19 July 2017

OYUT ULAAN EXPLORATION UPDATE: HIGH-GRADE MASSIVE SULPHIDE MINERALISATION INTERSECTED

HIGHLIGHTS

- **Diamond drill hole OUDDH089 at Target 10 intersects high-grade copper-gold massive sulphide:**
  - **6.2m grading 4.24% Cu and 1.9g/t Au (5.45% CuEq) from 128m including;**
  - **0.9m grading 22.10% Cu and 8.27g/t Au (27.37% CuEq) from 129m;**
- **Massive sulphide mineralisation is flanked by a broad zone of porphyry-related mineralisation:**
  - **79.5m grading 0.26% Cu and 0.21g/t Au (0.39% CuEq) from 198.5m;**
- **Follow up drilling is underway;**
- **Infill drilling (OUDDH088) at Tourmaline Breccia intersects high-grade copper mineralisation:**
  - **66m grading 1.8% Cu from surface including;**
  - **19m grading 4.15% Cu from 20.4m.**

Xanadu Mines Ltd (**ASX: XAM – "Xanadu" or "Company"**) is pleased to announce that diamond drill hole OUDDH089 at its 90% owned Oyut Ulaan copper-gold project has intersected a significant zone of high-grade massive sulphide mineralisation within a broad zone (up to 79.5m) of porphyry-related alteration and mineralisation (**Figure 1**). The 6.2m wide zone of massive sulphide mineralisation at Target 10 returned **4.24% Cu and 1.9g/t Au (5.45% CuEq)** from a depth of 128m and included **0.9m grading 22.10% Cu and 8.27g/t Au (27.37% CuEq)** from 129m. The intercept resulted from systematic drill testing of high priority targets lying under shallow cover within the Oyut Ulaan project. This high-grade porphyry-related massive sulphide mineralisation is open in all directions (**Figure 2**).

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said *"We are very encouraged by the intersection of massive sulphide mineralisation associated with the upper part of a zone of porphyry related mineralisation. The recent drilling represents the highest-grade copper mineralisation discovered to date within the Oyut Ulaan project and support Xanadu's interpretation that the Oyut Ulaan district has the potential to be a significant copper-gold system".*

Additionally, diamond drill hole OUDDH088 at the Tourmaline Breccia prospect which was designed to test the eastern strike extension to high-grade mineralisation (refer to ASX release dated 9 June 2016) and continuity of breccia mineralisation, intersected 66m of continuous tourmaline breccia from surface. This broad interval included 19m grading 4.15% Cu from a depth of 20.4m of high-grade chalcocite-chalcopyrite cemented breccia (**Figure 3**). Mineralisation remains open at depth and to the southwest and northeast (**Figure 4**).

Two diamond holes have been completed with assays returned in the current drill program (**Table 1**). Additional holes have been drilled and assays are pending. Drilling has provided significant advances in our understanding of the Oyut Ulaan project and supports the potential for a large-scale porphyry Cu-Au system with multiple shallow gold-rich zones, similar to those seen elsewhere in the South Gobi such as Oyu Tolgoi (>27 Mt Cu &>810 t Au).

GEOLOGY & POTENTIAL CONNECTION TO PORPHYRY MINERALISATION

The Oyut Ulaan copper-gold project comprises a large and underexplored porphyry district (covering approximately 40km^2) and consists of multiple co-genetic porphyry copper-gold centres, mineralised tourmaline breccia pipes and copper-gold/base metal magnetite skarns, which occur within the central part of Mining Licence 17129A (Oyut Ulaan). The recent drilling of potentially significant massive sulphide and epithermal gold vein mineralisation broadens the range of targets at Oyut Ulaan and opens up a new area for exploration.

Similar vein zonations in other porphyry districts include upward transitions from copper-gold porphyry veins to shallow level massive sulphide mineralisation. The results of this first stage of exploration are encouraging and indicate that Oyut Ulaan has the potential to develop into another prospective district in the South Gobi. Recent exploration drilling has also intersected porphyry copper mineralisation within two quartz-chalcopyrite stockwork zones at Diorite Hill and Stockwork Hill Prospects which are approximately 3km apart. Xanadu will continue its systematic, low cost exploration at Oyut Ulaan with further reconnaissance exploration, field mapping and trenching ongoing.

COMPETENT PERSON STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by Dr Andrew Stewart who is responsible for the exploration data, comments on exploration target sizes, QA/QC and geological interpretation and information. Dr Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists, 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 Stewart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

COPPER EQUIVALENT CALCULATIONS

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 (ppm) x 0.6378). Based on a copper price of $2.60/lb and a gold price of $1,300/oz.

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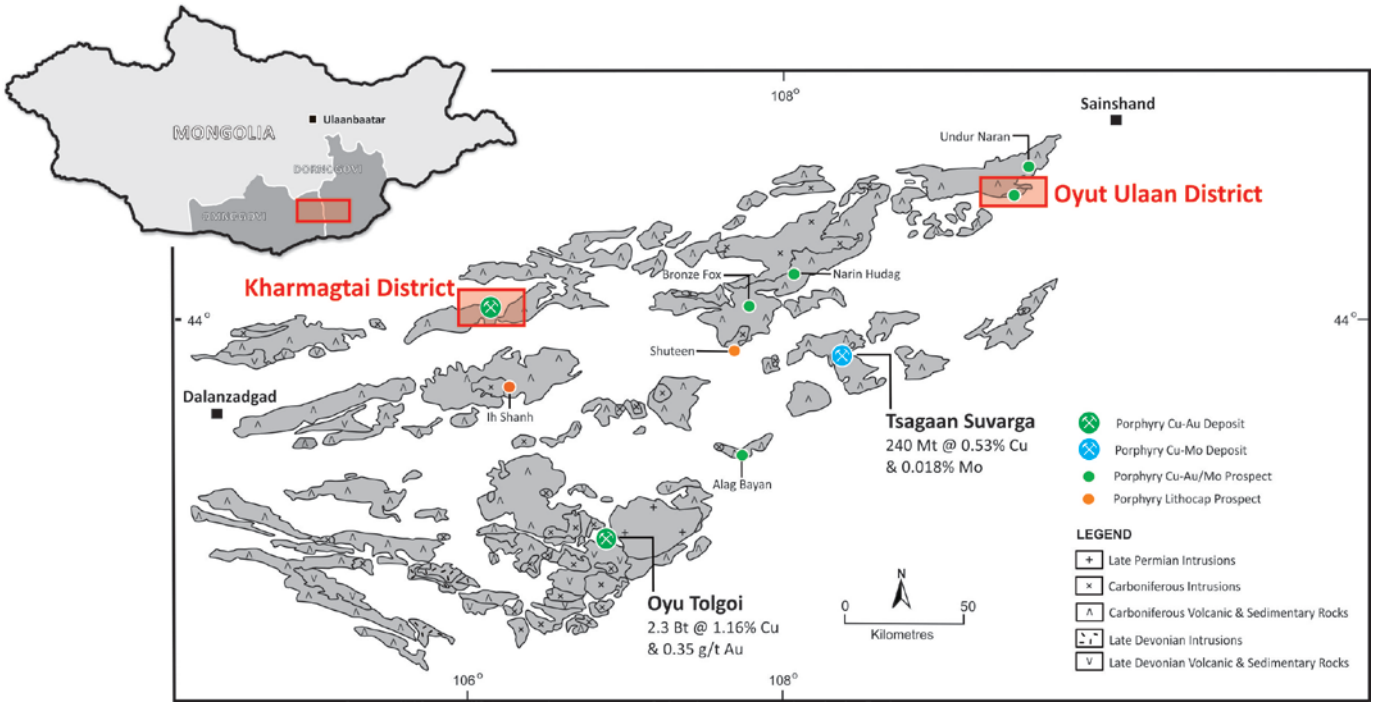

FIGURE 1: Location of the Kharmagtai and Oyut Ulaan Projects in the South Gobi porphyry copper belt.

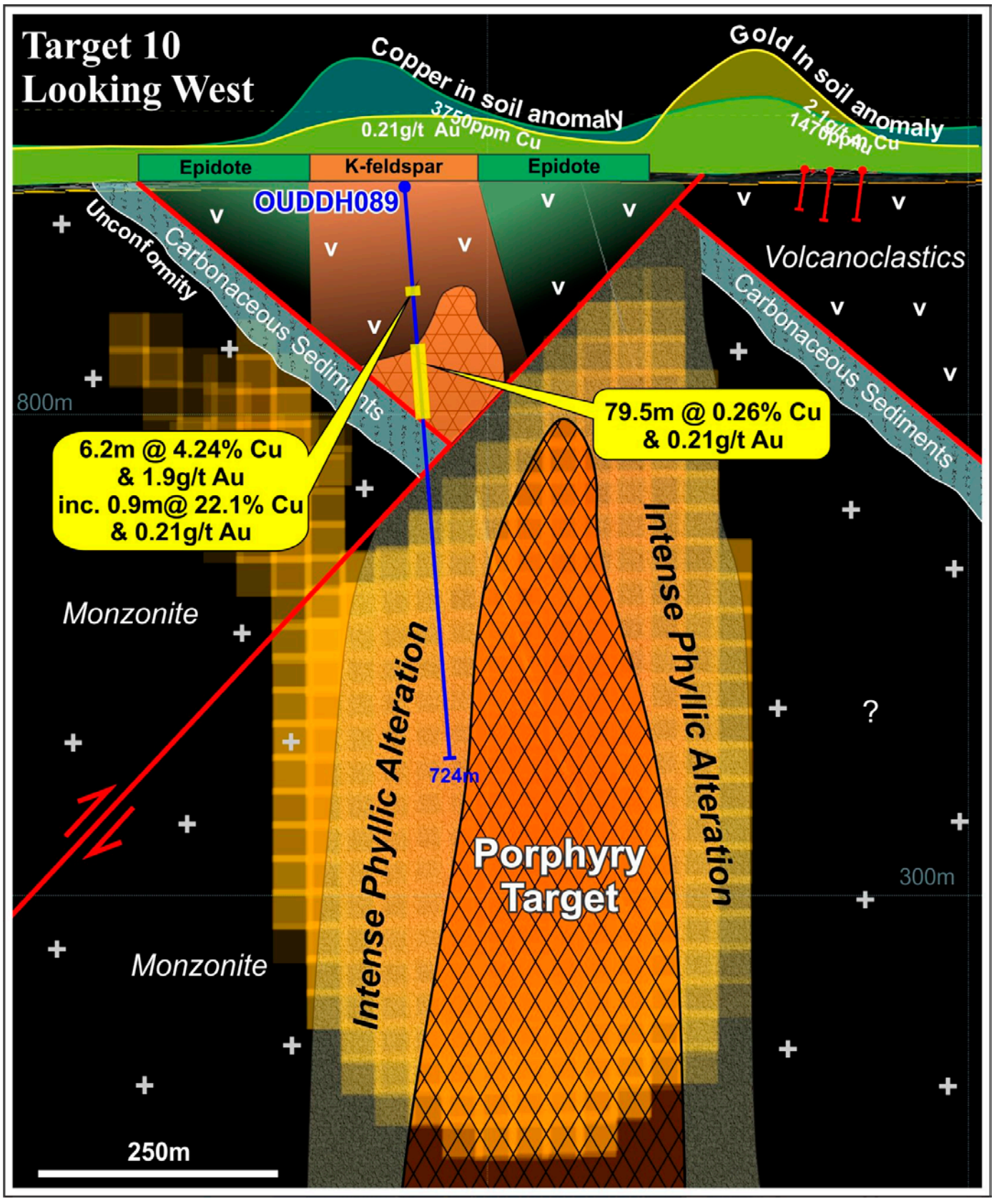

FIGURE 2: Target 10 cross-section showing magnetics, interpreted porphyry target and observed alteration halo from drilling.

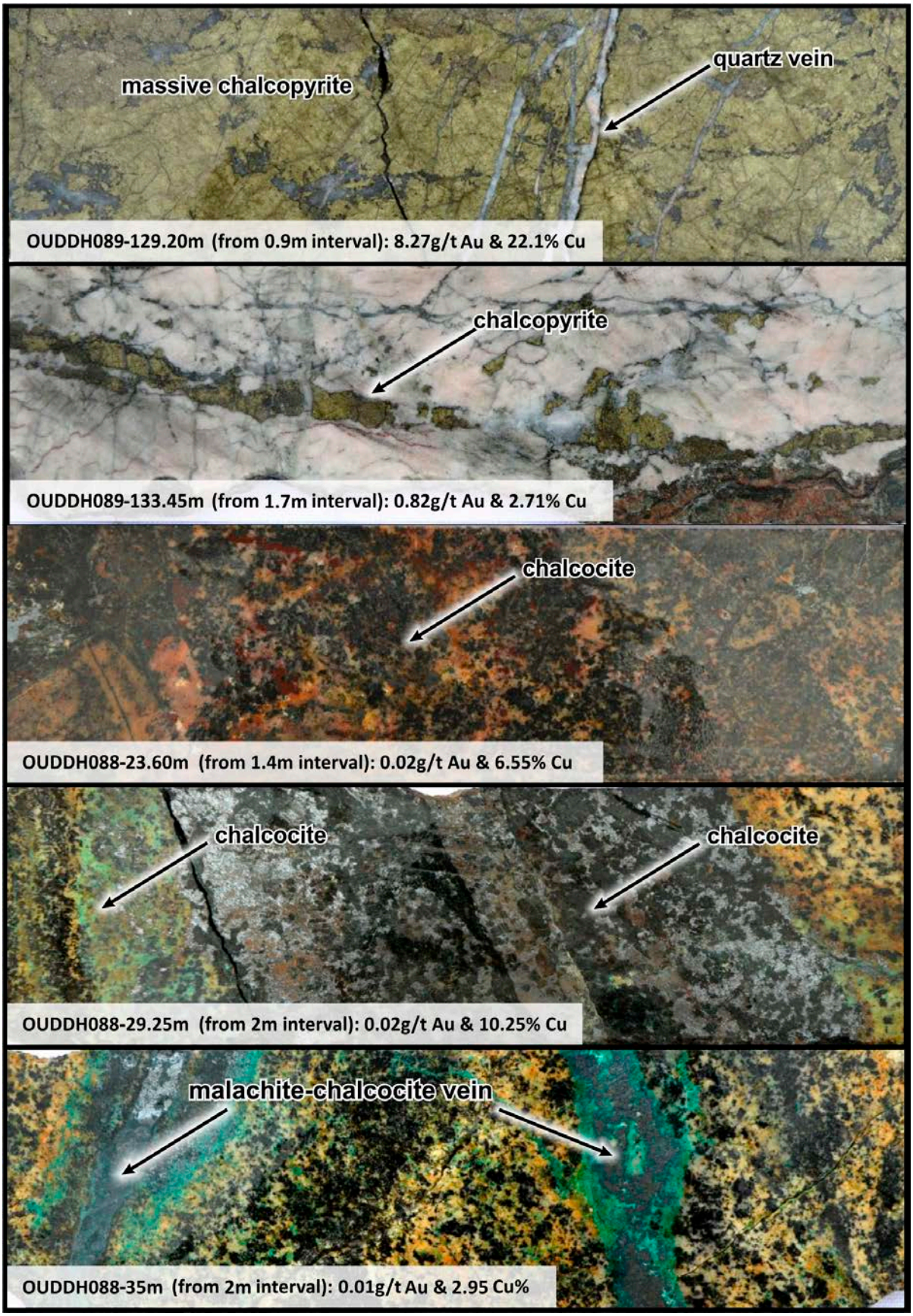

FIGURE 3: Slab photos from OUDDH089 and OUDDH088 showing massive chalcopyrite and high-grade chalcocite mineralisation.

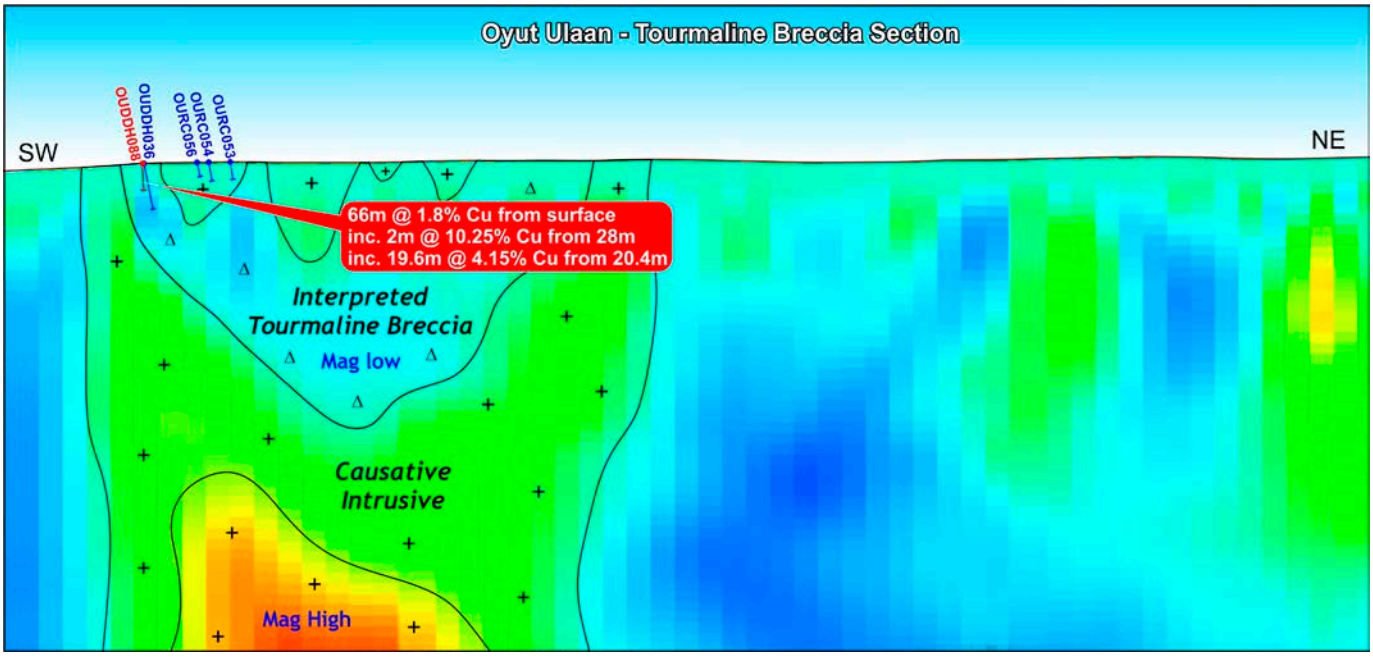

FIGURE 4: Long section through the Tourmaline Breccia prospect showing magnetics depletion, interpreted tourmaline breccia and interpreted causative intrusive.

TABLE 1: Drill hole collar location.

Hole ID	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
OUDDH088	Breccia Pipe	375288	4936582	1077	320	75	106.0
OUDDH089	Target 27	375356	4938728	1079	20	80	724.0

TABLE 2: Significant intercepts.

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)
OUDDH088	Breccia Pipe	0	66	66	0.01	1.8	1.81
including		28	30	2	0.02	10.25	10.26
including		8	18	10	0.009	0.88	0.89
including		20.4	40	19.6	0.01	4.15	4.16
including		44	54	10	0.01	1.24	1.25
including		60	64	4	0.01	1.05	1.06
and		78.8	82	3.2	0.05	1.28	1.32
OUDDH089	Target 27	128	134.2	6.2	1.9	4.24	5.45
including		129	129.9	0.9	8.27	22.10	27.37
and		198.5	278	79.5	0.21	0.26	0.39

APPENDIX 1: OYUT ULAAN TABLE 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 Edition for the Oyut Ulaan project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure 27 April 2017.

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 results displayed are based on diamond drilling, reverse circulation and trenching. • For diamond drilling, representative samples are taken from halved HQ core. Sample intervals are dictated by the geologist and are based on lithological units. The maximum sample interval for diamond drilling is 2m the minimum sample interval for diamond drilling is 10cm. • For reverse circulation drilling, samples are taken from one meter intervals using a 75:25 ratio splitter. Maximum reverse circulation samples are 2m intervals, minimum are 1m. • For trenching, samples are taken as rock-chips from the toe of the trench wall (10cm above the floor) collected in plastic tray. Maximum sample interval is 2m, the minimum sample interval is 30cm. • Only assay result results from recognised, independent assay laboratories were presented after QAQC was verified.
Drilling techniques	• Drill type and details.	• Diamond Drilling is conducted via HQ triple tube. RC drilling is conducted using a 4 3/8 inch face sampling bit.
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 good, averaging between 96.6% and 99%. HQ triple tube has been utilised to ensure minimum sample loss and the maintenance of sample coherency. • RC samples were weighed before splitting to measure recovery. Average RC recoveries ranged between 98.43% and 100%. • Analysis of recovery results vs. grade indicates no significant trends. Indicating bias of grades due to diminished recovery and / or wetness of samples. • The methodology used for measuring recovery is standard industry practice.
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. • Trench walls and floors are mapped by a geologist for lithology, mineralisation and alteration using standardised mapping system.

Criteria	JORC Code Explanation	Commentary
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. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise 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.	• 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. • Sample intervals are defined by geological contacts to ensure representative sampling of mineralised units. • Routine sample preparation and analyses of DDH samples were carried out by ALS Mongolia LLC (ALS Mongolia), who operates an independent sample preparation and analytical laboratory in Ulaanbaatar. • All samples were prepared to meet standard quality control procedures as follows: Drill core, RC and chip samples. Crush to 70% less than 2mm, riffle split off 500g, pulverize split to better than 85% passing 75 microns. • 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 ALS Mongolia for gold, copper, silver, lead, zinc, arsenic and molybdenum. • Au is determined using a 50g 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. A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral interelement interferences. Over range results for important metals were re-analysed using Ore Grade 12 Elements Package by Four Acid Digestion with ICP-AES. • 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 blanks, and certified matrix matched gold and copper-gold standards. Gold standards matched to the style of

Criteria	JORC Code Explanation	Commentary
		mineralisation were used across a range of low-medium and high-grades. • QAQC monitoring is an active and ongoing processes on batch by batch basis by which unacceptable 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 Geobank 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 49N 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 sections that range between 10-25m in spacing dependent on the target vein width and continuity. • Vertical spacing of intercepts on the mineralised zones similarly commences at 10-20m spacing. • Drilling has predominantly occurred with angled holes approximately 70° to 60° inclination below the horizontal and depending on the dip of the target mineralised zone. Each mineralised zone is drilled to increase the likelihood of true width intersections. • Holes have been drilled to 80m 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 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. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this	• Drilling has predominantly occurred with angled holes approximately 70° to 60° inclination below the horizontal and depending on the dip of the target mineralised zone. Each mineralised zone is drilled to increase the likelihood of true width intersections.

Criteria	JORC Code Explanation	Commentary
	should be assessed and reported if material.	• 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 and secure company vehicles 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.

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, verriding 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-17129A). • Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence. • 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 Ivanhoe Mines Ltd and Vantage LLC including surface mapping and geochemistry, diamond drilling and geophysics.
Geology	• Deposit type, geological setting and style of mineralisation.	• The mineralisation is characterised as porphyry copper-gold type and epithermal gold. • 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 thought out 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

Criteria	JORC Code Explanation	Commentary
		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. • Epithermal Au deposits commonly form within the porphyry environment and take the form of narrow, high grade Au in quartz sulphide veins. Epithermal deposits are typically low to moderate tonnage, moderate to high grade deposits mined from either open pit or underground methods. At Oyut Ulaan the majority of drilled high-grade Au mineralisation is shallow and within the oxide environment and as such contains free gold within banded quartz hematite after sulphide.

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.
	  • 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.
		• Diamond drill holes are the principal source of geological and grade data for the Project.
		• See figures in main report.

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 cut-off of 0.1% Cu and or 0.1g/t Au 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). • Metal equivalents used the following formula: CuEq = Cu% x(Aug/t x 0.6378 Formula is based on a $2.60/lb copper price and a $1,300/oz gold price. A gold recovery factor of 78.72% was used.

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation 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. • 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.	• Resources have been reported at a range of cut-off grades, above a minimum suitable for open pit mining, and above a minimum suitable for underground 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 ongoing.