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07 January 2013

ASX ANNOUNCEMENT

OPTIMISATION STUDIES TO FOCUS ON HIGH GRADES AT LOS CALATOS

- **AN INTERNAL MINING STUDY FOCUSSING ON OPTIMISING RETURN ON CAPITAL HAS IDENTIFIED A PREFERRED MINING SCENARIO COMPRISING AN INITIAL OPEN PIT FOLLOWED BY UNDERGROUND BULK MINING**
- **PIT OPTIMISATION STUDIES TO FOCUS ON MAXIMISING START UP GRADES**
- **COST ESTIMATES AND MINE SCHEDULING ARE AT AN ADVANCED STAGE, WITH AN ANNOUNCEMENT OF THE MINING STUDY RESULTS ANTICIPATED IN Q1 2013**
- **COPPER EQUIVALENT METAL OF 7.7 MILLION TONNES AVAILABLE FOR EXTRACTION FROM POTENTIAL FUTURE OPEN PIT AND UNDERGROUND OPERATIONS AFTER METALLURGICAL RECOVERIES OF 87% FOR Cu AND 68% FOR Mo**
- **MINERAL RESOURCES AMENABLE TO OPEN PIT MINING OF 274 MILLION TONNES, INCLUDING INFERRED RESOURCES OF 21 MILLION TONNES, AT A GRADE OF 0.42% CuEq, TO A VERTICAL DEPTH OF 500 METRES BELOW SURFACE, AT A CUT-OFF GRADE OF 0.15% CuEq**
- **MINERAL RESOURCES AMENABLE TO UNDERGROUND BULK MINING OF 1,068 MILLION TONNES, INCLUDING INFERRED RESOURCES OF 302 MILLION TONNES, AT A GRADE OF 0.61% CuEq, COMMENCING AT A VERTICAL DEPTH OF 500 METRES BELOW SURFACE, AT A CUT-OFF GRADE OF 0.35% CuEq**
- **93% OF MINERAL RESOURCES AMENABLE TO OPEN PIT MINING AND 72% OF MINERAL RESOURCES AMENABLE TO UNDERGROUND BULK MINING ARE IN THE HIGHER CONFIDENCE MEASURED AND INDICATED CATEGORIES**
- **MINERAL RESOURCES FOR THE LOS CALATOS PROJECT HAVE BEEN ESTIMATED IN CONFORMITY WITH THE JORC CODE (2004) AND THE CIM CODE FOR REPORTING OF EXPLORATION RESULTS, MINERAL RESOURCES AND ORE RESERVES (NI-43-101)**

The total Mineral Resources, inclusive of Inferred Resources, for the preferred mining scenario is as follows:

Potential Mining Method	Cutoff (% CuEq)	Tonnes (million)	Cu (%)	Mo (%)	CuEq (%)
Open Pit	0.15	274	0.33	0.020	0.42
Underground Bulk Mining	0.35	1,068	0.51	0.024	0.61
Total Mineral Resources		1,342	0.47	0.023	0.57

Metminco Limited ("Metminco" or the "Company") (ASX: MNC; AIM: MNC) announces a further update to the Mineral Resources at its flagship Los Calatos copper-molybdenum porphyry project in southern Peru following completion of a 65,677 metre drill program in October 2012. The Mineral Resource Estimate now includes those Mineral Resources that are amenable to open pit and underground bulk mining reflecting the more advanced stage of the project. Mineral Resources amenable to open-pit mining are identified as those resources occurring near surface to a vertical depth of 500 metres (above an elevation of 2,500 metres above sea level) while resources amenable to underground bulk mining methods are identified as those resources occurring below this depth.

As the Company has previously indicated in its development strategy the mining options study now being undertaken by the Company is focusing on maintaining an optimal capital expenditure and grade profile which should facilitate more attractive financial returns for the project in the current economic climate. With the completion of the Mineral Resource Estimate, Metminco is now undertaking open pit optimisation studies and high level underground mine planning with the objective of initiating a pre-feasibility study later in Q1 2013.

Mr William Howe, Managing Director, commented:

"*Our internal mining options study as well as this resource update has been effective in identifying the most attractive development scenario for the Los Calatos Project in the current economic climate. These are both considerable achievements for Metminco and we are now in a strong position to concentrate on finalising cost estimates and mine plans and to advance the project to the pre-feasibility study phase. The preferred development of a smaller scale open pit operation followed by underground bulk mining focuses on achieving the optimal return on capital for the Company.*"

MINERAL RESOURCE STATEMENT

With the completion of the Company's latest drilling program at the Los Calatos Project, Metminco commissioned SRK Consulting, Chile S.A. ("SRK") to generate an updated mineral resource estimate for its 100% owned copper – molybdenum project in southern Peru.

Geological model

The mineralised porphyry system at Los Calatos is typical of the Andean type porphyry systems found in Chile and Peru. High grade copper and molybdenum mineralisation occurs around the edge of a younger diatreme complex, which is typical of many of these systems (eg. the El Teniente deposit in Chile). Figures 1 to 5 in Appendix 1 demonstrate the vertical nature of the Los Calatos porphyry system and the close association of copper and molybdenum mineralisation to both the porphyry and diatreme complex. A 3D geological model was developed by Metminco and used by SRK in constructing the block model used for deriving the Mineral Resource Estimation.

Comparison with April 2012 Mineral Resource Estimate

A comparison of the January 2013 Mineral Resource Estimate with the April 2012 Mineral Resource Estimate indicates the following:

- The April 2012 Mineral Resource Estimate anticipated a large scale open pit mining operation as the most likely development scenario, whereas the January 2013 Mineral Resource Estimate anticipates a smaller open pit operation followed by an underground bulk mining operation. As such a large proportion of the resources are reported at a higher cut-off grade than used previously.
- The preferred mining option now identified by the ongoing mining options study demonstrates that a short life open pit followed by underground bulk mining of the high grade core of the orebody provides a viable alternative to large scale open pit mining.
- The April 2012 Mineral Resource Estimate did not use hard boundaries for estimating high grade copper or molybdenum units (note SRK analysis stated below), therefore the Company considered that the April 2012 Mineral Resource Estimate at any given cut-off would over estimate tonnes and under estimate grade.

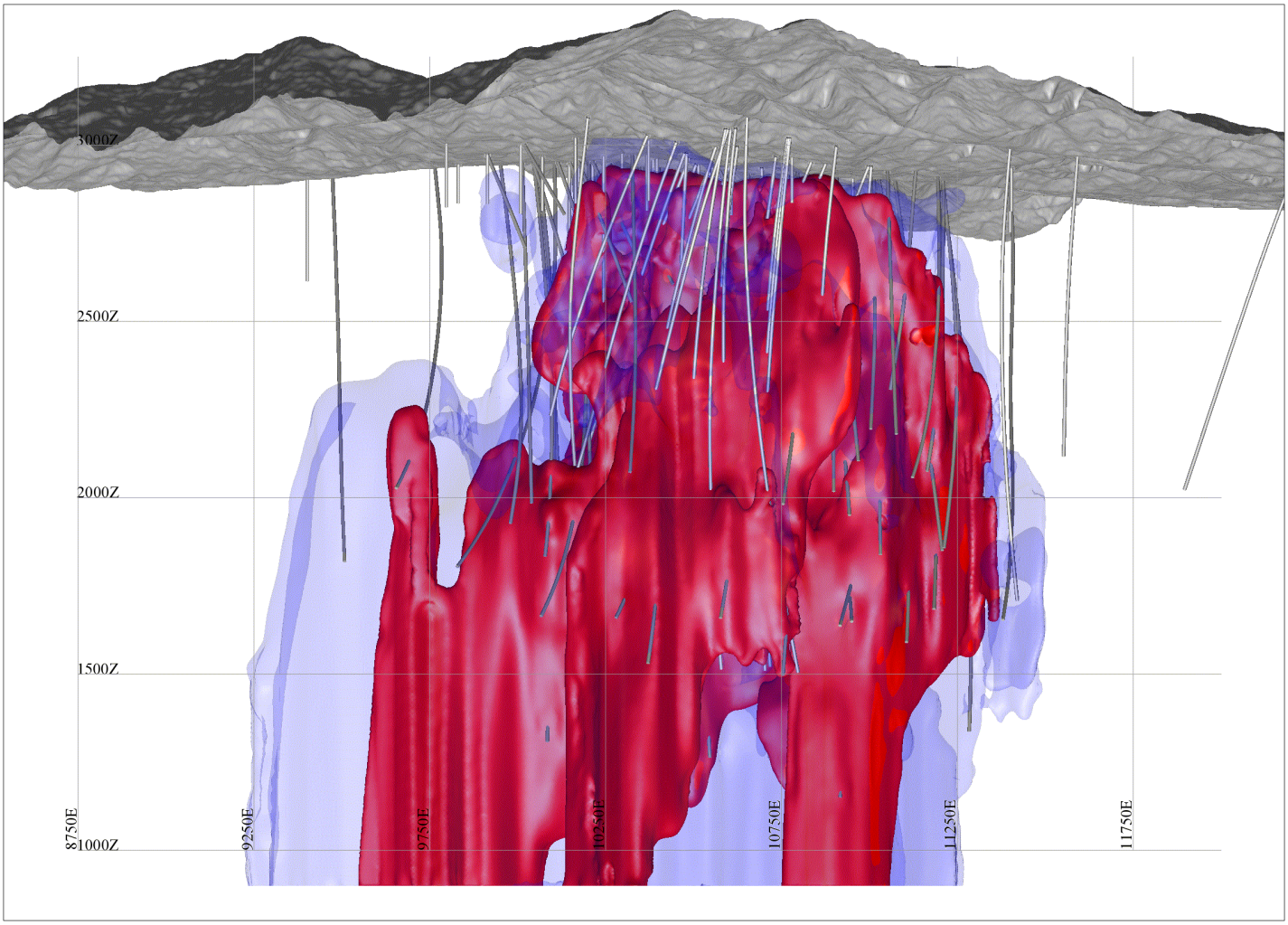
Review of resource estimate

The Mineral Resource Estimate undertaken by SRK incorporates the drilling results from 138 drill holes totalling 125,393 metres, of which 103 drill holes intersected the interpreted mineralised unit. In order to establish a regular sample support length, samples were composited to 5 metres with a total number of 12,560 composites used to interpolate the model. Further, the block model provided for a block size of 15 x 15 x 15 metres, and densities for the mineralised unit were based on 65 drill holes and 5,654 density samples.

Separate copper and molybdenum models were developed and estimated and then reported using a copper equivalent cut-off.

The mineralised solid model was constructed by SRK based on a geological model produced by Metminco. This mineralised unit is constrained by copper isogrades of 0.25% and 0.075 %, whereas an isograde of 0.013 % was used for molybdenum. The following figure shows the modelled mineralised solid model for copper isogrades of 0.25% (red) and 0.075% copper (blue).

Mineralised solid model



SRK verified the continuity of the grades across the boundary defined by the grade shells. The objective of this analysis was to define whether the contacts should be treated as soft or hard boundaries and to set up the estimation parameters accordingly. The results of this analysis ascertained that the grade changes between mineralised units for copper and molybdenum isogrades were abrupt and hence considered the treatment of such contacts as hard contacts for estimation purposes.

The Mineral Resource Estimate was performed on three domains for copper and in two domains for molybdenum. For copper, the domain above the 0.25% Cu boundary was estimated exclusively with the composites that fall within the solid model above 0.25% Cu. The domain above the 0.075 % Cu boundary was similarly estimated exclusively with the composites that fall within the solid model above 0.075% Cu. Given that part of the high grade molybdenum mineralisation lies outside the copper envelopes, a third copper domain was designated. This domain contains the high grade molybdenum that lies outside the copper envelopes but also contains low grade copper mineralisation. For molybdenum, the domain above the 0.013% boundary was estimated using the composites that occur within the solid model above the 0.013% Mo boundary. The blocks lying outside the 0.013% Mo boundary, but inside the low grade copper domains form another low grade molybdenum domain. The estimation for all domains was done using ordinary kriging.

Mineral Resources for Los Calatos have been estimated in conformity with the JORC Code (2004) and the CIM Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (NI-43-101).

The Mineral Resource Estimate for Los Calatos has been reported at a 0.15% CuEq cut-off grade for those resources to a vertical depth of 500 metres below surface and which are amenable to open pit mining, and at a 0.35% CuEq cut-off for those resources located below the potential open pit which are amenable to underground bulk mining. Further, the resources have been categorised into Measured, Indicated and Inferred Mineral Resources in accordance with the JORC Code (2004) for Reporting Mineral Resources and Mineral Reserves (see Tables 1 and 2 below).

Table 1: Mineral Resource Statement for the Los Calatos Copper-Molybdenum Project – to a vertical depth of 500 metres below surface, SRK Consulting (Chile) S.A., January, 2013.

Resource Classification	Tonnes (million)	Cu (%)	Mo (%)	Cu Eq * (%)
Measured	147	0.33	0.026	0.44
Indicated	106	0.33	0.014	0.39
Total Measured and Indicated	**253**	**0.33**	**0.021**	**0.42**
Inferred	21	0.37	0.006	0.40

Note:***** Reported at a cut-off of 0.15% copper equivalent, above a vertical depth of 500 metres below surface.
Figures have been rounded.

The copper equivalents are calculated according to the following formula and assumed metal prices and recoveries:
CuEq% = Cu% + Mo% ((PMo X RecMo)/ (PCu X RecCu))
Cu Price (PCu)= 2.75 US$/lb
Mo Price (PMo) = 15 US$/lb
Cu Recovery (RecCu) = 87%
Mo Recovery (RecMo)= 68%
Thus, the formula used is: ***Cu equivalent % = Cu% + (4.2633 x Mo%)***

The following table provides more detailed information on the grade-tonnage profile for the Mineral Resource summarised in Table 1 above, and sensitivities to various cut-off grades.

Above a vertical depth of 500 metres below surface, Cu Equivalent Cut-Off																
CuEq Cut-Off (%)	Measured			Indicated			Measured + Indicated			Inferred			Total			
	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	CuEq (%)
0.40	67	0.50	0.041	38	0.57	0.024	105	0.53	0.035	5	0.86	0.014	110	0.54	0.034	0.68
0.35	80	0.47	0.038	46	0.53	0.022	126	0.49	0.032	6	0.79	0.013	132	0.51	0.031	0.64
0.30	91	0.44	0.035	55	0.49	0.020	146	0.46	0.029	7	0.74	0.012	153	0.47	0.029	0.59
0.25	102	0.41	0.034	62	0.45	0.019	164	0.43	0.028	8	0.67	0.011	172	0.44	0.028	0.55
0.20	115	0.38	0.032	72	0.42	0.018	187	0.40	0.027	11	0.55	0.009	198	0.40	0.026	0.51
0.15	147	0.33	0.026	106	0.33	0.014	253	0.33	0.021	21	0.37	0.006	274	0.33	0.020	0.42
0.10	212	0.26	0.019	168	0.25	0.010	380	0.26	0.015	40	0.24	0.004	420	0.25	0.014	0.31

Table 2: Mineral Resource Statement for the Los Calatos Copper-Molybdenum Project – commencing at a vertical depth of 500 metres below surface, SRK Consulting (Chile) S.A., January, 2013.

Resource Classification	Tonnes (million)	Cu (%)	Mo (%)	Cu Eq * (%)
Measured	281	0.48	0.035	0.63
Indicated	485	0.52	0.022	0.61
Total Measured and Indicated	**766**	**0.51**	**0.027**	**0.62**
Inferred	302	0.52	0.018	0.61

Note:* Reported at a cut-off of 0.35% copper equivalent, below a vertical depth of 500 metres from surface.
Figures have been rounded

The following table provides more detailed information on the grade-tonnage profile for the Mineral Resource summarised in Table 2 above, and sensitivities to various cut-off grades.

Commencing at a vertical depth of 500 metres below surface, Cu Equivalent Cut-Off																
CuEq Cut-Off (%)	Measured			Indicated			Measured + Indicated			Inferred			Total			
	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	Tonnes (mt)	Cu (%)	Mo (%)	CuEq (%)
0.60	111	0.66	0.060	192	0.70	0.040	303	0.69	0.047	110	0.71	0.030	413	0.69	0.043	0.87
0.55	131	0.63	0.060	233	0.66	0.030	364	0.65	0.041	140	0.67	0.030	504	0.65	0.038	0.82
0.50	156	0.59	0.050	282	0.63	0.029	438	0.62	0.036	171	0.63	0.024	609	0.62	0.033	0.76
0.45	191	0.56	0.045	343	0.59	0.026	534	0.58	0.033	212	0.59	0.022	746	0.58	0.030	0.71
0.40	234	0.52	0.039	415	0.56	0.023	649	0.55	0.029	247	0.56	0.020	896	0.55	0.026	0.66
0.35	281	0.48	0.035	485	0.52	0.022	766	0.51	0.027	302	0.52	0.018	1,068	0.51	0.024	0.61
0.30	313	0.46	0.033	542	0.50	0.020	855	0.49	0.025	332	0.50	0.017	1,187	0.49	0.023	0.59

MINING OPTIONS STUDY

The Company is currently completing a mining options study as a pre-cursor to commencing a pre-feasibility study for the Los Calatos Project with announcement of the results expected in Q1 2013. This on-going study has identified a preferred development option which is summarised as follows:

1. Development of an initial open pit operation followed by underground bulk mining operations. The life of the open pit is expected to span the time required to commence underground production (viz. minimum 7 year pit life), with stockpiles from the open pit mining operation feeding the plant during the underground mine ramp up.

2. The Company will place strong emphasis on grade in the optimisation of the open pit and underground resources so as to maintain an optimal capital expenditure profile. The grade sensitivity tables attached to Tables 1 and 2 above indicate that with increasing cut-off grades, overall copper and molybdenum grades increase significantly. For example, by increasing the cut-off grade from 0.15% CuEq to 0.25% CuEq for those resources above 500 metres from surface, the copper and molybdenum grades increase by 33% and 40% respectively.

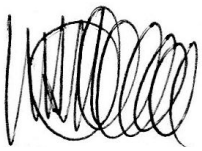
3. Indicative mine capital and operating costs, as well as mine production schedules are at an advanced stage of development.

4. Indicative site and off-site infrastructure requirements have been identified and detailed surveys are now underway.

5. A preliminary metallurgical flowsheet, using conventional flotation technology, has been developed with copper and molybdenum recoveries into separate copper and molybdenum concentrates expected to be 87% and 68% respectively.

6. With the resource estimation now complete, pit optimisation and underground mining plans will be finalised and reported.

7. A decision on the commencement of the pre-feasibility study for Los Calatos is anticipated Q1 2013.



William Howe
Managing Director

APPENDIX 1

Figure 1: Los Calatos project - schematic surface geological map.

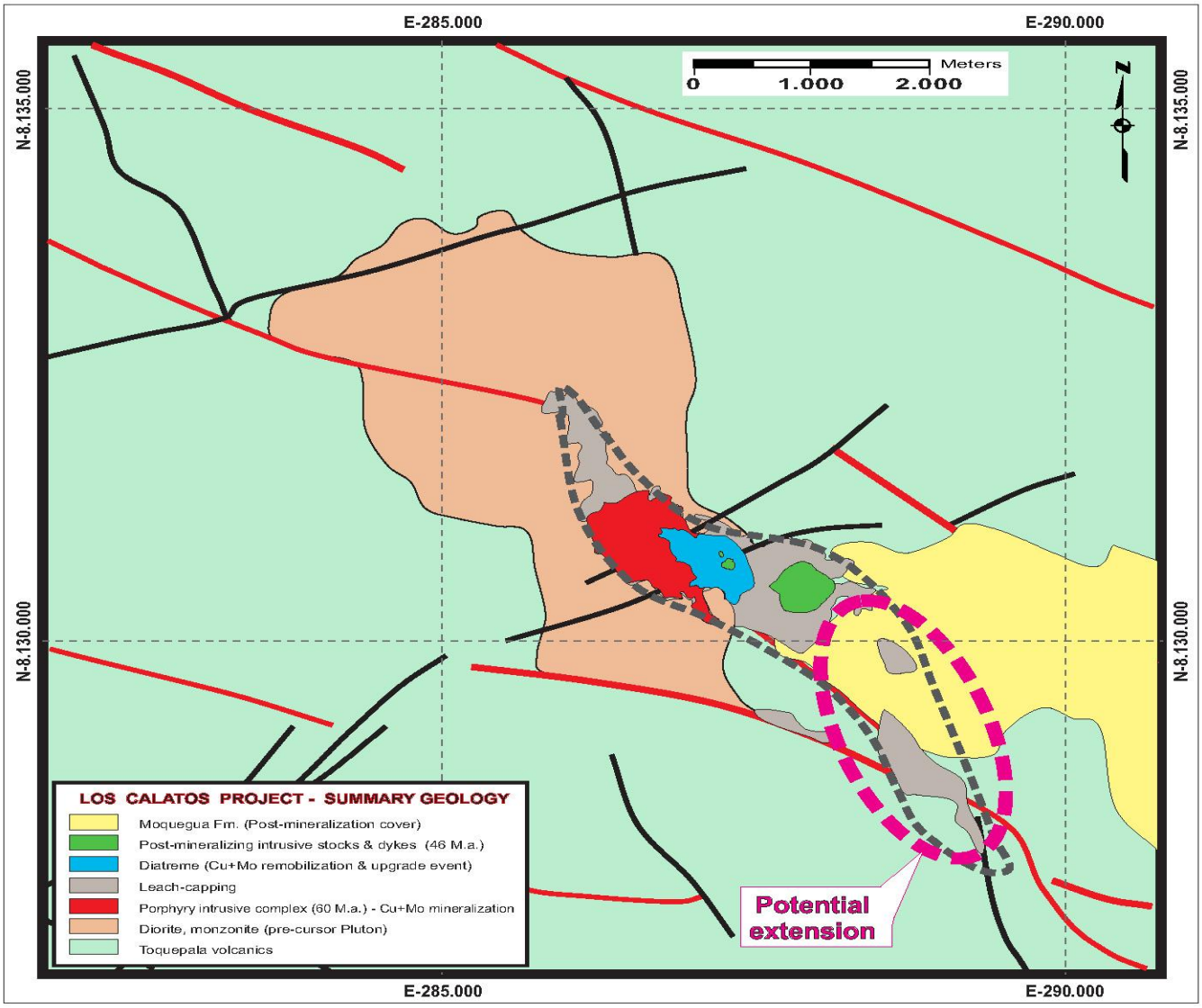


Figure 2: Schematic geological plan showing the distribution of copper mineralisation at the 0.25% Cu and 0.075% Cu grade boundaries.

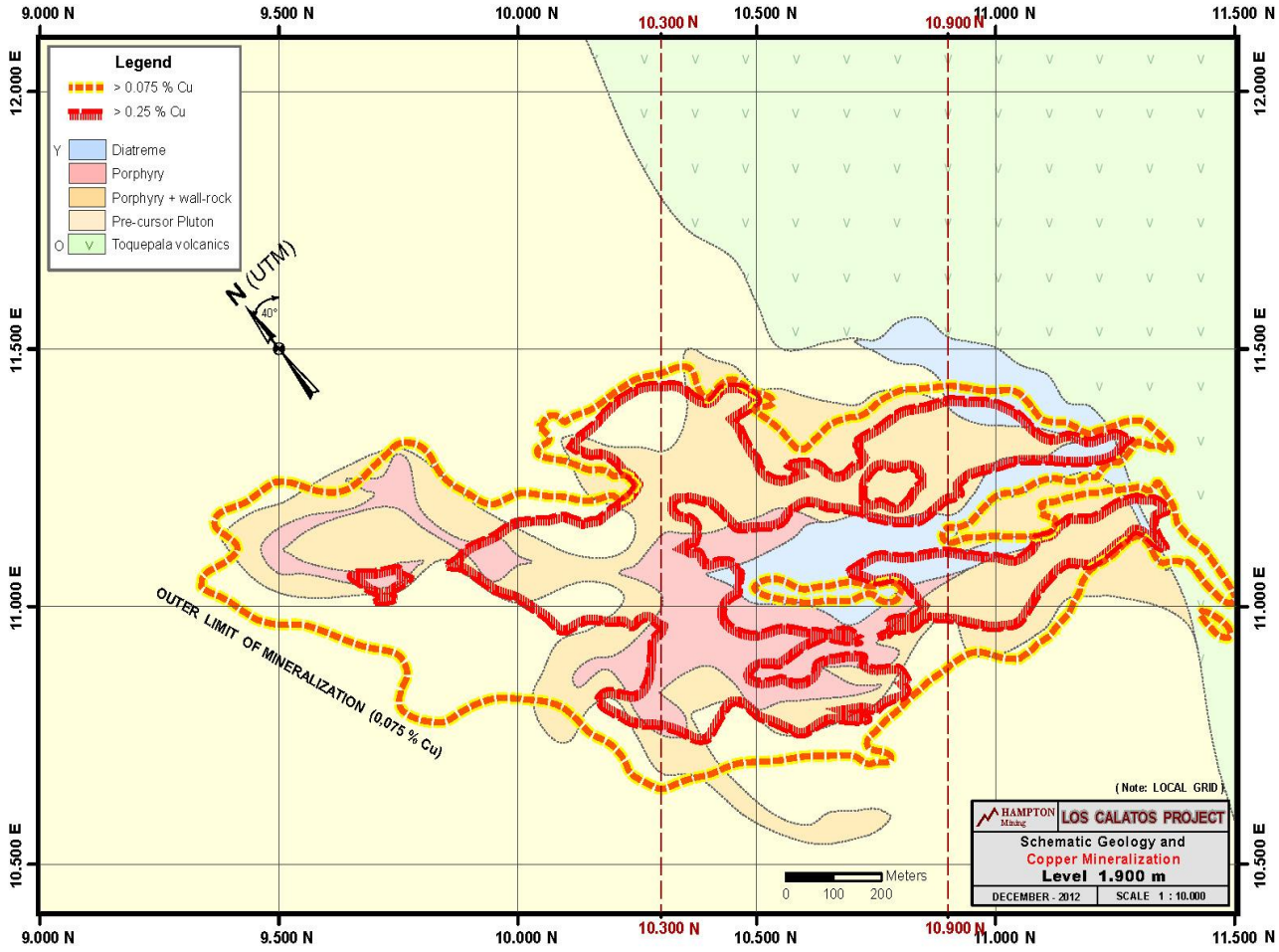


Figure 3: Schematic geological cross section showing the distribution of copper mineralisation at the 0.25% Cu and 0.075% Cu grade boundaries.

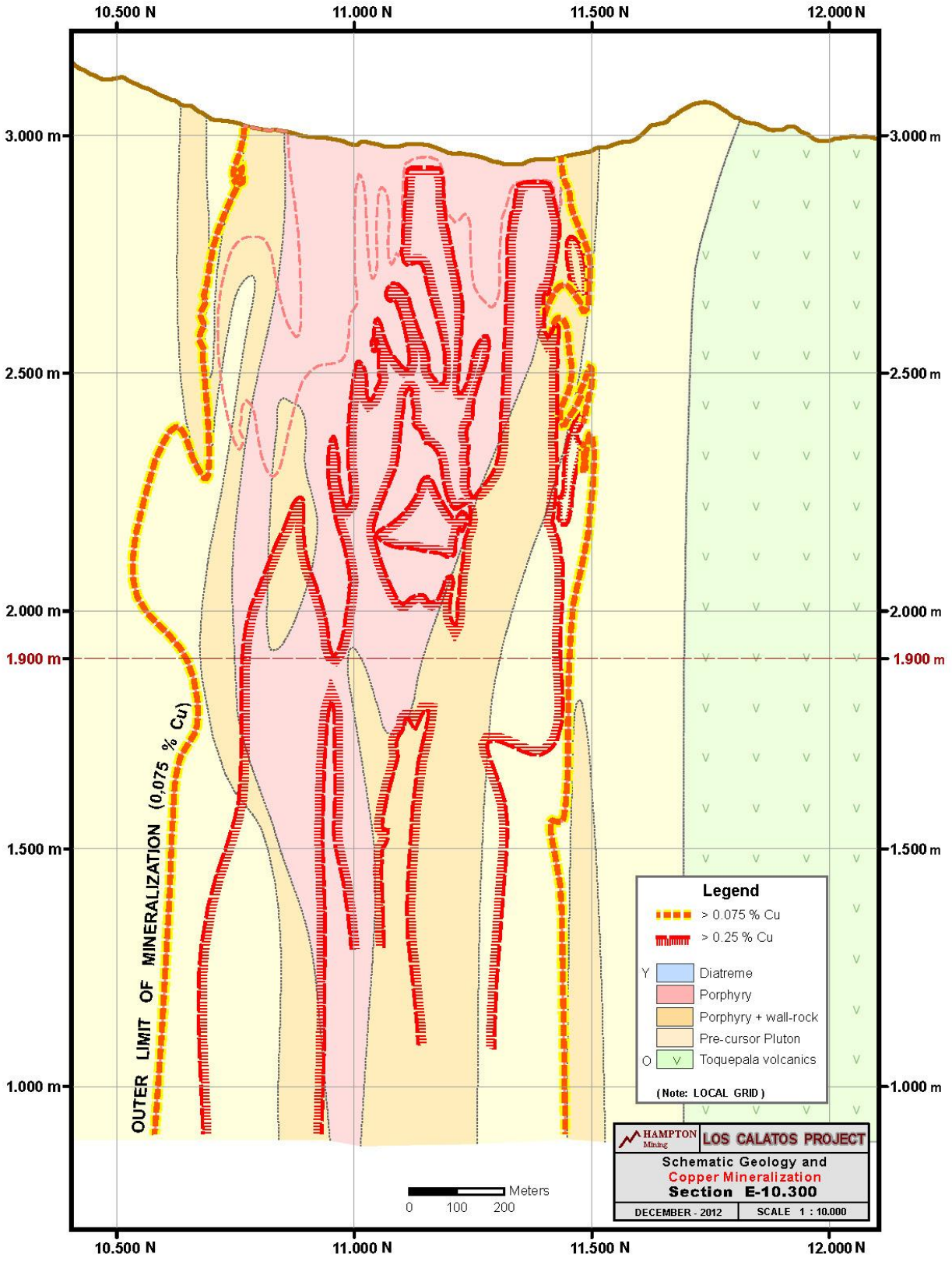


Figure 4: Schematic geological plan showing the distribution of molybdenum mineralisation at the 130ppm and 70ppm Mo grade boundaries.

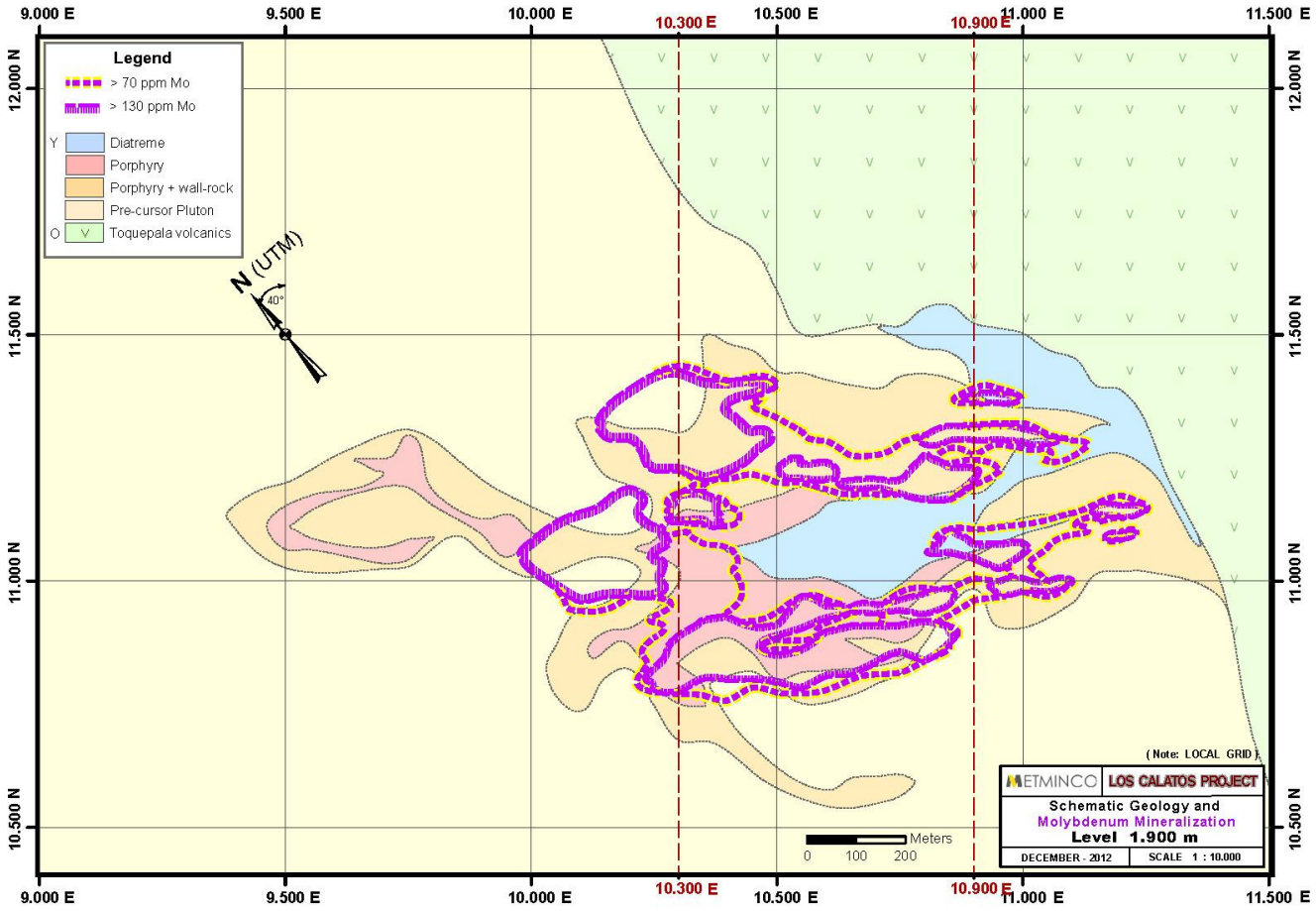
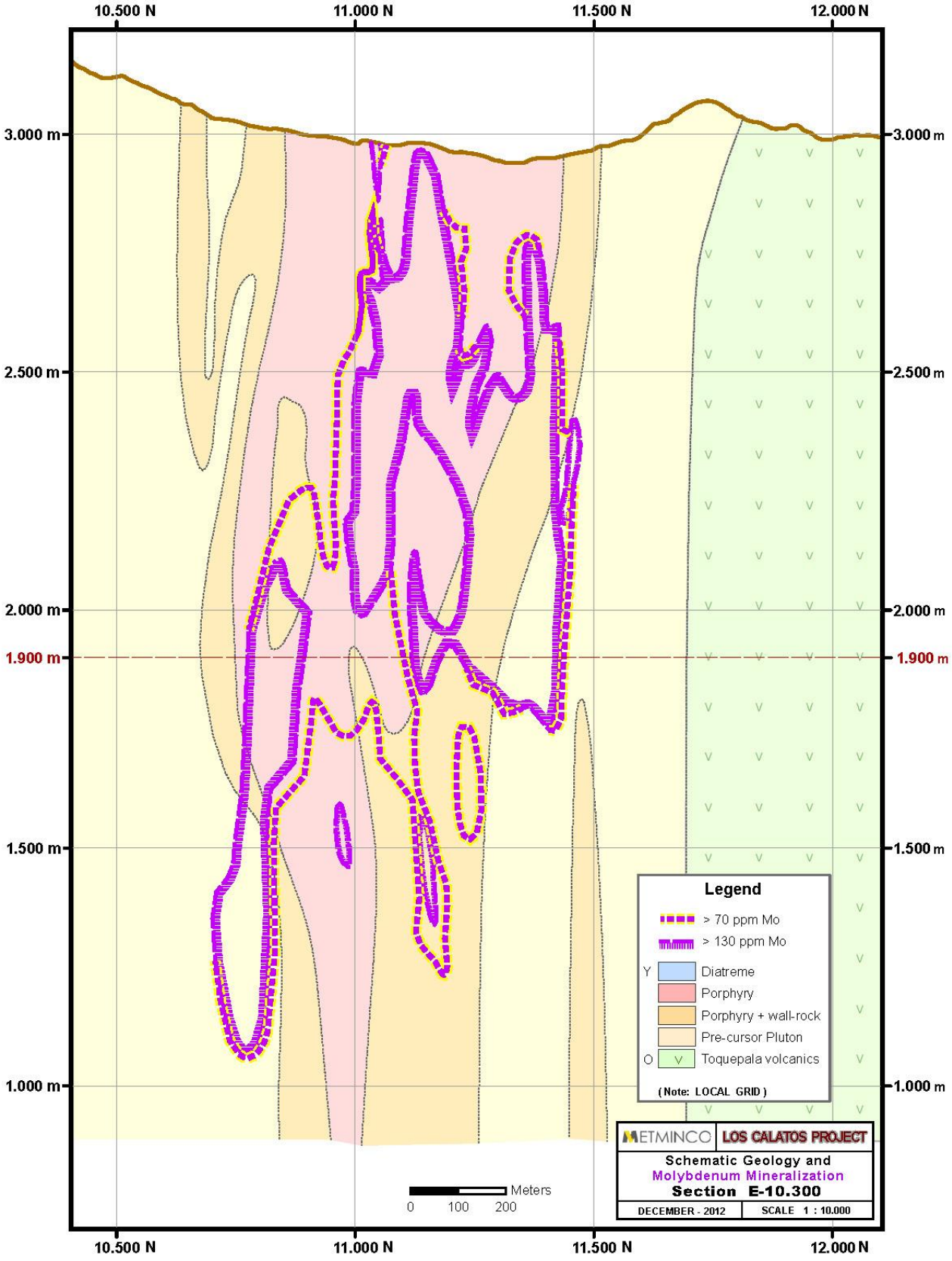


Figure 5: Schematic geological cross section showing the distribution of molybdenum mineralisation at the 130ppm and 70ppm Mo grade boundaries.



Company Background

Metminco is a dual ASX and AIM listed company with a portfolio of copper, molybdenum and gold projects in Peru and Chile.

The Los Calatos Project, located in southern Peru, has an open pittable Mineral Resource of 274 million tonnes @ 0.42% CuEq at a cut-off grade of 0.15% CuEq (copper equivalent) to a vertical depth of 500 metres below surface and an underground bulk mining Mineral Resource of 1,068 billion tonnes @ 0.61% CuEq at a cut-off grade of 0.35% CuEq commencing at an elevation of 2,500 metres (approximately 500 metres below surface). Surface lies variably between 2900 and 3000 metres above sea level.

The Chilean assets include the Mollacas Project with a Mineral Resource of 34.3 million tonnes consisting of a Measured Resource of 19.4 million tonnes at 0.45% Cu and 0.16g/t Au, an Indicated Resource of 9.4 million tonnes at 0.34% Cu and 0.16g/t Au, and an Inferred Resource of 5.5 million tonnes at 0.26% Cu and 0.15g/t Au (at a 0.2% copper cut-off); and the Vallecillo gold/zinc project with a Mineral Resource of 8.86 million tonnes consisting of a Measured Resource of 5.5 million tonnes at 0.84g/t Au, 9.99g/t Ag, 1.12% Zn and 0.32% Pb, an Indicated Resource of 2.6 million tonnes at 0.80g/t Au, 10.23g/t Ag, 0.94% Zn and 0.35% Pb and an Inferred Resource of 0.8 million tonnes at 0.50g/t Au, 8.62g/t Ag, 0.48% Zn and 0.17% Pb (at a cut-off grade of 0.2g/t Au).

The Company also has a number of early stage exploration projects where initial exploration activities have identified anomalous copper, molybdenum and gold values.

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Colin Sinclair, BSc, MSc, who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of the Company as Executive General Manager.

Colin Sinclair has sufficient experience (over 30 years) which is relevant to the style of mineralisation, type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results'. Mr Sinclair, as Competent Person for this announcement, has consented to the inclusion of the information in the form and context in which it appears herein.

SRK Consulting (Chile) S.A.

Metminco supplied SRK with a geological model and the drill data. Copper and molybdenum grades were estimated into a block model using ordinary kriging with GEMCOM software.

The information provided in this ASX Release as it relates to Exploration Results and Mineral Resources is based on information compiled by George G. Even, Principal Geologist of SRK Consulting in Santiago, Chile. Mr Even, a Qualified Person for JORC compliant statements, reviewed the technical information presented in this document. Mr Ernesto Jaramillo, Principal Resource Geologist with SRK Santiago, performed the resource estimation. Mr Even has sufficient experience that is relevant to the style of mineralisation and type of mineral deposit under consideration, and to the activity which was undertaken, to make the statements found in this report in the form and context in which they appear.

Mr Even and Mr Jaramillo have consented to be named in this announcement, and have approved of the inclusion of the information attributed to them in the form and context in which it appears herein.

Forward Looking Statement

All statements other than statements of historical fact included in this announcement including, without limitation, statements regarding future plans and objectives of Metminco are forward-looking statements. When used in this announcement, forward-looking statements can be identified by words such as ‘’anticipate”, “believe”, “could”, “estimate”, “expect”, “future”, “intend”, “may”, “opportunity”, “plan”, “potential”, “project”, “seek”, “will” and other similar words that involve risks and uncertainties.

These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management of Metminco that could cause Metminco’s actual results to differ materially from the results expressed or anticipated in these statements.

The Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. Metminco does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law and stock exchange listing requirements.

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ABBREVIATED GLOSSARY

Assay
An analysis to determine the presence, absence or quantity of one or more chemical components.

Base Metal
A metal, such as copper, lead, nickel, zinc or cobalt.

Block caving
A method of underground mining in which large blocks of ore are undercut, causing the ore to break or cave under its own weight enabling extraction of the ore at a relatively low cost.

Breccia
Rock fragmented into angular components.

CIM N1 43-101 Code
The Canadian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves sets out minimum standards, recommendations and guidelines for Public Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Circuit
A processing facility for removing valuable minerals from the ore so that it can be processed and sold.

Copper (Cu)
A ductile, malleable base metal with a myriad of uses in construction (piping, wire) and electronics due to its high electrical and thermal conductivity and good resistance to corrosion.

Copper equivalent (CuEq)
Copper equivalent is based on the recovered value of the non-copper by-products (gold and molybdenum) relative to the recovered value of copper. For example, at a long term copper price of US$2.75/lb with Cu recovery of 87% and a molybdenum price of US$15.00/lb with recovery of 68% , 1 pound of molybdenum is equivalent to 4.2633 pounds of copper (Cu:Mo ratio of 1:4.2633).

Diamond drilling / drill hole
A method of obtaining a cylindrical core of rock by drilling with a diamond impregnated bit.

Diatreme
A diatreme is a breccia-filled volcanic pipe that was formed by a gaseous explosion. Diatremes often breach the surface and produce a tuff cone, a filled relatively shallow crater known as a Maar, or other volcanic pipes.

Drill core
The long cylindrical piece of rock brought to surface by diamond drilling.

Environmental Impact Study (EIS)
A written report, compiled prior to a production decision that examines the effects proposed mining activities will have on the natural surroundings.

Exploration
Prospecting, sampling, mapping, diamond drilling and other work involved in searching for ore.

Feasibility Study
A feasibility study is an evaluation of a mineral resource to determine whether it can be mined effectively and profitably. It includes the detailed study of reserve estimation, mining methods evaluation, processing technique analysis, capital and operating cost determination and the process effect on the environment and community. This detailed study forms the basis for capital estimation, and provides budget figures for the development of the project. It requires a significant amount of formal engineering work and an accuracy within 10 to 15%.

Gold (Au)
A heavy, soft, ductile, malleable precious metal used in jewellery, dentistry, electronics and as an investment.

Grade
The amount of valuable metal in each tonne or ore, expressed as grams per tonne for precious metals and percent in the case of copper and parts per million (ppm) in the case of molybdenum. *Cut-off grade* – is the minimum metal grade at which a tonne of rock can be processed on an economic basis. *Recovered grade* – is the actual metal grade realised by the metallurgical process and treatment of ore, based on actual experience or laboratory testing.

Indicated Mineral Resource
An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

Inferred Mineral Resource
An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

JORC Code
The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves.

Measured Mineral Resource
A 'Measured Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

Metallurgy
The science and technology of extraction of metals from their ores and the refining of metals.

Mineralisation
The concentration of metals and their chemical compounds within a body of rock.

Mineralised envelope
The boundary constraining the extent of the identified mineralisation, as delineated by a nominated grade or cut-off.

Mineral Resource
A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

Molydenum (Mo)
Molybdenum is commonly a by-product of copper mining. It has the ability to withstand extreme temperatures and has a high resistance to corrosion. Molybdenum is widely used as an alloy agent in stainless steel. It is also used to manufacture aircraft parts and industrial motors.

NPV
Net present value is the difference between the present value of a future cash flow from an investment and the amount of investment, where the present value of the expected cash flow is computed by discounting the cash flow at the required rate of return.

Open Pit
A mine that is entirely on surface. Also referred to as open-cut or open-cast mine.

Ore
Rock containing mineral(s) or metals that can be economically extracted to produce a profit.

Ordinary Kriging

Is a geostatistical approach to modeling. Instead of weighting nearby data points by some power of their inverted distance, ordinary kriging relies on the spatial correlation structure of the data to determine the weighting values. This is a more rigorous approach to modelling, as correlation between data points determines the estimated value at an unsampled point.

Orebody
Generally, a solid and fairly continuous mass of ore, which may include low-grade ore and waste as well as pay ore, but is individualised by form or character from adjoining country rock.

Oz
Troy ounce (31.1035 grams).

Pit optimisation study
Pit optimisation studies are used for open pit mine planning to determine those pit limits and mining sequences that yield maximum financial returns based on defined technical parameters, operating costs and commodity prices.

Porphyry
A rock consisting of larger crystals embedded in a more compact finer grained groundmass.

Porphyry copper deposit
A copper deposit which is associated with porphyritic intrusive rocks and the fluids that accompany them during the transition and cooling from magma to rock. Porphyry copper deposits are typically mined by open-pit methods.

PPM
Parts per million, also grams/tonne

Pre-feasibility study
A preliminary assessment of the technical and economic viability of a proposed project. Alternative approaches to various elements of the project are compared, and the most suitable alternative for each element is recommended for further analysis. Costs of development and operations are estimated. Anticipated benefits are assessed such that some preliminary economic criteria for evaluation can be calculated. Preliminary feasibility studies are completed by a small group of multi-disciplined technical individuals and have an accuracy within 20 to 30%.

Recovery
A term used in process metallurgy to indicate the proportion of valuable material obtained in the processing of an ore. It is generally stated as a percentage of valuable metal in the ore that is recovered compared to the total valuable metal present in the ore.

Reverse circulation drilling (RC drilling)
Percussion drilling method using a rotating bit and high pressure air to sample sub-surface material through the recovery of broken rock fragments ('rock chips').

Strip ratio
The ratio of tonnes removed as waste relative to the number of tonnes of ore removed from an open-pit mine.