



ALEXCO ANNOUNCES SECOND QUARTER 2021 RESULTS

(All amounts in CDN\$ unless otherwise indicated)

August 11, 2021 - Alexco Resource Corp. (NYSE American/TSX: AXU) (“Alexco” or the “Company”) today reports financial results for the quarter ended June 30, 2021 (“**Q2 2021**”). The Company also provides an update on capital development projects, scale up of mining operations, and exploration activities at Keno Hill.

Q2 2021 Highlights

- **22% Increase in Mineral Reserves at Keno Hill:** On May 26, 2021, the Company announced the expansion of Mineral Reserves by 22% or 270,000 tonnes to 1.44 million tonnes, grading an average 804 grams per tonne (“**g/t**”) silver (“**Ag**”), 3.84% zinc (“**Zn**”), 2.64% lead (“**Pb**”), 0.31 g/t gold (“**Au**”), or approximately 1,035 g/t Ag equivalent¹. The updated reserve mine plan is projected to produce over 35.5 million ounces of Ag over the next 8 years.
- **Mill Performance, Throughput and Recovery on Track:** Since initial commissioning in December 2020, the mill has been operating on a modified schedule (primarily to match ore production from the Bellekeno mine) and saw throughput of 176 tonnes per operating day (“**tpd**”) in Q2 2021 as ramp up continues towards 400 tpd. For the first six months of 2021 (“**YTD**”), mill throughput totaled 14,726 tonnes at 773 g/t Ag. Installation of cyclones, the addition of a new tailings filter press, installation of a new fine ore feeder, and construction of a new building around the crusher have all been completed as planned at the mill. For Q2 2021, Ag recoveries averaged 93%, with 94% of Ag reporting to the Pb concentrate.
- **On Track to Reach Bermingham and Flame & Moth Ore in Second Half of 2021:** Underground development rates have increased since the first quarter of 2021 (“**Q1 2021**”), and the Company has contracted additional underground miners and maintenance technicians to supplement internal staffing and resources and to increase advancement rates.
 - **Bellekeno:** Ore production is expected to be complete in the third quarter of 2021 (“**Q3 2021**”) after which equipment and operators will be redeployed to Bermingham and Flame and Moth.
 - **Bermingham:** Initial ore production anticipated in Q3 2021.
 - **Flame & Moth:** The main ramp has reached the first ore access level and advancement of this level to crosscut the ore is underway, with initial ore production anticipated in the fourth quarter of 2021 (“**Q4 2021**”).
- **Bermingham Northeast Deep Zone Exploration Program Results Expected:** To date, approximately 11,500 meters (“**m**”) have been drilled using directional drill technology; a total of more than 50 intercepts are targeted on the mineralized vein zone, with initial drill results anticipated to be available in late August.

¹ Ag eq. calculated using the annual metal price assumptions used for Mineral Reserves as shown in Table 22-3 of the NI 43-101 Technical Report on Updated Mineral Resource and Reserve Estimate of the Keno Hill Silver District.

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Key Performance Metrics

Operations	Q2 2021	Q1 2021	Δ-Q1 vs Q2	YTD 2021
Ore tonnes mined	6,464	4,427	46%	10,891
Ore tonnes milled	10,896	3,850	183%	14,746
Mill throughput (tpd) ¹	176	107	65%	150
Head grade				
Silver (g/t)	703	985	(29%)	773
Lead	9.3%	11.9%	(22%)	9.8%
Zinc	3.1%	3.3%	(0.06%)	3.2%
Recoveries				
Silver	93%	83%	12%	90%
Lead in lead concentrate	83%	85%	(2%)	83%
Zinc in zinc concentrate	85%	31%	174%	70%
Concentrate production and grades				
Lead concentrate produced (tonnes)	1,174	539	118%	1,713
Silver grade (g/t)	5,729	5,664	1%	5,690
Lead grade	70%	72%	(3%)	70%
Zinc concentrate produced (tonnes)	635	105	505%	740
Silver grade (g/t)	715	775	(8%)	637
Zinc grade	53%	37%	43%	44%
Production – contained metal in concentrate				
Silver (ounces)	227,683	100,984	125%	328,667
Lead (pounds)	1,799,959	854,346	111%	2,654,305
Zinc (pounds)	637,780	86,494	637%	724,274
Financials				
<i>(expressed in thousands of Canadian dollars, except per share amounts)</i>				
Revenues – Mining operations	7,501	-		10,234
Revenues – Reclamation management	438	871		1,518
Operating Loss	(2,489)	(2,778)		(5,543)
Cash and cash equivalents	39,123	17,799		39,123
Net Working Capital ²	30,240	24,405		30,240
Adjusted Net Income (Loss) ²	(2,548)	(650)		(1,397)
Net Income (Loss) ³	(2,748)	(12,229)		1,411
Shareholders				
Basic and diluted net income (loss) per common share ³	(0.02)	(0.10)		0.01
Adjusted basic and diluted net loss per common share ²	(0.02)	(0.01)		(0.01)
Total assets ⁴	215,448	152,200		215,448
Total liabilities ⁵	28,533	14,194		28,533

1. Mill throughput (tonnes per day) is based on the number of days that the mill was operational during the period. The mill was operational for 62 days and 36 days during Q2 2021 and Q1 2021, respectively.

2. See "Non-GAAP Measures" in Section 11 of the Q2 2021 MD&A.

3. Net loss for Q2 2021 includes a non-cash fair value loss relating to the embedded derivative asset totaling \$200,000 (2020 - \$11,579,000). Net income for YTD 2021 includes a non-cash fair value gain relating to the embedded derivative asset totaling \$2,808,000 (2020 - loss of \$3,482,000).

4. Total assets increased primarily due to increases in cash and cash equivalents and mineral properties, plant and equipment.

5. Total liabilities increased primarily due to increases in accounts payable and accrued liabilities and lease liabilities.



Outlook and Strategy

Clynt Nauman, Chairman and CEO, commented, "During the second quarter, we made good progress at Keno Hill, increasing mine reserves by 22% and ramping up mill throughput by 65% over Q1 2021, while maintaining strong metallurgical performance, both from a recovery and payability perspective. We continue to be extremely focused on increasing our underground development rates, and we remain on track to reach Bermingham and Flame & Moth ore in the second half of 2021. We do caution investors however that the longer term continuation or increased COVID-19 related workplace restrictions, slower than forecasted development advance rates or recruitment of underground miners and maintenance technicians, may have the effect of extending our scale-up period. The directional drilling campaign at the Bermingham Northeast Deep zone has given us a significant amount of high-quality information and we are looking forward to sharing those initial results with the market in late August, once assay results are available."

Conference Call for Q2 2021 Results

Alexco management will host an audio webcast conference call to discuss these results on Thursday, August 12, 2021 at 8:00 am PT (11:00 am ET). Details to join the conference call are as follows:

Dial toll free from Canada or the US: 1-800-319-4610

Dial from outside Canada or the US: 1-604-638-5340

Live audio webcast: <http://services.choruscall.ca/links/alexco20210812.html>

Participants should connect five to ten minutes before the call. The conference call will be recorded, and an archived audio webcast will be available at www.alexcoresource.com shortly after the call.

Qualified Persons

The disclosure in this news release 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., Chief Mine Engineer, both of whom are Qualified Persons as defined by National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*.

About Alexco

Alexco is a Canadian primary silver company that owns and operates the majority of the historic Keno Hill Silver District, in Canada's Yukon Territory, one of the highest-grade silver deposits in the world. Alexco is currently advancing Keno Hill to production and commenced concentrate production and shipments in Q1 2021. Keno Hill is expected to produce an average of approximately 4.4 million ounces of silver per year contained in high quality lead/silver and zinc concentrates. Keno Hill retains significant potential to grow and Alexco has a long history of expanding the operation's mineral resources through successful exploration.

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Forward-Looking Statements

Some statements ("forward-looking statements") in this news release contain forward-looking information plans related to Alexco's business and other matters that may occur in the future, made as of the date of this news release. 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 risks and uncertainties relating to the COVID-19 pandemic including but not limited to business closures, travel restrictions, quarantines and a general reduction in consumer activity; actual results and timing of exploration and development, mining, environmental services and remediation and reclamation activities; future prices of silver, gold, lead, zinc and other commodities; possible variations in mineral 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. 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, Alexco has applied several material assumptions, including, but not limited to the circumstances surrounding the COVID-19 pandemic, although evolving, will stabilize or at least not worsen; that the extent to which COVID-19 may impact the Company, including without limitation disruptions to the mobility of Company personnel, costs associated with implementation of health and safety protocols, increased labour and transportation costs, and other related impacts, will not change in a materially adverse manner; Alexco will be able to raise additional capital as necessary, that the proposed exploration and development activities 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. Alexco 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.