



News Release

Alexco Drills 8.9 Meters of 20.2 Ounces Per Ton Silver At Flame & Moth, Continues to Confirm and Expand Mineralization

February 14, 2012 - Alexco Resource Corp. (TSX:AXR, NYSE-AMEX:AXU) today announced final results from the 2011 drilling program at its recently discovered Flame & Moth prospect, located immediately adjacent to Alexco's milling complex within the Keno Hill Silver District in Canada's Yukon Territory. Overall, the drilling has increased confidence in the continuity and thickness of silver mineralization at Flame & Moth, with results to date returning average grades from 16 to 21 ounces per ton silver over true widths averaging 5.5 meters within the mineralized Flame Vein structure. The structure is now traced with confidence along a 500 meter strike length to a depth of 350 meters below surface. In addition, within the thicker zones of mineralization noted below, higher grade intervals ranging from approximately 30 ounces per ton silver over 1.15 meters to more than 100 ounces per ton silver over 0.14 meters are present. The mineralization is open at depth and down-plunge. Mineralization also remains open up-plunge between 150 meters depth and the bedrock surface present beneath extensive alluvial gravels.

Alexco President and Chief Executive Officer Clynt Nauman said, "Clearly we have a significant discovery at Flame & Moth, with a continuity, style and thickness which may be unique for Keno Hill. At this juncture we have two objectives at Flame & Moth, firstly to calculate an initial silver resource which should be available in the second quarter 2012, and secondly to accelerate and expand our 2012 drilling program to both in-fill and extend mineralization such that by the end of 2012, the ranking of Flame & Moth within the mine development pipeline at Keno Hill can be better assessed."

Highlights

Results at Flame & Moth to date include the following composite assay intervals:

- **K-11-0362** intersected mineralized vein material over 8.90 meters true width from 266.90 meters with a composite interval of **693 grams per tonne (20.2 ounces per ton) silver** that included a bonanza interval over 0.14 meters true width at **3,880 grams per tonne (113.2 ounces per ton) silver**.
- **K-11-0367** intersected veining over 11.07 meters true width from 323.00 meters with an average assay interval of **320 grams per tonne (9.4 ounces per ton) silver** that included an interval of 1.15 meters true width at **1,348 grams per tonne (39.3 ounces per ton) silver**.
- **K-11-0371a** intersected mineralization with an assay of **1,060 grams per tonne (30.9 ounces per ton) silver** over 0.59 meters true width from 328.28 meters, within veining with a composite assay of **430 grams per tonne (12.6 ounces per ton) silver** over 3.96 meters true width from 328.28 meters.
- **K-11-0374** intersected an 11.08 meter true width vein structure from 342.52 meters with a composite assay of **311 grams per tonne (9.1 ounces per ton) silver**, that included an interval of 0.60 meters true width at **1,450 grams per tonne (42.3 ounces per ton) silver**.
- **K-11-0387** intersected veining over 5.05 meters true width from 212.47 meters, with a composite assay of **454 grams per tonne (13.2 ounces per ton) silver** that included an interval over 0.21 meters true width at **1,535 grams per tonne (44.8 ounces per ton) silver**.
- **K-11-0391** intersected mineralized veining over 6.92 meters true width from 231.94 meters, with a composite assay of **563 grams per tonne (16.4 ounces per ton) silver** that included an interval over 0.82 meters true width at an average grade of **1,168 grams per tonne (34.1 ounces per ton) silver**.

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2011 Flame & Moth Geology Update and Results

The above results complete the reporting of 2011 drilling at the Flame & Moth prospect, discovered in 2010 at depth adjacent to the recently constructed Bellekeno mill. These are in addition to those previously announced (see news release dated September 7, 2011 entitled "Alexco Intersects 6.04 Meters of 31.5 Ounces Per Ton Silver at Flame & Moth, Significantly Expands Mineralized Zone"). Alexco has now drilled a total of 11,143 meters in 46 diamond drill holes (with 38 of these reaching target depths) since the discovery of blind mineralization, with 7,155 meters completed in 2011.

The northeast-trending, moderately southeast dipping mineralized Flame Vein structure has now been identified over a total strike length of approximately 500 meters within two fault offset segments. The deepest drill intersect is 350 meters below surface and the structure is open at depth down-plunge and along strike. The up-dip portion of the structure between approximately 150 meter depth and bedrock surface also remains undrilled. The mineralized section of the Flame & Moth structure varies between 2.3 and 11.7 meters true width and averages approximately 5.5 meters.

Mineralization within the structure comprises multiphase quartz and siderite containing significant and locally massive, galena, sphalerite, pyrite and pyrrhotite with associated silver sulphosalts, arsenopyrite and chalcopyrite mineralization. Gold is locally present within the vein structure, with gold grades to 2.1 grams per tonne over intervals up to 1.03 meters as present in K-11-0362 from 266.90 meters. The continuity and consistency in silver grade of the vein mineralization has now been confirmed at approximately 60 meter drill centers and provides a sufficient level of confidence for Alexco to proceed to an estimate calculation to be undertaken by SRK Consulting (Canada) Inc. during the second quarter of 2012.

The discovery of this significant new blind deposit in the Keno Hill silver district gives Alexco confidence that continued exploration investment will continue to successfully add new resources, as the geology of the district becomes better understood.

Updated composite assay tables, along with a drill hole location map and a long section plot, for drill holes completed at the Flame & Moth prospect are appended to this release, and are also available for review on the Company's website at www.alexcoresource.com.

Notes

The 2011 exploration drill program and sampling protocol has been reviewed, verified and compiled by Alexco's geologic staff under the supervision of Alan McOnie, Vice President, Exploration for Alexco and a Qualified Person as defined by National Instrument 43-101 ("NI 43-101"). A rigorous quality control and quality assurance protocol is used on the project, including blank, duplicate and standard reference samples in each batch of 20 samples delivered to the assay lab. Drill core samples were shipped to ALS Minerals Labs at Whitehorse, Yukon Territory for preparation, with fire assay and multi-element ICP analyses completed at the ALS Minerals facility in North Vancouver, British Columbia. The disclosure of scientific and technical information about Alexco's mineral projects contained in this news release has also been reviewed and approved by Mr. McOnie.

About Alexco

Alexco Resource Corp. owns and operates 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. Bellekeno, which commenced commercial production at the beginning of calendar year 2011, is Canada's only operating primary silver mine. Alexco's primary near-term exploration objective is to unlock value in the



silver-rich Keno Hill District, and is focused on growth by advancing its promising District properties to development decisions. The Company's goal is to produce 7 million to 10 million ounces of silver annually within the next decade. 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.

Keno Hill Silver District History

Between 1921 and 1988, the Keno Hill Silver District was a world-class silver producer, with more than 217 million ounces of silver produced at average grades of 40.5 ounces per ton silver, 5.6% lead and 3.1% zinc (Yukon Government's Minfile database). These historical production grades would rank Keno Hill in the top 3% by grade of today's global silver producers.

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Some 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 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. 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 of exploration and development activities; actual results of mining activities; actual results of consulting activities; actual results 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. 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 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.



APPENDICES

Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Azimuth	Inclination	Depth (m)
K-11-0362	484005.52	7086545.01	925.74	283.5	-57	311.00
* K-11-0365	484033.78	7086460.86	929.09	294.0	-51	35.00
K-11-0367	484033.68	7086460.40	929.02	291.0	-51	362.00
* K-11-0371	484033.46	7086459.76	929.15	281.5	-45	74.00
K-11-0371a	484033.33	7086459.32	929.09	280.0	-45	371.00
K-11-0374	484034.05	7086458.60	929.24	272.0	-53	380.00
* K-11-0375	484034.00	7086458.00	930.00	260.0	-48	44.00
K-11-0377	484034.04	7086457.41	929.30	260.0	-48	436.00
K-11-0379	484034.13	7086459.08	929.21	255.0	-59	404.00
K-11-0383	484034.38	7086457.85	929.36	245.0	-45	452.00
K-11-0386	484034.51	7086458.30	929.26	248.0	-56	473.00
K-11-0387	484073.87	7086585.00	923.96	313.0	-51	314.00
K-11-0391	484075.18	7086584.60	924.05	308.0	-62	290.00

Table 1

Location of Flame & Moth drill holes completed for period September - November 2011

* Denotes abandoned hole

Map Coordinate Projection UTM NAD83 Z8



ALEXCO

Drill Hole	From (m)	To (m)	Interval (m)	True Width (m)	Ag (g/t)	Ag oz/tonne	Ag oz/Ton	Au (g/t)	Pb (%)	Zn (%)	Cu (%)
K-11-0362	266.90	276.82	9.92	8.90	693.4	22.29	20.22	0.69	1.53	7.19	0.17
Including	268.59	269.13	0.54	0.49	2627.4	84.47	76.63	0.63	5.11	2.47	0.27
That Included	268.59	268.75	0.16	0.14	3880.0	124.75	113.17	0.75	10.85	2.04	0.39
And Including	275.13	276.43	1.30	1.17	1071.5	34.45	31.25	0.65	3.13	15.98	0.25
K-11-0367	323.00	335.00	12.00	11.07	320.4	10.30	9.35	0.43	0.98	3.97	0.12
Including	323.00	324.25	1.25	1.15	1348.1	43.34	39.32	0.75	4.55	10.58	0.32
K-11-0371a	328.28	332.52	4.24	3.96	430.4	13.84	12.55	0.17	3.06	9.35	0.18
Including	328.28	328.91	0.63	0.59	1060.0	34.08	30.92	0.16	14.25	15.55	0.21
K-11-0374	342.52	354.86	12.34	11.08	311.2	10.00	9.08	0.11	0.59	8.75	0.13
Including	351.80	352.47	0.67	0.60	1450.0	46.62	42.29	0.12	0.41	16.55	0.58
K-11-0377	362.23	363.93	1.70	1.54	52.5	1.69	1.53	0.07	0.23	3.20	0.04
K-11-0379	382.21	390.98	8.77	7.19	277.1	8.91	8.08	0.30	0.62	14.11	0.13
K-11-0383	417.05	417.34	0.29	0.26	77.4	2.49	2.26	0.11	0.39	2.23	0.04
K-11-0387	212.47	218.00	5.53	5.05	454.0	14.60	13.24	0.14	4.16	5.60	0.17
Including	212.94	213.17	0.23	0.21	1535.0	49.35	44.77	0.22	14.70	18.80	0.41
K-11-0387	250.18	251.00	0.82	0.74	35.1	1.13	1.02	-0.01	0.64	0.25	0.01
K-11-0387	254.43	257.50	3.07	2.79	61.0	1.96	1.78	0.08	0.13	0.70	0.07
K-11-0387	271.73	272.11	0.38	0.35	461.0	14.82	13.45	0.07	4.36	2.98	0.06
K-11-0387	282.25	286.55	4.30	3.92	92.9	2.99	2.71	0.03	1.41	3.76	0.03
K-11-0391	231.94	240.61	8.67	6.92	562.8	18.09	16.41	0.65	0.79	4.38	0.25
Including	232.50	233.32	0.82	0.66	1168.3	37.56	34.08	0.55	0.70	7.83	0.41

Table 2

Assay Composites Calculated for Flame & Moth Drill Holes Completed September - November 2011

Using 30 g/t silver cut off with a maximum of 2 meters un-mineralized internal dilution.

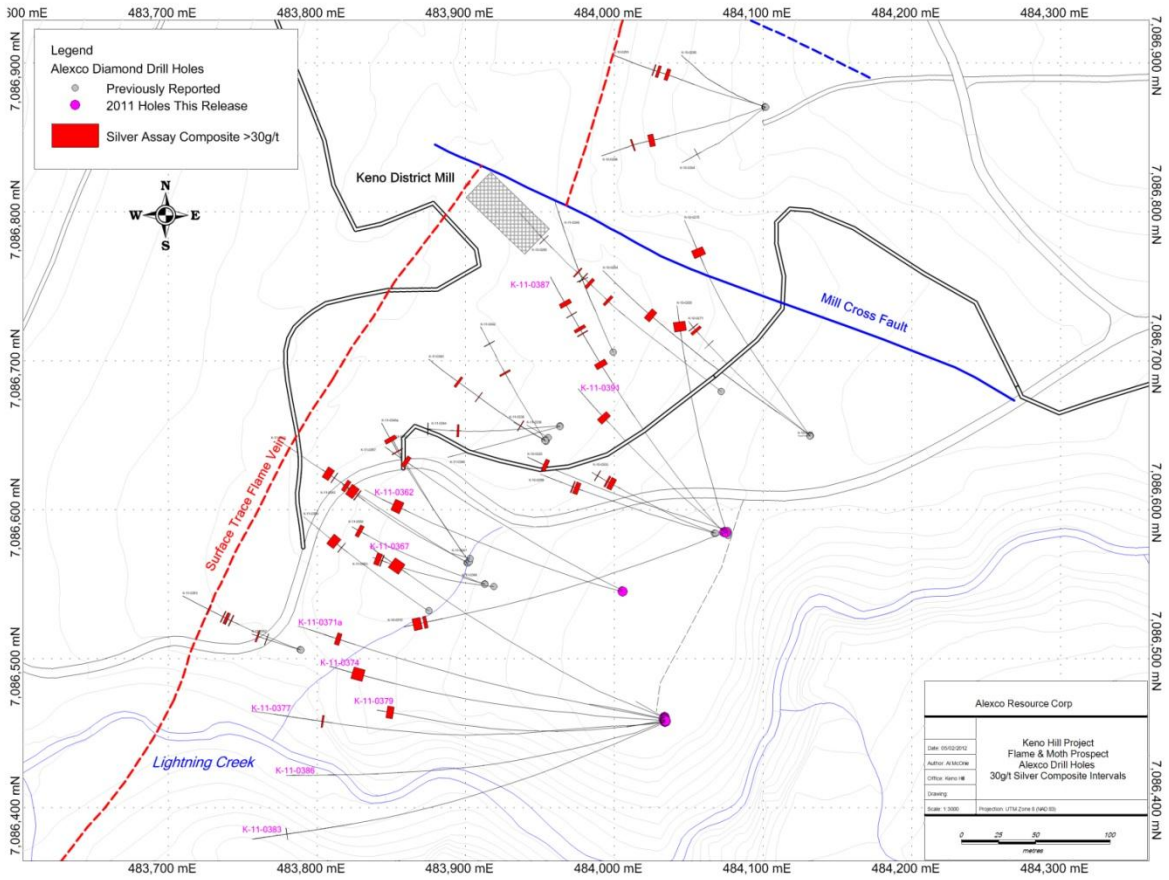


Figure 1 Location of Drill Holes at Flame & Moth Prospect

Showing all composite intercepts > 30 g/t Ag.

Holes in this press release identified by magenta titles.

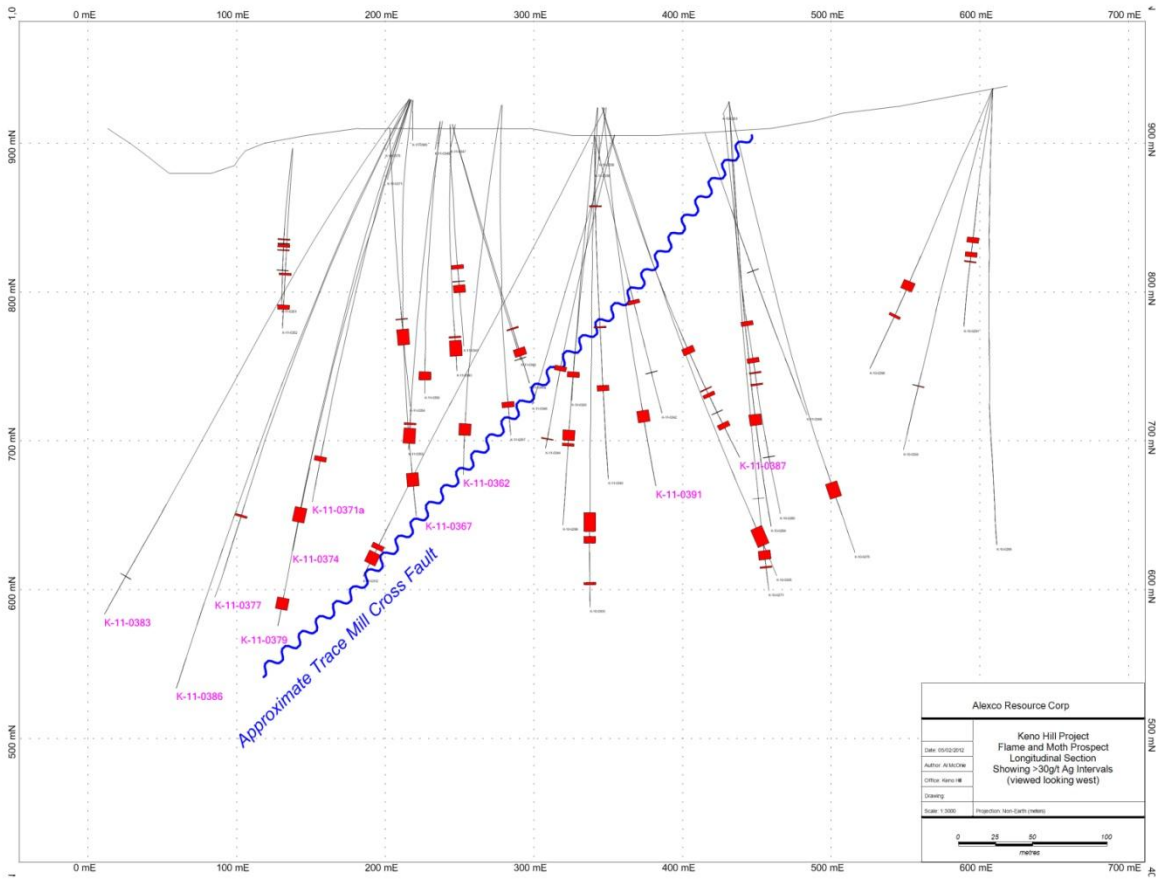


Figure 2 Longitudinal Section Flame & Moth Prospect showing greater than 30 g/t Ag composite assay intervals (viewed to the west).

Holes in this press release identified by magenta titles.