Multiple Strong MLEM Conductors Detected at Stairy

16.06.2021 | GlobeNewswire

TORONTO, June 16, 2021 - Xanadu Mines Ltd. (ASX: XAM, TSX: XAM) ("Xanadu" or "the Company") is pleased to announce that preliminary Moving-Loop Electromagnetic data from the Red Mountain joint venture with the Japan Oil, Gas and Metals National Corporation (JOGMEC JV) copper-gold project (Figures 1 and 2), has identified multiple highly prospective drill targets.

Highlights

- First-pass ground Moving Loop Electromagnetic (MLEM) survey completed at the Stairy prospect
- Cluster of moderate to high, mid to late-time bedrock Electromagnetic (EM) conductors defined
- Several extensive Cu anomalies proximal to and coincident with these new EM conductors
- Numerous new targets identifying for trenching and drilling
- Results highlight the potential for the discovery to expand considerably along strike from the high-grade intercept reported on the 22nd of March
- Additional ground EM surveys underway
- Trenching planned to commence immediately; and diamond drilling planned to commence mid-July

Xanadu's Chief Executive Officer, Dr Andrew Stewart, said "*This is an exciting and important development for the Red Mountain JOGMEC JV project. Whilst it is still early days, we are very encouraged that the first phase of MLEM survey at the Stairy prospect has identified numerous conductive anomalies in the target area. The identification of numerous conductors' co-incident with broad geochemical anomalism in historical trenches and where high-grade massive sulphide mineralisation has been intersected in drilling is encouraging. We consider Stairy to be analogous to the other massive sulphide/lode copper vein deposits where very high-grade copper occurs in structures above a larger porphyry system. Trenching will commence immediately, and we anticipate diamond drilling to commence mid-July.*"

FIGURE 1: Location of the Red Mountain JOGMEC JV Project in the South Gobi porphyry copper belt is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/3485efe9-b358-4f0c-9047-6b4f91e10ec6

FIGURE 2: The Red Mountain Mining Licence showing ground Landsat data and location of the priority targets is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/be6a9b7d-d8ba-4e7f-aa13-ff3694b715de

Stairy Previous Exploration

The Stairy prospect consists of a 1.5km by 1km zone of sheeted mineralised structures hosted within the Stairy Intrusive in the central east of the Red Mountain Mining Lease. These structures are interpreted to be sub-vertical, up to twenty-four meters wide and can extend for over a kilometre. Copper mineralisation at Stairy consists of massive bornite and chalcopyrite sulphide with quartz carbonate fill. The current geological interpretations suggest these sheeted structures may be linked to a large-scale porphyry system at depth.

Recent drilling at Stairy (please see ASX/TSX Announcement dated 22 March 2021) returned significant shallow high-grade copper with OUDDH100 returning 16m @ 4.09% Cu from 54m, including 4m @ 15.89% Cu from 55m (Figure 3).

Prior to Xanadu exploring at Red Mountain, several companies conducted trenching at Stairy. Previous explorers worked at Red Mountain between 2001 and 2007 and completed 6,274m of trenching at Stairy in 2005. Key historical intercepts from these previous companies trenching at Stairy include;

OUT001	16m @ 0.98% Cu and 0.17g/t Au (1.07% eCu) from 266m
Including	6m @ 2.27% Cu and 0.44g/t Au (2.49% eCu) from 276m
And	56m @ 1.02% Cu and 0.02g/t Au (1.03% eCu) from 518m
Including	12m @ 4.07% Cu and 0.08g/t Au (4.11% eCu) from 542m
OUT002	6m @ 3.85% Cu and 0.24g/t Au (3.97% eCu) from 490m
OUT008	6m @ 2.61% Cu and 0.10g/t Au (2.65% eCu) from 280m

A full review of the previous company exploration has been conducted for Stairy and a summary of the historical (previous company) intercepts above 0.5% Cu are presented in Table 1.

Stairy Future Exploration

The massive sulphide lenses that occur at Stairy are likely to be visible to MLEM. A detailed MLEM survey has commenced at Stairy, designed to map the structures that contain the most significant accumulations of massive sulphide. The survey is split into two areas, a northern area and a southern area. Data from the northern area has been received and preliminary results can be seen in Figure 4. These preliminary results show moderate to strong EM responses in the late time channels for known lenses of massive sulphide, but more importantly show numerous stronger responses in along strike from known lenses in areas untested by trenching or drilling. This data will focus the planned trenching scheduled to start in a weeks' time. Drilling will commence in mid-July on completion of trenching. Approximately 2,400m of diamond drilling is planned for Stairy.

FIGURE 3: The Stairy Prospect with drill hole OUDDH100, section and plan and historic trench results is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/88465c8a-608b-4383-826f-5ac748baa431

FIGURE 4: Preliminary MLEM data over the northern area of Stairy. Channels 15 to 27 Tau is available at
https://www.globenewswire.com/NewsRoom/AttachmentNg/ab84f737-704f-477f-9db1-538e54587d1d

About Red Mountain

The Red Mountain JOGMEC JV project located within the Dornogovi Province of southern Mongolia, approximately 420 kilometres southeast of Ulaanbaatar (Figure 1), is a joint venture between Xanadu and JOGMEC. The project covers approximately 57 square kilometres in a frontier terrane with significant mineral endowment and has a granted 30-year mining licence. Red Mountain comprises a cluster of outcropping mineralising porphyry intrusions which display features typically found in the shallower parts of porphyry systems where narrow dykes and patchy mineralisation branch out above a mineralised stock. This underexplored porphyry district includes multiple porphyry copper-gold centres, mineralised tourmaline breccia pipes copper-gold/base metal skarns and high-grade epithermal gold veins.

Joint Venture with JOGMEC

JOGMEC may earn up to 51% beneficial interest in the project by sole funding up to $US7.2 million in exploration expenditure over the next 4 years. Exploration objectives of the earn-in deal are to discover Mongolia's next world-class copper-porphyry deposit.

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.

For further information, please contact:

Andrew Stewart
Chief Executive Officer
T: +61 2 8280 7497

M: +61 409 819 922
E: Andrew.stewart@xanadumines.com

W: www.xanadumines.com

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

Appendix 1: Drilling Results

Table 1: Historic trench results

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
OUT001	Stairy	266	282	16	0.17	0.98	1.07	2.09
including		276	282	6	0.44	2.27	2.49	4.87
and		518	574	56	0.02	1.02	1.03	2.02
including		538	554	16	0.06	3.2	3.23	6.32
including		542	554	12	0.08	4.07	4.11	8.04
and		660	678	18	0.13	0.88	0.95	1.85
including		660	666	6	0.34	2.27	2.45	4.78
including		802	808	6	0.2	0.95	1.05	2.05
including		804	808	4	0.27	1.24	1.37	2.68
OUT002	Stairy	228	234	6	0.16	1.28	1.36	2.67
and		418	428	10	0.02	0.51	0.52	1.02
including		418	422	4	0.03	1.02	1.03	2.02
and		490	496	6	0.24	3.85	3.97	7.77
and		618	622	4	0.02	1.28	1.29	2.53
and		662	668	6	0.02	1.16	1.17	2.28
OUT003	Stairy	288	320	32	0.03	0.59	0.61	1.19
and		352	356	4	0.04	1.35	1.37	2.67
OUT004	Stairy	52	66	14	0.01	0.66	0.66	1.3
including		54	66	12	0.01	0.75	0.75	1.47
and		406	410	4	0.04	0.71	0.72	1.42
and		422	442	20	0.06	0.56	0.59	1.16
including		422	436	14	0.05	0.77	0.8	1.56
OUT005	Stairy	362	366	4	0.08	1.52	1.56	3.05
OUT006	Stairy	258	298	40	0.04	0.63	0.64	1.26
including		266	284	18	0.06	1.27	1.3	2.54
including		266	282	16	0.06	1.35	1.38	2.71
OUT007	Stairy	368	372	4	0.01	0.91	0.92	1.79
OUT008	Stairy	78	92	14	0.02	0.5	0.51	0.99
including		78	86	8	0.01	0.62	0.63	1.23
and		140	144	4	0.1	0.6	0.65	1.26
and		276	302	26	0.03	0.68	0.69	1.35
including		280	286	6	0.1	2.61	2.65	5.19
OUT010	Stairy	32	40	8	0.01	0.54	0.54	1.06
OUT011	Stairy	102	106	4	0.01	0.54	0.54	1.07

OUXT001	Stairy	25.7	32	6.3	0.04	1	1.02	1.99
OUXT001A	Stairy	5	20.6	15.6	0.01	0.53	0.53	1.04
including		5	12.9	7.9	0.02	0.9	0.91	1.77
OUXT002	Stairy	43.1	51.1	8	0.05	0.95	0.98	1.91
including		45	51.1	6.1	0.04	1.1	1.12	2.2
including		68.9	75	6.1	0.02	0.59	0.6	1.17
OUXT003	Stairy	2.7	12	9.3	0.04	0.57	0.59	1.15
STR-10-03	Stairy	2	20	18	0.14	0.79	0.86	1.68
Including		2	18	16	0.15	0.86	0.94	1.83
and		116	122	6	0.14	0.98	1.06	2.07

Appendix 2: Statements and Disclaimers

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: Red Mountain Table 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 Edition for the Red Mountain project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 18 September 2017.

1.1 JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

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 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 (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*

1.2 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code (Section 2) Explanation
Mineral tenement and land tenure status	● Type, reference name/number, location and ownership including agreement ● The security of the tenure held at the time of reporting along with any known
Exploration done by other parties	● Acknowledgment and appraisal of exploration by other parties.
Geology	● Deposit type, geological setting and style of mineralisation.
Drill hole Information	● A summary of all information material to the understanding of the exploratio ● easting and northing of the drill hole collar. ● elevation or RL Reduced Level - elevation above sea level in metres) of the ● dip and azimuth of the hole ● down hole length and interception depth ● hole length. ● If the exclusion of this information is justified on the basis that the informatio
Data Aggregation methods	● In reporting Exploration Results, weighting averaging techniques, maximum ● Where aggregate intercepts incorporate short lengths of high grade results a ● The assumptions used for any reporting of metal equivalent values should b
Relationship between mineralisation on widths and intercept lengths	● These relationships are particularly important in the reporting of Exploration ● If the geometry of the mineralisation with respect to the drill hole angle is kn ● If it is not known and only the down hole lengths are reported, there should

Diagrams	● Appropriate maps and sections (with scales) and tabulations of intercepts sh
Balanced Reporting	● Where comprehensive reporting of all Exploration Results is not practicable
Other substantive exploration data	● Other exploration data, if meaningful and material, should be reported includ
Further Work	● The nature and scale of planned further work (eg tests for lateral extensions ● Diagrams clearly highlighting the areas of possible extensions, including the

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

Mineral Resources are not reported so this is not applicable to this report.

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

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