



ALEXCO RESOURCE CORP.

ALEXCO

A Roadmap to Production

**Building out a World Class
Silver Asset in Canada**

September 19, 2017



**NYSE-AMERICAN: AXU
TSX: AXR**

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 Silver 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 KHSD PEA, (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, who is a Qualified Person 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 the presentation 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.” 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 6% 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 6% inferred mineral resources in the mine plan.

Alexco Fundamentals

HIGH GRADE SILVER IN CANADA

DISCIPLINED PATH TO PRODUCTION

COMPETITIVE AISC – ROBUST PROJECT ECONOMICS

SCALEABILITY

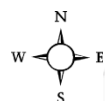
LOW CAPEX

SUCCESSFUL EXPLORATION TRACK RECORD

LEVERAGE

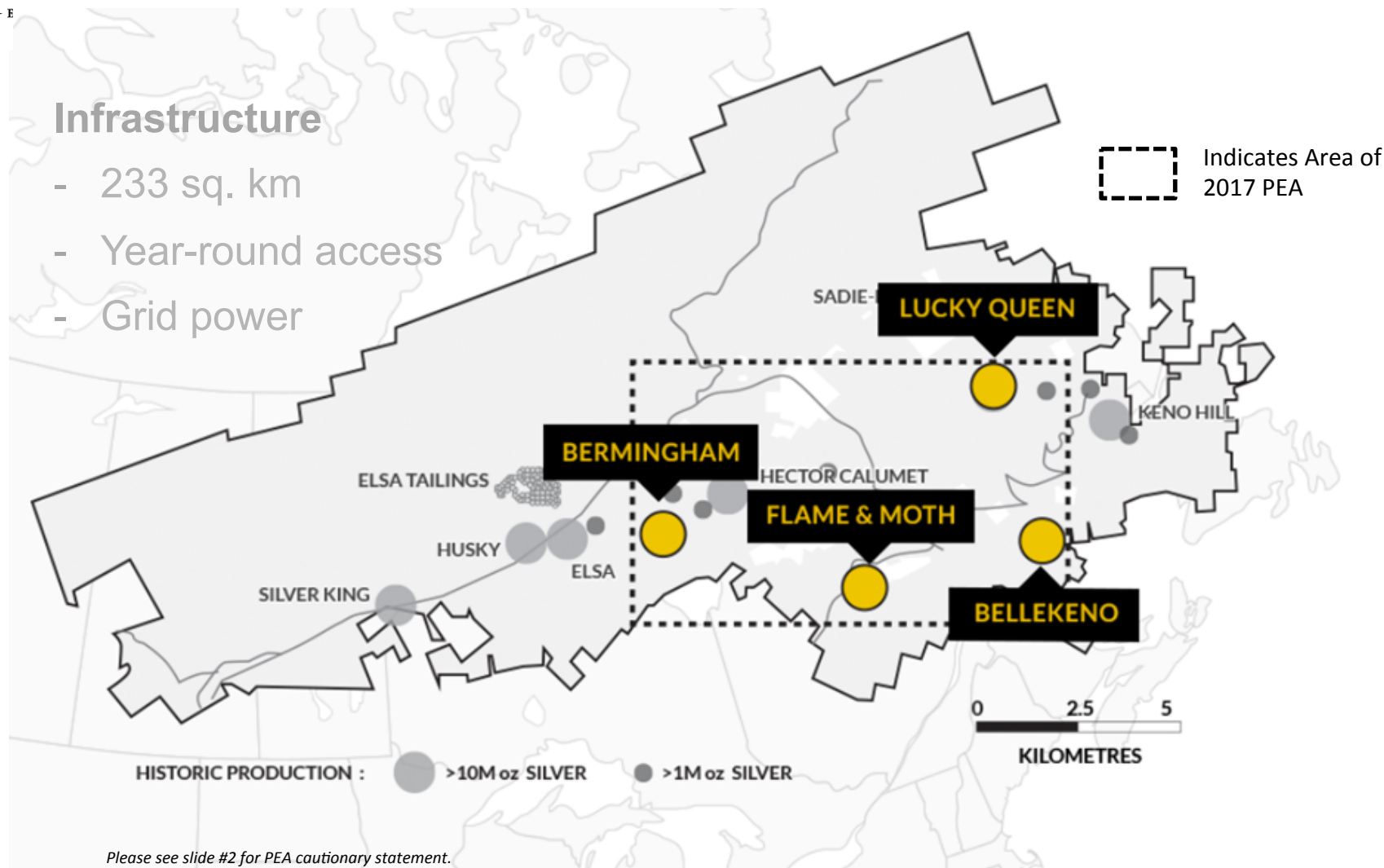
Please see slide #2 for PEA cautionary statement and News Release dated March 29, 2017 entitled “Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill.”

Keno Hill Silver District - Yukon



Infrastructure

- 233 sq. km
- Year-round access
- Grid power



Production Profile – Keno Hill Silver District

March 2017 PEA

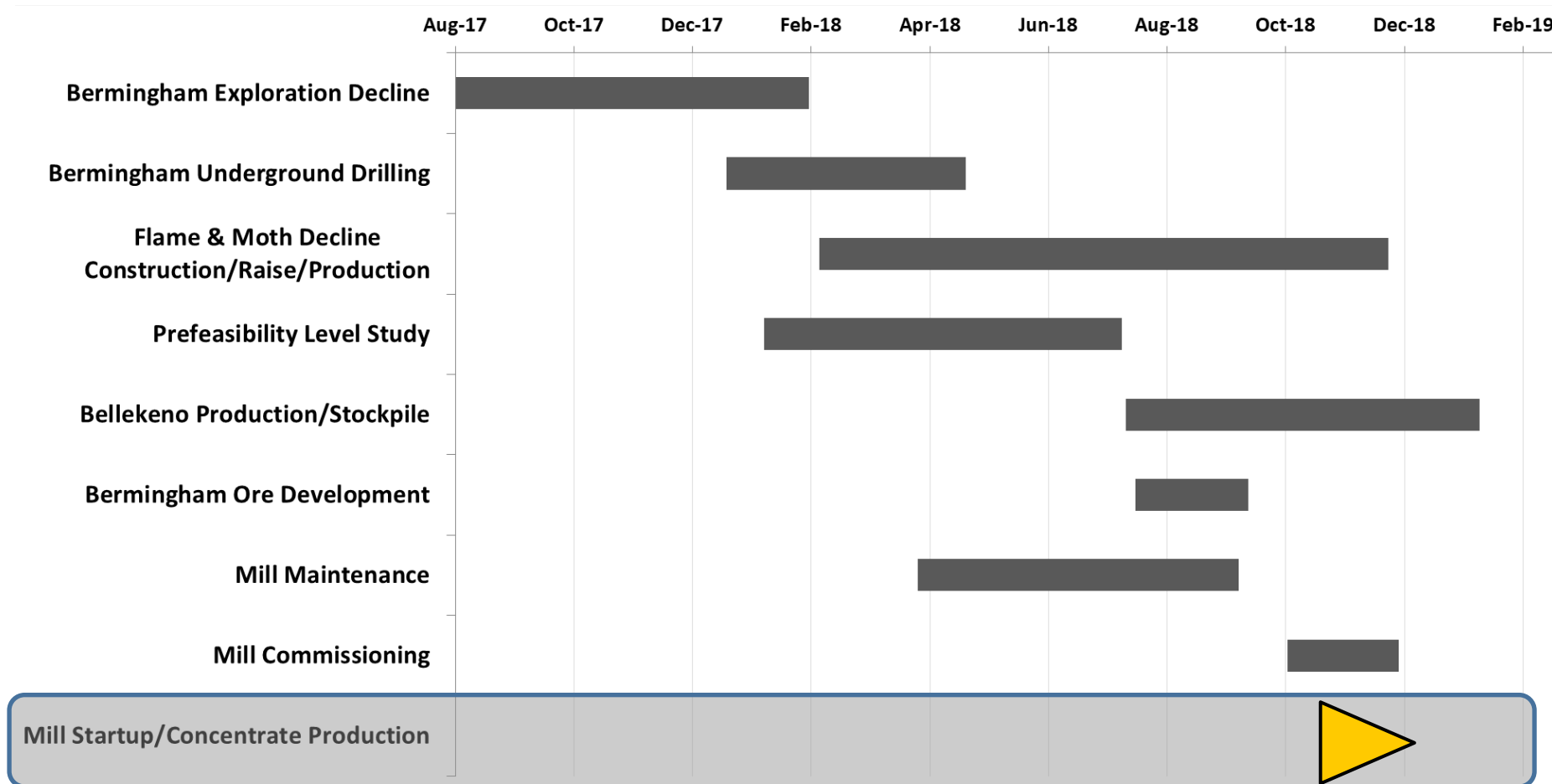
LOM TONNES AND GRADE
1,021,000 Tonnes
843 g/t Ag, 3.31% Pb, 4.2% Zn

FLAME & MOTH	BERMINGHAM	LUCKY QUEEN	BELLEKENO
TONNES 683,000	TONNES 220,000	TONNES 81,000	TONNES 37,000
GRADE 666 g/t Ag	GRADE 1,276 g/t Ag	GRADE 1,206 g/t Ag	GRADE 747 g/t Ag

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.

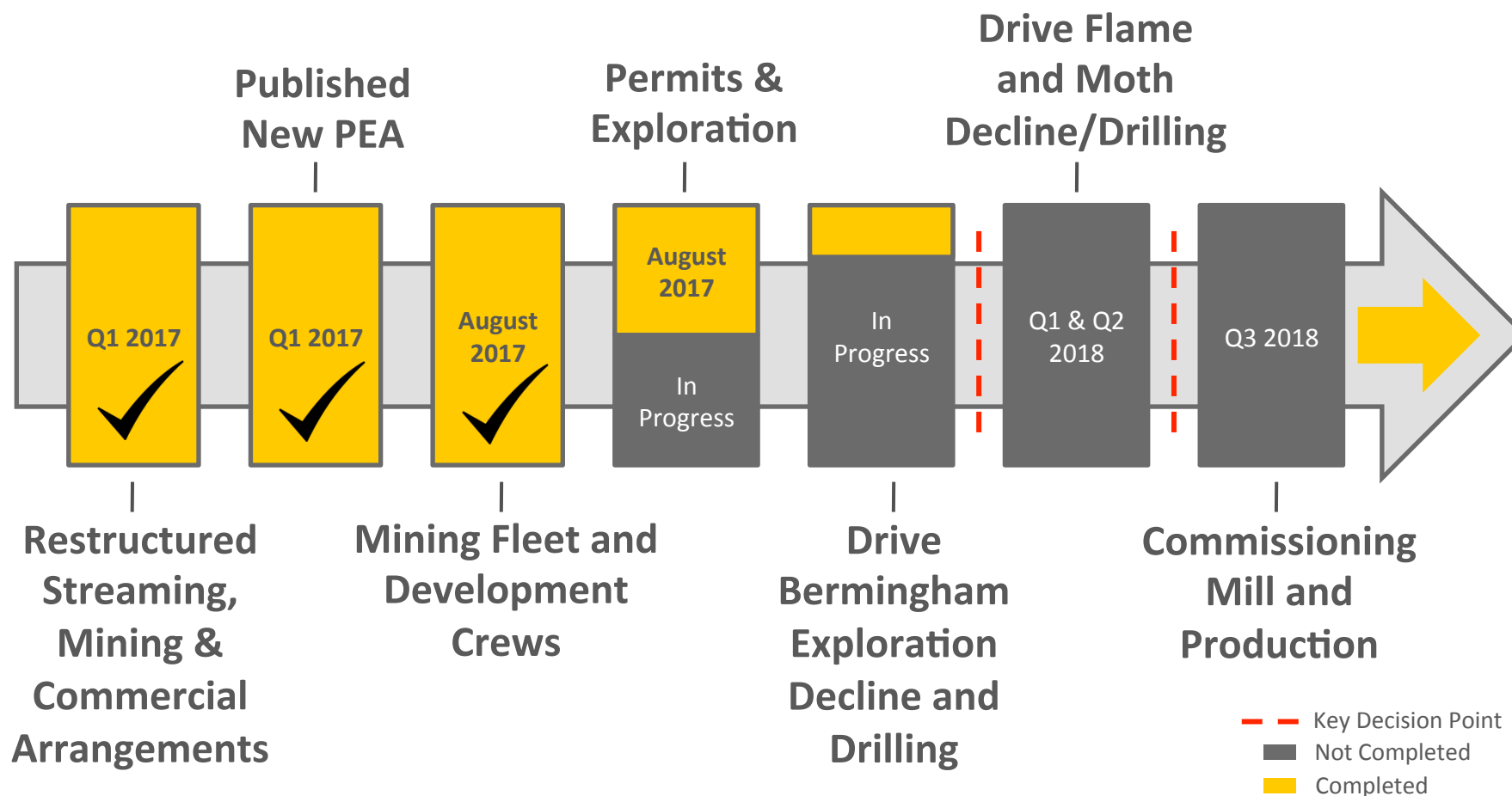
Schematic Schedule 2017-2018



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."
 See risks disclosed in Annual Information Form dated March 29, 2017.

Where Are We

Meeting Milestones, Moving Up the Value Curve



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."



PRODUCTION PROFILE¹ – 400 t/d

Mining Period	Avg. Silver Grade	Avg. Annualized Production	AISC ²	Other
Years 1 - 3	931 g/t Ag	4.1M ozs	\$10.50 ³	Initial Capex ⁴ \$27M
Years 1 – 8 (LOM)	843 g/t Ag	3.5M ozs	\$11.50 ³	IRR 72%

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.”

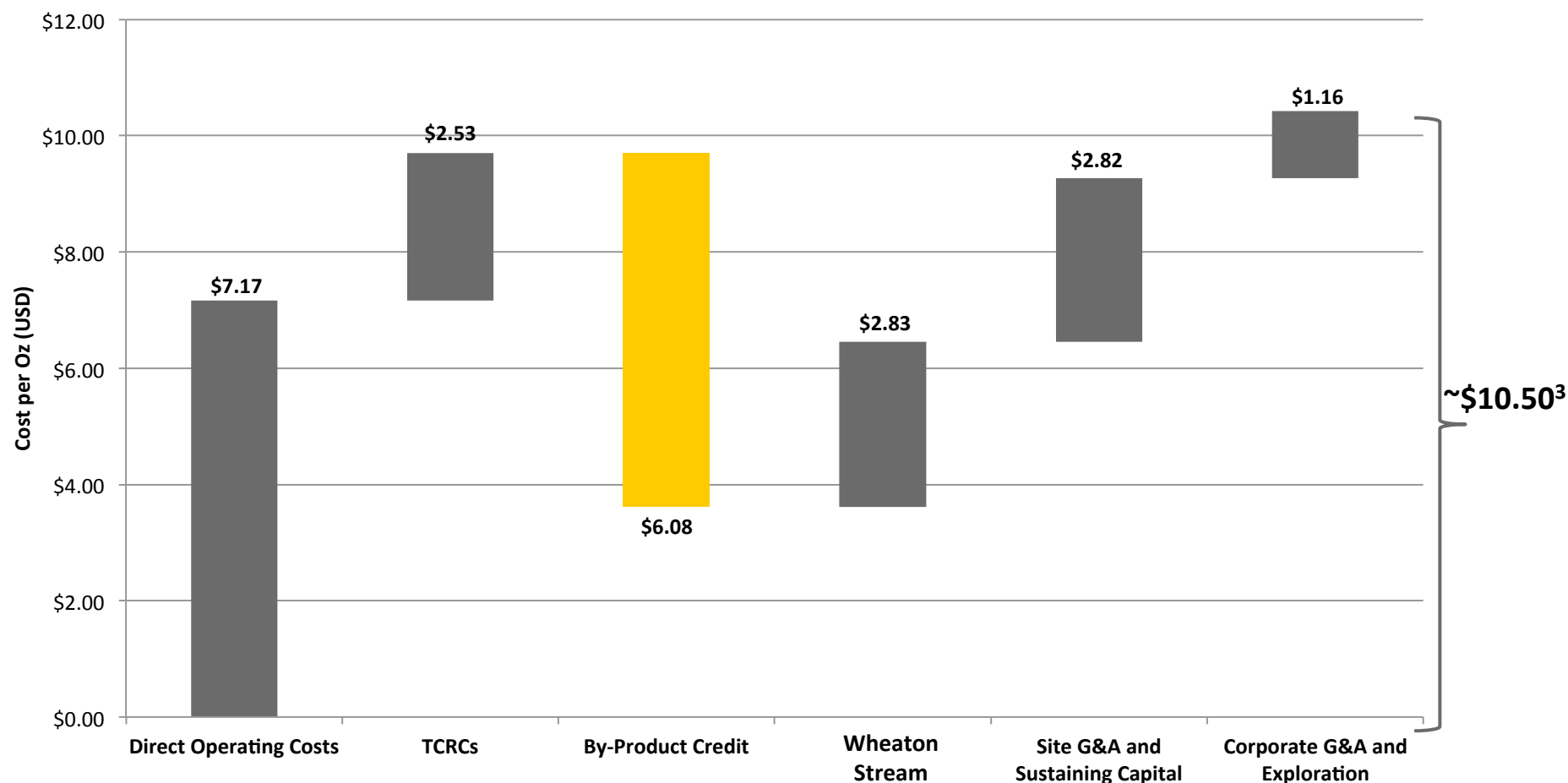
2. AISC calculated on a produced (contained) basis net of by-products, as defined by the World Gold Council.

3. This AISC estimate is based on current metal price assumptions: Ag USD/oz \$18.00, Zn USD/lb \$1.37, Pb USD/lb \$1.01, USD/CAD \$0.82, 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 Company has already begun this investment.

AISC Build-Up Production Years 1-3 ^{1&2}

Project is Economic Today



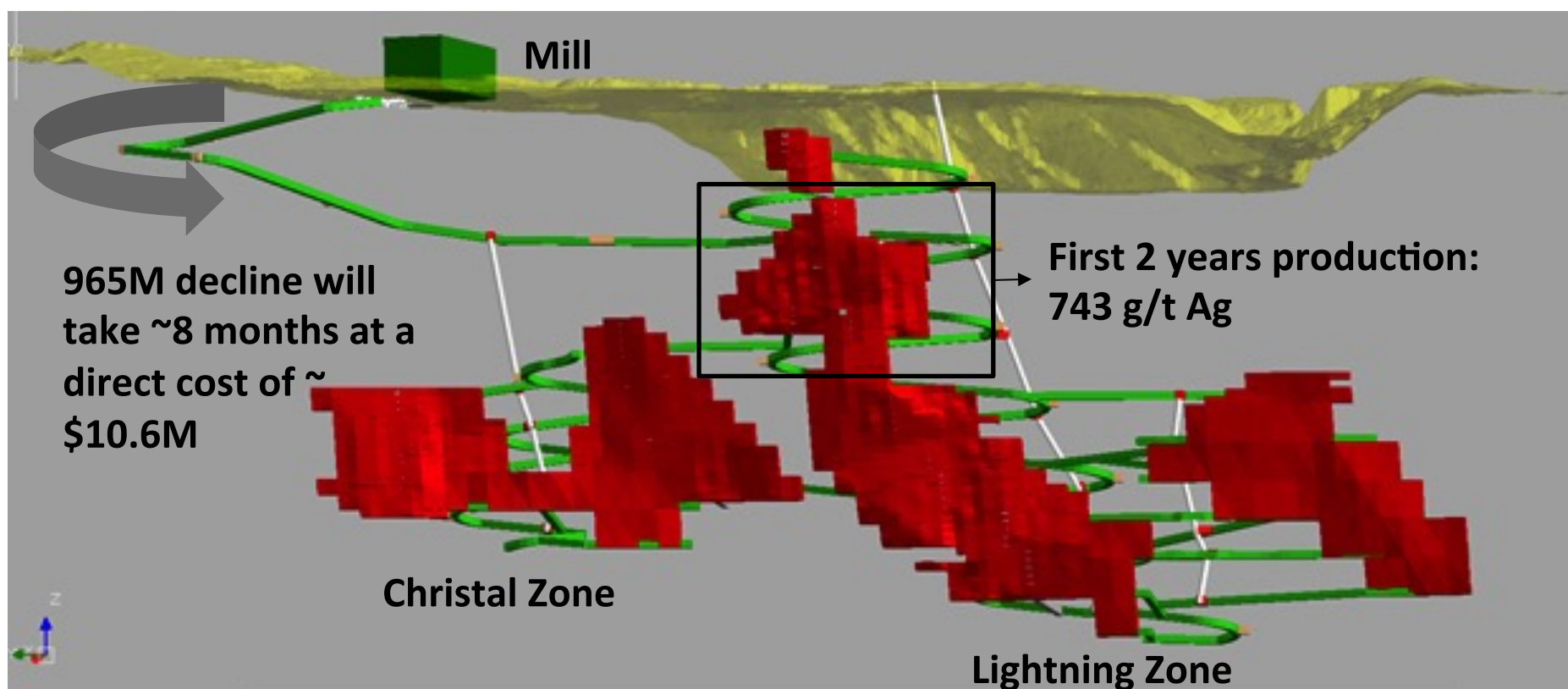
1. Please see slide #2 for PEA cautionary statement and News Release dated March 29, 2017 entitled "Alexco and Silver Wheaton Amend Silver Purchase Agreement and Alexco Announces Positive Preliminary Economic Assessment for Expanded Silver Production at Keno Hill."

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 metal price assumptions: Ag USD/oz \$18.00, Zn USD/lb \$1.37, Pb USD/lb \$1.01, USD/CAD \$0.82, 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.

Flame & Moth Schematic Long Section

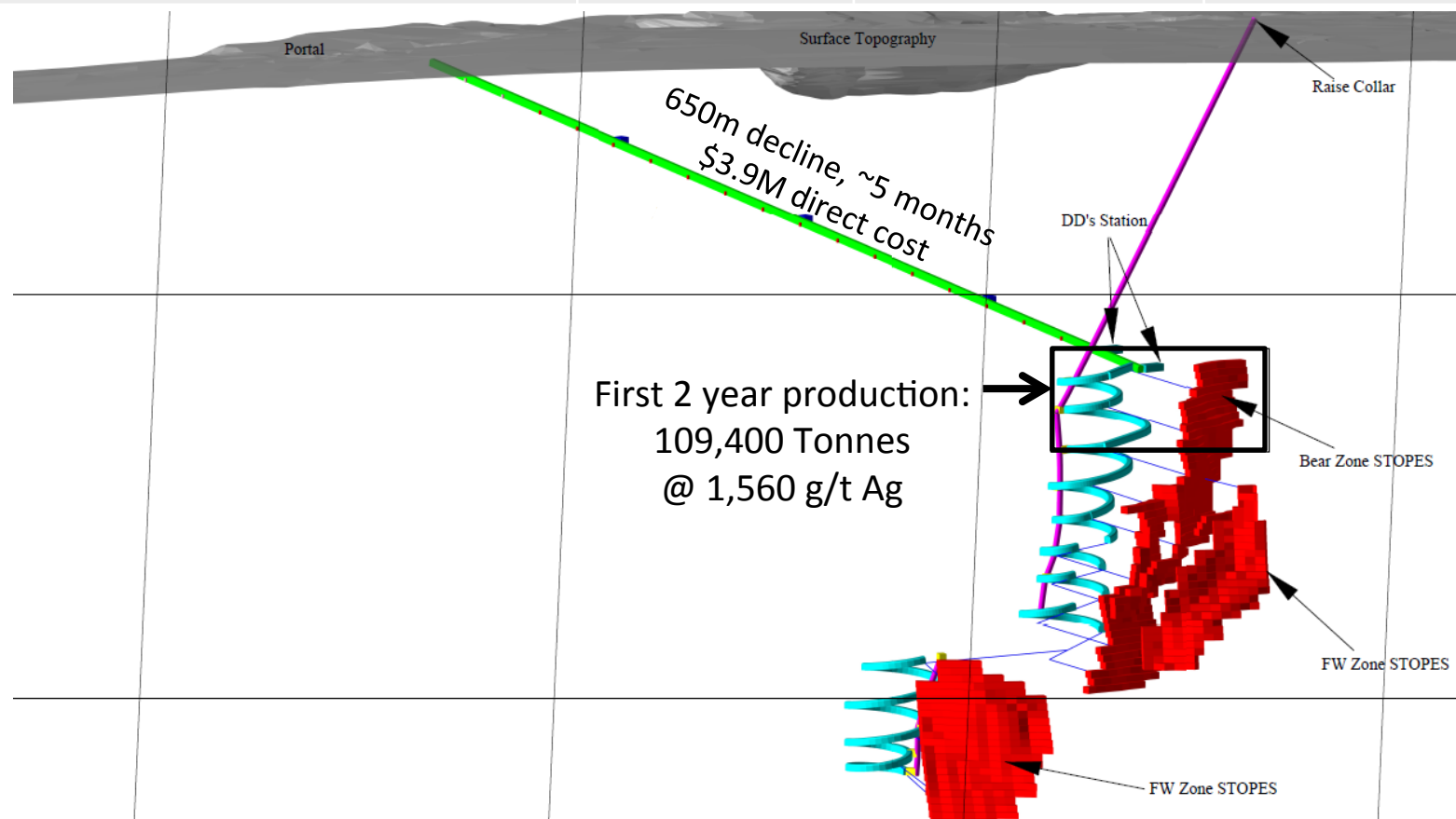
	Tonnes	Ag Grade g/t	Ozs
Indicated Resource	1,679,000	498	26,883,000
PEA Mineable Resource	683,000	666	14,622,965



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."

Birmingham Schematic Long Section

	Tonnes	Ag Grade g/t	Ozs
Indicated Resource	858,000	628	17,324,000
PEA Mineable Resource	220,000	1,276	9,026,869



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."

World Class Grades And Proven Recoveries

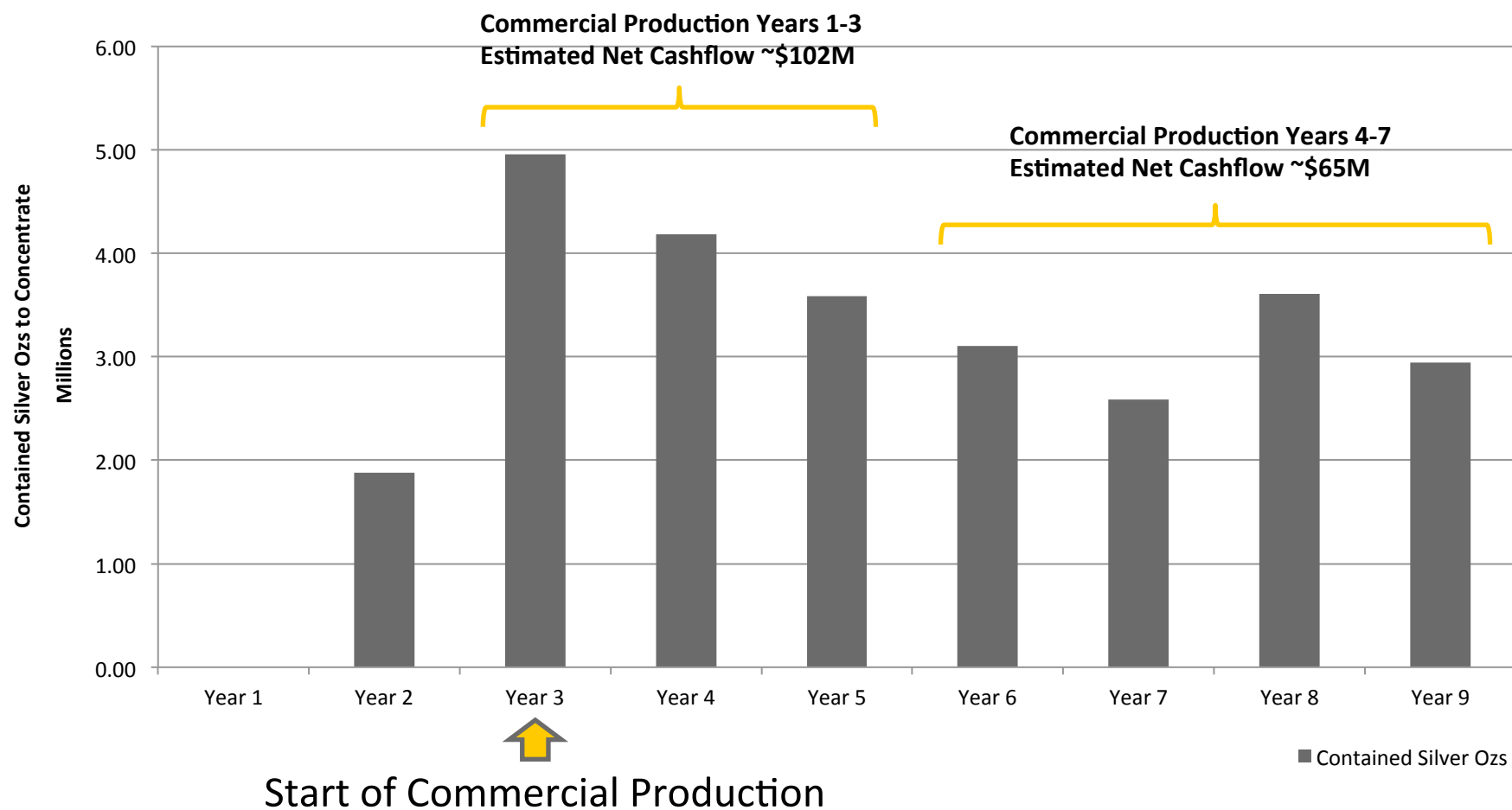
Recoveries	Percentage
Ag	94
Pb	95
Ag to Pb Con	90

	Pb Con	Zn Con
LOM Tonnes (dry metric tonnes)	49,243	83,453
Ag g/t	16,363	349
Pb %	65.0	1.1
Zn %	8.2	50.0

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."

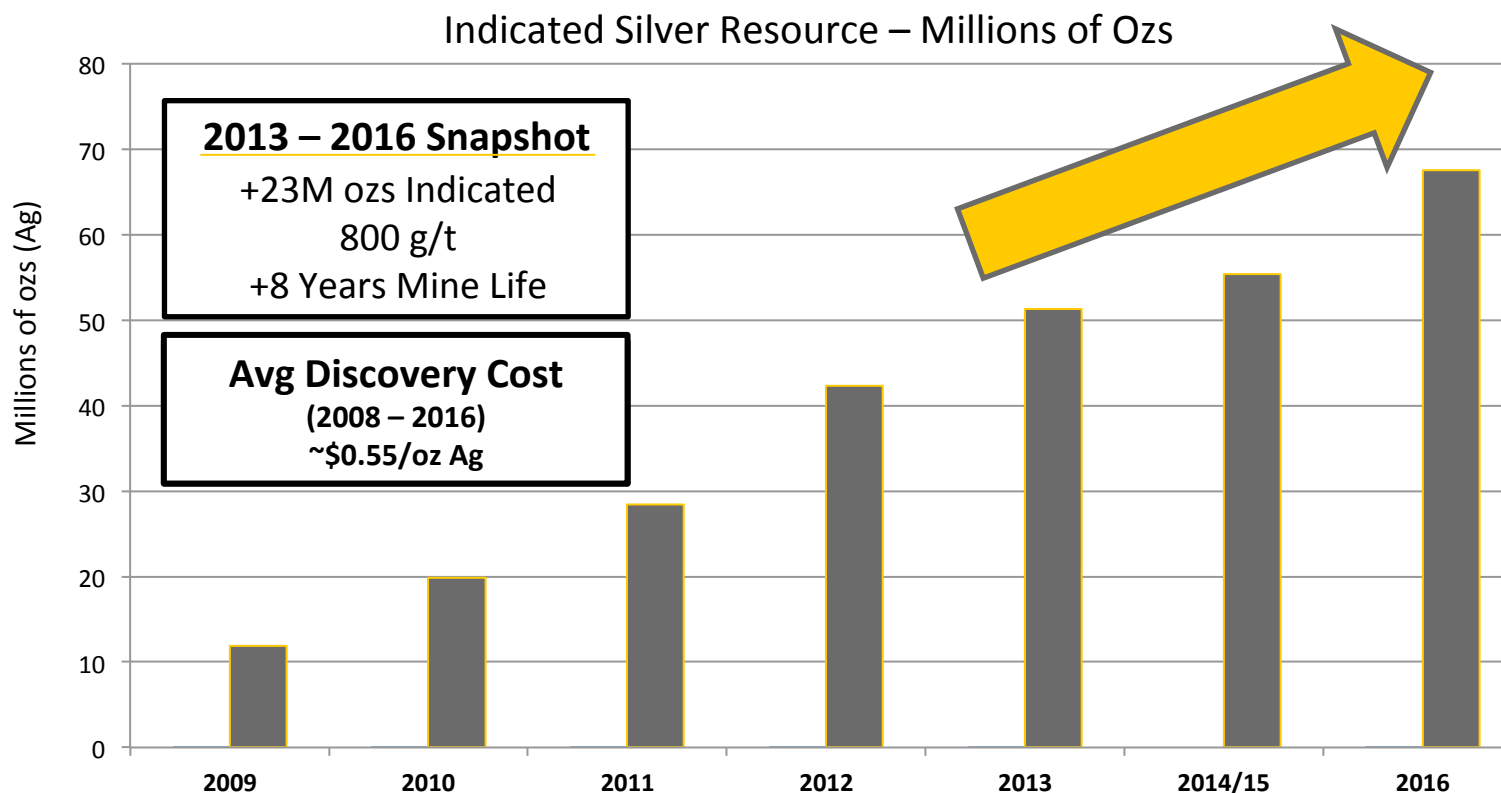
Keno Hill District – Ready for Production

March 2017 PEA Silver Production & Cashflow



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."

Exploration Success



Property	Tonnes	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Contained Ag (oz)
Total Indicated	3,631,500	500	0.3	2.0%	5.6%	58,398,000
Total Inferred	1,371,000	408	0.2	1.6%	4.3%	17,974,000
Historical Resources						
Silver King						
- 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
Elsa Tailings - Indicated	2,490,000	119	0.1	1.0%	0.7%	9,527,000

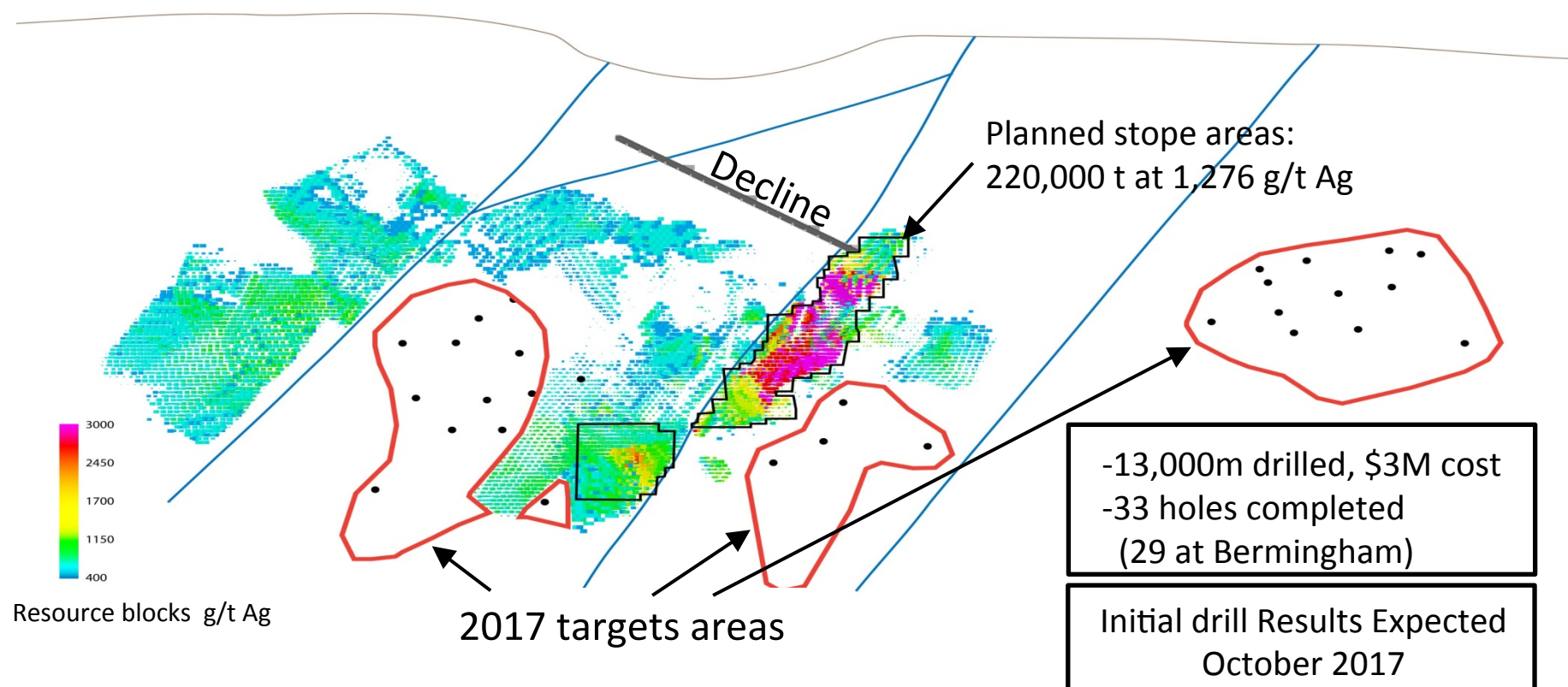
Please see Summary of Silver Resources on Alexco's website for full mineral resource disclosure.

NYSE-AMERICAN: AXU / TSX: AXR

Birmingham - 2017 Surface Exploration

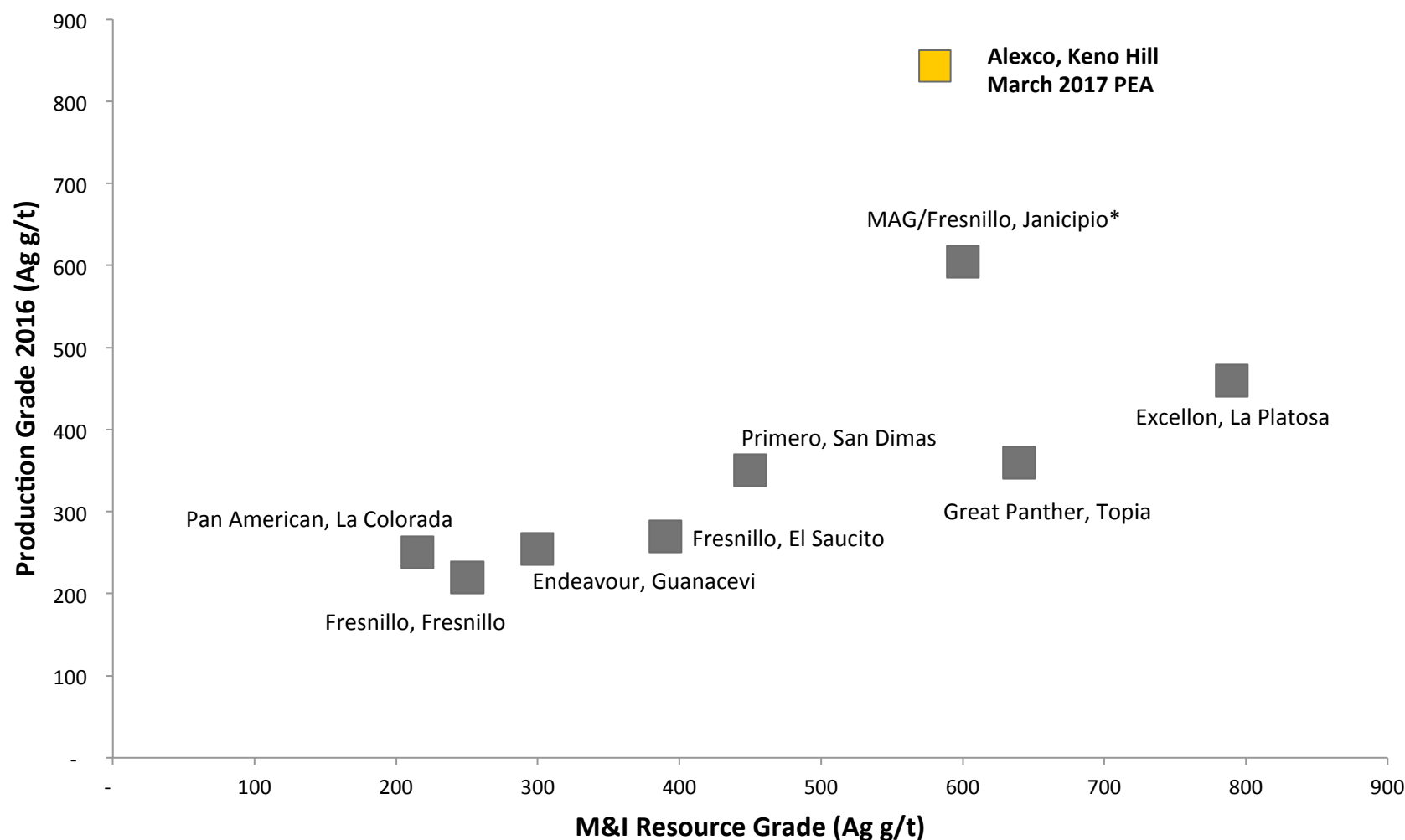
	Tonnes	Ag Grade g/t	Ozs
Indicated Resource	858,000	628	17,324,000
PEA Mineable Resource	220,000	1,276	9,026,869

Vertical long section looking northwest



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."

High Grade Resource & Production

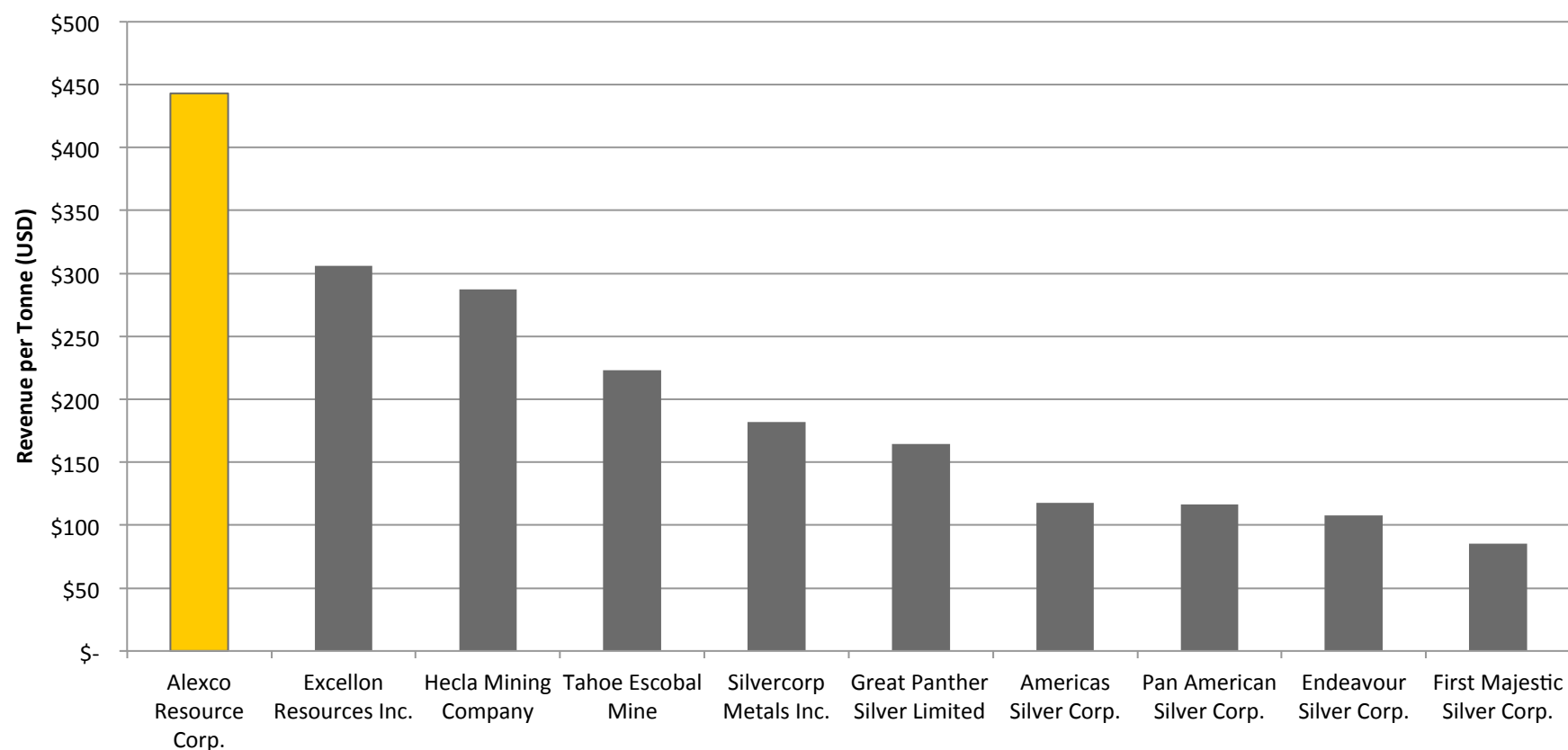


Please see slide #2 for PEA cautionary statement.

Based on most recently available public disclosure documents. Market data used in this presentation may be based on independent reports by market research firms, or other published independent sources. Some data is also based on Alexco's good faith estimates that are derived from its review of internal data and information. Although Alexco believes these sources are reliable, Alexco has not independently reviewed the information and cannot guarantee its accuracy or completeness.

Revenue per Tonne of Ore Milled

Peer Comparison

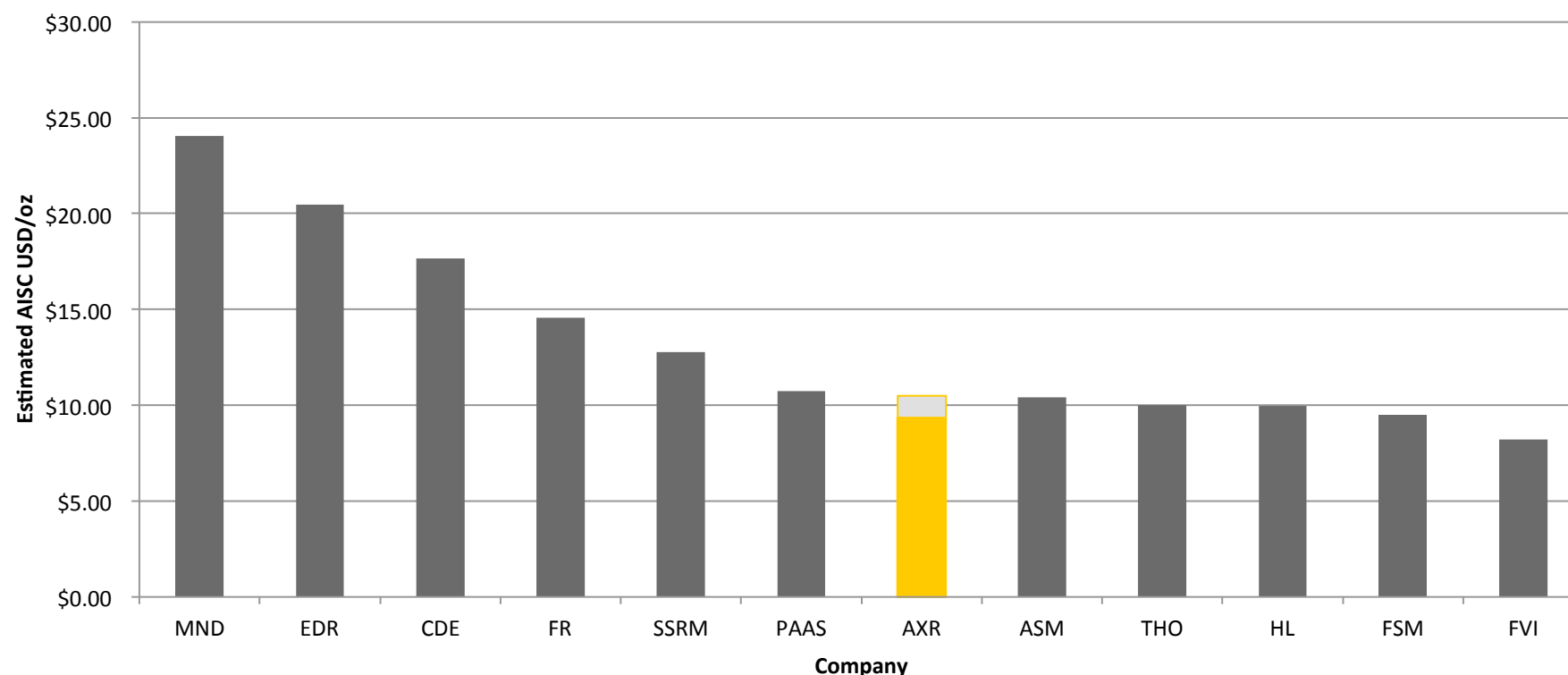


Based on the most recently available public disclosure documents as at December 31, 2016. Market data used in this presentation may be based on independent reports by market research firms, or other published independent sources. Some data is also based on Alexco's good faith estimates that are derived from its review of internal data and information. Although Alexco believes these sources are reliable, Alexco has not independently reviewed the information and cannot guarantee its accuracy or completeness.

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Comparison – All-In Sustaining Costs

Calculated Using Today's Pricing and Assumptions

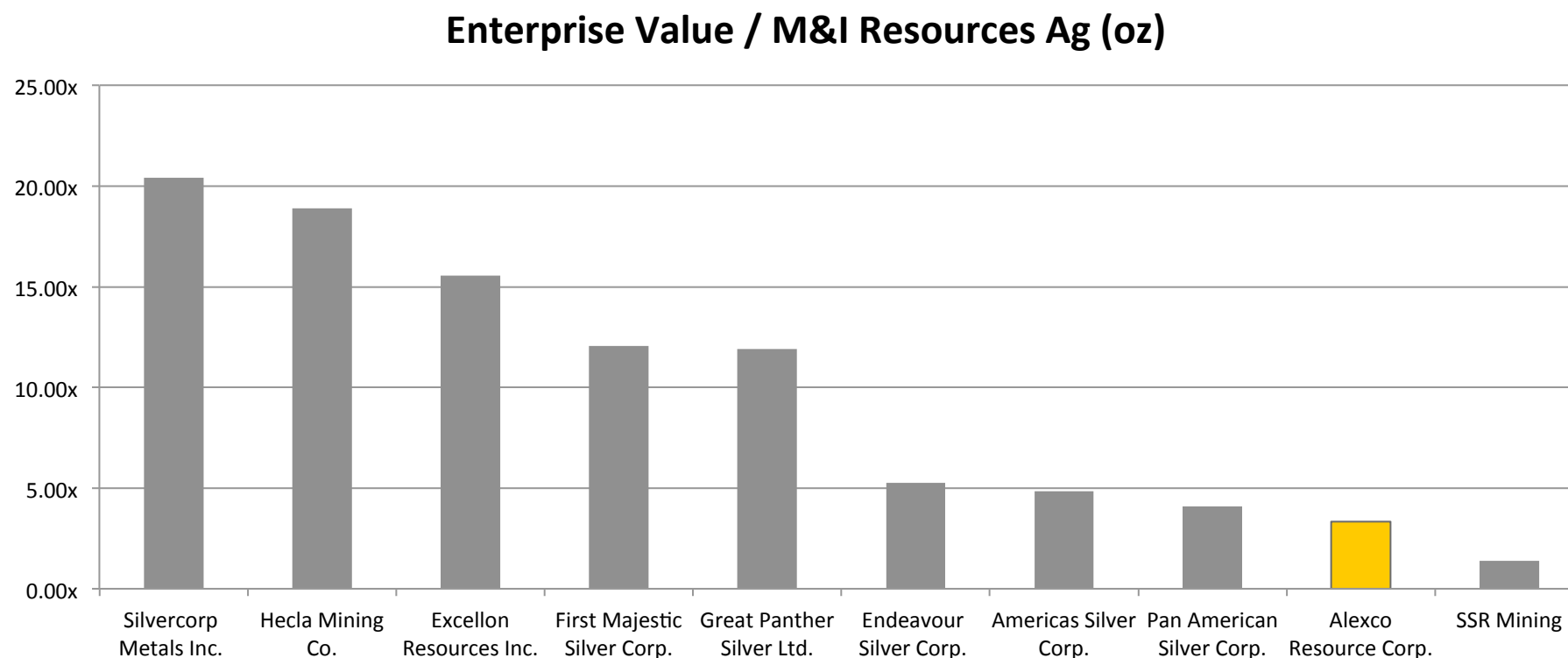


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AXR AISC calculated on a produced (contained) basis net of by-products (as defined by the World Gold Council) for years 1-3 of PEA Commercial Production period using current metal price and assumptions as follows: Ag USD/oz \$18.00, Zn USD/lb \$1.37, Pb USD/lb \$1.01, USD/CAD 0.82, TCRCs updated based on 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.

As of September 11, 2017 and based on most recently available public disclosure documents. Market data used in this presentation may be based on independent reports by market research firms, or other published independent sources. Some data is also based on Alexco's good faith estimates that are derived from its review of internal data and information. Although Alexco believes these sources are reliable, Alexco has not independently reviewed the information and cannot guarantee its accuracy or completeness.

Attractive Valuation



Based on most recently available public disclosure documents as at Sept. 8, 2017.

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Alexco Environmental Group



Successful Environmental Business

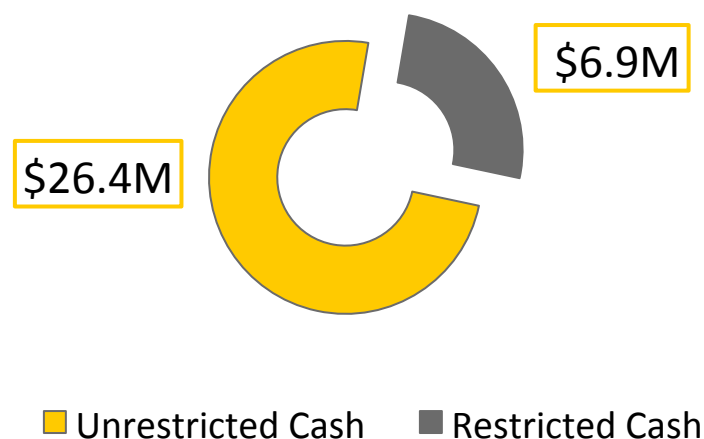
**2016
Revenue
\$11.4M
25% Margin**

Signature Projects
- Globeville (CO)
- Gold King (CO)
- Keno Hill (Yukon)

**Patented
Remediation
Technologies**

Financial Stability

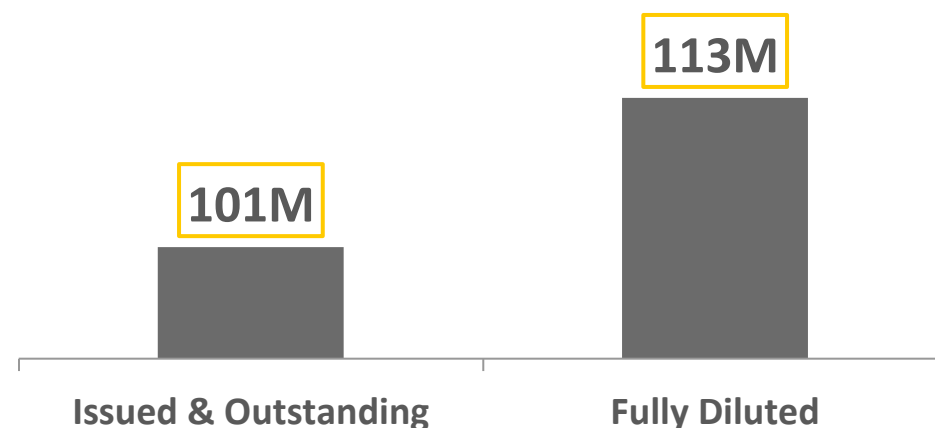
Key Financial Metrics – June 30, 2017



Working Capital
\$26.8M

No Debt

Share Structure: Current



Key Shareholders

Management and Insiders	7.0%
Wheaton Precious Metals	3.0%
Old Mutual Global Investors	1.6%
ETF Managers Group	1.4%

The Alexco Opportunity

HIGH GRADE SILVER IN CANADA

DISCIPLINED PATH TO PRODUCTION

COMPETITIVE AISC –
ROBUST PROJECT ECONOMICS

SCALEABILITY

LOW CAPEX

SUCCESSFUL EXPLORATION TRACK RECORD

LEVERAGE



'Primary silver deposits, those with enough silver to generate over half their revenues when mined, are quite rare.'

Adam Hamilton, Zeal LLC

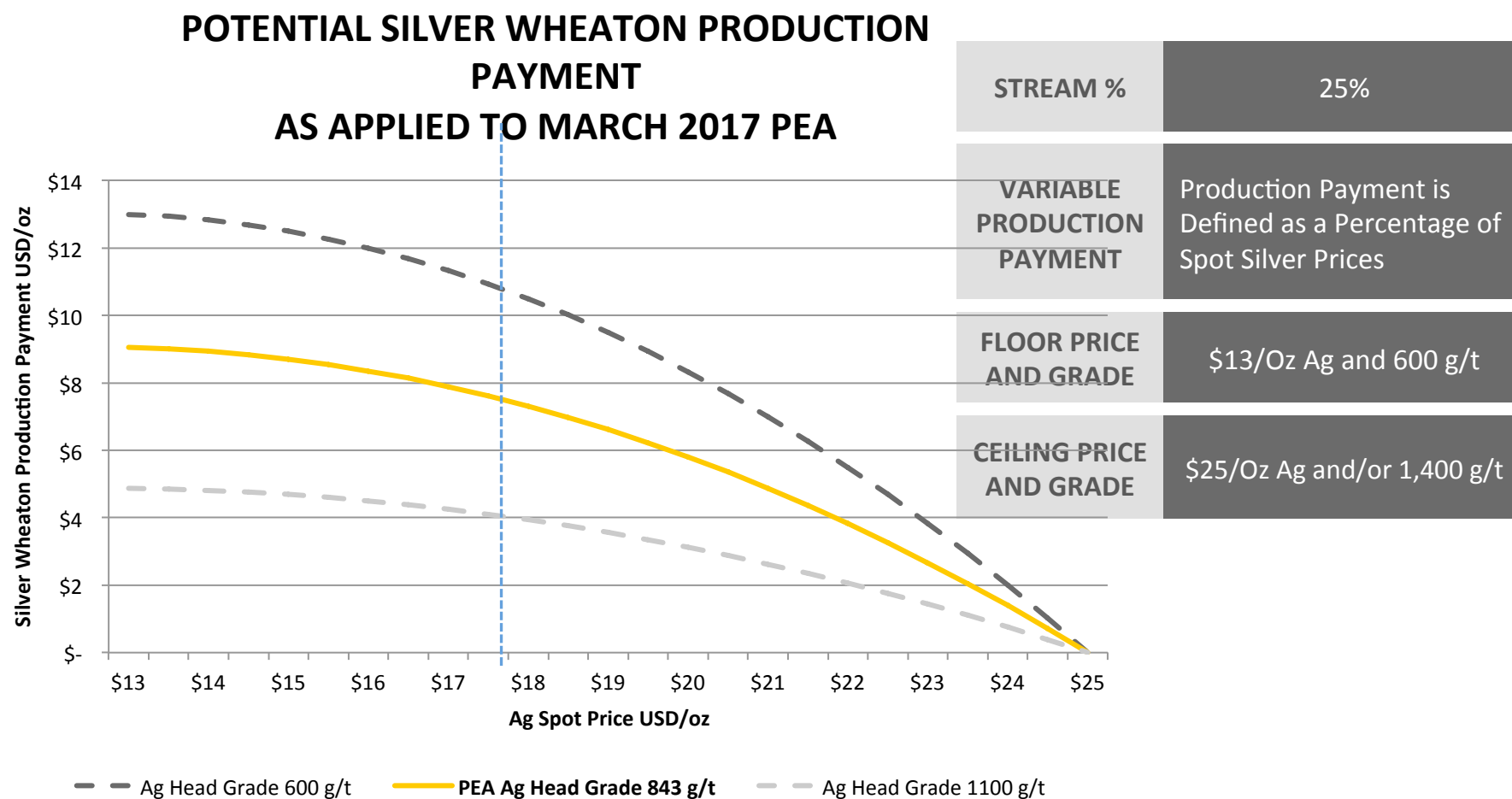
**Alexco - To be Canada's only
primary silver producer.**

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Appendix

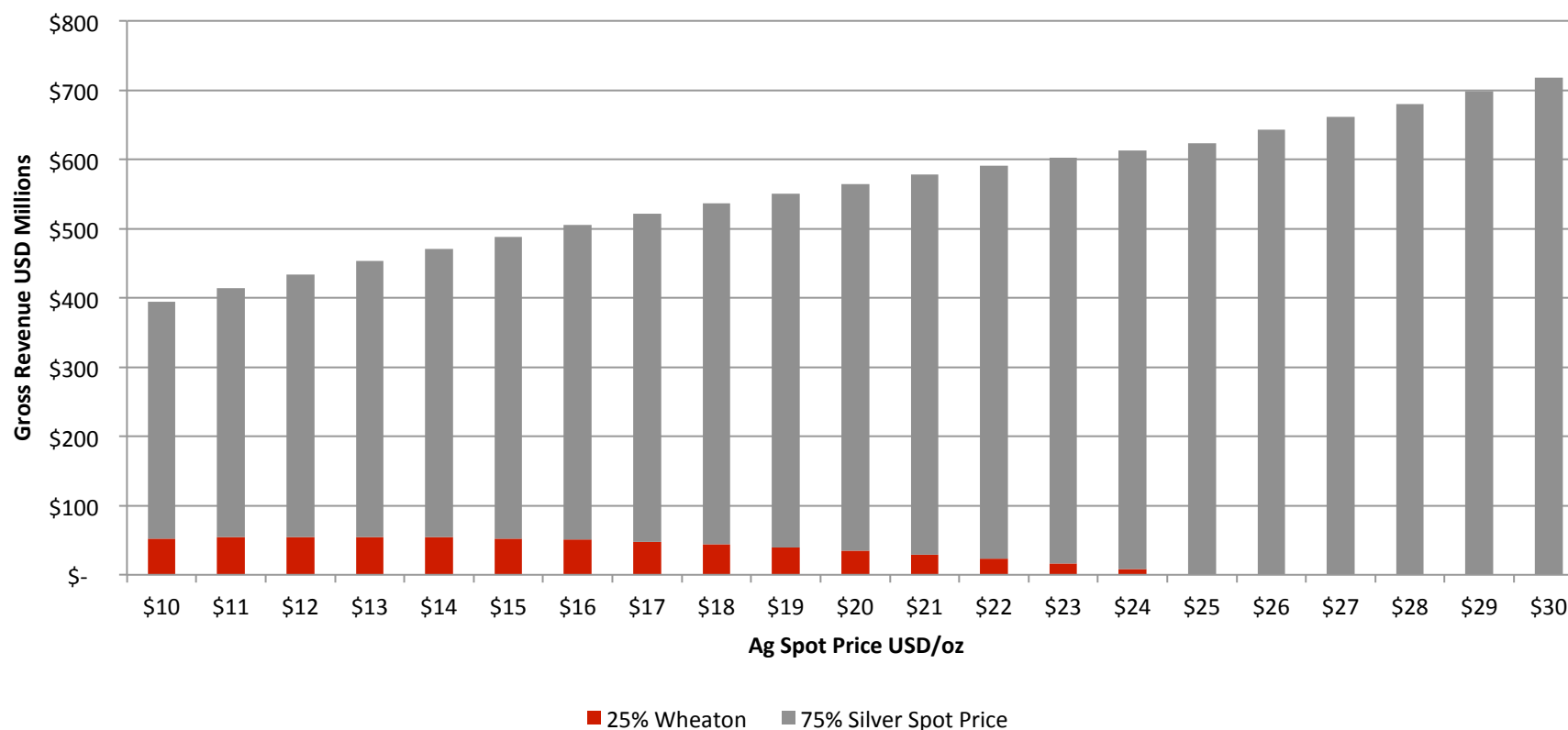
Keno Hill District Amended Silver Stream



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Keno Hill District Amended Silver Stream

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



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."

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	858,000	628	0.1	2.4%	1.7%	17,324,000
	Total Indicated – Sub-Surface	3,631,500	500	0.3	2.0%	5.6%	58,398,000
	Elsa Tailings	2,490,000	119	0.1	1.0%	0.7%	9,527,000
	Total Indicated – All Deposits	6,121,500	345	0.3	1.6%	3.6%	67,925,000
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	220,000	770	0.2	2.1%	2.2%	5,446,000
	Total Inferred	1,371,000	408	0.2	1.6%	4.3%	17,974,000
Historical Resources	Silver King						
	- Proven, probable and indicated	99,000	1,354	n/a	1.6%	0.1%	4,310,000
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Key Management

Experienced Team, CEO & President are the Founders of Alexco

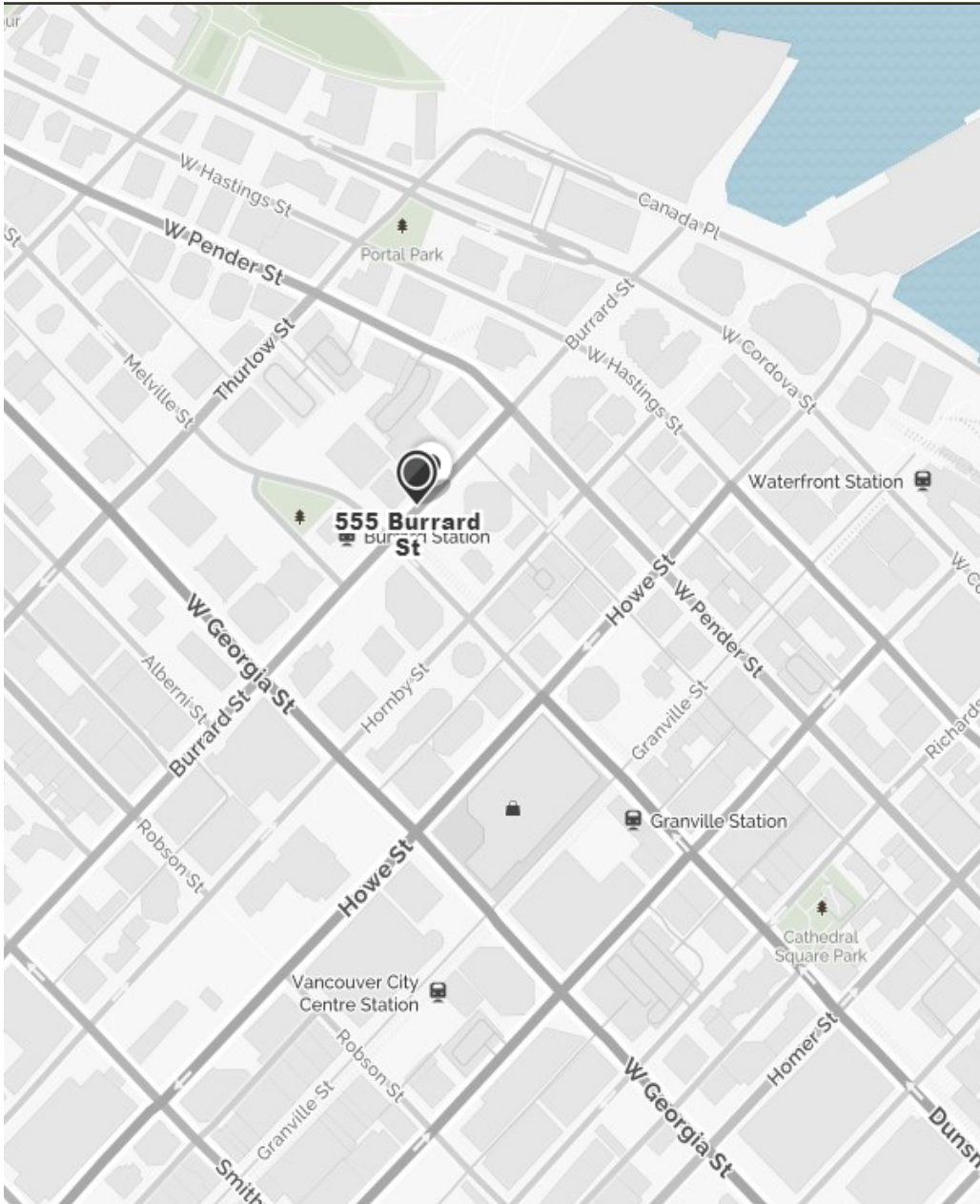
Clynt Nauman, Chairman & CEO, has over 35 years of diversified experience in the mineral industry, ranging from exploration and business development to operations and business management in the precious metals, base metals and coal sectors. Mr. Nauman is also currently the CEO of Asset Liability Management Group and has held various executive and operations positions with Nerco Minerals and Coal companies (now Rio Tinto), Kennecott and Viceroy Resource Corp. Mr. Nauman holds a BSc (Hons) in geology from Otago University, New Zealand.

Brad Thrall, President, has over 25 years of experience and accomplishments in mine operations management, environmental management and mine-closure planning and execution. Mr. Thrall has held a number of operations management positions with Viceroy Resource, Barrick Gold and Goldcorp and is also currently the President of Asset Liability Management Group. Mr. Thrall holds a B.Sc. in Metallurgical Engineering from South Dakota School of Mines and Technology and an MBA from the University of Colorado.

Michael Clark, CFO, is a Canadian qualified Chartered Professional Accountant with over fourteen years of experience, including ten years in senior financial roles within the junior mining sector. Prior to joining Alexco in December 2014, he was with Goldgroup Mining for five years, and held the position of Chief Financial Officer. Mr. Clark also serves on the Board of the Burnaby Hospital Foundation.

Alan McOnie, Vice President – Exploration, has over 30 years' experience as a professional geologist in mineral exploration, government and the precious metal industry. He holds a BSc in Geology from the University of Otago, New Zealand and an MSc in Geology from the University of Toronto. Prior to joining Alexco, Mr. McOnie worked as a geological and GIS mapping consultant in Australia, New Zealand, and North America, including Alexco's Keno Hill Project, and has held management and senior management level positions all through his career.

Contact Us



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