



News Release

Alexco Initiates 2016 Bermingham Exploration and Other Work at Keno Hill

June 1, 2016 – Alexco Resource Corp. (TSX:AXR, NYSE-MKT:AXU) (“Alexco” or the “Company”) is pleased to announce that it has begun site preparations for an expanded surface exploration diamond drilling program at its Bermingham prospect in the Keno Hill Silver District, Yukon Territory. The objective of the 2016 exploration drill program is to infill and expand the 2014/2015 high grade silver discovery as well as collect the necessary geotechnical, metallurgical and hydrogeological data required to support an updated resource estimate for the Bermingham deposit, expected to be completed in the fourth quarter of 2016. In addition to exploration work, Alexco will undertake construction and initial development to collar and establish the underground ramp portal and infrastructure necessary for the future development of the Flame & Moth deposit.

2016 Bermingham Exploration Program Highlights

- An initial 8,000 meter surface drill program will be completed at the Bermingham prospect through September 2016. The Bermingham target is a blind, steeply plunging zone of high grade silver mineralization approximately 160 meters from surface outlined in several discovery drill holes in 2014/2015 (see news release dated September 17, 2015, entitled “Alexco Drills 5 meters (True Width) of 7,462 grams per tonne Silver (240 ounces per tonne) at Bermingham, Along with Other Significant Silver Intercepts”); estimated to extend approximately 140 meters down plunge, approximately 40 meters along strike and ranging in thickness from 0.4 to 6.4 meters with assay grades ranging between 1,200 and 10,100 grams per tonne (“g/t”) silver. The discovery zone is open up dip and down dip and is located immediately to the northeast and adjacent to previously outlined Bermingham silver mineralization comprising an indicated 377,000 tonnes of 430 g/t silver, or approximately 5.2 million ounces of contained silver (see news release dated April 29, 2015, entitled “Alexco Announces Indicated Silver Resource Estimate Increases of 17% at Flame & Moth and 37% at Bermingham, Resulting in a 10% Increase Overall for Keno Hill Silver District”).
- A minimum of \$3 million will be spent to initially drill 25 to 30 holes to define the limits of the Bermingham high grade zone. The program will also explore deeper beneath the discovery where projected mineralization may extend down into the highly productive siliceous quartzites that host the historic Hector-Calumet Mine deposit located approximately 1 km to the northeast of Bermingham and historically produced approximately 96 million ounces of silver at a reported grade of 1,090 g/t silver.



- Up to an additional amount of approximately \$0.5 million will be spent at Bermingham to collect and test metallurgical response of the high grade mineralization, and to gather important geotechnical and hydrology information to support an updated Bermingham resource estimate as well as provide necessary data for future exploration decisions regarding the Bermingham deposit, as warranted.
- Results from the 2016 exploration program are expected to be released in the third or fourth quarter of 2016 and will provide the basis to complete an updated Bermingham resource estimate to be included in an updated Preliminary Economic Assessment (“PEA”) in the fourth quarter 2016. The updated PEA will also include revised and optimized development and mining plans for the Company’s Flame & Moth, Bellekeno and Lucky Queen deposits.

Mining, Other Work at Keno Hill 2016

- Surface construction and preliminary underground development work to collar and establish an engineered portal for the Flame & Moth deposit will commence in late June. This work will include provision of electrical, air and mine water services to the portal (adjacent to the district mill) to support development of the initial 25 meters of the Flame & Moth production ramp. This ramp will ultimately be driven approximately 460 additional meters to the upper production levels of the Flame & Moth silver deposit. Based on prior work (see the December 10, 2014, Alexco Resource Corp. PEA Technical Report entitled “Updated Preliminary Economic Assessment for the Eastern Keno Hill Silver Project – Phase 2, Yukon Canada”), the Flame & Moth deposit has approximately 585,000 tonnes of potentially mineable material grading 693 g/t silver, 2.19% Pb, 5.35% Zn and 0.52 g/t gold. Similar to the Bermingham resource estimate, the potentially mineable tonnes and grade at Flame & Moth will be revised in the updated PEA in the fourth quarter 2016.
- In addition to construction and development activity at Flame & Moth, routine equipment condition assessments and maintenance will be conducted on equipment and facilities including camp and infrastructure throughout the district to assure acceptable standards are maintained during the ongoing suspension of production in the district.

Signing of Amended Cooperation Agreement with First Nation of Na-Cho Nyak Dun

- Alexco and the First Nation of Na-Cho Nyak Dun have entered into an Amended and Restated Comprehensive Cooperation and Benefits Agreement (“CCBA”) relating to exploration, mine development, mining, and environmental activities of Alexco and its subsidiaries in the Keno Hill Silver District.
- The Amended and Restated CCBA was signed on May 4, 2016 marking the completion of a routine five year review of the original CCBA signed in May, 2008. The revised agreement



includes enhanced language in respect of project implementation, the cooperative environmental engagement process, business opportunities and wealth sharing.

Alexco's strong financial position as of May 26, 2016 (including the equity financing completed on May 17, 2016) totaling approximately \$18 million of unrestricted cash, will enable the Company to complete the currently planned 2016 work programs at Keno Hill.

Qualified Person

The disclosure in the news release of scientific and technical nature regarding exploration projects on Alexco mineral properties has been reviewed and approved by Alan McOnie, FAusIMM, Vice President, Exploration for Alexco, a Qualified Person as defined by National Instrument 43-101.

About Alexco

Alexco Resource Corp. owns the Bellekeno silver mine, one of several mineral properties held by Alexco which encompass substantially all of the historical Keno Hill Silver District located in Canada's Yukon Territory. Employing a unique business model, Alexco also provides mine-related environmental services, remediation technologies and reclamation and mine closure services to both government and industry clients through the Alexco Environmental Group, its wholly-owned environmental services division.

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Certain statements ("forward-looking statements") in this news release contain forward-looking information concerning the Company's anticipated results and developments in the Company's operations in future periods, planned exploration and development of its properties, plans related to its business and other matters that may occur in the future, made as of the date of this news release. Forward-looking statements may include, but are not limited to, statements with respect to the 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 and reports, the amount of estimated revenues and expenses, the success of exploration activities, permitting time lines, requirements for additional capital and sources and uses of funds. In certain cases, forward-looking statements can be identified by the use of words and phrases such as "will", "plans", "expects", "scheduled", "potential" or variations of such words and phrases or statements that certain actions, events or results "should," "may", "would" or "will" occur or be achieved. 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, among others, 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 activities; 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



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commercial viability; global economic conditions; competition; and delays in obtaining governmental approvals or financing or in the completion of development activities. 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 news release, the Company has applied several material assumptions, including, but not limited to, the assumption that the Company will be able to raise additional capital as necessary, that the proposed exploration and development will proceed as planned, and that market fundamentals will result in sustained silver, gold, lead and zinc demand and prices. There can be no assurance that forward-looking statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as otherwise required by applicable securities legislation.