

A Mongolian Exploration & Resource Development Company

## **Forward Looking Statements & Disclaimer**



#### Information Not A Recommendation

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Exploration targets are conceptual in nature there not having been sufficient exploration to define a Mineral Resource, and that it is uncertain if further exploration will result in the determination of a Mineral Resource

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.

### **Overview**



#### Xanadu Mines Ltd (ASX:XAM): a Mongolian Exploration & Resource Development Company

- Listed on the ASX in December 2010 following a successful capital raising of AU\$24 million.
- Focused on building shareholder value via development of its energy and metals projects.

#### A next generation mineral & energy play in a next generation minerals region

- Portfolio of advanced coal, copper and gold projects.
- Aggressively targeting new opportunities close to markets and infrastructure.
- Strategic alliance with Noble Group to explore for and develop coking coal, iron ore and ferro alloys.

#### A Mongolian & Australian Partnership

• Operating in Mongolia for more than five years with strong local expertise and presence.

#### **Experienced Board & Management**

• Over 70 years of geological experience in Mongolia; established network of government relationships.

#### Recent success in our coal exploration program

 JORC code coal resource and exploration targets of 327mt and 200mt respectively (refer Xanadu Prospectus November 2010 pages 11-13).

## **Mongolia Highlights**



#### Mongolia - An emerging resources powerhouse

- Mongolia significantly de-risked following ratification of the Oyu Tolgoi Cu-AU IA in March 2010.
- Major international mining companies are currently investing significant sums in Mongolia.
- The country is highly prospective for coal, copper, gold, iron ore and uranium.
- Mongolia has a strong comparative advantage in the supply of energy and minerals to China.

#### Mongolia is a significant emerging met & thermal coal producer

- Has vast coal resources distributed across more than 200 deposits in 12-15 coal basins.
- Mongolia's coal resources are more than 150Bt.
- Recoverable reserves 10-12Bt. (2Bt coking coal; 10Bt thermal coal).

#### **Increasing coal production and exports**

- Annual coal production from Mongolia was approximately 13.2Mt in 2009 (~7.3Mt of exports, mostly to China).
- Coal production and exports can grow significantly.

## **Company Overview - Corporate**



#### **Capital Structure (ASX:XAM)**

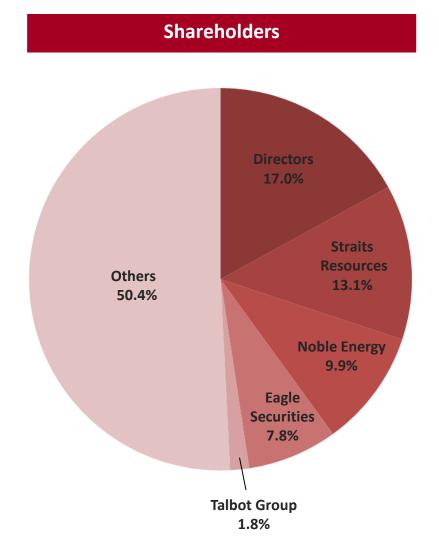
Shares on Issue 187 m

Options 19 m

Net Cash (AUD) \$28 m

Share Price \$0.55

Market Capitalisation \$103 m



## **Xanadu Projects**

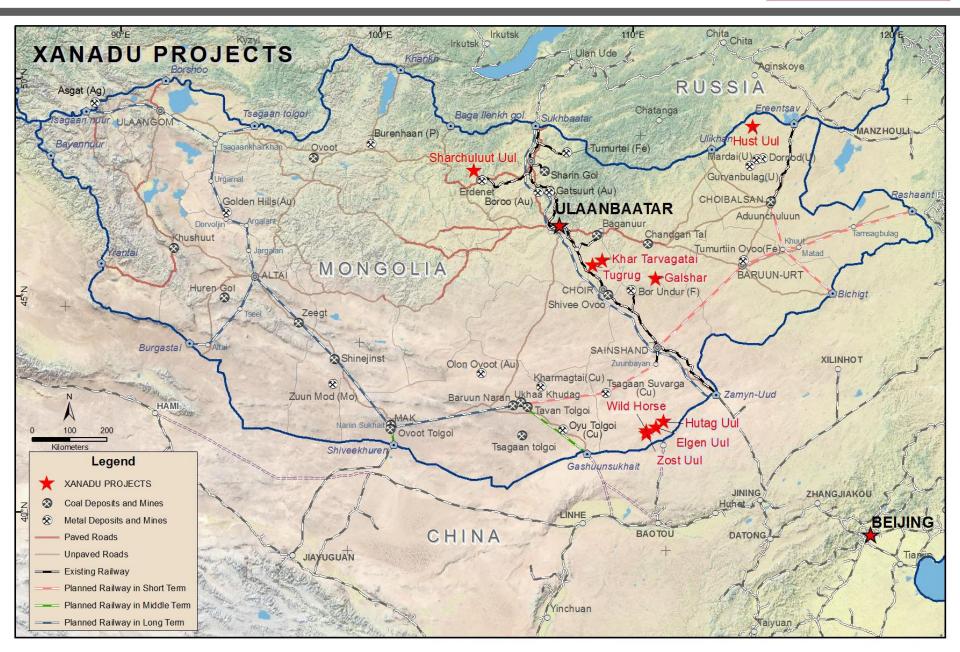


#### Multi Commodity Exploration Program covering approx 3000 km2

PROJECT	ТҮРЕ	STAGE	XAM OWNERSHIP	RESOURCES	
Khar Tarvaga	Coal (thermal)	Prefeasibility, Mining licence application	100%	327mt	
Galshar	Coal (thermal)	Exploration & scoping study	100%	200mt*	
Wild Horse	Coal (thermal)	Exploration	100%	-	
Tugrug	Coal (thermal)	Exploration	100%	-	
Sharchuluut Uul	Copper, gold & molybdenum	Exploration	100%		
Hutag Uul	Copper & gold	Exploration	100%	-	
Elgen &Zos Uul	Gold & silver	Exploration	80% farm-in JV Altan Xanadu -		
Hust Uul	Gold	Exploration	100%	-	
*Exploration targets are not currently to JORC code standard; details see Xanadu Prospectus Nov 2010 pps 11-13					

## **Xanadu Energy & Metals Projects**





## **Coal Strategy**



#### Explore, acquire and develop thermal & met coal projects

- Located within a 100-km-wide corridor of the trans Mongolian railway and near China border.
- Target projects with potential to produce @ 1-2 Mtpa for a 10-15 year mine life.
- Increasing global demand for thermal coal for power generation and CTL.

#### **Target Mesozoic Sub-Bituminous Coal**

Target areas of significant known coal resources.

#### **Fast track Projects into development**

Export coal into the growing energy markets of China, Japan & Korea via Noble Alliance.



## **Galshar Thermal Coal Project**



#### **Strategic location**

- Dornogovi Province in Eastern Mongolia 250 km SE of Ulaanbaatar & 120 km from China.
- Rail & road infrastructure is well-developed & proximal to active coal & fluorite mines.
- Approximately 65 km from the nearest railroad spur at the fluorite mine at Bor Undor.

#### **Exploration project comprises 6 licences**

Total area 342.2 km² (34,319 ha).

#### **Cretaceous Choir-Nyalga Coal Basin**

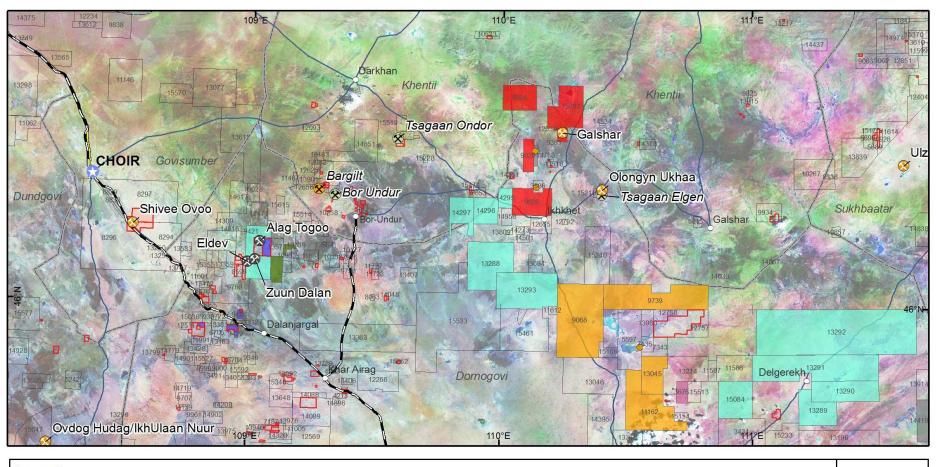
- Upper Jurassic to Lower Cretaceous sedimentary rocks.
- Mesozoic Continental extension.

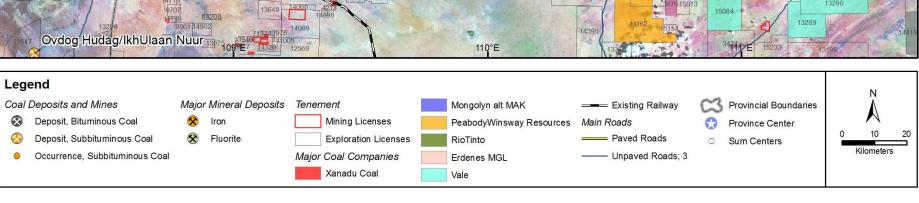
#### **Exploration drilling to date has identified a deposit**

- Completed 49 holes for almost 10,000m to date in 2011.
- Confirms thick coal intersections of low ash sub-bituminous coal.
- Potential exploration target of 175 225 Mt (see Xanadu Prospectus Nov 2010 pps 11-13).

## **Galshar Thermal Coal Project**







## **Future Outlook**



#### **Current Work Program**

- Scoping study and JORC resource code confirmation underway.
- The deposit is amenable to open cut mining methods and could supply coal to a mine mouth power station and/or the domestic coal market.
- Upgrading the coal via a moisture extraction process would produce a high energy, low ash thermal coal for the export market.
- Further drilling expected to increase the exploration target at Galshar.



## **Khar Tarvaga Thermal Coal Project**



#### **Strategic location**

- Tov Province in Eastern Mongolia 150 km South East of Ulaanbaatar.
- Rail & road infrastructure is well-developed & proximal to active coal operations.
- Approximately 45km from the trans-Mongolian railway.

#### **Exploration project comprises 1 licence**

Total area 170 km² (16,899 ha).

#### **Cretaceous Choir-Nyalga Coal Basin**

Lower Cretaceous sedimentary rocks formed during Mesozoic continental extension.

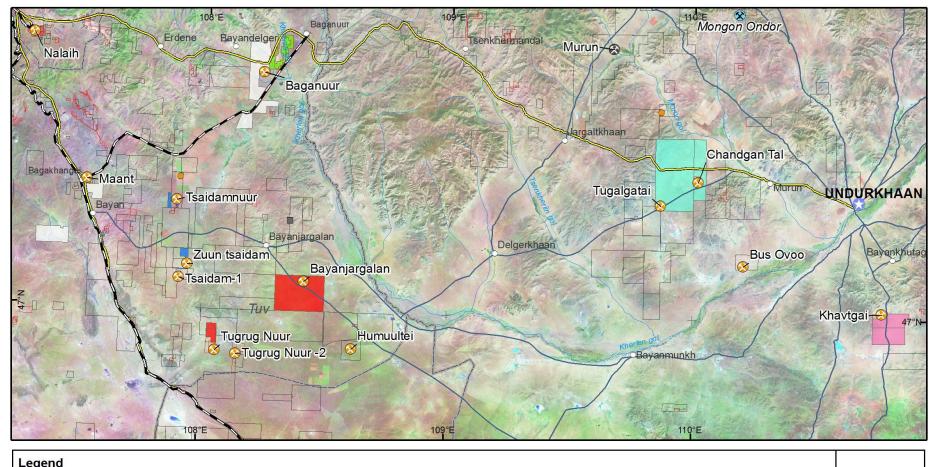
#### **Khar Tarvaga Coal Geology**

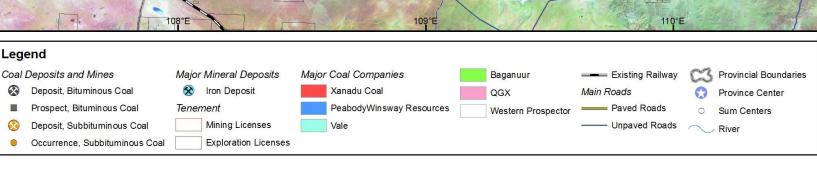
- Two gently dipping seams.
- Exploration drilling to date has identified a significant thermal coal deposit.
- SRK estimates a total coal resources to JORC standard of 327 million tonnes\*.
- Scoping study by Nexant Inc (Nexant) confirmed that coal is suited to coal to liquids or gasification.
- \* See Xanadu Prospectus November 2010 pages 11-13.

## **Khar Tarvaga Thermal Coal Project**



Kilometers





## Wild Horse Exploration Project



#### Strategic location close to the Chinese border

- Dornogovi Province of south eastern Mongolia, approximately 660 km SSE of Ulaanbaatar.
- Approximately 40km north of Chinese Border.

#### **Exploration project comprises 1 licence**

Total area of 131 km² (13,100 ha).

#### **Highly prospective Exploration Block**

- Rio Tinto's previous drilling provided 'proof of concept' that the basin contains coal.
- Wild Horse is a promising early-stage project with potential for discovery of high-quality thermal coal deposits.
- Potential exists for coking coal in Permian stratigraphy.

## **Noble Group Alliance**





#### Strategic Alliance with Noble Group for Mongolia

Alliance to explore & develop coking coal, iron ore and ferro alloy opportunities in Mongolia.

#### **Ekhgoviin Chuluu LLC**

- Joint venture company established with each party holding a 50% interest.
- Existing assets held by Xanadu will not form part of the Strategic Alliance.

#### Key terms of the agreement

- Placement of ordinary shares to Noble of up to 9,688,367 shares at 69.89c (totalling \$6,771,200).
- Noble's equity interest in Xanadu is 9.9% (Top up rights).
- Funds from the placement will be applied exclusively to the exploration & development of projects.
  - Experienced JV partner validates XAM's exploration and project development model;
  - Funding significantly enhances XAM's position in Mongolia;
  - Increased access to markets (China & Pacific coast ports);
  - Ability to fast track project development.

## **Noble Group Alliance**





#### **Detailed Regional Project Generation & Business Development**

- Identify strategically located metallurgical coal projects and/or prospective exploration ground.
- Targeting areas of significant known coal resources.
- Focus on greenfield opportunities identified via information synthesis and geological mapping.
- Numerous advanced projects exist that fit JV strategy & can be fast tracked to development.
- 40 prospective licenses currently identified.
- 24 licenses identified as high to medium priority projects that warrant follow-up.



## **Copper-Gold Strategy**



#### **Exploration Overview**

- Exploration discovery is our key driver for value adding and for maximising shareholder returns.
- Xanadu has an aggressive exploration, acquisition and growth strategy.
- Our copper-gold & gold exploration strategy is based on exploring newly recognised mining or mineral districts (emerging belts).
- Xanadu has active exploration programs in all the key mineral belts.
- Principal targets are porphyry copper-gold, epithermal gold and sediment-hosted gold deposits.



## **Sharchuluut Uul Porphyry Cu-Au Project**



#### **Strategic location**

- Bulgan Province of Northern Mongolia, approximately 230 km NW of Ulaanbaatar.
- Approximately 40 km NW of the world-class Erdenet Cu-Mo deposit.
- Rail & road infrastructure is nearby and well-developed.

#### **Exploration project comprises 1 licence**

Total area 488 km² and remains relatively unexplored.

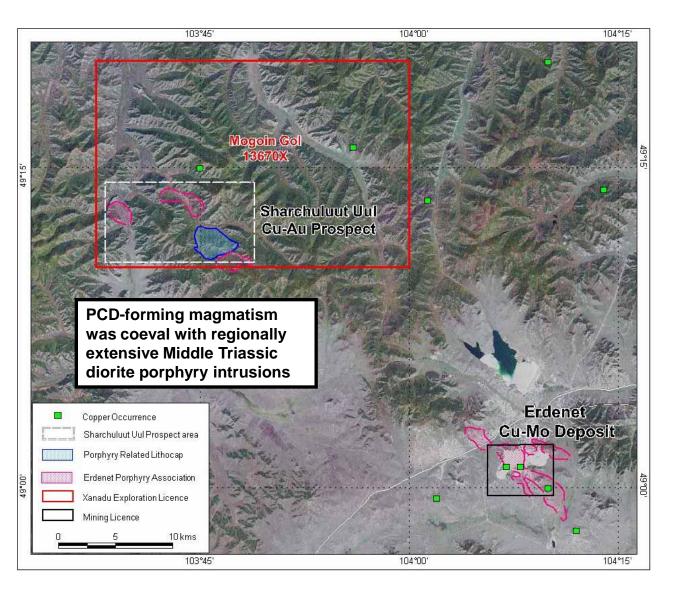
#### **Erdenet Cu-Mo Deposit**

- Operated by Erdenet Mining Corporation (Mongolian-Russian Joint Venture).
- 2.370 Mt @ 0.38% Cu & 0.013% Mo; annual production 20 25 Mt @ 0.65% Cu



## **Sharchuluut Uul Porphyry Cu-Au Project**





## Porphyry advanced argillic Lithocap

- Large area of AA
   alteration > 7 square
   km.
- Zoned alteration zone.
- Presence of andalusite indicate deep level of erosion.

#### **Lithocap Geochemistry**

- Highly anomalous Cu (up to 0.42%).
- Elevated Mo, Au, Ag, Ba.
- The lithocap shows indications of highsulphidation Cu mineralisation.

## **Hutag Uul Porphyry Cu-Au Project**



#### **Large Exploration License**

- Dornogovi Province of south eastern Mongolia, approximately 660 km SSE of Ulaanbaatar.
- Approximately 200 km east of the world-class Oyu Tolgoi Cu-Au deposit.

#### **Exploration project comprises 1 licence**

Total area 1109.44 km² and remains relatively unexplored.

#### **Regional Geology**

- Late Devonian-Early Carboniferous South Gobi Belt.
- Hosts the Oyu Tolgoi copper-gold porphyry, the Kharmagtai copper-gold porphyry, and the Tsagaan
   Suvarga copper-molybdenum porphyry deposits.

#### **Nogtot Prospect**

- Porphyry Cu-Au related mineralisation over a strike length of 3km DDH0207 intersected 33.40m @ 0.67 % Cu, 0.03 ppm Au & 1,191 ppm Zn (from 310.60m);
   DDH0307:intersected 31.20m @ 1.09% Cu, 0.04 ppm Au & 738 ppm Zn (from 448.80).
- Initial results are very promising for porphyry Cu-Au related mineralisation.

## **Solenker Epithermal Gold District**



#### **Strategic location**

Dornogovi Province of south eastern Mongolia, approximately 680 km SSE of Ulaanbaatar & 30 km from Chinese border.

#### **Altan Xanadu Joint Venture**

• Xanadu farm-in on the Elgen Uul-Zos Uul project to earn up to 80%.

#### **Large License holding**

- All significant regional Landsat & geochemical anomalies held by Xanadu.
- 5 exploration licenses covering an excess of 400 km<sup>2</sup>.

#### **Regional Geology**

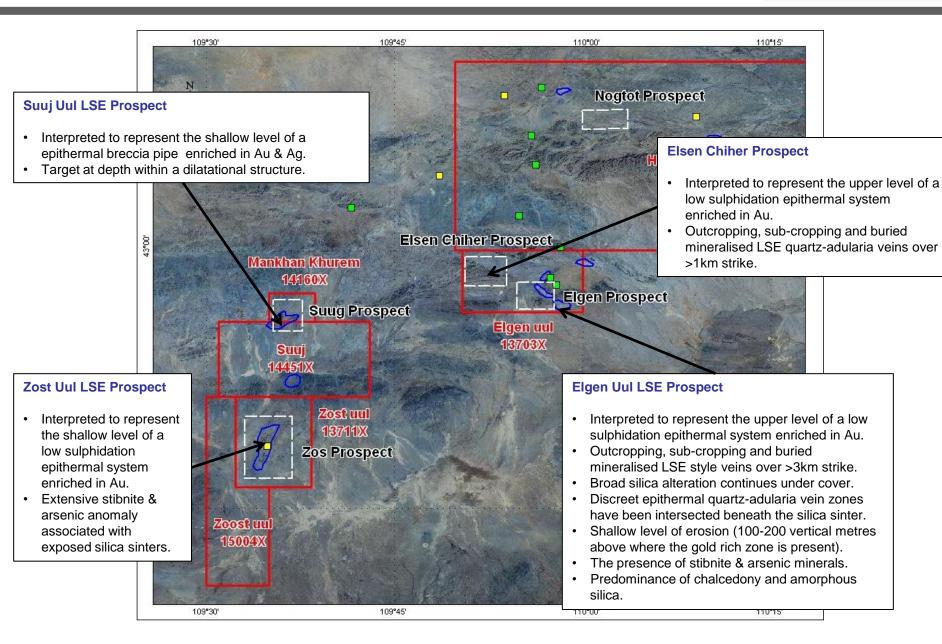
- Mesozoic Continental extension.
- Upper Jurassic to Lower Cretaceous bimodal volcanism associated with extension.

#### **Numerous High Priority Low Sulphidation Epithermal Prospects**

- Walk-up drill targets & several untested LSE systems.
- Shallow level of erosion (100-200 vertical metres above where the gold rich (boiling) zone is present).

## **Solenker Epithermal Gold District**





## **Coal Resources Valuations**



April 2011

Company	Coal Resources* (Mt)	Market Cap AUD m	Enterprise Value/tonne USD/t
SouthGobi Energy Resources	536	2,542	4.16
Aspire Mining	330	464	1.98
Hunnu Coal	414	373	0.79
Xanadu Mines	327	107	0.24

US\$108 converts to AUD\$

<sup>\*</sup>Coal resources include measured, indicated and inferred to JORC and or NI43-101

## **Investment Highlights**



#### A next generation minerals play in a next generation minerals region

- Pursuing coal and copper/gold opportunities in Mongolia with significant early mover advantage.
- Significant JORC coal resources identified; highly prospective exploration licences.

#### Mongolia an emerging resources powerhouse due to prospectivity and location

- Major international mining companies, currently investing significantly in Mongolia including Rio Tinto, Vale, Peabody, Xstrata and Areva.
- Mongolia is highly prospective for coal, copper, gold, iron ore and uranium; all in big demand.

#### **Direct rail access to China**

- All projects are strategically located near the Trans Mongolian rail line with excellent access to China and broader Asia.
- China will be targeted as preferred export destination with assistance via the Noble alliance.

#### Local expertise and presence

- Operating in Mongolia for more than five years; 20 national support staff in Ulaanbaatar.
- Former Mongolian exploration manager for Vale Andrew Stewart now Xanadu's Mongolian
   Manager and chief geologist.

## **Xanadu Mines**

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# MONGOLIA The big tomorrow of mining



Xanadu's mascot "marmot khan" who made the original discovery hole of the coal resource at Khar Tarvaga in August 2006