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# Ophara Cobalt-Gold Project -Exploration Update

- Interpretation of VTEM survey indicates bedrock conductors are shallow and easily tested by RC drilling.
- Models are relatively flat lying suggesting stratabound nature of Conductors.
- Nine (9) priority RC holes to 150 metres depth to test strongest conductors.
- Contingency for additional holes to follow-up visual/pXRF observed mineralisation.
- Drill approval process underway expecting 2-3 weeks for commencement.

# Summary

Alloy Resources Limited (ASX: **AYR**, **Alloy** or the **Company**) is pleased to advise that interpretation of conductors from its recent VTEM survey at the Ophara Project located 50 kilometres west of Broken Hill in New South Wales has been completed and a drill program designed to test these targets.

Independent Consulting Geophysicists - Southern Geoscience Consultants (SGC), have completed modelling of ten (10) discrete bedrock EM anomalies of moderate to strong conductance. The larger conductors are between 1,000 and 1,500 metres in strike length and extend to similar down-dip lengths.

The Conductors are all moderate to shallowly dipping which suggests they are most likely 'stratabound' which is similar to the geometry and geology of mineralisation observed by drilling at the Great Goulburn prospect and also at the very large Thackaringa cobalt deposits which contain 50,000 tonnes of Cobalt in a 54.9 million tonne Mineral Resource (*refer COB ASX release 5 June 2017*).

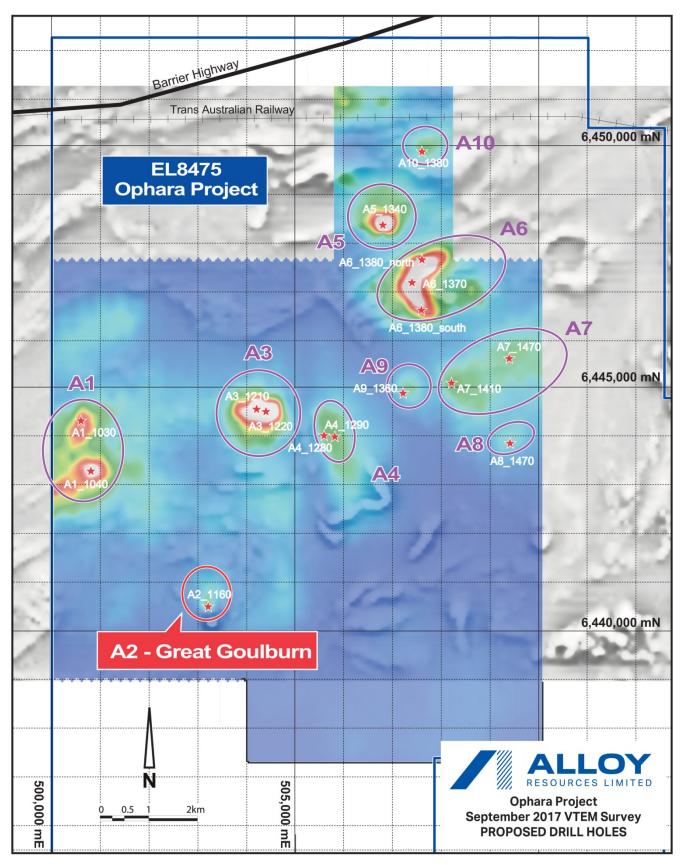
The conductance of the targets is much greater than the Thackaringa deposits and the Great Gouburn prospect and drilling is required to explain the source of the targets.

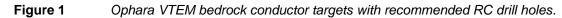
Five priority conductor targets have been selected for initial drill testing by nine RC drill holes. As depth of weathering in the area is generally 20 to 60 metres, drilling will generally aim to intersect the conductive body at approximately 100 metres depth.

Drill planning is well advanced with all requisite contracts and approvals being finalised to enable commencement of drilling in approximately two to three weeks.

# **Drill Targetting**

SGC have completed modelling of conductors and designed effective drill holes to test each anomaly in fresh rock as shown in Figure 1 below and listed in Tables 1 and 2.







#### Conductor models

SGC have been able to successfully model all conductors as the 200 metre flight line spacing and relatively thin resistive cover sequence has given good quality data for interpretation (Table 1).

The targets of interest are seen in the late-time data and are generally shallow dipping conductive units. In targets A1 and A6 there is a strong suggestion from the models that there is an 'antiformal' structure where two limbs of a fold are present. This model is unsurprising given the known shallow folding present in the Thackaringa hills to the east and similar magnetic signature of the rocks within the Ophara project

As an example, the VTEM profile over the A6 target, Line 1380, is shown below in Figure 2. The anomaly is observed between lines 1360 and 1400 and it is interpreted to define a fold closure with an E-W-trending fold axis. Modelling of this anomaly has been completed, the results are shown in Figure 3 (3D model view) and Figure 4 (profile model-fit).

Three holes have been planned to test the conductive unit; one on line 1370 to test the fold nose and two holes on line 1380 to test the southern and northern limbs.

The conductive response correlates with a non-magnetic unit that "wraps" around a discrete magnetic anomaly

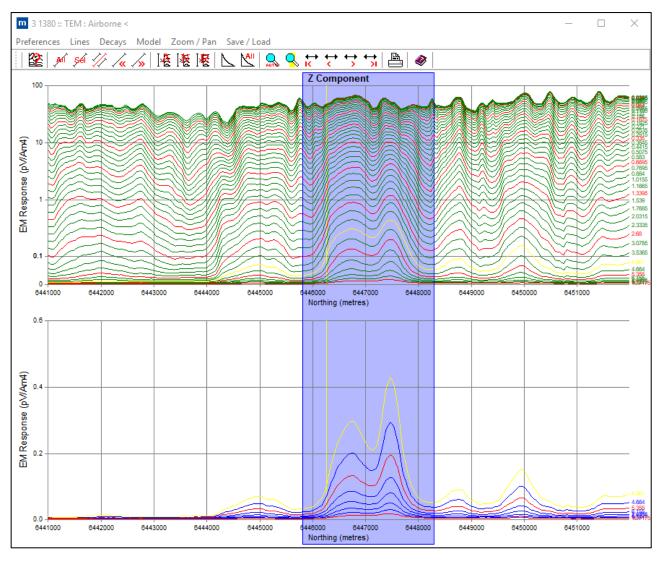
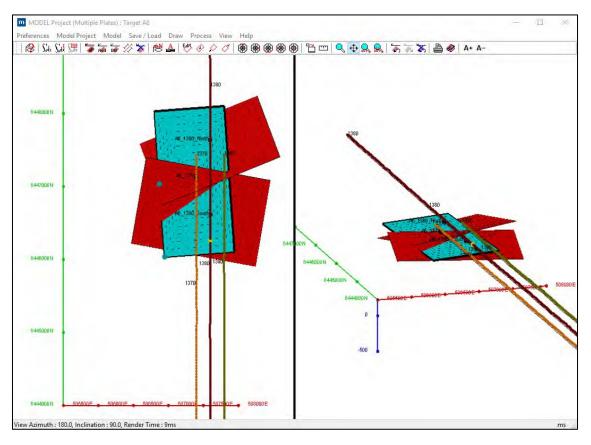
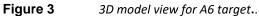
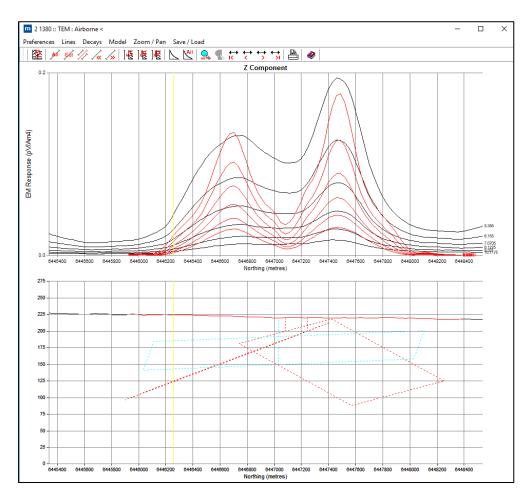


Figure 2 A6 VTEM response, Z component db/dt









**Figure 4** *EM modelling for A6 target. Observed data (black) and modelled data (red) in top panel. Cross section through model shown in lower panel.* 



#### Table 1. Ophara VTEM modelling summary – all co-ordinates in GDA94 system, Zone MGA54.

Target_ID	Location (centre)	Size (Length x Depth)	Dip	Dip Direction	Modelled Conductance (S)	Magnetic Signature	Comments and Structural Setting
A1 north	500600mE 6444285mN 126mRL	900m x 1600m	5 to 10°	340°	23	No magnetic signature. Possible antiform.	
A1 south - large	500826mE 64443150mN 104mRL	1100m x 2000m	5 to 10°	160°	23		
A1 south - small	500786mE 64443298mN 130mL	250m x 250m	5 to 10°	160	28		
A2 - large	503160mE 6440268mN 150mRL	300m x 1200m	5 to 10°	010°	50	Weak magnetic signature closer to surface Southern edge of synform	
A2 – small	503170mE 6440500mN 140mRL	200m x 200m	5 to 10°	010°	65		
A3 - small	504355mE 6444534mN 131mRL	400m x 300m	5 to 10°	200°	33	Amorphous magnetic response Adjacent to NNW trending faults	
A3 – large	504415mE 6444335mN 95mRL	1200m x 1700m	5 to 10°	180°	28		
A4	505800mE 6443857mN 169mRL	1000m x 4500m	0 to 5°	180°	22	No magnetic signature	
A5	506760mE 6448485mN 90mRL	500m x 850m	10 to 15°	340°	40	EM anomaly directly under strongly magnetic stratigraphy	
A6 (axis)	507570mE 6447242mN 200mRL	1800m x 1200m	0 to 10o	1800	20	Coincident with non-magnetic stratigraphy. Defines a fold closure, possibly an antiform	

A6 (north)	507755mE 6447080mN 200m RL	1800m x 900m	0 to 10o	3270	30	
A6 (south)	507570mE 6447242mN 200m RL	1800m x 1200m	0 to 10o	1780	20	
Α7	507900mE 6445622mN 130m RL	900m x 1500m	0 to 5o	1500	22	No magnetic signature
A7 - East	508880mE 6447050mN 200m RL	1000m x 3000m	0 to 5o	1600	20	No magnetic signature
A8						No magnetic signature
A9		1050m x 1500m	00	180	18	No magnetic signature
A10		350m x 1100m	2.5 to 7.50	180	35	Located north of a discrete magnetic anomaly.

#### Table 2.Ophara VTEM drill targeting summary – Priority holes are highlighted in bold red

Target ID VTEM Line	Hole ID	East	North	RL	Azi	Inc	Target Depth	EOH Depth
A1 North	A1_1030	500600	6444320	220	160	70	100to 120m	150
A1 South	A1_1040	500800	6443275	220	340	70	80 to 120m	150
A2 - 1160	A2_1160	503200	6440500	238	180	70	100 to 120m	150
A3 - 1220	A3_1220	504400	6444500	227	000	70	100 to 120m	150
A3 - 1210	A3_1210	504200	6444550	232	000	70	100 to 120m	150
A4 - 1290	A4_1290	505800	6444000	226	000	70	60 to 80m	150

A4_1280	505600	6444000	226	000	70	80 to 100m	150
A5_1340	506800	6448350	215	160	70	90 to 120m	150
A6_1370	507400	6447150	225	90	70	45 to 55m	120
A6_1380_north	507600	6447650	224	180	70	75 to 95m	120
A6_1380_south	507600	6446600	224	0	70	65 to 85m	120
A7_1410	508200	6445100	230	330	70	115 to 135m	150
A7_1470	509400	6445600	240	330	70	110 to 130m	150
A8_1470	509400	6443850	242	0	70	95 to 105m	150
A9_1360	507200	6444900	230	0	70	100 to 120m	150
A10_1380	507600	6449850	220	0	70	110 to 130m	150
	A5_1340 A6_1370 A6_1380_north A6_1380_south A7_1410 A7_1470 A8_1470 A8_1470 A9_1360	A5_1340       506800         A6_1370       507400         A6_1380_north       507600         A6_1380_south       507600         A6_1380_south       507600         A7_1410       508200         A7_1470       509400         A8_1470       509400         A9_1360       507200	A5_1340         506800         6448350           A6_1370         507400         6447150           A6_1380_north         507600         6447650           A6_1380_south         507600         6446600           A7_1410         508200         6445100           A7_1470         509400         6443850           A8_1470         507200         6444900	A5_1340         506800         6448350         215           A6_1370         507400         6447150         225           A6_1380_north         507600         6447650         224           A6_1380_south         507600         6446600         224           A7_1410         508200         6445100         230           A7_1470         509400         6443850         242           A9_1360         507200         6444900         230	A5_1340         506800         6448350         215         160           A6_1370         507400         6447150         225         90           A6_1380_north         507600         6447650         224         180           A6_1380_south         507600         6446600         224         0           A6_1380_south         507600         6445100         230         330           A7_1410         508200         6445600         240         330           A8_1470         509400         6443850         242         0           A9_1360         507200         6444900         230         0	A5_1340         506800         6448350         215         160         70           A6_1370         507400         6447150         225         90         70           A6_1380_north         507600         6447650         224         180         70           A6_1380_south         507600         6446600         224         0         70           A6_1380_south         507600         6445100         220         330         70           A7_1410         508200         6445600         240         330         70           A7_1470         509400         6443850         242         0         70           A8_1470         509400         6443850         242         0         70           A9_1360         507200         6444900         230         0         70	A5_1340         506800         6448350         215         160         70         90 to 120m           A6_1370         507400         6447150         225         90         70         45 to 55m           A6_1380_north         507600         6447650         224         180         70         75 to 95m           A6_1380_south         507600         6446600         224         0         70         65 to 85m           A6_1380_south         507600         6446600         224         0         70         65 to 85m           A7_1410         508200         6445100         230         330         70         115 to 135m           A8_1470         509400         6443850         242         0         70         95 to 105m           A9_1360         507200         6444900         230         0         70         100 to 120m

#### **Planned Drilling**

A summary of the VTEM drill targeting is supplied in Table 2 and shown on Figure 1.

Two drillhole vectors have been supplied for each target, with the primary hole designed to intersect and test the main conductor. Bedrock conductors are being targeted at approximately 100m below surface with drill holes planned to a depth of 150m. In order to maintain drilling rates the holes have been kept reasonably shallow, targeting the strongest parts of the conductors where they are closer to surface

The Company has selected 5 of these targets for the initial drill program – A1, A3, A5, A6 and A7 (see Table 2). Preferred holes for this program are based on the size and strength of the conductors. An allowance for a secondary hole at each site has been made 40 meters either up or down dip, depending on the expected depth of the conductor.

Downhole inductive conductivity logging of drill-holes is planned to confirm intersection of the conductors. While most of the targets are sub-horizontal, the drilling has been planned at an inclination of 70 degrees to allow for potential future down-hole EM surveying.

#### Summary

Alloy is highly encouraged by the number and relative strength of conductors defined by the VTEM survey and looks forward to commencing the planned drilling of the conductors in early to mid November.

The geological setting is regarded as being very encouraging with the conductors potentially associated with a preferred strata that is strongly sulphidic. It is possible that magnetic and non-magnetic structures observed at Great Goulburn and interpreted from aeromagnetics may be localising the stronger conductors.

Should mineralisation be associated with the conductors then large tonnages can be expected to be present.

The Company looks forward to confirming the commencement of drilling in the coming weeks.

Andy Viner Executive Chairman

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#### **Exploration Results**

Information in this report which relates to Exploration Results is based on information compiled by Andrew Viner, a Director of Alloy Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy, Mr Viner has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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 Viner consents to the inclusion in the report of the matters based on this information in the form and context in which it appears. Mr Viner is a shareholder and option holder of Alloy Resources Limited.



## JORC Code 2012 Edition Summary (Table 1) – EL 8475 Ophara Prospect VTEM Survey September 2017

#### Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg 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 VTEM survey reported collected measurements of the earths conductivity via the Geotech Time Domain EM System. At the same time a magnetometer also measured the earths magnetism.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul> <li>Both EM and Magnetic sampling methods have been well established in the Industry.</li> </ul>
	• Aspects of the determination of mineralisation that are Material to the Public Report.	• No determination of mineralisation has been made from the VTEM survey except by correlation to known conductors which were mineralised in the survey area (A2).
	• In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	<ul> <li>Relative VTEM anomalies (conductors) are regarded as appropriately processed and presented by Industry expert consultants. Collected via a Helicopter-borne system at 25 Hz base frequency.</li> </ul>
Drilling techniques	• Drill type (eg 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).	<ul> <li>No drilling was undertaken.</li> </ul>
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling was undertaken.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling was undertaken.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of	No drilling was undertaken.

Criteria	JORC Code explanation	Commentary
	fine/coarse material.	
Logging	<ul> <li>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.</li> </ul>	No sampling was undertaken
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	No sampling was undertaken
	• The total length and percentage of the relevant intersections logged.	No sampling was undertaken
Sub-sampling techniques and	• If core, whether cut or sawn and whether quarter, half or all core taken.	No sampling was undertaken
sample preparation	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No sampling was undertaken
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No sampling was undertaken
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No sampling was undertaken
	• 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.	No sampling was undertaken
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	No sampling was 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.	No sampling was undertaken
	• 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 sampling was undertaken
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	No sampling was undertaken
Verification of sampling and	• The verification of significant intersections by either independent or alternative company personnel.	No sampling was undertaken
assaying	• The use of twinned holes.	No sampling was undertaken
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	No sampling was undertaken

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	No sampling was undertaken
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.	No sampling was undertaken
	Specification of the grid system used.	All data has been reported in GDA94 system, Zone MGA54
	Quality and adequacy of topographic control.	VTEM - Highly accurate GPS navigation system to 3 metres. Radar altimeter to 1 metre accuracy.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing of VTEM suitable for geological target being explored for.
aistribution	• 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.	No sampling was undertaken
	Whether sample compositing has been applied.	No sampling 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.	VTEM north-south line orientation generally perpendicular to geological strata as interpreted from aeromagnetic data.
	• 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.	No sampling was undertaken
Sample security	The measures taken to ensure sample security.	No sampling was undertaken
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	VTEM flown by Geotech Airborne who then supplied preliminary data to the Company's consultants who verified accuracy and then undertook data processing.

## Section 2: Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	• The Ophara prospect is located within Exploration Licence 8475. Alloy has a 100% interest in the tenement. A land access agreement is current between Alloy and the holder of the Western Lands Lease.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Exploration prior to Alloy in the region was limited to regional magnetic and electromagnetic surveys, grid-based ground magnetic and electromagnetic surveying and calcrete sampling, shallow RAB drilling and the drilling of four RC percussion and two cored holes, around the historic Great Goulburn workings. This early work was focused on gold and base metal exploration.
Geology	• Deposit type, geological setting and style of mineralisation.	• Ophara is a metamorphosed quartz-magnetite hosted Au-Co-Cu deposit with similarities to the Muturoo deposit 10 km to the south-west in South Australia and also possibly the Thackaringa cobalt-pyrite deposits located 10 kilometres to the east.
Drill hole Information	<ul> <li>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:         <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> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>Drilling information is not regarded as important in understanding the significance of the geophysical results reported.</li> <li>What limited shallow RAB drilling that was completed in the area has been reviewed and interpreted to have not been in the area of the interpreted electromagnetic conductors being reported. The principal reason for this is the RAB drill holes were targeting discrete aeromagnetic targets.</li> <li>Modelling of VTEM conductors was completed using industry standard techniques, and by independent industry experts and drill hole targetting was based on this.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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</li> </ul>	• No drilling was undertaken.

Criteria	JORC Code explanation	Commentary
	<ul> <li>aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	No sampling was undertaken
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.	Refer to body of this announcement.
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.	No drilling or sampling reported
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Consultants have received field corrected preliminary data and processed the VTEM data and presented this information as Mapinfo GIS files and also compiled into a technical report format. The Company has conducted numerous discussions to understand this process and has reported its conclusions.</li> <li>All meaningful and material information has been included in the body of the text.</li> <li>All Geophysical surveys have been processed and interpreted by expert Consultants in this field.</li> <li>VTEM survey details are;         <ul> <li>Tx loop Diameter = 35m</li> <li>Tx loop area = 962m2</li> <li>Tx loop turns = 4</li> <li>Tx base frequency = 25Hz</li> <li>Peak Current = 190A</li> <li>Pulse Width = 7 msec</li> <li>Waveform shape = Trapezoid</li> <li>Duty Cycle = 35%</li> <li>Peak Dipole moment = 690,000 nIA</li> <li>Transmitter mean terrain clearance = 35 to 45m</li> <li>Receiver configuration = In-loop, z and x components</li> <li>Magnetometer Cesium Vapour 0.02 nT res, 0.1Hz sample rate</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Magnetometer Mean terrain Clearance = 60 to 70m</li> <li>GPS and Radar Altimeter Sample Rate = 0.2 Hz</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The Cpmany has provided information to explain the process for defining drill targets.</li> <li>The planned drilling is designed to then test the targets in a cost effective way.</li> <li>Additional drilling may be completed based on in-field observations of any mineralisation.</li> </ul>