SHALLOW DRILLING CONFIRMS KHARMAGTAI DISCOVERY POTENTIAL

05 July 2023

Xanadu Mines Ltd (ASX: XAM, TSX: XAM) (Xanadu, XAM or the Company) and its joint venture partner **Zijin Mining Group Co., Ltd. (Zijin)** are pleased to announce results from the first 3,400m shallow exploration discovery drilling at Kharmagtai (of 10,000m planned), targeting additional copper-gold deposits outside the current Mineral Resource Estimate (**MRE**).

Highlights

- New shallow discovery drilling intersects both high-density stockwork, breccia mineralisation and gold only mineralisation across three largely unexplored porphyry clusters.
- Best diamond drilling intercepts at Cluster Two and Cluster Three:
    - KHDDH590 - **8m at 1.59g/t Au from 289m**;
        - Including **4m @ 3.04g/t Au from 291m**.
    - KHDDH622 - **15m @ 1.26% Cu from 127m**;
        - Including **5.95m @ 2.97% Cu from 132.5m**.
- Extensive infill and exploration program underway with regular news flow to continue throughout 2023, as exploration drilling for additional porphyry copper deposits and MRE expansion continues.

Xanadu's Executive Vice President Exploration, Dr Andrew Stewart, said *"Initial results from shallow exploration discovery drilling has demonstrated exciting growth potential. We set out to test several shallow (within 200m from surface) high-potential copper-gold and gold only targets outside the currently defined mineral resource volume, looking for both high-grade, gold-rich stockwork mineralisation and tourmaline breccia mineralisation.*

Delivering drill intercepts over 3% copper and over 3g/t gold from the first three targets tested is very encouraging. This validates our strong belief in undiscovered porphyry deposits at Kharmagtai. We look forward to updating the market and results will be released in logical groups of drill holes."

About the Shallow Exploration Drilling

Shallow exploration drilling at Kharmagtai is targeting additional porphyry copper-gold deposits outside the currently defined MRE volume. This programme also serves to inform future infrastructure location decisions associated with the potential development of the Kharmagtai Project into a large-scale mining operation. Approximately 3,400m (of 10,000m planned) has been completed to date in fifteen holes **(Figure 1, Tables 1 and 2)**.

Table 1: Geological characteristics of the five coper-gold and gold clusters.

Cluster	Style	Size	Depth	Host	Max Copper from drilling	Max Gold from drilling	Comments
Cluster One	Porphyry Stockwork	1.5km by 1km	Outcrop	Diorite intrusive in siltstone	**2m @ 0.35% Cu**	**2m @ 0.74g/t Au**	Outcropping high-density sheeted porphyry veining with malachite staining.
Cluster Two	Porphyry Stockwork and Epithermal Gold	2km by 1km	Outcrop	Diorite intrusive in sandstone	**2m @ 0.2% Cu**	**2m @ 4.17g/t Au**	Outcropping high-density sheeted porphyry veining with malachite staining.
Cluster Three	Porphyry Stockwork and Tourmaline Breccia	1.5km by 1.5km	Outcrop	Diorite intrusive in siltstone	**1.95m @ 5.38% Cu and 1.15m @ 5.59% Cu**	**2m @ 1.06g/t Au**	Outcropping porphyry veining and tourmaline breccia with malachite staining.
Cluster Four	Porphyry Stockwork and Tourmaline Breccia	3km by 2km	10m of cover	Diorite intrusive in siltstone	**2m @ 0.69% Cu**	**2m @ 1.06g/t Au**	Previous broad intercepts of porphyry mineralisation
Cluster Five	Porphyry Stockwork and Tourmaline Breccia	3km by 2km	Between 5 and 20m of cover	Diorite Intrusive	Drilling imminent	Drilling imminent	Previously undrilled

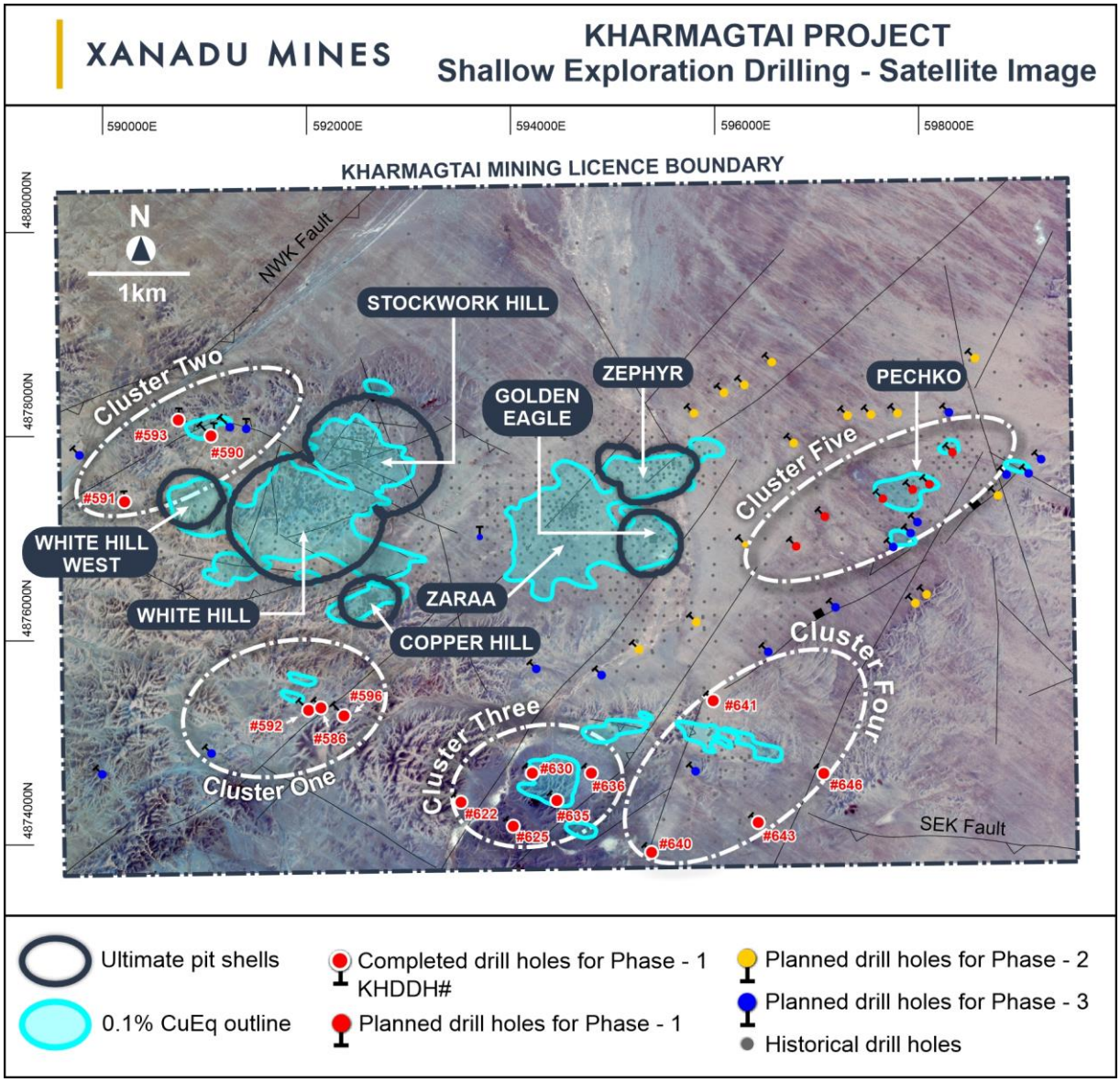

Figure 1: Kharmagtai copper-gold district showing currently defined mineral deposits and planned and completed shallow exploration drill holes. Blue outlines are 2021 scoping study open pit designs and white dashed outlines define porphyry cluster target areas.

Shallow Drilling Results to Date

At **Cluster One (Figure 1)**, drilling targeted surface copper anomalism and outcropping porphyry veining. Drill Hole **KHDDH589** intercepted a broad zone of low-grade porphyry mineralisation from surface, suggesting the hole has passed over and to the north of a potential shallow porphyry **(Figure 2)**. Drill hole **KHDDH589** returned:

Hole ID	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)	From (m)
KHDDH589	28.3	0.16	0.16	0.25	2.2
and	26	0.06	0.18	0.15	42

Drilling is planned to test behind this intercept for higher-grade material at Cluster One.

Drilling at **Cluster Two** (**Figure 1**) targeted previous shallow porphyry stockwork mineralisation and was prioritised given the area is adjacent to existing planned open pits and planned infrastructure. Drill hole **KHDDH590** targeted a previous porphyry intercept **(Figure 3)** and encountered a broad zone of low-grade porphyry mineralisation with an additional high-grade gold intercept near end of hole (**EOH**).

Hole ID	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)	From (m)
KHDDH590	113.2	0.10	0.18	0.19	163.8
and	8	-	1.59	-	289
including	4	-	3.04	-	291

The copper gold ratio of these intercepts and nature of mineralisation is like the nearby Southern Stockwork Zone at Stockwork Hill, with additional drilling to be planned as this appears to be on the edge of a potentially shallow, mineralised porphyry.

A total 4 diamond drill holes were completed at Cluster 4 with no significant results returned.

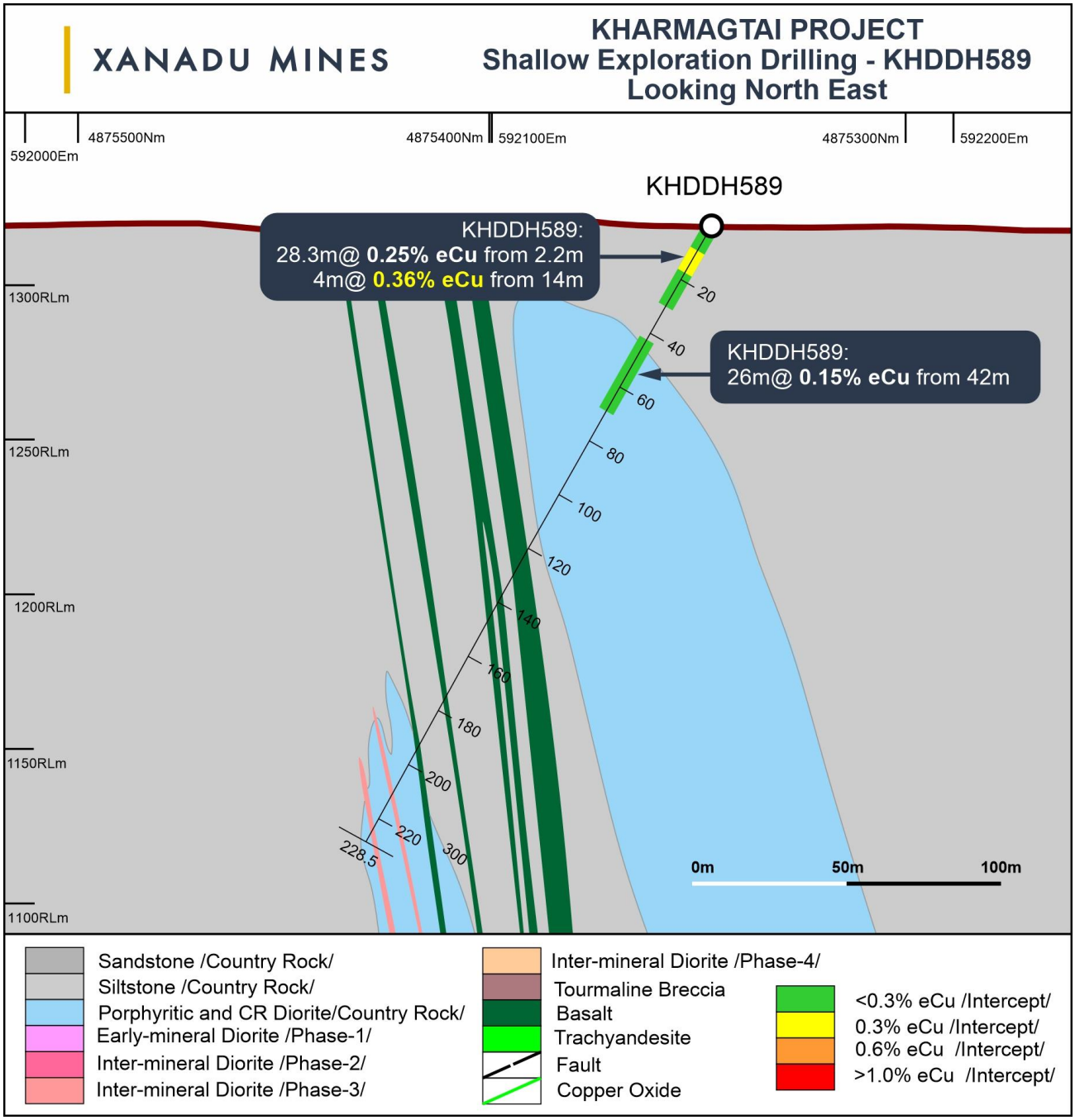

Figure 2: Cross Section Drill Hole KHDDH589.

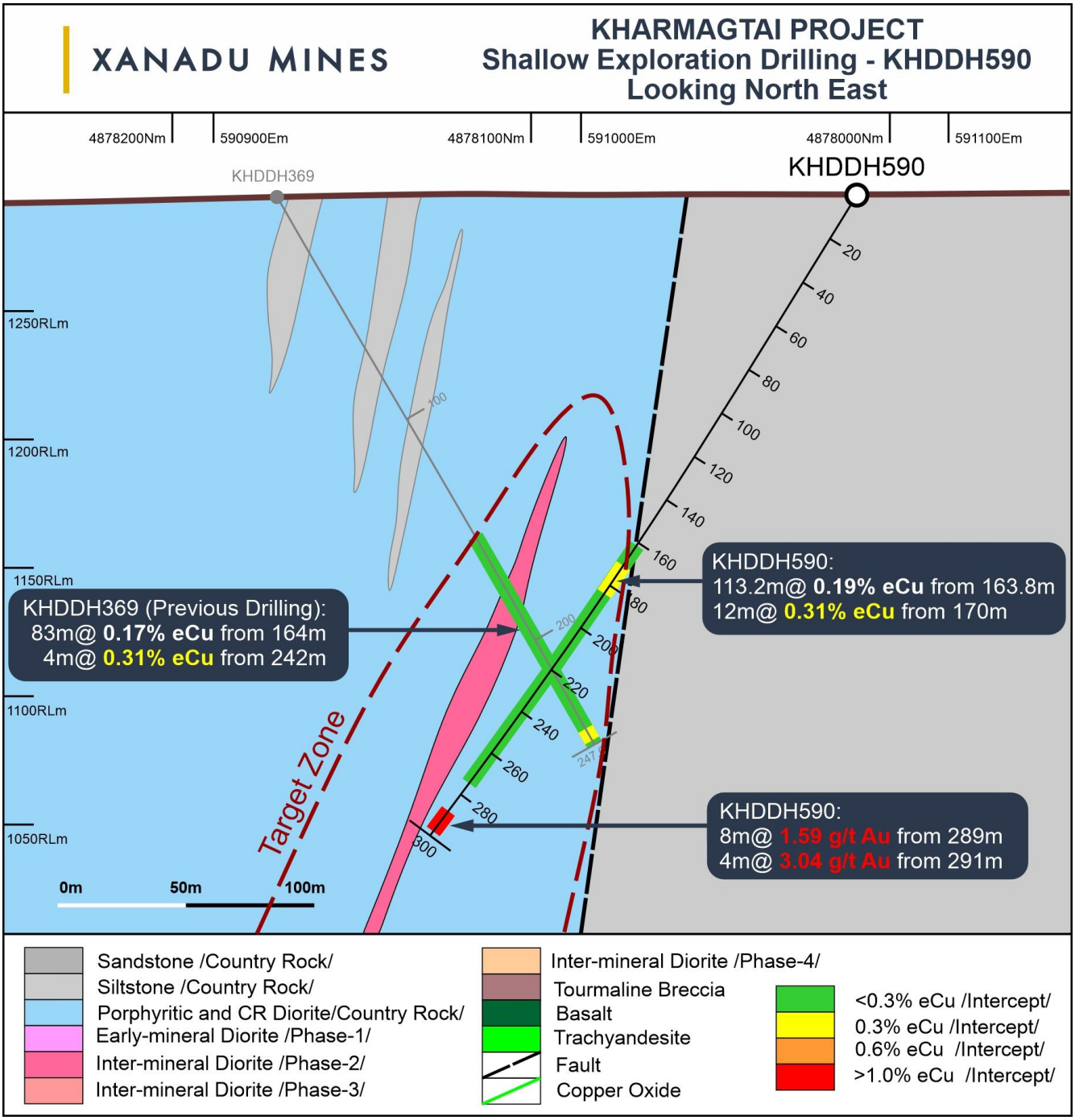

Figure 3: Cross Section Drill Hole KHDDH590.

At **Cluster Three (Figure 1)**, drilling is targeting previous broad porphyry intercepts in trenching and drilling, along with key structural features characterising existing deposits at Kharmagtai. Three drill holes at Cluster 3 have returned significant results to date, which are encouraging for a potential shallow high-grade core to be identified.

Drill hole **KHDDH622 (Figure 4)** targeted a structure in the west of the cluster and returned high-grade copper intercepts. This intercept is significant in its width and grade, and additional drilling is planned to test along strike, up and down dip.

Hole ID	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)	From (m)
KHDDH622	15	1.26	0.09	1.31	127
including	5.95	2.97	0.21	3.08	132

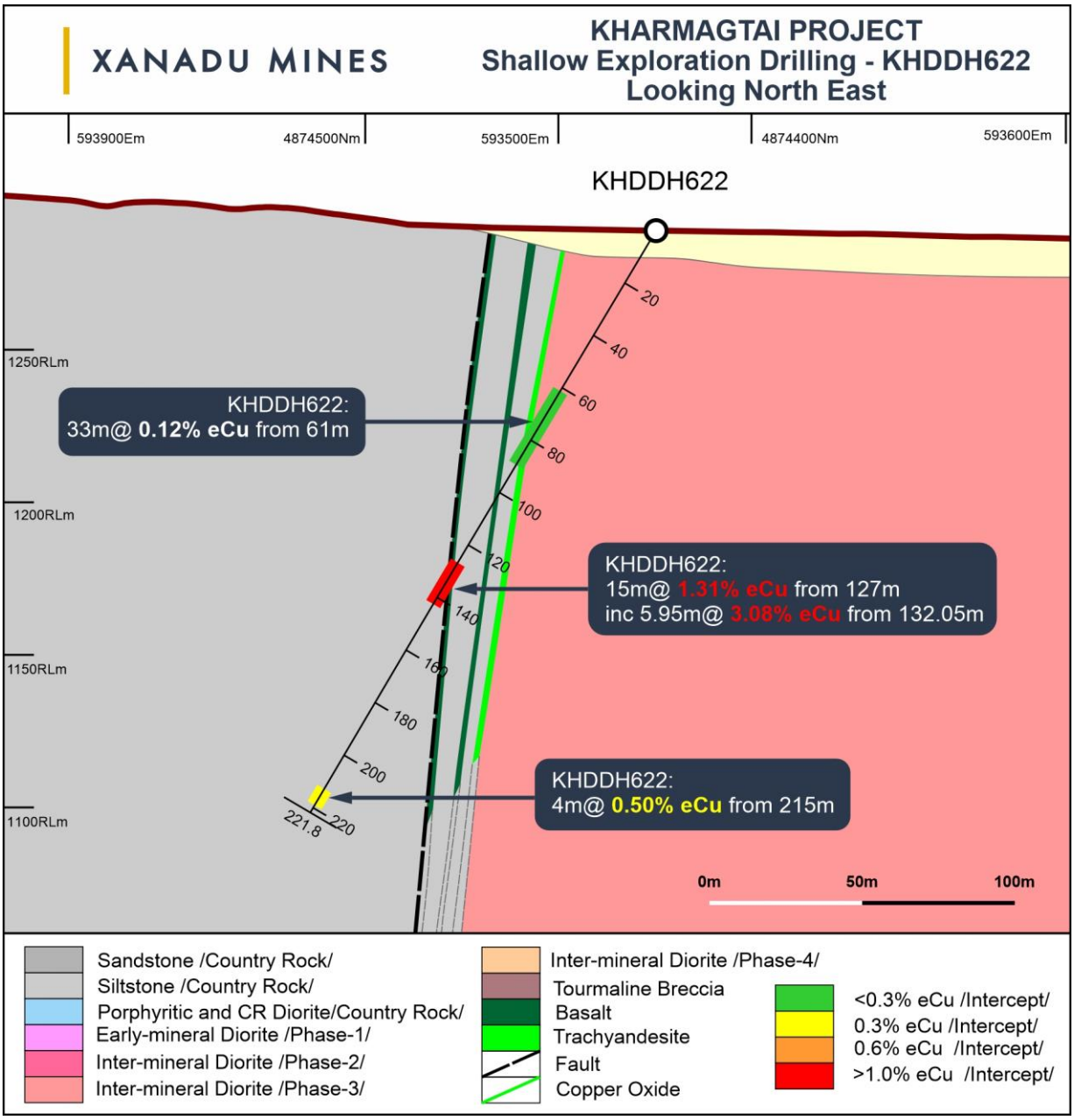

Figure 4: Cross Section Drill Hole KHDDH622.

Drill Hole **KHDDH625** targeted surface copper in the south of Cluster 3 **(Figure 5).** This hole encountered several broad zones of low-grade porphyry mineralisation and a shallower moderate grade intercept.

Hole ID	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)	From (m)
KHDDH625	20.3	0.29	0.10	0.30	28
and	59.8	0.16	0.02	0.16	80
and	70	0.15	0.03	0.17	150

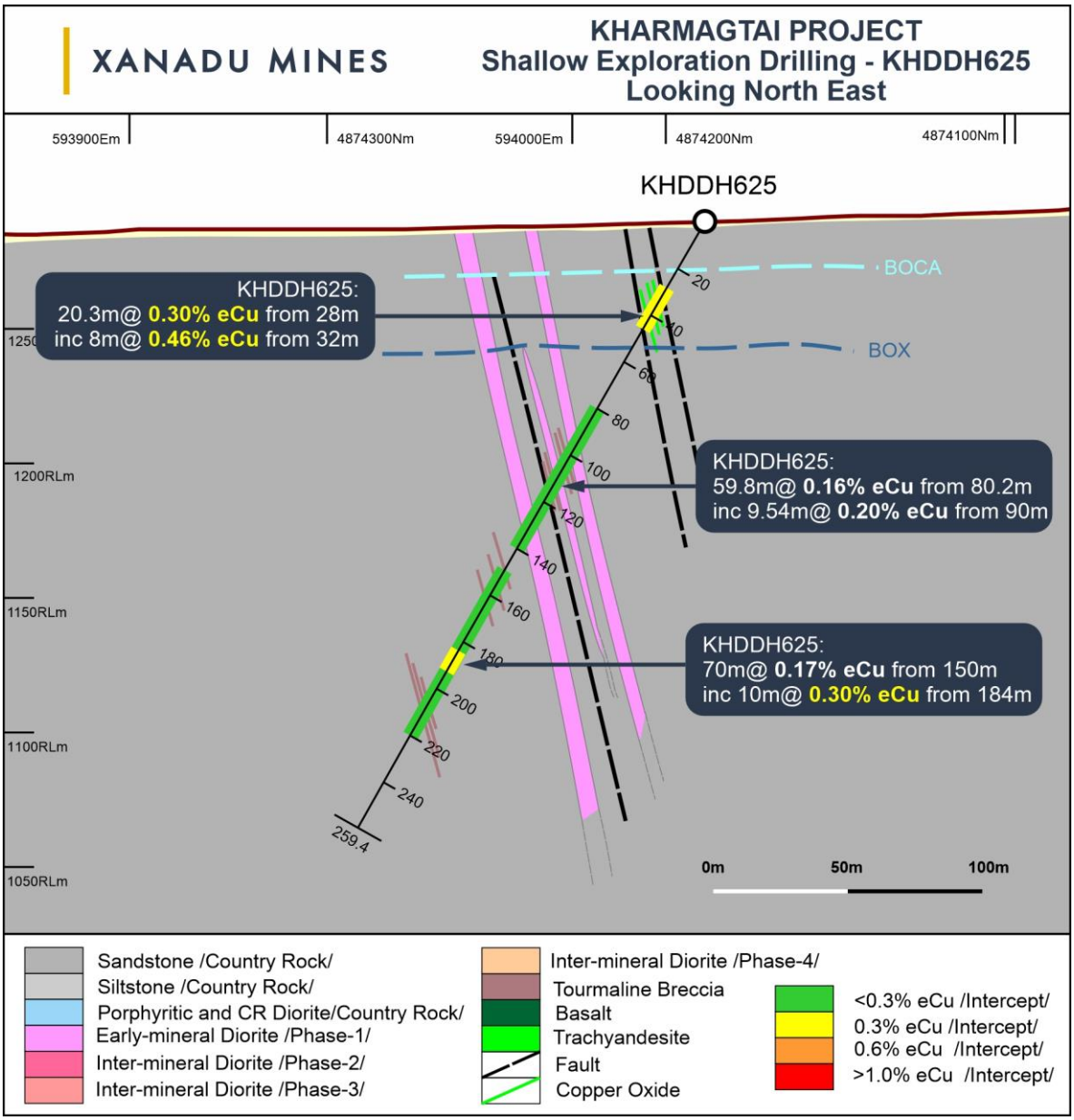

Figure 5: Cross Section Drill Hole KHDDH625.

Drill Hole **KHDDH630** also targets surface copper anomalism and has returned a broad interval of low-grade copper porphyry mineralisation (**Figure 6**). This drilling all points to Cluster 3 having the potential for a large-scale shallow copper porphyry with a high-grade core. Additional drilling is being planned to follow up on these results.

Hole ID	Interval (m)	Cu (%)	Au (g/t)	CuEq (%)	From (m)
KHDDH630	61	0.10	0.03	0.11	7

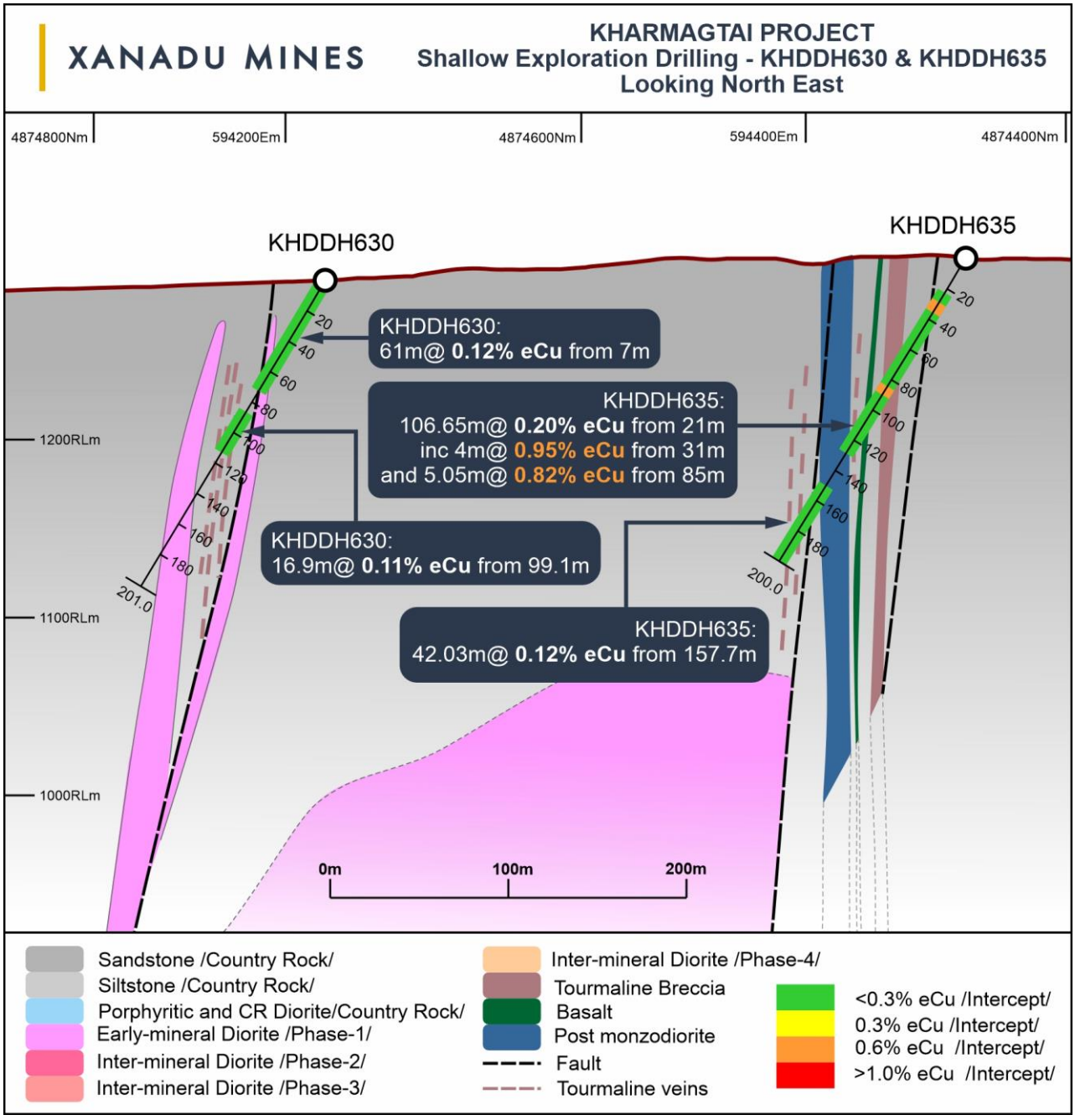

Figure 6: Cross Section Drill Hole KHDDH630 and KHDDH635.

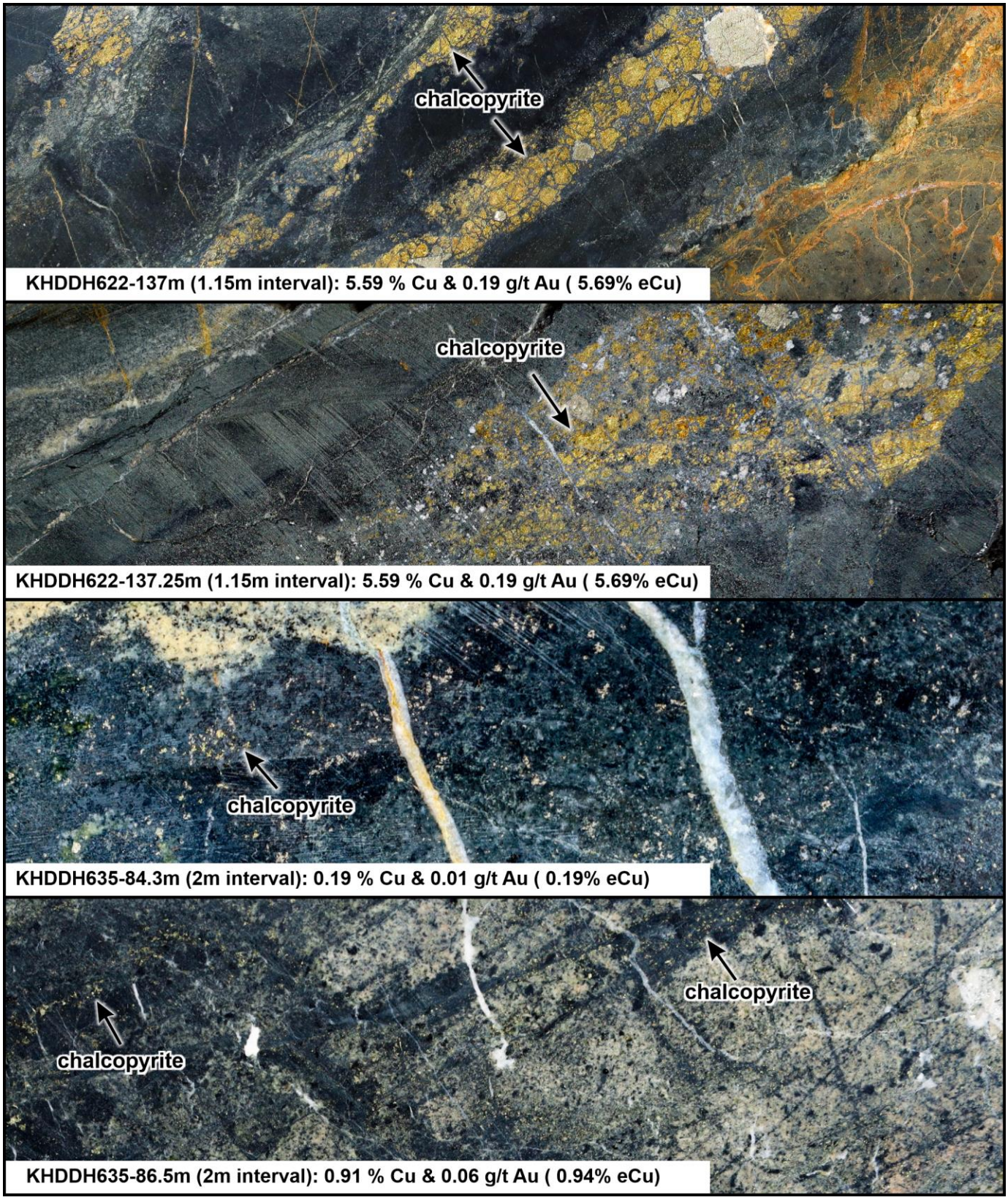

Figure 7: Drill core photos from KHDDH622 ad KHDDH635.

About Xanadu Mines

Xanadu is an ASX and TSX listed Exploration company operating in Mongolia. We give investors exposure to globally significant, large-scale copper-gold discoveries and low-cost inventory growth. Xanadu maintains a portfolio of exploration projects and remains one of the few junior explorers on the ASX or TSX who jointly control a globally significant copper-gold deposit in our flagship Kharmagtai project. Xanadu is the Operator of a 50-50 JV with Zijin Mining Group in Khuiten Metals Pte Ltd, which controls 76.5% of the Kharmagtai project.

For further information on Xanadu, please visit: **www.xanadumines.com** or contact:

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This Announcement was authorised for release by Xanadu's Board of Directors.

Appendix 1: Drilling Results

Note that true widths will generally be narrower than those reported. See disclosure in JORC explanatory statement attached.

Table 1: Drill hole collar

Hole ID	Cluster	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
KHDDH589	1	592148	4875347	1319	315	-60	228.5
KHDDH590	2	591074	4878009	1295	315	-60	300.0
KHDDH591	2	590226	4877369	1308	0	-60	200.0
KHDDH592	1	592030	4875318	1320	315	-60	282.5
KHDDH593	2	590750	4878168	1294	0	-60	200.0
KHDDH596	1	592378	4875268	1313	315	-60	316.6
KHDDH622	3	593518	4874425	1289	315	-60	221.8
KHDDH625	3	594030	4874188	1290	315	-60	259.4
KHDDH630	3	594218	4874708	1290	315	-60	201.0
KHDDH635	3	594460	4874441	1302	315	-60	200.0
KHDDH636	3	594794	4874708	1290	315	-60	200.0
KHDDH640	4	595385	4873935	1293	315	-60	200.0
KHDDH641	4	595991	4875418	1290	315	-60	200.0
KHDDH643	4	596431	4874228	1303	315	-60	218.6
KHDDH646	4	597073	4874708	1305	315	-60	200.0

Table 2: Significant drill results

Hole ID	Cluster	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH589	Cluster One	2.2	30.5	28.3	0.16	0.16	0.25	0.48
including		14	18	4	0.26	0.23	0.36	0.71
and		42	68	26	0.18	0.06	0.15	0.29
and		100	111.5	11.5	0.09	0.06	0.11	0.21
and		176	188	12	0.07	0.05	0.09	0.17
and		201	209	8	0.10	0.11	0.16	0.31
KHDDH590	Cluster Two	163.8	277	113.2	0.18	0.10	0.19	0.36
including		170	182	12	0.35	0.13	0.31	0.61
and		289	297	8	1.59	0.07	0.88	1.72
including		291	295	4	3.04	0.05	1.60	3.14
KHDDH592	Cluster One	81	104	23	0.23	0.05	0.17	0.34
including		81	87.6	6.6	0.49	0.05	0.30	0.59

Hole ID	Cluster	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
and		182	190	8	0.21	0.08	0.19	0.37
and		215	240.2	25.2	0.04	0.09	0.11	0.22
KHDDH593	Cluster Two	104	107.8	3.8	0.14	0.09	0.16	0.32
KHDDH622	Cluster Three	9	51	42	0.01	0.08	0.08	0.16
and		61	94	33	0.01	0.12	0.12	0.24
and		127	142	15	0.09	1.26	1.31	2.56
including		132.05	138	5.95	0.21	2.97	3.08	6.02
and		215	219	4	0.03	0.48	0.50	0.98
KHDDH625	Cluster Three	1.4	10	8.6	0.03	0.16	0.17	0.34
and		28	48.3	20.3	0.01	0.29	0.30	0.59
including		32	40	8	0.01	0.45	0.46	0.90
and		64	70	6	0.02	0.00	0.00	0.00
and		80.2	140	59.8	0.02	0.15	0.16	0.32
including		90	99.54	9.54	0.02	0.19	0.20	0.39
and		150	220	70	0.03	0.15	0.17	0.32
including		184	194	10	0.12	0.24	0.30	0.58
and		238	250	12	0.04	0.09	0.11	0.22
KHDDH630	Cluster Three	7	68	61	0.02	0.11	0.12	0.24
and		99.1	116	16.9	0.03	0.10	0.11	0.22
KHDDH635	Cluster Three	3	7	4	0.01	0.13	0.14	0.27
and		21	127.65	106.65	0.03	0.19	0.20	0.40
including		31	35	4	0.22	0.85	0.95	1.87
including		85	90.05	5.05	0.07	0.78	0.82	1.60
and		157.7	200	42.3	0.02	0.11	0.12	0.23
KHDDH636	Cluster Three	5.3	32.6	27.3	0.03	0.10	0.12	0.23
and		49	58	9	0.06	0.07	0.10	0.20
and		90	200	110	0.05	0.09	0.12	0.23
KHDDH640	Cluster Four	No Significant Results						
KHDDH641	Cluster Four	28.0	112.0	28.0	0.02	0.09	0.10	0.21
KHDDH643	Cluster Four	No Significant Results						
KHDDH646	Cluster Four	147.0	151.0	4.0	0.33	0.02	0.19	0.38

Appendix 2: Statements and Disclaimers

Competent Person Statement

The information in this announcement that relates to Mineral Resources is based on information compiled by Mr Robert Spiers, who is responsible for the Mineral Resource estimate. Mr Spiers is a full time Principal Geologist employed by Spiers Geological Consultants (SGC) and is a Member of the Australian Institute of Geoscientists. He 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 Qualified Person as defined in the CIM Guidelines and National Instrument 43-101 and as a Competent Person under JORC Code 2012. Mr Spiers consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

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* and the *National Instrument 43-101*. Dr Stewart consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Mineral Resources and Ore Reserves Reporting Requirements

The 2012 Edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the **JORC Code 2012**) sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The Information contained in this Announcement has been presented in accordance with the JORC Code 2012.

The information in this Announcement relates to the exploration results previously reported in ASX Announcements which are available on the Xanadu website at:

https://www.xanadumines.com/site/investor-centre/asx-announcements

The Company is not aware of any new, material information or data that is not included in those market announcements.

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 with a metallurgical recovery factor applied.

Copper equivalent (CuEq) grade values were calculated using the formula: CuEq = Cu + Au * 0.60049 * 0.86667.

Where Cu - copper grade (%); Au - gold grade (g/t); 0.60049 - conversion factor (gold to copper); 0.86667 - relative recovery of gold to copper (86.67%).

The copper equivalent formula was based on the following parameters (prices are in USD): Copper price 3.4 $/lb; Gold price 1400 $/oz; Copper recovery 90%; Gold recovery 78%; Relative recovery of gold to copper = 78% / 90% = 86.67%.

Forward-Looking Statements

Certain statements contained in this Announcement, including information as to the future financial or operating performance of Xanadu and its projects may also include statements which are 'forward-looking statements' that may include, amongst other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These 'forward-looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Xanadu, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Xanadu disclaims any intent or obligation to update publicly or release any revisions to any forward-looking statements, whether as a result of new information, future events, circumstances or results or otherwise after the date of this Announcement or to reflect the occurrence of unanticipated events, other than required by the *Corporations Act 2001* (Cth) and the Listing Rules of the Australian Securities Exchange (**ASX**) and Toronto Stock Exchange (**TSX**). The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements.

All 'forward-looking statements' made in this Announcement are qualified by the foregoing cautionary statements. Investors are cautioned that 'forward-looking statements' are not guarantee of future performance and accordingly investors are cautioned not to put undue reliance on 'forward-looking statements' due to the inherent uncertainty therein.

For further information please visit the Xanadu Mines' Website at **www.xanadumines.com.**

Appendix 2: 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 Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 7 June 2023.

JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

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

Criteria	Commentary
Sampling techniques	• Representative ½ core samples were split from PQ, HQ & NQ diameter diamond drill core on site using rock saws, on a routine 2m sample interval that also honours lithological/intrusive contacts. • The orientation of the cut line is controlled using the core orientation line ensuring uniformity of core splitting wherever the core has been successfully oriented. • Sample intervals are defined and subsequently checked by geologists, and sample tags are attached (stapled) to the plastic core trays for every sample interval. • Reverse Circulation (**RC**) chip samples are ¼ splits from one meter (**1m**) intervals using a 75%:25% riffle splitter to obtain a 3kg sample • RC samples are uniform 2m samples formed from the combination of two ¼ split 1m samples.
Drilling techniques	• The Mineral Resource Estimation has been based upon diamond drilling of PQ, HQ and NQ diameters with both standard and triple tube core recovery configurations, RC drilling and surface trenching with channel sampling. • All drill core drilled by Xanadu has been oriented using the “Reflex Ace” tool.
Drill sample recovery	• Diamond drill core recoveries were assessed using the standard industry (best) practice which involves removing the core from core trays; reassembling multiple core runs in a v-rail; measuring core lengths with a tape measure, assessing recovery against core block depth measurements and recording any measured core loss for each core run. • Diamond core recoveries average 97% through mineralisation. • Overall, core quality is good, with minimal core loss. Where there is localised faulting and or fracturing core recoveries decrease, however, this is a very small percentage of the mineralised intersections. • RC recoveries are measured using whole weight of each 1m intercept measured before splitting • Analysis of recovery results vs grade shows no significant trends that might indicate sampling bias introduced by variable recovery in fault/fracture zones.
Logging	• All drill core is geologically logged by well-trained geologists using a modified “Anaconda-style” logging system methodology. The Anaconda method of logging and mapping is specifically designed for porphyry Cu-Au mineral systems and is entirely appropriate to support Mineral Resource Estimation, mining and metallurgical studies. • Logging of lithology, alteration and mineralogy is intrinsically qualitative in nature. However, the logging is subsequently supported by 4 Acid ICP-MS (48 element) geochemistry and SWIR spectral mineralogy (facilitating semi-quantitative/calculated mineralogical, lithological and alteration classification) which is integrated with the

Criteria	Commentary
	logging to improve cross section interpretation and 3D geological model development. • Drill core is also systematically logged for both geotechnical features and geological structures. Where drill core has been successfully oriented, the orientation of structures and geotechnical features are also routinely measured. • Both wet and dry core photos are taken after core has been logged and marked-up but before drill core has been cut.
Sub-sampling techniques and sample preparation	• All drill core samples are ½ core splits from either PQ, HQ or NQ diameter cores. A routine 2m sample interval is used, but this is varied locally to honour lithological/intrusive contacts. The minimum allowed sample length is 30cm. • Core is appropriately split (onsite) using diamond core saws with the cut line routinely located relative to the core orientation line (where present) to provide consistency of sample split selection. • The diamond saws are regularly flushed with water to minimize potential contamination. • A field duplicate ¼ core sample is collected every 30th sample to ensure the "representivity of the in-situ material collected". The performance of these field duplicates is routinely analysed as part of Xanadu's sample QC process. • 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: Crushed to 75% passing 2mm, split to 1kg, pulverised to 85% passing 200 mesh (75 microns) and split to 150g sample pulp. • ALS Mongolia Geochemistry labs quality management system is certified to ISO 9001:2008. • The sample support (sub-sample mass and comminution) is appropriate for the grainsize and Cu-Au distribution of the porphyry Cu-Au mineralization and associated host rocks.
Quality of assay data and laboratory tests	• All samples were routinely assayed by ALS Mongolia for gold • Au is determined using a 25g 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. • All samples were also submitted to ALS Mongolia for the 48-element package ME-ICP61 using a four-acid digest (considered to be an effective total digest for the elements relevant to the Mineral Resource Estimate (**MRE**)). Where copper is over-range (>1% Cu), it is analysed by a second analytical technique (Cu-OG62), which has a higher upper detection limit (**UDL**) of 5% copper. • Quality assurance has been managed by insertion of appropriate Standards (1:30 samples – suitable Ore Research Pty Ltd certified standards), Blanks (1:30 samples), Duplicates (1:30 samples – ¼ core duplicate) by XAM. • 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 QC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-gold standards. • QC monitoring is an active and ongoing processes on batch by batch basis by which

Criteria	Commentary
	unacceptable results are re-assayed as soon as practicable. • Prior to 2014: 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) at SGS Mongolia. Samples were 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 was over-range (>1% Cu), it was analysed by a second analytical technique (AAS22S), which has a higher upper detection limit (UDL) of 5% copper. Gold analysis method was essentially unchanged.
Verification of sampling and assaying	• All assay data QA/QC is checked prior to loading into XAM's Geobank data base. • The data is managed by XAM geologists. • The data base and geological interpretation is managed by XAM. • Check assays are submitted to an umpire lab (SGS Mongolia) for duplicate analysis. • No twinned drill holes exist. • There have been no adjustments to any of the assay data.
Location of data points	• Diamond drill holes have been surveyed with a differential global positioning system (**DGPS**) to within 10cm accuracy. • The grid system used for the project is UTM WGS-84 Zone 48N • Historically, Eastman Kodak and Flexit electronic multi-shot downhole survey tools have been used at Kharmagtai to collect down hole azimuth and inclination information for the majority of the diamond drill holes. Single shots were typically taken every 30m to 50m during the drilling process, and a multi-shot survey with readings every 3-5m are conducted at the completion of the drill hole. As these tools rely on the earth's magnetic field to measure azimuth, there is some localised interference/inaccuracy introduced by the presence of magnetite in some parts of the Kharmagtai mineral system. The extent of this interference cannot be quantified on a reading-by-reading basis. • More recently (since September 2017), a north-seeking gyro has been employed by the drilling crews on site (rented and operated by the drilling contractor), providing accurate downhole orientation measurements unaffected by magnetic effects. Xanadu have a permanent calibration station setup for the gyro tool, which is routinely calibrated every 2 weeks (calibration records are maintained and were sighted) • The project Digital Terrain Model (**DTM**) is based on 1m contours from satellite imagery with an accuracy of ±0.1 m.
Data spacing and distribution	• Holes spacings range from <50m spacings within the core of mineralization to +500m spacings for exploration drilling. Hole spacings can be determined using the sections and drill plans provided. • Holes range from vertical to an inclination of -60 degrees depending on the attitude of the target and the drilling method. • The data spacing and distribution is sufficient to establish anomalism and targeting for porphyry Cu-Au, tourmaline breccia and epithermal target types. • Holes have been drilled to a maximum of 1,304m vertical depth. • The data spacing and distribution is sufficient to establish geological and grade continuity, and to support the Mineral Resource classification.

Criteria	Commentary
Orientation of data in relation to geological structure	• Drilling is conducted in a predominantly regular grid to allow unbiased interpretation and targeting. • Scissor drilling, as well as some vertical and oblique drilling, has been used in key mineralised zones to achieve unbiased sampling of interpreted structures and mineralised zones, and in particular to assist in constraining the geometry of the mineralised hydrothermal tourmaline-sulphide breccia domains.
Sample sCuEqrity	• Samples are delivered from the drill rig to the core shed twice daily and are never left unattended at the rig. • Samples are dispatched from site in locked boxes transported on XAM company vehicles to ALS lab in Ulaanbaatar. • Sample shipment receipt is signed off at the Laboratory with additional email confirmation of receipt. • Samples are then stored at the lab and returned to a locked storage site.
Audits or reviews	• Internal audits of sampling techniques and data management are undertaken on a regular basis, to ensure industry best practice is employed at all times. • External reviews and audits 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 to an appropriate standard. • 2013: Mining Associates Ltd. was engaged to conduct an Independent Technical Report to review drilling, sampling techniques and QAQC. Methods were found to conform to international best practice. • 2018: CSA Global reviewed the entire drilling, logging, sampling, sample shipping and laboratory processes during the competent persons site visit for the 2018 MRE and found the systems and adherence to protocols to be to an appropriate standard.

JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

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

Criteria	Commentary

Mineral tenement and land tenure status	• The Project comprises 2 Mining Licences (MV-17129A Oyut Ulaan and (MV-17387A Kharmagtai):
	  ○ Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence.
	  ○ The Kharmagtai mining license MV-17387A is 100% owned by Oyut Ulaan LLC. Xanadu has an 85% interest in Mongol Metals LLC, which has 90% interest in Oyut Ulaan LLC. The remaining 10% in Oyut Ulaan LLC is owned by Quincunx (BVI) Ltd ("Quincunx").
	• 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	• Previous exploration at Kharmagtai was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping. • Previous exploration at Red Mountain (Oyut Ulaan) was conducted by Ivanhoe Mines.

Criteria	Commentary
Geology	• 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 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 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	• Diamond drill holes are the principal source of geological and grade data for the Project. • See figures in this ASX/TSX Announcement.
Data Aggregation methods	• The CSAMT data was converted into 2D line data using the Zonge CSAMT processing software and then converted into 3D space using a UBC inversion process. Inversion fit was acceptable, and error was generally low. • A nominal cut-off of 0.1% CuEq is used in copper dominant systems for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3%, 0.6% and 1% CuEq. • A nominal cut-off of 0.1g/t eAu is used in gold dominant systems like Golden Eagle for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3g/t, 0.6g/t and 1g/t eAu. • Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6% and 1% CuEq. • 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 with a metallurgical recovery factor applied. The copper equivalent calculation used is based off the CuEq calculation defined by CSA Global in the 2018 Mineral Resource Upgrade. Copper equivalent (**CuEq**) grade values were calculated using the following formula: CuEq = Cu + Au * 0.62097 * 0.8235, Gold Equivalent (**eAu**) grade values were calculated using the following formula: eAu = Au + Cu / 0.62097 * 0.8235. Where:

Criteria	Commentary
	Cu - copper grade (%) Au - gold grade (g/t) 0.62097 - conversion factor (gold to copper) 0.8235 - relative recovery of gold to copper (82.35%) The copper equivalent formula was based on the following parameters (prices are in USD): ○ Copper price - 3.1 $/lb (or 6834 $/t) ○ Gold price - 1320 $/oz ○ Copper recovery - 85% ○ Gold recovery - 70% ○ Relative recovery of gold to copper = 70% / 85% = 82.35%.
Relationship between mineralisation on widths and intercept lengths	• 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.
Diagrams	• See figures in the body of this ASX/TSX Announcement.
Balanced reporting	• 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	• Extensive work in this area has been done and is reported separately.
Further Work	• 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 RLl) shows widths and grades potentially suitable for underground extraction. • Exploration on going.

JORC TABLE 1 - SECTION 3 - ESTIMATION AND REPORTING OF MINERAL RESOURCES

Mineral Resources are not reported so this is not applicable to this Announcement. Please refer to the Company's ASX Announcement dated 1 December 2021 for Xanadu's most recent reported Mineral Resource Estimate and applicable Table 1, Section 3.

JORC TABLE 1 - SECTION 4 - ESTIMATION AND REPORTING OF ORE RESERVES

Ore Reserves are not reported so this is not applicable to this Announcement.