Xanadu Mines Ltd. Exploration Update

28.05.2021 | [GlobeNewswire](#)

TORONTO, May 28, 2021 - [Xanadu Mines Ltd.](#) (ASX: XAM, TSX: XAM) ("Xanadu" or "the Company") is pleased to provide final assay results from Drill hole KHDDH565 previously reported in the Company's ASX/TSX Announcement dated 20 April 2021 from the Kharmagtai porphyry copper and gold project in the South Gobi region of Mongolia (Figures 1 and 2).

Highlights

- Drill hole KHDDH565 expands the higher grade zone of chalcopyrite and bornite mineralisation south of the Stockwork Hill resource both in width and significantly along strike.
- KHDDH565 intersects 499m @ 0.31% Cu and 0.39 g/t Au (0.51% eCu) from 656m

Including 235m @ 0.36% Cu and 0.48g/t Au (0.60% eCu) from 686m

Including 101m @ 0.45% Cu and 0.52g/t Au (0.72% eCu) from 728m

- While KHDDH565 intersected grades higher than the current resource, this hole passed outside the targeted high grade bornite zone.
- Follow ups to KHDDH565 include two scissor holes (KHDDH567 and KHDDH568), which are currently underway targeting the high grade bornite zone (Figure 3).
- A third diamond drill rig will be added in June 2021. Xanadu will provide a separate ASX/TSX Announcement outlining the Kharmagtai Phase 2 exploration strategy including anticipated near term drill targets.

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said *"The laboratories in Ulaanbaatar are back at full capacity and we are excited to update the market with assay results for KHDDH565 to support the visual logs we reported in April. We are very encouraged by the presence of bornite, the style of mineralisation and the length of the intercept. This drill hole expands our interpreted zone of mineralisation along strike and gives us critical information for future targeting. We're following up now with scissor holes aiming to expand the high grade zone and look forward to reporting those results as soon as available."*

About KHDDH565

The purpose of KHDDH565 was to identify the structure bounding the high-grade bornite zone to the east and to test the western extensions of the high-grade bornite zone. A small offsetting fault was located on the eastern margin of the mineralised zone and this structure is being modelled in 3D to determine the location of the eastern extensions to mineralisation. Mineralisation in the bornite zone was extended some 200m to the west and follow up drilling is planned to test these extensions. Minor structures oblique to the drill hole orientation pushed KHDDH565 slightly offline, and the hole passed through the outside halo of mineralisation rather than directly through the highest grade zone (Figures 1 and 2).

Hole ID	From	Interval	Cu	Au	eCu
KHDDH565	656m	499m	0.31%	0.39 g/t	0.51%
including	686m	235m	0.36%	0.48 g/t	0.60%
including	728m	101m	0.45%	0.52 g/t	0.72%
including	783m	10m	0.72%	0.97 g/t	1.04%
including	878m	15m	0.40%	1.00 g/t	0.98%
including	1,024m	23m	0.80%	1.00 g/t	1.43%
and	1,345.5m	17.5m	0.09%	1.00 g/t	0.74%
Including	1,348m	4m	0.80%	2.00 g/t	1.59%
and	1,427m	12m	0.08%	1.00 g/t	0.73%

A full list of intercepts can be found in Table 2.

These zones of higher grade gold illustrate potential to extend the bornite zone to the west. Scissor holes are underway (Figure 3) and being planned to test this strike potential.

About KHDDH566

Drill hole KHDDH566 was designed as a scissor hole to cross the bornite zone (Figures 1 and 2). Final assays have been received and KHDDH566 has returned the following.

Hole ID	From	Interval	Au	Cu	eCu
KHDDH566	592.1m	217.9m	0.37g/t	0.32%	0.56%
including	594.2m	72.8m	0.32g/t	0.52%	0.58%
including	684m	74m	0.47g/t	0.78%	0.86%
including	684m	24m	0.80g/t	1.10%	1.67%

Results from this hole indicate that the hole passed through a narrower part of the bornite zone and anticipated follow up drilling will test the shape further.

Third Diamond Drill Rig

A third diamond drill rig will be added at Kharmagtai in June 2021, following the recent successful $10.2 million equity placement (see the Company's ASX/TSX Announcement dated 23 April 2021). This will facilitate the Kharmagtai Phase 2 drilling program in line with Xanadu's objective to define high grade blocks to unlock the next stage of development for the project.

Xanadu expects to communicate details of the Kharmagtai Phase 2 drilling program in the coming weeks.

Figure 1 is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/48919056-13f5-45dd-9c0b-f829dae3b1cc

Figure 2 ﻿is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/7af3b4ad-9b4a-415e-be3b-1615e4a3dd45

Figure 3 is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/79eedb3e-10e6-495b-b2c3-9b13e4d5c8c1

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 an emerging Tier 1 copper-gold deposit in our flagship Kharmagtai project. For information on Xanadu visit: www.xanadumines.com.

Andrew Stewart
CEO
Xanadu Mines Ltd.
Andrew.stewart@xanadumines.com
+61 409 819 922

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)
KHDDH565	Stockwork Hill	593133	4877888	1280	233	-55	1609.4
KHDDH566	Stockwork Hill	592652	4877345	1295	0	-70	922.4

Table 2: Significant drill results

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
KHDDH565	Stockwork Hill	69	79	10	0.12	0.05	0.12	0.23
and		183	215	32	0.19	0.12	0.22	0.43
including		197	211	14	0.32	0.17	0.33	0.65
and		247	263	16	0.05	0.07	0.10	0.19
and		323	482	159	0.21	0.31	0.41	0.81
including		361	427	66	0.37	0.52	0.70	1.38
including		369	395	26	0.56	0.77	1.06	2.07
including		369	377	8	0.64	1.18	1.51	2.94
including		389	395	6	0.83	0.83	1.26	2.46
including		409	425	16	0.40	0.48	0.68	1.33
including		445	453	8	0.37	0.83	1.02	2.00
including		445	451	6	0.40	0.97	1.17	2.30
and		511.5	538	26.5	0.22	0.17	0.29	0.56
including		526	538	12	0.41	0.29	0.50	0.99
and		558	640	82	0.03	0.16	0.18	0.34
including		614	632	18	0.03	0.35	0.36	0.71
and		656	1155	499	0.39	0.31	0.51	1.00
including		686	921	235	0.48	0.36	0.60	1.18
including		728	829	101	0.52	0.45	0.72	1.41
including		783	793	10	0.92	0.57	1.04	2.03
including		839	843	4	0.46	0.37	0.61	1.19
including		853	893	40	0.92	0.40	0.87	1.70
including		855	862	7	0.83	0.57	0.99	1.94
including		878	893	15	1.10	0.41	0.98	1.91
including		935	979	44	0.15	0.20	0.28	0.55
including		1000	1147	147	0.46	0.37	0.60	1.17
including		1024	1047	23	1.23	0.80	1.43	2.80
including		1028	1047	19	1.32	0.88	1.56	3.04
including		1059	1097	38	0.52	0.42	0.68	1.33
including		1139	1147	8	0.32	0.27	0.43	0.85
and		1167	1201	34	0.08	0.08	0.12	0.24
and		1221	1245	24	0.08	0.08	0.12	0.24
and		1343	1371	28	0.72	0.14	0.51	1.00
including		1345.5	1363	17.5	1.09	0.19	0.74	1.45
including		1348	1352	4	2.59	0.26	1.59	3.11
and		1415	1441	26	0.56	0.14	0.43	0.84
including		1427	1439	12	1.08	0.18	0.73	1.43
and		1463	1485	22	0.11	0.10	0.15	0.30
and		1495	1505	10	0.07	0.09	0.13	0.25
and		1562	1585.4	23.4	0.06	0.11	0.14	0.27
KHDDH566	Stockwork Hill	1	15	14	0.13	0.07	0.14	0.27

and	125.5	134	8.5	0.03	0.14	0.15	0.30
and	190.5	264	73.5	0.04	0.11	0.13	0.25
and	324	334	10	0.10	0.04	0.10	0.19
and	592.1	810	217.9	0.47	0.32	0.56	1.10
including	594.2	667	72.8	0.51	0.32	0.58	1.13
including	603.1	667	63.9	0.58	0.34	0.64	1.25
including	684	758	74	0.77	0.47	0.86	1.69
including	684	708	24	1.71	0.80	1.67	3.27
including	684	703.7	19.7	1.91	0.87	1.85	3.62
including	744	756	12	0.52	0.38	0.64	1.26
including	780	804	24	0.21	0.33	0.44	0.86
including	786	792	6	0.35	0.48	0.66	1.29
and	846	922.4	76.4	0.08	0.16	0.21	0.40
including	846	852	6	0.06	0.26	0.29	0.57

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.

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 (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.

Copper equivalent (eCu) grade values were calculated using the following 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%).

The copper equivalent formula was 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 (eg cut channels, random ch* ● *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 ar*
	● *For all sample types, the nature, quality and appropriatenes*
	● *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 instrun*
	● *Nature of quality control procedures adopted (eg 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 flui
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 Golder
	● Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6
	● Most of the reported intercepts are shown in sufficient detail, including maxi
	● Informing samples have been composited to two metre lengths honouring th
	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.
Data Aggregation methods	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 the report.
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

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Database integrity	● The database is a Geobank data base system. ● Data is logged directly into an Excel spread sheet logging system with drop down field list ● Validation checks are written into the importing program ensures all data is of high quality ● Digital assay data is obtained from the Laboratory, QAQC checked and imported ● Geobank exported to Access and connected directly to the GemcomSurpac Software. ● Data was validated prior to resource estimation by the reporting of basic statistics for eac
Site visits	● Andrew Vigar of Mining Associates Pty Ltd visited the site from 24 and 25 October 2014. ● The site visit included a field review of the exploration area, an inspection of core, sample
Geological interpretation	● Mineralisation resulted in the formation of comprises quartz-chalcopyrite-pyrite-magnetite ● The principle ore minerals of economic interest are chalcopyrite, bornite and gold, which ● The ore mineralised zones at Stockwork Hill, White HIII and Copper Hill are associated wi ● Sulphide mineralisation is zoned from a bornite-rich core that zone outwards to chalcopyr ● Drilling indicates that the supergene profile has been oxidised to depths up to 60 metres b
Dimensions	● Stockwork Hill comprises two main mineralised zones, northern and southern stockwork z ● The SH-S is at least 550 metres long, 600 metres deep and contains strong quartz-chalco ● The SH-N consists of a broad halo of quartz that is 250 metres long, 150 metres wide lon ● WH consists of a broad halo of quartz veins that is 850 metres long, 550 metres wide long ● CH forms a sub vertical body of stockwork approximately 350 ? 100 metres by at least 20
Estimation and modelling techniques	● The estimate Estimation Performed using Ordinary Kriging. ● Variograms are reasonable along strike. ● Minimum & Maximum Informing samples is 5 and 20 (1st pass), Second pass is 3 and 20 ● Copper and Gold Interpreted separately on NS sections and estimated as separate doma ● Halo mineralisation defined as 0.12% Cu and 0.12g/t Au Grade. ● The mineralised domains were manually digitised on cross sections defining mineralisatio ● Cut off grades applied are copper-equivalent (CuEq) cut off values of 0.3% for appropriat ● A set of plans and cross-sections that displayed colour coded drill holes were plotted and ● The faulting interpreted to have had considerable movement, for this reason, the fault sur ● Six metre down-hole composites were chosen for statistical analysis and grade estimatio ● A total of 4,428 measurements for specific gravity are recorded in the database, all of whi ● Primary grade interpolation for the two metals was by ordinary kriging of capped 6m comp ● The Mineral Resource Estimate meets the requirements of JORC 2012 and has been rep ● The copper equivalent (eCu) calculation represents the total metal value for each metal, r ● Copper equivalent (CuEq or eCu) grade values were calculated using the following formu 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 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%.
Moisture	● All tonnages are reported on a dry basis.

Cut-off parameters	● Cut off grades applied are copper-equivalent (CuEq) cut off values of 0.3% for possible op
Mining factors or assumptions	● No mining factors have been applied to the in-situ grade estimates for mining dilution or lo ● The deposit is amenable to large scale bulk mining. ● The Mineral Resource is reported above an optimised pit shell. (Lerch Grossman algorith
Metallurgical factors or assumptions	● No metallurgical factors have been applied to the in-situ grade estimates.
Environmental factors or assumptions	● An environmental baseline study was completed in 2003 by Eco Trade Co. Ltd. of Mongo
Bulk density	● A total of 4,428 measurements for specific gravity are recorded in the database, all of whi ● The average density of all samples is approximately 2.74 t/m3. In detail there are some d ● There is no material impact on global tonnages, but it should be noted that density is a fu
Classification	● The Mineral Resource classification protocols, for drilling and sampling, sample preparatio ● The Mineral Resource statement relates to global estimates of in situ tonnes and grade ● The Mineral Resource Estimate has been classified in accordance with the JORC Code, :
Audits or reviews	● Xanadu's internal review and audit of the Mineral Resource Estimate consisted of data ar ● Good correlation of geological and grade boundaries was observed ● 2013 - Mining Associates Ltd. was engaged to conduct an Independent Technical Report
Discussion of relative accuracy/ confidence	● An approach to the resource classification was used which combined both confidence in g ● Resource categories were constrained by geological understanding, data density and qua ● Resources estimates have been made on a global basis and relates to in situ grades. ● Confidence in the Indicated Mineral Resources is sufficient to allow application of Modifyi ● The deposits are not currently being mined. ● There is surface evidence of historic artisanal workings. ● No production data is available.

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

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