Large Scale Extension at White Hill

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TORONTO, July 13, 2021 - 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

- Large scale extension to known mineralisation at White Hill, with drill hole KHDDH569 returning 697m @ 0.38% eCu from 443m, including 172m @ 0.51% eCu from 570m and 208m @ 0.52% eCu from 754m.
- KHDDH569 successfully extends the southern flank of the White Hill deposit by 300m and represents a material increase in tonnage over the current resource.
- KHDDH570 completes Zaraa resource drilling, with work commencing on a maiden mineral resource estimate for Q4 of 2021.
- Stockwork Hill drill hole KHDDH571 passes between higher grade bornite compartments on Fifty-Fifty Fault, revising high-grade targeting program.
- In progress drill hole KHDDH574 between White Hill and Zaraa has entered visible porphyry mineralisation and may represent a new discovery.
- Three rigs operating, testing extensions to White Hill and Zaraa and high-grade zones at Stockwork Hill.
- Continuing three-prong strategy of discovery, high grade definition and resource expansion.

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said *"June delivered significant results. At White Hill, KHDDH569 added more than 300m of mineralisation to the south, which is a significant increase in copper tonnage and moves Xanadu closer to our >1 billion tonne objective. At Stockwork Hill, KHDDH571 indicates the high-grade Bornite zone has a larger offset on either side of the Fifty-Fifty fault, which refines our models as we zero in on our >100 million tonne high grade objective."*

Assay results are returned for three diamond drill holes. Full intercepts and drill hole details can be found in Appendix 1, Tables 1 and 2.

Drill Hole KHDDH569 (White Hill)

KHDDH569 was drilled targeting the southern extensions of the White Hill deposit. The hole encountered mineralisation over 300m outside the current mineral resource estimate boundary and has returned a significant 697m intercept (Figure 1).

Hole ID	Interval	Cu	Au	eCu	From
KHDDH569	697m	0.29%	0.18g/t	0.38%	443m
including	172m	0.31%	0.38g/t	0.51%	570m
and	208m	0.44%	0.18g/t	0.52%	754m
Including	32m	0.62%	0.22g/t	0.73%	811m
and	42m	0.59%	0.21g/t	0.69%	904m
and	60m	0.35%	0.15g/t	0.43%	972m
and	22m	0.47%	0.24g/t	0.59%	990m

Figure 1. Cross section through the White Hill deposit showing KHDDH569 is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/f66774b3-2fa5-4d2f-acf6-af74b9cfb375

Drill Hole KHDDH570 (Zaraa)

Drill hole KHDDH570 was drilled on the eastern margin of the Zaraa deposit to complete the data acquisition for the maiden mineral resource estimate for Zaraa. KHDDH570 encountered over 700m of mineralisation and returned the following intercept (Figure 2).

Hole ID	Interval	Cu	Au	eCu	From
KHDDH570	703.5m	0.19%	0.17g/t	0.28%	318.5m
Including	196.1m	0.25%	0.25g/t	0.38%	557m
and	103m	0.23%	0.30g/t	0.39%	763m

Figure 2. Zaraa cross section showing KHDDH570 is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/88044566-276c-44ce-868f-61929b81cc23

Drill Hole KHDDH571 (Stockwork Hill)

Drill hole KHDDH571 was drilled targeting the western compartment of the bornite zone where previous drill holes suggested the bornite zone extended (Figure 3). In plan view, the bornite zone appears to be offset by the 50:50 fault and the western compartment steps to the north. The bornite zone appears to form in two compartments split by a fault (50:50 fault).

KHDDH571 encountered a broad shallow zone of low-grade mineralisation, similar to that associated with White Hill, and only 28m of moderate grade mineralisation associated with the bornite zone. This suggests that the offset to the bornite zone on the west of the 50:50 fault is larger than anticipated. Modelling is underway to understand this relationship.

Hole ID	Interval	Cu	Au	eCu	From
KHDDH571	461m	0.15%	0.07g/t	0.19%	3m
and	28m	0.31%	0.18g/t	0.40%	718m

Figure 3. Plan view of Stockwork Hill (mineralisation projected to surface) showing the distribution of mineralisation and interaction between grade and structure in the bornite zone. Current Target Zones are highlighted and drill hole KHDDH571 is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/9ce13926-97ca-4fcd-b56a-fb2e7a9e95bd

Current Drilling

Three diamond drill holes are currently underway (Figure 4) in KHDDH573, KHDDK574 and KHDDH575.

Figure 4. Kharmagtai District Map showing current drill holes is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/a5672627-9b4e-468d-84f4-0b8486f6a9fa

KHDDH573 at Stockwork Hill is currently targeting the up and down-dip extensions of the high-grade bornite zone. This hole is currently at 750m and has passed through 230m of strong (visual) mineralisation below the 50:50 fault (Figure 6).

Drilling has commenced on KHDDH574, a discovery drill hole targeting mineralisation between White Hill and Zaraa. KHDDH574 is currently at 850m and entered porphyry mineralisation at 550m. Mineralisation consists of porphyry B-veins and disseminated chalcopyrite (Figure 7). This is a significant advance for the Kharmagtai project and may represent a new discovery.

At White Hill a second drill hole (KHDDH575) has been collared to extend the mineralisation there to the south. This hole is currently at 200m and mineralisation is anticipated from 390m.

Exploration Program

Xanadu's goal is to target an increase of the combined Kharmagtai mineral resource to >1 billion tonnes @ ≥0.5% copper equivalent (eCu) including >100 million tonnes @ ≥0.8% eCu, aiming to enable future development of the Kharmagtai District.

The drilling program at Kharmagtai is designed around this goal, with a three prong strategy including:

1. High-Grade Definition Program - define scale and tenor of gold-rich, bornite zones identified underneath current Stockwork Hill, White Hill and Copper Hill mineral resources;
2. Discovery Drilling Program - drilling of priority targets to identify new discoveries on the Kharmagtai District; and
3. Resource Upgrade Program - define to Indicated status deeper mineralisation beneath the current mineral resource and large-scale mineralisation at Zaraa.

Figure 5. Kharmagtai District Long Section - Known Mineralisation is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/ef11676e-0bf4-43c5-ae96-9b8547354f20

Core Slabs

Figure 6. Core Slab KHDDH573 is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/a377e8da-070e-4c8c-861f-66a9b734342f

Figure 7. Core Slab KHDDH574 is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/44f56a76-752b-43ca-92b0-df9a29f9c926

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)
KHDDH569	White Hill	591766	4876609	1314	0	-60	1,270.0
KHDDH570	Zaraa	594727	4877204	1271	197	-65	1,051.3
KHDDH571	Stockwork Hill	592455	4877275	1295	0	-65	1,021.6

Table 2: Significant drill results

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	eCu (%)	eAu (g/t)
KHDDH569	White Hill	200	220	20	0.08	0.07	0.11	0.21
and		298.3	304	5.7	0.05	0.09	0.12	0.23
and		314	326	12	0.03	0.06	0.08	0.15
and		340	366	26	0.05	0.06	0.09	0.17
and		443	1140	697	0.18	0.29	0.38	0.74
including		503	508	5	0.12	0.31	0.37	0.73
including		570	742	172	0.38	0.31	0.51	1.00
including		653	664.5	11.5	0.33	0.63	0.80	1.56
including		754	962	208	0.17	0.44	0.52	1.02
including		794	800.3	6.3	0.18	0.56	0.65	1.28
including		811	843	32	0.22	0.62	0.73	1.42
including		815	819	4	0.27	0.89	1.03	2.01
including		904	946	42	0.21	0.59	0.69	1.35
including		972	1032	60	0.15	0.35	0.43	0.84
including		990	1012	22	0.24	0.47	0.59	1.15
and		1152	1188	36	0.05	0.13	0.16	0.31
and		1218	1228	10	0.05	0.19	0.21	0.42
and		1238	1248	10	0.03	0.08	0.10	0.19
and		1258	1267.7	9.7	0.03	0.08	0.09	0.18
KHDDH570	Zaraa	203	209	6	0.07	0.06	0.10	0.20
and		227	302	75	0.08	0.08	0.12	0.24
and		318.5	1022	703.5	0.17	0.19	0.28	0.54
including		455	461	6	0.21	0.27	0.38	0.73
including		489	497	8	0.19	0.24	0.34	0.66
including		507	517	10	0.20	0.20	0.31	0.60
including		539	547	8	0.16	0.21	0.29	0.56
including		557	753.1	196.1	0.25	0.25	0.38	0.74
including		736	740	4	0.63	0.47	0.80	1.56

including	763	866	103	0.30	0.23	0.39	0.75
including	779.8	792	12.2	0.65	0.22	0.56	1.09
including	828	836	8	0.48	0.51	0.75	1.46
including	885	895	10	0.28	0.31	0.45	0.88
including	909	951	42	0.13	0.24	0.31	0.60
and	1035	1051.3	16.3	0.03	0.13	0.15	0.28
KHDDH571 Stockwork Hill	3	464	461	0.07	0.15	0.19	0.37
including	3	15	12	0.22	0.28	0.40	0.78
including	25	41	16	0.12	0.22	0.28	0.55
including	51	65	14	0.14	0.23	0.30	0.59
including	177	183	6	0.10	0.25	0.31	0.60
including	246	258	12	0.11	0.16	0.22	0.42
and	682.3	752	69.7	0.13	0.22	0.28	0.55
including	718	746	28	0.18	0.31	0.40	0.79
and	818	846	28	0.13	0.06	0.13	0.25
including	836	844	8	0.21	0.16	0.27	0.53
and	862	866	4	0.12	0.12	0.17	0.34
and	896	906	10	0.05	0.05	0.07	0.15

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 eCu calculation defined by CSA in the 2018 Mineral Resource Upgrade (see ASX Announcement dated 31 October 2018).

Copper equivalent grade values were calculated using the formula eCu = 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 11 April 2019.

JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code explanation
Sampling techniques	● *Nature and quality of sampling (e.g. cut channels, random c* ● *Include reference to measures taken to ensure sample repre* ● *Aspects of the determination of mineralisation that are Mate* ● *In cases where 'industry standard' work has been done this*

Drilling techniques	● *Drill type (e.g. core, reverse circulation, open-hole hammer,*
Drill sample recovery	● *Method of recording and assessing core and chip sample re* ● *Measures taken to maximise sample recovery and ensure re* ● *Whether a relationship exists between sample recovery and*
Logging	● *Whether core and chip samples have been geologically and* ● *Whether logging is qualitative or quantitative in nature. Core* ● *The total length and percentage of the relevant intersections*
Sub-sampling techniques and sample preparation	● *If core, whether cut or sawn and whether quarter, half or all* ● *If non-core, whether riffled, tube sampled, rotary split, etc. a* ● *For all sample types, the nature, quality and appropriateness* ● *Quality control procedures adopted for all sub-sampling stag* ● *Measures taken to ensure that the sampling is representativ* ● *Whether sample sizes are appropriate to the grain size of th*
Quality of assay data and laboratory tests	● *The nature, quality and appropriateness of the assaying and* ● *For geophysical tools, spectrometers, handheld XRF instrum* ● *Nature of quality control procedures adopted (e.g. standards*
Verification of sampling and assaying	● *The verification of significant intersections by either indepen* ● *The use of twinned holes.* ● *Documentation of primary data, data entry procedures, data* ● *Discuss any adjustment to assay data.*
Location of data points	● *Accuracy and quality of surveys used to locate drill holes (co* ● *Specification of the grid system used.* ● *Quality and adequacy of topographic control.*
Data spacing and distribution	● *Data spacing for reporting of Exploration Results.* ● *Whether the data spacing and distribution is sufficient to est* ● *Whether sample compositing has been applied.*
Orientation of data in relation to geological structure	● *Whether the orientation of sampling achieves unbiased sam* ● *If the relationship between the drilling orientation and the ori*

Sample security	● *The measures taken to ensure sample security.*
Audits or reviews	● *The results of any audits or reviews of sampling techniques*

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 ● Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut ● The Kharmagtai mining license MV-17387A is 100% owned by Oyut U ● The *Mongolian Minerals Law (2006)* and *Mongolian Land Law (2002)* gover
Exploration done by other parties	● Previous exploration at Kharmagtai was conducted by Quincunx Ltd, Ivanho ● Previous exploration at Red Mountain (Oyut Ulaan) was conducted by Ivanh
Geology	● The mineralisation is characterised as porphyry copper-gold type. ● Porphyry copper-gold deposits are formed from magmatic hydrothermal fluid
Drill hole Information	● Diamond drill holes are the principal source of geological and grade data for ● See figures in this ASX/TSX Announcement.

	● The CSAMT data was converted into 2D line data using the Zonge CSAMT ● A nominal cut-off of 0.1% eCu is used in copper dominant systems for ident ● A nominal cut-off of 0.1g/t eAu is used in gold dominant systems like Golde ● Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0. ● Most of the reported intercepts are shown in sufficient detail, including maxi ● Informing samples have been composited to two metre lengths honouring th
Data Aggregation methods	The copper equivalent (eCu) calculation represents the total metal value for each Copper equivalent (CuEq or eCu) grade values were calculated using the followin eCu or 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: 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 ● 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 orientati ● Exploration results have been reported as an interval with 'from' and 'to' stat
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 minimu
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 ope ● 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 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.