

ASPIRE MINING LIMITED



# OVOOT COKING COAL PROJECT (“OCCP”)

WORLD CLASS PROJECT PROVIDING  
BEST IN CLASS ESG OUTCOMES

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AGM PRESENTATION

NOVEMBER 2021

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Assumptions have been made by the Company regarding, among other things: the price of coking coal, the timely receipt of required governmental approvals, the accuracy of capital and operating cost estimates, the completion of a feasibility study for the Ovoot Coking Coal Project on its exploration and development activities, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used by the Company.

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### Competent Person Statements – Ovoot Early Development Project (OEDP)

The technical information contained in this presentation in relation to the JORC Code (2012) compliant Ore Reserves and JORC compliant Mineral Resources for the Ovoot Early Development Project is reported in the Company's ASX announcement dated 11 November 2019.

The Company is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the estimates in the ASX Announcement continue to apply and have not materially changed.

### Competent Person Statements - Ovoot Coking Coal Project (OCCP)

The technical information contained in this presentation in relation to the JORC Code (2012) compliant Ore Reserves and JORC compliant Mineral Resources for the Ovoot Coking Coal Project is reported in the Company's December 2013 Quarterly Activities Report released to ASX on 31 January 2014.

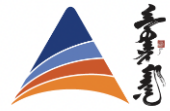
The Company is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the estimates in the ASX Announcement continue to apply and have not materially changed.

### Competent Persons Statement – Nuurstei Coking Coal Project

The technical information contained in this presentation in relation to the JORC Code (2012) compliant Ore Reserves and JORC compliant Mineral Resources for the Nuurstei Coking Coal Project is reported in the Company's ASX Announcement dated 13 April 2016.

The Company is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

# OUR COMPANY AIM: **RESPECT**



**Aspire** aims to be a positive force for improving the lives and the environment in which it operates through:

- ▲ **Respecting** the environment and investing in sustainable energy sources for a secure future.
- ▲ **Respect** the local culture and support initiatives to enable herders to maintain their lifestyle.
- ▲ **Respect** the land and water and seek to mitigate impacts at all levels of the Company's activities.
- ▲ **Respect** the people of the region through providing meaningful employment, education and training and improving their health and well being.
- ▲ **Respect** the local laws and regulations and seek to exceed these as a minimum standard.



# ASSET OVERVIEW AND LOCATIONS



## Key Information

OVOOT	<b>Ownership:</b>	<ul style="list-style-type: none"> <li>Aspire (100%)</li> </ul>
	<b>Commodity:</b>	<ul style="list-style-type: none"> <li>Premium "Fat" Coking Coal</li> </ul>
	<b>Mine Type:</b>	<ul style="list-style-type: none"> <li>Open Pit</li> </ul>
	<b>JORC Reserves &amp; Resources<sup>1</sup>:</b>	<ul style="list-style-type: none"> <li>Reserves: 255Mt</li> <li>Resources: 281Mt</li> </ul>
	<b>Tenement Area:</b>	<ul style="list-style-type: none"> <li>51.4km<sup>2</sup> tenement position</li> <li>30 Year Mining Licence granted August 2012</li> </ul>
	<b>Status:</b>	<ul style="list-style-type: none"> <li>PFS completed for a trucking based solution to Erdenet via the Ovoot Early Development Plan (OEDP).</li> <li>Front End Engineering for DFS underway</li> </ul>
	<b>Cash :</b>	<ul style="list-style-type: none"> <li>A\$34m in cash. No Debt</li> </ul>



## JORC Reserves<sup>1</sup> (Mt)

Reserves			
Deposit	Proven	Probable	Reserves
Ovoot Open Pit	-	247.0	247.0
Ovoot Underground	-	8.0	8.0
<b>Total</b>	<b>-</b>	<b>255.0</b>	<b>255.0</b>
<b>Ovoot Early Development Project</b>		<b>53.8</b>	<b>53.8</b>

## JORC Resources<sup>1</sup> (Mt)

Resources				
Deposit	Measured	Indicated	Inferred	Total
Ovoot Open Pit	197.0	46.9	9.2	253.1
Ovoot Underground	-	25.4	2.6	27.9
Nuurstei	-	4.7	8.2	12.9
<b>Total</b>	<b>197.0</b>	<b>77.0</b>	<b>20.0</b>	<b>294.0</b>

1. See slide 2 and ASX Announcements dated 31 July 2013 and 31 January 2014 (December 2013 Quarterly Activities Report) in relation to the Ovoot Project Reserves and Resources.  
 2. See slide 2 and ASX Announcement dated 13 April 2016 in relation the Nuurstei Project Resource.

# OCCP: PATH TO PRODUCTION

- ▶ The OCCP is based on trucking coal to the nearest railhead at Erdenet
- ▶ Aspire intends to mine and wash “*fat coal*” and transport it 560km from the mine-site by road to Erdenet
  - Aspire to build a special purpose road to transport washed coking coal to Erdenet
  - The coal will then be transported a further ~1,000km by rail wagons to Erlian in Northern China
- ▶ Aspire is targeting markets with majority of its fat coking coal being marketed and sold to steel customers located in China and Russia
- ▶ PFS revised in November 2019 to reflect updated mining and logistics costs and a revised mine schedule
  - Updated PFS economics of NPV<sub>10</sub> (pre tax) US\$878m and IRR (pre tax) of 49.4%

Source: Refer to ASX Announcement dated 11 November 2019 in relation to the OEDP PFS

Physicals	Unit	Amount
Waste Mined	M Bcm	253
Strip Ratio (incl. pre-strip)	Bcm/t	4.7
Coal Mined	Mt	53.8
Average Yield (10% Moisture)	%	85
Coal Sold (net of 2% loss)	Mt	44.7

Operating Expenditure	Unit	Amount
Mining	US\$/t	26
Trucking	US\$/t	32
Rail + Border Charges	US\$/t	18
<b>C1 Cash Costs</b>	<b>US\$/t</b>	<b>76</b>
Total Cash Costs	US\$/t	97
Sustaining Capital Expenditure	US\$M p.a.	3.0

Capital Expenditure	Amount (US\$M)
CHPP Plant	37
Onsite Infrastructure	10
Offsite Terminals and Blending Facility	16
<b>Mine Processing &amp; Infrastructure</b>	<b>63</b>
Waste pre-stripping	31
<b>Total Mine Capital</b>	<b>94</b>
Road	165
<b>Total Capital Expenditure</b>	<b>259</b>

# PLANNING FOR AN INVESTMENT DECISION IN 2022



## ▲ Development Delayed During Permitting Process

- COVID delayed the holding of local community engagement meetings
- These have now been held with strong local community support
- Definitive Environmental Impact Assessment now with the Ministry of Environment for approval

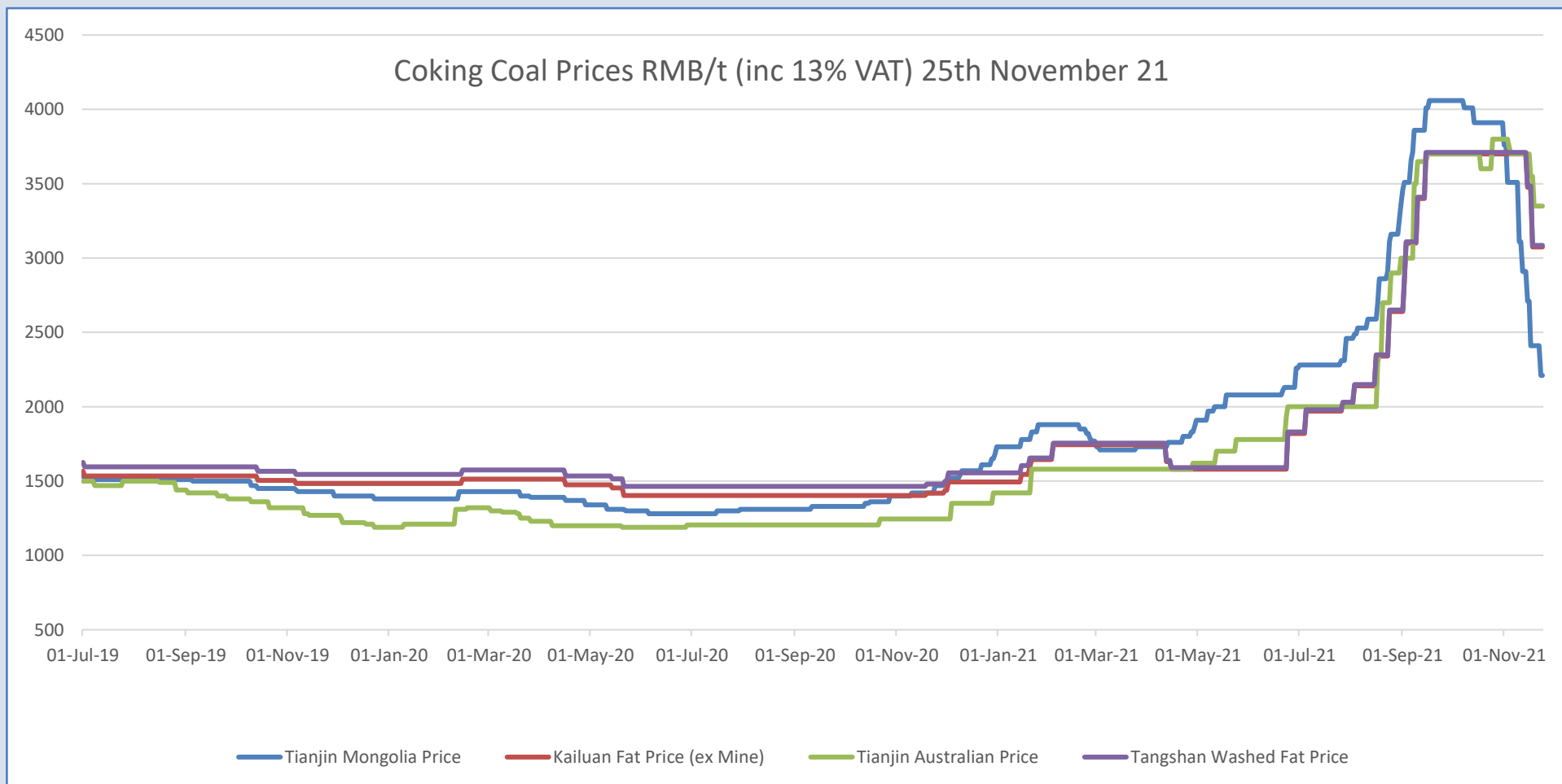
## ▲ Road Detailed Engineering progressing to be completed 2<sup>nd</sup> Quarter 2022

- Route Geotech survey completed
- Road design matched to optimal truck/trailer configurations
- Road Concession negotiations commenced

## ▲ Argonaut PCF Appointed debt and corporate advisers

- To identify debt and quasi debt funding options

# PRICING CYCLE SUPPORTIVE OF **NEW MINE FUNDING**

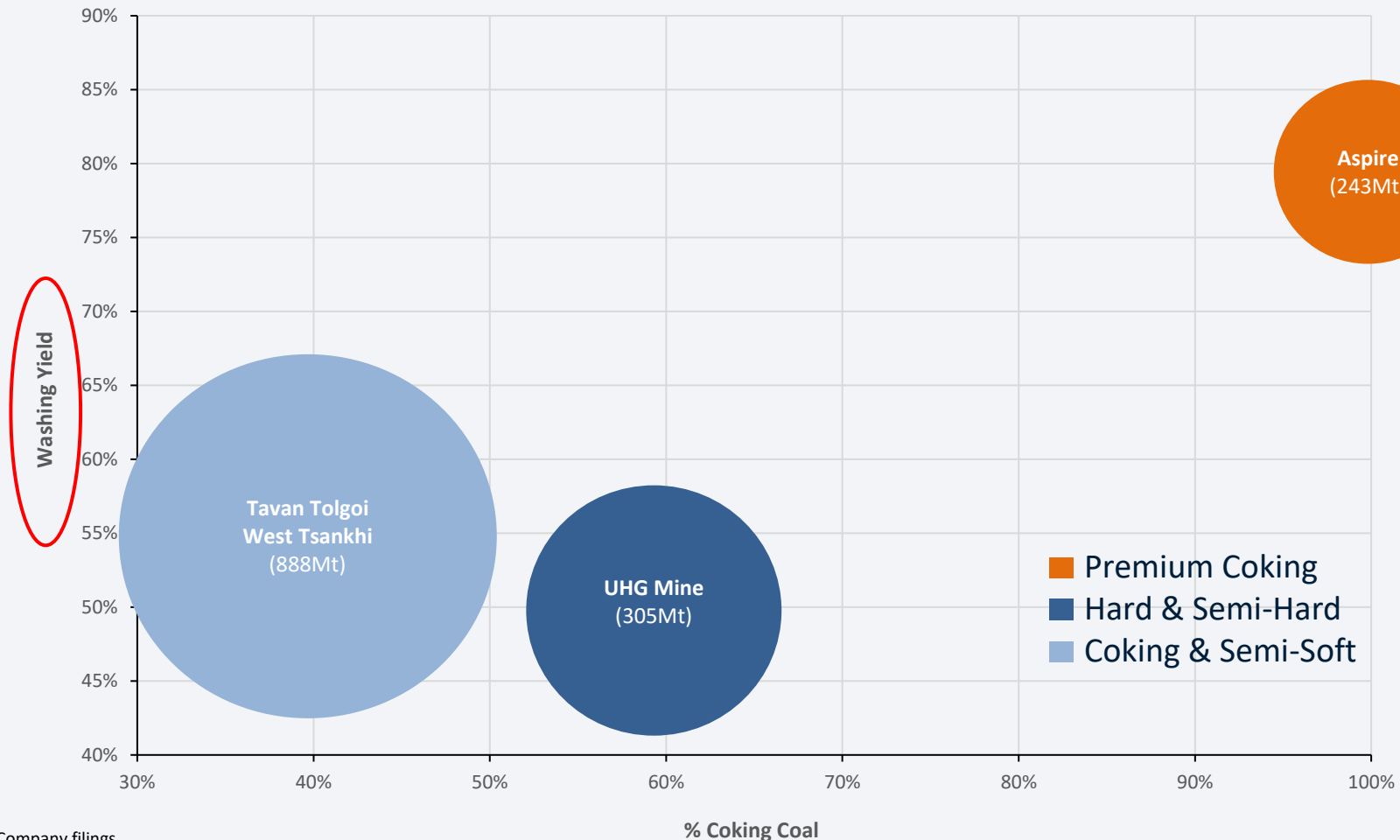




# EXCEPTIONAL DEPOSIT: **HIGH WASHING YIELD & % COKING**

= **HIGHEST** IN-SITU VALUE PER TONNE & LOWEST STRIP RATIO

= **LOWEST** MINE DIESEL CONSUMPTION/TONNE PRODUCT (Scope 1)



Source: Company filings

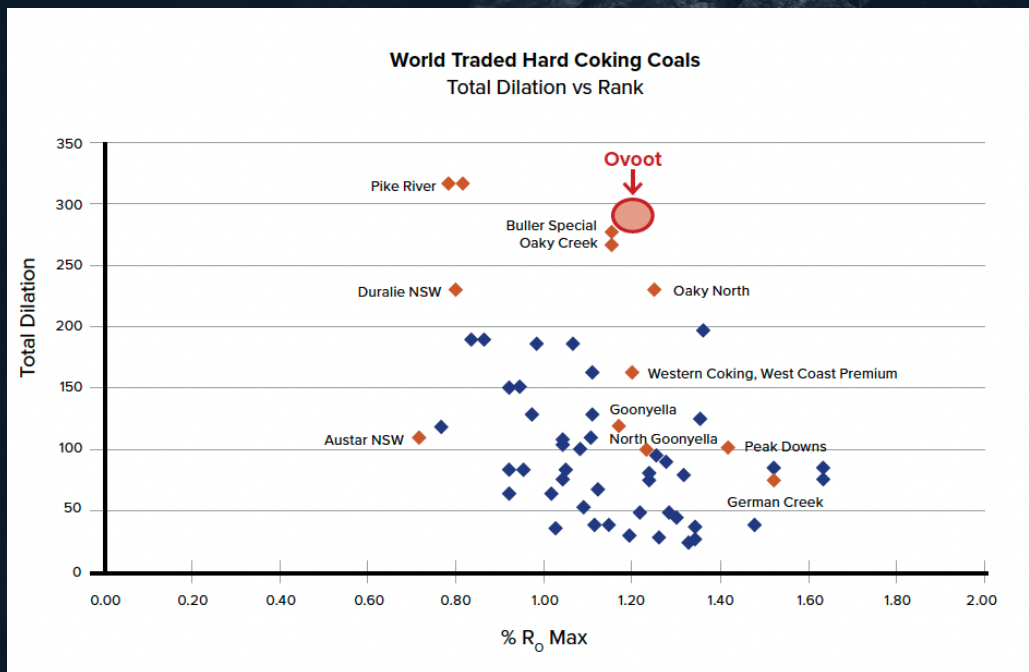
Note: Size of bubble indicates size of total Reserves

# VOLATIVE MATTER: RANK vs DILATION

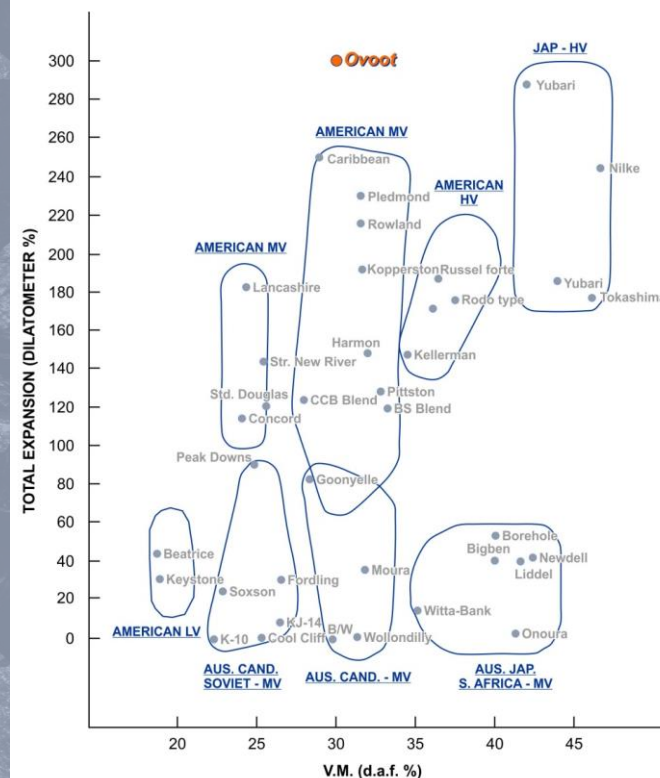


Ovoot coal is a rare mid-volatile coal with:

- ▶ a rank (%  $R_o$  Max) in the hard coking coal range
- ▶ >95% vitrinite content
- ▶ exceptional dilatation (+260%), a significant contributor to coke strength



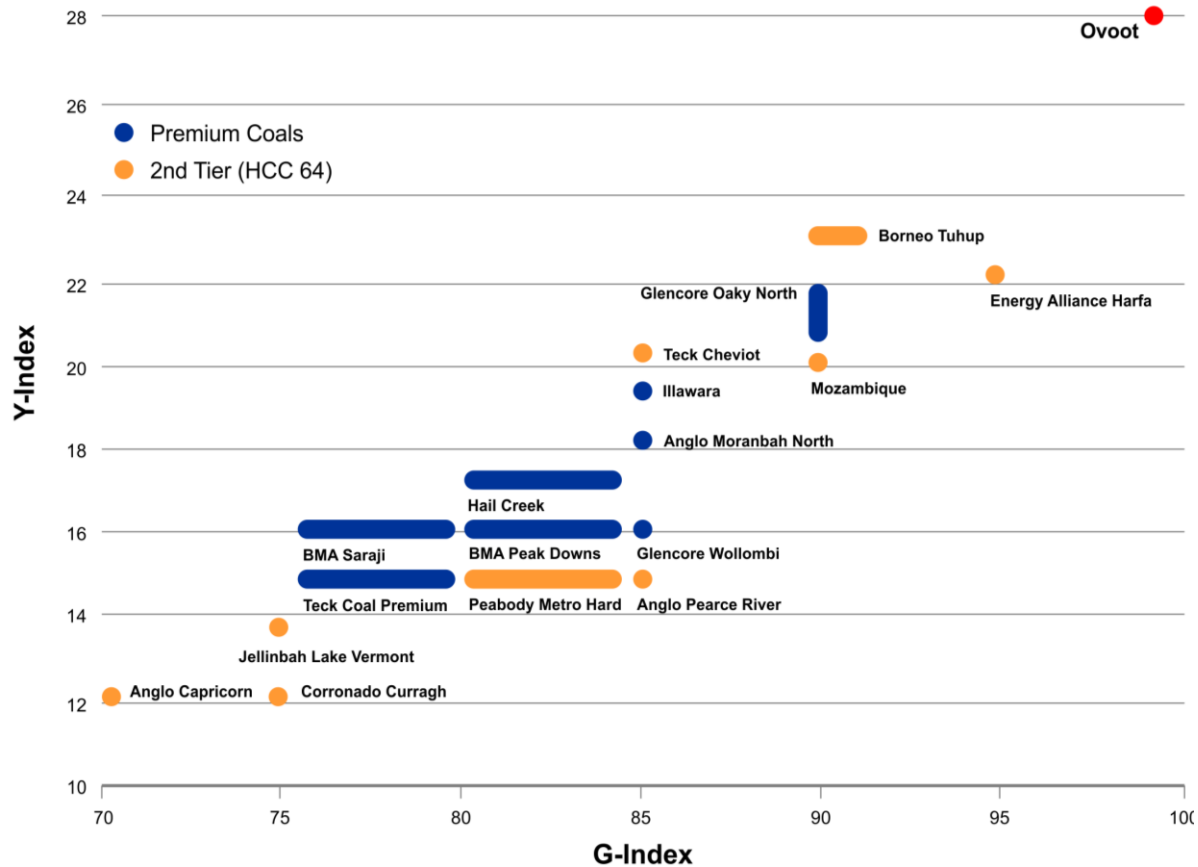
Ovoot is the highest **dilatation** in the mid-vol range



Source: Mongolian Mining Corp. Hong Kong Listing Prospectus 28 September 2010

Source: Independent Technical Review of the UHG Coal Project dated 28 September 2010, and Aspire data.

# OVOOT HAS WORLD LEADING **CAKING & PLASTIC PROPERTIES**



Ovoot coal is **best in class caking and plastic properties** creating superior blending and coking efficiencies.

# FAT COKING COAL IMPROVES COKE AND BLAST FURNACE EFFICIENCIES



## For Coke Ovens

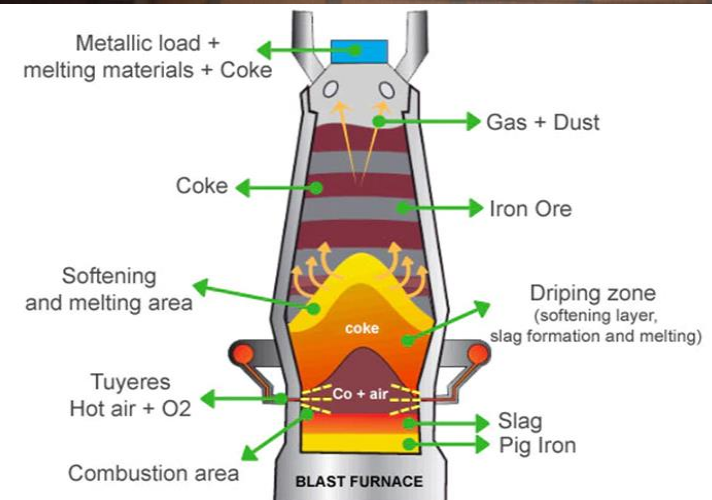
- ▶ The exceptional plastic properties of Ovoot coal will see it used sparingly as a key component in coke oven blends (5-10%).
- ▶ In pilot coke oven testing, Ovoot coal showed that it can “carry” significant amounts of inert material (recycled coke breeze) without detrimental impact on coke strength.

## For Blast Furnaces

- ▶ Effective use of Fat Coking Coal in a batch improves yield and efficiency of the coke oven process, reducing emissions and improving coke strength. (Scope 3 emissions).
- ▶ Larger and more efficient blast furnaces require stronger cokes with good mechanical properties to provide an efficient reduction process within the softening area.



*Coke Oven Slots*



# RENEWABLE POWERED ELECTRIFICATION INITIATIVES TO REDUCE EMISSIONS



## Mine Power Systems

- ▶ The Ovoot DFS will incorporate minesite power solutions focusing on wind and solar along with battery storage.
- ▶ On site wind monitoring to commence.
- ▶ Since the PFS power options study was completed in late 2018 there has been significant advances in capital costs for renewable power and storage which makes reliance on off grid solutions more feasible.

## Reducing Transport Emissions

- ▶ Approximately 75% of the transport distance for Ovoot Coking Coal to end markets in Hebei is on rail with diesel consumption of approximately 0.4 litres per 100kms per tonne. Truck based transport has 3 times the emissions per tonne transported.
- ▶ Trucking fuel consumption is around 1 – 1.2 litres per 100 kms per tonne of coal.
  - The trucking distance from the mine to the Erdenet Rail Terminal is + 560 kms.
  - Aspire has entered into a discussion with Hyzon Motors regarding the use of a 400hp equivalent fuel cell electric vehicle that can use hydrogen produced from renewable power on site. Initial comparisons to existing ICE options look attractive.



# SUSTAINABLE DEVELOPMENT **AND THE COMMUNITY**



Our sustainable development strategy and programs are in harmony with the following strategic documents that are enforced in Mongolia:

- ▶ UN Sustainable Development Goals (SDGs) 2030
- ▶ Mongolia Sustainable Development Principles 2030 and Vision 2050
- ▶ Company Sustainable Development Strategy (2020) available on web site.



Fodder cropping over 200 ha to assist with local livestock and growth of dairy and meat industries.



Supporting local sporting clubs



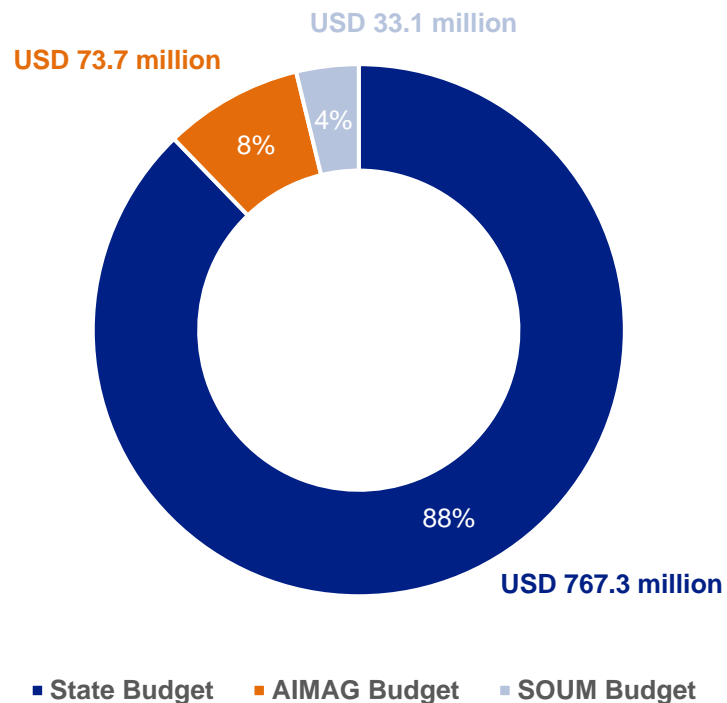
Health care initiatives such as sponsoring a mobile pediatric cardiac clinic in the local community

# SOCIAL LOCAL **COMMUNITY BENEFITS**



**Significant benefits** can be extracted from the Ovoot project over **the first ten years of operations**<sup>1</sup>

## Breakdown of taxes and fees to be paid (USD)



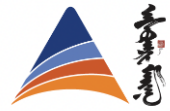
Exchange rates applied – USD:MNT= 2,627.

Note 1 : Based on OEDP PFS : Refer to ASX Announcement dated 11 November 2019

## Local Economy Growth

- ▶ The Ovoot Project is estimated to provide up to **1,200** direct and indirect jobs
- ▶ A total of **USD c.259 million** to be invested into the project, injecting capital to grow the local economy
- ▶ Majority of the investment is in new road construction connecting the local community with a safe sealed road.
- ▶ Up to **USD c.767 million** will be paid in the forms of taxes and fees to state budget; while **USD c.106 million** will be accumulated in local budgets over the first ten years of operations

# LEADERSHIP IN GOVERNANCE



In June 2019 and alongside other large Mongolian Mining Company's, Aspire signed on to a voluntary charter of behavior, **Miners for Responsible Mining**.

Main commitments include:

- ▶ Following high standards of governance and transparency
- ▶ Promote internal policies for gender equality and anti-discrimination
- ▶ Occupational Health and Safety
- ▶ Environmental protection
- ▶ Supporting local community development



# POLICIES AND A **CULTURE OF TRANSPARENCY**



Policy commitments consistent with UN charters and ASX rules and guidelines

## **Board Approved Policies:**

- ▶ Anti Corruption and bribery
- ▶ Whistleblower Protection
- ▶ Diversity
- ▶ Community Engagement
- ▶ Environment and Sustainability





## ENVIRONMENT

- ▶ Using world class coal processing technologies to minimize water and power usage.
- ▶ Fat coal reduces Scope 3 emissions.
- ▶ European low emissions truck transport.
- ▶ Renewable on-site power to support operations
- ▶ Evaluating production of Green Hydrogen for mobility and eventually sale to steel producers.

## SOCIAL

- ▶ Funding infrastructure in remote communities
- ▶ Providing health and education initiatives for local communities
- ▶ Independently managed community development fund
- ▶ High paying jobs and training

## GOVERNANCE

- ▶ Member - Mongolian Alliance for Responsible Mining.
- ▶ Commitment to highest Policy Standards
  - Anti-bribery and Corruption
  - Conflicts of Interest
  - Diversity
  - Transparency



- ▶ **OCCP is the right Project among Coking Coal Developers to Proceed**
  - ❖ Robust financials and ESG outcomes
- ▶ Well-funded with A\$34m in cash and no debt.
  - Support of major shareholder Mr Tserenpuntsag to develop mine.
  - Supportive Government
- ▶ Coking Coal Market is expected to remain supply constricted with new developments in OECD jurisdictions becoming problematic.
- ▶ Ovoot Coking Coal will:
  - Be developed using renewable power and world's best processing technology to mitigate Scope 1 and 2 emissions.
  - Assist steel makers in improving productivity and reduce Scope 3 emissions
  - Provide direct and long lasting social and economic benefits for the local community

Looking to a **Decision to Mine in 2022** once permitting and funding secured.

# CONTACT DETAILS

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