



ALEXCO

Developing Canada's only Primary Silver Producer

SEPTEMBER 2018

TSX: AXR

NYSE-AMERICAN: AXU

SILVER KING

HUSKY

ELSA TAILINGS

SADIE

LUCKY QUEEN

HECTOR CALUMET

FLAME & MOTH

BELLEKENO

Cautionary Note

Forward Looking Statement

This presentation 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 Alexco’s business plans, including but not limited to anticipated results and developments in Alexco’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 presentation. Alexco does not intend, and does not assume any obligation, to update these forward-looking statements, except as required by applicable law.

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 presentation, Alexco has applied several material assumptions, including, but not limited to, the assumption that: (1) additional financing may be needed to fund certain contingent payment obligations and will be available on reasonable terms; (2) additional financing needed for the capacity related refund under the Silver Purchase Agreement with Wheaton Precious Metals Corp. (“Wheaton”) will be available on reasonable terms; (3) additional financing needed for further exploration and development work on the Corporation’s properties will be available on reasonable terms (4) the proposed development of its mineral projects will be viable operationally and economically and proceed as planned; (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 below), (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; (9) that other parties will continue to meet and satisfy their contractual obligations to the Corporation; and (10) that regulatory approval of any shelf prospectus filings or any other offerings will be obtained in a timely fashion. Forward-looking information contained in this presentation about prospective financial performance, financial position or cash flows is based on assumptions about future events, including economic conditions and proposed courses of action, based on management’s assessment of the relevant information currently available. To the extent that such information may constitute a financial outlook within the meaning of applicable securities laws, such information has been approved by management and is provided for the purposes of providing information relating to management and Alexco’s current expectations and plans. Readers are cautioned that any such financial outlook information contained herein should not be used for purposes other than for which it is disclosed herein.

The disclosure in this presentation 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*.

PRELIMINARY ECONOMIC ASSESSMENT CAUTIONARY STATEMENT

The material scientific and technical information in respect of Alexco’s Keno Hill Silver District Project in this presentation, unless otherwise indicated, is based upon information contained in the technical report dated March 29, 2017 entitled “Technical Report Preliminary Economic Assessment of the Keno Hill Silver District Project, Yukon Territory, Canada 43-101 Report (the “PEA”).” Readers are encouraged to read the PEA, which is available under the Company’s profile on SEDAR, for detailed information concerning the Keno Hill Silver District. All disclosure contained in this presentation regarding the resource estimate and economic analysis on the property is fully qualified by the full disclosure contained in the PEA.

Readers are cautioned that mineral resources are not mineral reserves and do not have demonstrated economic viability. The PEA is preliminary in nature. While the consolidated mine production under the PEA is derived primarily from indicated mineral resources, approximately 2% is derived from inferred mineral resources. There is no certainty that the PEA will be realized, and it 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. Although the PEA contemplates an initial development and construction period beginning in the first quarter of 2018, with startup of commercial production in the first quarter of 2019, commencement of development and construction remains dependent on Alexco making a development decision, which would be dependent on a number of factors, including but not limited to expectations regarding market prices for silver, lead, zinc and gold as well as the US-Canadian dollar exchange rate, and the availability of development capital. Additionally, a production decision which is made without a feasibility study of mineral reserves demonstrating economic and technical viability carries additional potential risks which include, but are not limited to, the risk that additional detailed work may be necessary with respect to mine design and mining schedules, metallurgical flow sheets and process plant designs, and the noted inherent risks pertaining to the inclusion of approximately 2% inferred mineral resources in the mine plan.

Alexco Fundamentals

District scale, high grade silver in Yukon

Short runway to production

**Rapidly expanding mineral resource
+ 83M oz g/t Silver Indicated**

Low CAPEX

Competitive AISC

**Growing, profitable subsidiary
environmental business**

Leverage



See slide 2 for PEA cautionary statement, news release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill" and news release dated September 20, 2018 entitled "Alexco Updates Bermingham Mineral Resource."

See slide 21 for a full view of the Resource Table associated with the Keno Hill Silver District.

Alexco Snapshot

Discovery, Development, Production Ready

District

- High Grade District,
 - High IRR with Silver, Zinc, Lead
-
- Proven Exploration Upside
 - Discovery Cost of \$0.55 / oz Ag Indicated



Birmingham/ Flame & Moth

Birmingham
+33.3 M oz Ag
(+1.6 million tonnes) Indicated
@ 628 g/t

Flame & Moth
+26.8 M oz Ag
(+1.7 million tonnes) Indicated
@ 498 g/t



Corporate

Cash

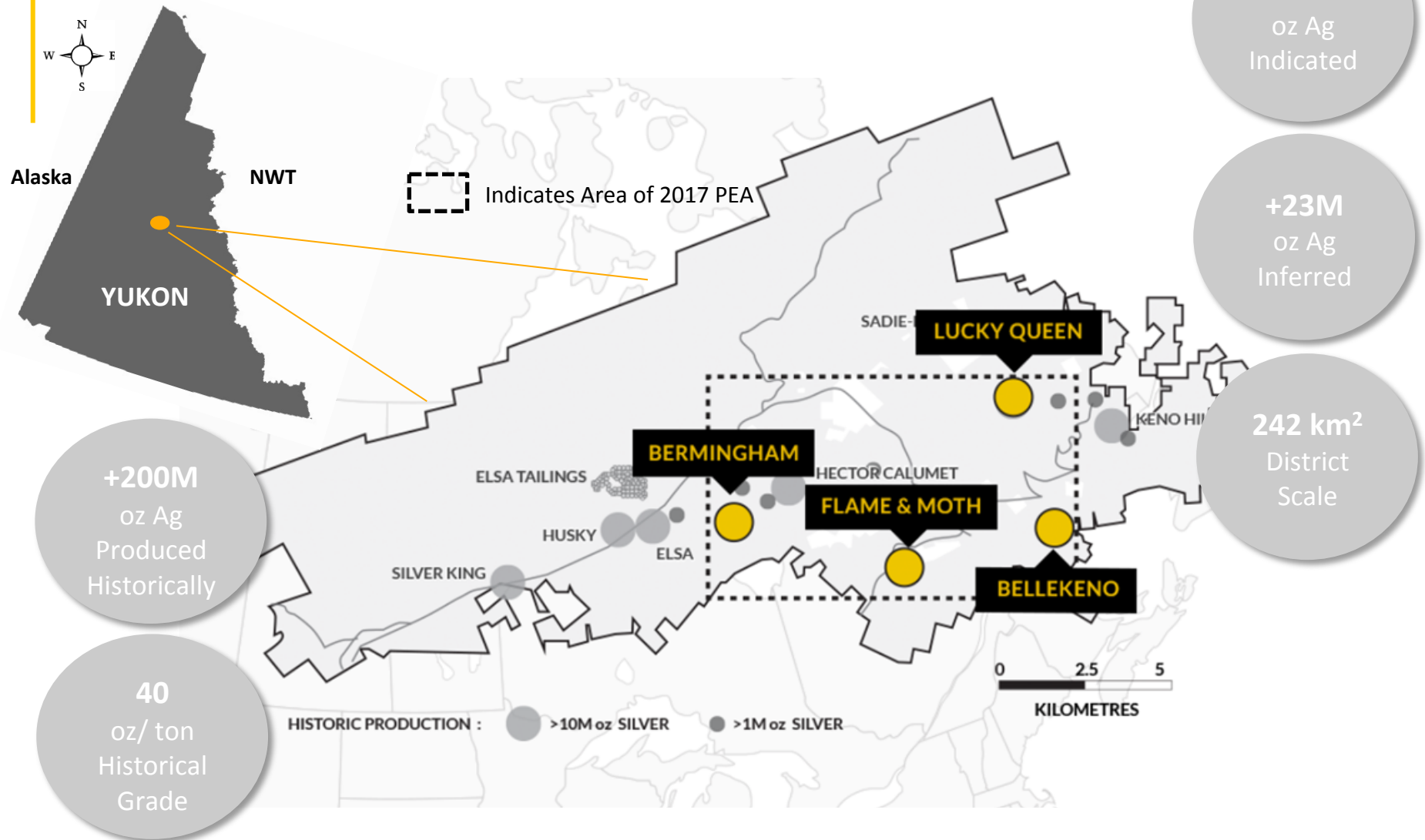
- \$22 M (Q2 2018)
- Credit Facility of \$15 M (unused)
- No Debt

2017 PEA

- After Tax IRR 75%
- 2017 PEA Head Grade 843 g/t
- 3.5 M oz / yr with a 7 year mine life

See slide 2 for PEA cautionary statement, News Release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill, and News Release dated September 20, 2018 entitled "Alexco Updates Birmingham Mineral Resource." See slide 21 for a full view of the Resource Table associated with the Keno Hill Silver District."

Keno Hill Silver District

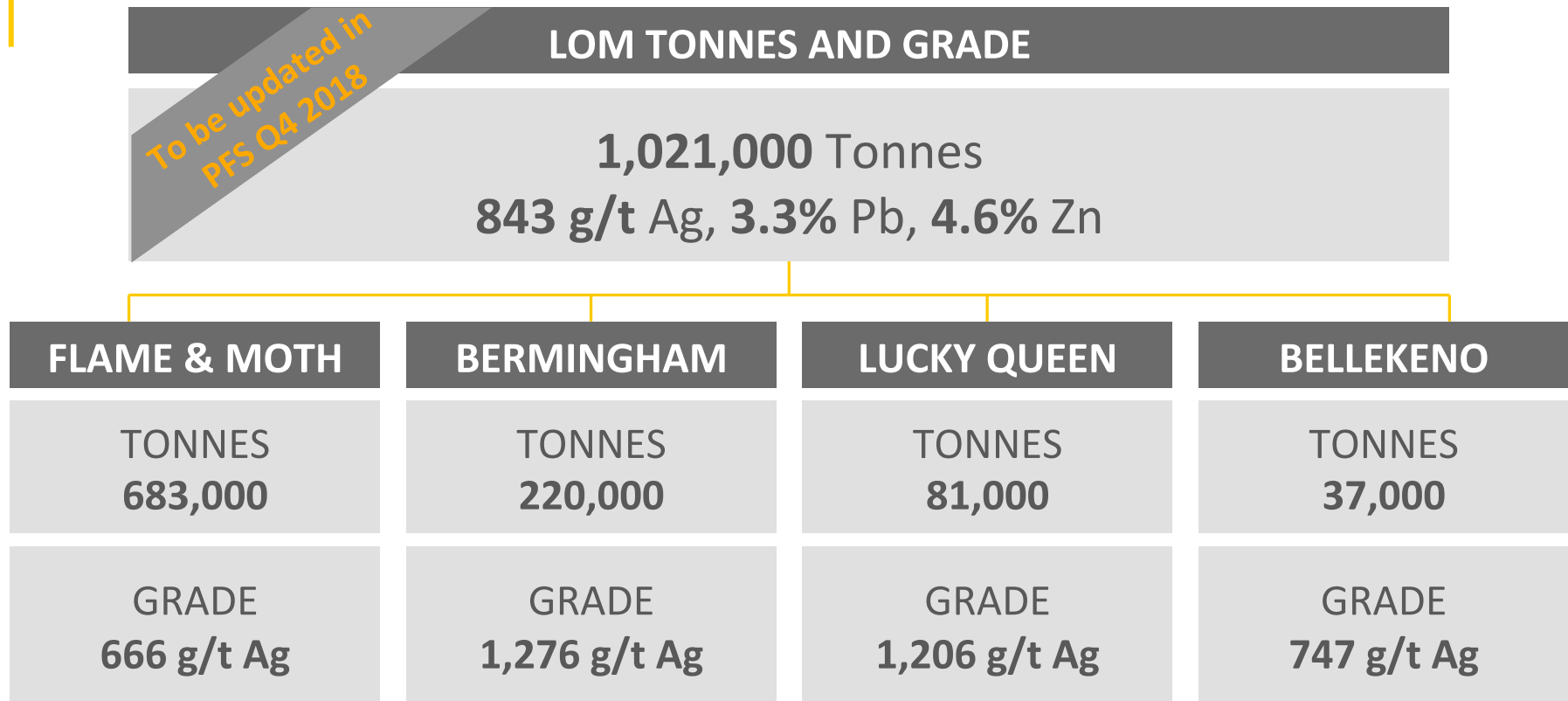


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Production Profile

March 2017 PEA



Please see slide #2 for PEA cautionary statement and News Release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill."

PEA Average Metal Price and Discount Rate Assumptions: Ag USD/oz \$18.60 initially and \$19.35 long term, Zn USD/lb \$1.07, Pb USD/lb \$0.97, Au USD/oz \$1,300, 5% Discount Rate.



COMMERCIAL PRODUCTION PROFILE¹ – 400 t/d

Mining Period	Avg. Silver Grade	Avg. Annualized Silver Production	AISC ²	Other
Years 1 - 3	931 g/t Ag	4.1M ozs	\$9.50 ³	Initial Capex ⁴ \$27M
Years 1 – 8 (LOM)	843 g/t Ag	3.5M ozs	\$10.50 ³	IRR 75%

1. Please see slide #2 for PEA cautionary statement and News Release dated March 29, 2017 entitled “Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill.”

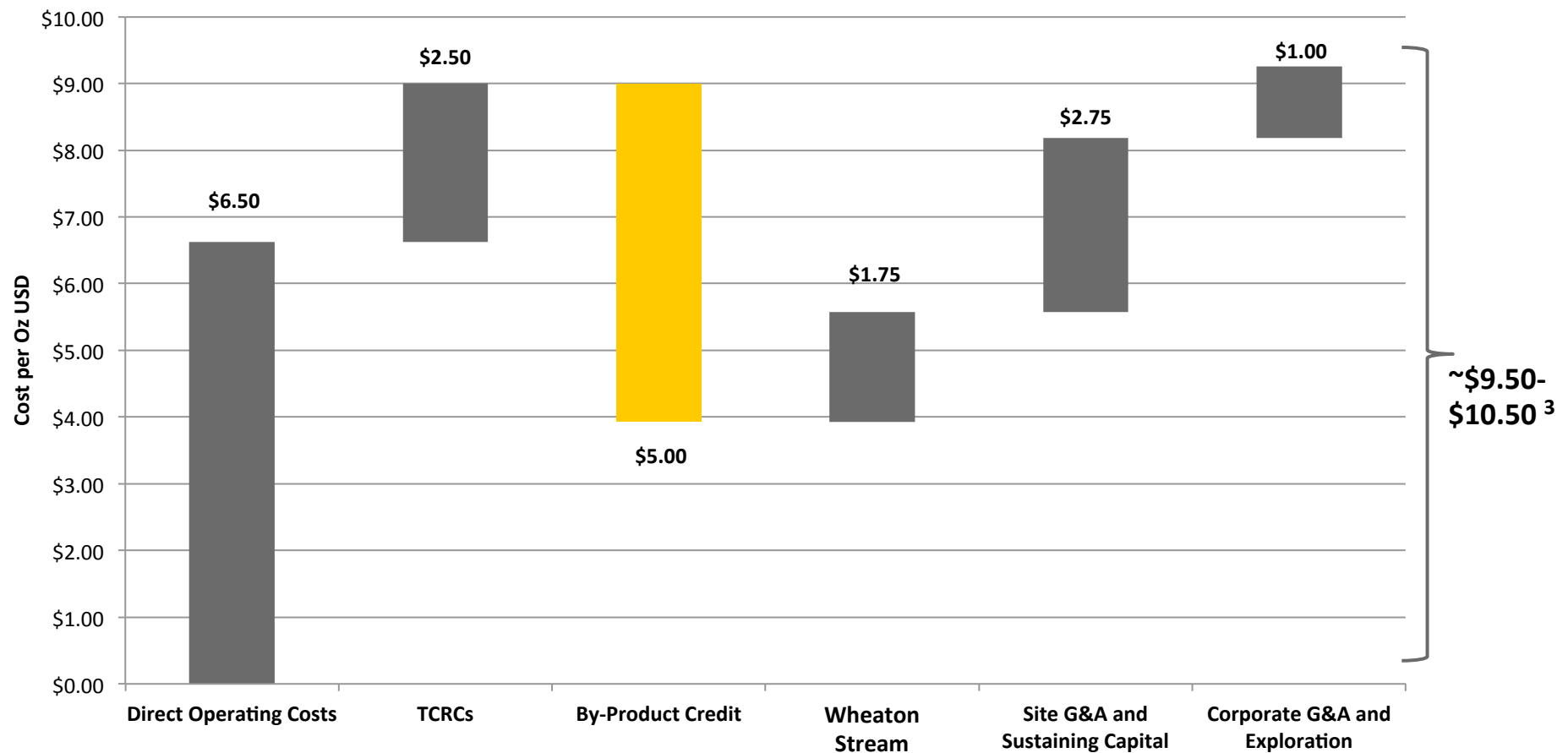
2. AISC calculated on a produced (contained) basis net of by-products, as defined by the World Gold Council.

3. This AISC estimate is based on current (Sept. 10, 2018) metal price assumptions: Ag USD/oz \$14.22, Zn USD/lb \$1.07, Pb USD/lb \$0.92, USD/CAD \$0.76, TCRC’s current benchmark. The March 2017 PEA used the following metal price and discount rate assumptions: Ag USD/oz \$18.60 initially and \$19.35 long term, Zn USD/lb \$1.07, Pb USD/lb \$0.97, Au USD/oz \$1,300, 5% Discount Rate.

4. The initial pre-production capex is based on the March 2017 PEA, which includes revenue offsets in year 2. The final pre-production capex will be updated in the planned 2018 pre-feasibility study. Investment toward pre-production capex has begun.

All-In Sustaining Costs (Current Pricing/Based on 2017 Mine Plan)

Build-Up Production Years 1 – 3^{1&2}



1. Please see slide 2 for PEA cautionary statement and News Release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill."

2. AXR AISC calculated on a produced (contained) basis net of by-products (as defined by the World Gold Council) for years 1-3 of PEA Commercial Production period.

3. This AISC estimate is based on current (September 10, 2018) metal price assumptions: Ag USD/oz \$14.22, Zn USD/lb \$1.07, Pb USD/lb \$0.92, USD/CAD \$0.76, TCRC's current benchmark. The March 2017 PEA used the following metal price and discount rate assumptions: Ag USD/oz \$18.60 initially and \$19.35 long term, Zn USD/lb \$1.07, Pb USD/lb \$0.97, Au USD/oz \$1,300, 5% Discount Rate.

World Class Lead-Silver Concentrate



PFS Locked Cycle Tests
Near Complete

Category	Lead Con	Zinc Con
LOM Tonnes (dry metric tonnes)	49,243	83,453
Silver g/t	16,363	349
Lead %	65.0	1.1
Zinc %	8.2	50.0

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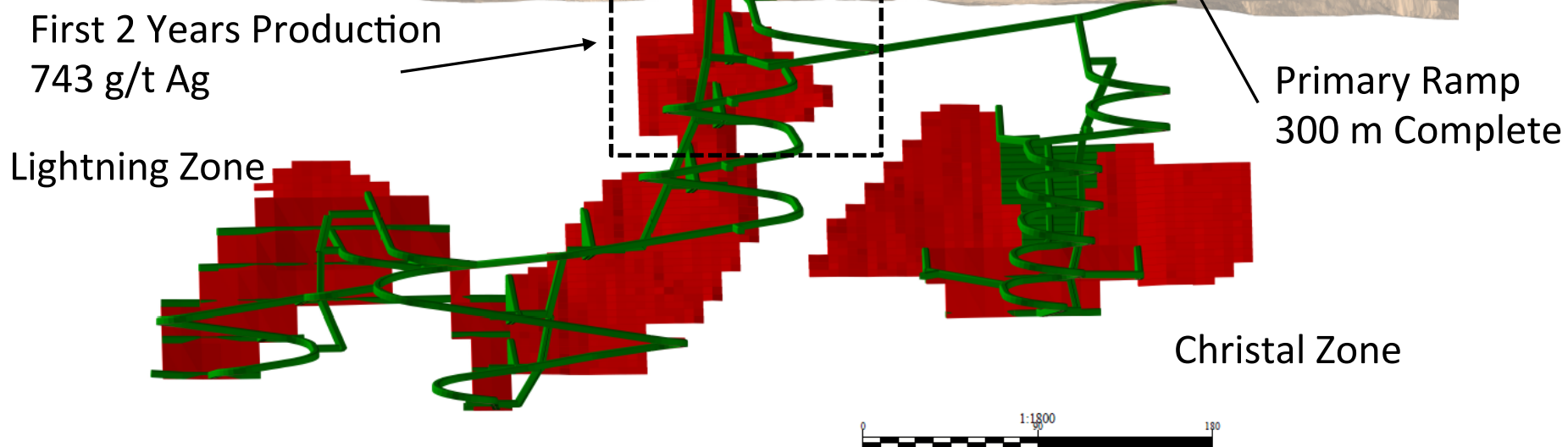
Flame & Moth Schematic Long Section

Optimized plan expected to maximize value

2017 Conceptual PEA Plant Feed

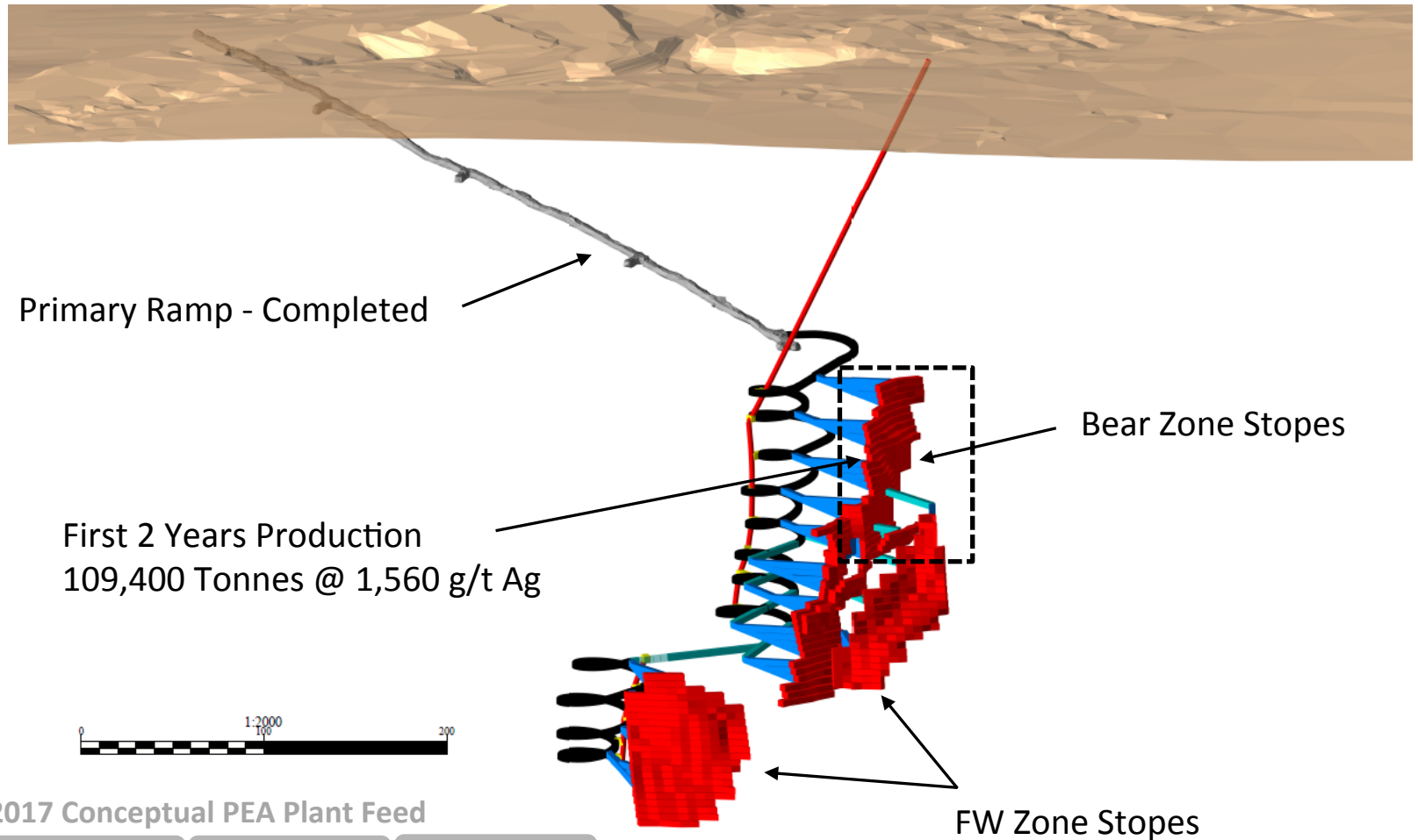
Mineable Tonnes	Ag Grade g/t	Ozs
683,000	666	14,622,965

Mill



See slide 2 for PEA cautionary statement, news release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill" and news release dated September 20, 2018 entitled "Alexco Updates Bermingham Mineral Resource."
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Bermingham Schematic Long Section



2017 Conceptual PEA Plant Feed

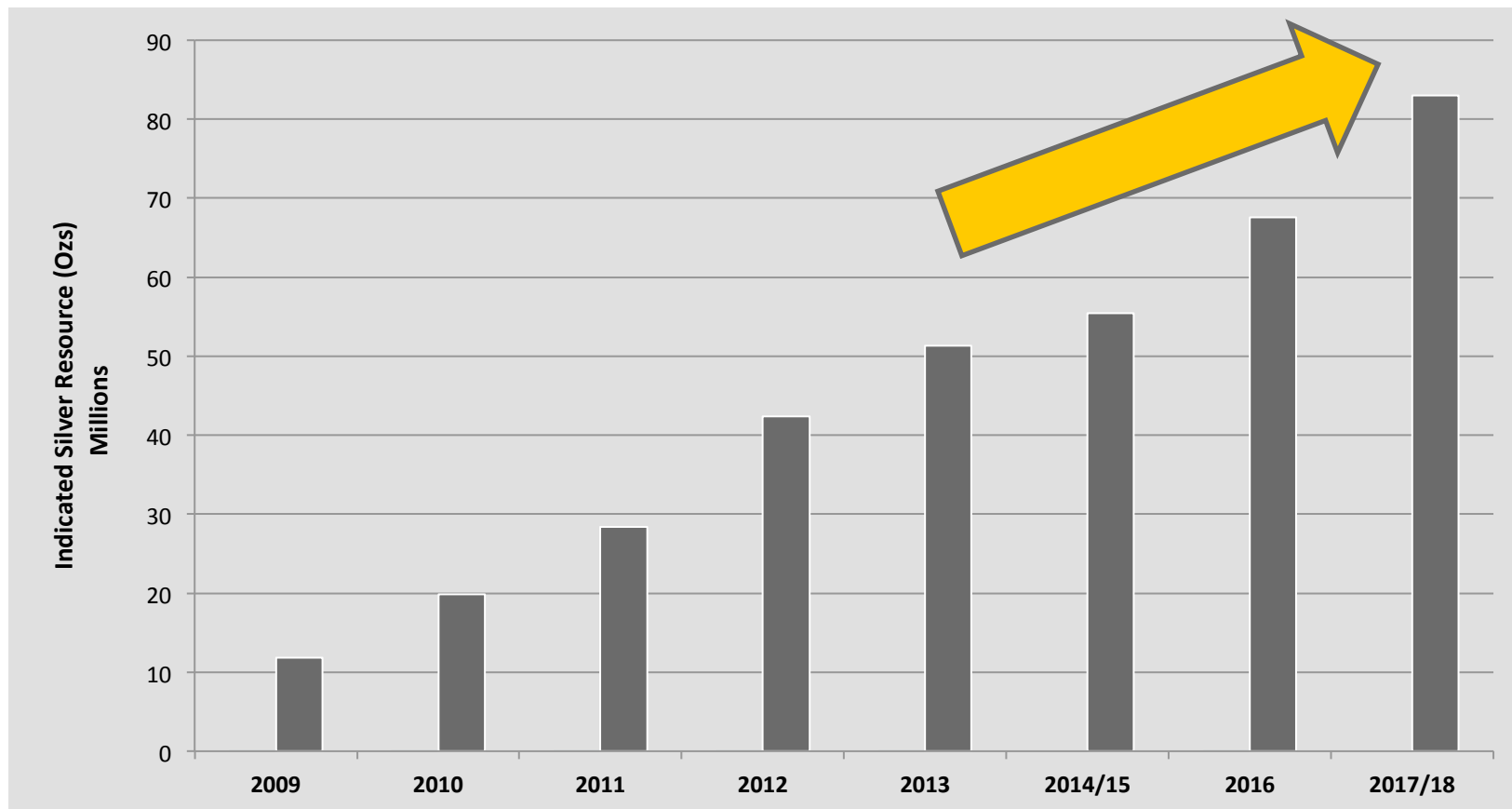
Mineable Tonnes	Ag Grade g/t	Ozs
220,000	1,276	9,026,869

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Exploration Success

Indicated Silver Resource – Millions of Oz.



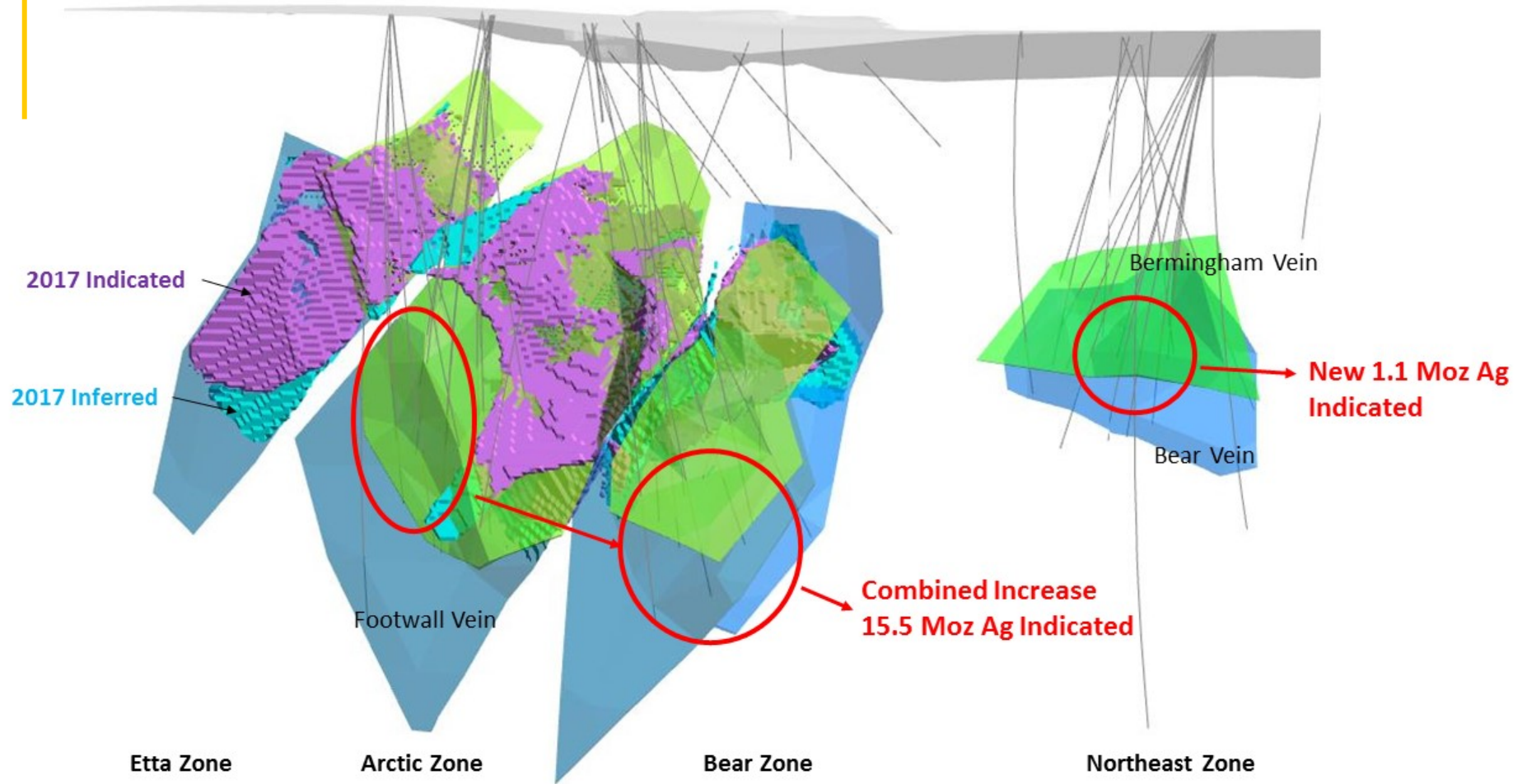
2013 – 2018 Discovery Record
+45M oz Indicated (+2.3M tonnes)

Avg Discovery Cost (2008 – 2018)
~\$0.55/oz Ag

*See slide 2 for PEA cautionary statement, news release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill" and news release dated September 20, 2018 entitled "Alexco Updates Bermingham Mineral Resource."
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Birmingham Areas of New Resource Drilling

Relative to 2017 Estimates



Birmingham Areas of New Resource Drilling Relative to 2017 Estimate

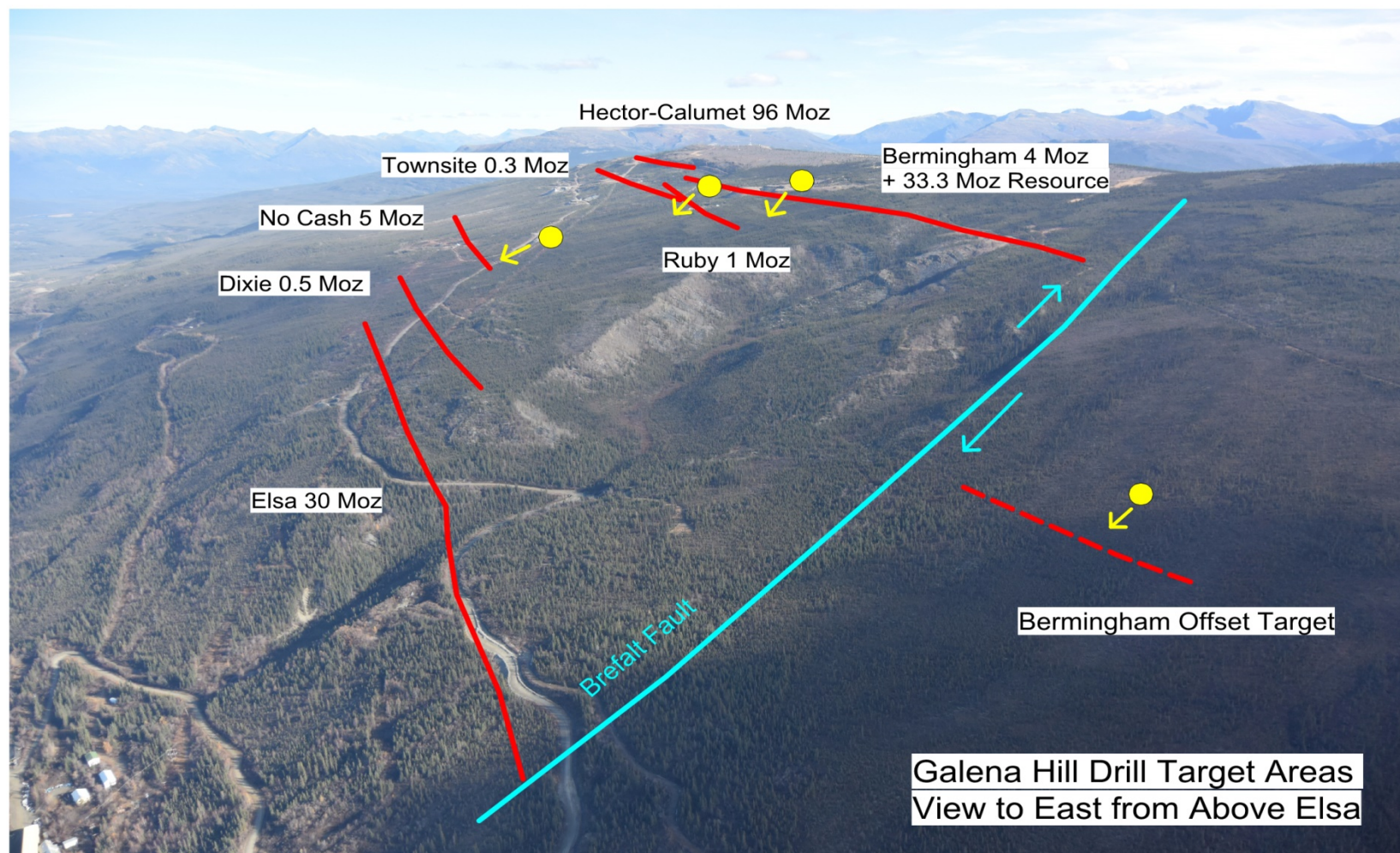
Oblique Longitudinal looking NW

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2018 Surface Exploration

14,000m, \$4M Program

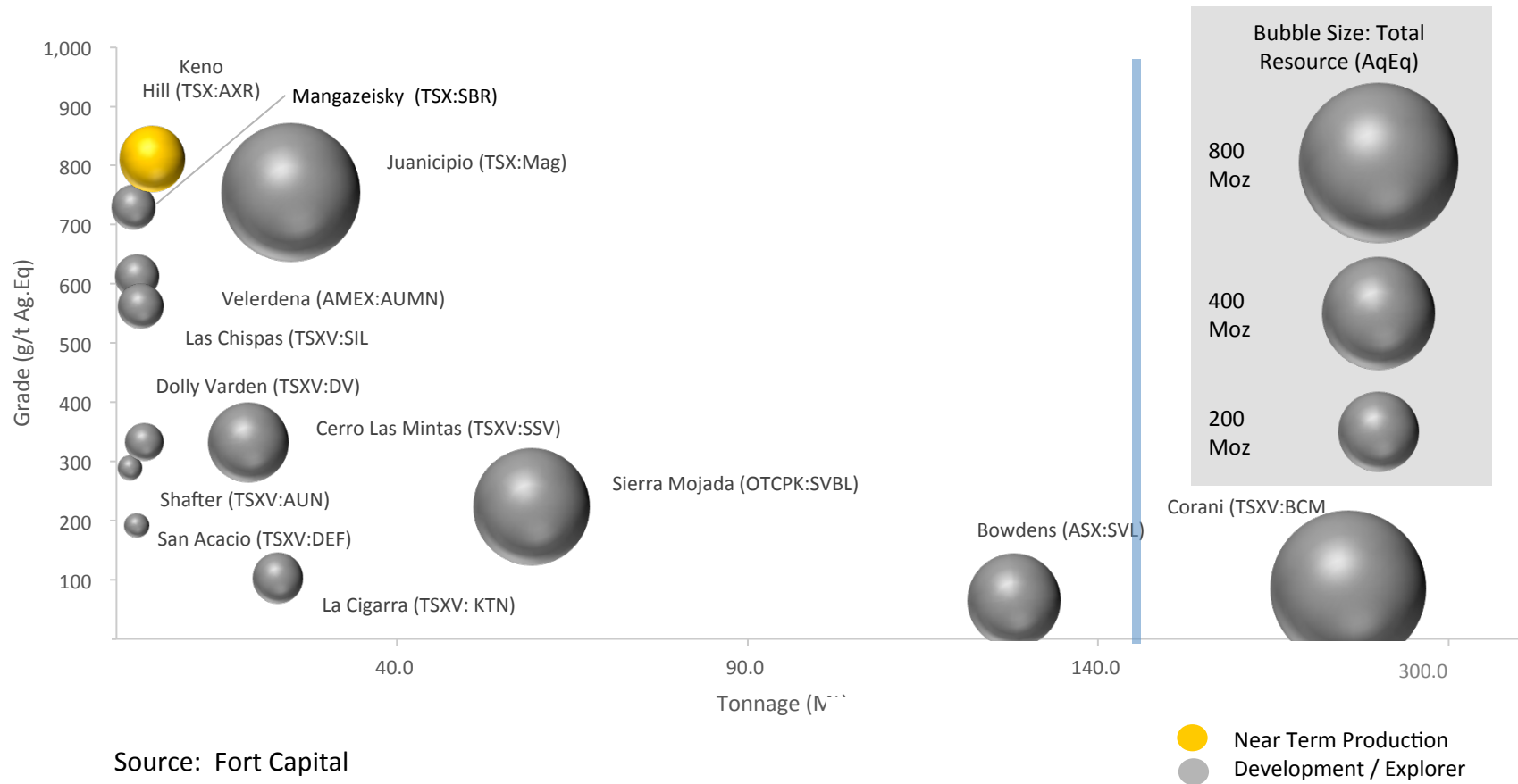


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Silver Landscape Overview

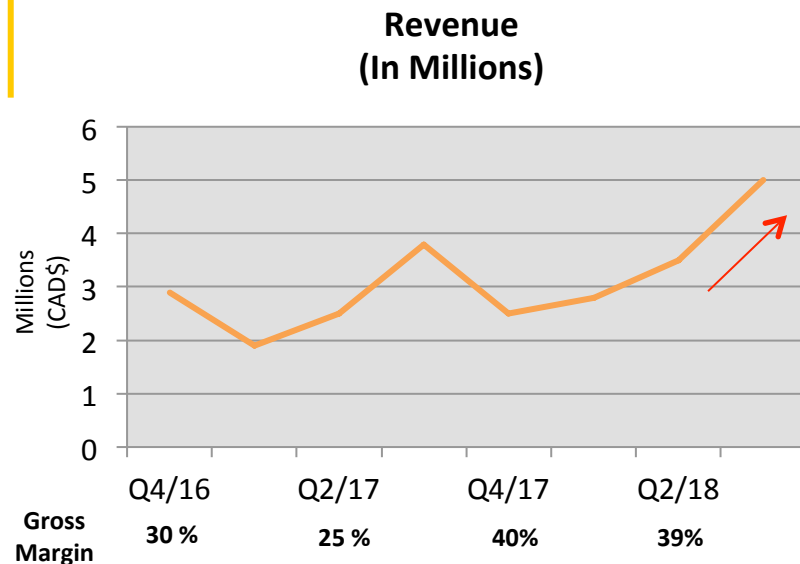
Asset Benchmarking – Silver Developers – Total Resource (AgEq)



See slide 22 for a full view of the Resource Table associated with the Keno Hill Silver District."

Alexco Environmental Group (AEG)

Profitable & Rapidly Growing



Professional environmental services:

- Design, construction and operation of active and passive innovative water treatment plants
- Soils remediation technologies and strategies
- Mine closure and reclamation
- Environmental and socio-economic assessments
- Regulatory and permitting authorizations
- Site and baseline environmental studies

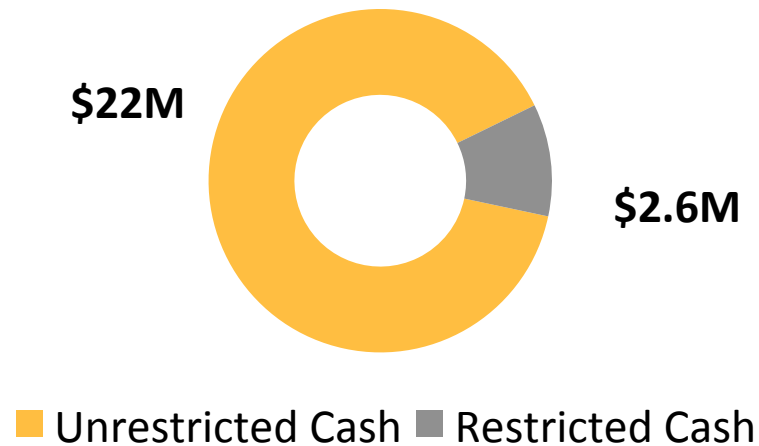
See Alexco's corresponding financial statements for each quarter reported above at <https://www.alexcoresource.com/investors/financial-statements/>.



Alexco

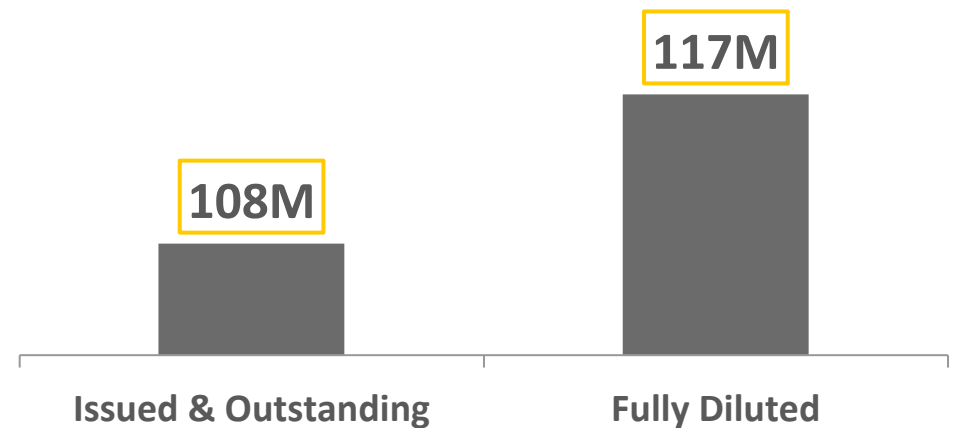
By The Numbers

Cash Position – June 30, 2018



Market Cap: \$152M (CAD)
(Sept. 10, 2018)

Share Structure – September 10, 2018



Working Capital: \$21M
Credit Facility (Unused): US \$15M

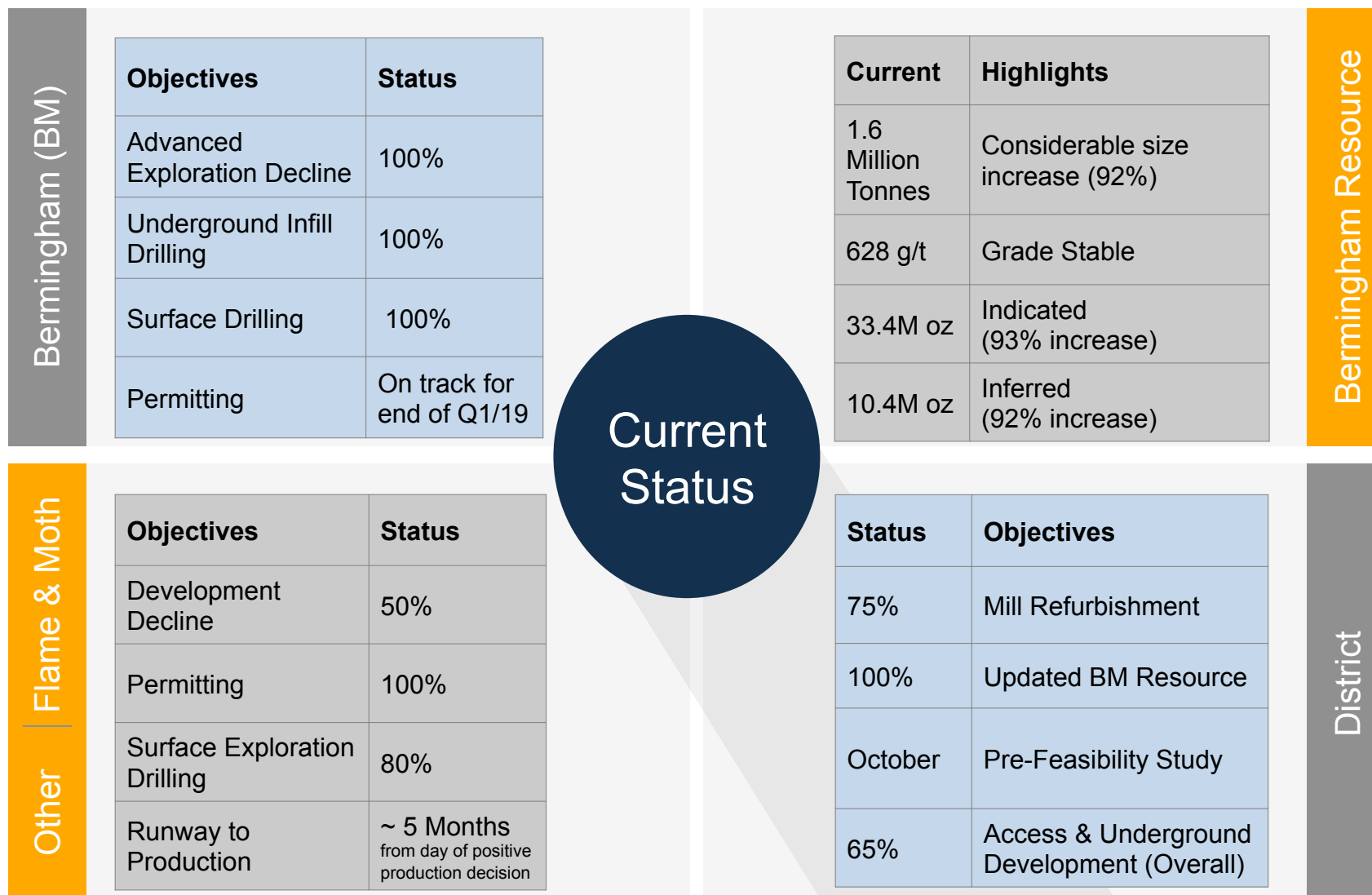
Price – 52 Week (TSX)



2018 Average Daily Trading Volume
(Combined NYSE & TSX)



Alexco 2018 Scorecard



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Near Term Objectives

Pre-feasibility Study

- New mine plan for Flame & Moth and Bermingham
- New reserve/resource for Flame & Moth and Bermingham
- Metallurgical and smelter metrics
- Updated CAPEX / OPEX

Flame and Moth Decline

- Completion of decline at Flame & Moth, 300+ m completed to date

Surface Exploration (2018)

- Completion of 14,000 m utilizing 3 surface rigs
- 80 % completed to date

Bermingham Permitting

- YESAA process complete, currently renewing Type A water license (Completion anticipated end of Q1 2019)



Appendix

Mineral Resource Table

Resource Table

Category	Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
Indicated	Bellekeno Deposit	262,000	585	n/a	3.5%	5.3%	4,927,000
	Lucky Queen Deposit	132,300	1,167	0.2	2.4%	1.6%	4,964,000
	Flame & Moth Deposit	1,679,000	498	0.4	1.9%	5.3%	26,883,000
	Onek	700,200	191	0.6	1.2%	11.9%	4,300,000
	Birmingham	1,651,500	628	0.1	1.6%	1.3%	33,350,300
	Total Indicated – Sub-Surface	4,425,000	523	0.3	1.8%	4.7%	74,424,000
	Elsa Tailings	2,490,000	119	0.1	1.0%	0.7%	9,527,000
	Total Indicated – All Deposits	6,915,000	378	0.2	1.5%	3.3%	83,952,300
Inferred	Bellekeno Deposit	243,000	428	n/a	4.1%	5.1%	3,344,000
	Lucky Queen Deposit	257,900	473	0.1	1.0%	0.8%	3,922,000
	Flame & Moth Deposit	365,200	356	0.3	0.5%	4.3%	4,180,000
	Onek	285,100	118	0.4	1.2%	8.3%	1,082,000
	Birmingham	616,550	526	0.1	1.1%	0.9%	10,438,700
	Total Inferred	1,767,750	404	0.2	1.5%	3.4%	22,966,700

Historical Resource

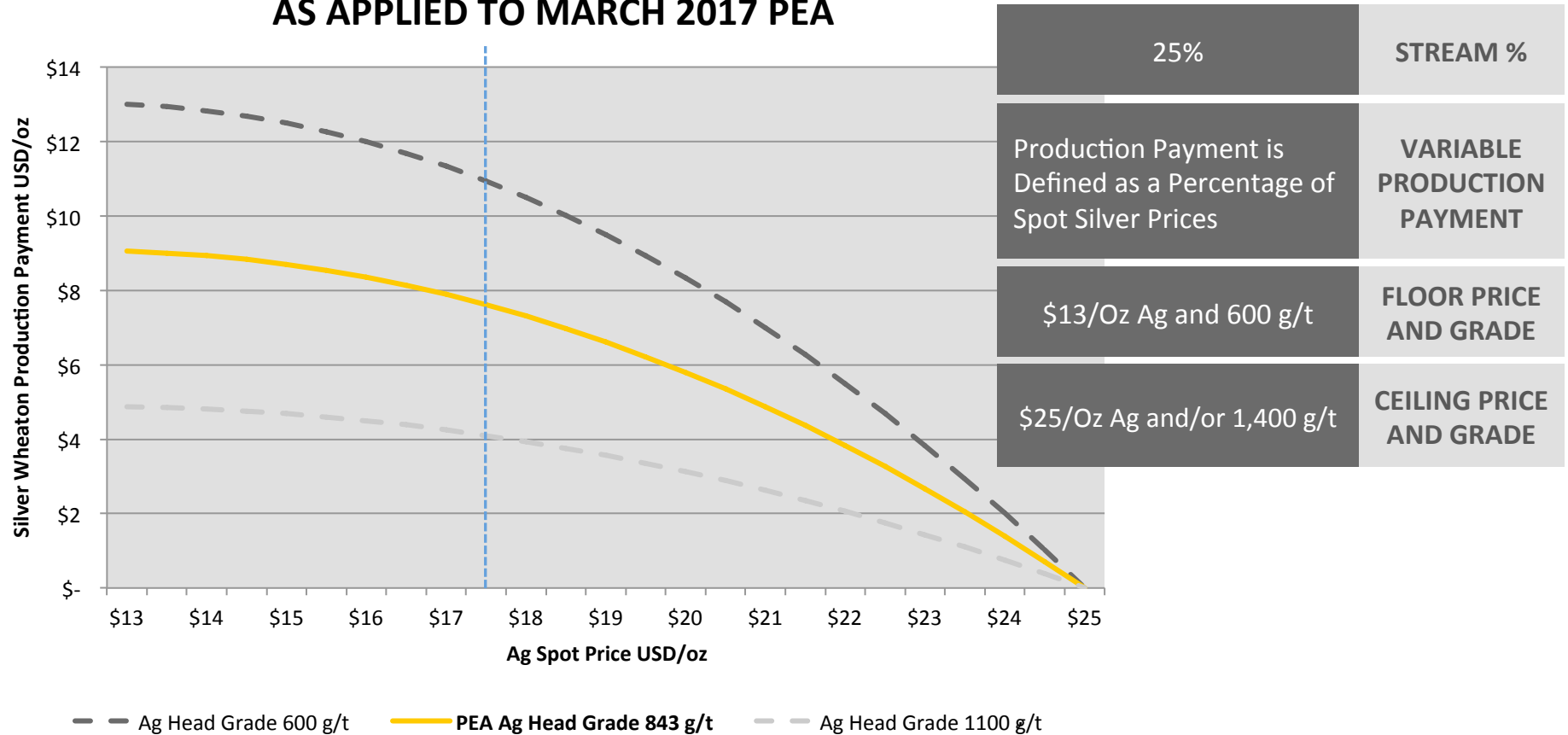
Category	Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
Proven, Probable & Indicated	Silver King	99,000	1,354	n/a	1.6%	0.1%	4,310,000
Inferred		22,500	1,456	n/a	0.1%	n/a	1,057,000

See slide 2 for PEA cautionary statement, News Release dated March 29, 2017 entitled “Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill, and News Release dated September XX, 2018 entitled “Alexco.”

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 has not done sufficient work to classify this estimate of historical resources as current, nor is Alexco treating this historical estimate as a current Mineral Resource.

Keno Hill District Amended Silver Stream

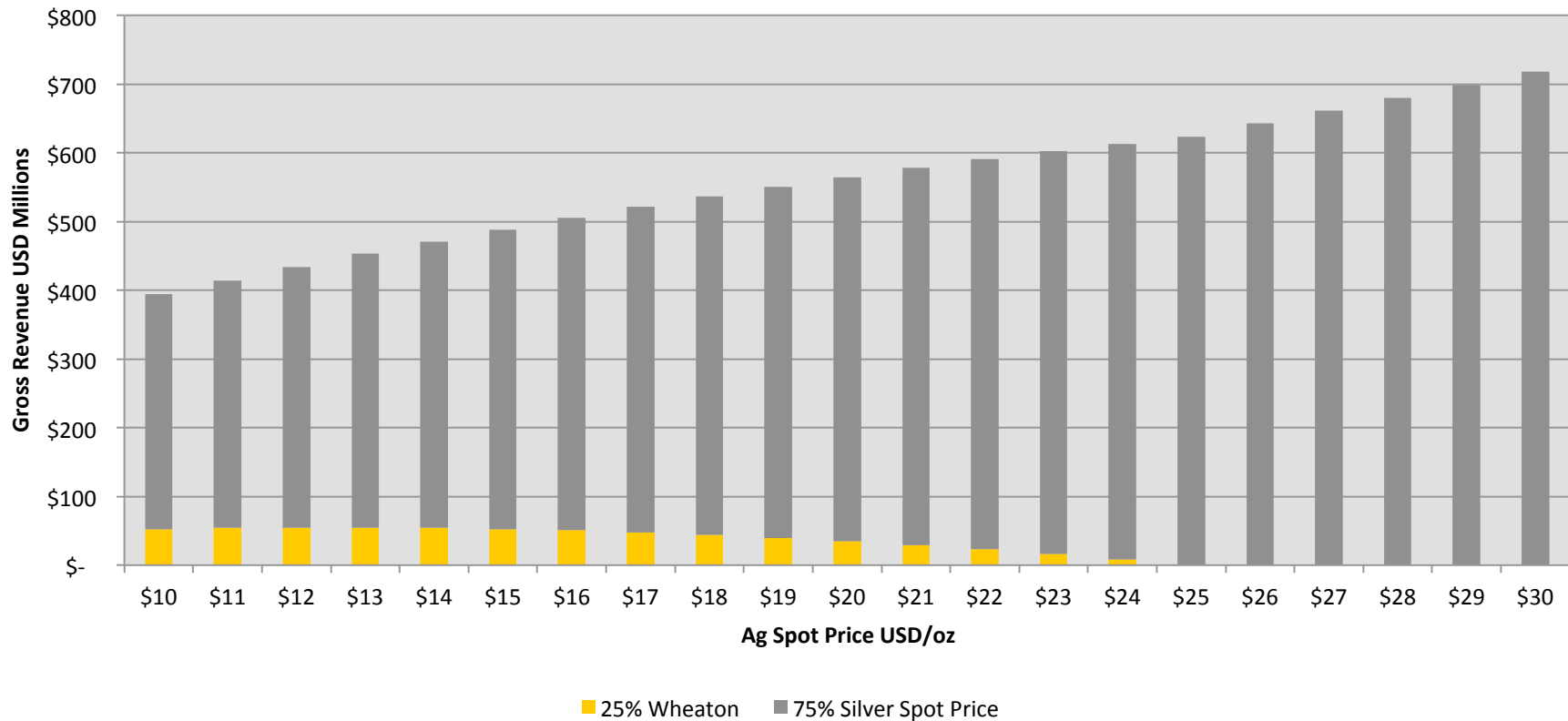
POTENTIAL WHEATON PRODUCTION PAYMENT AS APPLIED TO MARCH 2017 PEA



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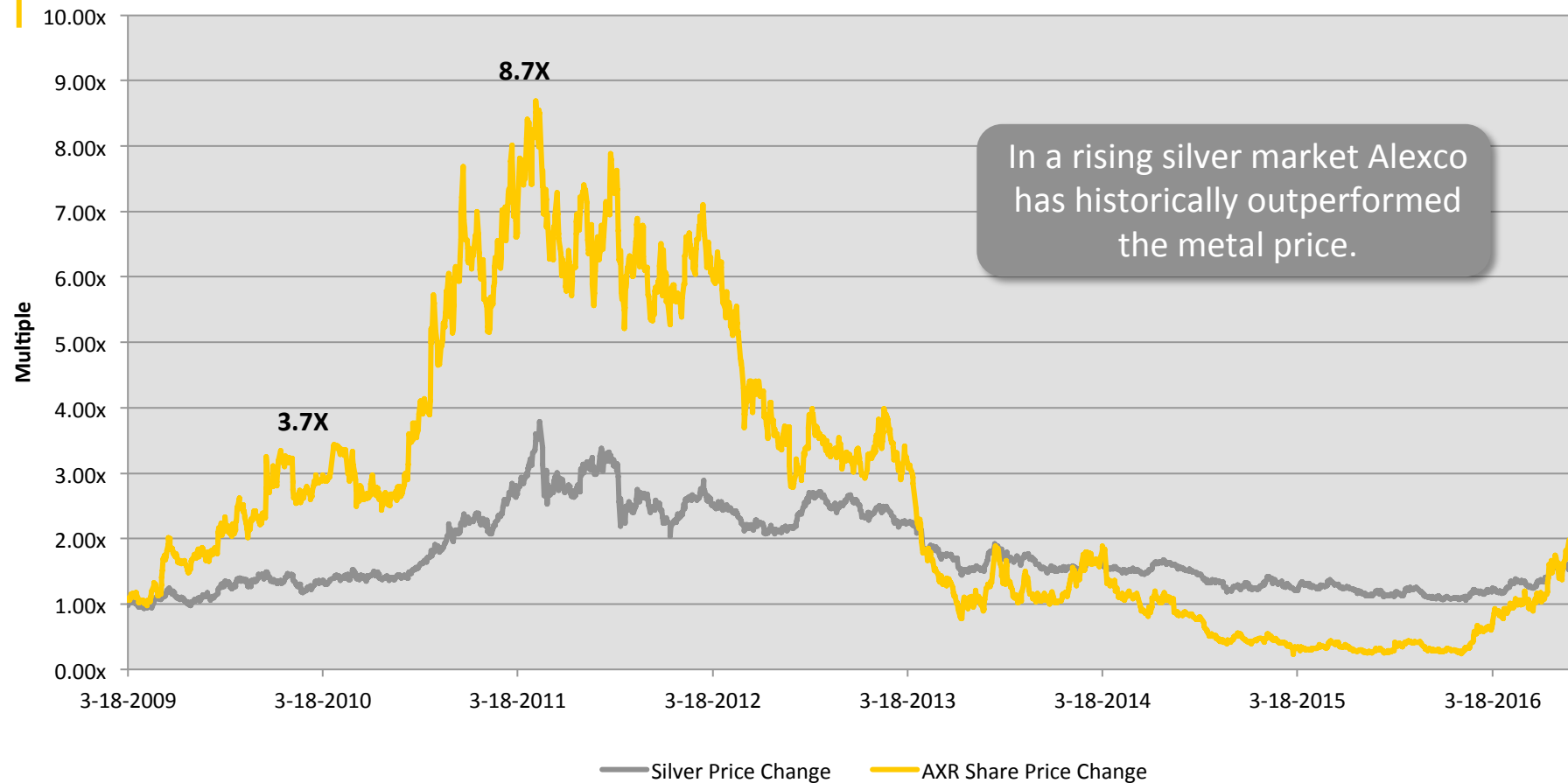
Keno Hill District Amended Silver Stream

Alexco Total PEA Gross Revenue at Ag Spot Prices (USD)

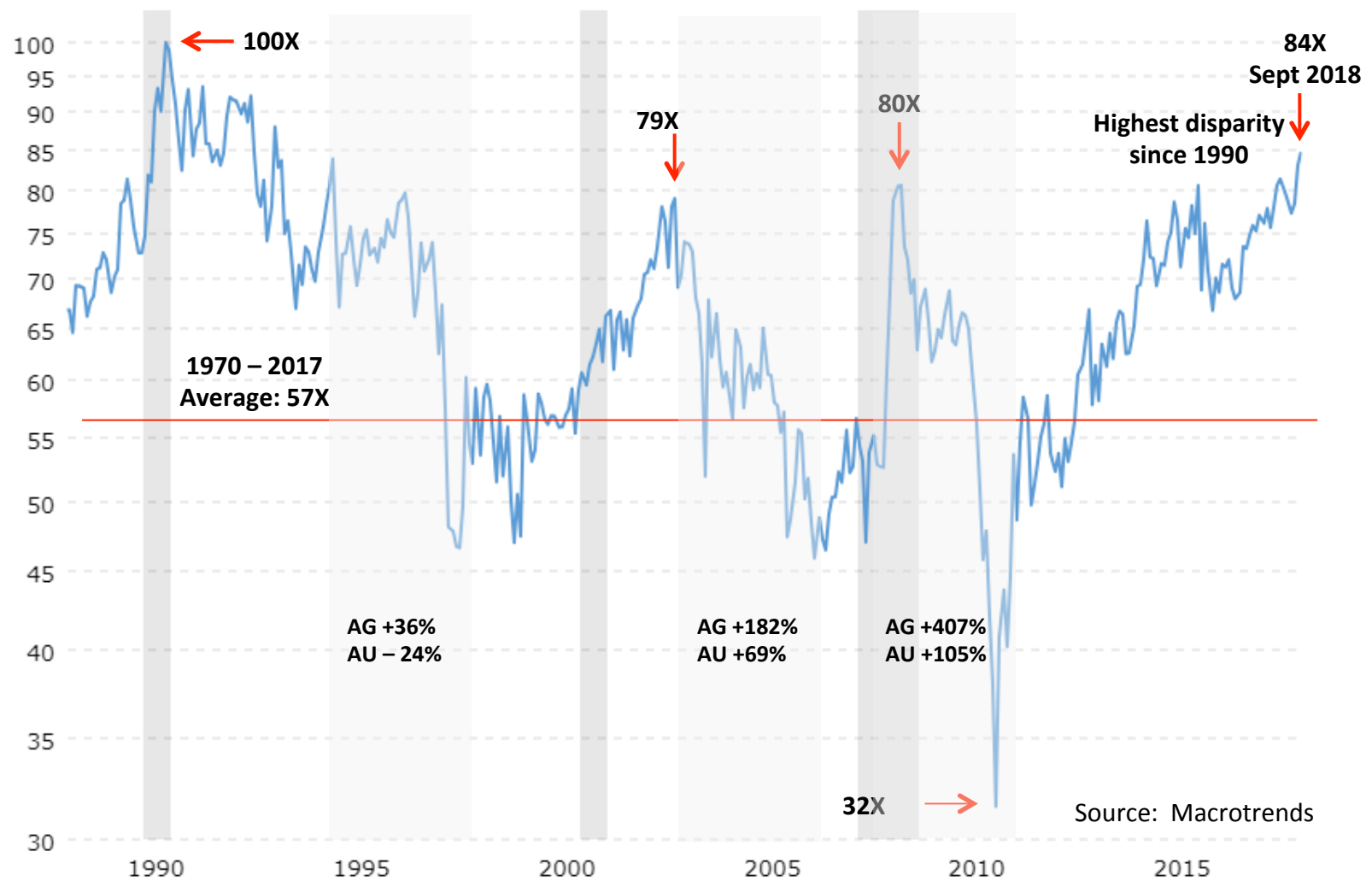


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AXR Share Price Leverage to Silver Price



Gold Silver Ratio



Alexco Share Price Performance

Relative to Peers



Source: Yahoo Finance

Key Management



Clynton Nauman,
Chairman, CEO



Brad Thrall,
President



Mike Clark,
CFO



Al McOnie
VP, Exploration



Gordon Wong,
VP, Finance



Linda Broughton
VP, Technical Services



Jim Harrington,
President, AEG

Board of Directors



Richard Zimmer,
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Terry Krepiakovich,
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