ASX ANNOUNCEMENT 04 March 2013

LOS CALATOS PROJECT– INDEPENDENT MINING SCOPING STUDY CONFIRMS LOW COST, LONG LIFE COPPER MINE

Metminco Limited ("Metminco") (ASX : MNC; AIM : MNC) is pleased to announce the results of the Mining Scoping Study (the "Study") on its 100% owned Los Calatos copper project located in the prolific copper-molybdenum mining district of southern Peru some 32 km to the north-northwest of the town of Moquegua (Appendix 1).

The Study, undertaken by an independent, internationally experienced mining consulting firm, highlights the following:

- Optimised operation comprising open pit followed by underground block cave mining operation
- Long-life asset with 31-year Life of Mine ("LoM")
- Total material treated over LoM of 656 million tonnes at 0.45% Cu and 0.026% Mo (0.56% CuEq)
- Initial open pit operation with a 7-year life and a low strip ratio of 2.2:1
- Average annual copper in concentrate production of 83.3kt (184m lbs)
- Lowest quartile LoM cash operating costs net of credits of U$1.09/lb
- Pre-production capital expenditure of U$1.5bn including initial underground development
- Project now suitably advanced to consider alternatives for project financing and development, including potential introduction of a strategic partner

Mr William Howe, Managing Director, commented: *"The robust outcome of the mining scoping study is an exciting development for Metminco as we pursue our vision of becoming a leading mid-tier copper producer. Los Calatos is now well placed for development as a long-life, low cost, operation in an investment friendly jurisdiction in South America. Further, it is highly deliverable with the designated status of a 'Project of National Interest' by the Peruvian government, no competing land usage, seawater accessed for metallurgical processing purposes and relatively low power costs compared to similar operations in Chile.*

The project has the potential to be a world-class copper mine, which, against a global backdrop of diminishing long life copper projects in mining friendly jurisdictions, should command significant strategic interest. The completion of the Study significantly de-risks Los Calatos and allows Metminco to consider its full range of strategic options in relation to the financing and development of the mine. With cash on hand of US$17 million early January 2013, and multiple advanced stage development assets, the Company has considerable flexibility to focus on the projects and development strategies most likely to deliver real shareholder value in the long term."

KEY RESULTS

Mining Study returns positive results

The Study, undertaken by NCL Ingeniería y Construcción Ltda ("NCL"), an independent Chilean based engineering group with substantial experience in underground block cave design, has determined that the optimal development scenario for Los Calatos is a combination of an open pit and underground mining operation (see schematic representation in Appendix 2), with a combined LoM of 31 years, at a mining and processing rate of 21.9 million tonnes per annum (60,000 tonnes per day). The tonnes mined and treated over the life of the mine total 656 million tonnes as detailed in Table 1.

Table 1: Total tonnes mined– Preferred Mining Scenario (February 2013)

Type of Mining Operation	Tonnes (million)	Cu (%)	Mo (%)	CuEq (%)
Open Pit	194	0.37	0.018	0.44
Underground – Bulk Mining	462	0.49	0.029	0.61
Total tonnes mined	**656**	**0.45**	**0.026**	**0.56**

The key results of the Study, as concluded by NCL, are summarised in Tables 2 and 3 below:

Table 2: Preferred Mining Scenario – LoM operational parameters

Parameter	Life of Mine
Annual tonnes milled (millions)	21.9
Average annual copper in concentrate (kt)	83.3
Average annual molybdenum in concentrate (kt)	3.7
Strip Ratio (open pit)	2.2:1
Mining costs (US$/t)	7.11
Processing costs (US$/t)	4.55
G & A costs (US$/t)	0.59
Cash operating costs *net of credits (*US$/lb copper)	1.09
Pre-production capital (US$ millions)	1,506.3

Note:

i) Cash operating costs exclude government royalties, but include all other costs and royalties.

The envisaged development schedule can be summarised as follows:

- **Years 1 to 4:** Commence underground development;
- **Years 3 and 4:** Pre-strip of open pit with stockpiling of supergene ore. Commence construction of plant and infrastructure;
- **Years 5 to 11:** Open pit mining and processing, and establishment of low grade stockpile. Continued underground development; and
- **Years 12 to 35:** Underground bulk mining (block caving), which is supplemented by lower grade ore from the open pit stockpile over the period Years 12 to 16.

The project development schedule allows for construction of the surface infrastructure and the metallurgical plant to be undertaken simultaneously with the development of the open pit operation. However, in order to commence underground bulk mining in Year 12, the requisite development would have to be initiated two years prior to the development of the open pit.

The life of the open pit is estimated to be seven years, during which time a low grade stockpile will be established, which will supplement high grade ore from the underground operation during the underground ramp-up stage (Years 12 to 16).

Table 3: Preferred Mining Scenario – open pit and underground mine parameters

Parameter	Open Pit	Underground	Life of Mine
Total tonnes mined (millions)	194	462	656
Average copper grade (%)	0.37	0.49	0.45
Average molybdenum grade (%)	0.018	0.029	0.026
Mining costs (US$/t ore milled)	4.19	8.34	7.11
Processing costs (US$/t ore milled)	4.55	4.55	4.55
G & A costs (US$/t ore milled)	0.59	0.59	0.59
Total site costs (US$/t ore milled)	9.33	13.48	12.25
Total off-site costs (US$/t ore milled)	3.35	3.35	3.35

The annual contained copper and molybdenum metal in concentrate is expected to average 83.3kt and 3.7kt respectively over the LoM. An annual copper equivalent metal production profile for the LoM is presented in Appendix 3.

Cash operating costs, net of by-product credits, are expected to average US$1.09/lb of copper over the LoM, with the average operating cost per pound of copper over the life of the open pit being similar to that for the underground operation (due to the higher grade ore from the underground operation offsetting higher mining costs). As can be seen from Appendix 3, the cash operating costs compare favourably with global cash costs, ranking in the lowest quartile of global producers.

Key parameters used in the derivation of the by-product credits are summarised in Appendix 4. Further assumptions used in the Study are summarised in Appendix 5.

The initial capital requirement for the establishment of the open pit, surface infrastructure, metallurgical plant and underground development is estimated at US$1,506 million, which includes a 20% contingency by virtue of the current developmental status of the project (Appendix 6). Hence, the maximum drawdown on capital pre-production from the open pit is estimated at US$1,506 million. Sustaining capital will be funded from cashflow.

The underground mine infrastructure will consist of a twin decline system, one for personnel and equipment, and an adjacent conveyor system for ore extraction. Four vertical raise-bored ventilation shafts will support the underground operations. Ore will be crushed through a primary crusher to be located underground.

Underground block caving

Underground block caving will be the mining method of choice at Los Calatos. This mining method involves preconditioning programs to assist cave propagation involving arrays of long blast holes into the rock mass overlying the planned undercuts, whereafter gravity takes effect. Whilst underground block caving has a higher level of risk than an open pit operation, this can be managed through the application of best practice mine designs and scheduling. Due to the high levels of productivity, unit operating costs are substantially lower than other underground mining methods. In addition, the environmental footprint is reduced considerably by comparison to large open pit operations.

Block cave mining was first adopted in Chile as far back as 1924 (Potrerillos mine), and lends itself to the underground mining of large porphyry copper systems where strip ratios become excessive. It is furthermore the large scale mining method of choice for porphyry deposits as discoveries get deeper, head grades decline and strip ratios become excessive. Examples of large copper mines where block caving has successfully been used include El Teniente and Andina (Chile), Northparkes (Australia), Palabora (South Africa), and Grasberg (Indonesia).

Increased Mineral Resource Estimate – February 2013

The Company has updated the January 2013 Mineral Resource Estimate completed by SRK Consulting (Chile) S.A. ("SRK") to provide for recent modelling of the near surface supergene mineralisation evident at Los Calatos and further pit optimisation work. This has resulted in an increase of those mineral resources which are amenable to open pit mining, and a minor decrease in the underground bulk mining resource (Table 4). Overall there has been a 16% increase in the CuEq metal reporting into the open pit by comparison to the January 2013 Mineral Resource Estimate (See detailed Mineral Resource Statement in Appendix 7).

Table 4: Total Mineral Resource – Preferred Mining Scenario (February 2013)

Potential mining method	Tonnes (million)	Cu (%)	Mo (%)	CuEq (%)
Open Pit	304	0.36	0.018	0.44
Underground – bulk mining	1,058	0.51	0.024	0.61
Total Mineral Resource	**1,362**	**0.48**	**0.023**	**0.57**

Note:

i) Open Pit: Mineral resource estimate reported at a 0.15% CuEq cut-off grade.
ii) Underground: Mineral resource estimate reported at a 0.35% CuEq cut-off grade.
iii) Cu:Mo ratio of 1:4.2633 used to derive CuEq (refer Appendix 7 for basis of calculation).

The recognition of higher grade domains within the Los Calatos porphyry system following the conclusion of the intensive Phase 4 drilling in October 2012, and the delineation of the supergene mineralisation present to a depth of 250 metres below surface, has contributed substantially to the proposed mining plan for the development of the deposit.

Pre-feasibility study planning

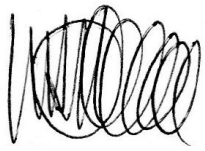
The Company is currently completing detailed investigations that are a pre-requisite for the commencement of a pre-feasibility study. To this end the Company is currently undertaking the following:

- Mineralogical work to classify the different ore types for further metallurgical testwork;
- Oceanographic studies for the positioning of loading facilities at the coast;
- Positioning of an infrastructure corridor to the coast; and
- Identifying the optimal location for the planned tailings dam.

Further exploration work at Los Calatos will focus on detailed mapping and geochemical sampling of the target areas identified by earlier geophysics and geochemistry. This will include the sterilisation work required to identify suitable areas for the establishment of surface infrastructure (e.g. waste dumps, metallurgical plant and tailings dam), in addition to testing the high priority exploration targets not influenced by such surface infrastructure. Further in-fill drilling within the supergene zone, which occurs within the upper 250 metres of the deposit, will also be undertaken.

Further optimisation of the open pit and underground mining operations, including the mining and processing rate, will occur during the pre-feasibility and feasibility stages with a view to further enhancing the economics of the project.

With cash on hand of US$17 million in early January 2013, and based on the positive results of the Study and advanced stage of its other development assets, the Company is now well positioned to pursue its stated objective of investigating strategic alternatives for the continued development of Los Calatos.



William Howe

Managing Director

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 304 million tonnes at 0.44% CuEq at a cut-off grade of 0.15% CuEq to a vertical depth of 500 metres below surface and an underground bulk mining mineral resource of 1,058 million tonnes at 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).

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 Project with a mineral resource of 8.9 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.

NCL Ingeniería y Construcción Ltda

NCL was commissioned by Minera Hampton Peru SAC ("Hampton"), a wholly owned subsidiary of Metminco, to develop a conceptual mining study for the Los Calatos copper - molybdenum project.

In accordance with Hampton's requirements, the work developed by NCL consisted of analysing different alternatives for the exploitation of the deposit and to carry out, at a conceptual level, the design and mine planning of the selected option. Moreover, NCL calculated the operating costs and capital cost of the mining works, in addition to the capital costs for the process plant and infrastructure, using an estimation model of CAPEX and OPEX for flotation plants.

The study was based on the block model and economic information provided by Hampton, as well as NCL data from similar projects in the region. In the calculation of the economic resources, measured, indicated and inferred mineral resources were considered, with 23% of mineralised material reporting into the mining plan having been derived from inferred mineral resources.

NCL certifies that the results reported by Hampton correspond to those obtained by NCL in the conduct of the study.

The reader is cautioned that the mining study, which is an integral part of this report, is of a preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorised as mineral reserves. There is no certainty that the preliminary economic assessment will be realised. No mineral reserves have been estimated.

NCL's experience from a consultancy perspective has included block cave mining projects in Chile, Colombia, Papua New Guinea and Australia. The nature of the work conducted by them includes aspects such as mine design and planning, mining methods, material handling and infrastructure and has been conducted at levels varying from Conceptual Studies, through Scoping Studies to Pre-Feasibility Studies, and where required, detailed engineering design. Recent work undertaken by NCL has involved mining operations such as La Colosa (AngloGold Ashanti Colombia S.A.), Golpu (Newcest Mining Ltd.), El Teniente (Codelco) and Rosario Oeste (Cía Minera Doña de Collahuasi SCM), with historical involvement in projects the size of Chuquicamata (Codelco).

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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APPENDIX 1

Locality Plan – Los Calatos Copper Project

APPENDIX 2

Sections: Preferred Mining Scenario

Figure 1: Schematic – Section looking northwest showing the open pit, underground bulk stopes and the associated development

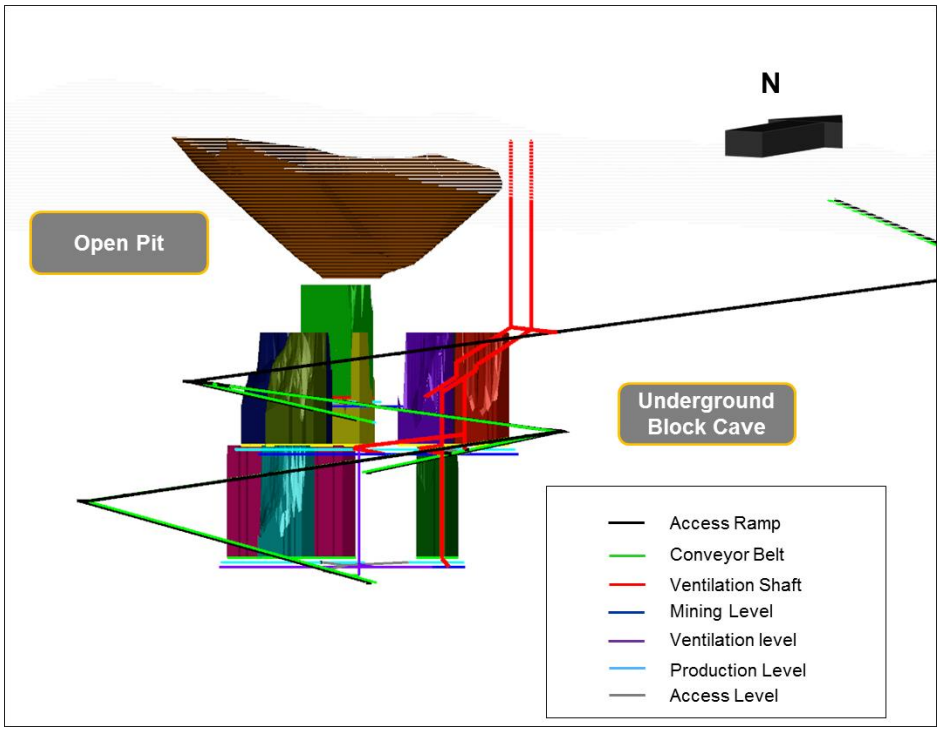
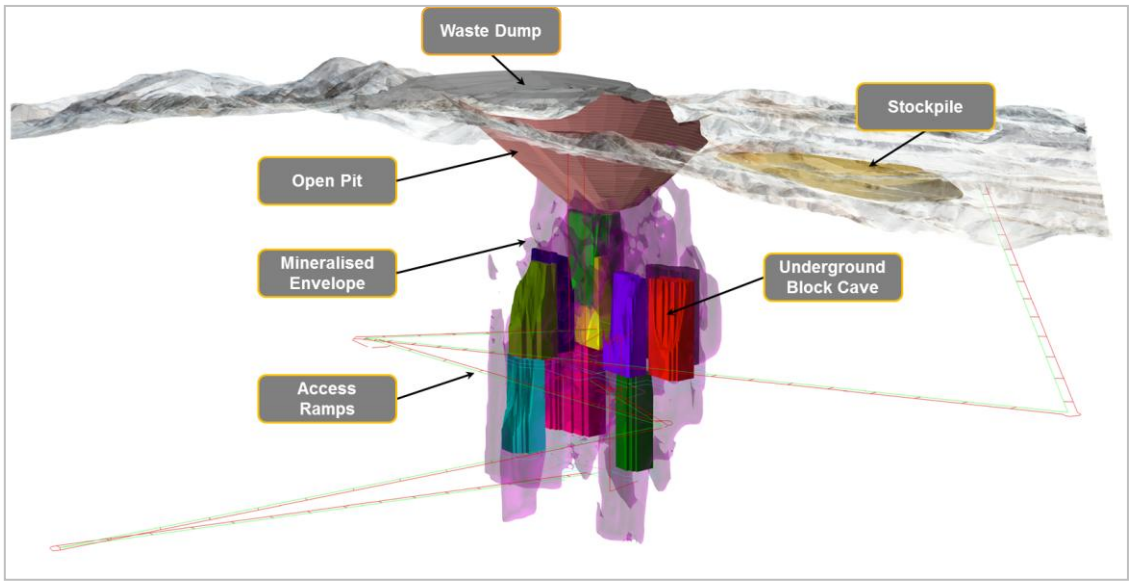
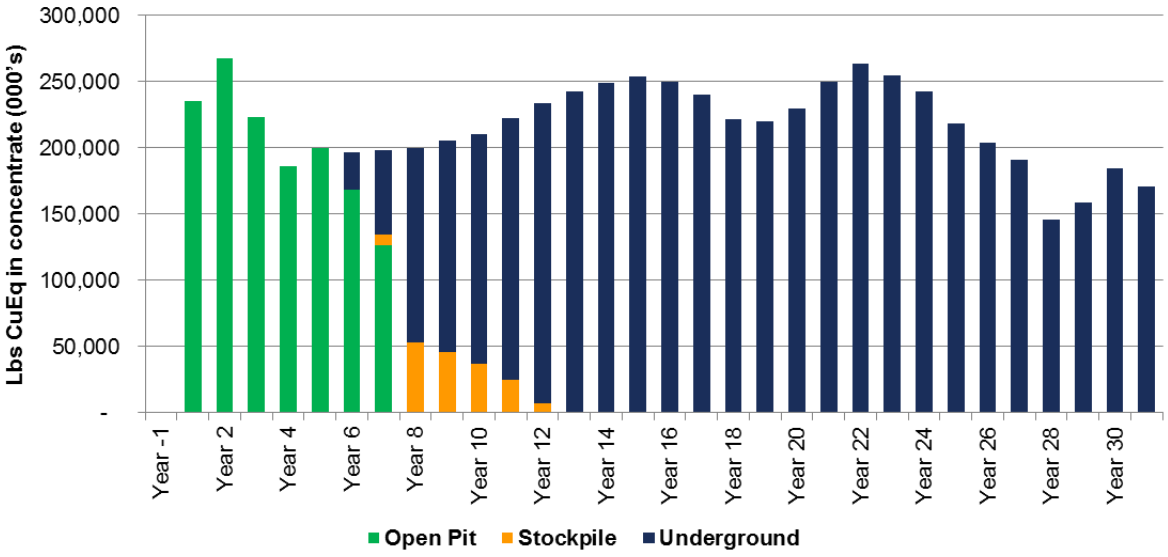


Figure 2: Schematic – Section looking northwest showing the surface DTM, open pit, underground bulk stopes and the mineralised envelope at a 0.35% CuEq cut-off (purple) constraining the bulk stopes

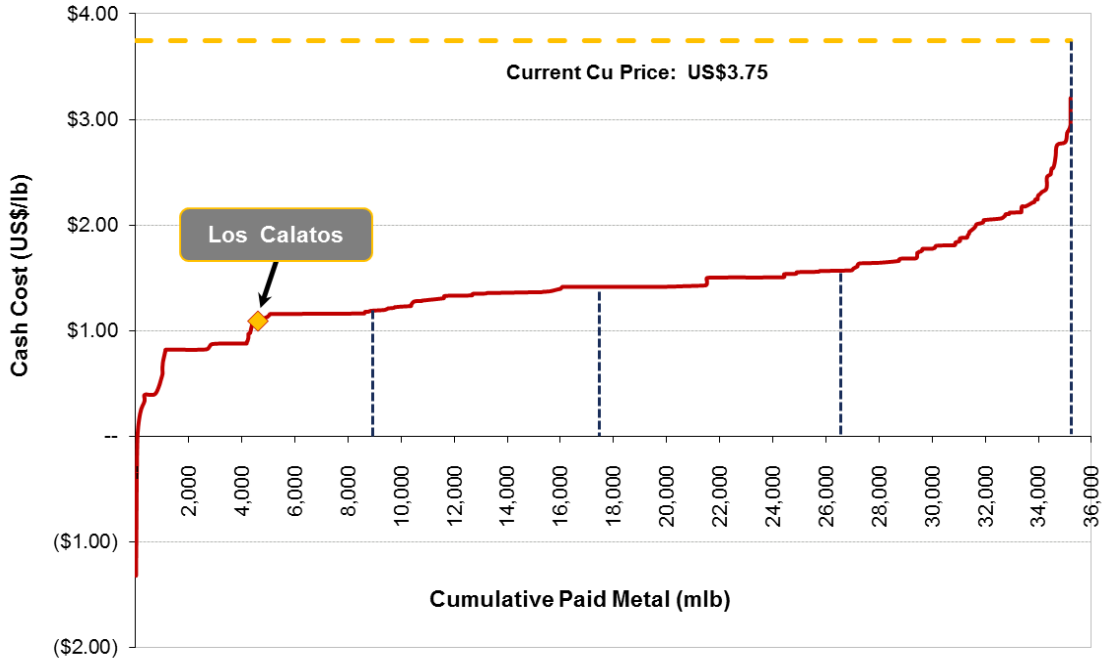


APPENDIX 3

Annual CuEq metal in concentrate by source



2013E Global cash cost estimates by producer – copper



Source: Modified after Bloomberg, Wood Mackenzie
Net of by-product credits (if any)

APPENDIX 4

Estimation of by-product credits

Assumptions used for the derivation of by-product credits in support of the mining options study are summarised as follows:

	Factor
Average annual contained molybdenum in molybdenum concentrate (tonnes)	3,700
Molybdenum recovery into molybdenum concentrate (%)	68
Payable molybdenum (%)	85
Gold grade in copper concentrate (g/t)	1.25
Gold deduction per tonne of concentrate (g/t)	0.5
Silver grade in copper concentrate (g/t)	42
Silver deduction per tonne of concentrate (g/t)	30
Rhenium head grade (ppm)	0.735
Rhenium recovery into molybdenum concentrate (%)	68
Payable Rhenium (%)	40

Note:

Commodity prices used: Copper US$2.75/lb; Molybdenum US$15.00/lb; Gold US$1,500/oz; Silver US$25/oz and Rhenium US$2,000/lb.

APPENDIX 5

Other assumptions

	Life of Mine
Payable copper in concentrate (%)	96.5
Treatment Charges - Copper (US$/t)	70
Refining Charges - Copper (US$/lb)	0.07
Transport – copper concentrate, land and port costs (including insurance) (US$/t)	32
Transport – copper concentrate, sea freight (including insurance) (US$/t)	60
Transport – molybdenum concentrate, sea freight (including insurance) (US$/t)	125
Refining Charges - Gold (US$/oz)	6

APPENDIX 6

Pre-production capital expenditure

	US$ (millions)
Pre-production capital	
Flotation plant, tailings dam & water and concentrate pipelines	814
Open pit including pre-strip and equipment	255
Underground mine including development and equipment	167
Infrastructure including power supply, port, access, site facilities, workshop & osmosis plant	227
Owners costs	43
Total	**1,506**

Note:
Average contingency of 20% on all capital.

APPENDIX 7

Mineral Resource Estimate – February 2013

Since the release of the January 2013 Mineral Resource Estimate compiled by SRK, the Company has updated the latter Mineral Resource Estimate to provide for additional modelling of the near surface supergene mineralisation, as well as further pit optimisation work, which has resulted in an increase in the resources amenable to open pit mining, and a minor decrease in the underground bulk mining resources.

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 Project to a vertical depth of 500 metres below surface, SRK, February 2013

Resource Classification	Tonnes (million)	Cu (%)	Mo (%)	CuEq (%)
Measured	121	0.35	0.027	0.47
Indicated	117	0.35	0.016	0.42
Total Measured and Indicated	**238**	**0.35**	**0.022**	**0.44**
Inferred	66	0.40	0.006	0.43

Note:
i) Reported at a cut-off of 0.15% CuEq, above 2500 masl.
ii) Rounding-off of figures may result in minor computational discrepancies; where this happens, it is not deemed to be significant.

Table 2: Mineral Resource Statement for the Los Calatos Project sub-500 metres below surface, SRK, February 2013

Resource Classification	Tonnes (million)	Cu (%)	Mo (%)	CuEq (%)
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	292	0.52	0.018	0.60

Note:
i) Reported at a cut-off of 0.35% CuEq, below 2500 masl.
ii) Rounding-off of figures may result in minor computational discrepancies; where this happens, it is not deemed to be significant.

When compared with the January 2013 Mineral Resource Estimate, it can be seen that there has been an increase in total resources reporting into the open pit of 29.5 million tonnes (representing a 16% increase in the CuEq metal content). However, there has been a slight reduction in the Measured and Indicated Mineral Resource categories of 16 million tonnes due to an increase in the Inferred Mineral Resource category associated with the supergene resource. Further in-fill drilling within the supergene zone, which occurs within the top 250 metres of the deposit, will be required as part of the pre-feasibility study.

More detailed information on the grade-tonnage profile and sensitivities of the resource to various cut-off grades is contained in Table's 3 and 4 below.

Table 3: Sensitivities of mineral resource to CuEq cut-off grades (to a depth of 500 metres below surface)

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	59	0.51	0.040	48	0.56	0.025	107	0.53	0.033	27	0.65	0.009	134	0.56	0.028	0.68
0.35	70	0.47	0.037	57	0.53	0.023	127	0.50	0.031	31	0.61	0.008	158	0.52	0.026	0.63
0.30	80	0.45	0.035	66	0.49	0.022	146	0.47	0.029	36	0.57	0.008	182	0.49	0.025	0.59
0.25	88	0.42	0.034	75	0.46	0.021	163	0.44	0.028	42	0.53	0.007	205	0.46	0.024	0.56
0.20	97	0.40	0.032	86	0.42	0.019	183	0.41	0.026	52	0.47	0.007	235	0.42	0.022	0.52
0.15	121	0.35	0.027	117	0.35	0.016	238	0.35	0.022	66	0.40	0.006	304	0.36	0.018	0.44
0.10	172	0.28	0.020	172	0.27	0.012	344	0.28	0.016	85	0.34	0.005	429	0.29	0.014	0.35

Table 4: Sensitivities of mineral resource to CuEq cut-off grades (sub-500 metres below surface)

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	193	0.70	0.035	304	0.69	0.044	110	0.71	0.030	414	0.69	0.040	0.86
0.55	131	0.63	0.060	233	0.66	0.032	364	0.65	0.042	139	0.67	0.027	503	0.65	0.038	0.82
0.50	156	0.59	0.050	282	0.63	0.029	438	0.62	0.036	170	0.63	0.024	608	0.62	0.033	0.76
0.45	191	0.56	0.045	343	0.59	0.026	534	0.58	0.033	204	0.60	0.022	738	0.59	0.030	0.71
0.40	234	0.52	0.039	416	0.55	0.023	650	0.54	0.029	242	0.56	0.020	892	0.54	0.026	0.66
0.35	281	0.48	0.035	485	0.52	0.022	766	0.51	0.027	292	0.52	0.018	1,058	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

Copper Equivalent (CuEq) Calculations

The copper equivalents are calculated according to the following formula and assumed metal prices and recoveries:

CuEq% = Cu% + [((PMo x RecMo) / (PCu x RecCu)) x Mo%]

Cu Price (PCu)= US$2.75/lb

Mo Price (PMo) = US$15.00/lb

Cu Recovery (RecCu) = 87%

Mo Recovery (RecMo) = 68%

Thus, the formula used is: ***CuEq% = Cu% + [4.2633 x Mo%]***

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.

Cash operating costs / lb copper (net of credits)
Cash operating costs include a 2% net smelter return payable to a third party less by-product credits received from the sale of molybdenum, gold, silver and rhenium, divided by the copper produced over the defined period.

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%.

Geo-domain
Homogeneous geological domains within a deposit identified on the basis of spatial continuity of grades and geological features such as lithology, mineralogy and alteration.

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.

ICP
Inductively Coupled Plasma. Analytical technique used for the detection of trace elements in soils.

Isograde
Line of equal grade, often used to delineate a material change in grade across a geological boundary.

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.

Los Calatos Mining Study (the "Study")
The Mining Study completed by NCL has been conducted at a scoping level with a level of accuracy of ±35%.

Leachable (soluble) copper
Total acid and cyanide soluble copper.

Leaching
A chemical process for the extraction of valuable minerals from ore.

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.

Molybdenum (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
A geostatistical approach to estimating grades. 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’).

Solvent extraction and electrowinning (SX-EW)
A metallurgical technique, so far applied only to copper ores, in which metal is dissolved from the rock by organic solvents and recovered from solution by electrolysis.

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