

17 October 2014

KHDDH356 INTERSECTS 495M OF PORPHYRY Cu-Au MINERALISATION FROM SURFACE

HIGHLIGHTS:

- **KHDDH356 intersects 495m of Cu-Au mineralisation from surface at Altan Tolgoi:**
 - o **495m grading 0.30% Cu & 0.34g/t Au (0.51% CuEq) from 1m; including**
 - o **194m grading 0.34% Cu & 0.59g/t Au (0.71% CuEq) from 304m**
- **Extensive mineralisation over 0.5% CuEq shows the emerging consistency and bulk nature of the Altan Tolgoi mineralisation**
- **Mineralisation from surface has positive implications for open pit mining**
- **Continuity with the recently discovered tourmaline breccia hosted Cu-Au mineralisation reinforces the new geological model suggesting much greater mineralisation than previously understood**
- **The first 10,000m of drilling at Kharmagtai has been a resounding success potentially positioning the Kharmagtai project as significant Cu-Au discovery**

KHDDH356 RESULTS:

Xanadu Mines Ltd (**ASX: XAM – “Xanadu”**) is pleased to announce that diamond drill hole KHDDH356 intersected near-continuous, high-grade copper-gold mineralisation from surface. The drill hole details are set out in Table 1 and assay results in Table 2. A plan, long section and cross section are included in Figures 1, 2 and 3 respectively.

KHDDH356 has confirmed both the down dip extension of the southern stockwork zone and the overprinting relationship with the tourmaline breccia. The hole intersected stockwork mineralisation between 1.0 and 496.0m grading 0.30% Cu and 0.34g/t Au (0.51% CuEq). Tourmaline breccia mineralisation occurred between 304.0 and 498.0 metres grading 0.34% Cu and 0.59g/t Au (0.71% CuEq). The tourmaline breccia was previously thought to be barren or weakly mineralised and the new geological model indicates potential to add substantially to the scale of the project.



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**ASX
XAM**

Xanadu Mines Ltd (**ASX: XAM**) is an exploration company that has assembled a significant exploration portfolio across Mongolia's porphyry belts. These belts are part of the larger Central Asian Orogenic Belt – one of the last great exploration frontiers known to host large copper porphyry deposits – and Mongolia is emerging as a globally significant copper province.

Xanadu's Managing Director, George Lloyd said: "This is an excellent result to close the summer season and has demonstrated that we have a rare combination of bulk tonnage and grade from surface. Good gold grades are present across Altan Tolgoi and surprise us with their significance and continuity. This is the result of an outstanding team effort as we work to rapidly advance the project."

The results from the first 10,000m of drilling are being digested to extract full value and a summary of the campaign will be announced shortly. Xanadu is in the process of arranging further diamond drilling and technical studies for the Kharmagtai project.

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ABOUT THE KHARMAGTAI PROJECT

The Kharmagtai project is located in the under-explored South Gobi porphyry copper province which hosts the world-class Oyu Tolgoi copper-gold operation, the Tsagaan Survaga porphyry copper-molybdenum development and Xanadu's Oyut Ulaan copper-gold exploration project. The Kharmagtai project is located within the Omnogovi Province, approximately 420km southeast of Ulaanbaatar and 60km north of the Tavan Tolgoi coal deposit.

The Kharmagtai project is an advanced exploration project consisting of multiple gold-rich porphyry copper prospects including Altan Tolgoi, Tsagaan Sudal and Zesen Zul. Exploration has identified significant shallow high-grade porphyry copper-gold mineralisation. A majority of the mineralised porphyry complex lies under un-explored shallow sediments. The large licence area has only been partially explored and the potential for further discoveries remains high. Altan Tolgoi is the present priority and the other deposits are planned to be explored and further discoveries are anticipated.

Xanadu has the right to earn an 85% interest in the Mongol Metals LLC joint venture company, equivalent to a 76.5% beneficial interest in the Kharmagtai project, by funding acquisition and exploration costs.

COMPETENT PERSONS STATEMENT

The information in this report relating to Exploration Results is based on information compiled or reviewed by Dr. Andrew Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists. Dr. Andrew Stewart has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as the "Competent Person" as defined in the 2012 Edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves". Dr. Andrew Stewart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The copper equivalent (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. Grades have not been adjusted for metallurgical or refining recoveries and the copper equivalent grades are of an exploration nature only and intended for summarising grade. The copper equivalent calculation is intended as an indicative value only. The following copper equivalent conversion factors and long-term price assumptions have been adopted: Copper Equivalent Formula (CuEq) = $\text{Cu}\% + (\text{Au (ppm)} \times 0.6284)$; Price assumptions: Cu (US\$3.20lb) and Au (US\$1,375oz).

TABLE 1: DRILL COLLARS

Recent Kharmagtai drill collar details are set out in the following table:

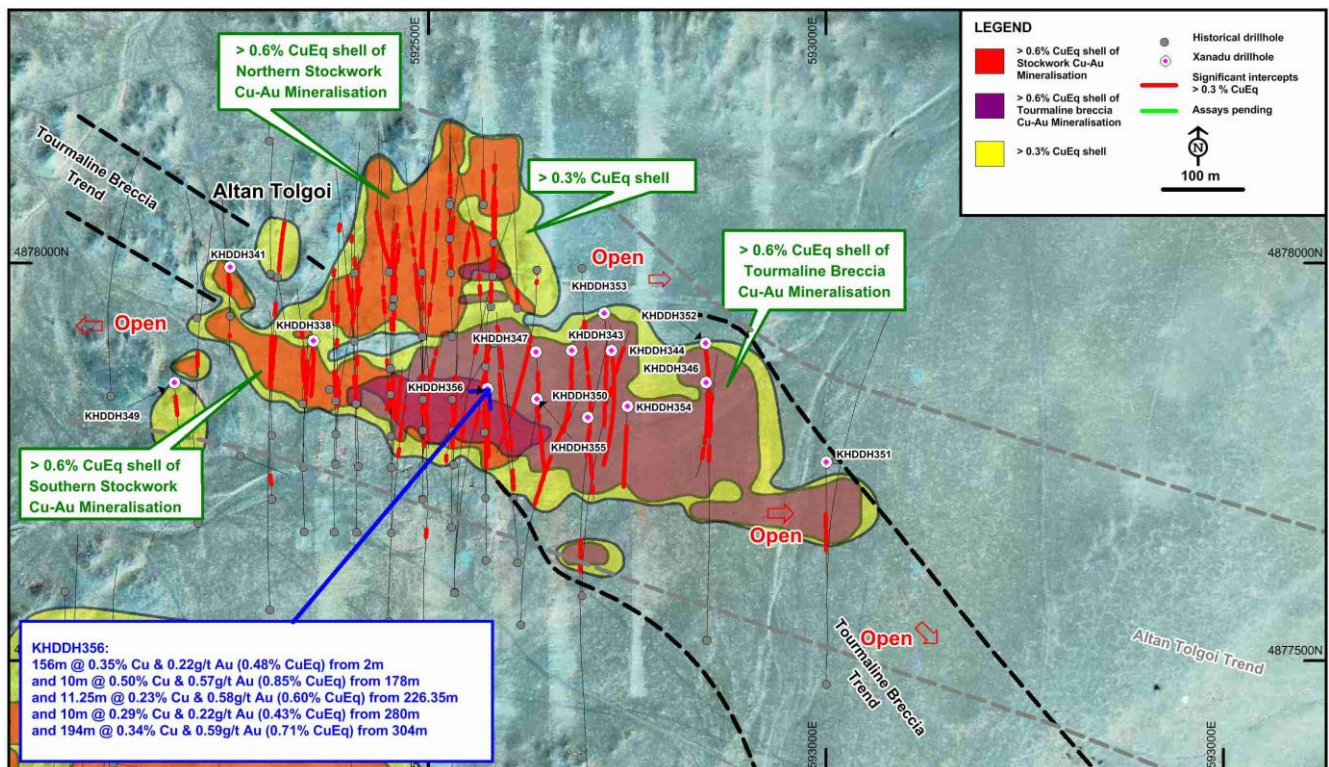
Hole	Prospect	East	North	RL	Azimuth	Incline	Depth (m)
KHDDH356	East Altan Tolgoi	592574	4877842	1275	179	-80	587.7

TABLE 2: ASSAY RESULTS

Significant intercepts from recent Kharmagtai drilling is set out in the following table:

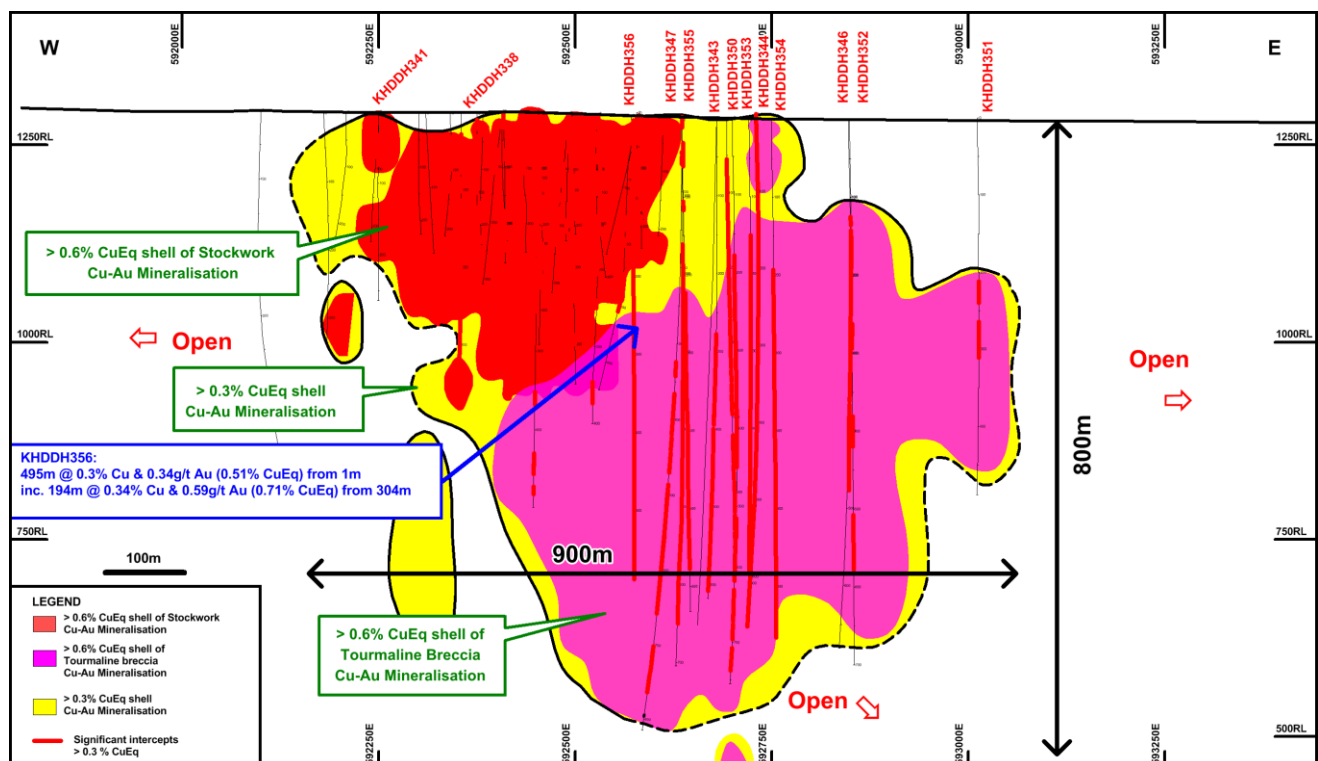
Hole	Prospect	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)
KHDDH356	East Altan Tolgoi	1.0	496.0	495.0	0.30	0.34	0.51
<i>including</i>		304.0	498.0	194.0	0.34	0.59	0.71

FIGURE 1: ALTAN TOLGOI PLAN

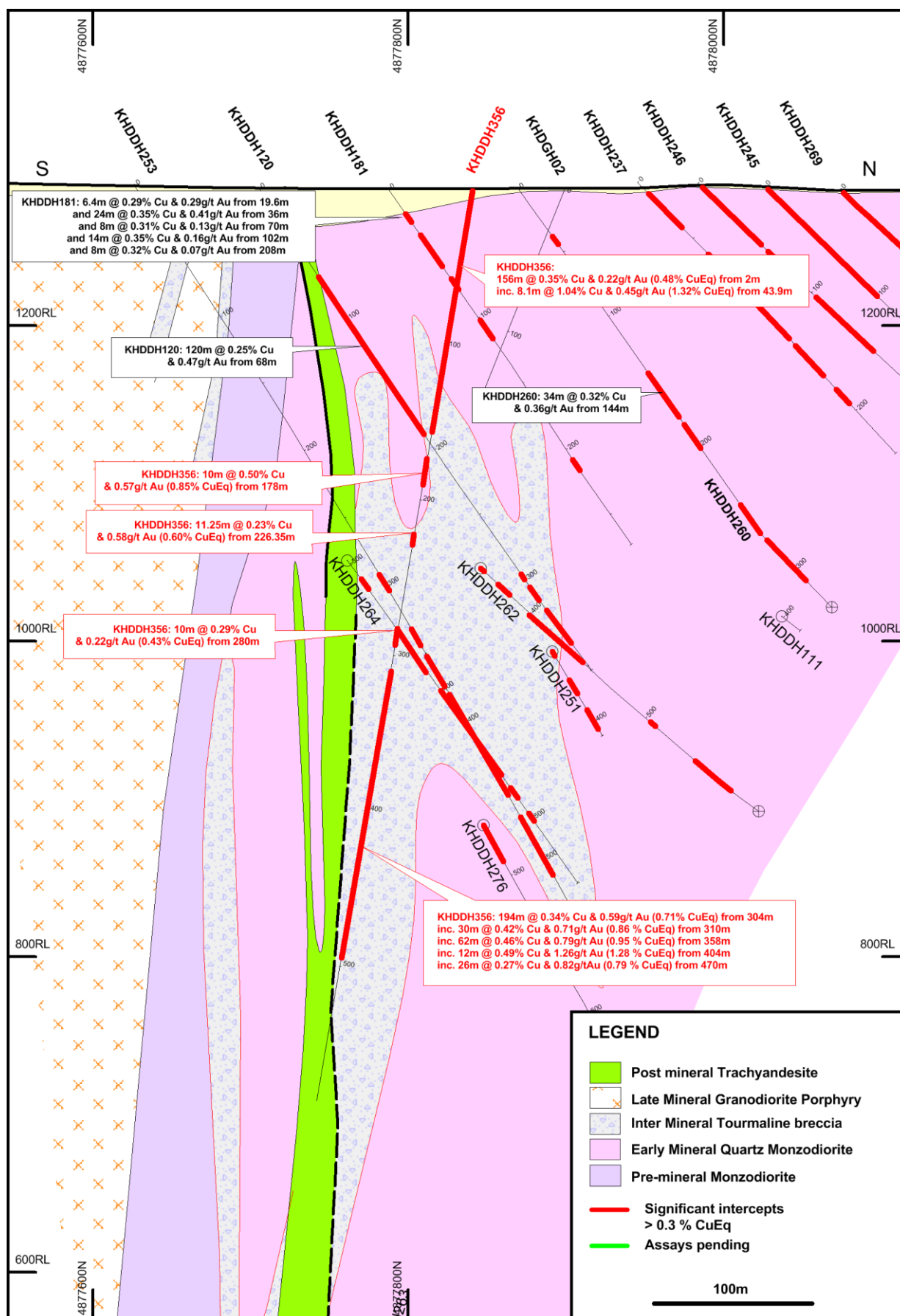


Plan map of Central Kharmagtai showing and extends of mineralisation defined by drilling to date.

FIGURE 2: ALTAN TOLGOI LONG SECTION



Long section of Altan Tolgoi showing the continuity between the mineralised stockwork and tourmaline breccia zones.

FIGURE 3: CROSS SECTION SHOWING MINERALISATION AT SURFACE


APPENDIX 1: KHARMAGTAI TABLE 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 Edition for the Kharmagtai project. Data provided by Turquoise Hill and Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 1 October 2014.

1.1 JORC TABLE 1 - 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 and assaying. - Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. - Aspects of the determination of mineralisation that are Material to the Public Report.	- The resource estimate is based on drill samples only. - Representative 2 metre samples were taken from ½ NQ or HQ) or diamond. - Only assay result results from recognised, independent assay laboratories were used in Resource calculation after QAQC was verified.
Drilling techniques	Drill type and details.	DDH drilling has been the primary drilling method.
Drill sample recovery	- Method of recording and assessing core and chip sample recoveries and results assessed. - Measures taken to maximise sample recovery and ensure representative nature of the samples. - Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	- DDH core recoveries have been very good, averaging between 97% and 99% for all of the deposits. In localized areas of faulting and/or fracturing the recoveries decrease; however this is a very small percentage of the overall mineralised zones. - Recovery measurements were collected during all DDH programs. The methodology used for measuring recovery is standard industry practice. - Analysis of recovery results vs. grade indicates no significant trends. Indicating bias of grades due to diminished recovery and / or wetness of samples.
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. - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged.	- Drill samples are logged for lithology, mineralisation and alteration and geotechnical aspects using a standardised logging system, including the recording of visually estimated volume percentages of major minerals. - Drill core was photographed after being logged by a geologist. - The entire interval drilled has been logged by a geologist.
Sub-sampling techniques and sample preparation	- If core, whether cut or sawn and whether quarter, half or all core taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	DDH Core is cut in half with a diamond saw, following the line marked by the geologist. The rock saw is regularly flushed with fresh water.

Criteria	JORC Code Explanation	Commentary
	- For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. - 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. - Whether sample sizes are appropriate to the grain size of the material being sampled.	- Sample intervals are a constant 2m interval down-hole in length. - Routine sample preparation and analyses of DDH samples were carried out by SGS Mongolia LLC (SGS Mongolia), who operates an independent sample preparation and analytical laboratory in Ulaanbaatar. - All samples were prepared to meet standard quality control procedures as follows: Crushed to 90% passing 3.54 mm, split to 1kg, pulverised to 90% - 95% passing 200 mesh (75 microns) and split to 150g. - Certified reference materials (CRMs), blanks and pulp duplicate were randomly inserted to manage the quality of data - Sample sizes are well in excess of standard industry requirements.
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. - 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. - 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.	- All samples were routinely assayed by SGS Mongolia for gold, copper, silver, lead, zinc, arsenic and molybdenum. - Au is determined using a 30g fire assay fusion, cupelled to obtain a bead, and digested with Aqua Regia, followed by an atomic absorption spectroscopy (AAS) finish, with a lower detection (LDL) of 0.01 ppm. - Cu, Ag, Pb, Zn, As and Mo were routinely determined using a three-acid-digestion of a 0.3g sub-sample followed by an AAS finish (AAS21R). Samples are digested with nitric, hydrochloric and perchloric acids to dryness before leaching with hydrochloric acid to dissolve soluble salts and made to 15ml volume with distilled water. The LDL for copper using this technique was 2ppm. Where copper is over-range (>1% Cu), it is analysed by a second analytical technique (AAS22S), which has a higher upper detection limit (UDL) of 5% copper. - Quality assurance was provided by introduction of known certified standards, blanks and duplicate samples on a routine basis. - Assay results outside the optimal range for methods were re-analysed by appropriate methods. - Ore Research Pty Ltd certified copper and gold standards have been implemented as a part of QAQC procedures, as well as coarse and pulp



Criteria	JORC Code Explanation	Commentary
		blanks, and certified matrix matched copper--gold standards. • QAQC monitoring is an active and ongoing process on batch by batch basis by which an acceptable results are re-assayed as soon as practicable.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• All assay data QAQC is checked prior to loading into the ACCESS data base. • The data is managed XAM geologists. • The data base and geological interpretation is collectively managed by XAM.
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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All DDH's have been surveyed with a differential global positioning system (DGPS) to within 10cm accuracy. • All DDH's have been down hole surveyed to collect the azimuth and inclination at specific depths. Two principal types of survey method have been used over the duration of the drilling programs including Eastman Kodak and Flexit. • UTM WGS84 48N grid. • The DTM is based on 1 m contours with an accuracy of ± 0.01 m.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied.	• Drilling has been completed on nominal north-south sections, commencing at 100m spacing and then closing to 50m for resource estimation. • Vertical spacing of intercepts on the mineralised zones similarly commences at 100m spacing and then closing to 50m for resource estimation. • Drilling has predominantly occurred with angled holes approximately 70° to 60° inclination below the horizontal and either drilling to north or south, depending on the dip of the target mineralised zone. • Holes have been drilled to 1000m vertical depth • The data spacing and distribution is sufficient to establish geological and grade continuity appropriate for the Mineral Resource estimation procedure and has been taken into account in 3D space when determining the classifications to be applied.
Orientation of data in relation	• Whether the orientation of sampling achieves unbiased sampling of possible	• Drilling has been predominantly completed on north-south section lines along the strike of the known mineralised

Criteria	JORC Code Explanation	Commentary
to geological structure	structures and the extent to which this is known, considering the deposit type. 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.	zones and from either the north or the south depending on the dip. - Vertical to South dipping ore bodies were predominantly drilled to the north. - Scissor Drilling, (drilling from both north and south), as well as vertical drilling, has been used in key mineralised zones to achieve unbiased sampling of possible structures and mineralised zones.
Sample security	The measures taken to ensure sample security.	- Samples are dispatched from site through via company employees to the Laboratories. - Samples are signed for at the Laboratory with confirmation of receipt emailed through. - Samples are then stored at the lab and returned to a locked storage site.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	- Internal audits of sampling techniques and data management on a regular basis, to ensure industry best practice is employed at all times. - External review and audit have been conducted by the following groups 2012 – AMC Consultants Pty Ltd. was engaged to conduct an Independent Technical Report which reviewed drilling and sampling procedures. It was concluded that sampling and data record was appropriate for use in resource estimation including that required by the NI 43-101 standards. 2013 - Mining Associates Ltd. was engaged to conduct an Independent Technical Report to review drilling, sampling techniques, QAQC and previous resource estimates. Methods were found to conform to international best practice.

1.2 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

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

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 such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. - 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 Project comprises 1 Mining Licences (MV 17387A). 100% owned by Oyut Ulaan LLC. THR Oyu Tolgoi Ltd (a wholly owned subsidiary of Turquoise Hill Resources Ltd owns 90% of Oyut Ulaan LLC. The remaining 10% is owned by Quincunx Ltd, which in turn is owned by an incorporated joint venture between Kerry Holdings Ltd. and MCS Holding LLC. - The Mongolian Minerals Law (2006 and Mongolian Land Law (2002) govern exploration, mining and land use rights for the project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping and mineral resource estimation to NI 43-101 standards.
Geology	Deposit type, geological setting and style of mineralisation.	- The mineralisation is characterised as porphyry copper-gold type. - Porphyry copper-gold deposits are formed from magmatic hydrothermal fluids typically associated with felsic intrusive stocks that have deposited metals as sulphides both within the intrusive and the intruded host rocks. Quartz stockwork veining is typically associated with sulphides occurring both within the quartz veinlets and disseminated throughout the wall rock. Porphyry deposits are typically large tonnage deposits ranging from low to high grade and are generally mined by large scale open pit or underground bulk mining methods. The deposits at Kharmagtai are atypical in that they are associated with intermediate intrusions of diorite to quartz diorite composition, however the deposits are in terms of contained gold significant, and similar gold-rich porphyry deposits.
Drill hole information	- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar.	- Diamond drill holes are the principal source of geological and grade data for the Project. - See Table 1 in main report.

Criteria	JORC Code Explanation	Commentary
	– elevation or RL Reduced Level – elevation above sea level in metres) of the drill hole collar . – dip and azimuth of the hole – down hole length and interception depth – hole length. • 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.	
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• A nominal cutoff of 0.1% Cu is used for identification of potentially significant intercepts for reporting purposes. • Most of the reported intercepts are shown in sufficient detail, including maxima and subintervals, to allow the reader to make an assessment of the balance of high and low grades in the intercept. • Informing Samples have been composited to two metre lengths honouring the geological domains and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit). • The copper equivalent (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. Grades have not been adjusted for metallurgical or refining recoveries and the copper equivalent grades are of an exploration nature only and intended for summarising grade. The copper equivalent calculation is intended as an indicative value only. The following copper equivalent conversion factors and long term price assumptions have been adopted: Copper Equivalent Formula $(CuEq) = Cu\% + (Au \text{ (ppm)} \times 0.6284)$; Price assumptions: Cu (US\$3.20lb) and Au (US\$1,375oz).
Relationship between mineralization on 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 (eg 'down hole length, true width not known').	• Mineralised structures are variable in orientation, and therefore drill orientations have been adjusted from place to place in order to allow intersection angles as close as possible to true widths. • Exploration results have been reported as an interval with 'from' and 'to' stated in tables of significant economic intercepts. Tables clearly indicate that true widths will generally be narrower than those reported.



Criteria	JORC Code Explanation	Commentary
		• Resource estimation, as reported later, was done in 3D space.
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.	• See figures in main 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.	• Results have been reported at a range of cut-off grades, above a minimum suitable for open pit mining.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• Extensive work in this area has been done, and is reported separately.
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 mineralisation is open at depth and along strike. • Current estimates are restricted to those expected to be reasonable for open pit mining. Limited drilling below this depth (-300m rl) shows widths and grades potentially suitable for underground extraction. • Exploration on going.