



FURTHER EXTENSIONS TO HIGH GRADE ZONES AT STOCKWORK HILL

Xanadu Mines Ltd (**ASX: XAM, TSX: XAM**) (**Xanadu** or the **Company**) is pleased to update the market on its on-going exploration program for porphyry copper and gold deposits at the Kharmagtai District in the South Gobi region of Mongolia.

Highlights

- Strong step-out drilling results pave the way for further growth of both the gold-rich bornite and high-grade tourmaline breccia zones at Stockwork Hill, with copper and gold grades materially exceeding the 2018 Mineral Resource Estimate¹.
- High-grade intercept from drill hole **KHDDH584** at Stockwork Hill extends the gold-rich bornite zone by 80 metres up-dip and 30 metres down-dip returning:
 - **229.5m @ 0.57% CuEq from 747.5m**
 - including **88m @ 0.96% CuEq**
 - including **28m @ 1.35% CuEq**
- High-grade partial intercepts from drill hole **KHDDH585** at Stockwork Hill expands the Tourmaline Breccia Zone by 25 metres north and 25 metres south returning:
 - **309m @ 0.80% CuEq from 250m**
 - including **225m @ 1.04% CuEq**
 - including **124m @ 1.55% CuEq**
 - Including **50m @ 2.18% CuEq**
- Drilling between White Hill and Zaraa intercepts a broad zone of mineralisation indicating another porphyry system is nearby and mineralisation likely extends between the two deposits.
- Xanadu is on track for an updated Mineral Resource Estimate for Kharmagtai in December 2021.

¹ ASX/TSX Announcement 31 October 2018 - Major increase in Kharmagtai Open Cut Resource to 1.9Mt Cu & 4.3Moz Au

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Xanadu's Chief Executive Officer, Dr Andrew Stewart, said "We are very pleased with new results from ongoing step-out drilling at Stockwork Hill. This includes outstanding results from drill hole KHDDH584 that has significantly expanded the higher-grade copper and gold core, supporting our view that this is a big system with huge untested potential. Upside exists not only for increased tonnage, but more importantly for increasing gold to copper ratio, as we drill deeper into the core of the system."

These latest results continue to exceed the grades that were estimated in the 2018 Kharmagtai Mineral Resource, and our geology team has been working hard on an interim Mineral Resource Estimate (MRE) update, to incorporate significant drilling since 2018. We are pleased to confirm that we remain on schedule to release the updated interim MRE this month."

Full intercepts and drill hole details can be found in Appendix 1, **Tables 1 and 2**.

Drill Hole KHDDH584

Drill hole **KHDDH584** (see **Figure 1, 2 & 3**) was designed to target down-dip extensions to the higher-grade bornite zone at the Stockwork Hill deposit. It intercepted wide zones of mineralisation, grading up to **0.71% copper (Cu)** and **1.26g/t gold (Au)** within a broader intercept of **229.5m grading 0.57% copper equivalent (CuEq)** from 747.5m.

Hole ID	Interval	Cu	Au	CuEq	From
KHDDH584	12m	1.10%	0.14g/t	1.17%	520m
and	229.5m	0.34%	0.45g/t	0.57%	747.5m
including	124m	0.48%	0.61g/t	0.79%	779m
including	88m	0.57%	0.77g/t	0.96%	813m
including	12m	0.64%	0.86g/t	1.07%	819m
including	28m	0.71%	1.26g/t	1.35%	853m
and	14m	0.88%	0.07g/t	0.91%	1031m
including	6m	1.20%	0.09g/t	1.25%	1033m

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

Drill hole **KHDDH584** extended the higher-grade bornite zone by 80 metres up-dip and 30 metres down-dip at Stockwork Hill, which represents an increase to the interpreted tonnage of higher-grade material at Stockwork Hill.

Significantly, two zones of copper-rich, mineralisation were encountered above and below the main bornite zone. At 520m, a breccia body containing **12m @ 1.1% Cu** was returned and at 1,033m, a second breccia was drilled returning **6m @ 1.2% Cu**. These breccias occur well outside the stockwork Hill deposit and may represent a vector to a new target.

Drill Hole KHDDH585

Drill hole **KHDDH585** (see **Figure 1, 2 & 3**) was designed to target northern and southern extensions to the high-grade tourmaline breccia zone at the Stockwork Hill deposit. Assays have been returned to 812m, intercepting wide zones of mineralisation, grading up to **1.87% Cu** and **0.61g/t Au** within a broader intercept of **309m grading 0.80% CuEq** from 250m. Furthermore, gold grade was of very high tenor at 784m, returning 10m @ 2.65g/t Au. We look forward to receipt of remaining assays for the end of hole, to better understand the potential for high gold mineralisation at depth.

Hole ID	Interval	Cu	Au	CuEq	From
KHDDH585	309m	0.65%	0.30g/t	0.80%	250m
including	225m	0.84%	0.38g/t	1.04%	284m
including	124m	1.28%	0.52g/t	1.55%	322m
including	50m	1.87%	0.61g/t	2.18%	330m
including	56m	1.00%	0.58g/t	1.29%	390m
including	14m	0.40%	0.60g/t	0.71%	479m
and	147m	0.19%	0.42g/t	0.41%	665m
including	4m	0.92%	1.28g/t	1.57%	752m
including	36m	0.30%	1.14g/t	0.89%	774m
including	10m	0.45%	2.65g/t	1.80%	784m

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

Assays are returned to 812m; the remaining results are expected in the coming weeks and are not expected to materially impact the findings in this Announcement.

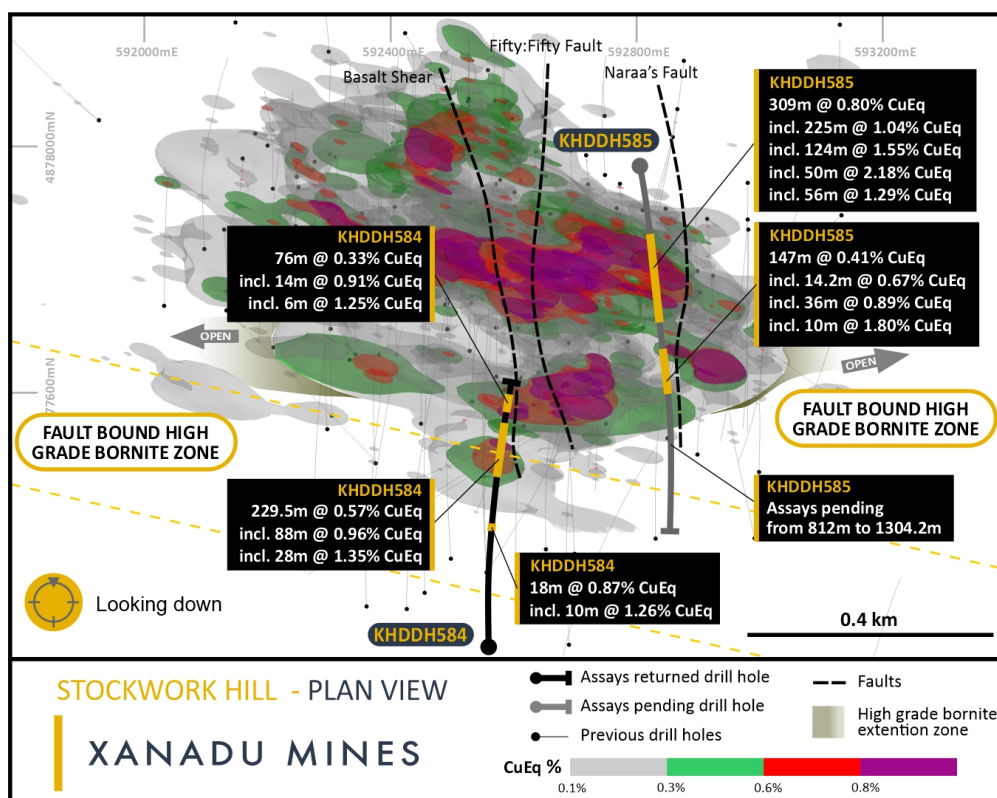


Figure 1. Stockwork Hill plan view, drill holes KHDDH584 and KHDDH585 and interpreted grade shells

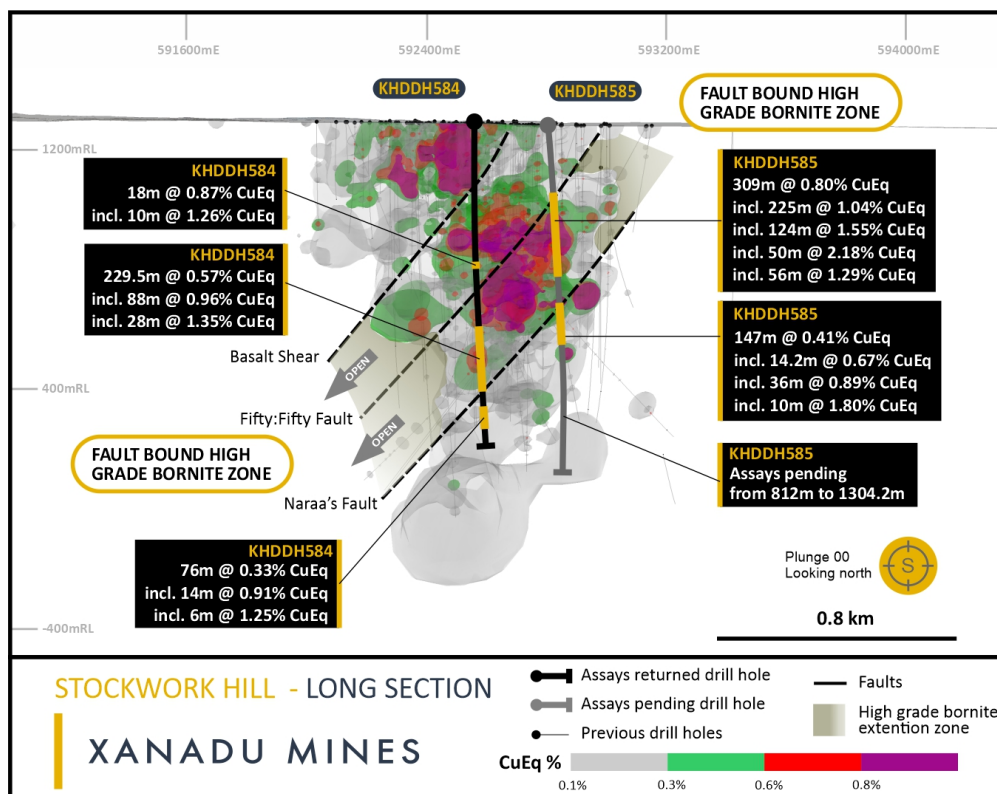


Figure 2. Stockwork Hill long section, drill hole KHDDH584 and KHDDH585 and interpreted grade shells.

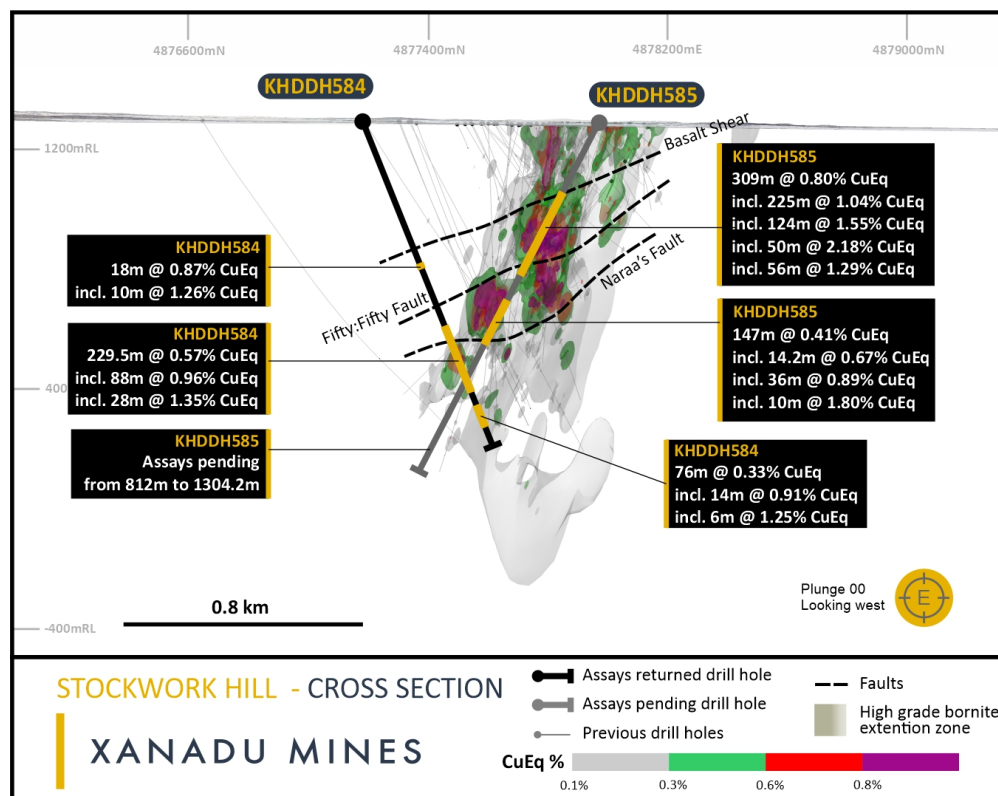


Figure 3. Stockwork Hill cross section, drill hole KHDDH584 and KHDDH585 and interpreted grade shells.

Other Drilling

Pending assays that were discussed in the September 2021 Quarterly Report² have now been returned for drill holes **KHDDH581**, **KHDDH582** and **KHDDH583**.

- **KHDDH581** returned patchy tourmaline breccia mineralisation throughout the drill hole, without delivering any significant intercepts. Details can be found in **Tables 1 and 2**.
- **KHDDH582** was drilled as a discovery hole between White Hill and Zarea deposits. This hole encountered a broad zone of porphyry mineralisation, as defined by a 700m wide zone of porphyry veining, including **177m @ 0.14% CuEq**. Results indicate the potential for another porphyry system in close proximity. Mineralisation has potential to extend between the White Hill and Zarea deposits with future drill testing. Details can be found in **Tables 1 and 2**.
- **KHDDH583** was drilled targeting the upper fault block of the high-grade bornite zone. This hole returned a broad zone of moderate grade mineralisation with several narrow zones of high-grade including **27m @ 0.57% CuEq**. Drill hole details and intercepts can be found in **Tables 1 and 2**.

² ASX/TSX Announcement 28 October 2021 – Quarterly Activities Report and Appendix 5B – 30 September 2021

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 control a globally significant copper-gold deposit in our flagship Kharmagtai project. For information on Xanadu visit: www.xanadumines.com.

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

Appendix 1: Drilling Results

Table 1: Drill hole collar

Hole ID	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
KHDDH581	Stockwork Hill	592982	4877864	1281	180	-67	870.4
KHDDH582	Zaraa	593586	4876318	1293	0	-60	1,437.0
KHDDH583	Stockwork Hill	592376	4877485	1293	0	-70	935.5
KHDDH584	Stockwork Hill	592560	4877182	1298	0	-70	1,171.0
KHDDH585	Stockwork Hill	592806	4877968	1282	170	-65	1,304.2

Table 2: Significant drill results

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH581	Stockwork Hill	180	228	48	0.10	0.14	0.19	0.37
	<i>including</i>	200	204	4	0.26	0.23	0.37	0.71
	<i>and</i>	238	246	8	0.04	0.14	0.16	0.32
	<i>and</i>	284	302	18	0.06	0.09	0.12	0.23
	<i>and</i>	320	330	10	0.15	0.09	0.17	0.32
	<i>and</i>	374	416	42	0.05	0.08	0.10	0.20
	<i>and</i>	436	456	20	0.03	0.18	0.19	0.38
	<i>and</i>	474	498	24	0.04	0.12	0.14	0.27
	<i>and</i>	508	512	4	0.10	0.06	0.11	0.22
	<i>and</i>	522	580	58	0.04	0.06	0.09	0.17
	<i>and</i>	596	600	4	0.28	0.14	0.28	0.55
	<i>and</i>	616.1	622	5.9	0.08	0.09	0.13	0.25
	<i>and</i>	632	660	28	0.05	0.12	0.15	0.29
	<i>and</i>	698	714	16	0.07	0.13	0.17	0.33
	<i>and</i>	740	762	22	0.03	0.14	0.16	0.31
	<i>and</i>	808	814	6	0.02	0.09	0.10	0.20
	<i>and</i>	838	850	12	0.03	0.10	0.12	0.24
KHDDH582	Zaraa	521	525	4	0.07	0.10	0.13	0.26
	<i>and</i>	539	554	15	0.03	0.09	0.11	0.22
	<i>and</i>	566	580	14	0.04	0.10	0.12	0.23
	<i>and</i>	592	604	12	0.03	0.09	0.11	0.21
	<i>and</i>	628	646	18	0.05	0.14	0.16	0.32
	<i>and</i>	656	833	177	0.05	0.12	0.14	0.28
	<i>and</i>	1040	1044	4	0.07	0.15	0.19	0.37
	<i>and</i>	1053.5	1062	8.5	0.05	0.10	0.12	0.24
KHDDH583	Stockwork Hill	5	35	30	0.05	0.09	0.12	0.24
	<i>and</i>	73	77	4	0.05	0.11	0.14	0.27
	<i>and</i>	158	164	6	0.06	0.14	0.17	0.33
	<i>and</i>	174	194	20	0.04	0.12	0.14	0.28
	<i>and</i>	246	250	4	0.05	0.08	0.10	0.20

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Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
<i>and</i>		312	322	10	0.07	0.07	0.11	0.21
<i>and</i>		342	365	23	0.06	0.07	0.10	0.20
<i>and</i>		375	411	36	0.05	0.07	0.10	0.20
<i>and</i>		459	480	21	0.11	0.06	0.12	0.23
<i>and</i>		490	614	124	0.12	0.17	0.23	0.45
<i>including</i>		583	610	27	0.25	0.44	0.57	1.12
<i>including</i>		585	591	6	0.16	0.73	0.81	1.59
<i>including</i>		603	608.3	5.3	0.47	0.47	0.71	1.39
<i>and</i>		691	703	12	0.10	0.08	0.13	0.26
<i>and</i>		716	747	31	0.10	0.07	0.12	0.24
<i>including</i>		737	743	6	0.20	0.29	0.39	0.76
<i>and</i>		759	806	47	0.09	0.15	0.20	0.39
<i>including</i>		773	781	8	0.19	0.25	0.35	0.68
<i>and</i>		800	804	4	0.27	0.49	0.63	1.23
<i>and</i>		868	924	56	0.07	0.07	0.11	0.21
KHDDH584	Stockwork Hill	123	135	12	0.11	0.09	0.14	0.28
<i>and</i>		375	387	12	0.06	0.13	0.16	0.31
<i>and</i>		516	534	18	0.11	0.82	0.87	1.71
<i>including</i>		516	532	16	0.12	0.90	0.96	1.88
<i>including</i>		520	532	12	0.14	1.10	1.17	2.29
<i>including</i>		522	532	10	0.15	1.18	1.26	2.46
<i>and</i>		747.5	977	229.5	0.45	0.34	0.57	1.11
<i>including</i>		754.8	767	12.2	0.31	0.20	0.35	0.69
<i>including</i>		779	903	124	0.61	0.48	0.79	1.55
<i>including</i>		813	901	88	0.77	0.57	0.96	1.87
<i>including</i>		819	831	12	0.86	0.64	1.07	2.10
<i>including</i>		853	881	28	1.26	0.71	1.35	2.65
<i>including</i>		916	930	14	0.36	0.23	0.41	0.80
<i>including</i>		950	977	27	0.45	0.20	0.43	0.85
<i>including</i>		950	956	6	0.90	0.32	0.78	1.53
<i>and</i>		991	1001	10	0.11	0.07	0.12	0.24
<i>and</i>		1029	1105	76	0.03	0.31	0.33	0.65
<i>including</i>		1029	1073	44	0.05	0.45	0.47	0.93
<i>including</i>		1031	1045	14	0.07	0.88	0.91	1.78
<i>including</i>		1033	1039	6	0.09	1.20	1.25	2.45
<i>and</i>		1137	1157	20	0.23	0.02	0.14	0.28
<i>including</i>		1145.4	1157	11.6	0.39	0.01	0.21	0.40
KHDDH585	Stockwork Hill	8	14	6	0.03	0.10	0.12	0.23
<i>and</i>		40	120	80	0.06	0.09	0.12	0.23
<i>and</i>		204	222	18	0.11	0.07	0.13	0.25
<i>and</i>		234	238	4	0.08	0.29	0.33	0.65
<i>and</i>		250	559	309	0.30	0.65	0.80	1.57
<i>including</i>		284	509	225	0.38	0.84	1.04	2.03

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Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
<i>including</i>		322	446	124	0.52	1.28	1.55	3.02
<i>including</i>		330	380	50	0.61	1.87	2.18	4.27
<i>including</i>		390	446	56	0.58	1.00	1.29	2.52
<i>including</i>		479	493	14	0.60	0.40	0.71	1.38
<i>including</i>		481	493	12	0.60	0.41	0.72	1.41
<i>including</i>		521	537	16	0.23	0.17	0.28	0.55
<i>and</i>		569	591	22	0.09	0.07	0.11	0.22
<i>and</i>		611	637	26	0.04	0.05	0.07	0.14
<i>and</i>		665	812	147	0.42	0.19	0.41	0.80
<i>including</i>		675	687	12	0.13	0.19	0.26	0.50
<i>including</i>		721	725	4	0.96	0.31	0.80	1.56
<i>including</i>		749.8	764	14.2	0.48	0.43	0.67	1.32
<i>including</i>		752	756	4	1.28	0.92	1.57	3.07
<i>including</i>		774	810	36	1.14	0.30	0.89	1.73
<i>including</i>		780	810	30	1.27	0.32	0.97	1.91
<i>including</i>		784	794	10	2.65	0.45	1.80	3.53
<i>assays pending</i>								

Appendix 2: Statements and Disclaimers

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:

<http://www.xanadumines.com/irm/content/announcements.aspx>.

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

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* 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.

Copper Equivalent Calculations

The copper equivalent (**CuEq** or **eCu**) 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 Pty Ltd (**CSA Global**) in the 2018 Mineral Resource Upgrade (see ASX Announcement dated 31 October 2018).

Copper equivalent grade values were calculated using the formula $CuEq = Cu + Au * 0.62097 * 0.8235$.

Where Cu = copper grade (%); Au = gold grade (gold per tonne (**g/t**)); 0.62097 = conversion factor (gold to copper); and 0.8235 = relative recovery of gold to copper (82.35%).

These equivalent formulas were based on the following parameters (prices are in USD): Copper price = 3.1 \$/lb (or 6,834 \$ per tonne (\$/t)); Gold price = 1,320 \$ per ounce (\$/oz); Copper recovery = 85%; Gold recovery = 70%; and Relative recovery of gold to copper = 70% / 85% = 82.35%.

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 3: 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 16 August 2021.

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	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type,</i> 	<ul style="list-style-type: none"> 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

Criteria	JORC Code explanation	Commentary
	<i>whether core is oriented and if so, by what method, etc.).</i>	oriented using the "Reflex Ace" tool.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • 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 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

Criteria	JORC Code explanation	Commentary
		<p>structures and geotechnical features are also routinely measured.</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> 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 grain size and Cu-Au distribution of the porphyry Cu-Au mineralization and associated host rocks.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> 	<ul style="list-style-type: none"> 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

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<p>atomic absorption spectroscopy (AAS) finish, with a lower detection (LDL) of 0.01 ppm.</p> <ul style="list-style-type: none"> 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 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.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> 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.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • 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.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • 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 security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • 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:

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • The Project comprises 2 Mining Licences (MV-17129A Oyut Ulaan and (MV-17387A Kharmagtai): <ul style="list-style-type: none"> ○ 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 <i>Mongolian Minerals Law (2006)</i> and <i>Mongolian Land Law (2002)</i> govern exploration, mining and land use rights for the project.
Exploration done by other parties	<ul style="list-style-type: none"> • 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.
Geology	<ul style="list-style-type: none"> • 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

Criteria	Commentary
	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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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% eCu 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% eCu. • 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% eCu. • 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). <p>The copper equivalent (eCu) 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 eCu calculation defined by CSA Global in the 2018 Mineral Resource Upgrade.</p> <p>Copper equivalent (CuEq or eCu) grade values were calculated using the following formula:</p> $\text{eCu or CuEq} = \text{Cu} + \text{Au} * 0.62097 * 0.8235,$ <p>Gold Equivalent (eAu) grade values were calculated using the following formula:</p> $\text{eAu} = \text{Au} + \text{Cu} / 0.62097 * 0.8235.$ <p>Where:</p> <p>Cu - copper grade (%)</p> <p>Au - gold grade (g/t)</p> <p>0.62097 - conversion factor (gold to copper)</p> <p>0.8235 - relative recovery of gold to copper (82.35%)</p> <p>The copper equivalent formula was based on the following parameters (prices are in USD):</p> <ul style="list-style-type: none"> ○ Copper price - 3.1 \$/lb (or 6834 \$/t)

Criteria	Commentary
	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> See figures in the body of this ASX/TSX Announcement.
Balanced reporting	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Extensive work in this area has been done and is reported separately.
Further Work	<ul style="list-style-type: none"> 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 RLI) 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 31 October 2018 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.