30 September 2024



# First Pass Soil Sampling at O'Phlay Identifies New Target Areas for Exploration

### **Key Points:**

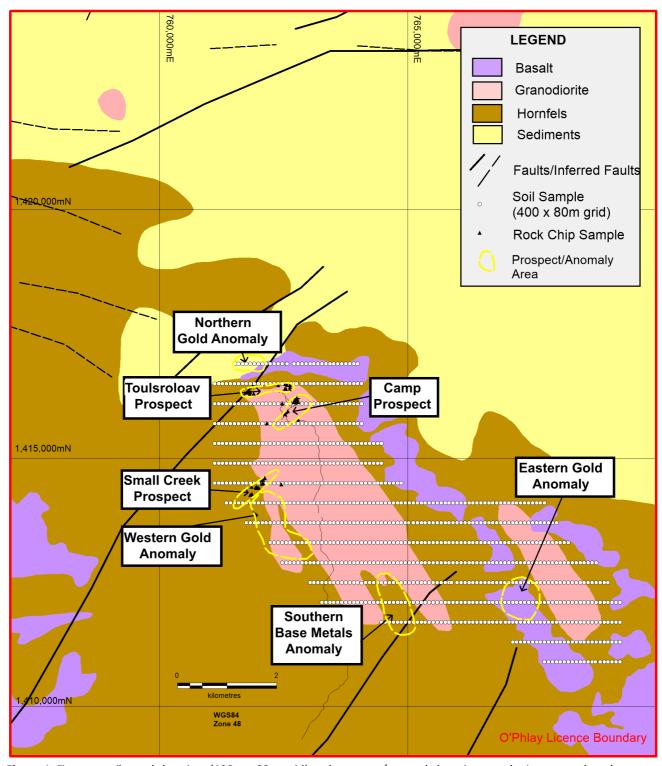
- Unity has completed first-pass soil sampling program at O'Phlay over approximately 20% of the licence area.
- This initial sampling is broadly spaced (400m x 80m spacing) and was designed to cover the prospective granodiorite intrusions in the central and southern portions of the licence area.
- As expected, significant gold-in-soil results were obtained around the historical Chinese gold mining areas in and around the northern portion of the main granodiorite – Camp, Toulsroloav and Small Creek prospects.
- A number of new areas of interest were identified from the soil sampling:
  - Northern Gold Anomaly anomalous gold-in-soil values, up to 119ppb gold, extending for at least 400m along a single sample line;
  - Western Gold Anomaly north-south trending area of gold anomalism (up to 101ppb gold)
     extending 1.2km along the western contact of the main granodiorite intrusion;
  - Eastern Gold Anomaly 800m x 700m gold-in-soil anomaly (up to 171ppb gold) lying between the main granodiorite intrusion and a smaller intrusion to the east; and
  - Southern Base Metals Anomaly 1.3km x 800m copper-nickel-cobalt anomaly lying adjacent to the southern portion of the main granodiorite intrusion.
- Geological mapping and rock chip sampling were conducted in conjunction with the soil sampling and results from this work will be reported shortly.
- A sizable infill soil sampling program planned for O'Phlay has been postponed with the onset of the rainy season.
- Field work will resume at O'Phlay as soon as practicable most likely in October November 2024.

**Unity's Managing Director, Craig Mackay said:** "Unity has just completed the first systematic exploration ever conducted within the O'Phlay licence area."

"As expected, we have located significant areas of gold anomalism in the areas of historical Chinese gold mining at the Camp, Toulsroloav and Small Creek prospects. However, we have also identified sizable additional areas of anomalism (gold and base metals) that offer attractive new exploration targets. Some of these new anomalies are well away from the historical mining area.

"Our exploration to date still only covers less than 1/4 of the 195.6km² licence area, and we look forward to conducting the first exploration in the northern portion of the licence, where highly prospective granitic intrusions associated with major structures are located."





**Figure 1.** First pass soil sample locations (400m  $\times$  80m grid) and prospect/anomaly locations on the interpreted geology at O'Phlay in Cambodia.

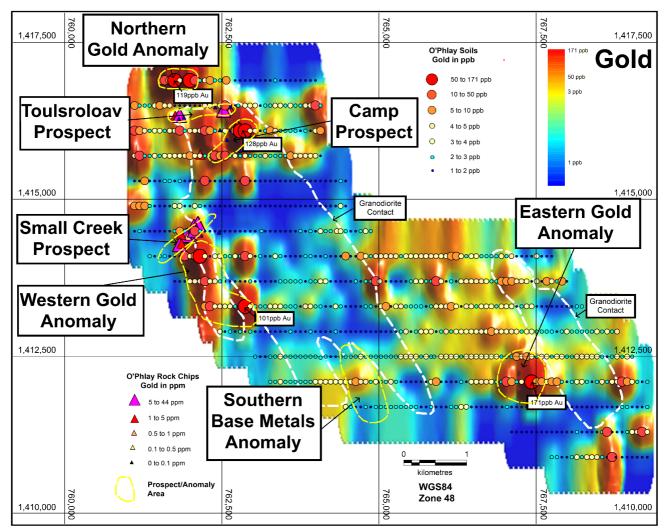
**Unity Energy & Resources** ("**Unity**", **or the "Company**") is pleased to announce the results for first-pass soil sampling conducted at its O'Phlay Gold Project (**O'Phlay**) in the Mondulkiri Province in eastern Cambodia (Figure 4).



A total of 857 soil samples were collected on a 400m x 80m grid spacing. The sample grid covered the entire main granodiorite intrusion in the centre of the licence area as it is currently interpreted (Figure 1).

Samples were submitted to ALS Global (ALS) for gold analysis and multi-element readings were taken by Unity using a portable X-Ray Fluorescence (XRF) unit.

Details on the new soil sampling and assaying procedures are outlined in Appendix 1. The soil sample locations with the licence geology are shown on Figure 1. The soil sample results are depicted on Figures 2 and 3. The soil sample results are discussed below.



**Figure 2.** First pass gold soil sample results from the O'Phlay licence. Results are presented for each sample site over the imaged assay data (inverse distance method).

Being a regional, broad-spaced grid, only very limited soil sampling was conducted around the historical Chinese gold mining areas in and around the northern portion of the main granodiorite – Camp, Toulsroloav and Small Creek prospects.

High grades of up to 27.5g/t, 24.3g/t and 21.1g/t gold have been obtained from Unity's sampling

 $<sup>^1\</sup> Unity\ News\ Release\ 18\ August\ 2023:\ Broad\ Zones\ of\ Stockwork\ Gold\ Mineralisation\ Located\ at\ O'Phlay\ in\ Cambodia.$ 



of massive arsenopyrite veins and sheeted veins at the Toulsroloav and Small Creek prospect. Broad, stockwork zones (**up to 40m wide**) with moderate gold grades have been mapped by Unity at the Camp prospect.

Despite the limited sampling coverage, anomalous gold and arsenic soil assay results were still obtained at the Camp, Toulsroloav and Small Creek prospects, with maximum assays of **128ppb gold** and **563ppm arsenic**. Some of the anomalous results lie some distance away from the existing workings suggesting potential for the delineation of extensions to the gold mineralisation (Figures 2 & 3).

An additional four areas of interest (Northern Gold Anomaly, Western Gold Anomaly, Eastern Gold Anomaly & Southern Base Metals Anomaly) were identified from the soil sampling. These anomalies are discussed below and are depicted in Figures 2 & 3:

### **Northern Gold Anomaly**

Anomalous gold-in-soil values, up to **119ppb gold**, extending for at least **400m** were obtained along Unity's most northern line of soil sampling. The anomalous results are located 450m north of the Toulsroloav Prospect. The anomalous gold results may be related to a parallel zone of gold mineralisation to the east-northeast trending mineralisation at Toulsroloav.

### **Western Gold Anomaly**

A north-south trending area of gold anomalism (up to **101ppb gold**) was located directly south of the Small Creek Prospect and along the western contact of the main granodiorite intrusion. The anomalous results occur on 3 parallel lines of soil sampling and extend over **1.2km**. The gold anomaly is open to the south where the current extent of the soil sampling ends.

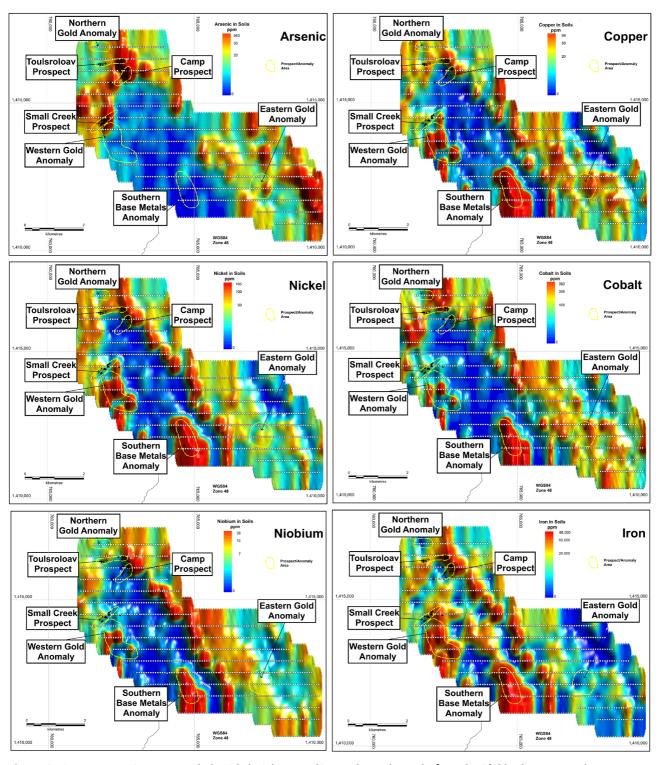
#### **Eastern Gold Anomaly**

An **800m** x **700m** gold-in-soil anomaly associated with 2 parallel lines of sampling was located 5.7km southeast of the historical Chinese mining area which encompasses the Small Creek, Camp and Toulsroloav prospects. The anomalous results lie between the main granodiorite intrusion and a smaller intrusion to the east. The peak soil assay result from the Eastern Gold Anomaly is **171ppb** gold, which is the highest gold assay received in the soil sampling program. A repeat assay from this sample site returned **192ppb** gold.

### Southern Base Metals Anomaly

A coherent **1.3km x 800m** copper-nickel-cobalt anomaly extending over 3 parallel lines of sampling was located adjacent to the southern portion of the main granodiorite intrusion. Peak soil sample assay results include: **99ppm copper** (the highest result from the first-pass soil sampling); **181.9ppm nickel** and **392ppm cobalt**. The area is also anomalous in niobium and iron. The Southern Base Metals Anomaly is open to the south where the current extent of the soil sampling ends.





**Figure 3.** First pass arsenic, copper, cobalt, nickel, niobium and iron soil sample results from the O'Phlay licence. Results are presented for each sample site over the imaged assay data for each of the elements (inverse distance method). Arsenic and gold are closely associated. The areas of low copper, nickel, cobalt and niobium are closely associated with the granodiorite intrusions. The contact areas between the granodiorite intrusions and surrounding hornfels (metamorphosed sediments) are anomalous in gold, arsenic, copper, nickel, cobalt, niobium and iron.



#### **Future Work Program**

A sizable infill soil sampling program planned for O'Phlay has been postponed with the onset of the rainy season.

This infill soil sampling will include the following:

- Close-spaced 100m x 40m soil sampling at Camp, Toulsroloav and Small Creek prospects to allow for drill targeting;
- Follow-up 200m x 40m soil sampling over the new Northern Gold, Western Gold, Eastern Gold & Southern Base Metals anomalies; and
- First-pass soil sampling (400m x 80m) over a prospective area of granitic intrusions and major structures in the northern portion of the licence area (Figure 1).

Field work will resume at O'Phlay as soon as practicable – most likely in November 2024.



**Photograph 1.** Unity's soil sampling crew at O'Phlay.





Figure 4. Location and geological setting of Unity's gold and copper-gold projects in Cambodia.

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### **Contact Details**

For further information please do not hesitate to contact us.

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# **About Unity**

Unity Energy and Resources (Singapore) Limited is an unlisted, public company that is building a portfolio of highly prospective minerals projects in Southeast Asia.

Currently the Company is focused on the discovery of "giant" intrusion-related gold (IRG) and/or porphyry copper-gold deposits in Cambodia.

Unity is planning an IPO and to list on the ASX in Q4/CY2024.

For more information, please visit www.unityenergy.com.au

This News Release has been authorised by the Managing Director of Unity Energy & Resources (Singapore) Limited.

### **Competent Persons Statement**

The information in this report that relates to exploration results is based on information compiled by Craig Mackay, a Competent Person, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Mackay is the Managing Director of the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Mackay consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

Certain statements in this document are or maybe "forward-looking statements" and represent Unity's intentions, projections, expectations or beliefs concerning among other things, future exploration activities. The projections, estimates and beliefs contained in such forward-looking statements necessarily involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Unity, and which may cause Unity's actual performance in future periods to differ materially from any express or implied estimates or projections. Nothing in this document is a promise or representation as to the future. Statements or assumptions in this document as to future matters may prove to be incorrect and differences may be material. Unity does not make any representation or warranty as to the accuracy of such statements or assumptions.

#### Confidentiality

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# Appendix 1: JORC Code, 2012 Edition – Tables

## **Section 1 Sampling Techniques and Data**

Criteria	section apply to all succeeding sections.)  JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>The sampling described in this report refers to soil sampling. Samples were all collected by qualified geologists or under geological supervision. Soil samples were collected on a 400m x 80m grid spacing. Samples were collected by hand from the "B" soil horizon from between 5cm – 30cm below surface, dried and sieved to -2mm.</li> <li>Sieved soil samples with a nominal weight of 1.2kg were submitted to the ALS laboratory in Phnom Penh, Cambodia for analysis. A duplicate sieved soil sample from each site with a nominal weight of 250g was retained by Unity as a reference.</li> <li>The sample preparation was conducted in Phnom Penh. Entire soil samples were pulverised to a nominal 85% passing -75µm (PUL32).</li> <li>A 100g pulp split from the soil samples was then sent to ALS laboratories in Vientiane, Laos for gold analysis via 50g charge fire assay with Atomic Absorption Spectrometry (AAS) finish (AU-AA22 for soil samples). Soil samples that returned AU-AA22 assays &gt;1ppm gold were then re-assayed via AU-AA26.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	Not applicable for soil sampling.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Not applicable for soil sampling.
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> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>None of these samples will be used in Mineral Resource estimation.</li> <li>Each soil sample was briefly described in a qualitative fashion by the geologist when it was collected.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/secondhalf sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples were transported by road to ALS Laboratory in Phnom Penh, Cambodia. The sample preparation for all samples follows industry best practice. At the laboratory, all samples were pulverised to achieve a nominal particle size of 85% passing -75 µm.</li> <li>Unity has protocols that cover the sample preparation at the laboratories and the collection and assessment of data to ensure that accurate steps are used in producing representative samples. The crusher and pulveriser are flushed with barren material at the start of every batch.</li> <li>Sampling is carried out in accordance with Unity's protocols as per industry best practice. Given the early-stage reconnaissance nature of the rock chip sampling. No standards, blanks and duplicates were inserted by Unity with the rock chip samples.</li> <li>The sample sizes are considered appropriate to correctly represent the style of mineralisation, the thickness and consistency of the intersections.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Sieved soil samples with a nominal weight of 1.2kg were submitted to the ALS laboratory in Phnom Penh, Cambodia for analysis. A duplicate sieved soil sample from each site with a nominal weight of 250g was retained by Unity as a reference.</li> <li>The sample preparation was conducted in Phnom Penh. Entire soil samples were pulverised to a nominal 85% passing -75µm (PUL32).</li> <li>A 100g pulp split from the soil samples was then sent to ALS laboratories in Vientiane, Laos for gold analysis via 50g charge fire assay with Atomic Absorption Spectrometry (AAS) finish (AU-AA22 for soil samples). Soil samples that returned AU-AA22 assays &gt;1ppm gold were then re-assayed via AU-AA26.</li> <li>Multi-element readings were conducted by Unity on the duplicate 250g soil samples using a portable XRF (Olympus Vanta M series handheld XRF analyser). The instrument is re-calibrated every 50 samples.</li> <li>The analytical methods are considered appropriate for this mineralisation style and are of industry standard. The quality of the assaying and laboratory procedures are appropriate for this deposit type.</li> <li>Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing -75 microns. Internal laboratory QAQC checks are reported by the laboratory. Review of the internal laboratory QAQC suggests the laboratory is performing within acceptable limits. Duplicate samples (1 in 50 samples) were inserted by Unity with the soil samples.</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Reported results are compiled and verified by the Company's Senior Geologist and the Managing Director.</li> <li>Primary field data is collected by Unity's geologists by GPS and field notebooks. This data is compiled and digitally captured. The compiled digital data is verified and validated by the Company's geologists.</li> <li>The primary data is kept on file. There were no adjustments to the assay data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>No down-hole surveys were completed. The location of each soil sample location was recorded by handheld GPS with positional accuracy of approximately +/-5m.</li> <li>Location data was collected in WGS 84, UTM zone 48N.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Soil samples were collected on a 400m x 80m grid spacing.</li> <li>There was no sample compositing.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Not applicable for soil sampling.</li> <li>No orientation-based sampling bias has been identified in the data at this point.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are stored on site prior to road transport by Company personnel to the ALS laboratory in Phnom Penh, Cambodia.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	There has been no external audit or review of the Company's techniques or data.



# **Section 2 Reporting of Exploration Results**

	teria 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>	<ul> <li>Unity's Cambodian exploration licences include Ngot and O'Phlay (both granted) and Ta Vaeng (under application). Unity has an 85% interest in each of the licences.</li> <li>The licences are in good standing. The licences lie wholly or partially in Ministry of Environment "protected areas" which include flora and/or fauna reserves &amp; parks.</li> <li>Exploration and mining is permitted within these protected areas subject to government approval. Exploration in the Unity licences was approved by the Ministry of Mines and Ministry of Environment following the completion of an Interim Environmental &amp; Social Impact Assessment (IESIA). Government approval for mining is subject to the submission of an acceptable Definitive Feasibility Study and Final Environmental &amp; Social Impact Assessment (FESIA). Emerald Resources NL's Okvau Gold Mine was approved in a protected area. A portion of the protected area was excised for the mining licence.</li> </ul>		
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Unity's Cambodian licences have seen very limited previous mineral exploration.		
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Cambodian licences are prospective for intrusion-related gold ("IRG") and porphyry copper-gold mineralisation. Unity's Ngot licence lies 2.5km south of the Okvau Gold Mine operated by Emerald Resources NL (ASX:EMR).</li> </ul>		
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>Appropriate locality maps for the rock chip samples accompany this announcement.</li> <li>There has been no exclusion of information.</li> </ul>		



Criteria	JORC Code explanation	Commentary
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 aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No weighting or high-grade cutting techniques have been applied to the data reported.</li> <li>No result aggregation has been conducted.</li> <li>Metal equivalent values are not reported in this announcement.</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>	The orientation of the mineralised zone has been established or interpreted and the soil and channel rock chip samples were collected in such a way as to intersect mineralisation in a perpendicular manner.
Diagrams	<ul> <li>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.</li> </ul>	Refer to figures in the body of the report.
Balanced reporting	<ul> <li>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.</li> </ul>	The accompanying document is considered to represent a balanced report.
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>	There is no other exploration data which is considered material to the results reported in the announcement.
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>	Refer to main body of this report.