



ASX / MEDIA RELEASE

27/01/2012

**Xanadu Mines Ltd (ASX: XAM)  
Quarterly Report  
Period ended 31st December 2011**

**HIGHLIGHTS**

- **Initial JORC resource estimate of 170 Mt for the Galshar thermal coal project; the permitting process for the granting of a Mining License at the Galshar Project commenced;**
- **Acquisition of the Khavtsgait coking coal project;**
- **Completion of scout drilling at Nuurstei and initial raw and washability coal quality results received;**
- **Mining license granted for the Khar Tarvaga thermal coal deposit;**
- **Detailed geophysics program completed at the Sharchuluut porphyry;**
- **Amgalant and Argalant Uul Copper-Gold Porphyry exploration licenses acquired;**
- **Xanadu joins Northern Mongolian Rail Alliance Co-operative which aims to construct a railway between Moron and Erdernet in Northern Mongolia;**
- **A\$19.3 million cash on hand at 31 December 2011 to fund exploration and pursue new opportunities.**

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Figure 1: Xanadu Mines Mongolia and Ekhgoviin Chuluu LLC project location map.

## Coal Exploration Program

### Ekhgoviin Chuluu LLC - Noble Joint Venture (XAM 50%)

The Strategic Alliance with Noble Group continues to explore and acquire high priority coking coal opportunities in Mongolia. This program has targeted areas of significant known coal resources and focused on green field exploration opportunities identified via information synthesis and geological mapping.

Ekhgoviin Chuluu has three exploration projects in Mongolia, all of which are focused on coking coal (Nuurstei, Javkhlant and Khavtsgait).

#### **Nuurstei Coal Project**

The Nuurstei coking coal project lies within a Mesozoic coal-bearing sedimentary basin, located in the south central part of the Khuvsgul Province (Figure 1). The two contiguous licenses lie approximately 13km south-southwest of the provincial centre of Moron, and are strategically located only 8km from the proposed Northern Mongolian rail line that will link Moron with the active rail spur at Erdenet. The project is located less than 30km south of the world class Burenhaan phosphate deposit and 158km east of the newly discovered > 300 Mt Ovoot coking coal deposit (Aspire Mining).

The initial drilling program at Nuurstei was completed with eleven diamond drill holes for a total 3,701 metres, which has delineated significant coal over a 5 kilometre strike length. Table 1 presents the results of the first phase of drilling. The coal bearing sedimentary sequence is more than 600m thick and mostly comprises thick Mesozoic mudstones with thin layers of coarse sandstone. The coal-bearing sediments unconformably overlie the Permian volcanic rocks and the Nuurstei Formation is interpreted to contain at least 16 coal seams, which range in thickness from 12m to less than 1m. The coal bearing sedimentary package is affected by minor normal faults.

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Table 2 presents the coal seam washability results from the two main coal seams at Nuurstei, N12 and N14, from drill hole NUDH001. Initial results indicate potential for coking coal with moderate yields; however it is believed results will improve with better core recovery and sampling procedures. Table 3 shows the raw analytical results for drill holes NUDH002-009. Whereas the raw data suggests moderate potential for a premium coking coal (high CSN and low Volatile Matter), the poor core recovery indicates a large percentage of fines might have been washed away during drilling and thus the results should improve with better core recoveries.

A short program of 2D seismic was completed by Logantek Mongolia LLC with four lines, totaling 7 contiguous line kilometres 2D seismic surveyed. The seismic method used was high resolution, high reflection seismic. The results of this survey will help in the understanding of the architecture and structure of the basin and allow targeting of coking coal seams more effectively in 2012.

**Table 1:** Holes completed at the Nuurstei coal project in the 2011 drill program and coal seam intercepts.

Hole ID	UTM Easting (Z47)	UTM Northing (Z47)	Angle (degrees)	Depth (m)	Coal Interval		Coal Thickness (M)							
					From (m)	To (m)	Seam Thickness	Combined Total Thickness						
NUDH001	575002	5489202	-90	291.0	73.57	92.30	9.08	35.29						
					126.67	128.38	1.51							
					143.75	161.06	9.94							
					175.43	176.06	0.63							
					180.56	183.80	1.90							
					199.22	201.10	1.27							
					209.43	215.26	2.12							
					247.68	253.98	4.02							
					266.71	272.78	2.06							
NUDH002	574506	5489196	-90	226.7	33.20	34.16	0.96	20.79						
					44.00	45.16	1.16							
					72.37	93.90	8.61							
					113.94	114.80	0.86							
					146.20	148.30	1.80							
					162.60	163.70	1.10							
					176.30	185.20	2.80							
					200.10	200.80	0.70							
					210.20	211.30	1.10							
					216.20	217.90	1.70							
NUDH003	576677	5488222	-90	585.0	16.80	18.60	1.80	50.55						
					69.90	85.25	4.70							
					91.88	130.86	3.79							
					155.10	156.35	0.73							
					168.76	178.94	1.71							
					198.01	199.00	0.99							
					212.60	217.39	1.20							
					233.09	234.19	1.10							
					239.40	248.00	3.03							
					257.23	277.80	4.18							
					317.25	327.90	6.95							
					355.00	396.14	7.83							
					436.20	467.25	5.10							
					486.14	510.98	4.79							
					529.14	558.50	2.65							
NUDH004	575052	5489341	-90	488.3	10.80	13.36	2.16	40.84						
					21.00	23.50	2.18							
					33.50	50.00	8.08							
					72.25	75.26	1.86							
					91.28	105.20	5.66							
					136.61	140.48	2.26							
					148.10	152.50	3.27							
					172.70	173.10	0.40							
					193.71	195.17	1.46							
					216.00	219.19	1.71							
					225.05	229.05	2.85							
					249.44	298.76	2.67							
					312.72	318.18	2.83							
					396.12	398.25	1.40							
					435.00	445.75	2.05							
NUDH005	574523	5489350	-90	406.5	21.30	23.60	1.90	43.85						
					55.50	55.90	0.40							
					72.45	74.4	0.85							
					95.50	95.90	0.40							
					116.40	131.25	10.63							
					151.60	170.80	3.67							
					213.25	216.30	2.65							
					224.90	232.65	2.75							
					240.05	244.55	2.95							
					270.10	278.95	1.53							
					295.42	297.00	1.58							
					305.55	321.44	5.52							
					364.00	377.75	9.02							
					NUDH006	575533	5489205		-90	321.0	12.82	31.15	3.73	9.68
											71.75	118.00	2.40	
171.20	218.3	2.45												
217.95	218.3	0.35												

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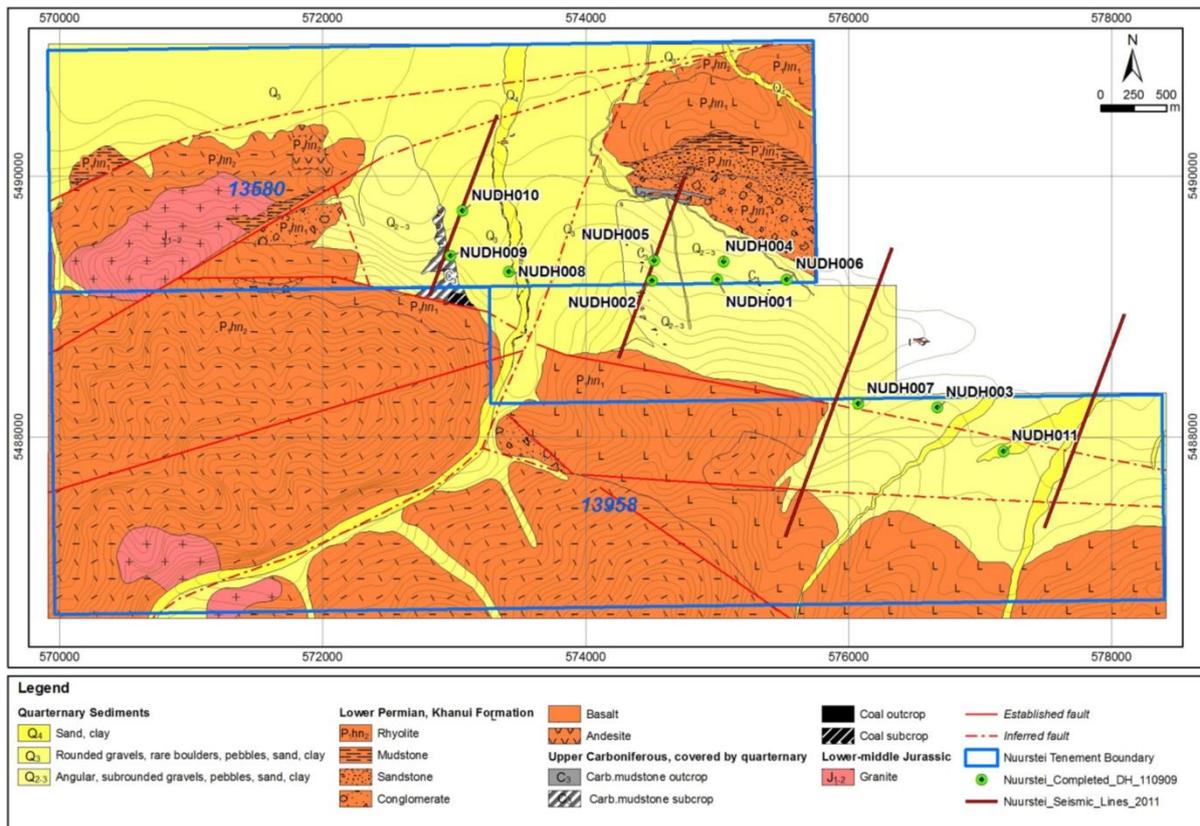
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NUDH007	576075	5488252	-90	498.0	260.75	261.50	0.75	31.89
					33.60	70.35	5.72	
					104.50	106.74	1.84	
					125.50	137.80	2.40	
					180.22	193.17	1.88	
					245.83	270.93	7.10	
					289.94	290.87	0.93	
					342.90	344.60	1.70	
					373.40	376.80	2.42	
					391.91	393.40	1.49	
NUDH008	573418	5489265	-90	388.5	38.30	38.62	0.32	26.77
					46.05	60.18	6.49	
					69.72	72.12	2.10	
					72.65	80.90	1.43	
					125.90	132.94	4.09	
					152.12	153.00	0.88	
					162.40	167.23w	3.72	
					179.02	220.18	2.28	
					232.42	235.20	2.78	
					256.82	258.74	1.38	
NUDH009	572976	5489388	-90	325.0	20.48	29.10	3.48	34.87
					47.82	55.96	2.62	
					68.20	71.99	2.59	
					130.10	132.70	2.60	
					158.60	161.40	2.16	
					172.60	183.70	5.40	
					210.30	210.95	0.65	
					225.40	233.80	7.26	
					244.00	244.60	0.60	
					282.14	294.20	7.51	

**Table 2:** Indicative washed analytical result from the two main seams intersected in drill hole NUDH001 (weighted average on air-dried basis).

Coal Seams / Plies	Density Fraction	Yield % (Cumulative)	Moisture (AD) % (Cumulative)	Ash (AD) % (Cumulative)	Crucible Swelling Number (Cumulative)
N14	F1.50	34.23	0.51	13.77	8.2
N12	F1.50	46.13	0.41	13.04	8.5

\*Note: No Volatile Matter and Gross Calorific Value were analyzed on washability fractions at this stage.



**Figure 2:** Nuurstei geology map showing diamond drill hole locations and seismic profiles.

**Table 3:** Initial raw analytical result from drill holes NUDH002-009 (weighted average on air-dried basis).

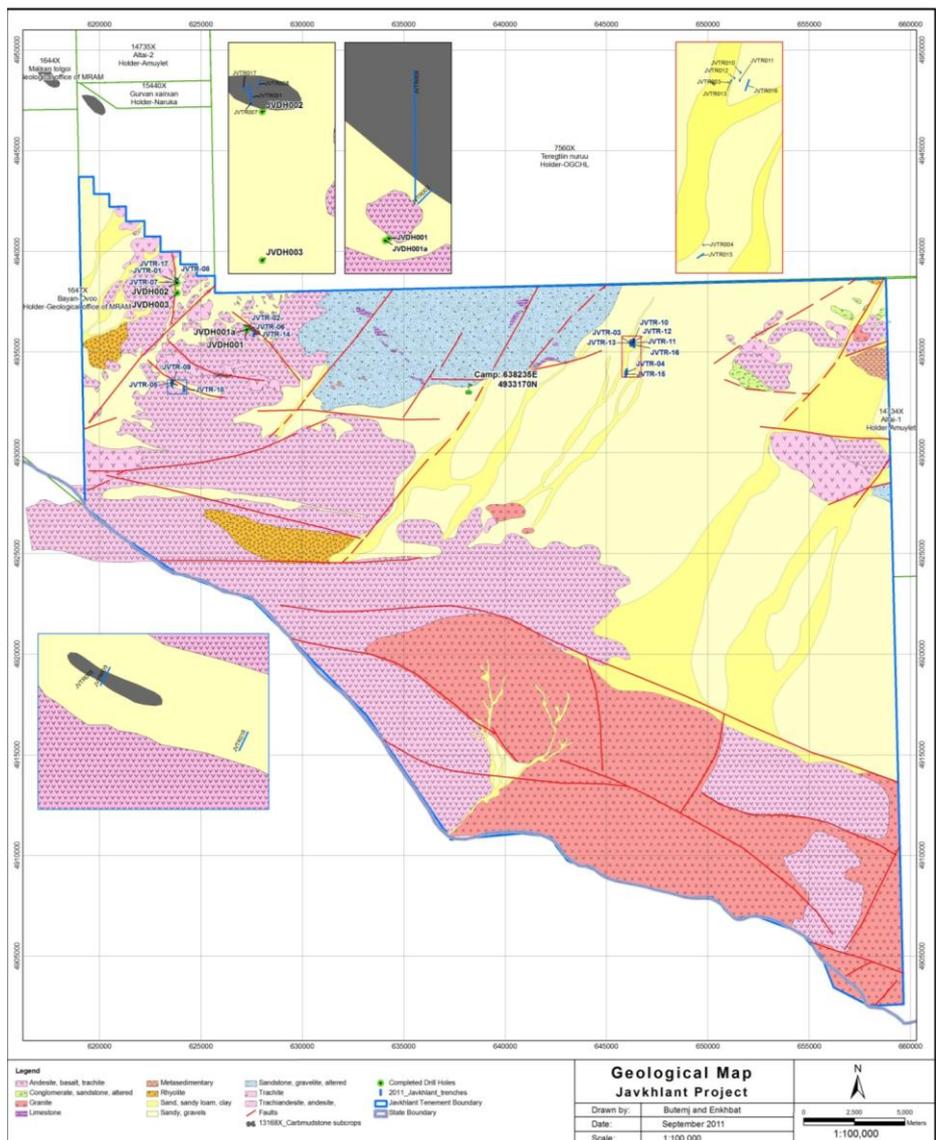
Hole ID	Aggregate sample thickness (m)	Core Mass Recovery %	Moisture %	Ash %	Volatile Matter %	Total Sulphur %	Gross Calorific Value kcal/kg	RD g/cm3	CSN
NUDH002	5.52	67.8	0.77	30.33	19.18	0.35	5686	1.48	6.5
NUDH003	9.06	90.2	0.74	35.01	13.46	0.57	5427	1.51	4.9
NUDH004	11.91	78.9	1.29	29.96	12.03	0.53	5264	1.54	4.1
NUDH005	5.82	59.5	0.58	32.18	18.15	0.48	5627	1.46	7.9
NUDH006	1.15	64.8	1.17	33.80	19.37	0.52	5472	1.41	5.2
NUDH007	9.64	81.1	1.86	18.40	9.83	0.86	5318	1.62	0.9
NUDH008	4.20	48.0	0.62	25.34	16.47	0.60	6353	1.39	7.0
NUDH009	9.53	67.5	0.66	31.73	17.76	0.93	5689	1.54	5.9

\*Note: Core recoveries have impacted on the analytical results.

### Javkhlant Coal Project

The Javkhlant exploration project is located in the south western Gobi Altai Province of Mongolia (Figure 4), approximately 22km from the Burgastai border crossing point into China and only 200km from the Chinese rail network (Figure 1). The large (1,005km<sup>2</sup>) exploration license which lies along Mongolia's southern border with China, is located in the south west Gobi Basin known to host coking and thermal coal deposits of Permian and Carboniferous age.

Reconnaissance mapping and exploration has identified numerous carbonaceous mudstone (containing coal fragments) subcrops. A total of 6 coal/carbonaceous mudstone subcrops have been identified so far over a strike of 40km (Figure 3). A total of 18 trenches were completed for approximately 750m. Trenching has focused on the coal/carbonaceous mudstone subcrops. Diamond drilling had progressed slowly due to hard and broken ground conditions and drill rig breakdowns. The exploration programme has been halted due to the onset of winter.



**Figure 3:** Javkhlant geology map showing trenches and diamond drill hole locations.

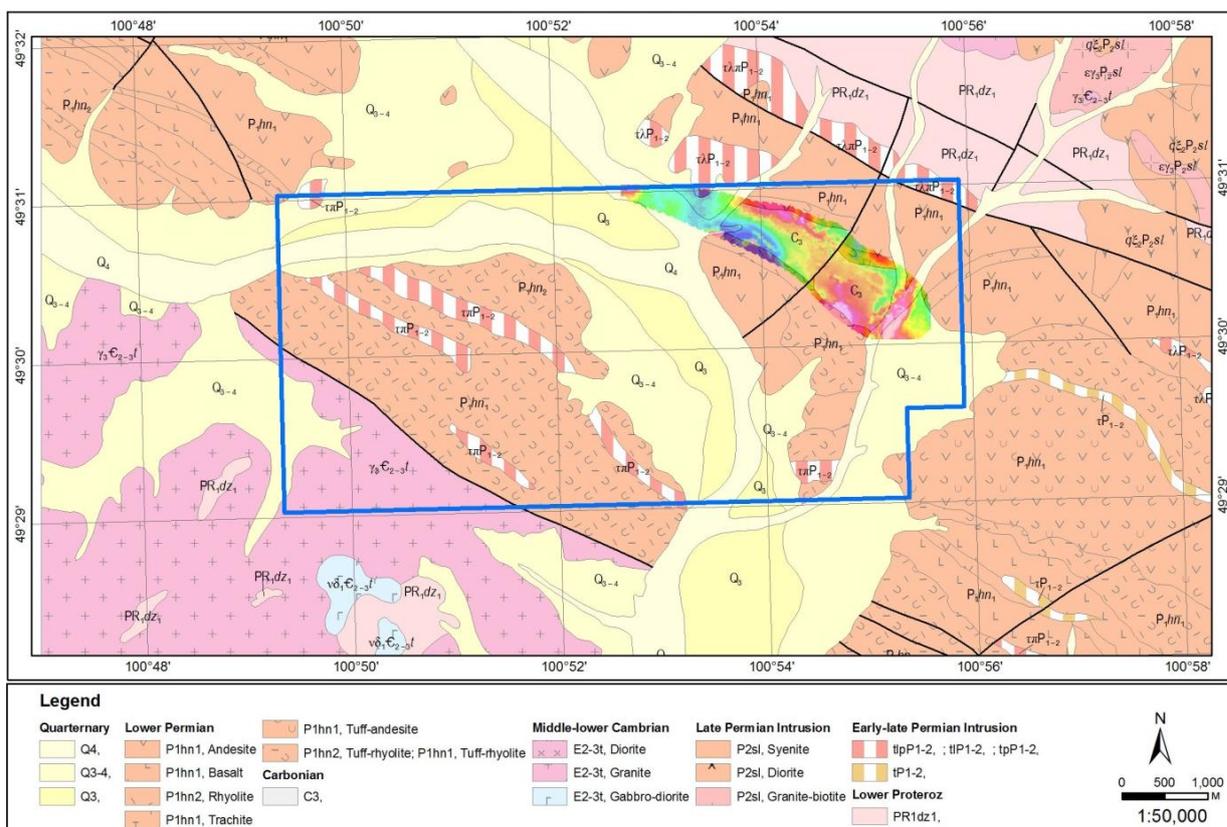
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**Table 4:** Holes completed at the Javkhlant coal project in the 2011 scout drill program and coal seam intercepts.

Hole ID	UTM Easting (Z46)	UTM Northing (Z46)	Angle (degrees)	Depth (m)	Coal Interval (m)		Coal Thickness (m)	
					From	To	Seam Thick	Combined Total Thick
JVDH001	627272	4936109	-90	Abandoned	No coal	No coal	No coal	No coal
JVDH001A	627269	4936107	-90	69.9	41.80	43.50	1.70	1.70
JVDH002	623828	4938436	-90	268.0	186.95	189.80	2.60	5.41
					190.52	193.73	2.81	
JVDH003			-90	158.0	No coal	No coal	No coal	No coal

### Khavtsgait Coal Project

The acquisition of the Khavtsgait coal project was completed during the quarter. The project is located in the Khuvsgul province of northern Mongolia, approximately 60km east of the Province centre of Moron and 230km west from the established rail spur at Erdenet (Figure 1). Under the terms of the agreement Ekhgoviin Chuluu LLC (EC) has acquired 100% of the Khavtsgait exploration licences (15142X), which covers approximately 2,869 hectares. The highly prospective exploration license overlies an early to middle Mesozoic aged coal bearing sedimentary basin; similar aged basins in northern Mongolia are known to host potentially world-class premium hard coking coal deposits, such as the Ovoot Coking Coal Project (owned by ASX listed Aspire Mining Limited). The highly prospective opportunity was recognised as part of a thorough regional reconnaissance exploration program currently being conducted by EC's experienced geologists. Initial exploration indicates the early to middle Mesozoic stratigraphic sequence at Khavtsgait is consistent with that at the newly discovered Nuurstei coking coal project located approximately 60km to the west. Logantek Mongolia LLC recently completed a ground magnetic survey on the most prospective area within the license, totalling 40 contiguous-line-kilometres (Figure 4). This data will help drill targeting in 2012.



**Figure 4:** Khavtsgait geology map and ground magnetic survey.

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### Galshar Coal Project (Xanadu 100% subject to a royalty to Erdene Mongol XXK)

The Galshar coal project comprises three contiguous exploration licences (EL 15292X, EL 12553X and EL 9383X) covering 131km<sup>2</sup> (13,152 ha) in the Choir-Nyalga Coal Basin (Figure 1). The Galshar coal project is next to a previously working coal mine and nearby to an active fluorite mine, and is in an ideal location for development being strategically located within 65km from the nearest rail spur at the Bor Undor fluorite mine. Independent geological consultants – McElroy Bryan Geological Services (MBGS) prepared the coal resource as of 31<sup>st</sup> October 2011 on EL 15292X, EL 12553X, EL 9383X in accordance with the JORC Code. MBGS completed a compilation and assessment of exploration data as of 31<sup>st</sup> October 2011 and estimated an initial coal resource of 170 Mt. This estimate was released in the Xanadu ASX announcement dated 6 December 2011. The coal resource consists of 70 Mt Indicated and 100 Mt of Inferred, all of which are at depths of less than 120m. The JORC resource table is listed below:

#### Coal Resources: GALSHAR, MONGOLIA

Depth Interval <sup>1</sup> (m)	Seam	Area (Km <sup>2</sup> )	Thickness <sup>2</sup> (m)	In situ density <sup>3</sup> (g/cc)	Raw Ash (% arb)	Total Sulphur (% arb)	CV (Kcal/Kg arb) <sup>5</sup>	CV (Kcal/Kg adb) <sup>6</sup>	CV (Kcal/Kg daf) <sup>7</sup>	Resources (Mt)	
										Indicated	Inferred
<50m	G9	0.86	1.76	1.26	16.0	0.50	2,750	3,500	6,560	-	2.1
	G8	1.56	2.46	1.35	29.0	0.20	2,200	2,970	6,400	5.99	4.0
	G7	0.57	0.50	1.30	19.0	0.80	2,900	3,580	6,580	-	0.4
	G6	1.28	2.63	1.28	14.5	0.50	3,250	4,220	6,700	3.94	5.1
	G5	1.04	1.62	1.30	19.5	0.40	2,700	3,500	6,510	1.46	2.8
	G4	1.61	4.35	1.30	16.5	0.80	3,000	3,800	6,590	-	9.1
	G3	1.20	6.66	1.30	25.0	0.60	2,550	3,290	6,350	-	8.8
	G2	0.88	0.62	1.28	17.0	0.80	2,900	3,750	6,590	0.27	0.7
	G1	1.18	8.66	1.24	11.0	0.60	3,300	3,880	6,680	1.79	13.6
<b>Total Resources &lt;50m</b>										<b>13.45</b>	<b>46.6</b>
50 - 100m	G8	0.10	1.27	1.31	25.0	0.25	2,250	3,570	6,580	0.17	0.0
	G7	0.63	0.55	1.30	19.0	0.80	2,900	3,580	6,580	-	0.4
	G6	0.98	2.65	1.28	16.0	0.40	3,100	3,930	6,620	4.34	1.2
	G5	1.23	1.68	1.31	22.0	0.40	2,600	3,300	6,450	3.56	1.3
	G4	2.29	4.51	1.30	16.0	0.80	3,050	3,860	6,600	-	13.2
	G3	2.33	7.15	1.30	22.0	0.40	2,700	3,420	6,440	-	21.9
	G2	1.64	0.97	1.29	17.5	0.30	3,000	3,600	6,570	2.71	1.2
	G1	2.37	13.14	1.24	9.5	0.50	3,400	4,100	6,690	40.90	39.1
<b>Total Resources 50 - 100m</b>										<b>51.69</b>	<b>78.4</b>
100 - 150m <sup>4</sup>	G2	0.06	0.86	1.23	8.0	0.25	3,500	4,290	6,750	0.06	-
	G1	0.61	10.53	1.22	8.0	0.25	3,400	4,230	6,750	5.54	-
<b>Total Resources 100 - 150m</b>										<b>5.60</b>	
<b>Total Resources</b>										<b>70.73</b>	<b>125</b>
<b>Total Resources (Rounded)</b>										<b>70</b>	<b>100</b>

#### Notes to Accompany Coal Resources Table

Resource totals have been rounded to appropriate levels of accuracy in accordance with the 2004 JORC Code.

- 1) Depth from topography surface.
- 2) A minimum ply thickness of 0.3m was applied to the resource estimate.
- 3) Density values derived from gridded data and/or default density values where data was insufficient.
- 4) Resources reported in the range 100-150m all exist at depths <120m.
- 5) ARB = "as received basis"
- 6) ADB = "air dried basis"
- 7) DAF = "dry ash free basis"

The permitting process for the granting of a Mining License at the Galshar Project has commenced.

#### ***Khar Tarvaga Coal Project (Xanadu 100%)***

The Khar Tarvaga (KT) thermal Coal Project is located 150km south east of Ulaanbaatar and 35km from the main Trans-Mongolian railway line (Figure 1). Xanadu has a 100% interest in the Khar Tarvaga Project. The Resources and geology of the Khar Tarvaga Project are described in detail in the Xanadu Mines Ltd Prospectus issued November 2010. The Mineral Authority of Mongolia has granted a mining licence (MV16871) for the Khar Tarvaga Coal Project, covering a total area of 84km<sup>2</sup> (8,350 ha). The Khar Tarvaga Project mining licence has been granted for an initial term of 30 years with an option for two twenty year extensions, providing for a total of 70 years of mining operations.

Coal within the Khar Tarvaga mining license is a sub-bituminous, high volatile coal suitable for power generation and potentially gasification as part of a coal to liquids (CTL) or synthetic natural gas (SNG) production facility. There are three principal coal seams at Khar Tarvaga which have defined continuity and significant resources. The seams dip gently (less than 5 degrees) to the south, and appear to be structurally continuous. The deposit is well situated to supply a mine mouth power station and the domestic coal market.

Discussions continue with several groups interested in exploiting the potential of the KT resource. The company will further these discussions and has appointed a Beijing based agency to assist with marketing the project to multinational coal producers including coal to liquid (CTL) and synthetic natural gas (SNG) producers.

#### **Copper-Gold Exploration Program (Xanadu 100%)**

##### ***Sharchuluut Uul Copper-Gold Porphyry Project***

The Sharchuluut Copper-Gold/Molybdenum Porphyry Project is located within the Bulgan Province of Northern Mongolia, approximately 230km northwest of Ulaanbaatar. The brownfields exploration prospect is strategically located 40km northwest, and along strike, from the world-class Erdenet porphyry copper-molybdenum deposit. The Project consists of a cluster of several porphyry prospects which occur within the central part of Exploration Licence 13670 held 100 % by Xanadu Mines Mongolia (Figure 5).

The detailed ground gravity survey was completed over the central block at Sharchuluut , with a total of 1,500 (100m x 100m spacing) ground stations measured with modern CG-5 gravity meters. The Gravity Survey defined an intrusive complex (pink domain) in Figure 7 which is bound with north northwest trending faults. Pink domain which has high gravity and low-moderate magnetic response is a potential porphyry target. This gravity high is coincident with a broad magnetic low, thought to represent magnetic destruction.

A detailed vector IP survey was completed over the central block at Sharchuluut. The aim was to evaluate the potential for porphyry copper-gold/molybdenum mineralisation and constrain the spatial distribution and zonation of alteration and mineralisation assemblages, with the aim of generating drill targets. Initial processing of the vector IP data has defined a large east-west trending chargeability anomaly, associated with the main zone of advanced argillic alteration. Zones of advanced argillic alteration which constitute lithocaps are commonplace in the shallow parts of porphyry copper system. In addition to the geophysics, Xanadu's geological team will continue extensive prospecting and sampling of the surrounding areas. Geological mapping is continuing throughout the Sharchuluut Uul area and based on the results to date, Xanadu's exploration team believes that there is a strong possibility of discovering additional mineralized porphyry copper targets within the large, 488km<sup>2</sup> exploration license. Exploration drilling is scheduled to commence in April 2012.

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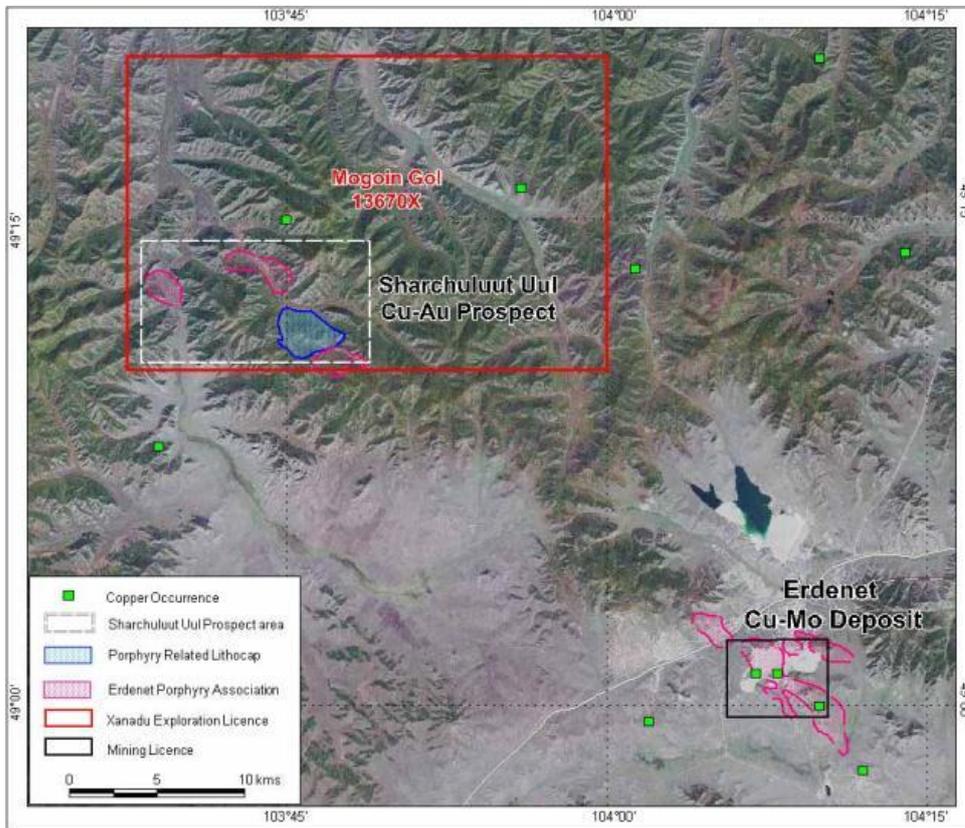
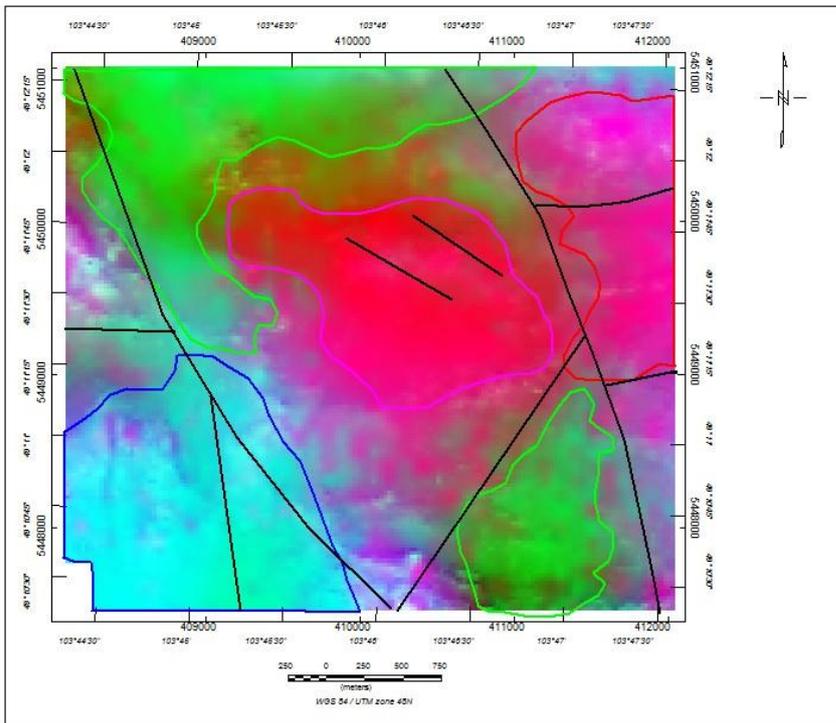


Figure 6: Sharchuluut Landsat map.



LEGEND

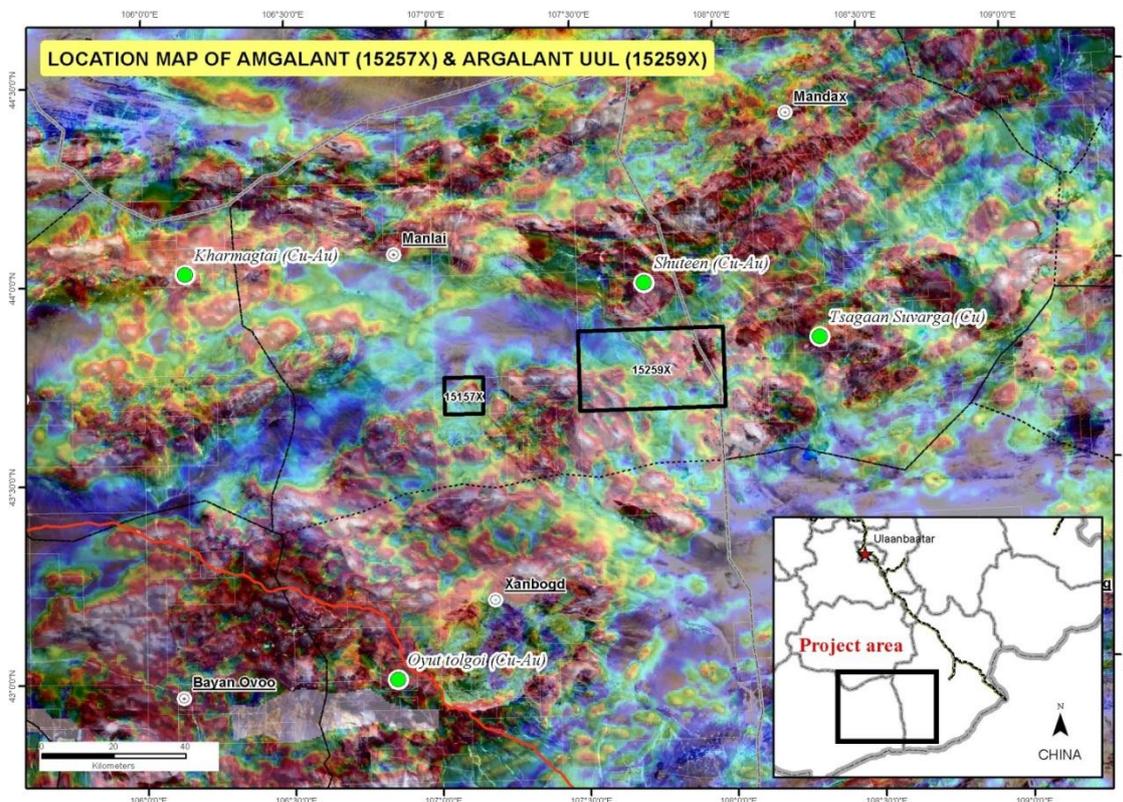
-  Inferred Fault
-  High gravity and low - moderate magnetic response from Intrusive
-  High gravity and moderate - high magnetic response from volcanic
-  Low gravity and magnetic response from Tuff / Sedimentary
-  Low gravity and high magnetic response on this area

Figure 7: Gravity interpretation map over the central area at Sharchuluut.

## ***Amgalant and Argalant Uul Copper-Gold Porphyry Project***

Finalisation of a farm-in agreement on the Amgalant and Argalant Uul porphyry copper-gold exploration licenses occurred during the quarter. Both exploration licenses are located in the South Gobi region of southern Mongolia, approximately 460km southeast of Ulaanbaatar. The licenses are located in the central part of the highly prospective south Gobi porphyry belt, approximately 110km northeast of the world-class Oyu Tolgoi Cu-Au Project & proximal to the large undeveloped Tsagaan Suvarga copper-molybdenum deposit (Figure 1 and 8). The southern Mongolian Palaeozoic magmatic belt hosts most of the known porphyry and intrusion-related mineralisation in the South Gobi. Under the terms of the agreement, Xanadu Mines can earn up to 80% of the Amgalant and Argalant Uul exploration licences by meeting various spending commitments over 2 years.

The large exploration licenses (Amgalant - 109km<sup>2</sup>; Argalant Uul - 895km<sup>2</sup>) remain relatively under explored, and occur in a shallowly eroded porphyry-type environment. Initial exploration has identified numerous large geophysical anomalies similar to the footprints recognised at Oyu Tolgoi and could indicate the presence of porphyry mineralisation at depth. The Amgalant and Argalant Uul porphyry copper-gold exploration licenses were identified as the result of systematic exploration of prospective mineral belts. A substantial exploration effort is justified on the two exploration licenses as the potential to discover a large buried porphyry is considered to be high by Xanadu geologists.



**Figure 8:** Location of the Amgalant and Argalant Uul porphyry copper-gold exploration licenses. Both licenses are located approximately 110km northeast of the world-class Oyu Tolgoi Cu-Au Project & proximal to the large undeveloped Tsagaan Suvarga copper-molybdenum deposit.

## **Gold Exploration Program**

### ***Elgen-Zos Gold Project***

The Elgen-Zos Gold Project is located within the Dornogovi Province of southern Mongolia, approximately 680km south-southeast of Ulaanbaatar. The greenfields exploration project is strategically located 30km north from Chinese border, and the Mandal border crossing. The Project consists of a three low-sulphidation epithermal prospects: Elgen Uul, Suug and Zost Uul. These prospects occur within a 35-kilometre-long, east-west oriented corridor of alteration and mineralisation which is temporally associated with Early Mesozoic bimodal volcanism.

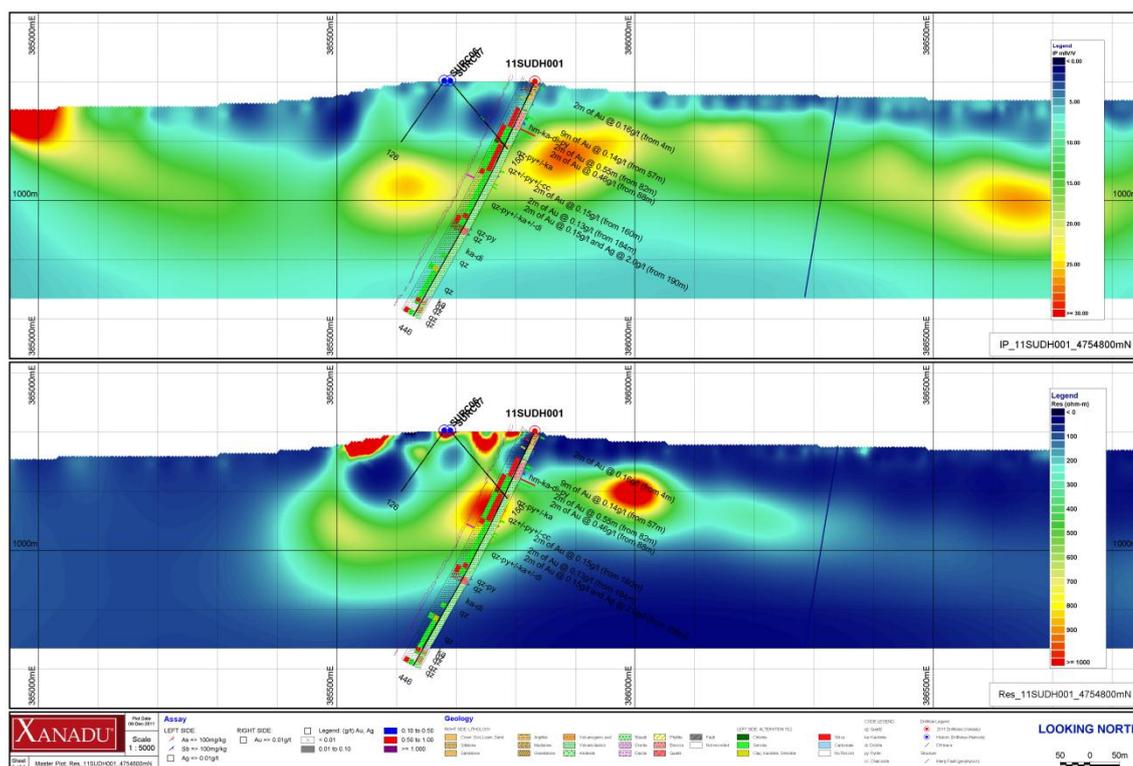
**Table 5:** Holes completed at the Suug and Zost Au-Ag project.

Hole ID	UTM Easting (Z49)	UTM Northing (Z49)	Depth (degrees)	Angle (m)	Azimuth
11SUDH-001	385832	4754801	446.30	-65	270
11SUDH-002	386060	4754700	428.30	-70	270
11SUDH-003	385960	4754000	302.10	-60	270
11ZODH-001	383860	4741000	242.50	-70	270
11ZODH-002	383200	4739200	50	-70	270
11ZODH-003	383212	4739210	147.00	-70	270

A small program of scout drilling was completed at Suug and Zost with encouraging results. A total of 3 diamond drill holes were completed at Suug for approximately 1,176m (Table 5). Results from the first two holes have been received. Drill hole 11SUDH-001 was drilled in the northern part of the Suug Project. The hole was drilled to a depth of 446m and targeted a coincident resistivity high and moderate chargeability sitting in a vertical dilational structure. The hole intersected a broad zone of moderately to strongly quartz-sericite-clay altered volcanics and hydrothermal breccia. Returned assay results indicate this structure is weakly mineralised in gold and silver, with numerous intervals grading between 0.15 and 0.50 g/t Au (Figure 9).

Drill hole 11SUDH-002 was also drilled in the northern part of the Suug Project. The hole was drilled to a depth of 428m and targeted a coincident resistivity high and moderate chargeability sitting in a vertical dilational structure. The hole intersected a broad zone weakly quartz-sericite-clay and quartz-alunite altered volcanics. The hole intersected several narrow hydrothermal breccia bodies high in the hole which included 2 metres grading 3g/t Ag (from a depth of 48 metres) and 2 metres grading 0.14 g/t Au (from a depth of 62 metres).

These results are encouraging as the geology suggests the hole is still relatively high in the system, and higher grades are expected at depth. Based on the results from this drill program, Suug and Zost gold prospects are classified as low sulphidation epithermal type, related to hot springs, of probable Mesozoic age. Tubular algal filamentous textures and sinter surfaces are identified at Zost and Suug. Carbonate pseudomorphs indicative of boiling, occur at <20 m below the sinter. An extensive silica cap (4.3km long and up to 0.5km wide), comprising of heterolithic collapse breccia (after limestone) and probable eruption breccia occurs at Zost. Alteration mapping confirms that the alteration systems are high level and close to the paleo-surface. Consequently the main exploration is for high-grade gold in quartz-adularia veins at depth.



**Figure 9:** Section 4754800mN at the Suug Project, showing the completed drill hole (11SUDH-001). Upper image is chargeability and lower image is resistivity.

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## **Administration**

Currently Xanadu has an experienced team of 24 staff operating from its office in Ulaanbaatar including a team from Noble. The team, led by its Chief Geologist and Country Manager, Dr Andrew Stewart, is continually assessing a range of coal and copper/gold opportunities.

During the quarter, safety remained a prime issue for the company and its staff in Mongolia; towards this end a dedicated health and safety officer was appointed to oversee and implement a range of safe workplace procedures and practices to ensure the health and well-being of all staff at their respective workplaces. We are pleased to advise there were no lost time safety issues during the quarter.

For further information:

Brian Thornton	or	Andrew Stewart
Chairman		Country Manager
+61 411 366 668 or		+976 99999211
Email: <a href="mailto:info@xanadumines.com">info@xanadumines.com</a>		

## **Competent Person Statement**

*Information on the Company's exploration results is sourced from information compiled by Mr. Rod Williams. Mr. Williams is an employee of Xanadu Mines and is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience in the areas being reported on to qualify as the "Competent Person" as defined in the 2004 Edition of the "Australasian Code for the Reporting of Mineral Resources and Reserves". Mr. Williams consents to the information in the form and context in which it appears.*

*The information in this announcement that relates to the mineral resources only at Galsbar is based on information evaluated by Charles Parbury who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Parbury is a fulltime employee of McElroy Bryan Geological Services Pty Ltd. Mr Parbury is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Report of Exploration Results, Mineral Resources and Ore Reserves' (The JORC Code). Mr Parbury consents to the inclusion in the announcement of the matters based on his information regarding only the Galsbar resource in the form and context in which it appears.*

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## Appendix 5B

### Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001, 01/06/10.

Name of entity

**XANADU MINES LTD**

ABN

92 114 249 026

Quarter ended ("current quarter")

31 December 2011

#### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (6 months) \$A'000
1.1 Receipts from product sales and related debtors	2	5
1.2 Payments for (a) exploration & evaluation	(1,614)	(2,700)
(b) development	-	-
(c) production	-	-
(d) administration	(519)	(954)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	91	287
1.5 Interest and other costs of finance paid	-	-
1.6 R&D Tax Offset	-	-
1.7 Other (provide details if material)	-	-
<b>Net Operating Cash Flows</b>	<b>(2,040)</b>	<b>(3,362)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	(7)	(15)
1.9 Proceeds from sale of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	-	-
1.10 Loans to other entities	(721)	(1,491)
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)		
(a) Proceeds from disposal of controlled entity	-	-
(b) Cash on hand upon purchase of controlled entity	-	-
<b>Net investing cash flows</b>	<b>(728)</b>	<b>(1,506)</b>
<b>Total operating and investing cash flows (carried forward)</b>	<b>(2,768)</b>	<b>(4,868)</b>
1.13		

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(2,768)	(4,868)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
	<b>Net financing cash flows</b>	-	-
	<b>Net increase (decrease) in cash held</b>	(2,768)	(4,868)
1.20	Cash at beginning of quarter/year to date	22,417	23,586
1.21	Exchange rate adjustments to item 1.20	(395)	536
1.22	<b>Cash at end of quarter</b>	19,254	19,254

**Payments to directors of the entity and associates of the directors**  
**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	279
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Payment of Director's fees and salaries

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Not Applicable.

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Not Applicable.

+ See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	Nil	Nil
3.2 Credit standby arrangements	Nil	Nil

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	1,680
4.2 Development	-
4.3 Production	-
4.4 Administration	432
<b>Total</b>	<b>2,112</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	11,254	17,417
5.2 Deposits at call	8,000	5,000
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>	<b>19,254</b>	<b>22,417</b>

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter	
6.1	Interests in mining tenements relinquished, reduced or lapsed	Nil			
6.2	Interests in mining tenements acquired or increased	15142X	Purchased by the Noble-Xanadu JV. Xanadu effective ownership 50%.	Nil	50%

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**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference securities</b> <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	186,989,835	135,550,079		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5 <b>+Convertible debt securities</b> <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 <b>Options</b> <i>(description and conversion factor)</i>	14,000,000 5,240,000 1,000,000 1,000,000 1,000,000 1,000,000 1,000,000		<u>Exercise price</u> \$0.50 \$0.50 \$0.60 \$1.20 \$1.80 \$0.70 \$1.00	<u>Expiry date</u> 31/12/2014 19/12/2014 30/06/2016 30/06/2016 30/06/2016 31/12/2014 31/12/2014
7.8 Issued during quarter	1,000,000 1,000,000		\$0.70 \$1.00	31/12/2014 31/12/2014
7.9 Exercised during quarter				
7.10 Expired during quarter				

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7.11	Debtures (totals only)			
7.12	Unsecured notes (totals only)			

### Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here: ..... Date: 27 January 2012  
Company Secretary

Print name: Brendan Evans

### Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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