

# Drill Results Substantiate Major Copper / Gold System at Lamil

- Diamond tails at the Dune prospect at Lamil in the Paterson Province extend the sub-vertical stockwork corridor with initial priority assays confirming high-grade copper grades of:
  - 1.5m @ 19.1% Cu from 409.1m sitting directly above 3.9m @ 1.6g/t Au from 410.6m (ETG0226)
- Drilling 200m north has extended the mineralised corridor and intersected multiple zones of quartz carbonate veining with pyrite and chalcopyrite (copper sulphide) (ETG0243)
- Drilling of a previously untested 1km long magnetic anomaly north of Dune has intersected a +25m wide pyrrhotite dominant (+ chalcopyrite) quartz-sulphide breccia zone (ETG0241)
- Assays from key holes have been prioritised for chemical analysis with results expected in October-November 2021

## Commenting on the drilling at Lamil, Encounter Managing Director, Will Robinson said:

"Previous RC drilling at Dune defined an expansive copper-gold system over 1km of strike. Diamond drilling has confirmed that the copper-gold mineralisation at Dune is depth extensive and vertically zoned. High grade copper mineralisation of this nature is not common in the Paterson Province and these results are considered highly encouraging.

We only have a handful of assays back so far and eagerly await results from other drilling completed at Lamil. In particular, ETG0243 drilled 200m along strike from the high-grade mineralisation in ETG0226, has intersected Telfer analogous host units that have been intensely altered and contain quartz carbonate veining with copper sulphides.

In addition, diamond drill hole ETG0241, the first hole drilled into a previously untested 1km long magnetic anomaly, has intersected a wide, pyrrhotite dominant, quartz-sulphide breccia with associated disseminated and blebby copper sulphides. Given the association of pyrrhotite with copper-gold mineralisation in recent discoveries in the region, it will be interesting to see the level of gold in this hole.

The current diamond drilling program at Lamil has been highly successful, defining a depth extensive stockwork corridor that contains high grade copper mineralisation, as well as opening up a new and potential significant, mineral system to the north of Dune."



The directors of Encounter Resources Ltd ("Encounter") are pleased to provide the first assay results from the recent diamond drill program at Lamil.

#### **Background**

Lamil covers an area of ~61km² and is located 25km northwest of the major gold-copper mine at Telfer, owned by Newcrest Mining Ltd (ASX:NCM). Lamil is adjacent to a major regional gravity lineament which marks the location of a significant structure and deformation zone that would have acted as a pathway for ore forming fluids during the formation of the Proterozoic aged deposits.

Seven diamond holes were completed in the recent program, including three diamond tails on existing RC holes and four new diamond holes from the surface. Three separate target areas were drilled at Dune as well as a previously untested magnetic anomaly located north of the main Dune corridor.

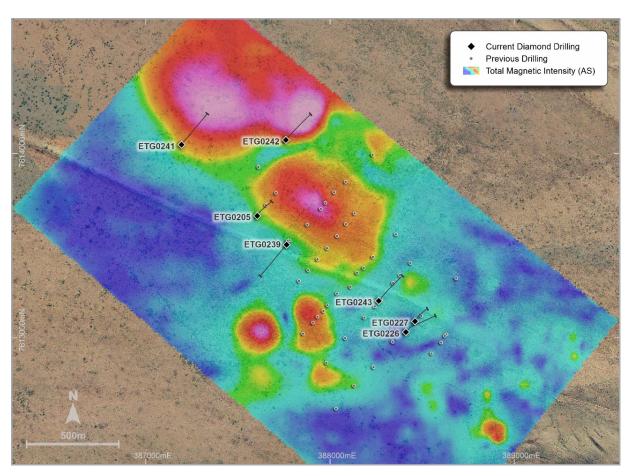


Figure 1 – Drillhole collar location plan on magnetic image (TMI Analytical Signal) draped over air photo



### **Dune Prospect**

Dune sits in the northwest of the Lamil project area and consists of a laterally-extensive gold-copper system, outlined by broad spaced RC drilling over 1km of strike. The mineralisation at Dune is located on the fold axis in the northern part of the Lamil Dome. The RC drill program completed in February 2021 at Dune extended the copper-gold system both to the south and east and contained strong copper-gold intersections including:

- 132m @ 0.31g/t Au and 0.11% Cu from 87m to end of hole in ETG0227<sup>1</sup>
  - o including 22m @ 0.51g/t Au and 0.24% Cu from 181m

#### Diamond tail of ETG0226

The diamond tail of ETG0226 (located on the same section 80m south-west of ETG0227) was completed to a depth of 710m. This hole intersected a thick zone of quartzite containing zones of intense alteration, silica flooding, veining and brecciation. ETG0226 includes a 1.5m intersection of semi-massive pyrite and chalcocite from 409.1m (see photos 1-3).

Two zones totaling 44.6m of core were selected from ETG0226 for priority analysis to determine the copper and gold grade of the semi-massive pyrite and chalcocite zone. This analysis returned:

- o 1.5m @ 19.1% Cu from 409.1m sitting directly above;
- o 3.9m @ 1.6g/t Au from 410.6m (last interval sampled assayed 0.7g/t Au).







Photos 1 to 3

Examples of semi-massive pyrite – chalcocite mineralisation drilled from 409.1 to 410.6m in ETG0226

Assays from the remainder of ETG0226 and ETG0227 are pending with results expected in October / November 2021.



#### ETG0243 – Testing the mineralised corridor 200m along strike of ETG0226 and ETG0227

ETG0243 was drilled to test the stockwork corridor intersected in ETG0226 and ETG0227 200m, along strike to the north-west. This hole intersected a similar geological sequence as seen in ETG0226 being altered siltstones and brecciated quartzite with interbedded siltstones. Both of these units contain quartz carbonate veining with pyrite and chalcopyrite (copper sulphide) (Photos 4 & 5).



Photo 4 - Example of semi-massive pyrite/chalcopyrite ~ 347m in ETG0243 Photo 5 - Example of brecciated quartzite containing pyrite with fine chalcopyrite ~ 519m in ETG0243

Core samples from the top 360m of ETG0243 have been submitted for priority analysis with results expected in October 2021.

#### ETG0241 - Testing a large magnetic anomaly north of Dune

ETG0241 was the first hole drilled into a new target located to the north of the Dune corridor. The hole was designed to test a +1km long, east-west trending magnetic anomaly (see Figure 1). ETG0241 successfully tested the modelled anomaly and intersected a ~25m wide zone of pyrrhotite-dominant quartz-sulphide breccia that contains disseminations and blebs of chalcopyrite from 310m. This quartz-sulphide breccia zone becomes progressively more sulphide rich to 335m with intervals of up to ~50% sulphide (pyrrhotite dominant) (Photos 6, 7 & 8)





Photos 6 & 7. Examples of quartz sulphide breccia with pyrrhotite at ~320m & ~330m in ETG0241



Photos 8. Example of semi-massive pyrrhotite with blebs of chalcopyrite at ~334m in ETG0241



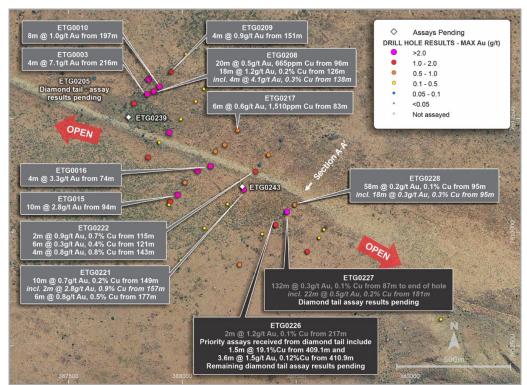


Figure 2 - Dune prospect (Max in hole Au) 234

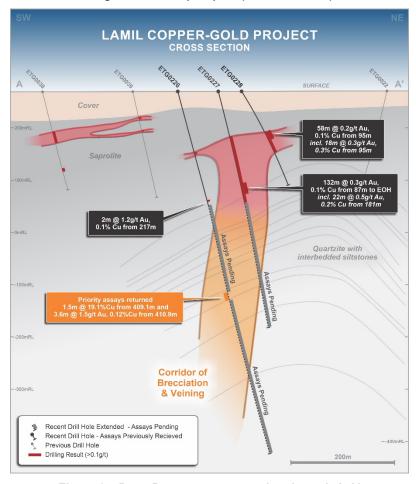


Figure 3 - Dune Prospect cross section through A-A'



### **Summary and Next Steps**

Seven diamond drill holes were completed in the recent diamond drilling program. The program has successfully outlined a broad, steeply dipping zone of stockwork veining that remains open to the north and south. High grade copper mineralisation intersected in ETG0226 and numerous quartz sulphide veins in ETG0243 indicate drilling is vectoring into the core of the mineralised system at Dune.

The first drilling to test a +1km long magnetic anomaly to the north of Dune has successfully intersected a broad pyrrhotite dominant quartz-sulphide breccia that contains disseminations and blebs of chalcopyrite. This new system remains open along strike and at depth and assay results from the initial drilling are keenly awaited.

The program has been paused to allow for assay results to catch up and be interpreted before drilling resumes. In the meantime, Encounter plans to request additional heritage clearances and to complete a detailed ground gravity survey over the Dune area. Dependent on assay results from the drilling and interpretation of the gravity data more detailed drilling at Dune is planned to determine the lateral and vertical extent of this mineral system.

Drillhole ETG0241 and the first 60-360m of ETG0243 have been prioritised for chemical analysis with results expected in October/November 2021.

	Hole_ID	Hole_Type	MGA_Grid_ID	MGA_East	MGA_North	MGA_RL	Azimuth	Dip	EOH Depth
	ETG0205	RC / Diamond	MGA94_51	387604	7613663	265	40	-75	439.1
	ETG0226	RC / Diamond	MGA94_51	388411	7613032	270	40	-75	710.8
	ETG0227	RC / Diamond	MGA94_51	388461	7613090	270	40	-75	457
1	ETG0239	RC / Diamond	MGA94_51	387764	7613506	265	40	-75	448.6
1	ETG0241	Diamond	MGA94_51	387193	7614048	265	40	-60	437.7
	ETG0242	Diamond	MGA94_51	387760	7614074	265	40	-60	405.7
	ETG0243	Diamond	MGA94_51	388264	7613201	265	40	-75	646.2

Table 1: Collar locations and drill hole information of completed RC diamond tails and new diamond holes in current program.

Hole ID	From (m)	To (m)	Length (m)	Gold (g/t)	Cu (ppm)
ETG0226	356.35	356.6	0.25	0.37	110
and	359.9	357.1	0.20	1.04	106
and	392.65	393.5	0.85	0.20	70
and	401.2	401.9	0.70	0.48	6,240
and	401.9	402.2	lost core		
and	402.2	402.6	0.40	0.72	262
and	409.1	410.6	1.50	0.03	190,903
and	410.6	410.9	lost core		
and	410.9	414.5*	3.60	1.51	1,219

Table 2: RC drill hole gold and copper assay results from holes ETG0226, ETG0227 and ETG0228 (+0.1g/t Au cutoff). Intervals above 1 g/t Au and/or 1% Cu reported separately. \*end of priority assay interval – remaining results pending

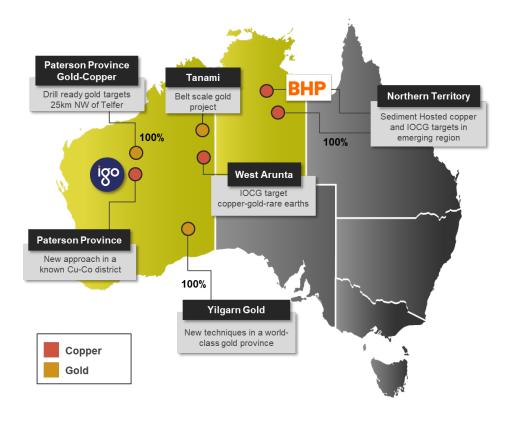
<sup>&</sup>lt;sup>1</sup> refer ASX release 21 April 2021

<sup>&</sup>lt;sup>2</sup> refer ASX release 19 January 2017

<sup>&</sup>lt;sup>3</sup> refer ASX release 18 December 2020

<sup>&</sup>lt;sup>4</sup> refer ASX release 26 April 2017





#### **About Encounter**

Encounter is one of Australia's leading mineral exploration companies listed on the ASX Encounter's primary focus is on discovering major gold and copper deposits in Australia. Encounter's assets include:

- A large project portfolio in the Paterson Province of WA where it is exploring for copper-gold deposits at its 100% owned Lamil Project and for copper-cobalt deposits at the Yeneena project with IGO Limited (ASX:IGO);
- A series of camp scale, first mover copper opportunities in the Northern Territory. This includes
  the Elliott copper project which is being advanced in partnership with BHP via a \$22m earn-in and
  joint venture;
- The Aileron IOCG project in the West Arunta region of WA; and
- An extensive land position in the West Tanami region covering over 100km of strike along a major
  prospective structural corridor in WA which Encounter intends to demerge into a new company,
  "Hamelin Gold Limited" and post demerger, Hamelin will seek to list on ASX.

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The information in this report that relates to Exploration Results is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bewick consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. This announcement has been authorised for release by the Board of Encounter Resources Limited.



	SECTION 1 SAMPLING TI			
Criteria	JORC Code 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 sounds, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	The Dune project was sampled by Encounter using diamond drilling. A 7-hole diamond drilling program has been completed at Dune. Drilling includes 3 diamond tails on existing RC holes and four new Diamond holes for a total of 2,866m of diamond drilling. 3 of the diamond holes ETG0208 (diamond tail from existing RC hole), ETG0241 and ETG0242 were drilled to test discrete magnetic anomalies. ETG0239 was drilled to test an EM anomaly. Two diamond tails were drilled from existing RC drillholes, ETG0226 and ETG0227, to test the extents of mineralisation. ETG0243 was drilled 200m to the NW of ETG0226 and ETG0227.		
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Drill hole collar locations were recorded by handheld GPS, which has an estimated accuracy of +/- 5m.		
	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	RC sections of holes ETG0226 and ETG0227 were reported in ASX announcement dated 21 April 2021. ETG0205 RC section reported in ASX announcement dated 18 <sup>th</sup> December 2020.		
	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 samples were half core samples of HQ and NQ sized core. The samples from the drilling were sent to Bureau Veritas Minerals Pty Ltd Laboratories in Perth, where they were dried, crushed, pulverised and split to produce a sub – sample for ICP (OES) (MS) 4 Mixed Acid Digest and Fire Assay.		
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).	ETG0227 was RC drilled to a depth of 219m then diamond tailed to 457m. ETG0226 was RC drilled to 225m and has been diamond drilled to 710.3m. ETG0205 was RC drilled to a depth of 207m and diamond drilled to 439.1m. All other holes were drilled with mud rotary from surface through cover sediments with diamond drilling commencing at the cover-oxidized sediment boundary as HQ3 to reduce core loss before switching to HQ and NQ coring once ground conditions allowed.  All core was oriented using Relfex Act III system.		
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Sections of lost core where minimal and were noted by the diamond drillers.		
	Measures taken to maximise sample recovery and ensure representative nature of the samples	New drillholes were drilled with mud rotary through the cover sequence. HQ3 was used in areas of broken or soft ground to reduce the chances of core loss. The remainder of the holes being HQ/NQ diamond drilled with core recovery +95%.		
	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.	To date, no detailed analysis to determine the relationship between sample recovery and/or and grade has been undertaken for this drill program.		



Criteria	JORC Code explanation	Commentary
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.	Geological logging is currently being completed on all drill holes, with lithology, alteration, mineralisation, structure and veining recorded.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is qualitative in nature and records interpreted lithology, alteration, mineralisation, structure, veining and other features of the samples and core.
	The total length and percentage of the relevant intersections logged	Drillholes ETG0226, ETG0227 and ETG0241 have all bee logged in full by Encounter geologists. Logging is ongoing for ETG0205, ETG0239, ETG0243 and ETG242.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Samples submitted from the diamond drill holes were half core. Minor lithology samples from unmineralized zones have been taken as composite samples with the first 25cm of each meter combined into a 4m composite sample.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable as all drilling was core drilling
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation was completed at Bureau Veritas Minerals Pty Ltd Laboratories in Perth. Samples were dried, crushed, pulverised (90% passing at a ≤75µM size fraction) and split into a sub – sample that was analysed using fire assay.
1	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial certified reference materials (CRMs) and in house blanks. The insertion rate of these will be at an average of 1:33.
	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 of the second half of the drill core has been completed.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate to give an accurate indication of the mineralisation at Dune.
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 have been analysed by ICP using a 4 mixed acid digest including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. This extended digest approaches a total digest for many elements however some refractory minerals are not completely attacked. Assays have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry (OES)(AI, Ca, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, P, S, Sc, Ti, V, Zn) and ICP – Mass Spectrometry(MS) (Ag, As, Bi, Cd, Co, Ga, Hf, In, La, Mo, Nb, Pb, Rb, Sb, Sn, Sr, Ta, Te, Th, TI, U, W, Y, Zr). Au, P and Pd were determined via Fire Assay.
	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.	Routine pXRF analysis has been completed down hole bu this information does not form part of this report.
	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.	Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks as part of inhouse procedures. Encounter also submitted an independer suite of CRMs and blanks (see above). A formal review of this data is completed on a periodic basis.



	Criteria	JORC Code explanation	Commentary	
	Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The intersections included in this report have been verified by Mark Brodie (Senior Exploration Geologist)	
		The use of twinned holes.	No twinned holes have been drilled.	
		Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is collected for Dune on toughbook computers using Excel templates and Maxwell Geoservice's LogChief software. Data collected was sent offsite to Encounter's Database (Datashed software), which is backed up daily.	
		Discuss any adjustment to assay data.	In the case of minor core loss (sub 50cm) the average grade of the intervals either side has been assigned to the Loss Core interval.	
	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	Drill hole collar locations are determined using a handheld GPS.	
		Resource estimation.	Down hole surveys were collected during this drilling program at approx. 30m intervals downhole.	
7		Specification of the grid system used.	The grid system used is MGA_GDA94, zone 51.	
		Quality and adequacy of topographic control.	Estimated RLs were assigned during drilling and are to be corrected at a later stage using a DTM created during the aeromagnetic survey.	
JO,	Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drilling at the Dune prospect has been completed on 200m to 400m spaced sections with holes spacing ranging from 40m to 80m	
		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.	Mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.	
		Whether sample compositing has been applied.	Intervals have been composited using a length weighted methodology	
	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.	N/A – this is early stage drilling and the orientation of the hole to the mineralisation is not known.	
		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.	This is early stage drilling and the orientation of sampling to the mineralisation is not known.	
	Sample security	The measures taken to ensure sample security.	The chain of custody is managed by Encounter. Samples were delivered by Encounter personnel to the Camp Dome laydown and then transported to the assay laboratory via DDH-1 Drilling contractors.	
	Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on Dune data.	



# **SECTION 2 REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Lamil project is located within the tenement E45/4613 which is 100% held by Encounter. The prospect area is subject to a production royalty of A\$1 per dry metric tonne of ore mined.  This tenement is contained completely within land where the Martu People have been determined to hold native title rights.  No historical or environmentally sensitive sites have
Exploration done by other parties		The majority of historical exploration activity at Lamil was completed during a Newmont / BHP / WMC joint venture in the mid-1980s with Newmont as operator.
	Acknowledgment and appraisal of exploration by other parties.	In 1989 Newmont completed a six hole diamond program at Lamil (LHS 89 1-6) for a total of 563m with one hole targeting the Northern Magnetic anomaly (no called Dune).
		In 1990/91, a program of RAB holes (LHB series) were drilled on the Northern Magnetic Anomaly along the interpreted fold axis for a total of 1734m. Drilling was hampered by ground water resulting in the program being largely ineffective.
Geology	Deposit type, geological setting and style of mineralisation	The Lamil project is situated in the Proterozoic Paterson Province of Western Australia. A simplified geological interpretation comprises a domal feature will likely like
Drill hole information	A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:  • Easting and northing of the drill hole collar • Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar • Dip and azimuth of the hole • Down hole length and interception depth • Hole length	Refer to tabulation in the body of this announcement.



Criteria	JORC Code explanation	Commentary
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.	All reported assays have been length weighted, with a nominal 0.1g/t Au and/or 0.1% Cu lower cut-off. No upper cuts-offs have been applied. Where core loss has been encountered within a mineralized interval the average grade of the samples directly above and below has been applied to the zone of core loss.
	Where aggregated 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.	Intervals greater than 1g/t Au and 1% Cu have been reported as separate intervals
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported in this announcement.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results. 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 known').	The geometry of the mineralisation is not yet known due to insufficient drilling in the targeted area.
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 plane 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 practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All significant intervals are reported with a 0.1g/t Au and/or 0.1%Cu lower cut-off
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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 meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
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).  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 next phase of work will be designed following interpretation of assays from the current program and results of the ground gravity survey.