the US, the Gladstone Interim Water Treatment Plant ("IWTP") near Silverton Colorado and the Schwartzwalder industrial water treatment plant near Golden Colorado. AEG also operates a water treatment project in British Columbia, Canada, treating acidic metal leachate from construction related materials in contact with water and groundwater.
- On May 6, 2019 AEG and a joint venture partner, JDS Energy and Mining Inc. ("JDS"), entered into agreement to acquire the abandoned Mount Nansen Mine site ("Mount Nansen") from the Federal Government of Canada ("Canada"). AEG and JDS formed a limited partnership called Mount Nansen Remediation Limited Partnership ("MNR") to enter into the agreement with Canada whereby Canada will pay MNR to remediate environmental contamination from previous mining activities at Mount Nansen. In addition, MNR has the right to pursue mining activities at Mount Nansen. AEG and JDS each own 50% in MNR as well as a newly formed general partnership and will be jointly responsible for Mount Nansen project remediation work and will share equally in the project's profitability. Working alongside Canada, the Yukon Government and Little Salmon/Carmacks First Nations, AEG will be primarily responsible for permitting, design and care and maintenance while JDS will be responsible for the construction aspect of the Mount Nansen project. This long-term project is expected to take up to ten years to complete.

## SUMMARY OF QUARTERLY RESULTS

Key financial information for the most recent eight quarters is summarized as follows, reported in thousands of Canadian dollars except for per share amounts:

Period	Revenue	Gross Profit	Net Income (Loss)	Basic Income (Loss) per Share	Diluted Income (Loss) per Share	Expenditures Capitalized on Mineral Properties
2017-Q2	2,504	913	(2,736)	\$(0.03)	\$(0.03)	1,782
2017-Q3	3,786	1,545	(2,313)	\$(0.02)	\$(0.02)	3,491
2017-Q4	2,507	993	(1,791)	\$(0.03)	\$(0.03)	2,809
<b>2017 Total (restated)</b>	<b>8,797</b>	<b>3,451</b>	<b>(6,840)</b>	<b>\$(0.08)</b>	<b>\$(0.08)</b>	<b>8,082</b>
2018-Q1	2,764	830	(3,261)	\$(0.03)	\$(0.03)	3,147
2018-Q2	3,545	1,368	(1,896)	\$(0.02)	\$(0.02)	4,812
2018-Q3	4,669	1,702	(1,548)	\$(0.01)	\$(0.01)	6,517
2018-Q4	8,902	2,152	(1,795)	\$(0.02)	\$(0.02)	3,163
<b>2018 Total</b>	<b>19,880</b>	<b>6,052</b>	<b>(8,501)</b>	<b>\$(0.08)</b>	<b>\$(0.08)</b>	<b>17,639</b>
2019-Q1	7,233	1,472	1,207	\$ 0.01	\$ 0.01	1,266

Note: Sum of all the quarters may not add up to the yearly totals due to rounding

The net loss for 2017 quarters reflect site based expenditures along with general and administrative expenses, costs related to restructuring the Wheaton streaming agreement partially offset by AEG profits, a foreign exchange gain and a gain on investments. The net loss from the 2018 quarters reflect fair value adjustment losses from the Corporation's available-for-sale investments, site based expenditures, mill maintenance initiatives and general and administrative expenses offset by a non-cash fair value gain related to the embedded derivative on the Wheaton streaming agreement. The net income from the first quarter of 2019 reflects a gain on the embedded derivative related to the Wheaton streaming agreement, offset by site-based expenditures along with general and administrative expenses of the Corporation.

The mineral property expenditures in 2017 reflect the resource estimation work being completed on the Birmingham and Flame & Moth deposits and completion of the PEA during the first quarter followed by the surface exploration program and commencement of the advanced underground exploration program at the Birmingham deposit. The mineral property expenditures in the first quarter of 2018 mainly reflect the continued advancement of the underground exploration decline at the Birmingham deposit and the expenditures incurred in the second, third and fourth quarters of 2018 reflect completion of the advanced exploration decline, completion of the underground drilling program at the Birmingham deposit, commencement of the underground development decline at the Flame & Moth deposit and completion of a 15,314 m surface drilling program. The mineral property expenditures in the first quarter of 2019 mainly reflect continued work with independent contractors on the PFS, preparation for the 2019 surface exploration drill program and infrastructure initiatives at site.

### Liquidity, Cash Flows and Capital Resources

#### Liquidity

At March 31, 2019 the Corporation had cash and cash equivalents of \$6,392,000, and net working capital of \$7,114,000 compared to cash and cash equivalents of \$8,576,000 and net working capital of \$10,188,000 at December 31, 2018. The Corporation faces no known liquidity issues or is aware of any significant credit risks in any of its financial assets. In addition, the Corporation's restricted cash and deposits at March 31, 2019 totalled \$2,739,000 compared to \$2,725,000 at December 31, 2018.

Subsequent to quarter end, the Corporation completed a private placement of 1,842,200 flow-through common shares for gross proceeds of \$3,500,000.

With its cash resources and net working capital on hand at March 31, 2019, and assuming no re-start of full scale mining operations, Alexco anticipates it will have sufficient capital resources to service the working capital requirements of its mine site care and maintenance, exploration activities, environmental services business and corporate offices and administration, for at least the next 12 month period. As noted elsewhere in this MD&A, re-start of mining operations is dependent on a number of factors, including maintaining current metal prices and foreign exchange rates. A re-start of underground production operations will require additional capital investment, in excess of the capital resources currently on hand. Because of these factors, combined with its long term objectives for the exploration and development of its mineral properties, the Corporation is likely to require future additional funding, or draw down on the existing Sprott credit facility

Historically, Alexco's main sources of funding have been from mining operations, AEG and equity issuances. All sources of finance reasonably available will be considered to fund future requirements, including but not limited to issuance of new capital, issuance of new debt and the sale of assets in whole or in part, including mineral property interests or other interests. There can be no assurance of a re-start of mining operations or continued access to finance in the future, and an inability to generate or secure such funding may require the Corporation to substantially curtail and defer its planned exploration and development activities.

### *Cash Flows*

	<b>Three Months Ended March 31</b>	
	<b>2019</b>	<b>2018</b>
Cash flow used in operating activities	\$ (644)	\$ (1,815)
Cash flow provided (used) in investing activities	(1,446)	(2,928)
Cash flow provided by financing activities	(94)	55
	<b>\$ (2,184)</b>	<b>\$ (4,688)</b>

Cash outflow in operating activities was \$644,000 for the first quarter of 2019 versus \$1,815,000 for the first quarter of 2018. The majority of cash outflow from operating activities during the 2019 period were expended on site-based care and maintenance costs and general and administrative. Cash outflow from investing activities were \$1,446,000 for the first quarter of 2019 versus a cash outflow of \$2,928,000 for the first quarter of 2018. The cash outflow during the first quarter of 2019 related to work on the PFS, site-based expenditures and preparation for the surface exploration program whereas the 2018 period included significant expenditures on the advanced exploration decline for the Birmingham deposit, site-based expenditures as well of the purchase of equipment at site. The cash outflow from financing activities was \$94,000 for the first quarter of 2019 versus a cash inflow of \$55,000 for the first quarter of 2018. The cash outflow from 2019 relates to repayment of office lease liabilities that were partially offset by proceeds from the exercise of stock options.

### *Silver Purchase Agreement ("SPA") with Wheaton*

On October 2, 2008 (with subsequent amendments on October 20, 2008, December 10, 2008, December 22, 2009, March 31, 2010, January 15, 2013, March 11, 2014 and June 16, 2014), the Corporation entered into a SPA with Wheaton under which Wheaton will receive 25% of the life of mine payable silver produced by the Corporation from its District properties. The SPA anticipated that the initial silver deliveries would come from the Bellekeno property. Under the SPA, the Corporation received up-front deposit payments from Wheaton totaling US\$50,000,000 and received further payments of the lesser of US\$3.90 (increasing by 1% per annum after the third year of full production) and the prevailing market price for each ounce of payable silver delivered, if as and when delivered. After the initial 40 year term of the streaming interest, the Corporation is required to refund the balance of any advance payments received and not yet notionally reduced through silver deliveries. The Corporation would also be required

to refund the balance of advance payments received and not yet reduced if Wheaton exercised its right to terminate the streaming interest in an event of default by the Corporation. As of September 2013, Bellekeno mining operations were suspended in light of a reduced silver price environment.

On March 29, 2017 the Corporation and Wheaton amended the SPA such that Wheaton will continue to receive 25% of the life of mine payable silver from the District with a variable production payment based on monthly silver head grade and monthly silver spot price. The actual monthly production payment from Wheaton is determined based on the monthly average silver head grade at the mill and the monthly average spot price, as determined by a grade and pricing curve with an upper ceiling grade of 1,400 g/t silver and price of US\$25 per ounce of silver and a floor grade of 600 g/t silver and price of US\$13 per ounce of silver. Additional terms of the amendment include a date for completion of the 400 tonne per day mine and mill completion test, which has now been extended to December 31, 2020. If the completion test is not satisfied by December 31, 2020, the Corporation will be required to pay a capacity related refund to Wheaton in the maximum amount of US\$8,788,000, which can be further proportionately reduced by mine production and mill throughput exceeding 322 tonnes per day for a 30 day period prior to December 31, 2020. The Amended SPA is secured against the Corporation's mineral properties until repayment of the original deposit of US\$50,000,000.

As at March 31, 2019, the fair value of the embedded derivative was calculated based on the discounted future cash flows associated with the difference between the original US\$3.90 per ounce production payment Wheaton would pay for each payable ounce delivered under the SPA and the new production payment under the Amended SPA which varies depending on the monthly silver head grade and silver price. The model relies upon inputs from the PFS, such as payable ounces delivered, head grade and silver price and will continue to be updated as a result of any updated studies, mine plans and actual production. A discount rate of 13%, representing the implied discount rate applied to the payment made under the Amended SPA was used to calculate the net present value. There were adjustments totalling \$5,482,000 recorded during the first quarter of 2019 (2018 - \$(26,000)) primarily as a result of the updated PFS results including an updated mine plan with increased silver production, as well as reduction in silver price during the first quarter of 2019. See Guidance on Embedded Derivative below.

### *Capital Resources*

On April 23, 2019 the Corporation completed a private placement, on a bought deal basis, of 1,842,200 flow-through common shares at a price of \$1.90 per share for gross proceeds of \$3,500,000. The flow-through common shares are comprised of: (i) 1,579,000 flow-through shares with respect to "Canadian exploration expenses" (the "CEE Shares") priced at C\$1.90 per CEE Share; and (ii) 263,200 flow-through shares with respect to "Canadian development expenses" (the "CDE Shares") priced at C\$1.90 per CDE Share.

On April 30, 2019, AEG entered into an agreement with the BMO for a revolving line of credit ("LOC") for up to \$4,000,000. The LOC has an interest rate of approximately 5.7% on drawn funds, is secured against AEG assets and has the following covenants (specific to AEG entities) in place:

- Maintain debt service coverage ratio greater or equal 1.25:1
- Maintain current ratio greater than or equal to 1.25:1

On June 14, 2018, the Corporation completed an offering, on a bought deal basis, of 4,703,000 flow-through common shares at a blended price of approximately \$1.92 per share for gross proceeds of \$9,041,150. The securities issued under the offering were comprised of (i) 966,500 flow-through shares with respect to "Canadian exploration expenses" issued at \$2.05 per share; (ii) 1,736,500 flow-through shares with respect to "Canadian exploration expenses" that also qualify as "flow-through mining expenditures" issued at \$2.05 per share; and (iii) 2,000,000 flow-through shares with respect to

"Canadian development expenses" issued at \$1.75. As of March 31, 2019 the Corporation had \$2,684,000 to be spent prior to December 31, 2019.

On February 23, 2018 the Corporation entered into a definitive credit agreement with Sprott to provide a US\$15,000,000 Credit Facility. The Credit Facility remains undrawn and has the following key terms:

- Term of 3 years, Maturity Date – February 23, 2021
- Interest rate on funds drawn down: the greater of
  - 7% plus US Dollar 3 month LIBOR and
  - 8% per annum, payable monthly
- Repayable in quarterly installments from October 31, 2019 through to the Maturity Date
- Upon draw down of funds a 3% charge of the draw down is charged
- 1,000,000 share purchase warrants were issued to Sprott with a five-year term, an exercise price of \$2.25 per share and a right by the Corporation to accelerate the expiry date to 30 days following the closing price of the shares exceeding \$5.63 for more than 20 consecutive trading days
- Repayable in whole or in part, without penalty, provided not less than twelve (12) months of interest has been paid on any outstanding amount
- On February 14, 2019 the Corporation extended the availability period of draw down to August 23, 2019 from February 23, 2019 by issuing to Sprott 171,480 Alexco common shares

On September 21, 2018 the Corporation filed a short form base shelf prospectus with the securities commissions in each of the Provinces of British Columbia, Alberta, Saskatchewan, Manitoba and Ontario and a corresponding amendment to its registration statement on Form F-10 (Registration Statement) with the United States Securities and Exchange Commission (SEC) under the U.S./Canada Multijurisdictional Disclosure System, which would allow the Corporation to make offerings of common shares, warrants, subscription receipts and/or units up to an aggregate total of \$50,000,000 during the 25-month period following September 21, 2018.

The following table summarizes the current contractual obligations of the Corporation and associated payment requirements over the next five years and thereafter:

Contractual Obligations (expressed in thousands of dollars)	Payments Due by Period				
	Total	Less than 1 year	1 – 3 years	3 – 5 years	After 5 years
Operating leases	\$ 2,319	\$ 494	\$ 1,214	\$ 322	\$ 289
Purchase obligations	360	60	180	60	60
Decommissioning and rehabilitation provision (undiscounted basis)	6,444	-	719	292	5,433
<b>Total</b>	<b>\$ 9,123</b>	<b>\$ 554</b>	<b>\$ 2,113</b>	<b>\$ 674</b>	<b>\$ 5,782</b>

### Guidance on Embedded Derivative

As discussed above, the valuation model for the embedded derivative related to the Wheaton SPA currently relies upon inputs from the PFS, such as payable ounces delivered and head grade, and will be updated as a result of updated studies, mine plans and actual production. Furthermore the valuation model for the embedded derivative has been updated to utilize a probability based dynamic pricing structure as opposed to a static pricing structure. As such, the discount rate used and silver price assumptions are updated quarterly based on the risk-free yield curve and silver price forward curve at quarter end.

Based on assumptions used in the dynamic valuation model the value of the derivative asset as at March 31, 2019 is \$15,153,000. If, for example, the silver price was to decline to US\$13 per ounce and all other assumptions remained the same, the approximate derivative asset value would be \$11,230,000. Similarly, if the silver price was to increase to US\$25 per ounce and all other assumptions remained the same, the approximate derivative asset value would be negative \$1,379,000, and could be classified as a derivative liability. The impacts of these swings in derivative asset value are recorded on the Statement of Profit and Loss through Other Income (Expenses) (see note 9 in the consolidated financial statements for three month periods ended March 31, 2019 and 2018).

The following table summarizes the expected stand-alone impact on the embedded derivative asset value based on changes in model inputs:

Dynamic Model Input Change	Expected Impact on Embedded Derivative Asset Value
Silver Price Increase	Decrease
Silver Price Volatility Increase	Decrease
Mill Silver Head Grade Increase	Decrease
Decrease in timeframe to reach production	Increase
Foreign Exchange: US dollar appreciates compared to CDN dollar	Increase
Risk Free Yield Increase	Decrease
Expected Silver Ounces Mined Increase	Increase

Management expects that changes in the fair market value of the embedded derivative asset prior to mine production will largely be driven by the risk-free yield curve and silver price forward curve as well as proximity to production date. In a market where the price of silver is static, these changes are expected to be nominal relative to a production scenario, at which time management expects the variability of the fair value adjustments to increase significantly as silver ounces are mined and delivered to Wheaton.

## Share Data

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As at the date of this MD&A, the Corporation has 110,489,237 common shares issued and outstanding. In addition, there are outstanding incentive share options for a further 9,252,833 common shares, restricted share units that can be settled by way of shares issued from treasury for a further 512,334 common shares, and purchase warrants for a further 1,181,440 common shares.

## **Use of Financial Instruments**

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All of Alexco's cash and cash equivalents at March 31, 2019 were held in the form of demand deposits. Alexco's restricted cash and deposits were held in the form of term deposits and demand deposits. Alexco's other financial instruments were its trade and other accounts receivable, its accounts payable and accrued liabilities, and its investment in marketable securities.

At March 31, 2019, a total of \$2,739,000 of Alexco's restricted cash and deposits represents cash collateral posted with a surety company to underwrite surety bonds for security in respect of mine-site reclamation at certain of Alexco's mineral properties. The balance of Alexco's restricted cash and deposits represent security provided in respect of certain long-term operating lease commitments. The term deposits held at March 31, 2019 as individual financial instruments carry initial maturity periods of one year or less. They have been classified as investments held to maturity and accordingly are carried at amortized cost using the effective interest method. All term deposits held are high grade, low risk investments, generally yielding between 1% and 2% per annum, and their carrying amounts approximate their fair values given their short terms and low yields.

The carrying amounts of Alexco's trade and other accounts receivable and accounts payable and accrued liabilities are estimated to reasonably approximate their fair values, while the carrying amount of investments in marketable securities and embedded derivative are marked to fair value at each balance sheet date. The fair values of all of Alexco's financial instruments measured at March 31, 2019, other than the marketable securities that are included in investments, constitute Level 2 and Level 3 measurements within the fair value hierarchy defined under IFRS. The fair value of the investments in marketable securities constitute as Level 1 measurements.

Substantially all of Alexco's cash, demand deposits and term deposits are held with major financial institutions in Canada. With respect to these instruments, management believes the exposure to credit risk is insignificant due to the nature of the institutions with which they are held, and that the exposure to liquidity and interest rate risk is similarly insignificant given the low-risk-premium yields and the demand or short-maturity-period character of the deposits.

Alexco's accounts and other receivables at March 31, 2019 total \$4,733,000, comprising primarily AEG trade receivables and goods and services tax refunds receivable from government. Alexco's maximum credit risk exposure in respect of its receivables is represented by their carrying amount. Management actively monitors exposure to credit risk under its receivables, particularly AEG trade receivables, and considers the risk of loss to be significantly mitigated due to the financial strength of AEG's major customers which include government organizations as well as substantial corporate entities.

Substantially all of Alexco's property, plant and equipment and mineral properties are located in Canada; all of its mining operations and mineral exploration occur in Canada; and a significant portion of AEG's revenues are earned in Canada. However, a significant portion of AEG's revenues are in US dollars, and receivables arising therefrom are accordingly denominated in US dollars. Also, while a significant majority of the Corporation's operating costs are denominated in Canadian dollars, it does have some exposure to costs, and therefore accounts payable and accrued liabilities, denominated in US dollars.

The Corporation has not employed any hedging activities in respect of the prices for its payable metals or for its exposure to fluctuations in the value of the US dollar.

## **Off-Balance Sheet Arrangements**

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Alexco has no off-balance sheet arrangements as defined by National Instrument 52-109.

## Related Party Transactions

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The Corporation's related parties include its subsidiaries and key management personnel:

### Key Management Personnel Compensation

(a) Key Management Personnel Compensation

	Three Months Ended March 31	
	2019	2018
Salaries and other short-term benefits	\$ 946	\$ 597
Share-based compensation	1,009	1,019
	<u>\$ 1,955</u>	<u>\$ 1,616</u>

Key management includes the Corporation's Board of Directors and members of senior management.

## Critical Accounting Estimates and Judgments

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The Corporation's significant accounting policies as well as significant judgment and estimates are presented in Notes 3 and 5 of Alexco's December 31, 2018 annual consolidated financial statements, except for those policies disclosed in Note 3 of the 2019-Q1 Interim F/S. The preparation of the consolidated financial statements requires management to select accounting policies and make estimates and judgments that may have a significant impact on the consolidated financial statements. Estimates are continuously evaluated and are based on management's experience and expectations of future events that are believed to be reasonable under the circumstances. The estimates management makes in this regard include those regarding future commodity prices and foreign currency exchange rates, which are an important component of several estimates and assumptions management must make in preparing the financial statements, including but not limited to estimations and assumptions regarding the evaluation of the carrying amount of mineral properties and other assets, the estimation of decommissioning and rehabilitation provisions, the estimation of revenues and the value of the embedded derivative related to sales of concentrate, and the estimation of the net realizable value of inventories. Management bases its estimates of future commodity prices and foreign currency exchange rates primarily on consensus investment analyst forecasts, which are tracked and updated as published on generally a quarterly basis. Actual outcomes can differ from these estimates.

The most significant judgments and estimates made by management in preparing the Corporation's financial statements are described as follows:

- Mineral Reserves and Resources

The determination of the Corporation's estimated mineral reserves and resources by appropriately qualified persons requires significant judgements regarding the interpretation of complex geological and engineering data including the size, depth, shape and nature of the deposit and anticipated plans for mining, as well as estimates of future commodity prices, foreign exchange rates, capital requirements and production costs. These mineral reserve and resource estimates are used in many determinations

required to prepare the Corporation's financial statements, including evaluating the recoverability of the carrying amount of its non-current non-financial assets and estimating amounts of future taxable income in determining whether to record a deferred tax asset.

- Impairment and Impairment Reversals of Non-Current Non-Financial Assets

The Corporation reviews and evaluates the carrying value of each of its non-current non-financial assets for impairment and impairment reversals when events or changes in circumstances indicate that the carrying amounts of the related asset may not be recoverable or previous impairment losses may become recoverable. The identification of such events or changes and the performance of the assessment requires significant judgment. Furthermore, management's estimates of many of the factors relevant to completing this assessment, including commodity prices, foreign currency exchange rates, mineral resources, and operating, capital and reclamation costs, are subject to risks and estimation uncertainties that may further affect the determination of the recoverability of the carrying amounts of its non-current non-financial assets.

Management has assessed indicators of impairment and impairment reversals on the Corporation's non-current non-financial assets and has concluded that no impairment or impairment reversal indicators exists as of March 31, 2019.

- Decommissioning and Rehabilitation Provision

Management's determination of the Corporation's decommissioning and rehabilitation provision is based on the reclamation and closure activities it anticipates as being required, the additional contingent mitigation measures it identifies as potentially being required and its assessment of the likelihood of such contingent measures being required, and its estimate of the probable costs and timing of such activities and measures. Significant judgements must be made when determining such reclamation and closure activities and measures required and potentially required.

- Mineral Properties - Silver Stream Arrangement

Upon entering into a long-term streaming arrangement linked to production at operations, Management's judgment was required in assessing the appropriate accounting treatment for the transaction on the closing date and in future periods. We consider the specific terms of the arrangement to determine whether we have disposed of an interest in the reserves and resources of the operation or executed some other form of arrangement. This assessment considers what the counterparty is entitled to and the associated risks and rewards attributable to them over the life of the operation. These include the contractual terms related to the total production over the life of the arrangement as compared to the expected production over the life of the mine, the percentage being sold, the percentage of payable metals produced, the commodity price referred to in the ongoing payment and any guarantee relating to the upfront payment if production ceases.

- Fair value of derivatives

The fair values of financial instruments that are not traded in an active market are determined using valuation techniques. Management uses its judgment to select a method of valuation and makes estimates of specific model inputs that are based on conditions existing at the end of each reporting period. Refer to Note 9 for further details on the methods and assumptions associated with the measurement of the embedded

derivative within the Silver Streaming Interest. Management has applied judgement in concluding that the completion test as discussed in Note 9 will be met prior to December 31, 2020 or extended to a later date, therefore the capacity related refund is not likely to be owed to Wheaton Precious Metals Corp.

## **Changes In and Initial Adoption of Accounting Standards and Policies**

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The Corporation has adopted the new IFRS pronouncements listed below as at January 1, 2019, in accordance with the transitional provisions outlined in the respective standards and described below.

The Corporation has adopted IFRS 16 *Leases* ("IFRS 16") effective January 1, 2019 using the modified retrospective approach. The modified retrospective approach does not require restatement of prior period financial information and continues to be reported under IAS 17, *Leases* ("IAS 17") and IFRIC 4, *Determining Whether an Arrangement Contains a Lease* ("IFRIC 4"). IFRS 16 provides a single lessee accounting model, requiring lessees to recognize a right-of-use ("ROU") asset and a lease obligation at the lease commencement date.

The Corporation has completed its review of all existing operating leases and service contracts to identify contracts in scope for IFRS 16 and assessed contracts for embedded leases. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset, whether the Corporation has the right to obtain substantially all of the economic benefits from the use of the asset during the term of the arrangement. The Corporation incorporates both the lease and non-lease components as part of the total lease payment, as the Corporation has elected not to separate non-lease components.

The Corporation, on adoption of IFRS 16, recognized lease liabilities in relation to office leases which had previously been classified as operating leases under the principles of IAS 17. In relation, under the principles of the new standard these leases are measured as lease liabilities at the present value of the remaining lease payments, discounted using the Corporation's incremental borrowing rate as at January 1, 2019. The associated ROU assets have been measured at the amount equal to the lease liability on January 1, 2019. The ROU asset is subsequently depreciated from the commencement date to the earlier of the end of the lease term, or the end of the useful life of the asset. Furthermore, the ROU asset may be reduced due to impairment losses.

On initial adoption, the Corporation has recorded right-of-use assets of \$1,883,000 within property, plant and equipment, measured at an amount equal to the lease liability. The Corporation has elected to use the following practical expedients permitted under the standard:

- Apply a single discount rate to a portfolio of leases with similar characteristics;
- Account for leases with a remaining term of less than twelve (12) months as at January 1, 2019 as short-term leases, recognized as an expense over the lease term; and
- Account for lease payments as an expense and not recognize a ROU asset if the underlying asset is of low dollar value (less than \$5,000 CAD).

The following table reconciles the Corporation's operating lease commitments at December 31, 2018, as previously disclosed in the Corporation's annual consolidated financial statements, to the lease liability recognized on adoption of IFRS 16 at January 1, 2019.

	<b>Adoption of IFRS 16</b>
Lease commitments as at December 31, 2018	\$ 1,440
Less:	
Short-term commitments	(50)
Add:	
Operating lease obligations on adoption of IFRS 16	1,048
	<u>2,438</u>
Impact of discounting	(555)
Lease liability as of January 1, 2019	<u>\$ 1,883</u>

The following is the accounting policy that has been amended as a result of the adoption of IFRS 16.

#### *Leases*

The ROU asset is initially recorded at cost, which comprises the initial amount of the lease liability and any initial direct costs incurred less any lease payments made at or before the initial adoption date. The ROU is depreciated on a straight-line basis over the shorter of the estimated useful life of the asset or the lease term. The lease term includes periods covered by an option to extend if the Corporation's intention is to exercise that option. The ROU asset is periodically reduced by impairment losses, if any, and adjusted for re-measurements of the lease obligation.

The Corporation has elected to apply the practical expedient not to recognize ROU assets and lease liabilities for short-term leases that have a lease term of twelve months or less and leases of low value assets. These lease payments associated with these leases are recognized as an expense over the lease term.

The lease liability is measured at the present value of the expected lease payments over the lease term, discounted at the implicit rate in the lease; if the rate cannot be determined, the incremental borrowing rate is used. The liability is increased for the passage of time and payments on the lease are offset against the lease liability. The liability is subsequently re-measured when there is a change in the lease agreement, such as a change in future lease payments or if the Corporation decides to purchase, extend or terminate the lease option. When the lease liability is re-measured, an adjustment is applied to the carrying value of the ROU asset.

#### **Non-GAAP Measures**

The Corporation presents non-GAAP measures, which are not defined in IFRS. A description and calculation of the measure is given below and may differ from similarly named measures provided by other issuers. We disclose this measure because we believe it assists readers in understanding Alexco's financial position. This measure should not be considered in isolation or used in substitute for other measures prepared in accordance with IFRS.

#### ***Net Working Capital***

Consolidated net working capital comprises those components of current assets and liabilities which support and results from the Corporation's ongoing running of its current operations. It is provided to give a quantifiable indication of the Corporation's short-term cash generation ability and business efficiency.

As a measure linked to current operations and sustainability of the business, net working capital excludes: deferred revenue and flow-through share premium pending renunciation.

### **Internal Control Over Disclosure Controls and Procedures and Financial Reporting**

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Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the accounting principles under which the Corporation's financial statements are prepared. As required under National Instrument 52-109, management advises that there have been no changes in the Corporation's internal control over financial reporting that occurred during the most recent interim period, being the three months ended March 31, 2019, that have materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

### **Risk Factors**

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For a detailed listing of major risk factors management has identified which relates to Alexco's business activities, please refer to Alexco's MD&A and Annual Information Form for the year ended December 31, 2018.

## Summary of Mineral Reserve and Resources Estimates

The following table sets forth the estimated mineral reserves and resources for Alexco's mineral properties within the Keno Hill Silver District:

### Summary of Mineral Reserve Estimates

Category 1,2,4	Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
Probable	Bellekeno <sup>3</sup>	40,109	843	-	11.8	6.3	1,087,000
	Lucky Queen <sup>3</sup>	70,717	1,244	0.12	2.6	1.4	2,828,000
	Flame & Moth <sup>3</sup>	704,211	672	0.49	2.7	5.7	15,215,000
	Birmingham <sup>3</sup>	362,343	972	0.13	2.6	1.3	11,324,000
<b>Total Mineral Reserves</b>		<b>1,177,380</b>	<b>804</b>	<b>0.34</b>	<b>3.0</b>	<b>4.1</b>	<b>30,454,000</b>

Notes:

- All mineral reserves for this table have the effective date of March 28, 2019 and are classified following the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014), in accordance with the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines and the guidelines of NI 43-101.
- All numbers have been rounded to reflect the relative accuracy of the estimates.
- The Bellekeno, Lucky Queen, Flame & Moth and Birmingham deposits are incorporated into the current mine plan supported by disclosure in the news release dated March 28, 2019 entitled "Alexco Announces Positive Pre-Feasibility Study for Expanded Silver Production at Keno Hill Silver District" and the technical report filed on SEDAR dated May 8, 2019 with an effective date of March 28, 2019.
- The disclosure regarding the summary of probable mineral reserves for Alexco's mineral properties within the Keno Hill District has been reviewed and approved by Neil Chambers, P.Eng., Mine Superintendent and a Qualified Person as defined by NI 43-101.

### Summary of Indicated and Inferred Resource Estimates

Category 1,2,3,9	Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
Indicated	Bellekeno <sup>2,4&amp;5</sup>	262,000	585	n/a	3.5	5.3	4,928,000
	Lucky Queen <sup>2,4&amp;6</sup>	132,300	1,167	0.2	2.4	1.6	4,964,000
	Flame & Moth <sup>2,4&amp;6</sup>	1,679,000	498	0.4	1.9	5.3	26,883,000
	Onek <sup>4&amp;6</sup>	700,200	191	0.6	1.2	11.9	4,300,000
	Birmingham <sup>2,4&amp;7</sup>	1,102,300	930	0.1	2.4	1.7	32,959,000
<b>Total Indicated Sub-Surface Deposits</b>		<b>3,875,800</b>	<b>594</b>	<b>0.3</b>	<b>2.0</b>	<b>5.3</b>	<b>74,034,000</b>
	Elsa Historical Tailings <sup>8</sup>	2,490,000	119	0.1	1.0	0.7	9,527,000
<b>Total Indicated All Deposits</b>		<b>6,365,800</b>	<b>408</b>	<b>0.3</b>	<b>1.6</b>	<b>3.5</b>	<b>83,561,000</b>
Inferred	Bellekeno <sup>4&amp;5</sup>	243,000	428	n/a	4.1	5.1	3,344,000
	Lucky Queen <sup>4&amp;6</sup>	257,900	473	0.1	1.0	0.8	3,922,000
	Flame & Moth <sup>4&amp;6</sup>	365,200	356	0.3	0.5	4.3	4,180,000
	Onek <sup>4&amp;6</sup>	285,100	118	0.4	1.2	8.3	1,082,000
	Birmingham <sup>4&amp;7</sup>	509,400	717	0.2	1.7	1.5	11,743,000
<b>Total Inferred</b>		<b>1,660,600</b>	<b>455</b>	<b>0.2</b>	<b>1.6</b>	<b>3.7</b>	<b>24,271,000</b>

Notes:

- All mineral resources are classified following the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) of NI 43-101.
- Indicated mineralization is inclusive of mineral reserves estimates.
- Mineral resources are not all mineral reserves and do not have demonstrated economic viability. All numbers have been rounded to reflect the relative accuracy of the estimates.
- The mineral resource estimates comprising Bellekeno, Lucky Queen and Flame & Moth, Onek and Birmingham are supported by disclosure in the news release dated March 28, 2019 entitled "Alexco Announces Positive Pre-Feasibility Study for Expanded Silver Production at Keno Hill Silver District" and the technical report filed on SEDAR dated March 8, 2019 with an effective date of March 28, 2019. The mineral resource estimate for Birmingham has been updated by disclosure in note 7 below.
- The mineral resource estimate for the Bellekeno deposit is based on a geologic resource estimate having an effective date of September 30, 2012. The Bellekeno indicated mineral resources are as at September 30, 2013, and reflect the geologic resource less estimated subsequent depletion from mine production.
- The mineral resource estimate for the Lucky Queen, Flame & Moth and Onek deposits have an effective date of January 3, 2017.

7. The resource estimate for the Bermingham deposit has an effective date of March 28, 2019 and is supported by disclosure in the news release entitled "Alexco Announces Positive Pre-Feasibility Study for Expanded Silver Production at Keno Hill Silver District".
8. The mineral resource estimate for the Elsa Tailings has an effective date of April 22, 2010 and is supported by the technical report dated June 16, 2010 entitled "Mineral Resource Estimation, Elsa Tailings Project, Yukon, Canada".
9. The disclosure regarding the summary of estimated mineral resources for Alexco's mineral properties within the Keno Hill District has been reviewed and approved by Neil Chambers, P.Eng., Mine Superintendent and a Qualified Person as defined by NI 43-101.

#### Summary of Historical Resource Estimates

		Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
<b>Historical Resources</b>	Silver King <sup>1</sup> - Proven, probable and indicated	99,000	1,354	n/a	1.6%	0.1%	4,310,000
	- Inferred	22,500	1,456	n/a	0.1%	n/a	1,057,000

Notes:

1. Historical resources for Silver King were estimated by UKHM, as documented in an internal report entitled "Mineral Resources and Mineable Ore Reserves" dated March 9, 1997. The historical resources were estimated based on a combination of surface and underground drill holes and chip samples taken on the vein and calculated using the polygonal (block) model and the 1997 CIM definitions for resource categories. Verification of the estimate would require new drill holes into a statistically significant number of the historical resource blocks and/or a combination of on-vein sampling. A Qualified Person (as defined by NI 43-101) has not done sufficient work to classify this estimate of historical resources as current mineral resources or mineral reserves, nor is Alexco treating this historical estimate as current mineral resources or mineral reserves.
2. The disclosure regarding the summary of historical mineral resources for Alexco's mineral properties within the Keno Hill District has been reviewed and approved by Neil Chambers, P.Eng., Mine Superintendent and a Qualified Person as defined by NI 43-101.

## **Cautionary Statement Regarding Forward-Looking Statements**

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This MD&A contains forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and forward-looking information within the meaning of applicable Canadian securities laws (together, "forward-looking statements") concerning the Corporation's business plans, including but not limited to anticipated results and developments in the Corporation's operations in future periods, planned exploration and development of its mineral properties, plans related to its business and other matters that may occur in the future, made as of the date of this MD&A.

Forward-looking statements may include, but are not limited to, statements with respect to future remediation and reclamation activities, future mineral exploration, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, future mine construction and development activities, future mine operation and production, the timing of activities, the requirements for additional capital and sources and uses of funds. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "expects", "anticipates", "plans", "estimates", "intends", "strategy", "goals", "objectives" 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".

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements. Such factors include, but are not limited to, risks related to actual results and timing of exploration and development activities; actual results and timing of mining activities; actual results and timing of environmental services operations; actual results and timing of remediation and reclamation activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of silver, gold, lead, zinc and other commodities; possible variations in mineable resources, grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accidents, labour disputes and other risks of the mining industry; First Nation rights and title; continued capitalization and commercial viability; global economic conditions; competition; and delays in obtaining governmental approvals or financing or in the completion of development activities. Furthermore, forward-looking statements are statements about the future and are inherently uncertain, and actual achievements of the Corporation or other future events or conditions may differ materially from those reflected in the forward-looking statements due to a variety of risks, uncertainties and other factors, including but not limited to those referred to in this MD&A under the heading "Risk Factors" and elsewhere.

Forward-looking statements are based on certain assumptions that management believes are reasonable at the time they are made. In making the forward-looking statements included in this MD&A, the Corporation has applied several material assumptions, including, but not limited to, the assumption that: (1) additional financing needed for the capacity related refund under the silver purchase agreement with Wheaton will be available on reasonable terms; (2) additional financing needed for further exploration and development work on the Corporation's properties will be available on reasonable terms; (3) the proposed development of its mineral projects will be viable operationally and economically and proceed as planned; (4) market fundamentals will result in sustained silver, gold, lead and zinc demand and prices, and such prices will not be materially lower than those estimated by management in preparing the interim condensed consolidated financial statements for the three month period ended March 31, 2019; (5) market fundamentals will result in sustained silver, gold, lead and zinc demand and prices, and such prices will be materially consistent with or more favourable than those anticipated in the PEA (as defined under "Description of the Business – KHSD Property"); (6) the actual nature, size and grade of its mineral resources are materially consistent with the resource estimates reported in the supporting technical reports; (7) labor and other industry services will be available to the Corporation at prices consistent with internal estimates; (8) the continuances of existing and, in certain circumstances, proposed tax and

royalty regimes; and (9) that other parties will continue to meet and satisfy their contractual obligations to the Corporation. Statements concerning mineral reserve and mineral resource estimates may also be deemed to constitute forward-looking information to the extent that they involve estimates of the mineralization that will be encountered if the property is developed. Other material factors and assumptions are discussed throughout this MD&A and, in particular, under both “Critical Accounting Estimates” and “Risk Factors”.

The Corporation's forward-looking statements are based on the beliefs, expectations and opinions of management on the date the statements are made and should not be relied on as representing the Corporation's views on any subsequent date. While the Corporation anticipates that subsequent events may cause its views to change, the Corporation specifically disclaims any intention or any obligation to update forward-looking statements if circumstances or management's beliefs, expectations or opinions should change, except as required by applicable law. For the reasons set forth above, investors should not place undue reliance on forward-looking statements.

### **Cautionary Note to U.S. Investors – Information Concerning Preparation of Resource Estimates**

This MD&A has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of United States securities laws. The terms “mineral reserve”, “proven mineral reserve” and “probable mineral reserve” are Canadian mining terms as defined in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (the “**CIM**”) – *CIM Definition Standards on Mineral Resources and Mineral Reserves*, adopted by the CIM Council, as amended. These definitions differ from the definitions in the United States Securities and Exchange Commission’s (“**SEC**”) Industry Guide 7 under the United States Securities Act of 1933, as amended. Under SEC Industry Guide 7 standards, mineralization cannot be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally extracted at the time the reserve determination is made. As applied under SEC Industry Guide 7, a “final” or “bankable” feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves, and all necessary permits and government authorizations must be filed with the appropriate governmental authority.

In addition, the terms “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource” are defined in and required to be disclosed by NI 43-101; however, these terms are not defined terms under SEC Industry Guide 7 and are normally not permitted to be used in reports and registration statements filed with the SEC. Investors are cautioned not to assume that all or any part of a mineral deposit in these categories will ever be converted into reserves. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed 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 pre-feasibility studies, except in rare cases. Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically or legally mineable. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration. Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC Industry Guide 7 standards as in place tonnage and grade without reference to unit measures.

Accordingly, information concerning mineral deposits contained in this MD&A may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.