

## **ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE: 3 APRIL 2014**

## FURTHER EXCELLENT DRILL RESULTS AT MABILO

Sierra Mining Limited ("Sierra" or "the Company") is pleased to present further outstanding results from its on-going drilling program at the Mabilo Project in the Philippines.

Highlights from the ongoing diamond drilling program include:

Hole MDH-35 intersected a significant interval of mineralisation outside the limits of the • initial magnetic model, confirming that the South A and B Bodies are continuous and the combined body dips to the SW and thickens along the open south west margin. The hole intersected:

#### 115.1 m at 2.51 g/t Au, 2.16 % Cu and 47.31 % Fe

Step out drilling has extended the known strike of the high grade mineralisation along • the SW margin previously intersected in Hole MDH-16. Hole MDH-40, located approximately fifty metres further to the SE, intersected:

#### 54.15 m at 2.77 g/t Au, 2.02 % Cu and 50.72 % Fe.

Drilling has extended the high grade supergene mineralisation on the northern end of the South Body with Hole MDH-29 intersecting a high grade chalcocite zone grading:

20.8 m at 2.45 g/t Au, 22.96 % Cu and 32.19 % Fe.

Other drill holes in the North and South Bodies continue to extend the high grade Cu-Au-Ag-Fe skarn mineralisation while further drilling on the East Body has confirmed very high grade Fe skarn, with low grade Cu and Au.

Further details are set out below.

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## MABILO PROJECT

#### Background

The Mabilo Project is located in Camarines Norte Province, Eastern Luzon, Philippines. It comprises one granted Exploration Permit (EP-014-2013-V) of approximately 498 ha and Exploration Permit Application EXPA-000188-V of 2,820 ha. The Project area is relatively flat and is easily accessed by 15 km of all-weather road from the highway at the nearby town of Labo.

Massive magnetite mineralisation containing significant copper and gold grades occurs as replacement bodies in garnet skarn altered rocks within a sequence of hornfelsed sediments of the Eocene aged Tumbaga Formation. The garnet and magnetite skarn rocks were extensively altered by argillic retrograde alteration and weathering prior to being covered by 25-60 metres of post mineralisation Quaternary volcaniclastics (tuff and lahar deposits) of the Mt Labo Volcanic Complex. The deposits are localised along the margins of a diorite stock which does not outcrop within the Exploration Permit.

The primary copper mineralisation (predominantly chalcopyrite with lesser bornite) occurs as disseminated blebs and aggregates interstitial to magnetite grains and in voids within the magnetite. A strong correlation between gold and copper values in the un-weathered magnetite skarn indicates the gold is hosted by the chalcopyrite. A late stage phase of sulphide mineralisation (predominantly pyrite) veins and brecciates the magnetite mineralisation.

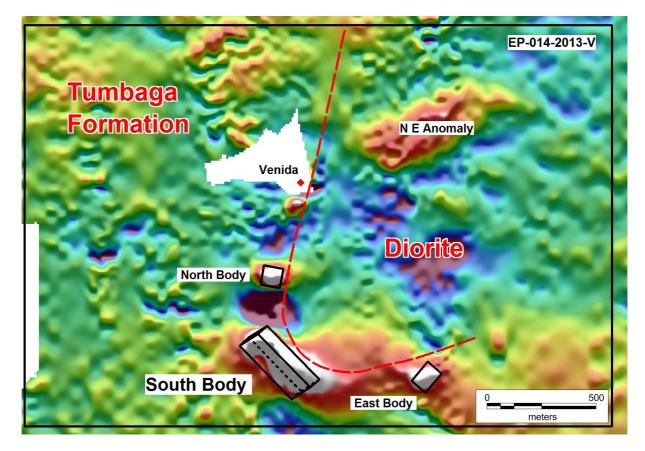


Figure 1. RTP ground magnetic image with the modeled South, North and East bodies



In places the more shallow upper parts of the magnetite skarn bodies were weathered to form hematite skarn. Copper in the weathered zone was remobilised forming high-grade supergene copper zones (chalcocite and native copper) at the base of the weathering profile. The gold was more variable remobilised throughout the hematite skarn and into the adjacent country garnet skarn rocks in places. The average Fe grade of the hematite skarn is consistent with the magnetite skarn.

Sierra discovered the mineralisation in 2012 during a reconnaissance drilling program targeted on magnetic anomalies from a ground magnetic survey conducted by a former explorer. Sierra subsequently conducted a new ground magnetic survey in early 2013, remodeled the data and commenced a second phase of drilling in mid 2013.

There are currently three drill rigs on site and 46 holes have been completed to date.

## South Body

Drilling has been concentrated on the South Body, which is substantially larger than the North and East Bodies. The drilling has now shown the mineralisation to be continuous between the previously termed South A and South B Bodies which were based on initial magnetic modeling. A revised magnetic model for the combined South Body indicates a large tabular shaped body which strikes to the NW (plunging shallowly to the SE) and dips variably to the SW at approximately 45 degrees (Figure 2).

The modelled body is approximately 340 metres long. To date drilling has confirmed approximately 250 m of the strike length. The mineralisation pinches out along its upper NE edge but is open down dip to the SW along most of its length. The SW down dip extension is unconstrained by magnetic modeling as it dips below the depth reliably modelled from the ground magnetic data and has not been closed off by drilling to date.

Significant intersections returned from the South Body subsequent to the last Quarterly Report are listed below. Their locations are shown in Figure 2 below and documented in Appendix 1 further below.

#### <u>MDH-29</u>

This angled hole drilled on the NW end of the body intersected a high grade zone of supergene chalcocite outside the magnetic model and at a deeper level than the supergene zone encountered in other holes on the South Body. The mineralisation is interpreted to represent a "draping" of the chalcocite supergene mineralisation down the NW margin on the mineralisation.

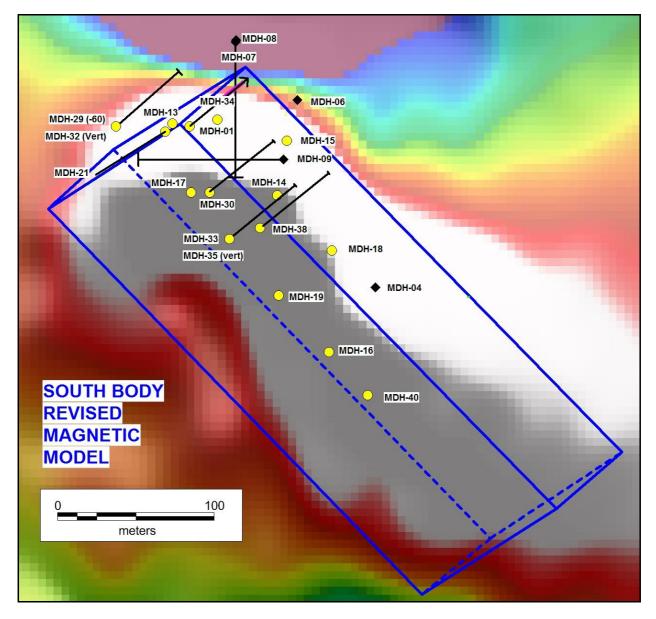
MDH-29	9						
From	То	Metres	Au ppm	Cu %	Ag g/t	Fe %	Lithology
69.1	89.9	20.8	2.45	22.96	8.4	32.19	Supergene Copper zone



### <u>MDH-30</u>

An angled hole aimed at better defining the NE edge of the mineralisation intersected both hematite and magnetite skarn zones.

MDH-3	MDH-30											
From	То	Metres	Au ppm	Cu %	Ag g/t	Fe %	Lithology					
33	56	23	2.36	0.29	2.1	57.72	Magnetite-hematite skarn					
56	93.5	37.5	1.79	1.70	7.9	54.23	Magnetite skarn					
93.5	101	7.5	0.95	0.65	2.2	37.29	Garnet skarn with magnetite veins					
33	101	68	1.89	1.11	5.3	53.54	Total Intersection					



**Figure 2**. Revised magnetic model (blue frame), RTP ground magnetic image and completed drill holes on the South Body. Hole collars from second phase drilling shown as yellow dots.



### <u>MDH-33</u>

An angled hole aimed at defining the SW edge of the modelled mineralisation intersected a thicker zone of mineralisation than indicated by the magnetic modelling, indicating the mineralisation was open on the SW margin in this area.

MDH-3	MDH-33										
From	То	Metres	Au ppm	Cu %	Ag g/t	Fe %	Lithology				
45.1	50.1	5	1.02	0.15	0.4	23.64	Garnet skarn with magnetite veins				
50.1	56.2	6.1	1.57	0.31	3.1	52.82	Magnetite-hematite skarn				
56.2	92.1	35.9	1.69	1.41	2.3	61.25	Magnetite skarn				
50.1	92.1	42	1.67	1.25	2.4	60.02	Total Fe skarn zone				

#### <u>MDH-34</u>

An angled hole aimed at better defining the NE margin of the mineralisation intersected both hematite and magnetite skarn with Cu values elevated in the hematite skarn due to the presence of zones of supergene chalcocite enrichment.

MDH-3	MDH-34										
From	То	Metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology				
34.9	46	11.1	1.74	0.49	0.8	26.25	Garnet skarn, ferruginous				
46	66.55	20.55	2.76	4.70	116.4	50.77	Hematite skarn				
66.55	88.7	22.15	2.33	2.89	5.2	50.48	Magnetite skarn				
34.9	88.7	53.8	2.37	3.09	46.8	45.59	Total intersection				

#### <u>MDH-35</u>

A vertical hole collared outside the magnetic model drilled to further test the mineralisation intersected in MDH-33. The hole intersected a wide zone of mineralisation comprising garnet skarn veined by magnetite, massive magnetite and magnetite veined by late stage pyrite (See Figure 3). The intersection indicates that the mineralisation dips to the SW outside the previous magnetic model and in this area the zone is wider and higher grade than the adjacent mineralisation within the previous magnetic model.

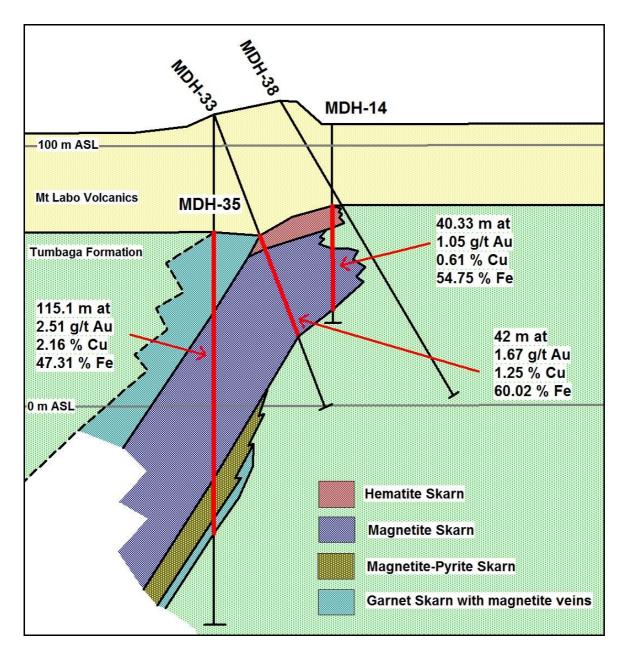
MDH-3	MDH-35										
From	То	Metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology				
45.9	77.0	31.1	1.08	1.06	4.3	35.65	Garnet skarn with magnetite veins				
77.0	140.0	63.0	3.01	2.46	6.2	54.37	Magnetite skarn				
140	154.6	14.6	3.24	2.83	6.6	46.49	Magnetite skarn with pyrite veins				
154.6	161.0	6.4	2.89	2.98	5.3	36.46	Garnet skarn with magnetite veins				
45.9	161	115.1	2.51	2.16	5.7	47.31	Total Intersection				



#### <u>MDH-40</u>

A vertical hole drilled approximately 50 m along strike to the SE of MDH-16 intersected magnetite skarn with significant Au and Cu grades demonstrating the high grade zone intersected previously in MDH-16 extends along strike and is still open to the SE.

MDH-40	)						
From	То	Metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology
107.85	162	54.15	2.77	2.02	4.8	50.72	Magnetite skarn (0.1% Cu cut-off)

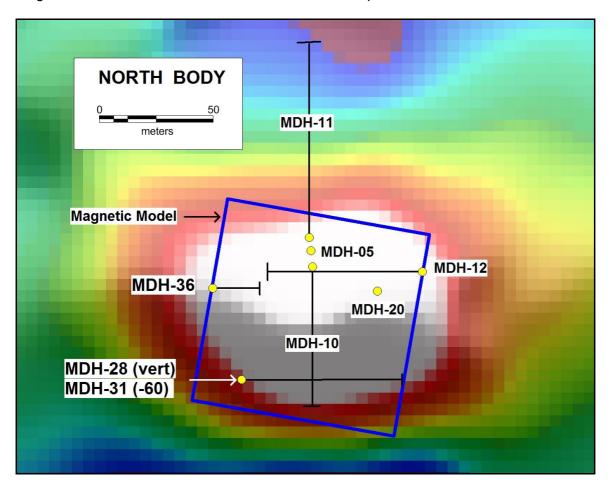


**Figure 3**. Section showing significant increase in mineralisation width and grade along the open SW down dip margin of the South Body mineralisation.



## NORTH BODY

The North Body is a discrete body of massive magnetite-Cu-Au mineralisation located approximately 200 metres to the north of the South Body. Reconnaissance drilling in 2012 returned extensive intervals of magnetite-copper-gold mineralisation. MDH-20, the first hole in the second phase of drilling, intersected a very high grade supergene copper zone overlying the magnetite skarn. The results of three new holes are reported below.



**Figure 4.** Magnetic model (blue frame), RTP ground magnetic image and location of completed drill holes.

#### <u>MDH-28</u>

A vertical hole aimed at testing the SW section of the modeled magnetite body. The hole intersected magnetite veined garnet skarn overlying magnetite skarn containing pyrite veins and patches of relict garnet skarn which lowers the Fe content of the intersection.

MDH-2	MDH-28										
From	То	Metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology				
51	66.4	15.4	0.83	0.98	4.9	17.10	Garnet skarn with magnetite veins				
66.4	89.3	22.9	2.79	2.81	17.4	39.68	Magnetite Skarn with pyrite veins				
51	89.3	38.3	2.00	2.07	12.4	30.60	Total Intersection				



## <u>MDH-31</u>

An angled hole drilled from the same site as MDH-28 to test the southern margin of the modelled body. The hole intersected an enriched copper supergene zone in garnet skarn rocks overlying the magnetite skarn zone which in turn overlies a low grade zone of magnetite veined garnet skarn.

MDH-3	MDH-31										
From	То	metres	Au g/t	Cu%	Ag g/t	Fe%	Lithology				
46.8	54	7.2	0.67	3.58	19.6	9.45	Garnet skarn, chalcocite				
54	111	57	2.43	2.72	6.3	54.52	Magnetite Skarn				
111	119	8	0.49	0.37	4.9	7.95	Garnet skarn with magnetite veins				
46.8	111	64.2	2.24	2.81	7.8	49.46	Combined Intersection				

#### <u>MDH-36</u>

A steeply inclined hole to test the eastern edge of the modelled body. The hole intersected a zone of magnetite veined garnet skarn overlying a zone of massive magnetite.

MDH-36	MDH-36										
From	То	metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology				
55	68.15	13.15	1.39	1.33	5.8	35.14	Garnet skarn with magnetite veins				
68.15	78.55	10.4	1.95	2.17	14.5	58.37	Magnetite Skarn				
78.55	102.6	24.05	0.37	0.36	5.31	14.8	Garnet skarn with pyrite veins				
55	78.55	23.55	1.64	1.70	9.6	45.40	Partial Intersection				
55	102.6	47.6	1.00	1.02	7.4	29.94	Combined intersection				

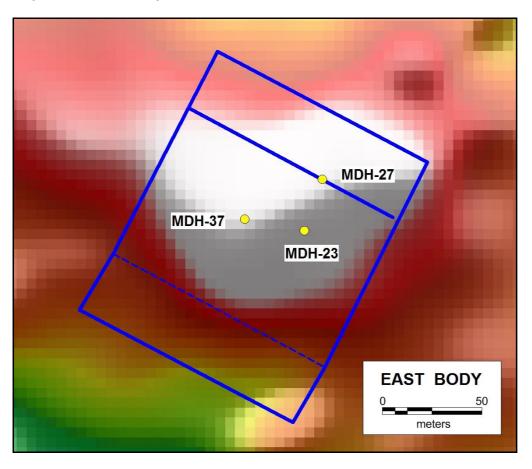
The initial magnetic modelling indicated the North Body was a relatively regular shaped flat-lying body. Drilling to date confirms it is flat-lying but indicates it is thicker in the middle and tapers on its eastern and western edges. Drilling is ongoing to explore for extensions of the mineralisation to the south towards the large South Body and to the north towards the Venida zone.

Mapping of artisanal workings at the Venida pit indicates the mineralisation at Venida extends shallowly to the south where Sierra's ground magnetic survey located a magnetic anomaly. The Company has now gained access to the area and the zone between Venida and the North Body has become a new focus for exploration drilling.



## EAST BODY

The East Body was a magnetic anomaly (SE anomaly) located by Sierra's ground magnetic survey. The first three holes completed have all intersected high grade magnetite (including a number of intervals higher than the 70% upper detection limit of the analytical method utilised) with lower copper and gold grades. The location of the first three holes drilled on the modelled target are shown in Figure 5 below and summarised further below.



**Figure 5**. East Body magnetic model (blue frame), RTP ground magnetic image and location of the first three completed vertical drill holes.

## <u>MDH-23</u>

The hole intersected two layers of high grade magnetite skarn (including 10 intervals totaling 9.6 m of greater than 70% Fe) separated by a layer of low grade marble. The hole ended in magnetite skarn due mechanical problems.

MDH-2	MDH-23										
From	То	Metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology				
86.60	114.0	27.40	0.34	0.09	1.8	62.52	Magnetite Skarn				
114.0	140.3	26.3	0.01	0.007	0.8	6.79	Limestone/marble				
140.3	174.60	34.30	0.29	0.33	4.9	60.15	Magnetite Skarn				



## <u>MDH-27</u>

The hole intersected two layers of high grade magnetite skarn (including 9 intervals totaling 9 m of greater than 70% Fe) separated by a thin layer of garnet skarn.

MDH-2	MDH-27										
From	То	Metre	Au g/t	Cu %	Ag g/t	Fe %	Lithology				
76.3	87.4	11.1	0.26	0.05	0.9	57.92	Magnetite skarn				
87.4	95.9	8.5	0.02	0.02	0.5	12.25	Garnet skarn				
95.9	138.2	42.3	0.14	0.24	3.1	62.55	Magnetite skarn				
76.3	138.2	61.9	0.14	0.18	2.3	54.82	Combined intersect.				

## <u>MDH-37</u>

The hole intersected two layers of high grade magnetite skarn (including 5 intervals totaling 5 m of greater than 70% Fe) separated by a thin layer of garnet skarn. The lower layer is underlain by a zone of magnetite veining in garnet skarn.

MDH-37	7						
From	То	Metres	Au g/t	Cu %	Ag g/t	Fe %	Lithology
100.9	118.95	18.05	0.12	0.16	NA*	66.00	Magnetite skarn
118.95	123.5	4.55	0.05	0.12	NA*	17.17	Garnet skarn
123.5	141.9	18.4	0.13	0.03	NA*	52.64	Magnetite skarn
141.9	161.5	19.6	0.01	0.02	NA*	19.56	Garnet skarn + mag veins
100.9	161.5	60.6	0.08	0.08	NA*	43.26	Combined
100.9	141.9	41	0.11	0.10	NA*	54.59	Combined

NA\* Majority of sample intervals below Ag detection level of 0.5 ppm.

Exploration is continuing at the East Body to better define the extent of the mineralisation. Although Cu and Au grades are relatively low much of the magnetite is very high grade (pure magnetite is 72% Fe) thus the zone has potential as a high quality magnetite deposit.



HOLE	BODY	Easting	Northing	Elev.	Inclination	Azimuth	EOH
MDH-23	EAST	476,810	1,559,764	114	Vertical	-	174.6
MDH-24	NE Anom	476,777	1,560,966	84	Vertical	-	66.1
MDH-25	NE Anom	476,755	1,560,930	86	Vertical	-	42.6
MDH-26	NE Anom	476,834	1,560,993	82	Vertical	-	50.1
MDH-27	EAST	476,819	1,559,790	114	Vertical	-	149.1
MDH-28	NORTH	476,074	1,560,216	105	Vertical	-	128.2
MDH-29	SOUTH	475,998	1,559,982	111	60	050	108.5
MDH-30	SOUTH	476,057	1,559,933	109	60	050	106
MDH-31	NORTH	476,075	1,560,216	105	60	090	141.6
MDH-32	SOUTH	475,997	1,559,982	111	Vertical	-	120.9
MDH-33	SOUTH	476,066	1,559,910	113	70	050	119.3
MDH-34	SOUTH	476,045	1,559,972	109	60	050	106.1
MDH-35	SOUTH	476,065	1,559,909	112	Vertical	-	196.1
MDH-36	NORTH	476,062	1,560,256	102	80	090	113.6
MDH-37 *	EAST	476,780	1,559,771	115	Vertical	-	232.9
MDH-38	SOUTH	476,094	1,559,915	118	60	050	132.1
MDH-39 *	NORTH	476,078	1,560,166	105	60	090	123.6
MDH-40 *	SOUTH	476,170	1,559,788	124	Vertical	-	185.45

#### Appendix 1: Location of Drill holes reported

All co-ordinates UTM-WGS84 (51 N)

\*Indicates surveyed by hand held digital GPS. All other holes by differential GPS.

Holes MDH-24, 25, 26 and 32 failed to intersect mineralisation and no assay results are reported. Assay results for MDH-39 are not available.

#### **Competent Person Statement**

The information in this report that relates to the second phase of drilling at the Mabilo Project is based on information compiled by Mr Robert McLean, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy. Mr McLean is a consultant geologist engaged by Sierra Mining Limited. Mr McLean has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 McLean consents to the inclusion in the report of the matters based on his information in the form and the context in which it appear.

The information in this report relating to exploration results, other than the second phase of drilling at the Mabilo Project, is based on information provided to Mr Robert McLean by Sierra Mining Limited. Mr McLean is a consultant geologist and is a member of the Australasian Institute of Mining and Metallurgy. Mr McLean 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr McLean consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.



# Appendix 2: Drilling Results included in this report

Section 1 - Sampling Techniques and Data: MABILO

Criteria	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.	The assay data reported herein is based on sampling of Diamond Drill core of PQ, HQ and NQ diameter which was split with a diamond core saw. Samples are mostly of 1 metre length or less. Half core samples were cut and sent for analysis by an independent ISO certified laboratory (Intertek McPhar Laboratory) in Manila.	
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Certified reference standards and Sierra's field blank samples were each inserted into sample batchs to assess the accuracy and precision of the ISO certified laboratory which assayed the samples. The half core from every 20 th sample was sawn into two and the two quarter core samples submitted for analysis separately.	
	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 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.	Diamond drill core of PQ, HQ and NQ diameter were cut in half and half core samples submitted to the Laboratory. Sample intervals were generally 1 metre although occasionally slightly longer or shorter intervals were used where changes in lithology, core size or core recovery required adjustments. All core samples are sent to an ISO certified independent laboratory where samples are dried, crushed to 95% <10mm after which a 1.5 Kg sub-sample is riffle split and pulverized to 95%<75 um for analysis. Gold was analysed by 50 g fire assay and the other elements by ICP-MS or ICP-OES following a four acid digest.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Drilling was by PQ, HQ and NQ diameter, triple tube diamond core. The holes for which data is being reported are mostly vertical and relatively short thus down hole orientation surveys were not conducted. The core was not orientated.	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Core recovery is initially measured on site by trained technicians and again in the core shed by the core shed geologist. Any core loss is measured, the percentage calculated and both are recorded in the Geotech log for reference when assessing assay results. In instances where core breaks off before the bottom of the hole leading to "apparent poor recovery" followed by a core run of > 100 % recovery the adjustment is made in the records.	
		Core loss is not a significant problem at Mabilo as the majority of the mineralisation is in fresh rock where recoveries are greater than 90%. The mineralisation occurs in wide intersections (generally over 30 metres thick) of massive magnetite skarn with relatively uniform copper and gold grades. Core loss occurs in narrow fracture zones but is not considered to be a significant problem ie the core lost in fracture zones is unlikely to have been significantly higher or lower grade than the surrounding material. In the weathered hematitic oxidised zones some core loss is unavoidable, but overall recovery is generally > 90% and the core loss is volumetrically minor in the large homogenous mineralised zones. In areas of poor recovery the sample intervals are arranged to coincide with drill runs thus areas of different core loss percentage are specific to individual samples which can be assessed when interpreting analytical results and modelled in future resource estimation studies. Where an area of 100% core loss is identified the sample intervals are marked to each side of the zone and the zone is designated "No core" and assigned zero value in the various log sheets and geochemical database.	



Criteria	Explanation	Commentary
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	All care is taken to ensure maximum recovery of diamond core. Drillers are informed of the importance of core recovery and joint venture earn-in for metres drilled is linked to core recovery to provide an incentive for the drillers to maximise core recovery. Any areas of poor core recovery are sampled separately thus assay results can be directly related to core recovery.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	There is no discernible relationship between core recovery and grade as the grade of the skarn bodies is relatively uniform over significant lengths (+50m) and the copper and gold grades are not related to fracture zones which are the main causes of core loss.
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.	The diamond drill core is logged in significant detail in a number of logging sheets including a geological log, a structural log, a geotechnical log and a magnetic susceptibility log for the entire drill hole. All intervals sampled are logged individually in a separate quantitative log with percentages of the different mineral species being recorded. The logging is appropriate for mineral resource estimates and mining studies, neither of which are reported herein.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Most of the geological logging is a mixture of qualitative (descriptions of the various geological features) and quantitative (numbers and angles of veins and fracture zones, mineral percentages etc). The Quantitative Mineralisation log and the Magnetic susceptibility log are quantitative. Photos are taken of all core (both wet and dry) prior to the core being cut.
	The total length and percentage of the relevant intersections logged.	All core, including barren overburden is logged in the various logging sheets noted above apart from the Quantitative Mineralisation Log in which only the mineralised intervals sent for geochemical analysis are logged in greater detail.
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	The average sample lengths are approximately one metre but may be slightly more or less to coincide with lithological breaks, changes in core diameter and any areas of different core recovery.
		All core from mineralised zones and the immediate surrounding rocks is initially sawn in half to provide a better surface for geological logging. Half core is collected for analysis and the other half retained for reference and or metallurgical testwork. One in every 20 samples of half core is sawn again to produce two quarter core duplicate samples which are submitted to the laboratory separately with different sample numbers.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All sampling data reported is from diamond drill core.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All core samples are sent to an ISO certified independent laboratory where samples are dried, crushed, riffle split and pulverised to 95% of the sample passing a 75µm sieve.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Certified reference standards and Sierra's field blank samples were each inserted into sample batches in the ratio of one standard for every 40 samples and one blank for every 20 core samples to assess the accuracy, precision and methodology of the ISO certified laboratory which assayed the samples. In addition one in every 20 core sample was cut into 2 quarter core duplicate samples to assess the grade variability within the drill core. A record of results from all duplicates, blanks and standards is maintained for ongoing QA/QC assessment. In addition, the laboratory which analysed the samples conducted their own extensive check sampling as part of their own internal QA/QC processes which is reported in the assay sheets. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and the assay laboratory.
	Measures taken to ensure that the sampling is representative of the in situ material collected,	Every 20th sample was cut into 2 quarter core duplicate samples to assess the grade variability of the drill core. A repeat



Criteria	Explanation	Commentary
	including for instance results for field duplicate/second-half sampling.	assay is done on every duplicate sample to better assess the variability of the duplicate samples. A record of results from all duplicates, blanks and standards and repeat samples is maintained for ongoing QA/QC assessment. The variance in the duplicate sampling of the assay results reported herein are considered acceptable.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The magnetite skarn mineralisation occurs in large bodies of fine grained magnetite with chalcopyrite (containing gold) disseminated through the magnetite body. The sample size of approximately one metre core length is suitable in respect to the grain size of the mineralisation.
Quality of assay data & lab tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The assay techniques used for the assay results reported herein are international standard and can be considered total. Samples were crushed to 95% <10mm and a 1.5 Kg sub-sample riffle split and pulverized to 95%<75 um. Gold was analysed by 50 g fire assay and the other elements by ICP-MS or ICP-OES following a four acid digest. The laboratory which analysed the samples conducted their own extensive check sampling as part of their own internal QA/QC processes which is reported in the assay sheets. Examination of all the QA/QC sample data indicates satisfactory performance of field sampling protocols and the assay laboratory indicating acceptable levels of precision and accuracy.
	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 derivation, etc.	No geophysical tools were used for any analysis reported herein. Magnetic susceptibility readings are taken of all core but are only used in magnetic modelling to plan drill hole positions and are not used to estimate Fe content.
	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.	One field blank sourced and prepared by Sierra from a local quarry and one certified reference standard sample are routinely submitted with the core samples. In addition one in every 20 core samples is cut into 2 quarter core samples which are submitted independently as a check on how representative an individual core sample is. The results for the assays reported herein are deemed to be acceptable. Batches of coarse reject and pulp samples returned from the laboratory are sent to a second laboratory on a periodic basis for umpire analysis.
Verification of sampling	The verification of significant intersections by either independent or alternative company personnel.	The geochemical results reported herein and the calculated averages for different lithology types were independently checked and calculated by two company personnel.
and assaying	The use of twinned holes.	No twinned holes have been carried out
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data documentation, verification and storage is conducted in accordance with the Sierra's Standard Operating Procedures Manual for the Mabilo Project. The diamond drill core is logged in significant detail in a number of separate excel template logging sheets including:
		1] a Geological log of all core, recording mineralogy, lithology, alteration, degree of oxidation and mineralization;
		2] a Structural log of all core, recording alpha angles, structure and vein types and quantity and vein infill minerals;
		3] a Geotechnical log of all core recording RQD, defects, fabrics;
		4] a Quantitative Mineralisation log of all intervals sampled.
		<ul><li>5] a magnetic susceptibility log of all core;</li><li>6] bulk density data for selected samples representing domains identified by the project acalegiet.</li></ul>
		identified by the project geologist. All logging sheets are either recorded directly or transcribed onto excel spread sheets which are validated by the Company data base manager and archived separately as well as being combined into a data base along with the assay results. All logging data is validated and archived and is available for future reference. Hard copies of all logging sheets are kept at the



Criteria	Explanation	Commentary	
		Project office in Daet .	
	Discuss any adjustment to assay data.	The results from the two quarter core duplicate samples are averaged before being entered into the geochemistry database and reported so that all geochemical data represents the results from half core samples. The assay results reported herein include averages of the duplicate samples. Samples with assay grades below detection level are assigned a value of half (50%) the lower detection level value when averaging intervals for reporting. A number of Fe assays in the results reported herein were greater than the 70% Fe detection level for analytical method used. These intervals were cut to 70% in averaging the results for reporting. Standard checks and repeat samples from the laboratory are scrutinised and retained in an archive of all assay sheets received as well as a QA/QC database from the laboratory but are not included in the primary geochemical database. No top cuts of assay data have been conducted other than as noted above.	
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.	Drill hole collars are initially sited with a hand held GPS with an accuracy of +/- 5 metres. Completed holes are surveyed by an independent qualified surveyor using standard differential GPS (DGPS) equipment achieving sub decimetre accuracy in horizontal and vertical position. All but two of the holes reported herein have been surveyed with a differential GPS as indicated in Appendix 1. The holes are relatively short and drilled with PQ diameter core and no down hole surveys were undertaken.	
	Specification of the grid system used.	Co-ordinates are on a UTM Grid; WGS84 (51N).	
	Quality and adequacy of topographic control.	The Mabilo area is relatively flat with total variation in topography less than fifteen (15) metres. The collar elevation for all but two drill holes reported herein are based on a reading from a differential GPS while the other two which were surveyed by hand held digital GPS are consistent with surrounding surveyed hole collars.	
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drill hole assay results reported herein are from drill holes, mostly on a nominal 50 metre spacing aimed at determining the extent of the magnetite skarn mineralisation.	
usubulon	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 drill holes are at variable spacing aimed at confirming the extent of the massive magnetite skarn zones indicated by modelling of ground magnetic and drill hole magnetic susceptibility readings. The drill hole spacing is sufficient in conjunction with ground magnetic data to establish the continuity of mineralisation reported herein. No estimated grades or resource estimations are included in the report	
	Whether sample compositing has been applied.	No compositing of intervals in the field was undertaken.	
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 assay data reported herein occurs in large magnetite replacement bodies. There are no known internal structures effecting the grade distribution thus the sampling reported herein is not biased.	
50 40 (4) 6	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.	There is no bias in the sampling reported herein apart from vertical holes which in places intersect dipping mineralised zones thus having an apparent thickness greater than the true thickness.	
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by Sierra employees. Core trays are kept at the drill site under constant watch by Company employees prior to being transported from the drill site by Company employees in a Company vehicle to the core shed where core is logged, sawn and prepared for dispatch.	



Criteria	Explanation	Commentary
		Remaining core is kept in the Company core yard which is in a secure compound at the Company regional office in Daet town and guarded at night.
		Samples are sent directly from the core shed to the laboratory packed in secured and sealed plastic drums using either Company vehicles or a local transport company. A standard Chain of Custody form is signed by the driver responsible for transporting the samples upon receipt of samples at the core yard and is signed by an employee of the laboratory on receipt of the samples at the laboratory. Completed forms are returned to the Company for filing.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The sampling techniques and QA/QC data are reviewed on an ongoing basis by Company management and independent consultants. The writer of this report is an independent consultant who has reviewed all sample handling techniques and considers them to be of industry standard and appropriate.

## Reporting of Exploration Results:

Criteria	Explanation	Commentary
Mineral 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.	The Mabilo Project is covered by Exploration Permit EP-014- 2013-V and Exploration Permit Application EXPA-000188-V. Drilling activity the subject of this announcement is within EP- 014-2013-V which was granted in July 2013 for two years, with the option to renew for an additional 4 years. EP-014-2013-V was issued to Mt Labo Exploration and Development Corporation ("Mt Labo"), an associate of Sierra. There is a 1% royalty payable on net mining revenue received by Mt Labo in relation to EP-014- 2013-V.
		Sierra and Mt Labo have entered into a joint venture agreement with Galeo Equipment and Mining Company, Inc ("Galeo") to partner in exploring and developing the Mabilo and Nalesbitan Projects. Galeo can earn up to a 36% interest in the Projects, down to 200 metres below surface, by contributing approximately US\$4,250,000 of exploration drilling and management services for the Projects over a 2 year period.
		There are no native title or Indigenous ancestral domains claims at Mabilo.
	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 tenure over the area currently being explored at Mabilo is a granted Exploration Permit which is considered secure.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The only significant previous exploration over the Mabilo project area was a drilling program at another site within the tenement and a ground magnetic survey. Sierra has reported this data in previous reports to the ASX and used the ground magnetic survey as a basis for initial drill siting. Subsequently Sierra conducted its own ground magnetic survey with closer spaced survey lines and reading intervals which supersedes the historical program. There was no known previous exploration in the area where the drilling reported herein was conducted.
Geology	Deposit type, geological setting and style of mineralisation.	Mineralisation at Mabilo can be defined as a magnetite-copper skarn which developed where the magnetite-copper mineralisation replaced beds of calc-silicate prograde skarn (predominantly garnet skarn) in the Eocene age Tumbaga Formation.
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:	The sampling and geochemical information contained in this report is from the second phase of drilling at Mabilo. The easting, northing, elevation, dip and azimuth of the holes reported herein is recorded within the report. Down hole depths and widths of intersections are documented in the text. The easting, northing,



Criteria	Explanation	Commentary
	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul>	elevation and orientation for all holes drilled at the Mabilo project has been reported in this and previous reports to the ASX.
	<ul><li>down hole length and interception depth</li><li>hole length.</li></ul>	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	All relevant data has been reported.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Samples of different lengths are weighted when averaging assays for the large intervals reported herein. Where any element in a sample is below detection level it is assigned a value of half (50%) of the lower detection level when averaging mineralised intervals for reporting. No top or bottom cuts have been made to the assay data apart from samples containing greater than 70% Fe being cut to 70% Fe when calculating grade
	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.	<ul> <li>averages.</li> <li>The Mabilo skarn mineralisation is large with a relatively uniform grade. Higher or lower grade zones with the mineralised bodies are wider than sample intervals. The average grades reported herein are based on sample widths of average 1 metre width.</li> </ul>
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent grades are reported herein.
Relationshi p between	These relationships are particularly important in the reporting of Exploration Results.	
mineralisati on widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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	The holes reported herein have been drilled both vertically and inclined. The orientation of the mineralised bodies is based on magnetic modelling and drill hole results which indicates that much of the mineralisation is dipping to the south-west. The fact that the intersections are in a dipping body and therefore not true widths is reported. The interpreted orientation of the mineralised bodies is based on magnetic modelling and drill hole data and is documented in the
	known').	report.
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.	A map (plan view showing drill hole locations) is included in the report.
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 report documents the assay results of intersections of the mineralised magnetite skarn. Low grade sample results from adjacent rocks outside the mineralised body are not included. Assays from drill holes which did not intersect mineralisation are not reported but their location is shown on plans in the report.
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	All meaningful exploration data concerning the Mabilo Project has been reported either in previous reports to the ASX or in the current report to which this table is attached.



Criteria	Explanation	Commentary
	contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). 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 attached report is an interim report on an ongoing drilling program. Areas of future drilling are discussed in the text and the magnetic modelled mineralised bodies which are the target of the on-going drilling are outlined in the figures included in the report.