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## ALPHAMIN ANNOUNCES COMPLETION OF DETAILED DESIGN AND CONTROL BUDGET ESTIMATE

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**MAURITIUS – February 6, 2017 – Alphamin Resources Corp. (AFM: TSXV, “Alphamin” or the “Company”) is pleased to announce that it has completed the Front-End Engineering Design (“FEED”) and Control Budget Estimate (“CBE”) for its 80.75% owned Bisie Tin Project (“Bisie” or the “Project”) in the Democratic Republic of Congo.**

### *HIGHLIGHTS*

- Increase in proven and probable reserves to 4.67 Mt @ 3.58% Sn containing 167.3 Kt of tin
- Increase in LoM to 150 months (12.5 years)
- Optimised process flow sheet resulting in 6% higher annual average plant throughput rates, and an increase in tin recoveries to 73%
- Cash margin per tonne of tin sold of some US\$ 11,040, resulting in LoM annual average EBITDA of approximately US\$ 110 million (constant 2017 terms)
- Robust economic performance indicators:
  - Net Present Value <sup>8%</sup> US\$ 402.2 million
  - Real, after tax, Project IRR 49.1%
  - Payback period 17 months from 1<sup>st</sup> tin production

The completion of the FEED program and associated CBE confirms the robust economic metrics and potential of the Bisie Project and the development of the Alphamin Bisie Tin Project into North Kivu’s first commercial mine, and a new premier global tin producing mine. Boris Kamstra, Chief Executive Officer of Alphamin explains: “The completion of the FEED and CBE phase marks another important and exciting milestone as Alphamin advances the Project towards becoming the first industrial mine in DRC’s North Kivu Province.”

A comprehensive process for estimating capital costs was followed and the CBE results show that the Project has the potential to remain strongly profitable at lower tin prices, as well as at increased prices for key consumables. The completed FEED and CBE increase proven and probable reserves to 4.67 Mt at 3.58% Sn containing 167.3 Kt of tin while also increasing the life of mine (LoM) to 150 months or 12.5 years. The optimised process flow sheet resulted in 6% higher annual average plant throughput rates, and an increase in tin recoveries to 73%.

A cash margin of some US\$ 11,040 per tonne of tin sold is foreseen, yielding a LoM annual average EBITDA of approximately US\$ 110 million (constant 2017 terms). Alphamin is also pleased with the robust economic performance indicators of a Net Present Value (8%) of US\$ 402.2 million as well as real, after tax, Project IRR of 49.1%. The projected payback period is 17 months from the first tin production at the Alphamin Bisie Tin Mine.

“The FEED program’s emphasis was to reduce the implementation and operational risks associated with the Project wherever possible, and resulted in necessary increases in certain capital and operating costs. The

improved mine design, process flow sheet optimisation, and an improved tin price outlook, have enhanced the forecast economic performance indicators and overall robustness of Bisie significantly, despite the aforementioned cost increases,” explains Kamstra.

“These improvements along with the continued strong support from provincial and national government and the local communities confirm our view that Bisie forms the ideal foundation on which to build a mining company and associated infrastructure for mining in the tin-rich province of North Kivu. This mining project presents Alphamin shareholders with an attractive opportunity to participate in one of the highest grade known tin deposits in the world,” says Kamstra.

Kamstra explains “This CBE is by definition conservative and based on tenders, quotes and detailed estimates. Given the paucity of commercial operations and operating data in the area estimates used have been of necessity conservative. Once the Bisie mine is fully operational there is considerable scope to improve operational efficiencies and recoveries from the assumptions used in this study as well as to reduce costs, particularly in the areas of logistics. In addition, the exploration and resource delineation drilling that will continue after the Bisie mine is established is, given the open-ended nature of the existing Reserves upon which this CBE is based, expected to increase the Reserve inventory and thus LOM.”

The project team has recently completed the optimisation of the mine and process plant design for Bisie, which has resulted in the following changes to the mine design. The fundamental mining method has not changed but, the layout and mine design parameters have changed notably from the updated feasibility study issued in June 2016.

The mine design was developed based on the revised criteria, including a reduction in cut off grade from 1.8% to 1.4% due to a far higher tin price, that resulted in a 30% increase in ore tonnes mined, a 10% increase in tin tonnes mined, and a LoM extension of 2.5 years. The capital footprint has been defined as mine development and associated infrastructure that will take place up to and including December 2018. This includes approximately 64,000 tonnes of ore from the ore drive development, which will be stockpiled prior to plant commissioning. Stopping will commence outside the capital footprint.

The Mineral Resource estimates were updated in May 2016. The Mineral Resource estimate contains 19 600 tonnes of tin of Measured Mineral Resources, 188 400 tonnes of tin in Indicated Mineral Resources and 22 800 tonnes of tin in Inferred Mineral Resources declared at a 0.5% tin cut-off grade. The Mineral Reserve estimate contains 15 896 tonnes tin in the Proven Reserve category and 151 448 tonnes tin in the Probable Reserve category at a 1.4% tin cut-off grade.

Contractors will mine the Mpama North orebody using proven underground mechanised mining methods to deliver ore to the process plant at an expected rate of 25 - 35ktpm. A comprehensive programme of metallurgical testing was executed to support the CBE. An overall metallurgical recovery of 80% was achieved under laboratory conditions. Factoring in operating conditions, operator skill levels, and an element of conservatism, an overall recovery of 73% has been applied in the evaluation of the Project economics. The process design is based on recovery of tin into concentrate through conventional gravity separation methods. The Bisie Tin Project process plant design capacity is 360 - 400ktpa.

Alphamin is committed to develop the first large commercial tin mine in the eastern DRC that will produce conflict-free tin concentrate, while promoting community development, safety, health and environmentally sound practices. “The Bisie operation will supply conflict-free tin from eastern DRC and the Alphamin operation will be

the manifestation of what conflict mineral advocacy and legislation aimed to achieve. Alphamin's conflict-free tin concentrate and social initiatives should therefore be of interest to international trading and smelting companies and multinational brands which use tin in their products, including laptops, mobile and smart phones and cars," explains Kamstra.

"The complexities of certifying tin concentrates as conflict free also make the product less appealing to armed groups and so reduces the risk of threats to the mine or transporters with the intention to forcefully gain occupation of the mine site or appropriate final product," he says. Alphamin is a member of the Conflict-Free Sourcing Initiative, a global end-user grouping of companies who develop conflict-free certification standards and protocols, and is also a member of the International Tin Research Institute which is involved in global conflict-free sourcing initiatives.

In April, 2016 a Memorandum of Understanding was signed between Alphamin and the Walikale Community to collaborate in creating the Lowa Alliance. The Lowa Alliance will invest, along with the community itself and other development partners including the Government of the DRC, in 120 projects over the initial five years, which will include schools and technical training, primary health care services, agriculture and fish-farming, small scale renewable energy, small and micro enterprise, community infrastructure, town zoning and road articulation to help manage growth, and women's empowerment.

Alphamin through its exploration and development phase has already created 480 new jobs, invested in road and telecommunications infrastructure to unlock the isolated Walikale territory, developed 25 participatory local development plans representing the long-term needs of the 14,000 households living closest to the mine, and recently completed the construction of a quality primary school with solar powered lighting. An artisanal and small scale miner (ASM) strategy is being implemented to work with all levels of government to optimize incentives for ASM miners to work legally off the Alphamin concession, reduce impunity for illegal activity and assure optimal security for operations, personnel and local residents.

Alphamin is responsible for consistent monitoring of all community initiatives, including the artisanal strategy, and will work with all involved stakeholders to assure respect for and compliance with the Voluntary Principles on Security and Human Rights guidelines. Alphamin, therefore has a robust and proactive programme of community outreach and engagement in place.

Alphamin has completed the required environmental studies and is in full compliance with IFC Performance Standards and Equator Principles. Comprehensive management plans have been developed to mitigate the potential negative environmental impacts of the Project.

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## EXPLANATORY AND MORE DETAILED INFORMATION

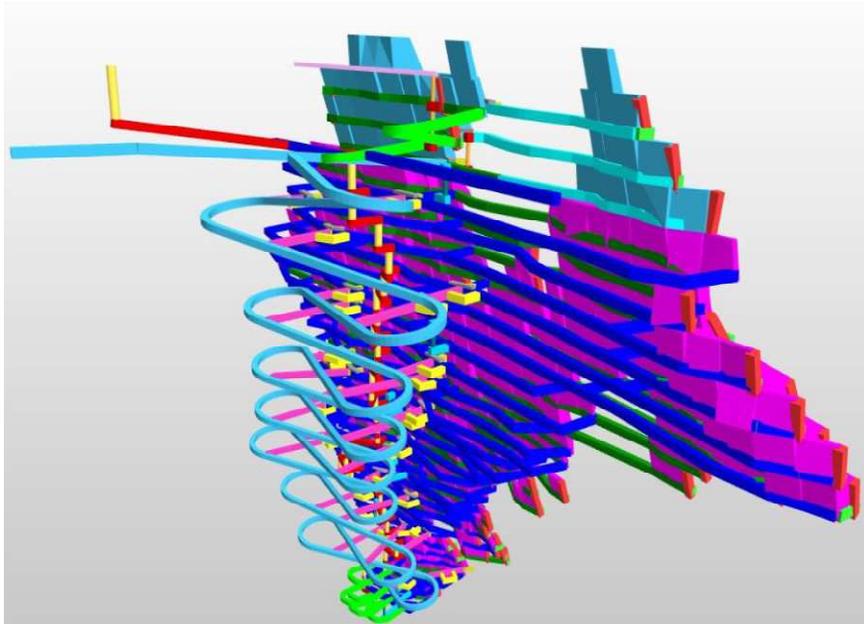
### *KEY OUTPUTS OF FEED & CBE PHASE*

Upon completion of the Updated Feasibility Study (“UFS”) in June 2016, the Project team appointed DRA Projects as EPCM contractor on a limited scope basis. The Project team has recently completed the optimisation of the mine and process plant design for Bisie, which has resulted in the following changes

### MINE DESIGN

The mine design was reviewed by geotechnical and sublevel caving specialists, and although the fundamental mining method has not changed, the layout and mine design parameters have changed notably from the updated feasibility study. The Life of Mine (LoM) design has been developed based on the revised criteria and illustrated below.

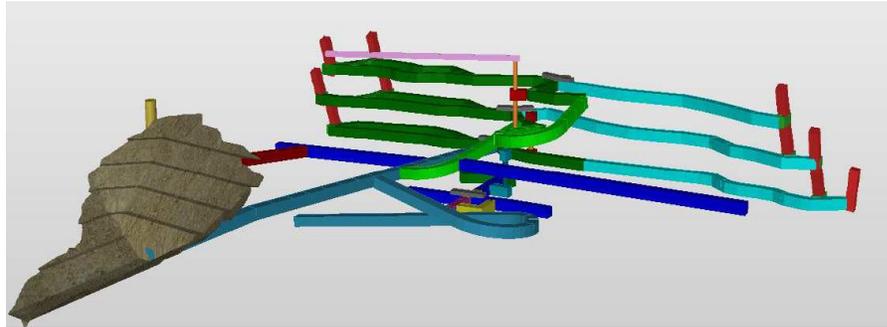
**Figure 1: Mpama North Life of Mine Design and Layout**



These revised criteria have resulted in a 30% increase in ore tonnes mined, a 10% increase in tin tonnes mined, and a LoM extension of 2.5 years.

The capital footprint has been defined as mine development and associated infrastructure that will take place up to and including December 2018. This includes approximately 64 000 tonnes of ore drive development which will be stockpiled prior to plant commissioning. Stopping will commence outside the capital footprint.

**Figure 2: Mining Capital Footprint**



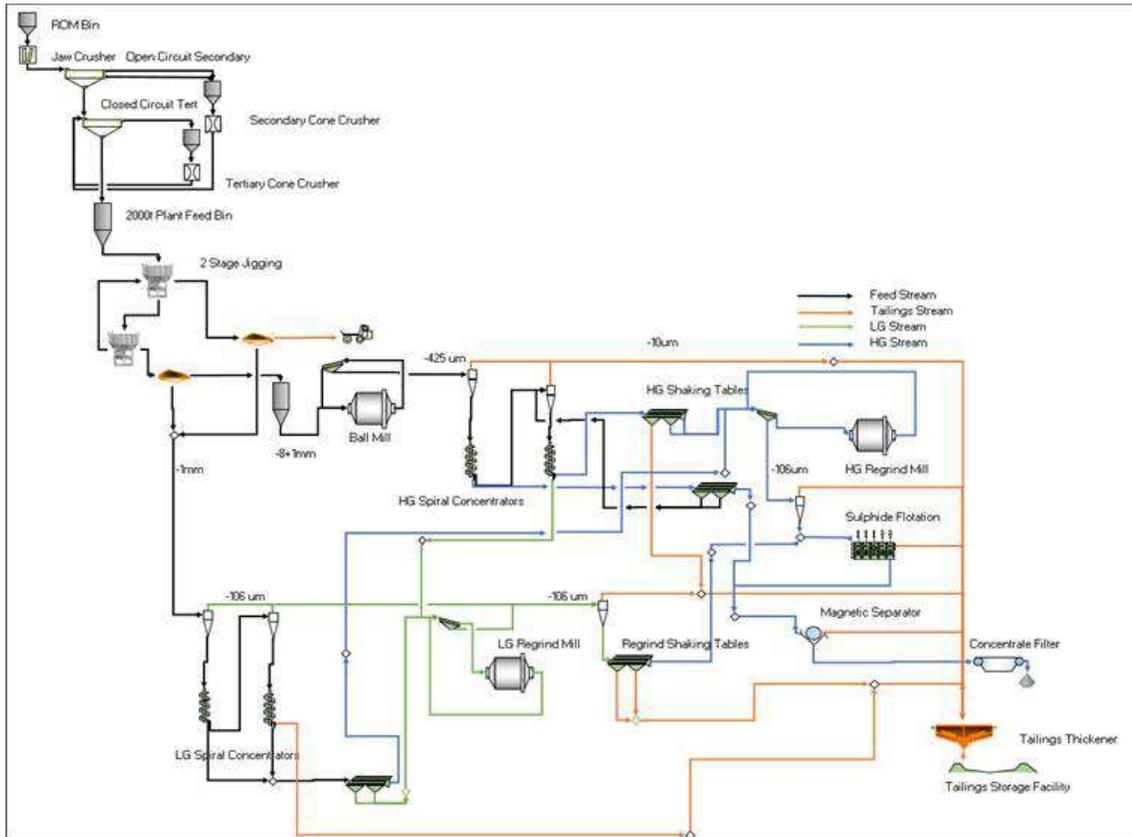
## PROCESS PLANT DESIGN

The original flow sheet was further developed with the support of an additional test work campaign:

- Engineering of the comminution circuit remained predominantly unchanged. The pre-concentration circuit remains the same as in the UFS with Gekko jigs employed for the task.
- Shaking tables were added as cleaners to both spiral gravity concentration circuits allowing for, amongst other things, high grade bypasses directly to the final product.
- The oxide flotation stream in the low grade regrind circuit was replaced with a bank of shaking tables as flotation test work was unable to produce saleable grade products at acceptable recoveries.
- The sulphide flotation remains unchanged and is critical for final product contamination control.
- A low intensity magnetic separator remains in the circuit to remove any free iron added to the process during the various grinding processes.

The optimised process flow sheet has been simplified to produce only a single high grade product and the dewatering system for the product stream has been changed from plate and frame filters to vacuum filters due to the coarse high grade gravity concentrate produced early in the process plant.

**Figure 3: Bisie Process Flow Sheet**



These optimisations have resulted in a 6% higher annual average plant throughput rate, and an increase in tin recoveries to 73%

### ***ESTIMATED CAPITAL COSTS***

The capital cost estimate has an accuracy level of -10% to 10%, is stated in Q1 2017 terms, and was compiled on the following basis:

- Equipment and material quantities were based on the design as depicted below:

**Figure 4: 3D View of Overall Block Plan**



- Mining and process plant components were priced using quotations from reputable South African suppliers and vendors.
- Foreign currency elements of quoted prices were converted to United States Dollars, using the following key rates of exchange:
  - USD1 : ZAR13.60
  - USD1 : AUD1.30
  - USD1 : EUR0.90
- All applicable duties and taxes have been included in the capital cost estimate with the exception of Value Added Tax (which has however been included in the Project peak funding requirement)

## CBE – OPERATING HIGHLIGHTS AND PROJECT PERFORMANCE

ECONOMIC ASSUMPTIONS	
Tin price	\$ 21 400/t <sup>(1)</sup>
Oil price	\$54/barrel
Delivered cost of diesel	\$1.50/litre
Explosives cost	\$3 400/t

(1) Current equivalent of ITRI's long run equilibrium tin price of US\$ 22,500/t (2020 terms)

PRODUCTION ASSUMPTIONS	
Plant throughput	Up to 36ktpm
Plant recovery	73%

OPERATING COSTS (US\$ per tonne tin)		
Activity	CBE <sup>(1)</sup>	UFS <sup>(1)</sup>
Mining <sup>(2)</sup>	2 909	1 951
Processing <sup>(3)</sup>	348	584
Site infrastructure	1 394	1,208
• Power	961	744
• Other	433	464
Sustaining capital cost <sup>(4)</sup>	297	130
Administration and general	1 253	1 102
• Community development (including LOWA alliance)	245	220
• Health, Security & IT	243	186
• Other	765	696
Logistics cost	1 081	1 036
Treatment charges <sup>(5)</sup>	1 555	1 385
<b>Cash cost of tin produced</b>	<b>8 837</b>	<b>7 396</b>
Export duties & fees <sup>(6)</sup>	529	748
DRC Government royalty <sup>(7)</sup>	416	340
Marketing commissions <sup>(7)</sup>	577	451
<b>Cash cost of tin sold</b>	<b>10 359</b>	<b>8 935</b>

- (1) CBE costs are denominated in 1 January 2017 terms, whereas the UFS costs were stated in 1 January 2016 terms. Inflationary cost escalation thus needs to be borne in mind when comparing the CBE costs to the UFS costs.
- (2) The mine design has been modified and allows for an additional 14,610m of underground development. This additional development allows for greater operation flexibility and reduces the dilution risk.
- (3) Tin flotation removed from process flow sheet and replaced with lower operating cost and complexity shaking tables.
- (4) Additional allowance made for repairs and maintenance of access road, mining equipment and process plant.
- (5) Greater tonnes treated per tonne of tin produced owing to increased moisture in tin concentrate
- (6) Removal of certain fees not applicable to an industrial mine
- (7) Linked to tin price assumption

<b>CAPITAL COSTS (US\$'MILLION)</b>		
Area	CBE <sup>(1&amp;2)</sup>	UFS <sup>(1&amp;2)</sup>
Mining	29.7	22.0
Process plant <sup>(3)</sup>	32.9	45.2
Infrastructure	28.5	22.8
Project indirects <sup>(4)</sup>	22.3	9.8
Contingency	8.0	7.6
Owners costs <sup>(5)</sup>	30.0	17.0
<b>Total capital costs</b>	<b>151.4</b>	<b>124.4</b>

- (1) CBE costs are denominated in 1 January 2017 terms, whereas the UFS costs were stated in 1 January 2016. Inflationary cost escalation thus needs to be borne in mind when comparing the CBE costs to the UFS costs.
- (2) A significant portion of the Project's capital costs are denominated in ZAR. The strengthening of the ZAR relative to the US\$ since the date of the UFS (15.98 vs 13.40 at or about the date of this press release) contributed to the increase in CBE capital cost relative to the UFS cost.
- (3) Process flowsheet optimised, reduced total equipment requirements, reduced plant footprint and associated earthworks costs
- (4) Withholding taxes, power generation costs during construction and import inspection fees omitted in error in UFS cost.
- (5) CBE estimate based upon a 25-month period @ US\$ 1.2 million per month whereas the UFS estimate was based upon a 17-month period @ US\$ 1million per month. Includes those costs set out under "Administration & General" above e.g. community development, health, insurance, IT, security and site management, for the period to commencement of processing operations, as well as the direct costs of the owners team.

<b>FISCAL ASSUMPTIONS</b>	
Export duties and fees (effective US\$ per t of tin)	529
DRC Government royalty (% of revenue)	2%
VAT rate	16%
Corporate tax rate (%)	30%

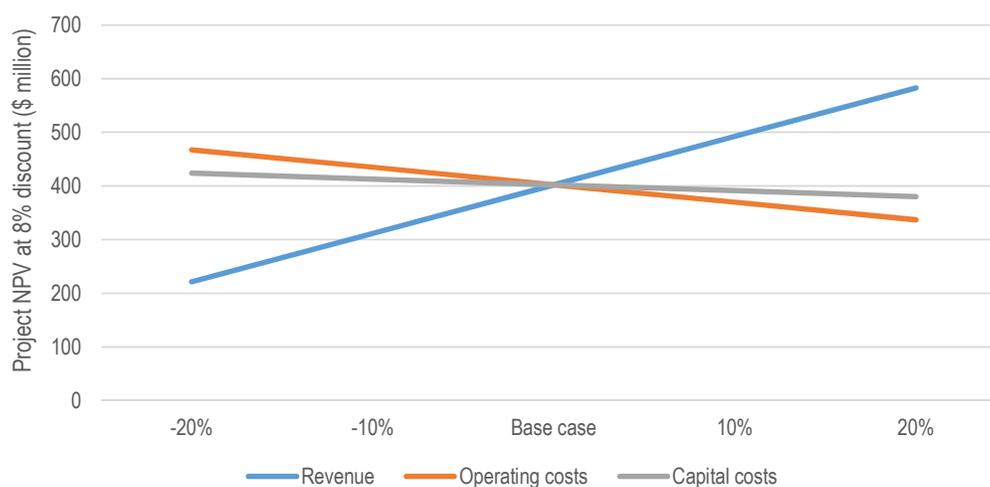
FINANCIAL ANALYSIS		
Economic indicator	Units	Value
Ung geared Project NPV <sub>8</sub> (real after tax)	US\$ million	402.2
Ung geared Project IRR (real after tax)	%	49.1
Payback period from first tin production	months	17
Peak funding (nominal terms)	US\$ million	152.0
Average production	tpa	9 642
<b>Average EBITDA per annum</b>	<b>US\$ million</b>	<b>110.0</b>

The Project NPV at various tin prices and discount rates is set out in the table below:

PROJECT NPV			
US\$ million	US\$ 19,000/t	US\$ 20,000/t	US\$ 21,400/t
8% real discount rate	301.0	343.2	402.2
10% real discount rate	250.7	287.7	339.5
12% real discount rate	209.2	241.8	287.4
15% real discount rate	159.5	186.8	225.0

## ECONOMIC SENSITIVITIES

The CBE results show that the Project has the potential to remain strongly profitable at lower tin prices, as well as at increased prices for key consumables.



## BISIE PROJECT COMMENTARY

### *PERMITTING*

The Bisie Project is contained within *Permis de Exploitation* (mining permit) PE13155. The permit was issued in February 2015 and is valid until 2045. In terms of the DRC Mining Code, the holder of a mining permit is entitled to

- build the installations and infrastructure required for mining exploitation;
- use the water and wood within the mining area for the requirements of the mining operation, subject to the conditions of the environmental management plan;
- use, transport and freely sell the products originating from the mining area; and
- proceed with concentration, metallurgical treatment, as well as the transformation of mineral substances extracted from the deposit within the mining area.

Alphamin also holds the legal title to additional exploration permits (PR4246, PR5270, PR10346, PR5266 and PR5267) adjacent to PE13155.

### *MINERAL RESOURCES*

The Mineral Resource estimates were updated in May 2016. The Mineral Resource estimate contains 19 600 tonnes of tin of Measured Mineral Resources, 188 400 tonnes of tin in Indicated Mineral Resources and 22 800 tonnes of tin in Inferred Mineral Resources declared at a 0.5% tin cut-off grade. These remain unchanged from those reported in the UFS.

<b>Classification</b>	<b>Tonnes (millions)</b>	<b>Tin %</b>	<b>Tin tonnes (thousands)</b>	<b>Copper %</b>	<b>Zinc %</b>	<b>Lead ppm</b>	<b>Silver g/t</b>
Measured	0.46	4.31	19.6	0.22	0.12	70	1.4
Indicated	4.14	4.55	188.4	0.32	0.16	100	2.8
<b>Total M&amp;I</b>	<b>4.60</b>	<b>4.52</b>	<b>208.1</b>	<b>0.31</b>	<b>0.15</b>	<b>100</b>	<b>2.7</b>
Inferred	0.54	4.25	22.8	0.16	0.09	130	1.4

### *MINERAL RESERVES*

A mining cut-off grade of 1.4% tin was calculated for the proposed Sub-Level Caving mining method and was applied to the Mineral Resources declared to determine the volume of Mineral Resources that would be payable, based on the cut-off calculation assumptions.

The modifying factors applied to convert the Mineral Resource estimate to Mineral Reserves are based on the Sub-Level Caving mining method selected and the mining designs generated are as follows:

- Cut-off grade 1.4% tin
- Ore recovery 85%
- Planned dilution 14.5%
- Unplanned dilution 35%

The Mineral Reserve estimate contains 15 896 tonnes tin in the Proven Reserve category and 151 448 tonnes tin in the Probable Reserve category at a 1.4% tin cut-off grade. Inferred Mineral Resources were totally omitted from the reserve estimate. There are a number of mineable areas within the life of mine plan, where the Mineral Resource contained a combination of Indicated and Inferred Mineral Resources. In these areas, the Mineral Resources have been totally omitted.

<b>Classification</b>	<b>Tonnes (millions)</b>	<b>Tin (%)</b>	<b>Tin tonnes (thousands)</b>
Proven	0.38	4.17	15.9
Probable	4.29	3.53	151.4
<b>Total Measured and Indicated</b>	<b>4.67</b>	<b>3.58</b>	<b>167.3</b>

Notes:

1. The reserves were based on applying the Datamine Mineable Shape Optimizer (MSO) software that determines stope shapes that are economical based on the applied cut-off grade and mining parameters.
2. The Bisie orebody contains areas where the dip of the ore footwall is less than the standard 70° normally required for the method. In these areas, the footwall mining drive and a portion of the stope ring was placed partially in the waste footwall as long as the MSO reading remained economic. This waste reports as planned dilution.
3. The waste dilution entering the run of mine ore stream from the drawpoints during extraction of the blasted stope rings has been termed unplanned dilution. It is generally experienced in standard SLC that the dilution is  $\pm 35\%$  for an ore recovery of 85%.
4. The general level of ore loss experienced in the cave area in longitudinal SLC is  $\pm 15\%$ .
5. A delayed draw SLC extraction methodology was applied to the top 3 sub levels of the mining layout to cater for potential air blasts if the caving process is delayed. The delayed draw application establishes an ore blanket or cushion above and behind the rings being blasted to protect the drawpoints being drawn. The methodology entails limiting draw of the blasted rings to 30% on the top level, 50% on the 2nd level and 90% on the 3rd level. On the assumption that general caving has been established by the time the 4th level mining commences the ore cushion can be drawn to a normal SLC cut off. The dilution in this process is considerably less and was nominally estimated at 10% ore with recovery, assuming the ore cushion is drawn on the 4th level estimated at 90% for the 4 levels combined.

No Inferred Mineral Resources have been included in the estimation of Mineral Reserves.

## ***MINING***

Contractors will mine the Mpama North orebody using proven underground mechanised mining methods to deliver ore to the process plant at an expected rate of 25 - 35ktpm.

## ***PROCESSING AND TIN RECOVERY***

A comprehensive programme of metallurgical testing was executed to support the CBE. An overall metallurgical recovery of 80% was achieved under laboratory conditions. Factoring in operating conditions, operator skill levels, and an element of conservatism, an overall recovery of 73% has been applied in the evaluation of the Project economics. The process design is based on recovery of tin into concentrate through conventional gravity separation methods. The Bisie Tin Project process plant design capacity is 360-400ktpa.

## ***CONFLICT FREE TIN***

Through the initiatives of the global tin industry regarding the trade of conflict minerals in the Great Lakes Region, burden of proof falls primarily on supply chain operators and exporters to prove the direct source of the tin concentrate produced for smelting. That material which is not traceable to its direct source is at risk of being unsaleable or heavily discounted in the open market, since global smelters are under increasing pressure to assure certification and chain of custody to their customers. The Bisie operation will supply conflict-free tin from eastern DRC and the Alphamin operation will be the manifestation of what conflict mineral advocacy and legislation aimed to achieve.

Alphamin's conflict-free tin concentrate and social initiatives should therefore be of interest to international trading and smelting companies and multinational brands which use tin in their products, including laptops, mobile and smart phones and cars. The complexities of certifying tin concentrates as conflict free also make the product less appealing to armed groups and so reduces the risk of threats to the mine or transporters with the intention to forcefully gain occupation of the mine site or appropriate final product.

Alphamin is a member of the Conflict-Free Sourcing Initiative, a global end-user grouping of companies who develop conflict-free certification standards and protocols, and is also a member of the International Tin Research Institute which is involved in global conflict-free sourcing initiatives.

## ***ENVIRONMENT***

The Project is fully permitted to commence with construction and operating activities. Alphamin has completed the required environmental studies, is in full compliance with IFC Performance Standards and Equator Principles, and comprehensive management plans have been developed to mitigate any potential negative environmental impacts of the Project.

## ***COMMUNITY DEVELOPMENT***

The operation is planned to deliver on the commitment to develop the first large commercial tin mine in the eastern DRC that will produce conflict-free tin concentrate, while promoting community development, safety, health and environmentally sound practices. Alphamin, therefore has a robust and proactive programme of community outreach and engagement in place.

In April, 2016 a Memorandum of Understanding was signed between Alphamin and the Walikale Community to collaborate in creating the Lowa Alliance and to promote environmental conservation and the reduction of illegal artisanal mining on Alphamin concessions. Alphamin committed, from the date of production, to spend 4% of its in-country operating and administrative expenses on community development while initiating projects and the

Alliance during construction. This investment will be governed with representative input from local communities and will be managed by the Lowa Alliance, a Government of the DRC (“GDRC”)-regulated non-profit foundation, which is in the final stages of registration. The development of an industrial mine at Bisie will also generate leveraging of the GDRC and donor resources for additional investment in community infrastructure and social and economic development in the project affected communities.

The Lowa Alliance will invest, along with the community itself and other development partners including the Government of the DRC, in 120 projects over the initial five years. Projects include schools and technical training, primary health care services, agriculture and fish-farming, small scale renewable energy, small and micro enterprise, community infrastructure, town zoning and road articulation to help manage growth, and women’s empowerment.

Alphamin through its exploration and development phase has already created 480 new jobs, invested in road and telecommunications infrastructure to unlock the isolated Walikale territory, developed 25 participatory local development plans representing the long-term needs of the 14,000 households living closest to the mine, and recently completed the construction of a quality primary school with solar powered lighting.

**Figure 5: New School constructed at Logu**



Alphamin’s artisanal mining strategy is also highly integrated with the community development strategy and promotes incentives for artisanal miners to operate away from project areas with improved legal and other conditions. The artisanal mining strategy also works with authorities to improve compliance with regulatory frameworks. Alphamin will encourage and assist GDRC authorities, supported by the supply chain and donor financed traceability systems, to identify more sites for legal artisanal mining and to support their validation and traceability. Alphamin is responsible for consistent monitoring of all community initiatives, including the artisanal strategy, and will work with all involved stakeholders to assure respect for and compliance with the Voluntary Principles on Security and Human Rights guidelines.

## ***OPERATING COSTS***

The Bisie Project's unit and total operating costs were estimated over the life of the Project. Mining operating costs were estimated using contractor mining rates developed through a competitive tender process. Other operating costs were developed from first principles for processing, site infrastructure, and general and administration, using operating plans as the basis for consideration of labour, materials and consumables.

Primary on-mine cost drivers are diesel fuel (US\$1.50 per litre) and explosives (US\$3 400 per tonne). Labour costs have been modelled on existing operations in the DRC and, employment work schedules which are compliant with the DRC Labour Code.

Off-mine costs are based on trucking the concentrate to a secure export warehouse in Goma using rough terrain vehicles. In Goma the concentrate will be sold to tin traders whereafter it will be transferred to standard triaxle trucks and transported to Mombasa for shipping to Malaysia. Logistics costs are based on indicative quotes received from transportation firms. Treatment charges and marketing commissions are likewise based upon indicative quotes received from tin smelters and traders respectively.

Export duties and fees are based upon the prevailing legislation and practice in the DRC. Export duties and royalties were calculated on the net on mine revenue and are payable to both the local and DRC government at 2% each.

## ***CAPITAL COSTS***

The total pre-production capital cost is estimated at US\$151.4 million, inclusive of first fills, strategic spares and contingencies. The initial capital costs include the design and development of an access road, an underground mine, the creation of a 64,000 tonne ore stockpile, a process plant, a tailings storage facility and all associated services required for the operation of the mine.

## ***PROJECT SCHEDULE TO PRODUCTION***

The proposed Project development schedule allows 21 months for the mine construction programme. Certain early works are required to gain access to the mine site as illustrated below.

Activity	F2017				F2018				F2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Construct access road												
Mine construction												
Plant construction												
Commissioning												
Ramp-up to full production												
Steady state production												

## Funding strategy

Peak funding for the Project, as determined from the period 1 January 2017 to the date upon which the Project starts generating positive operational cash flows on a sustainable basis, is estimated to be US\$152.0 million in nominal terms:

<b>PEAK FUNDING REQUIREMENT (NOMINAL TERMS)</b>	<b>US\$M</b>
Project capital expenditure (incl. owners team costs)	155.6
VAT <sup>(1)</sup>	7.1
Working capital	0.8
Cash generated by operations	(1.5)
<b>Project peak funding</b>	<b>162.0</b>
Less cash on hand	(8.0)
Less funds due from minority shareholders	(2.0)
<b>Peak funding requirement</b>	<b>152.0</b>

(1) The Company has assumed that VAT refunds may take as long as 12 months to be repaid going forward, but is hopeful that a VAT exemption for capital and operating expenditures incurred during the period to commencement of commercial operations will be made available to the Project.

In principle support for up to 65% of the Project's funding requirement has been secured from the Company's existing shareholders and a consortium of experienced mining investors, and the Company is working with a number of debt providers to arrange the balance of the funding. The capital raising programme is expected to complete in early Q2 2017, and a further announcement will be made closer to that time.

## ***OPPORTUNITIES AND NEXT STEPS***

While the CBE is based solely on the Mpama North orebody only, Alphamin's exploration success in proving up this world-class orebody demonstrates the potential to add additional tin bearing material from potential extensions to the mineralisation at depth at Mpama North, Mpama South, and other adjacent permitted exploration areas.

## ***CONCLUSION***

The completion of the FEED program and associated CBE confirms the exceptional economic metrics of the Project. These, together with the support of shareholders, the Government of the DRC, Provincial Government of North Kivu and the citizens of North Kivu will result in the development of Bisie into North Kivu's first industrial mine, and a new premier global tin mine.

EDITORS NOTES:

ISSUED ON BEHALF OF THE BOARD OF DIRECTORS OF ALPHAMIN RESOURCES CORP. BY:

Boris Kamstra, Chief Executive Officer

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PLEASE NOTE THAT THROUGHOUT THIS RELEASE:

- All figures presented pertain to 100% of the Project
- Alphamin owns an effective 80.75% interest in the Project
- All currency related figures are in US dollars and are stated in real 1 January 2017 terms unless stated otherwise

## MORE INFORMATION ON ALPHAMIN RESOURCES CORP.:

**Alphamin** is a tin exploration and development company with the vision to be respected in the international tin sector by unleashing the full profit and potential of its world-class tin asset in North Kivu, DRC, currently under development.

Alphamin has the vision to become a premier tin producer by:

- Leading a world-class, profitable mining company in North Kivu, delivering results for the benefit of all stakeholders and viewed with respect by the communities and Government.
- Becoming a profitable tin producer, while continuing with exploration to increase life of mine. ABM intends to operate a profitable tin mine in a safe environment while uplifting the local community. Alphamin is striving to develop the first, low-cost per tonne tin, industrial mine in North Kivu, while at the same time making a marked, positive impact on the communities surrounding the mine. We intend to be a tin mining company that excels at the production of tin and provides leadership for the region in terms of safety, health, environment and community development.
- Delivering on the commitment to develop the first large, industrial tin mine in North Kivu - giving Alphamin credibility locally and abroad – and becoming a business transformation reference in the tin mining industry.
- Creating value for both shareholders and the community.
- Committing, from the date of production, to spend 4% of its in-country operating and administrative expenses on community development. This investment will be governed with representative input from local communities and managed by the Lowa Alliance, a GDRC-regulated not-for-profit foundation. Alphamin will continue to preserve its legal rights to develop Bisie and explore ways to assist artisanal miners to transition from illegal to legal status, conflict-free sites elsewhere in the region.
- Implementing community projects, supported by the Lowa Alliance, being selected following an in-depth survey of the 13 500 households (approximately 70 000 residents) across the 44 communities closest to Bisie. Representative committees have prioritised a range of projects to promote social and economic development to which they, local authorities and potentially external donors, will also contribute. These projects would provide incentives for income beyond illegal artisanal mining while also providing educational and health infrastructure and services like potable water, malaria reduction and treatment and primary health care capacity building, agricultural and infrastructure capacity investment.

## IMPORTANT NOTICE

Although Alphamin discloses its mineral resource and mineral reserve statement in accordance with the requirements of the applicable disclosure standards, this news release is based on estimates, which while prepared by Qualified Persons, are subject to numerous uncertainties inherent in estimating quantities and classification of mineral resources and mineral reserves (including subjective judgments and determinations based on available geological, technical, contracted and economic information). Therefore, these statements should not be interpreted as assurances of LoM, or of the profitability of current or future operations.

Mineral resources and mineral reserves prepared by, or under the supervision of different Qualified Persons are estimates based on different technical assumptions (all of which comply with the applicable mining standards) and may vary as a result. There is no assurance that had such estimates been prepared by the same professional geoscientists and engineers applying a uniform methodology, they would not differ substantially from the information contained herein.

Mineral resource and mineral reserve information contained herein is based on engineering, metallurgical, economic and geological data assembled, and analysed by both Alphamin and third parties. Estimates as to both quantity and quality are periodically updated to reflect extraction of commodities and new drilling, or other data received. There are numerous uncertainties inherent in estimating quantities and qualities of mineral reserves and costs to mine them, including many modifying factors beyond Alphamin's control. Estimates of mineral reserves necessarily depend upon a number of variable factors and assumptions, all of which may vary considerably from the actual results, such as

- geological continuity and mining conditions, which may not be fully identified by available exploration data, or which may differ from experience in current operations; and
- the assumed effects of regulation and taxes by governmental agencies and assumptions concerning commodity prices, operating costs, mining technology improvements, severance and excise tax, development costs and reclamation costs.

Further, mineral resource estimates, prepared in accordance with applicable mining standards are based on concentrations or occurrences of minerals that are judged to have reasonable prospects for eventual economic extraction, but for which the economics of extraction cannot be assessed, whether because of insufficiency of geological information, or lack of feasibility analysis, or for which economic extraction cannot be justified at the time of reporting. Consequently, mineral resources are of a higher risk and are less likely to be accurately estimated or recovered than mineral reserves. As well, mineral resources that are not mineral reserves do not have a demonstrated economic viability and require economic analysis to prove their viability for extraction.

Assumptions that are valid at the time of estimation may change significantly when new information becomes available, requiring a reassessment of mineral reserves. Such changes in mineral reserves could also impact depreciation and amortisation rates, asset carrying values, and provisions for close down, restoration and environmental remediation costs.

If the prices of the commodities produced by Alphamin decrease, or if there are adverse changes in treatment charges or foreign exchange rates, certain of Alphamin's mineral reserves, which are currently classified as probable may cease to be classified as recoverable, as they become uneconomic to mine. In addition, changes in operating, capital or other costs may have the same effect by rendering certain mineral reserves uneconomic to mine in the future. Should such reductions occur, material write-downs of its investment in mining properties or

the discontinuation of development might be required, and there could be material delays in the development of new projects, increased net losses and reduced cash flow. Moreover, short-term operating factors relating to mineral reserves, such as the need for orderly development of the mineral deposit, or the processing of new or different mineral grades, may cause a mining operation to be unprofitable in any particular accounting period.

No assurance can be given that the anticipated tonnages and grades will be achieved, or that the indicated level of recovery will be realised. The volume and grade of mineral reserves actually recovered and rates of production from the Company's present mineral reserves may be less than geological measurements of the mineral reserves, which may result in Alphamin realising less value from such mineral reserves than has been predicted. In the future, short-term operating factors relating to mineral reserves, such as the need for development of ore bodies and other mineral resources, or the processing of different ore grades, may cause mineral reserves to be modified or Alphamin's operations to be unprofitable in a particular period.

No assurance can be given that the indicated amount of mineral reserves of ore, or other minerals will be recovered, or will be recovered at the prices assumed. Mineral reserve estimates are based on limited sampling and, consequently, are uncertain because the samples may not be representative of the entire orebody and mineral resource. As a better understanding of the orebody or mineral resource is obtained, the mineral reserve estimates may change significantly, either positively or negatively.

For these reasons, estimates and classifications of mineral reserves prepared by different engineers, or by the same engineers at different times may vary substantially. Actual commodity tonnage recovered from identified mineral reserves and revenue and expenditures with respect to the mineral reserves may vary materially from estimates. Accordingly, these reserve estimates may not accurately reflect Alphamin's actual mineral reserves. Any inaccuracy in the estimates related to the mineral reserves could result in lower than expected revenue, higher than expected costs and decreased profitability.

All units are metric throughout this mineral resource and mineral reserve statement, unless otherwise stated.

All mineral resources and mineral reserves contained in this release should be read subject to the above risks and modifying factors. The effective date of the mineral resources in this news release is May 2016. The effective date of the mineral reserves in this news release is February 2017. The data was prepared by, or under the supervision of a Qualified Person as defined in NI 43-101.

### ***Industry terms and abbreviations***

The following industry terms and abbreviations are used within this document:

CIM	Canadian Institute of Mining and Metallurgy
NPV	Net present value
ktpa	Thousand tonnes per annum
ktpm	Thousand tonnes per month
LoM	Life of mine
Mt	Million tonnes
NI	National instrument

QP	Qualified Person
ROM	Run of mine
IRR	Internal rate of return
US\$	United States of America dollar
%	Percentage

*Mine cut-off grade* is defined as the level of mineral in an ore below, which is not economically feasible to mine.

***CIM definitions, standard definitions or similar***

The following definitions have been applied in estimating the mineral resources and mineral reserves disclosed within this release.

Mineral reserve	Is the economically mineable part of a measured and/or indicated mineral resource. It includes diluting materials and allowances for losses, which may occur when the material is mined, or extracted and is defined by studies at a pre-feasibility or feasibility level as appropriate that include application of modifying factors. Such studies demonstrate that, at a time of reporting, extraction could be reasonably justified. The reference point at which mineral reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being publically reported. The public disclosure of a mineral reserve must be demonstrated by a pre-feasibility study or feasibility study.
Probable mineral reserve	Is the economically mineable part of an Indicated, and, in some circumstances, a measured mineral resource. The confidence in modifying factors applying to a probable mineral reserve is lower than that applying to a proven mineral reserve.
Proven mineral reserve	Is the economically mineable part of a measured mineral resource. A proven mineral reserve implies a high degree of confidence in the modifying factors.
Mineral resource	Is a concentration or occurrence of solid material of economic interest in, or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, or quality, continuity, and other geological characteristics of a mineral resource are known, estimated, or interpreted from specific geological evidence and knowledge, including sampling.
Measured mineral resource	Is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and

		grade, or quality continuity between points of observation. The estimate has a higher level of confidence than that applying to either an indicated mineral resource, or an inferred mineral resource. It may be converted to a proven mineral reserve, or to a probable mineral reserve.
Indicated mineral resource		Is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling, and testing and is sufficient to assume geological and grade or quality continuity between points of observation. The estimate has a lower level of confidence than that applying to a measured mineral resource and may only be converted to a probable mineral reserve.
Inferred mineral resource		<p>Is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.</p> <p>Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.</p>

## QUALIFIED PERSONS

Mr Gordon Mark Cresswell (PrEng MSc, FSAIMM, MIMMM, ARSM) is a Minerals Processing Consulting Engineer of DRA Projects, an independent EPCM consulting company to Alphamin and a *Qualified Person* as defined in National Instrument 43-101 Standards of Disclosure of Mineral Projects. Mr Cresswell has reviewed and approved the scientific and technical information contained in this news release.

Mr John Anthony Cox (PrEng ECSA, BSc Mining, ARSM, FSAIMM) is a Principal Consultant for DRA Projects, an independent EPCM consulting company to Alphamin and a *Qualified Person* as defined in National Instrument 43-101 Standards of Disclosure of Mineral Projects. Mr Cox has reviewed and approved the scientific and technical information contained in this news release.

Mr Jeremy Charles Witley (BSc Hons, MSc (Eng.)) is a Principal Mineral Resource Consultant for the MSA Group, an independent geological consulting company to Alphamin and a *Qualified Person* as defined in National Instrument 43-101 Standards of Disclosure of Mineral Projects. Mr Witley has reviewed and approved the scientific and technical information contained in this news release.

### ***CAUTION REGARDING FORWARD LOOKING STATEMENTS***

Information in this news release that is not a statement of historical fact constitutes forward-looking information. Forward-looking statements contained herein include, without limitation, statements relating to costs of production, success of mining operations, the ranking of the Project in terms of cash cost and production, economic return estimates, capital costs for the Project, mineral resource and reserve estimates, social, community and environmental impacts, and continued positive discussions and relationships with local communities and stakeholders. Forward-looking statements are based on assumptions management believes to be reasonable at the time such statements are made. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Although Alphamin has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to: Alphamin's ability to secure sufficient financing to advance and complete the Bisie Tin Project, uncertainties associated with Alphamin's resource and reserve estimates, uncertainties regarding the estimation of future costs, uncertainties regarding global supply and demand for tin and market and sales prices, uncertainties associated with securing off-take agreements and customer contracts, uncertainties with respect to social, community and environmental impacts, adverse political events, uncertainties with respect to optimization opportunities for the Bisie Tin Project, as well as those risk factors set out in the Company's Management Discussion and Analysis and other disclosure documents available under the Company's profile at [www.sedar.com](http://www.sedar.com). Forward-looking statements contained herein are made as of the date of this news release and Alphamin disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws."