



#### **ASX Announcement**

06 September 2017

ASX Code: ARM

#### Aurora Minerals Group of Companies

Diversified Minerals Exploration via direct and indirect interests

Predictive Discovery Limited (ASX: PDI) – 39.6% - Gold Exploration / Development in Burkina

Faso

Peninsula Mines Limited (ASX: PSM) – 29.7%

 Graphite, Lithium- Gold, Silver and Base Metals
 Molybdenum and Tungsten Exploration in South Korea

Aurora Western Australian Exploration – 100%

- Manganese, Base metals and gold

#### **Contact Details**

Principal & Registered Office Suite 2, Level 2 20 Kings Park Road West Perth WA 6006

Martin Pyle – Managing Director Tel: +61 8 6143 1840

Karen Oswald – Media and Investor Relations Tel: +61 423 602 353

Ken Banks – Investor Relations Tel: +61 402 079 999

Website www.auroraminerals.com



# Peninsula Mines: Massive Sulphide Copper-Gold Zone Discovered in Outcrop at Ubeong Project

Peninsula Mines Limited, a company in which Aurora Minerals Limited holds a 29.7% shareholding, today announced that a massive sulphide copper-gold zone was discovered at the Viper Prospect at its Ubeong Project in South Korea, with drilling next week to test Taipan and Cobra Zn-Pb-Ag and Cu-Au targets.

A copy of the announcement is attached.

For further information please contact:

Martin Pyle Managing Director Telephone: +61 8 6143 1840 Media Karen Oswald Marko Communications Mob: +61 423 602 353



# **ASX ANNOUNCEMENT**

06 September 2017

# MASSIVE SULPHIDE COPPER-GOLD ZONE DISCOVERED IN OUTCROP AT UBEONG PROJECT

# Drilling next week testing Taipan and Cobra Zn-Pb-Ag & Cu-Au Targets

- Outcropping massive sulphide zone over 6m wide with significant chalcopyrite (copper) discovered at Viper Prospect, which produced hand-held XRF results of up to 3.8% copper
- Massive sulphide potentially links 300 metres along strike to the northeast with previously identified pyrrhotite-chalcopyrite sulphide skarn that has been traced across a 27m width<sup>D1</sup>
- Channel sampling is in progress across both of the copper-bearing massive sulphide zones
- First hole of multiple diamond drill hole program, testing Copperhead IP chargeability target, suspended pending petrophysics on drill core and potentially down-hole IP to locate target zone
- Further drilling of up to three holes planned to commence next week to test Taipan and Cobra high-grade zinc-lead-silver and copper-gold targets

## The Viper Massive-Sulphide Copper-Gold Skarn:

Peninsula Mines Limited ("Peninsula" or "the Company") is pleased to announce that it has discovered an outcropping massive sulphide copper-gold skarn at least 6m wide, and dipping steeply to the southeast, at the Viper Prospect, in the Chilbo historical workings area, at the Company's Ubeong Zinc-Lead-Silver and Copper-Gold Project in South Korea (inset, Figure 1).

The massive sulphide zone was discovered during follow up of a 4,162ppm copper (0.42% Cu) soil anomaly at the eastern end of the Taipan Prospect. The outcropping massive sulphide zone strikes northeast-southwest, dips steeply southeast and was initially mapped over a >6m width. Field examination indicates the presence of chalcopyrite, minor sphalerite as well as pyrrhotite (iron sulphide) and arsenopyrite. An initial five rockchip/channel samples across the >6m wide zone were tested with hand-held XRF, producing **initial readings ranging from 0.38% Cu to 3.8% Cu**. The five samples were submitted to ALS in Perth and results are summarised in Table 1 below and **include up to 0.7% Cu and 0.23 g/t gold (Au), indicating that this is a proximal copper-gold (iron) skarn**.

Systematic channel sampling using a diamond impregnated rock-saw has now been completed across this zone and results will be reported when available. The use of a rock-saw allows the channel sampling to effectively simulate diamond drilling, at surface.

					-,		
Sample Number	Easting UTM 52N	Northing UTM 52N	To (m)	Comments	Cu%	Au g/t	Fe %
UBG0305	513,673	4,078,309	1.00	Goss. massive sulphide	0.088	0.007	38.0
UBG0306	513,674	4,078,307	1.00	Mass. Sul. Po, Aspy, Cpy	0.307	0.059	28.2
UBG0307	513,674	4,078,308	0.76	Mass. Sul. Po, Aspy, Cpy	0.724	0.231	26.6
UBG0308	513,674	4,078,306	1.00	Mass. Sul. Po, Aspy, Cpy	0.323	0.111	28.4
UBG0309	513,658	4,078,305	2.24	Mass. Sul. Po, Aspy, Cpy	0.482	0.098	28.6

Table 1: Selected analytical results from the Viper massive sulphide, Ubeong Project:

Mass. = massive, Sul. = Sulphide, Po = Pyrrhotite, Aspy = Arsenopyrite, Cpy = chalcopyrite See Appendix 1 & 2 for a full list of results and specific sample location details

Peninsula Mines Limited (ASX: PSM)

Principal & Registered Office Suite 2, Level 2 20, Kings Park Road West Perth, WA 6005 www.peninsulamines.com.au Jon Dugdale, Chief Executive Officer Tel: +61 8 6143 1840 jdugdale@peninsulamines.com.au Karen Oswald, Media and Investor Relations Tel: +61 423 602 353 Ken Banks, Investor Relations Tel: +61 402 079 999



Figure 1: Ubeong, Chilbo area, soil sampling and rock chip sample results (Cu) on TMI ground magnetics<sup>D2</sup>



Figure 2: Ubeong Project, Chilbo area, Taipan/Viper Targets Massive Sulphide Cu-Au-Ag zone sampling



To the northeast of the new massive sulphide discovery there is a zone of historical workings that have produced high grade Cu (up to 2.2%) and Au (up to 4.87 g/t) rock chip results<sup>D2</sup> in an area of high magnetic intensity, known as the "**Viper**" Target (see Figure 1). Mapping has located an outcropping pyrrhotite-chalcopyrite sulphide skarn exposed in a creek (see Photo 1 below), and traced across a 27m width before being obscured by leaves and soil. Infill 50m x 25m soil sampling, completed along the entire Viper (and Adder) target zones, and channel sampling using a rock-saw is underway.

## Drilling Progress and New Holes planned to test the Taipan and Cobra Targets:

The first diamond drill hole testing the Copperhead IP Chargeability target (see Figure 3 below), UBD0001, has intersected a sequence of predominantly pelitic (meta-mudstone) rocks with some psammite (meta-sandstone) representing the interpreted cover sequence. Minor sulphides including pyrrhotite and pyrite have been observed in the foliated pelitic rocks with isolated veins with galena (lead) and sphalerite (zinc). Deeper in the hole, from 198m to 208m, minor graphitic shale units were intersected. The targeted skarn-limestone unit has not yet been intersected.



Figure 3: Ubeong, Chilbo Prospect, IP chargeability image with XRF soil & rockchip results (Cu) on limestone<sup>D1</sup>

The hole, UBG0001, has been suspended at 226m downhole. Petrophysical measurements will be carried out on drill core to determine if the hole has intersected sufficiently chargeable rock units to explain the intense chargeability feature detected using gradient array and dipole-dipole IP surveys<sup>D1</sup>, (see Figure 3). Drilling may then be carried out/extended to intersect the modelled position of the chargeable feature if it occurs outside the current hole.



The next holes of the planned program will test the **Taipan** and **Cobra Targets** (see Figures 1 and 3), where previous XRF soil sampling, recent rock chip sampling results (additional 51 samples collected across Ubeong Project and analysed for a range of elements at ALS in Perth, see Appendices 1 & 2, Figures 1, 2 and 4) and extensive shallow historical workings indicate significant and broad, northeast-southwest oriented zones of highly anomalous zinc-lead-silver and copper mineralisation in the sub-cropping skarn-limestone unit<sup>D1</sup>.

The **Taipan** Target is an east-west oriented zone of dimensions 300m x 150m that occurs close to the middle of the mapped limestone-skarn unit (see Figure 1). The Taipan Target is associated with a broad, strongly anomalous Zn (up to 0.59%), Cu (up to 4,162 ppm), Pb (up to 1,023 ppm) and Ag (up to 24.7 g/t) zone in soil sampling, coincident with a low-chargeability zone (see Figure 3) and "magnetic depletion" zone (see Figure 1), possibly due to the presence of sphalerite as the dominant sulphide species as sphalerite does not generally provide a strong IP or magnetic response.

The **Cobra** Target is a northeast-southwest oriented zone of dimensions 300m x 100m that is part of an 800m strike length zone of historical workings that occurs close to the northern mapped margin of the limestone-skarn unit (see Figure 1). The Cobra Target is characterised by strongly anomalous Zn (up to 1.4%), Cu (up to 1,281 ppm), Pb (up to 2,980 ppm) and Ag (up to 54.8 g/t) soil geochemistry and is coincident with a northeast-southwest trending chargeability response (see Figure 3). **Recent rockchip sampling results include up to 8% Cu, 3.26% Zn (UBG0200) and 3.79 g/t Au (UBG0202).** 

Drilling to test the Taipan and Cobra targets is planned to commence next week on 513,400mE.

## Background to the Ubeong Zinc-Silver and Copper-Gold Project

Peninsula has secured four granted tenements<sup>D4</sup> and multiple tenement applications over the eastern 10-kilometre strike length of a highly prospective, limestone-skarn unit that includes the historical Chilbo mine workings and adjoins the operating Keumho Zinc-Lead-Silver Mine (see Figure 4 below).

The high-grade, zinc-lead-silver and copper-gold<sup>D2</sup> mineralisation identified in the Chilbo workings area occurs towards the eastern end of the limestone skarn unit, associated with an extensively faulted zone that has offset the unit and is interpreted to have acted as a conduit for mineralisation.



Figure 4: Ubeong Project, mapped skarn-limestone unit with tenements on aero & ground magnetics image<sup>D8</sup>



The Company has previously announced high-grade, Zn-Ag (+/- Pb, Cu, Au), rockchip results from the vicinity of the historical Chilbo workings<sup>D2,D3,D5,D7,D8</sup>. The Company has also commenced detailed mapping, ground-based geophysical programmes (magnetics, electromagnetics and induced polarisation (IP) surveys) and detailed soil sampling programmes, with the objective of defining drilling targets for disseminated to massive sulphide zinc-lead-silver +/- copper-gold mineralisation.

For further information please contact:

#### Jon Dugdale

Managing Director Phone: +61 8 6143 1840 Email: jdugdale@peninsulamines.com.au

#### **About Peninsula Mines**

Peninsula Mines Ltd is an Australian listed, exploration/development company focused on developing the outstanding opportunities for mineral discovery within South Korea. Peninsula's strategy is to focus on mineral commodities that have a positive price outlook and offer potential for off-take and/or strategic partnerships in-country.

The Company is advancing a highly prospective zinc-lead-silver and copper-gold project at Ubeong in eastern South Korea, and also has a dual focus on advancing a series of flake-graphite projects, that offer potential to be advanced and developed to supply high technology, lithium-ion battery and/or expandable graphite applications for which South Korea is the major global end-user.

For full versions of the Company's releases see Peninsula's website www.peninsulamines.com.au

### The material and/or releases referenced in this release are listed below:

- D1 IP survey identifies very strong sulphide targets at Ubeong, 12/07/17
- D2 Exceptional zinc-zilver grades with copper & gold from surface sampling at Ubeong, 23/05/17
- D3 High-grade silver-gold-zinc rockchip results, Ubeong Project, South Korea, 26/04/17
- D4 Three key tenements granted, Ubeong Zinc Project, 28/03/17
- D5 Zinc project fast-tracked for drill targeting after exceptional soil sampling results, 9/03/17
- D6 Major zinc-skarn district identified at Ubeong Project in South Korea, 13/12/16
- D7 Further exceptionally high-grade zinc-silver results from Ubeong Project, South Korea, 31/10/16
- D8 Exceptional zinc-silver-lead grades from newly acquired Ubeong Project, South Korea, 13/9/16

### Forward looking Statements:

This release contains certain forward-looking statements. These forward-looking statements are not historical facts but rather are based on Peninsula Mines Ltd's current expectations, estimates and projections about the industry in which Peninsula Mines Ltd operates, and beliefs and assumptions regarding Peninsula Mines Ltd's future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" "potential" and similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Peninsula Mines Ltd, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Peninsula Mines Ltd cautions shareholders and prospective shareholders not to place undue reliance on these forwardlooking statements, which reflect the view of Peninsula Mines Ltd only as of the date of this release. The forward-looking statements made in this release relate only to events as of the date on which the statements are made. Peninsula Mines Ltd does not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this presentation except as required by law or by any appropriate regulatory authority.



#### **Competent Persons Statement:**

The information in this release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Daniel Noonan, a Member of the Australian Institute of Mining and Metallurgy. Mr Noonan is an Executive Director of the Company. Mr Noonan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Noonan consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

The information in this release that relates to Geophysical Results and Interpretations is based on information compiled by Mr William Peters, a Consulting Geophysicist (Crosmin Pty Ltd) at Southern Geoscience Consultants. Mr Peters is a Fellow of the Australasian Institute of Mining and Metallurgy and Chartered Professional (Geology) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Peters consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.



# JORC Code, 2012 Edition: Table 1 Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC – Code of Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	A total of 5 rock chip samples were collected from surface outcrops. Two samples UBG0306 & UBG0308 were collected as continuous channel samples and are considered representative of the area sampled. Sample UBG0305 is a spot rock chip sample and samples UBG0307 & UBG0309 are semicontinuous rock chip samples taken across the exposed rock face and should only be considered indicative when assessing the grade of the sampled interval. These samples were analysed with the Company's hand-held Niton XRF and the nature of the analysis is at best indicative being a series of isolated point analyses. The full list of lab analyses for these samples is included as Appendix 1 & 2.
		from outcrops across the Ubeong tenements area.
		A total of 2230 soil samples have now been collected over the Chilbo prospect. To date, 1263 samples have been analysed by the Company from the core area of the Chilbo grid and these XRF results were discussed in earlier ASX releases <sup>D1</sup> .
		The samples are being coarse (<5mm) sieved in the field at the time of collection. A +600gm field sample is being collected from 25m spaced sample sites on 100m and locally 50m spaced infill lines. A hole is dug at each sample site using a pick and shovel and the soil sample is collected from the B horizon at a nominal depth of 10 to 15cm below the humic layer. At each sample site, details of rock type and possible contaminating influences are recorded. The samples are collected in a plastic ziplock bag and then packed into Styrofoam boxes for transport to the Company's sample processing centre that has been established at the main Sotae-myeon core shed. On receipt, samples are stored in the locked shed prior to retrieval and drying in aluminium baking trays at 100°C for 8 to 12 hours. The dried samples are then allowed to cool before being hand pulverised in a bowl with a pistol to break up the oven baked clays formed during the drying stage. Samples are then sieved in a multistage electric Endecotts Minor200 sieve shaker to generate size fractions of <2mm, <0.5mm and <0.2mm. A nominal 60gm sub-sample of the minus 0.2mm fraction is then bagged separately ready for XRF analysis. The coarse +2mm fraction is disposed of and the balance of the sample is returned to the original sample bag as back-up sample.
		A portion of the 60gm sub-sample is then packed into a mylar cup and analysed using the Company's hand-held Niton Gold XRF unit. Each sample is analysed for 60 seconds. The analysed fraction is then returned to the sample bag for future lab cross checking. It is envisaged that around 10% of the soil samples will be analysed by ICP analysis at an accredited laboratory in Perth. As part of the Company's analysis suite, a repeat reading is taken



Criteria	JORC – Code of Explanation	Commentary
		every 20 analyses along with a reading of a standard and silica blank sample.
		These XRF results while not absolute, are considered adequate for the purpose of identifying surface soil geochemical anomalies. The orientation soil programme undertaken in late 2016 confirmed that there was a strong correlation between lab and hand-held XRF analyses at the Chilbo prospect for key base metal pathfinder elements such as Cu, Pb, Zn As and Cd, while a reasonable degree of correlation was also observed in analyses for Ag, Bi, Sb and Sn <sup>D5</sup> .
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The rock chip samples UBG0305, UBG0307 & UBG0309 were collected as spot or a series of spot samples along a sampled interval and should only be considered indicative of the grade of the sampled interval. Samples UBG0306 and UBG0308 were taken as continuous chip samples with a hammer a chisel and every effort was made to collect equal sized rock chips from along the hand chiselled interval. These latter two samples are considered indicative of the grade of the sampled interval. The other (51) rockchip samples were collected as dump or outcrop samples. Samples were collected from a similar point in the soil profile and sieved to generate a sub 5mm fraction at the field sampling site. All samples were dried prior to sieving and XRF analysis. A blank, reference standard and a repeat sample reading were
		taken every 20 samples XRF. A selection of samples will be sent to Perth in due course for check analyses and to determine Au levels.
	Aspects of the determination of mineralisation that are material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples	Rock chip samples were collected in a calico bag and taken using a geology hammer and mallet. The two 1m channel samples were continuous sample taken along the length of the sampled interval. The other 3 samples are semicontinuous point samples and should only be considered indicative of the potential grade of the area sampled.
	from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The soil samples were collected using a small shovel and a pick to clear the humic layer and excavate a hole. Samples were collected across a 100m spaced grid lines with samples sites 25m apart along the sampled lines. Follow-up infill 50m spaced lines were also sampled across the core area of the grid. Late last year, an orientation survey was completed across areas of known and unknown mineralisation <sup>D5</sup> . All samples were collected at a similar depth with similar sample volumes collected from each sample site. All samples were coarse sieved in the field at the point of collection. All sampling gear was cleaned between
		samples to avoid any cross-sample contamination. Approximately 60gm of -0.2mm mesh soil was re-bagged into a fresh ziplock bag for XRF analysis.



Criteria	JORC – Code of Explanation	Commentary
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	One diamond drillhole is in progress, testing the Copperhead IP chargeability anomaly. The drill-type is Q3 (50mm diameter core) sized diamond core. The hole was collared on an area of recent alluvium deposited as a bar between two intersecting streams. The alluvial cover is around 3.5m deep covering fresh basement rock sequence dominated by mixed meta-sedimentary sequence of interbedded mudstones, siltstones and sandstones that have been metamorphosed to pelites, psammopelites and psammites.
		Core has been oriented where possible using a spear method.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias	Drilling is in progress and no commentary of recovery and/or results is being presented here as the core has not yet been processed.
	may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Drilling is in progress and no commentary on geological or geotechnical logging recovery and/or results is being presented here as the core has not yet been logged and processed.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Drilling is in progress and no commentary on geological or geotechnical logging recovery and/or sampling or results is being presented here as the core has not yet been logged and processed.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	The rock chip samples were bagged in the field and apart from spot assaying with the hand-held Niton XRF no further processing was undertaken prior to dispatch to ALS Perth for full laboratory analysis.



Criteria	JORC – Code of Explanation	Commentary
		The rock chip samples were jaw crushed post oven drying at the ALS Laboratory, Malaga to a nominal 2mm size fraction (method CRU-21). In cases where sample weights exceeded 3kg, samples were riffle split with the resultant sample fraction then pulverised using an LM5 pulveriser to 85% passing 75 microns (PUL-23). A 150gm pulverised sub sample was then prepped for analysis.
		then dried at the Company's field office. The samples were then further sieved to generate a -0.2mm fraction for analysis. All samples will be XRF analysed in house at the Company's secure core processing shed. None of these analyses are intended for use in any future resource estimations that may be undertaken by the Company.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The samples were prepped as discussed above. This methodology is considered appropriate for both base and precious metal analyses as well as analyses for a broader range of trace elements. The main target elements are base metals and method ME-MS61a was chosen as a broad 33 element analysis suite. This involved the dissolution of the sample aliquot in a four-acid mix. This is considered near total for the bulk of elements analysed for except W. A 30gm fire assay with an ICP-AES finish was used for the Au analyses. A number of samples returned ore grade results over the detection limit for Zn, Pb, Ag and As by method ME-MS61a.
		The results of the 2016 orientation survey suggested that XRF analyses would be suitable in identifying the relative level of Cu, Pb and Zn mineralisation in soils at the Chilbo Prospect. In early April, the soil sampling programme commenced at the Chilbo prospect and was concluded prior to the start of the IP survey on 12 June. The sample spacing and grid line spacing is considered adequate to identify soil anomalies over the prospect. There is local contamination of the soil from historic mining and residual surface dumps but these influences were noted during the field programme. The results of the 2016 orientation survey concluded that the <0.2mm fraction was the best fraction for analysis. The samples are dried in individual baking trays which are scrubbed, washed and dried prior to reuse. The sample number is recorded on the side of each tray prior to drying to reduce the risk of any of the samples being mixed up. Post drying, the samples are hand pulverised and sieved. The pulverising bowl is washed and dried between samples. The sieves are cleaned using compressed air provided by an electric air compressor. A new clean ziplock bag is used to store the sieved sub-sample. The mylar cups are cleaned between readings using canned compressed air. The risk of cross sample contamination is considered minimal.



Criteria	JORC – Code of Explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The samples collected are considered representative of the soil at each sample site. Further, the results of the 2016 orientation survey suggest that the order of magnitude of the analysis results for each of the key target elements was similar when comparing the Cu, Pb and Zn results obtained by hand-held XRF analysis with those from laboratory analysis for these three key elements. Regular repeat check analyses and analyses of CRM and blank samples were taken during the XRF analysis process. Issues were noted in the analyses of the blanks and standards. A review of the QA/QC results identified some contamination of the silica blank by mineralised soil dust. Analysis of the CRM data shows a tendency of the XRF to report slightly elevated results at low levels of Zn and Cu and to under call Pb. While at higher levels >2000ppm of Zn and Pb the hand-held XRF is under calling the grade. This under call suggests that the length of the reading time is insufficient where the grades are high. The quality of the XRF data is considered adequate to define the overall limits of the soil anomalies at Chibo.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Only limited field soil duplicate samples were collected but these show no significant variations. This is not considered material at this early project evaluation stage. Repeat analyses are very good for Pb and Zn with more variability seen in the Cu data. The area of initial rock chip sampling is currently being re- sampled using a diamond bladed angle grinder to cut continuous channel samples across the structure in 3 places where it is exposed at surface.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The size of the rock chip samples is considered appropriate for the style of sampling undertaken. The size of the soil samples is considered appropriate for the
		style of survey being undertaken.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The samples were then prepped and pulverised as discussed above. The subsample was then dissolved in an acid mix of HCL, HF, HNO <sub>3</sub> , HCLO <sub>4</sub> . The final aliquot is analysed by inductively coupled plasma – atomic emission spectrometry (ICP-AES) and ICP-Mass Spectrometry (ICP-MS). A 50gm charge was prepared for fire assay for all the Au analyses. A sub-sample was prepped using a suitable flux.
		The method is considered total for the key target base metals Pb, Zn, Cu as well as Sb, Ag and Au. The results are only considered partial for W, Sc, K, Ca and Al. This is not considered material.
		Soil samples were dried at the Company's office in a small industrial oven. Once dry, samples were sieved to produce multiple size fractions as discussed previously. A final +60gm



Criteria	JORC – Code of Explanation	Commentary
		sample aliquot of minus 0.2mm fraction soil material was collected in a ziplock bag for subsequent analysis.
		The samples on receipt were dried again at 100°C. A ~10gm sub sample was then selected of each of the samples and packed into a mylar cup for XRF analysis. The results are partial but are considered adequate for the intended purpose of identifying soil geochemical anomalies for base metals. Lab check analyses will be conducted in the future on a selection of the 60gm minus 0.2mm sample fractions.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivations, etc.	The Company commissioned Southern Geosciences Consultants Pty Ltd (SGC), Perth to arrange for an Induced Polarisation (IP) survey to be conducted over the Chilbo Prospect. SGC has arranged for Fender Geophysics to undertake the survey on behalf of the Company. SGC are overseeing the programme and collating the field data on a daily basis. The IP survey commenced on June 12 <sup>th</sup> and is currently close to completion.
		A Gradient Array Induced Polarisation (IP) survey was completed by Fender Geophysics on 100m spaced survey lines using 50m spaced readings (50m dipoles or 100m dipoles with 50m overlap), over an area of approximately 2.7 km <sup>2</sup> .
		Survey QC parameters were reviewed by independent supervising geophysicists from Southern Geoscience Consultants Pty Ltd. Multiple readings are recorded at each station to ensure repeatability of data. Spurious or unrepeatable readings are removed from the final dataset.
		All primary analytical data were recorded digitally and sent in electronic format to Southern Geoscience Consultants for quality control and evaluation.
		Station positions were recorded with GPS system with expected accuracy of +/- 5m horizontal. RL values have been extracted from SRTM data.
		The Gradient Array Induced Polarisation (IP)survey were conducted by Fender Geophysics using a GDD 16 channel (GRx-16) digital IP receivers (SN:1119), a GDD 5 kW (GDD TXII) transmitter system with porous pot electrodes (dipole spacing of 50 to 100m). The IP survey were conducted using a 2 second on-times and off-times (0.125 Hz) and the IP decays were windowed over the 2 seconds using 20 (semi-logarithmic spaced) windows.
		The Gradient Array IP survey method maps the chargeability and resistivity of the sub-surface allowing the identification of anomalous chargeable and conductive bodies. The IP results have identified anomalies (2 to 3 times background levels) that are coincident with historic mine-workings, that have both coincident geochemical (XRF) and magnetic anomalies of interest that are interpreted to be associated with skarnified and



Criteria	JORC – Code of Explanation	Commentary
		mineralized limestones. The strongest IP anomalies (4 to 5 times background) identified in this survey are interpreted to be blind, possibly associated with a (non-magnetic) porphyry style intrusive, these anomalies will be investigated further using dipole-dipole surveys to confirm and model the source bodies.
		Further Work - Nature and scale of planned work: Electromagnetic surveys and possibly Dipole-Dipole IP arrays have been planned to confirm and model chargeable bodies identified in the GAIP survey.
		The release includes commentary on a portion of the Socheon 1:100,000 Total Magnetic Airborne Magnetic Imagery (Figure 4), The Company purchased this image along with other images produced by the Korea Institute of Geoscience and Mineral Resources (KIGAM) as part of the country wide aeromagnetic atlas (Published Dec 2008). The Company has received permission from KIGAM management permitting the use of the KIGAM magnetic images in its ASX announcements, shareholder communications and corporate presentations.
		The more detailed ground magnetic data displayed in Figure 4 was collected by Company personnel using a Geometrics G858 field magnetometer and a Geometrics G856 base station. Company personnel were trained onsite by the geophysical consultant from Southern Geosciences Consultants Pty Ltd (SGC), Perth. The survey was conducted over a nominal 1 x 1.5km area with continuous readings taken every second as the operator walks along the 100m spaced north-south survey lines. The data collected each day was downloaded by Company staff from the receiver each evening and emailed to the Southern Geosciences consultant for processing. This allowed the data to be validated and if necessary, areas of the grid to be resurveyed where data quality was considered questionable. The result was a high-quality, high resolution data set that was subsequently reprocessed by SGC to produce Total Magnetic Imagery (TMI) that has been reduced to the pole (RTP).
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	No quality control samples were included as part of the rock chip sampling programme and the company has relied on the laboratory's internal QA/QC work for the analysis of these 5 samples. This is considered adequate given that none of the analyses disclosed or discussed in this release are intended for use in any future mineral resource estimation. The Company has completed soil sample repeats every 20 samples and has also analysed a silica blank and CRM. There were issues with many of the blank analyses and the storage procedure for blanks and standards has been modified to lessen the risk of surface dust contamination. The repeat analyses show good correlation for Pb and Zn with more variability seen in the Cu repeats suggesting some degree of nugget effect may be present for Cu.



Criteria	JORC – Code of Explanation	Commentary
		This level of QA/QC control is considered adequate given that none of the analyses disclosed or discussed in this release are intended for use in any future mineral resource estimation.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The soil samples are single isolated samples and no weighted averages have been calculated using these assays. None of the results reported or commented upon in this release have been independently checked by non-Company personnel. This is not considered material at this early reconnaissance stage of the project's evaluation.
	The use of twinned holes.	The company is currently drilling its first hole at the Ubeong project and to date no current or past holes have been twinned.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Assay results are stored in an Excel database. All results are checked by the responsible geologist on entry to the database. The Company's data is stored in an excel database and routinely transferred to the Perth Head Office.
	Discuss any adjustment to assay data.	The data presented in the Appendices is raw XRF data downloaded directly from the Niton XRF. No adjustments have been made to the data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	The data presented in the Appendices is raw laboratory data. No adjustments have been made to the data. The sample locations have been recorded using a hand-held Garmin GPS60CSx. The accuracy of this unit at most sample sites was +/- 5m. The drill hole has been surveyed at 3m intervals to a depth of 204m depth using a Norwegian built Deviflex non-magnetic down-hole survey tool. The collar location and starting azimuth has been surveyed by a local Korean contract surveyor using a Differential GPS unit and theodolite.
	Specification of the grid system used.	All sample sites were surveyed in the UTM WGS84 zone 52N coordinate system or WGS 84 Latitudes and Longitudes.
	Quality and adequacy of topographic control.	The National Geographic Information Institute (NGII) has 1:5,000 scale digital contour data for the entire country.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	It is not anticipated that any of these data would be used to compile any form of Mineral Resource and the data are purely acquired as part of the overall reconnaissance evaluation of the project. The 100 x 25m and in some areas of the grid 50 x 25m data spacing is considered adequate as a first pass soil geochemical analysis.



Criteria	JORC – Code of Explanation	Commentary
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The sampling to date is not intended for the use in any future resource estimation that may be undertaken.
	Whether sample compositing has been applied.	None of the assay results have been composited.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The soil sampling programme is designed to identify areas of elevated base metal geochemistry to aid future drill targeting.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The drill hole is currently suspended pending petrophysical analysis of the core and possible follow-up down hole geophysics. The core is currently being processed onsite.
Sample security	The measures taken to ensure sample security.	The soil samples were packed in Styrofoam boxes at the Company's field base in Hyeondong and routinely transported to the Company's secure core yard facility at Sotae-myeon. On receipt, the samples are laid out on the secure core shed floor in sampled order for drying and subsequent sample preparation and analysis. The rock chip samples were packed onsite at the Company's Ubeong project office and transported by Company personnel to DHL Global Forwarding office Daegu for shipment to ALS Perth.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The Company's sample preparation facility has not been audited independently. Sample collection and preparation and processing practices are routinely reviewed with the aim of improving procedures.

(Criteria in this section apply to all succeeding sections.)



# **Section 2: Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC – Code of Explanation	Commentary
Tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	On 27 <sup>th</sup> April 2017, MDS covering the historic Chilbo mine workings blocks Hyeondong 59, 60 and 69 were accepted and the Company was formally granted the exploration rights for up to 7 years over these three titles <sup>D3</sup> . In addition, in mid-June 2017, the MDS field survey was completed over blocks Hyeondong 70 and 78 and MDS reports have been filed with the Ministry of Trade, Industry and Energy (MOTIE) for the grant of these blocks. On the 25 <sup>th</sup> August 2017, the company was formally granted title for exploration over these 2 blocks. The bulk of the land covering the Chilbo prospect is owned by the Korean Government and is managed by the Korean Forestry Department Office in Yeongdeok-gun. The forest land covering the Chilbo Prospect is leased by the Korean Forest Service under a 30-year forest lease to a Private logging company for the purpose of commercial exploitation of the timber in the area for paper manufacture. The Company is currently in negotiations with the logging contractor and the forest service over access to the area for drilling. A number of small agricultural land pockets line the access road to the prospect. The Company has a good working relationship with the prime land holder and has negotiated an access agreement with the absentee land holder of two small forest lots for drilling. An additional 22 applications have been renewed over surrounding blocks considered prospective for identifying blind zinc mineralisation. Exploration rights are granted for up to 6 years by commodity for tenement blocks defined by the GRS080 grid system over 1x1 minute graticule blocks.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Company has been granted exploration rights over 5 key tenements at Chilbo, tenements Hyeondong 59, 60, 69, 70 and 78 and has filed a MDS application for the for the adjoining northern block Hyeondong 68 and southern block Dogyedong 72. The Company has until 18 April 2018 to file a Prospecting Plan for the 59, 60 and 69 titles and until October 2018 for the Hyeondong 70 and 78 titles from which point it will have a guaranteed 3-year exploration period which, subject to certain conditions being met, can be extended for a further 3-year period until April 2024 and October 2024. It is envisaged that it may take up to 6 months to receive formal notification from MOITE regarding the grant the tenement Hyeondong 68 and Dogyedong 72.



Criteria	JORC – Code of Explanation	Commentary
		statutory requirements as set out under the terms of the MPA approval. The applicant holding a Mining Right can apply for extensions provided all statutory requirements have been met over the life of the mine.
		In addition, the Company has until December 2017 for the 10 Hyeondong applications and January 2018 in the case of the 12 Dogyedong blocks to identify surface mineralisation and file MDS reports for all 22 tenement applications.
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	The Company has recently located 2 historic KMPC reports regarding drill programmes completed at Ubeong North and at Chilbo in 1982 and 1983. The bulk of the KMPC drilling at Chilbo focussed on two 500m and one 600m vertical holes into a granite body located in the southeast corner of the prospect area. All 3 holes failed to intersect any mineralisation and recent work by the Company indicate that the area targeted by KMPC is not geochemically anomalous. The IP survey over this area failed to identify any conductive units in the area drilled by KMPC. Two holes drilled to target the skarn mineralisation were drilled into a pelitic horizon between two horizons of skarn mineralised limestone. The third hole intersected minor skarn mineralisation adjacent to a granite body but much of the prospective core was not assayed. Two of these holes have targeted a soil geochemical low (pelitic sediments) and in an area between the Taipan Zinc (Zn) target and the Cobra copper (Cu) target further to the north <sup>D1</sup> . Similarly, at the Ubeong North prospect, three of the holes intersected broad widths of limestone but again much of the core was not assayed. Some low grade Pb and Zn intercepts were reported.
		exploration work in the area that the Company is currently aware of. The Company is continuing its search for historical mine records and past Korea Resources Corporation (KORES) or historic Korea Mineral Promotion Corporation (KMPC) reports on the Ubeong Project. All the exploration work by KIGAM has been undertaken as high-level reconnaissance surveys including: airborne geophysics, regional scale stream sediment surveys and large-scale regional geological mapping. The Company has no records of the past production from any of the historic mines in the district.
Geology	Deposit type, geological setting and style of mineralisation.	Following the successful completion of the recent IP survey over the Chilbo Prospect, the Company has been able to broaden its range of targets at the Ubeong Project. The original geological target was skarn associated polymetallic zinc, silver +/- copper, lead and gold mineralisation. This style of mineralisation remains the key target for the Taipan (Zn, Pb Ag), Cobra (Cu, Zn, Au) ,Adder (Cu, Au) and Viper (Cu, Au, Ag) prospects located to the east of the recently identified Copperhead and Krait (Cu, Au) targets <sup>D1</sup> . The prospectivity of



Criteria	JORC – Code of Explanation	Commentary
		these geophysical targets is further enhanced by the presence of coincident soil anomalies recently identified over these eastern skarn targets.
		The Prospectivity of the eastern skarn targets is further enhanced by the assay results of rock chip samples collected over the respective target areas <sup>D2,D3</sup> . The Company's past rock chip sampling indicates that there is potential in the area for zinc, lead, copper, silver, gold, stibnite and tin mineralisation <sup>D2,D3</sup> . The Proterozoic limestone at the former mine site has undergone intense skarn metasomatic alteration, most likely associated with a blind intrusive body now interpreted to be the Copperhead Porphyry Body. Typical calc-silicate skarn alteration minerals such as hedenbergite, garnet and epidote are observed in rock chip samples. The intense magnetite and pyrrhotite mineralisation is typical of many other Korean skarn deposits and is interpreted to represent the first phase of mineralisation subsequently overprinted by later base metal Cu, Zn and Pb mineralising event. The intense magnetic high sympathetically tracking the mapped limestone unit is interpreted to reflect strong magnetite and pyrrhotite mineralisation associated with skarnification of the limestone <sup>D6</sup> .
		The Keumho mine to the west of the Chilbo Prospect was discovered during the Japanese occupation of Korea and initially mined as a manganese bearing skarn deposit. Subsequently, copper, lead, zinc, silver and gold mineralisation was discovered at depth in the 1940s. The Keumho mine has operated intermittently since 1930s with mining activities ceasing at times due to declining metal prices. The mine is currently active and is reportedly operating at around a 4% zinc and 4% Pb head grade.
Drill hole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduce Level) – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length	There is evidence of historic drilling at the main historic mine site with minor scattered pieces of HQ, NQ, BQ and AQ core observed. The Company recently obtained records of limited drilling undertaken by KMPC at the Chilbo Prospect in 1982 and 1983. As discussed previously, the bulk of this drilling (2050m) was targeted at an unmineralised granitic body in the southeast of the prospect area. The limited drilling (600m) targeting into the skarnified limestone units was drilled almost entirely within a barren pelitic unit located between the two main skarn bearing limestone horizons. This KMPC drilling has targeted a zone between geochemical anomalies and chargeability highs and lows recently identified during the Company's IP survey.
		the magnetic survey have been commented upon in previous releases <sup>D6</sup> . This release focuses on the results of assays of a small batch of rock chip samples collected over outcrops at the western end of the Viper prospect (Appendices 1 & 2), and



Criteria	JORC – Code of Explanation	Commentary
		provides an update on the drilling of the hole into the Copperhead IP anomaly.
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract</i>	Logging and assessment of the drill core is currently underway but to date the hole has intersected a mixed sequence of meta-sediments – pelites and psammites.
	from the understanding of the report, the Competent Person should clearly explain why this is the case.	The results of all sampling work completed by the Company over the Chilbo Prospect have been reported on in this release or earlier releases <sup>D1-D6</sup> .
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	No weightings or averaging has been applied to the data. All the data presented in this release is raw data. The images in this release relate to soil samples collected by Company personnel and IP geophysical survey data collected over the Chilbo prospect by SGC, Fender Geophysics staff with the assistance of Company personnel <sup>D1</sup> . Additional samples from the ongoing soil sampling programme at Chilbo and Ubeong North are being processed at the Company's secure core yard facility at Sotae-myeon.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	The data has not been aggregated.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent vales have been reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	The assay results in this release are rock chip sample analyses and in house hand-held XRF analyses of individual soil sample analysed using the Company's hand-held XRF unit. Though broad anomalies are evident from the soil work, the Company is not suggesting that these represent the true width of any underlying mineralised zone.



Criteria	JORC – Code of Explanation	Commentary						
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	The first diamond drill hole UBD0001 is currently being logged and the core orientation data obtained is being assessed to further enhance the structural model for the Chilbo Prospect skarn mineralisation.						
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	No assaying has been undertaken and no drill assay results have been reported or commented upon in this release.						
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Figure 1 is an image of Total Magnetic Intensity (TMI) based on ground magnetics with the location of past rock chip samples results (copper) and XRF results of the recent soil sampling (copper) and tenement outlines.</li> <li>Figure 2 is a photograph of personnel sampling the outcropping massive sulphide zone at Viper Prospect.</li> <li>Figure 3 is an image showing the chargeability results from the subscription of the recent subscription.</li> </ul>						
		location of past rock chip samples results (copper) and XRF results of the recent soil sampling (copper), recent drillhole location (UBG0001) and tenement outlines.						
		Figure 4 illustrates the location of the Ubeong Project tenements and the Chilbo Prospect area. The KIGAM Socheon aeromagnetic image has been used as an underlying base to the figure and highlights the strong coincident magnetic high attributed to the skarnification of the host limestone unit within the Ubeong Project area. The tenement applications areas are also shown yellow.						
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The full list of all the base and precious metal assays obtained from soil sample assaying is included as Appendices 1 & 2. The sample data points are displayed in Figures 1 & 2. The IP data is displayed in contoured image form. The hole in the data set along the north central margin around 512500mE is due to steep cliffs in the area along a valley making it too dangerous to undertake the IP survey in this area.						



Criteria	JORC – Code of Explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All base metal data considered relevant and material has been included in this announcement or has been included and commented upon in the Company's earlier releases relating to the Ubeong Prospect <sup>D1-D5</sup> . In late 2016, a detailed ground magnetics survey was completed over the main Chilbo workings area, covering a 1km x 1.5km area on 50m to 100m spaced north-south lines <sup>D5</sup> . The magnetic readings were collected continuously using a Geometrics G858, continuous reading CV magnetometer (G858), supported by a Geometrics G856 proton precession base station unit (G856). The G858 records one (1) reading per second as the operator walks the survey line. The G856 base station unit records and monitors the diurnal variation in the earth's geomagnetic field during the survey, variations of which can be removed from the survey using processing. The image of the ground magnetics data presented on Figure 4 is a total magnetic intensity (TMI), reduced to pole (RTP), analytical signal image with a 20° from vertical sun-angle from the south.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	<ul> <li>sampling of numerous historic workings<sup>21,02</sup>.</li> <li>The Company plans to complete tenement scale geological mapping and rock chip sampling across the full project area. Initial detailed mapping has focussed on the main Chilbo Prospect area.</li> <li>Additional soil sampling will be completed over Copperhead Prospect to the west of the historic Chilbo Mine area. Limited sampling completed to date over the southeast corner of the intense Copperhead chargeability high indicates low level elevations in As and Pb and spot Cu highs. This additional work will link the Chilbo grid to the Ubeong North grid on 100 x 25m grid.</li> <li>The initial ground based magnetics programme covering a 1km x 1.5km area over the Chilbo mine workings area (see Figure 4) will be extended to the remainder of the 10km strike of the magnetic skarn-limestone unit targeted. The objectives of this programme are to define the magnetic skarnified limestone unit and structural breaks that may have focussed mineralisation.</li> <li>Electromagnetics (EM) was trialled over the Taipan Zinc target in late 2016 but failed to generate any significant EM response Follow-up EM is planned to further assess and belp</li> </ul>
		response. Follow-up EM is planned to further assess and help model the recently identified intense Copperhead and Krait chargeability highs located to the west of historic Chilbo mining area.



Criteria	JORC – Code of Explanation	Commentary
		The IP survey and soil sampling programme have together identified at least 5 walk-up drill targets Taipan (Zn, Cu, Pb, Ag), Cobra (Cu, Zn, Ag), Adder (Cu) and the standout blind porphyry targets Copperhead and Krait (Cu, Au).
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The recently completed IP survey has identified a number of chargeability highs of varying strength. These variations are attributed to differences in the type of sulphide mineralisation causing the IP response. These include Taipan interpreted to be a low chargeability and resistivity response caused dominantly by poorly conductive sphalerite mineralisation. The coincident Zn high in the soil geochemistry highlights the prospectivity of this target. The Cobra and Adder prospects have mild to elevated chargeability with coincident Cu and Zn soil anomalies Cobra and Cu at Adder. The standout IP targets are the Copperhead and Krait anomalies which are intense Chargeability responses in an area of phyllitic metasediments. Further chargeability highs have been identified to the north of the survey area and these will be covered with soil geochemistry in due course. The Copperhead chargeability high remains open to the west possibly reflecting mineralisation of the northerly dipping limestone skarn unit as it comes into contact with the interpreted blind porphyry intrusive. Figure 1 shows the Cu soil sample results and location of the recent rock chip sampling at the Viper Target on the Total Magnetic Image for the Chilbo Prospect. Figure 2 shows rock chip sampling of a gossanous outcrop at the Viper Target.
		Figure 3 shows the IP chargeability response and Cu soil geochemistry over the Chilbo prospect. Several key targets have been identified including the Adder (Cu, Au) and Viper (Cu, Au, Ag) targets and the Taipan (Zn, Pb, Ag) and Cobra (Cu, Zn, Au) targets. Figure 4 outlines the strong magnetic high coincident with the mapped limestone unit within the western tenement applications. This is considered a strong target for along strike repeats of skarn polymetallic mineralisation already identified within the Ubeong Project area. The open IP chargeability high further enhances the prospectivity of this model.



Appendix 1	- Location and	sample descript	tion details for	rock chip sample	s. Ubeong Project
					•, • • • • • • • • • • • • • • • • • •

Sample	<b>_</b> • .	<b>_</b> .	UTM	UTM	RL	Sample	Width	
ID	Project	Prospect	East	North	m	Туре	(m)	Comments
		Libeong						MINUX+FEOX gossan. Stockwork
UBG0164	Uheong	North	512667	4080199	790	Subcrop		quartz veins
0000104	Obcong	North	512007	4000133	750	Subcrop		MnOx+FeOx gossan, Stockwork
		Ubeong						abundant very thin drusy cockade
UBG0165	Ubeong	North	512668	4080188	791	Outcrop		quartz veins.
								MnOx+FeOx gossan. Sheeted
		Ubeong						abundant very thin drusy cockade
UBG0166	Ubeong	North	512656	4080186	787	Outcrop		quartz veins.
								MnOx+FeOx gossan. Stockwork
11000467		Ubeong	542644	4000400	776			abundant very thin drusy cockade
UBG0167	Ubeong	North	512641	4080192	//6	Dump		quartz veins.
		Libeong						MINOX+FEOX gossan. Stockwork
UBG0168	Uheong	North	512685	4080189	778	Outcrop		quartz veins
0000100	Obcong	North	512005	4000105	770	Outerop		MnOx+FeOx gossan, Stockwork
		Ubeong						abundant very thin drusy cockade
UBG0169	Ubeong	North	512695	4080174	770	Dump		quartz veins.
								MnOx+FeOx gossan with
								disseminated pyrite in silicified
		Ubeong						patches. Abundant very thin drusy
UBG0170	Ubeong	North	512183	4080328	607	Dump		cockade quartz veins.
		Ubeong						
UBG0172	Ubeong	North	511414	4080471	632	Dump		Vuggy, clayey pryritic silicification.
		Ubeong						
UBG0173	Ubeong	North	511476	4080536	648	Dump		Vuggy, clayey pryritic silicification.
								Vuggy partially oxidised pyritic
		Ubeong						silicification. Surface of boulder
UBG0174	Ubeong	North	511497	4080541	654	Subcrop		coated with MnOx.
		Uheong						Creek float, Small cobble of
UBG0178	Ubeong	North	512940	4079718	609	Float		MnOx+pyritic silicicification.
00001/0	o seeing		512510	1075710	005	Tiout		
								Creek float. Angular cobble of vuggy,
	Uboong	Ubeong	E120E2	4070661	E00	Float		pyritic, silicified brecciated quartzite.
0600179	Obeong	NOTUI	512955	4079001	299	FIUdl		Creek float Boulder float of quartzite
								with drusy silicification with
		Ubeong						disseminated pyrite, arsenopyrite and
UBG0182	Ubeong	North	512955	4079361	608	Float		galena.
		Ubeong						
UBG0183	Ubeong	North	512952	4079339	611	Outcrop		Clay-silica-pyrite altered quartzite.
		Ubeong						
UBG0184	Ubeong	North	512937	4079265	610	Outcrop		Vuggy clay-pyrite silicification.
	0.000.0							
	Ubeong	Block 70	513225	1077/23	817	Subcron		reox gossan with fine drusy quartz
	Libeong	Block 70	512106	1077917	757	Float		Bare cobble float of EeOx gossan
0000100	ODEOLIS	DIUCK /U	212100	+077017	151	ribat		Garnet skarn strongly silicified with
								irregular patches of massive
UBG0189	Ubeong	Block 70	513190	4077985	696	Dump		arsenopyrite.



Sample ID	Proiect	Prospect	UTM East	UTM North	RL m	Sample Type	Width (m)	Comments
UBG0192	Ubeong	Block 70	513190	4077988	702	Outcrop		Channel sample 0-1m from north to south across mineralisation in old pit. Skarnified, laminated marble variously silicified and with patchs of arsenopyrite throughout.
			542400	4077000	702			Channel sample 3-3.5m from north to south across mineralisation in old pit. Skarnified, laminated marble variously silicified and with patchs of
UBG0195	Ubeong	BIOCK /U	513190	4077988	702	Outcrop		Sheared garnet skarn with abundant
UBG0196	Ubeong	Block 70	513190	4077985	696	Dump		arsenopyrite.
UBG0197	Ubeong	Block 70	513190	4077985	696	Dump		abundant arsenopyrite.
UBG0198	Ubeong	Block 70	513190	4077985	696	Dump		Vuggy, drusy crystalline quartz with abundant arsenopyrite throughout. Adit entrance outcrop of skarnified
UBG0200	Ubeong	Cu mine	513450	4078507	733	Outcrop		marble with abundant malachite staining.
UBG0201	Ubeong	Cu mine	513450	4078507	733	Dump		Coarse calcite with disseminated chalcopyrite(?)
UBG0202	Ubeong	Cu mine	513450	4078507	733	Dump		Massive arsenopyrite.
UBG0206	Ubeong		513549	4078120	690	Mine dump		Massive galena with abundant chalcopyrite, minor pyrite, trace sphalerite.
UBG0214	Ubeong		511319	4081757	817	Outcrop		Pyritic silicification within a quartz- tourmaline-muscovite-plagioclase pegmatite.
UBG0220	Ubeong	Ubeong West	509403	4078267	802	Outcrop		Slightly leached marble. Fine black disseminations of FeOx(?) pseudomorphs after pyrite. Some patchs of coarse calcite.
UBG0232	Ubeong	Ubeong West	508615	4078806	927	Outcrop		Deeply weathered dark brown sandy schist, slightly gossanous.
UBG0255	Ubeong		509614	4077244	731	Outcrop		Vuggy pyritic, quartz vein stockwork in intensely clay altered granitic gneiss.
UBG0256	Ubeong		509607	4077252	738	Outcrop		Gossanous chlorite-pyrite altered mesothermal quartz vein in amphibolite.
UBG0269	Ubeong		508016	4075273	788	Outcrop		Sandy textured, leached fine grained marble with black disseminations of FeOx after pyrite(?).
	Ubeong		508036	4075252	799	Mine dump		Gossanous skarnified schist.
UBG0270	Ubeong		508018	4075244	786	Mine		Patchy green fibrous actinolite skarn
UBG0271						dump		developed in fine white marble.



Sample			UTM	UTM	RL	Sample	Width	
ID	Project	Prospect	East	North	m	Туре	(m)	Comments
UBG0272	Ubeong		507986	4075246	776	Outcrop		Flesh pink rhodochrosite
								interlaminated with green actinolite
								skarn layers.
	Ubeong		505559	4075978	658	Mine		Fine grained, galena, sphalerite and
						dump		minor chalcopyrite as blebs and
1000074								disseminations in a dark green, reited
0600274	Libeong		505559	1075978	658	Mine		Fine grained galena schalerite and
	Obeoing		202223	4075578	038	dump		minor chalcopyrite as blebs and
						uump		disseminations in a dark green, felted
UBG0275								actinolite matrix.
UBG0284	Ubeong	Chilbo	513002	4078242	671	Outcrop		Ferruginous phyllite and Mn float
UBG0285	Ubeong	Chilbo	513000	4078257	672	Outcrop		Mesothermal Qtz, Fe in phyllite
UBG0286	Ubeong	Chilbo	513000	4078290	682	Outcrop		Mesothermal Qtz, Fe in phyllite
UBG0287	Ubeong	Chilbo	513152	4078294	699	Outcrop		Mesothermal Qtz, Fe in phyllite
UBG0288	Ubeong	Chilbo	513959	4078747	888	Outcrop		Sulph. In Phyllite/Limestone
	Ubeong	Chilbo						Skarn Fe/sulphide incl. Po + Cpy,
UBG0289			513875	4078426	734	Outcrop		magnetic
UBG0290	Ubeong	Chilbo	513581	4078293	733	Outcrop		Gossanous Fe in pit
	Ubeong	Chilbo						Vuggy, Fe and Mn, Gossan, numerous
UBG0291			513576	4078326	743	Outcrop		pits, Zn?
UBG0292	Ubeong	Chilbo	513566	4078319	742	Outcrop		Vuggy, Fe and Mn, Gossan, Zn?
	Ubeong	Ubeong				Float		Dump sample gossanous ist im go mn
UBG0293		North	512194	4080336		Dump		(near UBG-170)
	Ubeong	Ubeong						Above olsd nit/adit_gossanous lst Im
UBG0294		North	512198	4080322		Outcrop		go mn
	Ubeong	Ubeong						Cossanous vughv limostono lm
UBG0295		North	512655	4080150		Float		go.hm.mn. ridge crest
	Ubeong	Ubeong						So is 70 to 020, gossphere limestone
UBG0296	•	North	512664	4080197	774	Outcrop		lm. go.hm.mn
UBG0305	Ubeong	Chilbo	513673	4078309	699	Channel	1	Gossanous massive sulphide
UBG0306	Ubeong	Chilbo	513674	4078307	698	Channel	1	Massive sulphide Aspy, Po, Cpy, tr Sph
UBG0307	Ubeong	Chilbo	513674	4078308	699	Channel	0.76	Massive sulphide Aspy, Po, Cpy, tr Sph
UBG0308	Ubeong	Chilbo	513674	4078306	698	Channel	1	Massive sulphide Aspy, Po, Cpv, tr Sph
UBG0309	Ubeong	Chilbo	513658	4078305	699	Channel	2.24	Massive sulphide Aspy, Po, Cpy, tr Sph

Po = Pyrrhotite, Aspy = Arsenopyrite, Cpy = chalcopyrite



Appendix 2 – Geochemical results for rock chip samples, Ubeong Project

Sample	Ag	AI		Au	Ва	Ве	Bi	Са	Cd	Со	Cr	Cu	<b>F</b> = 0(	Ga	К	Mg		Мо	Na	Ni	Р
	ppm 12	ppm	As ppm	ppp	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Fe %	ppm	ppm	ppm		ppm	ppm	ppm 10	ppm 150
	13	5600	470	29	-50	-10	-20	500	-10	-10	10	20	15.8	-50	2000	-500	45500	-10	-500	-10	150
	4	9500	1590	49	-50	-10	-20	700	-10	10	20	20	20.5	-50	2000	700	>100000	-10	-500	10	150
	3	7600	1580	9	50	-10	-20	27200	-10	-10	10	20	40.9	-50	5000	700	27800	-10	-500	-10	440
	4	9200	400	107	-50	-10	-20	27300	-10	-10	20	-10	24.5	-50	4000	3900	27000	-10	-500	-10	140
	10	2200	/00	187	-50	-10	-20	-500	-10	-10	20	-10	14.8	-50	2000	1200	\$7900	-10	-500	-10	140
	/ 	3200	430	172	-50	-10	-20	2000	-10	10	10	20	20.0 10 FF	-50	2000	1200	>100000	-10	-500	10	150
	5	14600	220	101	-50	-10	-20	2000	-10	-10	-10	20	10.55	-50	0000	900	63200	-10	-500	-10	- 60 E 0
	44	21200	550	101	150	-10	-20	-500	40	-10	20	10	4.47	-50	9000	1100	2410	-10	-500	-10	-50
	2	21200	50	12	110	-10	-20	-500	-10	-10	10	-10	1.65	-50	20000	1600	2040	-10	-500	-10	50
	12	24400	1510	21/	270	10	-20	-300	-10	-10	-10	10	2.61	-50	17000	1200	100	-10	700	-10	-30
UBG0178	13	24000	1020	26	70	-10	-20	-500	10	-10	10	-10	3.01 4.77	-50	10000	800	170	_10	500	-10	70
UBG0182	12	20100	1260	17	70	-10	-20	700	30	-10	20	80	7 13	-50	10000	1000	1110	-10	-500	10	390
UBG0182	7	36000	3160	7/	130	-10	-20	-500	-10	-10	40	20	5.21	-50	17000	1900	200	-10	-500	-10	200
UBG0183	7	23300	240	74	180	-10	-20	-500	-10	-10	20	-10	1.5	-50	18000	1100	150	-10	600	-10	140
UBG0184	57	13800	13850	144	1590	10	40	1300	260	50	20	270	34.8	-50	4000	700	22100	10	-500	140	1070
UBG0188	-1	27300	430	2	250	-10	-20	2700	200	10	60	120	7 57	-50	1000	11300	4640	-10	-500	30	590
UBG0189	2	27000	>100000	84	-50	-10	1170	34500	-10	-10	30	-10	11 55	-50	11000	21200	310	-10	800	-10	1330
UBG0192	-1	40600	29800	9 9	170	-10	1460	127000	-10	-10	40	10	5.6	-50	13000	22400	580	-10	700	-10	1460
UBG0195	-1	29300	4350	9	90	-10	30	234000	-10	-10	30	90	3 26	-50	10000	9300	870	-10	-500	10	740
UBG0196	-1	26100	75700	4	-50	-10	30	91900	-10	20	20	-10	9.17	-50	4000	74800	440	-10	600	10	2030
UBG0197	1	29700	39000	5	-50	-10	920	15000	-10	-10	30	-10	4.38	-50	13000	11100	310	-10	1100	-10	1090
UBG0198	-1	12900	87300	53	-50	-10	370	32200	-10	-10	30	-10	8.13	-50	7000	18500	320	-10	-500	-10	2440
UBG0200	497	7700	46200	91	-50	-10	450	73500	430	-10	10	80500	12.55	-50	1000	37000	1320	-10	-500	70	380
UBG0201	37	800	12450	25	-50	-10	150	186000	10	-10	-10	3940	2.3	-50	-1000	32000	1320	-10	-500	-10	240
UBG0202	206	-500	406000	3790	-50	-10	2270	16700	280	210	-10	50	29.1	-50	-1000	2200	810	-10	-500	10	80
UBG0206	461	2800	620	14	-50	-10	610	1300	2410	-10	10	15000	5.03	-50	1000	1900	1510	-10	-500	-10	50
UBG0214	3	28900	43400	82	260	-10	220	5300	-10	-10	10	100	4.32	-50	20000	900	230	-10	4300	-10	250
UBG0220	9	1600	13550	167	-50	-10	80	236000	10	-10	-10	50	2.04	-50	-1000	91100	400	-10	-500	-10	-50
UBG0232	5	63500	50	6	390	-10	-20	4000	20	-10	70	170	7.85	-50	14000	9700	2780	-10	-500	20	1250



Sample	Ag	AI		Au	Ва	Ве	Bi	Ca	Cd	Со	Cr	Cu		Ga	к	Mg		Мо	Na	Ni	Р
ID	ppm	ppm	As ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Fe %	ppm	ppm	ppm	Mn ppm	ppm	ppm	ppm	ppm
UBG0255	1	16300	3810	35	70	-10	-20	-500	-10	-10	30	40	10.75	-50	6000	600	130	-10	-500	-10	560
UBG0256	1	12200	310	78	-50	-10	-20	4800	-10	-10	20	140	3.08	-50	2000	3900	160	-10	2900	-10	150
UBG0269	-1	7400	-50	-1	-50	-10	-20	206000	-10	-10	10	-10	0.32	-50	6000	33400	70	-10	-500	-10	80
UBG0270	1	42800	230	4	70	-10	-20	-500	-10	10	110	10	8.97	-50	6000	21300	550	-10	-500	30	560
UBG0271	-1	5100	-50	1	-50	-10	-20	353000	-10	-10	10	-10	0.42	-50	3000	13200	100	-10	-500	-10	70
UBG0272	-1	40600	-50	-1	190	-10	-20	225000	-10	-10	30	-10	1.84	-50	20000	10100	260	-10	-500	-10	230
UBG0274	48	21300	-50	5	-50	10	-20	121500	270	10	20	950	8.85	-50	-1000	10900	21400	-10	-500	-10	350
UBG0275	54	19100	-50	6	-50	-10	-20	142000	170	-10	10	1430	8.84	-50	-1000	10500	24400	-10	-500	-10	360
UBG0284	-1	34400	400	-1	190	10	-20	-500	-10	40	30	10	44.2	-50	11000	1400	260	10	600	120	1030
UBG0285	2	6100	160	-1	-50	-10	-20	3000	10	-10	10	30	2.05	-50	2000	500	640	-10	-500	-10	-50
UBG0286	3	9000	740	1	-50	-10	-20	6500	10	-10	10	90	5.4	-50	2000	1400	1200	-10	-500	-10	250
UBG0287	-1	50300	-50	-1	-50	-10	-20	203000	-10	-10	40	-10	12.7	-50	-1000	2400	4490	-10	-500	-10	720
UBG0288	-1	36300	-50	96	-50	-10	20	145000	-10	-10	40	190	19.25	-50	3000	5200	2990	-10	900	-10	880
UBG0289	2	7600	60	285	-50	10	470	57900	-10	10	10	2080	33.2	-50	4000	33900	2870	-10	700	-10	460
UBG0290	-1	24600	480	3	120	-10	-20	149500	60	-10	20	10	5.01	-50	1000	8000	7190	-10	-500	-10	290
UBG0291	-1	61600	430	5	390	-10	-20	165500	20	10	90	30	6.22	-50	16000	9500	5360	-10	800	20	500
UBG0292	2	17900	470	9	70	30	-20	4800	-10	-10	70	150	4.37	-50	3000	4000	10300	-10	-500	-10	1460
UBG0293	3	4700	990	85	-50	-10	-20	9500	-10	20	10	10	19.5	-50	3000	2100	>100000	-10	-500	-10	110
UBG0294	1	12700	730	23	-50	-10	-20	4900	-10	-10	20	-10	4.81	-50	5000	1900	41400	-10	-500	-10	100
UBG0295	4	10400	440	48	-50	-10	-20	1100	-10	-10	20	-10	16.75	-50	5000	1000	>100000	-10	-500	-10	160
UBG0296	15	4900	2810	128	-50	-10	-20	2100	-10	-10	10	40	31.5	-50	1000	700	42600	-10	-500	-10	280
UBG0305	1	12000	33600	7	70	-10	130	11400	-10	-10	40	880	38	50	6000	2300	360	-10	500	20	460
UBG0306	2	2800	42400	59	-50	-10	1090	8600	-10	40	10	3070	28	-50	4000	41200	620	-10	500	-10	160
UBG0307	6	11600	97000	231	-50	-10	1580	9100	-10	20	10	7240	27	-50	11000	7800	400	-10	500	10	90
UBG0308	1	4100	43700	111	-50	10	640	21300	-10	40	10	3230	28	-50	4000	31000	820	-10	500	10	320
UBG0309	3	2100	36100	98	-50	-10	870	7400	-10	20	-10	4820	29	-50	1000	8400	500	-10	-500	-10	330



Sample	Pb		Sb	Sr	Ті	v	w	Zn	As		
ID	ppm	S ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	Mn %	S%
UBG0164	420	-500	50	30	-500	10	-50	750			
UBG0165	130	-500	-50	100	500	30	-50	780		19.61	
UBG0166	150	1200	70	10	-500	20	-50	690			
UBG0167	30	700	-50	200	-500	20	-50	190		10.285	
UBG0168	260	700	130	30	800	40	-50	2300			
UBG0169	140	900	-50	390	-500	10	-50	2200		16.55	
UBG0170	30	47800	50	130	-500	10	-50	500			
UBG0172	11500	55700	-50	-10	1000	20	-50	15850			
UBG0173	1710	1900	-50	10	1300	20	-50	260			
UBG0174	120	800	-50	10	-500	-10	-50	270			
UBG0178	250	22700	-50	10	1100	40	-50	50			
UBG0179	280	50000	50	10	-500	10	-50	810			
UBG0182	1530	56900	70	10	1500	20	-50	9270			
UBG0183	850	5000	90	10	2000	40	-50	630			
UBG0184	720	2600	-50	10	1100	20	-50	100			
UBG0186	280	7600	280	20	-500	20	-50	9550			
UBG0188	-20	-500	-50	20	2800	80	50	750			
UBG0189	50	54200	1740	70	3600	50	-50	110	13.1		
UBG0192	100	13100	160	120	5300	80	-50	40	13.1		
UBG0195	20	1100	-50	220	2500	50	-50	-20			
UBG0196	-20	33900	350	60	3300	60	-50	30			
UBG0197	20	16200	670	70	2700	40	-50	-20			
UBG0198	20	35300	1020	20	3300	50	-50	-20			
UBG0200	11450	91400	200	50	1300	20	-50	32600			
UBG0201	890	10900	-50	80	-500	-10	-50	900			
UBG0202	5300	>100000	210	10	-500	-10	3800	23000			
UBG0206	115000	>100000	80	-10	-500	10	-50	218000			
UBG0214	160	11500	-50	20	-500	-10	-50	180			
UBG0220	250	6500	-50	510	-500	-10	180	1140			
UBG0232	1090	1500	-50	50	5800	120	-50	1860			



Sample	Pb	Snom	Sb	Sr	Ti	V	W	Zn	As %	Mp %	<b>c</b> %
	<b>pb</b> m	3 ppm	<b>ppm</b>	ppm 20	ppm	ppm 20	ppm	<b>pp</b> m	70	IVIII 70	3%
UBG0255	-20	22100	110	20	-500	20	-50	-20			
UBG0256	20	-500	-50	30	600	50	-50	50			
UBG0269	30	-500	-50	80	-500	10	-50	50			ļ
UBG0270	-20	600	-50	10	5800	130	-50	60			
UBG0271	-20	-500	-50	150	-500	10	-50	40			
UBG0272	30	-500	-50	230	1900	30	-50	70			
UBG0274	63500	47000	-50	160	1200	20	-50	68600			
UBG0275	42400	40300	-50	170	900	20	-50	44400			
UBG0284	80	-500	-50	10	800	40	-50	2000			
UBG0285	2010	1300	-50	10	-500	10	-50	1750			
UBG0286	2060	3000	-50	20	-500	10	-50	1870			
UBG0287	-20	-500	-50	-10	3700	70	-50	50			
UBG0288	40	11000	-50	10	3900	60	-50	70			
UBG0289	50	>100000	-50	-10	-500	10	-50	190			
UBG0290	-20	600	-50	40	1800	30	-50	3320			
UBG0291	30	-500	-50	40	5100	80	-50	1250			
UBG0292	30	2100	-50	20	6200	90	90	400			
UBG0293	490	-500	-50	360	-500	10	-50	2000		23.11	
UBG0294	-20	-500	-50	50	500	30	-50	400			
UBG0295	110	-500	-50	80	800	40	-50	430		12.575	
UBG0296	130	500	80	40	-500	10	-50	560			
UBG0305	100	23000	-50	20	1400	40	-50	160			
UBG0306	50	>100000	-50	10	-500	10	290	70			12
UBG0307	20	>100000	-50	20	700	10	-50	130			18
UBG0308	20	>100000	-50	-10	-500	10	90	80			14
UBG0309	-20	>100000	-50	10	-500	-10	110	100			19

