

28 April 2016

## FURTHER SIGNIFICANT HIGH-GRADE GOLD TRENCH RESULTS FROM OYUT ULAAN

### HIGHLIGHTS

- Trenching results at Stockwork II and Bavuu Zones continue to increase scale and potential of the system with multiple near-surface, discrete shallow-dipping lodes characterised by high gold grades (1 to >30 g/t Au);
- Systematic sampling along Stockwork I, Stockwork II and Bavuu Zones displays very continuous gold mineralisation within the vein with remarkable continuity;
- Results confirm lower-grade gold mineralisation (up to 1.0 g/t Au) in host rocks;
- Systematic and cost effective exploration continues.

Xanadu Mines Ltd (ASX: XAM – “Xanadu”) is pleased to announce that it has received further assay results from on-going trench channel sampling from its 90% owned Oyut Ulaan copper-gold project located within the Dornogovi Province of southern Mongolia, approximately 420km southeast of Ulaanbaatar (Figure 1). Following the previously reported discovery of multiple zones of potentially significant outcropping quartz-sulphide vein mineralisation (see XAM’s ASX announcement – 2 March 2016), the Company continues its program of systematic and cost effective exploration work designed to understand the geological controls on high-grade mineralisation within this large system before drilling is planned.

Recent exploration has discovered three parallel epithermal lode structures that occur within 1.5km of each other (Stockwork Zone I, Stockwork Zone II and Bavuu Zone; Figures 2 and 3). New samples received from trench sampling at the Stockwork II and Bavuu Zones reported here have delivered exceptional gold results with assays up to **589.96 g/t** confirming the existence of continuous sub-outcropping high-grade gold mineralisation. New results were also successful in demonstrating zones of lower grade gold mineralisation in the chlorite-sericite altered wall-rock.

Xanadu’s Chief Executive Officer, Dr Andrew Stewart, said “*We are delighted that detailed trench sampling of these newly discovered quartz-sulphide veins continues to deliver outstanding gold results with multiple bonanza grade assays confirming the existence of continuous shallow high-grade gold mineralisation with remarkable continuity along the strike. Now we have received all results from the first part of the trenching program we are now developing plans for accelerated exploration of this exciting new discovery at Oyut Ulaan.*”

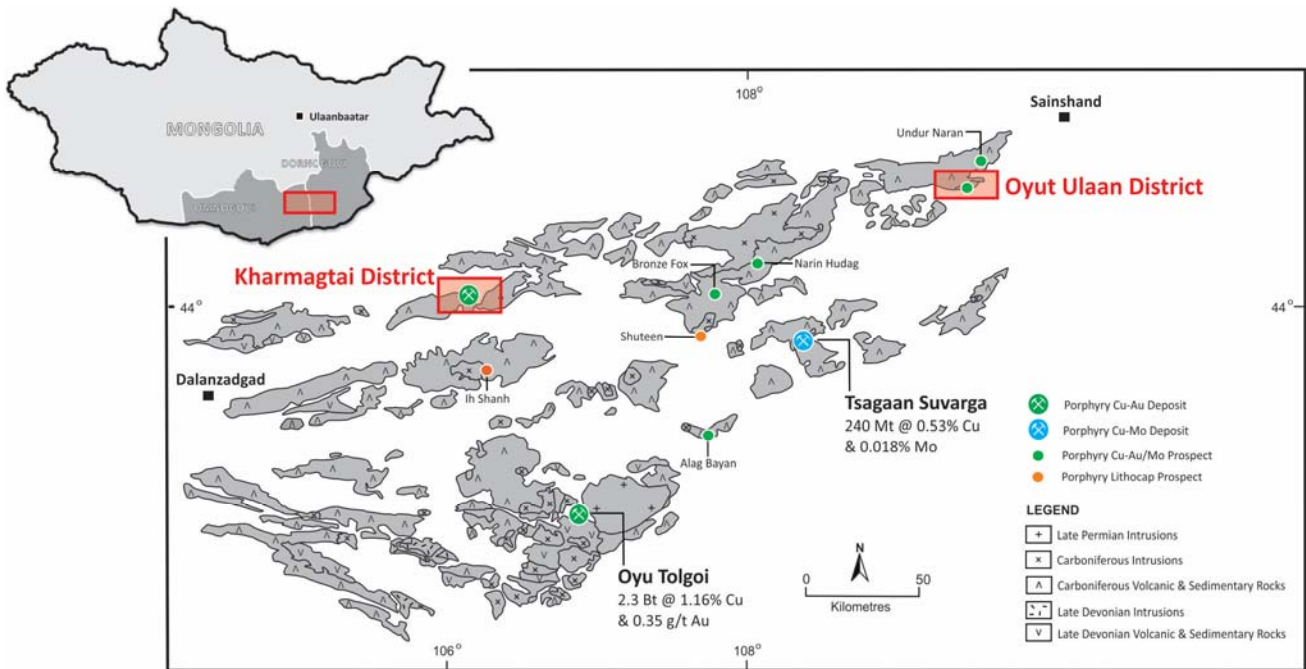


FIGURE 1: South Gobi copper province, showing location of Oyut Ulaan and Kharmagtai.

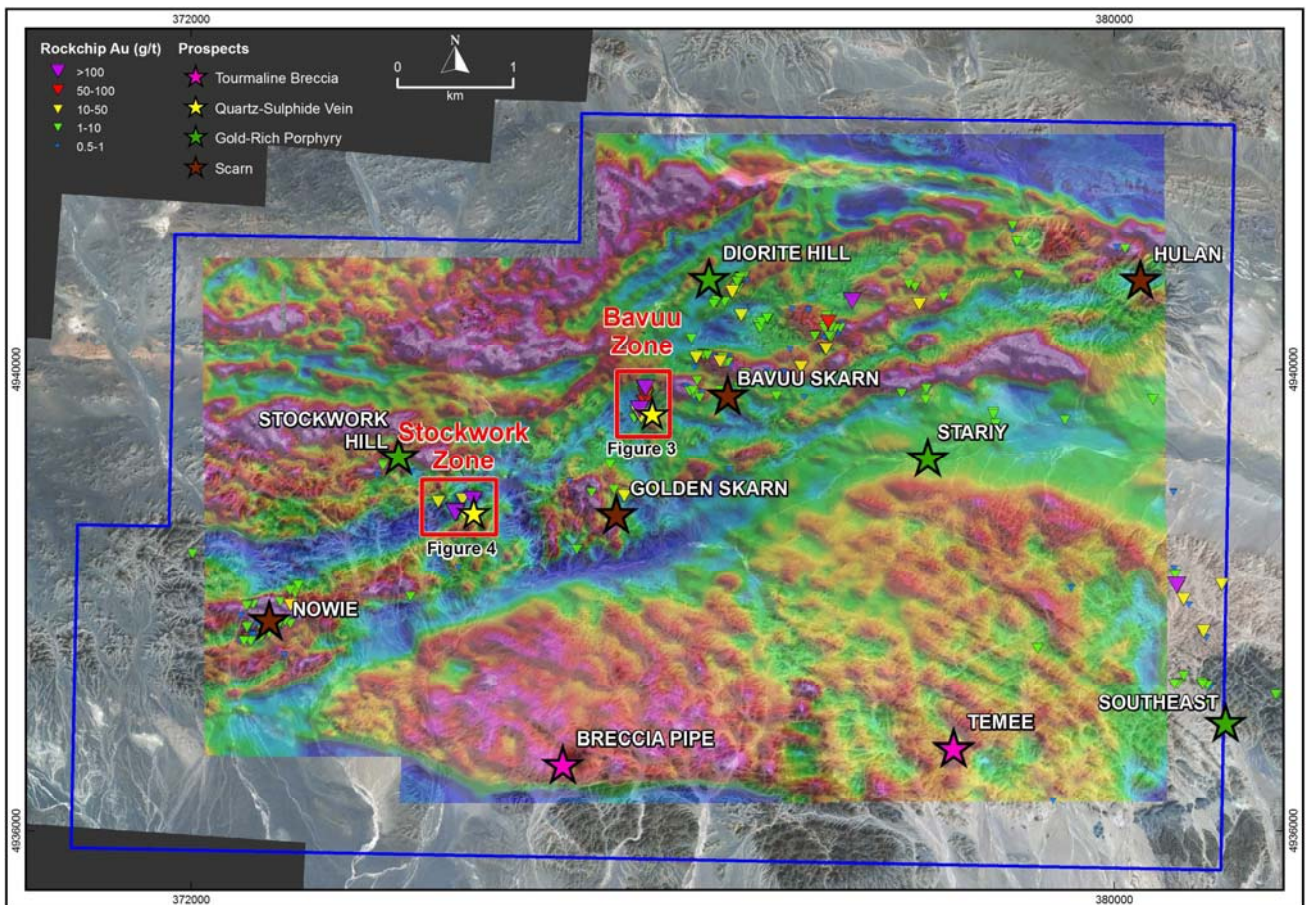
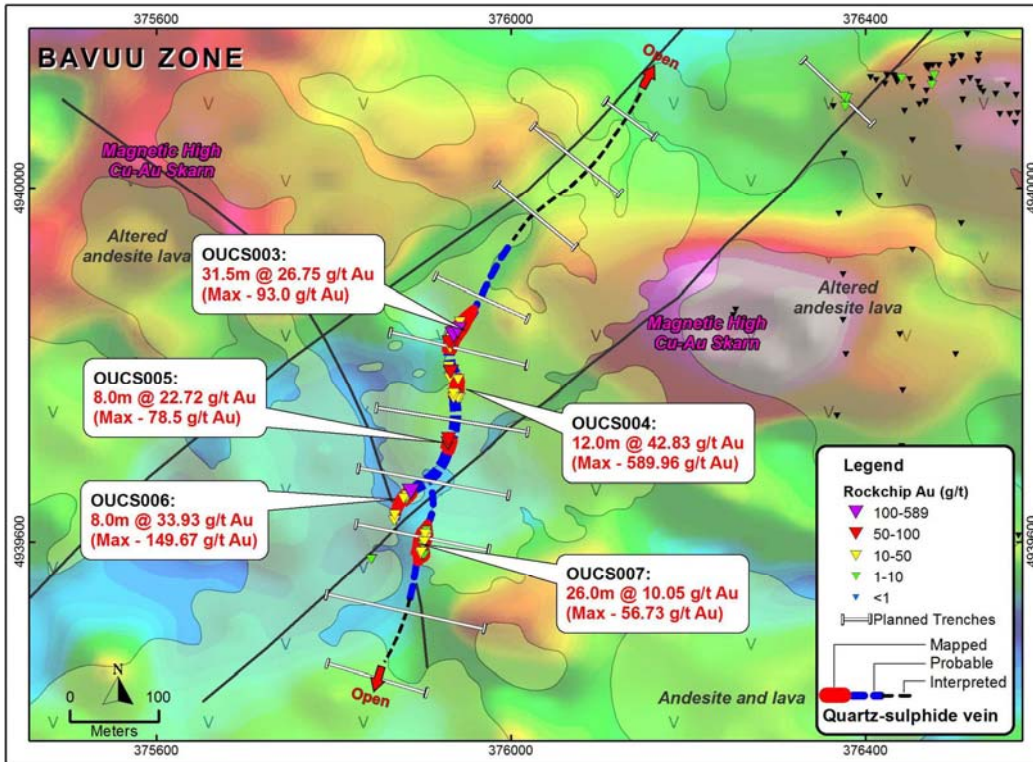
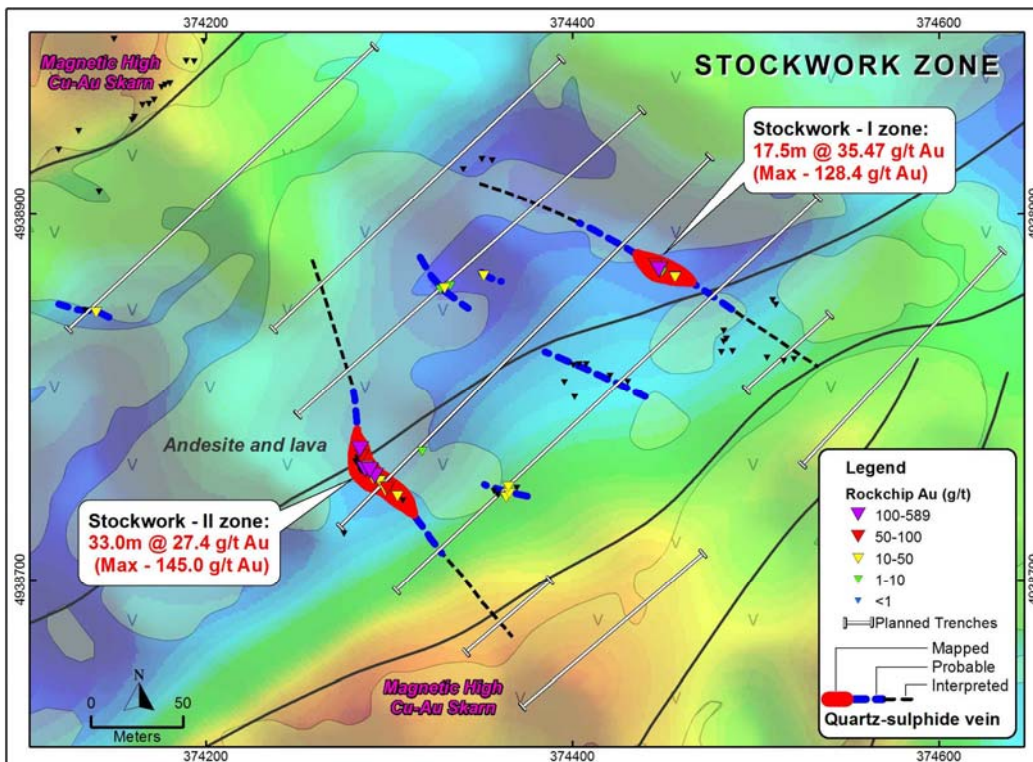


FIGURE 2: Oyut Ulaan copper-gold project, showing main prospects and location of new gold mineralisation at Bavuu Zone and Stockwork Zones.



**FIGURE 3:** Geological map of the Bavuu Zone showing sampled strike length of the vein and interpreted strike under shallow cover. The figure shows planned exploration trenches.



**FIGURE 4:** Geological map of the Stockwork Zone showing sampled strike length of the vein and interpreted strike under shallow cover. The figure shows planned exploration trenches.

## SHALLOW GOLD MINERALISATION

Exploration at the Oyut Ulaan copper-gold project continues to identify zones of potentially significant outcropping quartz-sulphide vein mineralisation (also see XAM's ASX announcement – 2 March 2016). The Company continues its program of surface exploration which has successfully defined three parallel epithermal lode structures that occur within 1.5km of each other (Stockwork Zone I, Stockwork Zone II and Bavuu Zone; Tables 1 and 3; Figures 2 to 4).

**TABLE 1:** Trench details.

Zone	Trench ID	Length (m)	Azimuth (°)
Stockwork Zone-II	OUCS001	33	342
Stockwork Zone-I	OUCS002	17.5	290
Bavuu Zone	OUCS003	31.5	10
	OUCS004	12	10
	OUCS005	8	18
	OUCS006	8	62
	OUCS007	26	60

**TABLE 2:** Average grades for newly discovered veins.

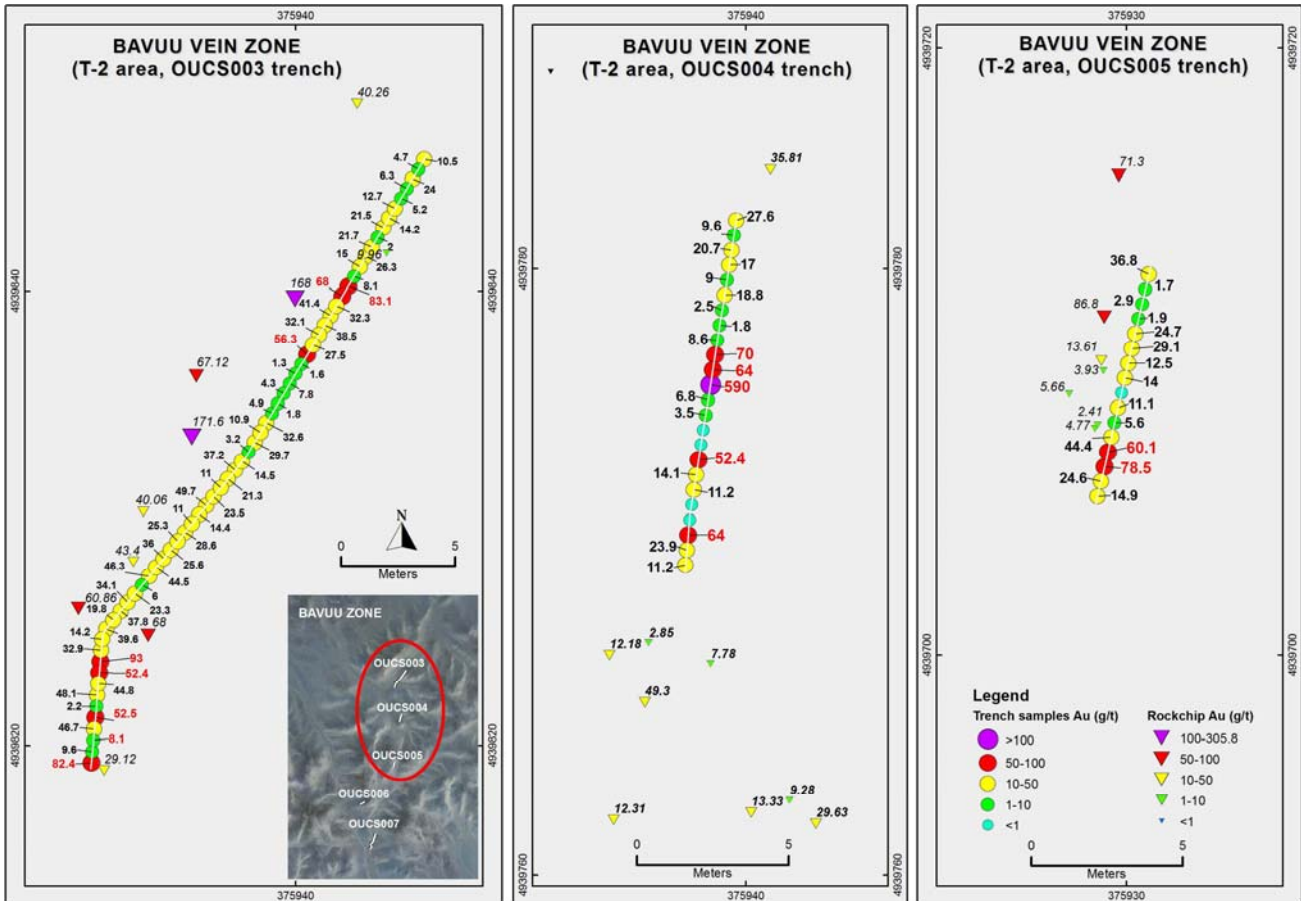
Zone	Length (m)	Number of samples taken	Au (g/t)		Cu (%)	As (ppm)	Ag (g/t)	Pb (ppm)	Zn (ppm)	Mo (ppm)
			Average	Highest						
Stockwork Zone-II	33	66	27.4	145	0.30	149.37	15.96	81.57	140.16	14.87
Stockwork Zone-I	17.5	35	35.47	128.4	0.44	699.4	11.33	108.2	289.68	28.8
Bavuu Zone	31.5	63	26.75	93	0.33	6363.8	13.5	142.46	235.15	12.7
	12	24	42.83	589.96	0.3	2269.4	12.47	146.95	217.41	56.86
	8	16	22.72	78.5	0.43	1397.87	12.12	163.25	218.31	33.5
	8	16	33.93	149.67	0.12	2761.5	6.75	101.68	122.68	122.43
	26	52	10.05	56.73	0.15	818.36	11.97	29.07	96.6	58.15

### **Bavuu Vein Zone**

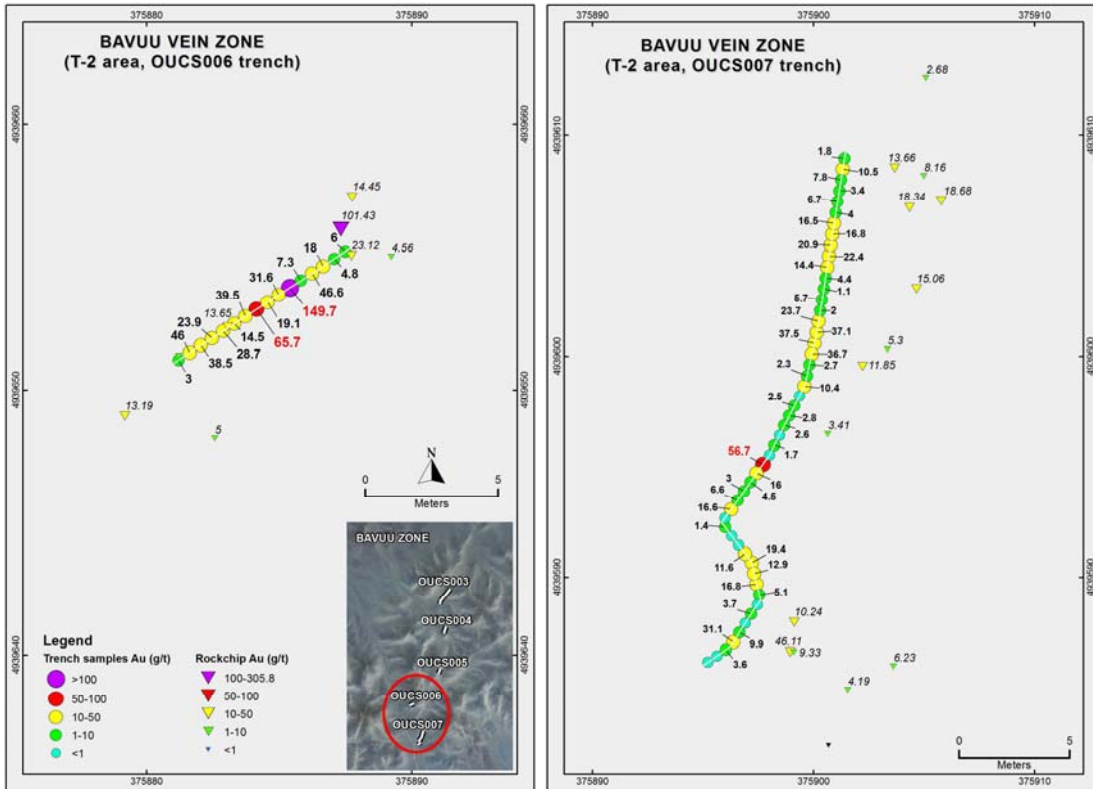
High-grade gold mineralisation in the Bavuu Zone is typically associated with a series of discontinuous shallow dipping quartz-sulphide (now gossan) veins that range from 20cm up to 80cm wide (Figures 5 and 7) and are hosted by intensely chlorite-sericite-pyrite altered host volcanic rocks (Figures 8 to 10). The wall-rock is mostly stained red by hematite from weathering of sulphide in the rock, which is easily visible in the trenches. Some of the original sulphide in the quartz veins is pyrite (but other gossan in the cores of the veins may be from chalcopyrite). The Bavuu Zone vein strikes at least 300m and the vein orientation is north-northwest, and dip from approximately 20 to 45 degrees west to northwest. At several locations in the trench fault gouge was removed either by erosion or by ancient mining and was subsequently backfilled by sand prior to the current transported cover.

Channel sampling reported here is along the vein exposed in the trench (Tables 1 to 3) and displays exceptional continuity and supports a conclusion of very continuous gold mineralisation within the vein. No conclusion regarding width and grade of the mineralised vein can be drawn from this data. The results also confirm the intensity of mineralisation within narrow, high-grade quartz-sulphide veins.

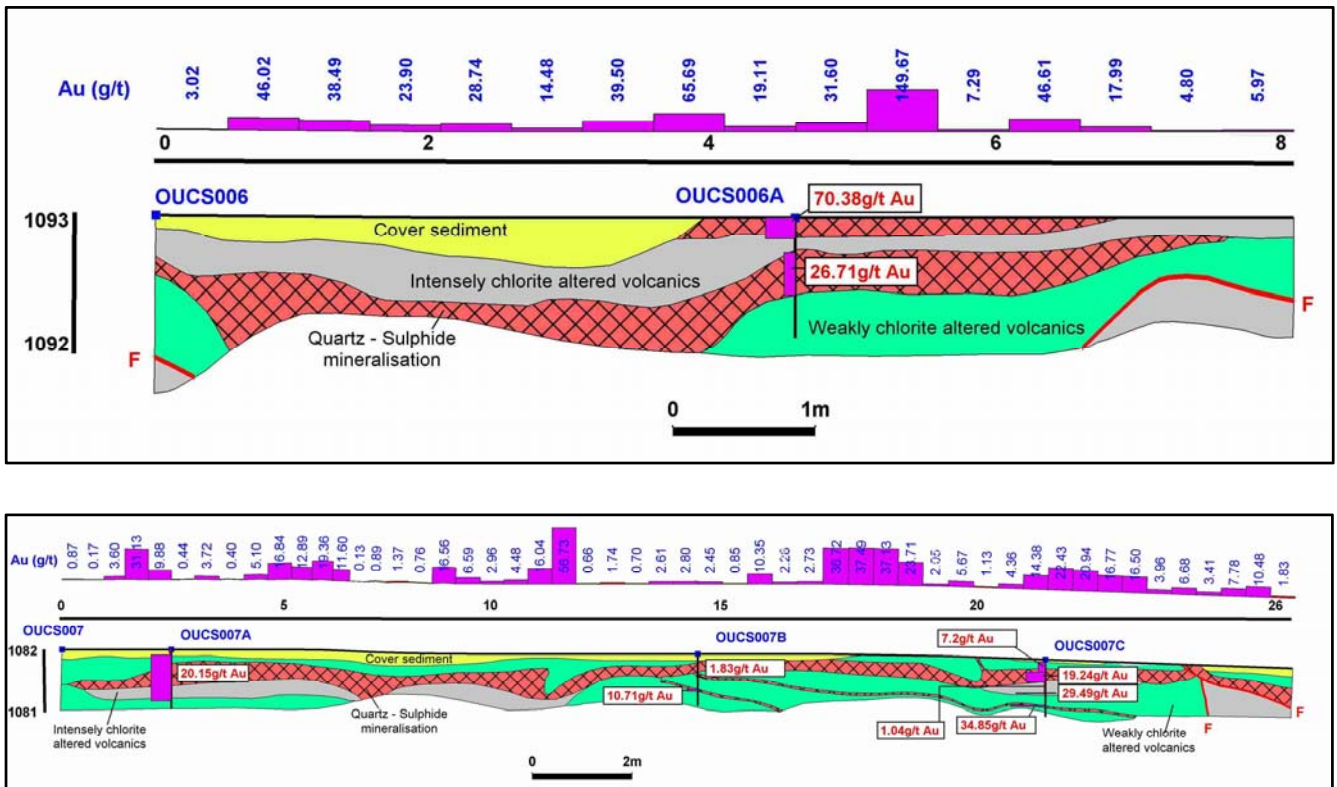
A key objective of the trenching program was to determine if the gold mineralisation was restricted to the quartz veins or if the host rock was also carrying gold mineralisation. New results demonstrate zones of lower grade gold mineralisation (up to 1.0 g/t Au) in the chlorite-sericite altered wall-rock demonstrating continuity over intervals of several metres (Figure 8).



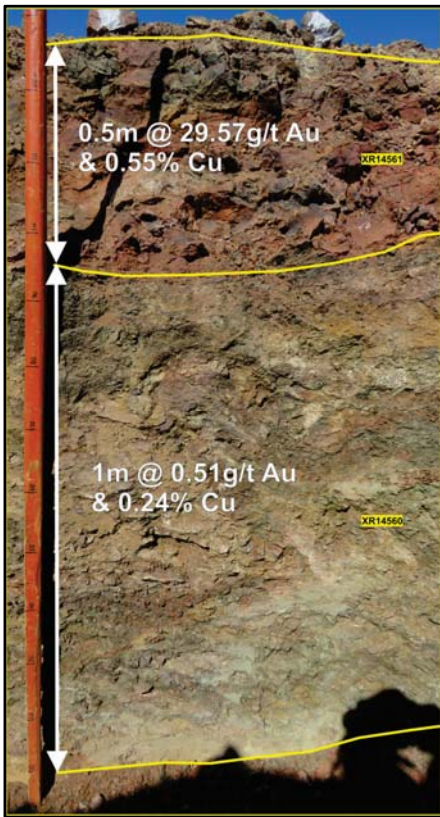
**FIGURE 5:** Bavuu vein zone, showing location of trench samples.



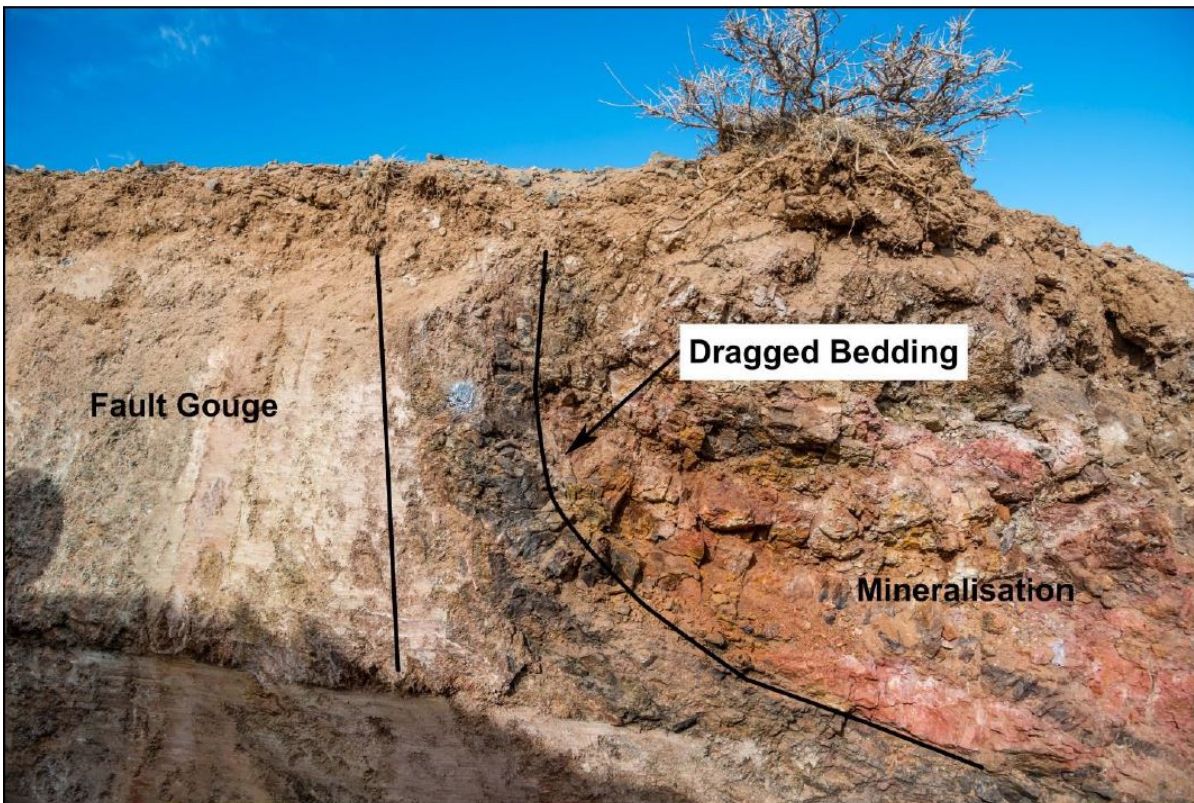
**FIGURE 6:** Bavuu vein zone, showing location of trench samples.



**FIGURE 7:** Bavuu vein zone, showing trench wall sections (OUCS006 and OUCS007).



**FIGURE 8:** Trench map of the Bavuu vein zone, showing the high-grade shallow dipping quartz-sulphide vein zone and relationship to faults.



**FIGURE 9:** High-grade quartz sulphide vein truncated by a fault at the southern end of Bavuu vein zone.

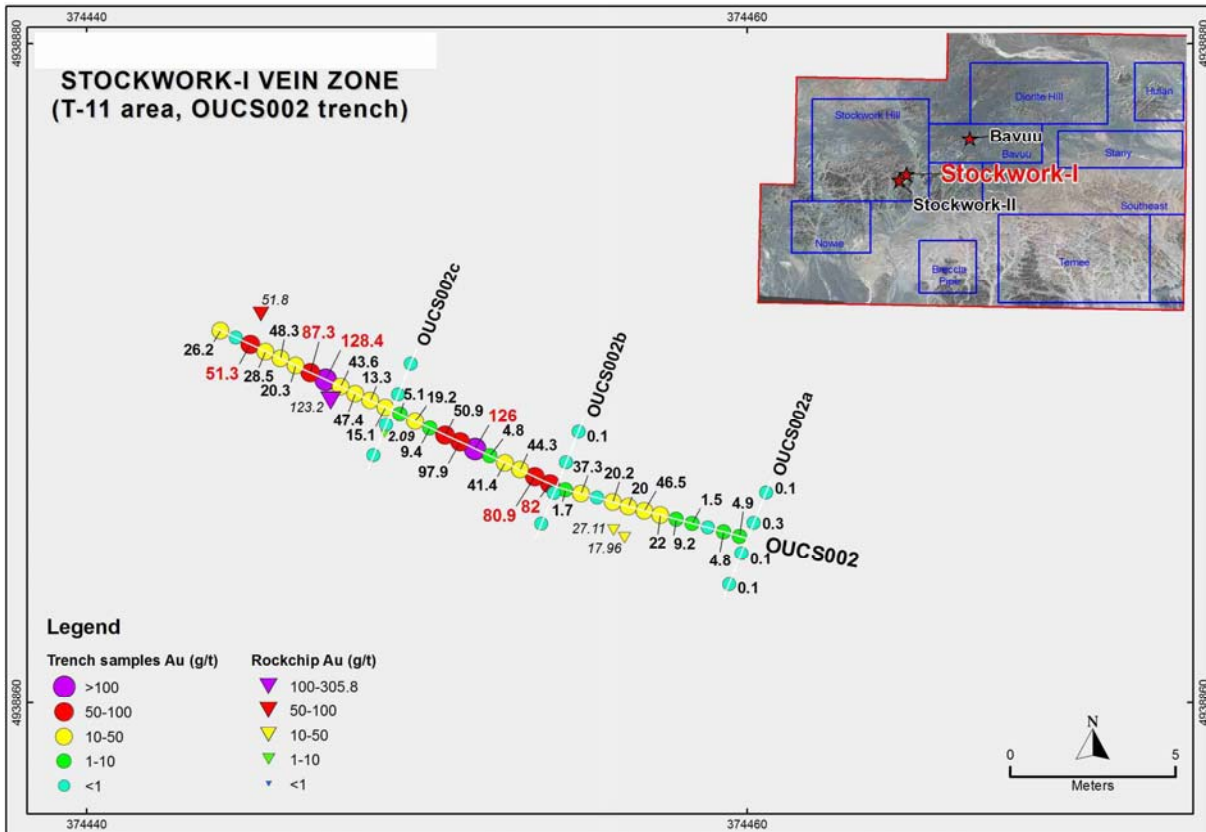


**FIGURE 10:** High-grade quartz sulphide vein (in the vicinity of the geologic hammer) that failed to reach surface.

### ***Stockwork I Zone***

High-grade vein mineralisation within the Stockwork I zone is identical to the style of other two zones. The core of mineralisation and highest grades are the quartz gossan veins which range in size from very small to over 60cm wide. The veins are surrounded by intense chlorite alteration of the host volcanic rocks. This is mostly stained red by hematite from weathering of sulphide in the rock. The exposure at the Stockwork I Zone is approximately 17.5m long. Mineralisation was terminated on the southern and northern end by a near vertical fault infilled with variable thicknesses of poorly cemented fault gouge. From the 35 channel samples collected along the entire length the average gold grade is 35.47g/t Au and the highest grade sample is 128.4g/t Au. The mineralisation is characterised by moderate silver grades (averaging 11.33g/t Ag) and low base metal and arsenic contents (Tables 1 to 3; Figure 11).





**FIGURE 11:** Stockwork- I vein zone, showing location of trench samples.

### IMPLICATIONS OF EXPLORATION MODEL

The exploration model raises the possibility that there could be repeated parallel veins at depth in both the Stockwork and Bavuu Zones which are not exposed at the current surface level (see Figure 10). The typical nature of this style of vein mineralisation is such that surface exposure could be limited but vertical extent down the near vertical controlling faults could be extensive. Due to the similarities between the multiple parallel mineralised structures exposed in the district, as well as widespread anomalous rock samples, it seems possible there is potential for more mineralisation of similar style to that in Stockwork and Bavuu Zones throughout the Oyut Ulaan district.

The strong chlorite-sericite alteration is likely to have demagnetised the zones of basaltic-andesite volcanic rocks which host the gold mineralisation. Ground magnetic data indicates that the prospective area for the mineralisation is greater than 4.5km long by approximately 300m wide (Figure 2). The demagnetised area is interpreted to be caused by upwelling hydrothermal solutions along the north-east trending faults observed in the trenches and it's likely that these were circulated from either the porphyry intrusions hosting the know gold-rich porphyry mineralisation located less than 100m to the north or undiscovered porphyry intrusions at depth.

Xanadu believes mineralisation can be greatly expanded through systematic low cost exploration and there are numerous other targets remaining in the Oyut Ulaan area with most of the area lying under shallow sedimentary cover. Geophysical methods employed by Xanadu in areas under cover have worked well to date and surface geochemistry and geology have highlighted additional new target areas of mineralisation and the potential for the discovery of additional mineralised structures remains high.

## BACKGROUND GEOLOGY & POTENTIAL CONNECTION TO PORPHYRY MINERALISATION

The Oyut Ulaan copper-gold project is strategically located within the South Gobi Copper Belt (which hosts the world class Oyu Tolgoi copper-gold project) and 260km east of Xanadu's flagship Kharmagtai copper-gold project (Figure 1). The project comprises a large and underexplored porphyry district (covering approximately 40km<sup>2</sup>) and consists of multiple co-genetic porphyry copper-gold centres, mineralised tourmaline breccia pipes and copper-gold/base metal magnetite skarns, which occur within the central part of Mining Licence 17129A (Oyut Ulaan; Figure 2).

The recent discovery of potentially significant gold vein mineralisation broadens the range of targets at Oyut Ulaan and opens up a whole new area for exploration. Given the bonanza grades and significant strike; this style of mineralisation is considered to be a very attractive target. Copper grades within the samples from the Stockwork II zone average 0.3% Cu (Table 1), which supports the possibility that the precursor sulphide mineralisation is at least partially chalcopyrite. The presence of low grade copper suggests a likely link to the porphyry copper mineralisation along strike or at depth. The zonation seen world-wide for this association includes upwards transitions from copper-gold porphyry veins to shallow level gold systems.

The results of this first part of the trenching program are extremely encouraging and indicate Oyut Ulaan is developing into one of the most prospective districts in the South Gobi with a series of copper-gold and gold prospects at different stages of exploration. Recent exploration drilling has also intersected porphyry copper mineralisation within two quartz-chalcopyrite stockwork zones at the Diorite Hill and Stockwork Hill Prospects which are approximately 3 kilometres apart (Figure 3; see XAM's ASX announcement – 5 May 2015). Xanadu will continue its systematic, low cost exploration at Oyut Ulaan with further reconnaissance exploration, field mapping, and trenching ongoing.

## COMPETENT PERSON STATEMENT

The information in this report 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, Dr Stewart 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". Dr Stewart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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**TABLE 3:** Samples returned gold grades higher than 1g/t.

Sample ID	Au (g/t)	Cu (%)	Ag (g/t)	As (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Description
XR14233	4.86	0.06	9	305	33	180	6	Quartz-hematite vein
XR14234	4.82	0.11	10	379	48	220	7	Quartz-hematite vein
XR14236	1.52	0.08	3	328	32	176	4	Quartz-hematite vein
XR14237	9.17	0.03	4	382	54	135	7	Quartz-hematite vein
XR14238	22.02	0.03	16	697	95	190	15	Quartz-hematite vein
XR14239	46.55	0.04	13	628	111	194	9	Quartz-hematite vein
XR14240	19.97	0.03	12	613	74	230	9	Quartz-hematite vein
XR14241	20.17	0.04	14	696	82	253	11	Quartz-hematite vein
XR14244	37.26	0.39	6	325	57	240	17	Quartz-hematite vein
XR14245	1.74	0.07	3	118	28	202		Quartz-hematite vein
XR14246	82.00	1.09	16	948	164	442	48	Quartz-hematite vein
XR14247	80.92	0.97	15	914	136	339	38	Quartz-hematite vein
XR14248	44.34	0.51	8	532	88	242	24	Quartz-hematite vein
XR14249	41.42	0.72	8	690	91	271	28	Quartz-hematite vein
XR14250	4.83	0.17	7	580	60	293	17	Quartz-hematite vein
XR14251	126.00	0.93	29	1267	187	511	60	Quartz-hematite vein
XR14252	97.93	0.62	21	1237	170	420	46	Quartz-hematite vein
XR14253	50.92	1.05	12	957	172	427	53	Quartz-hematite vein
XR14254	9.45	0.55	4	890	85	372	30	Quartz-hematite vein
XR14255	19.22	0.42	5	623	70	250	23	Quartz-hematite vein
XR14256	5.12	0.13	8	699	52	154	19	Quartz-hematite vein
XR14257	15.10	0.15	15	1116	92	205	40	Quartz-hematite vein
XR14258	13.28	0.27	7	436	59	373	11	Quartz-hematite vein
XR14259	47.43	0.75	25	776	137	490	36	Quartz-hematite vein
XR14260	43.64	1.06	15	796	137	460	38	Quartz-hematite vein
XR14261	128.40	1.72	26	1445	248	465	78	Quartz-hematite vein
XR14262	87.30	1.05	17	1140	187	432	68	Quartz-hematite vein
XR14264	20.25	0.29	6	550	126	177	27	Quartz-hematite vein
XR14265	48.31	0.45	9	1166	263	276	49	Quartz-hematite vein
XR14266	28.54	0.47	8	1026	195	304	35	Quartz-hematite vein
XR14267	51.27	0.37	13	1002	232	258	38	Quartz-hematite vein
XR14269	26.21	0.61	6	940	156	347	27	Quartz-hematite vein
XR14283	82.40	0.21	16	5910	68	137	8	Quartz-hematite vein
XR14284	9.57	0.19	5	2708	115	128	7	Quartz-hematite vein
XR14286	8.11	0.28	4	4153	200	218	11	Quartz-hematite vein
XR14287	46.74	0.48	9	7164	207	368	12	Quartz-hematite vein
XR14288	52.49	0.41	13	7060	138	340	9	Quartz-hematite vein
XR14289	2.19	0.39	3	1143	78	603		Quartz-hematite vein
XR14290	48.10	0.59	11	6541	201	285	22	Quartz-hematite vein
XR14291	44.76	1.07	11	4994	86	288	8	Quartz-hematite vein

Sample ID	Au (g/t)	Cu (%)	Ag (g/t)	As (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Description
XR14292	52.35	0.20	10	6540	179	260	11	Quartz-hematite vein
XR14293	93.00	0.16	18	7284	205	325	10	Quartz-hematite vein
XR14294	32.91	0.24	11	4965	170	295	11	Quartz-hematite vein
XR14295	14.22	0.30	3	5526	91	306	8	Quartz-hematite vein
XR14296	39.58	0.20	10	6622	171	318	13	Quartz-hematite vein
XR14297	19.82	0.23	5	3716	177	220	6	Quartz-hematite vein
XR14298	37.76	0.50	10	4306	203	480	11	Quartz-hematite vein
XR14299	34.06	0.31	14	2812	133	450	10	Quartz-hematite vein
XR14300	23.27	0.19	8	3522	203	115	6	Quartz-hematite vein
XR14301	6.02	0.19	3	3602	176	265	8	Quartz-hematite vein
XR14302	46.31	0.11	18	13500	689	273	4	Quartz-hematite vein
XR14303	44.53	0.18	18	12900	535	505	8	Quartz-hematite vein
XR14304	35.97	0.23	12	8278	235	313	8	Quartz-hematite vein
XR14305	25.58	0.13	14	5798	292	257	5	Quartz-hematite vein
XR14307	25.25	0.10	13	6600	331	190	4	Quartz-hematite vein
XR14308	28.64	0.12	16	5138	332	172	4	Quartz-hematite vein
XR14309	11.02	0.13	11	3443	141	194	6	Quartz-hematite vein
XR14310	14.41	0.11	9	4874	199	165	5	Quartz-hematite vein
XR14311	49.74	0.14	19	7427	415	291	9	Quartz-hematite vein
XR14312	23.48	0.30	25	2055	102	380	14	Quartz-hematite vein
XR14313	10.98	0.35	14	1045	65	535	8	Quartz-hematite vein
XR14314	21.27	0.28	23	2080	104	338	14	Quartz-hematite vein
XR14315	37.17	0.22	12	4459	70	134	7	Quartz-hematite vein
XR14316	14.47	0.17	10	6435	51	97	7	Quartz-hematite vein
XR14318	3.24	0.20	31	4391	51	131	15	Quartz-hematite vein
XR14319	29.66	0.42	28	5211	113	242	23	Quartz-hematite vein
XR14320	10.90	0.14	8	2114	106	225	14	Quartz-hematite vein
XR14321	32.57	0.24	25	3388	177	282	19	Quartz-hematite vein
XR14322	4.90	0.18	6	1738	99	217	14	Quartz-hematite vein
XR14323	1.77	0.35	9	1315	78	226	14	Quartz-hematite vein
XR14324	4.29	0.22	17	3374	64	145	12	Quartz-hematite vein
XR14325	7.81	0.28	30	2710	70	181	24	Quartz-hematite vein
XR14326	1.32	0.11	3	594	35	271	6	Quartz-hematite vein
XR14327	1.59	0.12	10	1331	33	222	11	Quartz-hematite vein
XR14329	56.30	0.18	32	2889	89	220	14	Quartz-hematite vein
XR14330	27.48	0.64	18	5150	88	187	18	Quartz-hematite vein
XR14331	32.07	0.62	14	6007	103	169	19	Quartz-hematite vein
XR14332	38.45	0.32	11	6174	45	85	12	Quartz-hematite vein
XR14333	41.44	0.32	17	9079	46	184	17	Quartz-hematite vein
XR14334	32.34	0.40	11	15600	53	144	15	Quartz-hematite vein
XR14335	68.00	0.55	22	16500	46	106	18	Quartz-hematite vein



Sample ID	Au (g/t)	Cu (%)	Ag (g/t)	As (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Description
XR14336	83.10	1.05	41	21800	48	136	24	Quartz-hematite vein
XR14337	8.06	0.33	10	3715	52	228	14	Quartz-hematite vein
XR14338	15.02	0.66	6	30400	82	181	18	Quartz-hematite vein
XR14339	26.29	0.86	12	30700	89	138	22	Quartz-hematite vein
XR14340	21.66	0.28	10	4776	31	156	21	Quartz-hematite vein
XR14341	2.00	0.33	12	3439	25	168	9	Quartz-hematite vein
XR14342	21.49	0.47	21	3937	132	136	39	Quartz-hematite vein
XR14343	14.19	0.38	7	5983	308	166	58	Quartz-hematite vein
XR14344	12.70	0.33	7	2926	85	110	9	Quartz-hematite vein
XR14345	5.22	0.39	4	5266	50	184	8	Quartz-hematite vein
XR14346	6.29	0.33	17	3889	33	196	8	Quartz-hematite vein
XR14347	24.02	0.64	13	8532	177	220	11	Quartz-hematite vein
XR14348	4.70	0.24	14	2371	67	113	4	Quartz-hematite vein
XR14350	10.47	0.32	6	6726	138	201	3	Quartz-hematite vein
XR14368	11.21	0.34	26	1325	80	141	27	Quartz-hematite vein
XR14369	23.91	0.43	22	2919	93	210	39	Quartz-hematite vein
XR14370	64.02	0.18	27	5457	120	85	33	Quartz-hematite vein
XR14374	11.21	0.17	9	1220	77	89	27	Quartz-hematite vein
XR14375	14.09	0.11	10	862	63	81	32	Quartz-hematite vein
XR14376	52.40	0.28	20	2659	160	161	38	Quartz-hematite vein
XR14379	3.51	0.19	10	892	56	97	18	Quartz-hematite vein
XR14380	6.83	0.14	2	1321	52	37	14	Quartz-hematite vein
XR14381	589.96	0.16	38	769	54	52	15	Quartz-hematite vein
XR14382	64.00	0.23	18	1486	109	133	30	Quartz-hematite vein
XR14383	70.00	0.24	19	1224	103	109	26	Quartz-hematite vein
XR14384	8.56	0.45	5	3812	608	521	440	Quartz-hematite vein
XR14385	1.80	0.33	5	2567	186	404	80	Quartz-hematite vein
XR14386	2.46	0.35	5	3068	456	451	268	Quartz-hematite vein
XR14387	18.77	0.39	8	3648	216	352	54	Quartz-hematite vein
XR14388	8.99	0.44	11	2944	213	357	46	Quartz-hematite vein
XR14389	17.02	0.60	17	5760	239	406	45	Quartz-hematite vein
XR14390	20.71	0.32	5	5316	200	278	28	Quartz-hematite vein
XR14391	9.58	0.24	5	2807	130	181	11	Quartz-hematite vein
XR14393	27.59	0.23	5	3162	231	225	24	Quartz-hematite vein
XR14402	14.89	0.71	5	1158	135	263	16	Quartz-hematite vein
XR14404	24.60	0.86	10	2077	179	431	27	Quartz-hematite vein
XR14405	78.50	0.38	20	2484	241	555	20	Quartz-hematite vein
XR14406	60.08	0.39	19	2051	162	456	24	Quartz-hematite vein
XR14407	44.44	0.60	30	2250	221	283	23	Quartz-hematite vein
XR14408	5.59	0.45	20	659	73	175	14	Quartz-hematite vein
XR14409	11.06	0.90	16	893	115	164	15	Quartz-hematite vein

Sample ID	Au (g/t)	Cu (%)	Ag (g/t)	As (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Description
XR14411	14.03	0.25	3	1968	300	103	57	Quartz-hematite vein
XR14412	12.50	0.23	2	2216	340	152	83	Quartz-hematite vein
XR14413	29.06	0.17	13	1842	279	139	75	Quartz-hematite vein
XR14415	24.74	0.22	12	1951	276	150	68	Quartz-hematite vein
XR14416	1.89	0.22	8	518	45	82	22	Quartz-hematite vein
XR14417	2.94	0.39	10	492	43	108	26	Quartz-hematite vein
XR14418	1.73	0.40	11	462	37	124	22	Quartz-hematite vein
XR14419	36.83	0.29	8	1184	103	189	38	Quartz-hematite vein
XR14426	3.02	0.09	3	3444	39	121	39	Quartz-hematite vein
XR14427	46.02	0.04	5	9171	155	131	93	Quartz-hematite vein
XR14428	38.49	0.04	5	4235	97	135	70	Quartz-hematite vein
XR14429	23.90	0.13	5	6070	446	403	65	Quartz-hematite vein
XR14430	28.74	0.08	10	3267	219	176	42	Quartz-hematite vein
XR14431	14.48	0.30	5	1273	61	313	24	Quartz-hematite vein
XR14432	39.50	0.14	9	2505	52	135	36	Quartz-hematite vein
XR14433	65.69	0.10	14	3562	55	88	29	Quartz-hematite vein
XR14434	19.11	0.07	7	1469	25	68	16	Quartz-hematite vein
XR14435	31.60	0.05	9	2230	37	53	37	Quartz-hematite vein
XR14437	149.67	0.05	15	2427	217	45	556	Quartz-hematite vein
XR14438	7.29	0.13	3	666	67	49	159	Quartz-hematite vein
XR14439	46.61	0.03	7	1598	122	33	224	Quartz-hematite vein
XR14440	17.99	0.24	4	866	14	77	163	Quartz-hematite vein
XR14441	4.80	0.17	3	794	9	64	153	Quartz-hematite vein
XR14442	5.97	0.25	4	607	12	72	253	Quartz-hematite vein
XR14454	3.60	0.17	4	435	31	119	77	Quartz-hematite vein
XR14455	31.13	0.17	9	1402	92	116	134	Quartz-hematite vein
XR14456	9.88	0.19	13	1438	32	90	29	Quartz-hematite vein
XR14459	3.72	0.33	9	437	25	77	25	Quartz-hematite vein
XR14461	5.10	0.21	22	518	29	159	19	Quartz-hematite vein
XR14462	16.84	0.22	13	2517	35	201	26	Quartz-hematite vein
XR14463	12.89			10	18	57		Quartz-hematite vein
XR14464	19.36	0.23	9	2041	89	237	19	Quartz-hematite vein
XR14465	11.60	0.21	14	1430	48	235	13	Quartz-hematite vein
XR14468	1.37	0.08	3	151	17	52	16	Quartz-hematite vein
XR14470	16.56	0.20	7	329	55	115	391	Quartz-hematite vein
XR14471	6.59	0.22	9	130	42	133	240	Quartz-hematite vein
XR14472	2.96	0.09	4	429	21	121	147	Quartz-hematite vein
XR14473	4.48	0.21	5	507	27	179	231	Quartz-hematite vein
XR14474	16.04	0.20	11	188	23	119	71	Quartz-hematite vein
XR14475	56.73	0.08	21	316	37	60	106	Quartz-hematite vein
XR14477	1.74	0.14	3	218	23	77	93	Quartz-hematite vein



Sample ID	Au (g/t)	Cu (%)	Ag (g/t)	As (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Description
XR14480	2.61	0.16	12	251	19	55	47	Quartz-hematite vein
XR14481	2.80	0.12	4	261	23	73	62	Quartz-hematite vein
XR14482	2.45	0.05	9	296	32	11	15	Quartz-hematite vein
XR14484	10.35	0.11	4	90	16	110	28	Quartz-hematite vein
XR14485	2.28	0.04	9	1055	19	36	17	Quartz-hematite vein
XR14486	2.73	0.12	7	1314	13	71	17	Quartz-hematite vein
XR14487	36.72	0.29	29	2785	32	126	81	Quartz-hematite vein
XR14488	37.49	0.11	26	3506	31	74	126	Quartz-hematite vein
XR14489	37.13	0.13	24	2818	29	73	79	Quartz-hematite vein
XR14491	23.71	0.10	21	1329	20	56	51	Quartz-hematite vein
XR14492	2.05	0.29	15	513	30	130	87	Quartz-hematite vein
XR14493	5.67	0.22	21	852	55	122	183	Quartz-hematite vein
XR14494	1.13	0.15	6	409	19	117	39	Quartz-hematite vein
XR14495	4.36	0.06	9	2007	28	73	62	Quartz-hematite vein
XR14496	14.38	0.19	14	1168	31	87	45	Quartz-hematite vein
XR14497	22.43	0.04	42	1936	23	35	32	Quartz-hematite vein
XR14498	20.94	0.07	49	1622	19	41	24	Quartz-hematite vein
XR14499	16.77	0.10		2150	24	60	30	Quartz-hematite vein
XR14500	16.50	0.04	25	1868	25	35	25	Quartz-hematite vein
XR14502	3.96	0.11	5	457	25	55	15	Quartz-hematite vein
XR14503	6.68	0.12	11	439	48	62	15	Quartz-hematite vein
XR14504	3.41	0.13	7	193	37	67	19	Quartz-hematite vein
XR14505	7.78	0.03		128	32	46	11	Quartz-hematite vein
XR14506	10.48	0.05	3	392	27	55	15	Quartz-hematite vein
XR14507	1.83	0.04		165	25	38	8	Quartz-hematite vein

## APPENDIX 1: OYUT ULAAN TABLE 1 (JORC 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 Edition for the Oyut Ulaan project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 18 April 2016.

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

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

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul style="list-style-type: none"> <li>Representative 50cm metre samples were taken from trenches (costeans) excavated through colluvial cover to bedrock.</li> <li>Representative 2 meter samples were taken from ½ PQ, HQ and NQ diameter diamond drill core.</li> <li>Visual checks by geologists of sampling confirm sample intervals.</li> <li>Only assay result results from recognised, independent assay laboratories were used in reporting after QAQC was verified.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type and details.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drilling of PQ, HQ and NQ diameters has been the primary drilling method.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core recoveries averaged 98% overall in mineralised zones.</li> <li>In localised areas of faulting and/or fracturing the recoveries decrease; however this is a very small percentage of the overall mineralised zones.</li> <li>Analysis of recovery results vs. grade indicates no significant trends. Indicating bias of grades due to diminished recovery and / or wetness of samples</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drill core samples and trenches are logged for geology, alteration and mineralisation using a standardised logging system.</li> <li>Rock quality data (RQD) is collected from all diamond drill core.</li> <li>Diamond drill core and trenches were photographed after being logged by a geologist.</li> <li>All diamond drill cores and trenches have been logged by a competent geologist.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Trench channel samples are taken from the base of the trench wall (about 10cm above the floor). Samples are approximately 3 kg. The sample is collected with a plastic sheet and tray.</li> <li>Diamond drill core is cut in half with a diamond saw, following the line marked by the geologist.</li> <li>The rock saw is regularly flushed with fresh water.</li> </ul>





Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sample intervals are a constant 2m interval down-hole in length.</li> <li>Routine sample preparation and analyses of diamond drill core and trench samples were carried out by SGS Mongolia LLC (SGS Mongolia) and ALS Mongolia LLC (ALS Geochemistry Mongolia) who operate independent sample preparation and analytical laboratories in Ulaanbaatar.</li> <li>All samples were prepared to meet standard quality control procedures as follows: crushed to 70% less than 2mm, riffle split off 1kg, pulverize split to better than 85% passing 200 mesh (75 microns) and split to 150g.</li> <li>Certified reference materials (CRMs), blanks and pulp duplicate were randomly inserted to manage the quality of data.</li> <li>Sample sizes are well in excess of standard industry requirements.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were routinely assayed by by SGS Mongolia LLC (SGS Mongolia) and ALS Mongolia LLC (ALS Geochemistry Mongolia) who operate independent sample preparation and analytical laboratories in Ulaanbaatar.</li> <li>Gold is determined using 30g fire assay with aqua regia digestion, followed by an atomic absorption spectroscopy (AAS) finish, with a lower detection (LDL) of 0.01 ppm.</li> <li>48 elements by four-acid-digestion, ICP-MS and ICP-AES (ME-MS61 and ME-MS61m).</li> <li>Four acid digestion is considered near total digestion.</li> <li>Quality assurance was provided by introduction of known certified standards, blanks and duplicate samples on a routine basis.</li> <li>Assay results outside the optimal range for methods were re-analysed by appropriate methods.</li> <li>Ore Research Pty Ltd certified copper and gold standards have been implemented as a part of QAQC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-gold standards.</li> <li>QAQC monitoring is an active and ongoing process on batch by batch basis by which acceptable results is re-assayed as soon as practicable.</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>All assay data QAQC is checked prior to loading into the data base.</li> <li>The data is managed XAM geologists.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No twinned drill holes exist, given the early stage of the exploration project.</li> <li>The data base and geological interpretation is collectively managed by XAM.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All drill hole collars and trenches have been surveyed with a differential global positioning system (DGPS) to within 10cm accuracy.</li> <li>All diamond drill holes have been down hole surveyed to collect the azimuth and inclination at specific depths. Two principal types of survey method have been used over the duration of the drilling programs including Eastman Kodak and Flexit.</li> <li>UTM WGS84 49N grid.</li> <li>The DTM is based on 1 m contours with an accuracy of <math>\pm 0.01</math> m.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Trenching has been completed on nominal northwest-southeast and north-south trending sections on widely spaced lines. Channel sampling every 2m of the 1m wide trench.</li> <li>Drilling has been completed on nominal northwest-southeast and north-south trending sections, on 100m spacing within mineralised zones.</li> <li>Vertical spacing of intercepts on the mineralised zones similarly commences at 100m spacing for mineralised zones.</li> <li>Drilling has predominantly occurred with angled holes approximately 70° to 60° inclination below the horizontal and either drilling to north or south, depending on the dip of the target mineralised zone.</li> <li>Holes have been drilled to 400m vertical depth.</li> <li>The data spacing and distribution is not sufficient to establish geological and grade continuity appropriate for the a Mineral Resource estimation.</li> <li>Samples have not been composited.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling and trenching has been predominantly completed on northwest trending section lines across the strike of the known mineralised zones and from either the north or the south depending on the dip.</li> <li>Vertical dipping mineralised zones were predominantly drilled to the northwest or north.</li> <li>Scissor drilling (drilling from both north and south) has been used in key mineralised zones to achieve unbiased sampling of possible structures and mineralised zones.</li> </ul>



Criteria	JORC Code Explanation	Commentary
<b>Sample security</b>	<ul style="list-style-type: none"><li>• The measures taken to ensure sample security.</li></ul>	<ul style="list-style-type: none"><li>• Samples are dispatched from site through via company employees to the Laboratories.</li><li>• Samples are signed for at the Laboratory with confirmation of receipt emailed through.</li><li>• Samples are then stored at the lab and returned to a locked storage site.</li></ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"><li>• The results of any audits or reviews of sampling techniques and data</li></ul>	<ul style="list-style-type: none"><li>• Internal audits of sampling techniques and data management on a regular basis, to ensure industry best practice is employed at all times.</li></ul>

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

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

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, over riding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Project comprises 1 Mining Licences (MV-17129A).</li> <li>Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence.</li> <li>The Mongolian Minerals Law (2006 and Mongolian Land Law (2002) govern exploration, mining and land use rights for the project.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration was conducted by Ivanhoe Mines Ltd and Vantage LLC including surface mapping and geochemistry, diamond drilling and geophysics.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation is characterised as porphyry copper-gold type.</li> <li>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 prospects at Oyut Ulaan are atypical in that they are associated with intermediate intrusions of diorite to quartz diorite composition, however the deposits are in terms of contained gold significant, and similar gold-rich porphyry deposits globally.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all material drill holes: easting and northing of the drill hole collar, elevation or RL Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth, hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the</li> </ul>	<ul style="list-style-type: none"> <li>No new drill hole data is reported.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	report, the Competent Person should clearly explain why this is the case.	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>A nominal cut-off of 0.1% Cu is used for identification of potentially significant intercepts for reporting purposes.</li> <li>Most of the reported intercepts are shown in sufficient detail to allow the reader to make an assessment of the balance of high and low grades in the intercept.</li> <li>The copper equivalent (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. Grades have not been adjusted for metallurgical or refining recoveries and the copper equivalent grades are of an exploration nature only and intended for summarising grade. The copper equivalent calculation is intended as an indicative value only. The following copper equivalent conversion factors and long term price assumptions have been adopted: Copper Equivalent Formula <math>(CuEq) = Cu\% + Ag (g/t) \times 0.012 + Au (g/t) \times 0.625</math> Assumptions - Cu (US\$7,500/t), Ag (US\$30/oz) and Au (US\$1,500/oz).</li> </ul>
<b>Relationship between mineralization on widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Exploration results have been reported as an interval with 'from' and 'to' stated in tables of significant economic intercepts.</li> <li>Tables clearly indicate that true widths will generally be narrower than those reported.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>See figures in main report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results have been reported at a range of grades, predominantly above a minimum for potentially significant intercepts for reporting purposes.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test</li> </ul>	<ul style="list-style-type: none"> <li>Extensive work in this area has been done, and is reported separately</li> <li>Detailed geological mapping</li> <li>Surface geochemistry (1,253 rock-chip samples).</li> </ul>



Criteria	JORC Code Explanation	Commentary
	results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul style="list-style-type: none"><li>• Geophysics includes ground magnetics (332 km).</li><li>• Diamond drill includes 17 holes (5,000 metres).</li></ul>
<b>Further work</b>	<ul style="list-style-type: none"><li>• The nature and scale of planned further work.</li><li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li></ul>	<ul style="list-style-type: none"><li>• The mineralisation is open at depth and along strike.</li><li>• A multi-disciplinary exploration program is planned to test areas previously drilled with high-grade, near-surface results, which have the potential to host further mineralisation at depth and along strike; and test the many untested geophysical and geochemical anomalies remain within the Oyut Ulaan area district, as there is a strong possibility of discovering additional mineralised porphyry centres.</li><li>• Exploration on going.</li></ul>