Blessed by geology

Investment highlights

- Mongolia contains vast coal resources within 15 large-scale coal bearing basins. Exploration to date in Mongolia has identified more than 10Bt of coal reserves, while the Government estimates over 150Bt of resources exist within the country.

- Mongolia has just begun its emergence as one of the new mining frontiers. Coal production is set to rapidly increase over the next decade, as existing mines ramp up and new mines come on stream. Production was estimated to be 22Mt in 2010 and we expect this to quadruple by 2016. The main driver of production will be the development of the massive Tavan Tolgoi coal project. The main Tsankhi deposit initially touted to be split into a Government-owned operation (East Tsankhi) and a privately-run operation (West Tsankhi).

- Mongolia has a relatively short democratic history, located between Russia and China, the landlocked country is the sole democracy in an autocratic region. Since the country gained independence from the Soviet Union in 1990, Mongolians have embraced democratic governance that has now seen seven legislative polls. The latest election was held on June 28 2012. The Democratic Party won the most seats but it had to form a coalition with the Mongolian People’s Revolutionary Party and Mongolian National Democratic Party.

- It is likely that companies developing projects with metallurgical coal, a faster development timeline than Tavan Tolgoi and close to the Chinese boarder will provide the best value to investors. This is because it will be some time before the rail networks are developed, especially beyond linking Tavan Tolgoi. It is also difficult to estimate the impact a project the size of Tavan Tolgoi will have on global coal markets and we believe that companies in production will with established supply chains and offtake partners be in the best position to absorb the impact.

Figure 1: Listed coal companies operating in Mongolia

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
<th>Share Price</th>
<th>Market Cap</th>
<th>Cash</th>
<th>Measured &amp; Indicated</th>
<th>Total Resource</th>
<th>Coal Project</th>
<th>Source: Company reports and PSL estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mongolian Mining Corp ($US)</td>
<td>975</td>
<td>0.53</td>
<td>1,958.07</td>
<td>227.77</td>
<td></td>
<td>853</td>
<td>Ukhaa Khudag, Baruun Naran</td>
<td></td>
</tr>
<tr>
<td>SouthGobi Resources ($US)</td>
<td>1878</td>
<td>3.91</td>
<td>711.56</td>
<td>125.12</td>
<td>510.5</td>
<td>745.5</td>
<td>Ovoot Tolgoi, Soumber, Zag Suuj</td>
<td></td>
</tr>
<tr>
<td>Guildford Coal</td>
<td>GUF</td>
<td>0.35</td>
<td>164.52</td>
<td>27.24</td>
<td></td>
<td>292</td>
<td>South Gobi &amp; Middle Gobi</td>
<td></td>
</tr>
<tr>
<td>Aspire Mining</td>
<td>AKM</td>
<td>0.11</td>
<td>68.27</td>
<td>28.67</td>
<td></td>
<td>331</td>
<td>Ovoot Coal</td>
<td></td>
</tr>
<tr>
<td>Draig Resources</td>
<td>DRG</td>
<td>0.17</td>
<td>11.14</td>
<td>6.75</td>
<td></td>
<td>75</td>
<td>Teeg, Nariin &amp; South Gobi licences</td>
<td></td>
</tr>
<tr>
<td>Modun Resources</td>
<td>MOU</td>
<td>0.01</td>
<td>10.13</td>
<td>3.50</td>
<td></td>
<td>534</td>
<td>Nuurst, Tsagaan Tolgoi*</td>
<td></td>
</tr>
<tr>
<td>Xanadu Mine</td>
<td>XAM</td>
<td>0.21</td>
<td>38.62</td>
<td>15.50</td>
<td></td>
<td>170</td>
<td>Galshar, Khus, Javkhlan and Khar Servegen</td>
<td></td>
</tr>
</tbody>
</table>
Coal in Mongolia

Mongolia contains vast coal resources within 15 large-scale coal bearing basins. Exploration to date has identified more than 10Bt of coal reserves, while the Government estimates over 150Bt of resources exist within country. The predominant portion of the identified reserves is lignite in the Eastern Mongolian province and coking coal in the South Gobi basin. The largest known deposits occur in the south and they are characterised as large, close to surface and contain relatively thick seams (>10m). Major coal deposits discovered to date include Tavan Tolgoi, Ulaan-Ovoo, Tugrug nuur, Tsaidam nuur, Baga nuur, Shivee-Ovoo, and Nariin sukhait.

The main controlling factor of coal rank is the age of the coal bearing sequences. In Western Mongolian province coal deposits contain mostly high rank bituminous coal in strata from the Late Carboniferous. The basins in southern Mongolia and the western part of central Mongolia have bituminous coal in strata from the Permian. The northern and central Mongolian basins contain mainly Jurassic sub-bituminous coal, whereas the Eastern Mongolian province has Lower Cretaceous lignite.

Recent election and regulatory outlook

Mongolia has a relatively short democratic history, located between Russia and China, the landlocked country is the sole democracy in an autocratic region. Since the country gained independence from the Soviet Union in 1990, Mongolians have embraced democratic governance that has now seen seven legislative polls. However, allegations of corruption have dogged the system. Two parties emerged to dominate the political scene: the former Soviet-style Mongolian People’s Revolutionary Party (which renamed itself the Mongolian People’s Party in 2010) and the Democratic Party.

The latest election was held on June 28 2012. Voting took place using electronic voting machines for the first time, following riots after the previous election. The voting machines were set up by the Canadian company Dominion Voting Systems to report results immediately to the General Election Commission rather than any kind of tabulation by the local election officials. Of the 1.8M eligible voters, 65% turned out to vote. This is significantly less than 74% in the 2008 and 82% in 2004. This is still a remarkable turnout given 50% of the population is nomadic. However the fall in registered voters turning up to the polls is a reflection of the rising public cynicism regarding party politics. There has been widespread anxiety that the country’s vast mineral wealth might be acquired by foreign companies, or monopolized by the wealthy few. Such fears have opened the way for a populist politics that in 2008 saw the major parties competing to promise voters cash pay-outs from future mining incomes.
The broadly free-market Democratic Party won 31 of the 76 seats available in the June 28 poll, eight short of an overall majority. This caused concern that the party would be forced to make concessions to the growing number of "resource nationalists" in the country’s parliament. The Democratic Party has formed a coalition with the Mongolian People’s Revolutionary Party (MPRP) and Mongolian National Democratic Party (MNDP). Both of these minor parties campaigned on limiting foreign investment in the mining sector. The new coalition also includes the Civil Will - Green Party, which are described as more closely aligned to the main Democratic Party’s moderate stance on foreign investment.

<table>
<thead>
<tr>
<th>Party</th>
<th>Seats</th>
<th>Change from 2008 election</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic Party</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>Mongolian People’s Party</td>
<td>25</td>
<td>-20</td>
</tr>
<tr>
<td>Justice Coalition (MPRP and MNDP)</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Civil Will-Green Party</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Independents</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>To be decided in by-elections</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>76</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Registered voters/turnout**

1,833,478

65.24%

Source: General election commission of Mongolia

More than a quarter of the 76-seat parliament is now held by politicians who advocate local control of mines but the main concern surrounds the Mongolian People’s Revolutionary Party. It is a breakaway faction of the Mongolian People’s Party that is led by former president Nambaryn Enkhbayar. Enkhbayar is currently on trial for five counts of corruption stretching back to his tenure as president and earlier as prime minister. His trial has been postponed several times and it scheduled to convene again at the end of July.

In the run-up to the election, nationalist politicians introduced a law to cap foreign investment, but it was later relaxed to allow overseas firms to own more than 49% in Mongolian deposits with parliamentary approval. This law was enforced when the Mongolian government suspended the mining licenses of South Gobi Resources at Ovoot Tolgoi in April. This was after South Gobi Resources announced plans by Aluminum Corp. of China Ltd., or Chalco, to buy a controlling stake in the company. South Gobi Resources has now filed a Notice of Investment Dispute on the Mongolian Government pursuant to the Bilateral Investment Treaty between Singapore and Mongolia. The Notice of Investment Dispute was filed as the South Gobi management believes they have exhausted all other possible means to resolve an ongoing investment dispute.

This law does not apply retrospectively but the case between South Gobi Resources and the Mineral Resources Authority of Mongolia highlights the risks for companies developing resources in Mongolia. However we believe that despite the composition of the coalition the government will enforce a pragmatic approach to foreign investment. This will provide the investment required to generate the income from the exploitation of nation’s enormous mineral wealth and achieve a better balance of social justice for Mongolian nations. Even Mr Enkhbayar has toned down his commentary since the election recently stating “that for an initial period of 20 years it (Tavan Tolgoi) can be privately owned because it was privately discovered. Foreign companies can invest in it, get their money back and make a profit but starting from the 21st year they should give it back to the Mongolian side.”

Nationalism is not a theme embraced throughout Mongolia. Randolph Koppa, president of Trade and Development Bank of Mongolia in a speech “The Strategic Development of the Coal Market”, said “in the coming years the future of Mongolia’s coal will depend on the development of China’s economic and industrial growth. The government will have to continue its pragmatic approach to foreign policy to balance relations with Russia, on which Mongolia depends for energy, and China, on which it relies as an export market. The government has sought to strengthen ties with both countries and also with what it calls “third neighbours” countries that are supportive. Foremost among these are the US and Japan, both of which are substantial aid donors.
Fundamentals

Mongolia has begun its emergence as a new mining frontier. Coal production is set to increase rapidly over the next decade, as existing mines ramp up and new mines come on stream. Production was estimated to be 22Mt in 2010 and we expect this to quadruple by 2016. We have compiled a list of the likely projects and companies that facilitate this expansion in Figure 4. Production from new mines being developed by local and foreign companies including South Gobi Resources, Mongolian Mining Company, Banpu and Guildford Coal will contribute 15Mt of saleable coal from next year. Mongolian Mining Corp, mining the Ukhaa Khudag coalfield on the northern extremity of the Tavan Tolgoi deposit, is currently operating at 5Mtpa, and is expected to ramp up to 10Mtpa by 2015. South Gobi Resources and Mongolyn Alt Group in the South Gobi province are currently producing 8Mt of saleable product. Planned expansions by both companies would double combined production to approximately 15Mtpa by 2015.

The main driver of production will be the development of the massive Tavan Tolgoi coal project. The main Tsankhi deposit was initially touted as being split into a Government-owned operation (East Tsankhi) and a privately-run operation (West Tsankhi). The plan for East Tsankhi was to reach a mining rate of 15Mtpa (ROM) by 2015. West Tsankhi is expected to produce similar volumes however the sale of West Tsankhi was expected to help fund the development of East Tsankhi. Talks to develop Tavan Tolgoi have been frozen since last July, when the government at the time reversed a decision to sell mining rights to a consortium involving China’s Shenhua and U.S.-based Peabody. The new government will be deciding how to progress the development of the coal field but the uncertainty surrounding the process to date and in the near future will significantly delay the commissioning of both projects.

Figure 4: Mongolian production and export growth

Source: EIA & PSL estimates

The production profile outlined in Figure 4 is completely dependant on exports to China, predominantly coking coal exports. Total coking coal exports from Mongolia into China are estimated to be approximately 21Mt in 2011. We expect this trend to continue after China Customs data indicated imports of coal in June jumped by 98% year-on-year to 27.2Mt, including a 94% or 6.5Mt increase of coking coal imports compared to June last year. During the first half of 2012, China imported a total of 140Mt, boosted by an increase in coking coal imports of 175% year-on-year to 43.6Mt. Mongolian coal increased its Chinese import market share significantly, mostly at the expense of Australian producers. The result is hardly surprising; given the advantages Mongolian coking coal has over traditional seaborne suppliers including a significant freight advantage. It should be noted that there is a danger of the broader Chinese market becoming fragmented as dictated by shipping and rail freight rates. Mongolian coal could be restricted to supplying the northern steel manufacturing industries and traditional suppliers such as Australia supplying the southern regions of China and other Asian Nations.
**Figure 5: List of current and likely coal producers**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Owner</th>
<th>Status</th>
<th>Production (000t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baganuur Basin Coal Project</td>
<td>First Development Holdings Corporation</td>
<td>Operating</td>
<td>3,400</td>
</tr>
<tr>
<td>Bar unk Naran Coal Project</td>
<td>Mongolian Mining Corporation LLC</td>
<td>Feasibility Study</td>
<td>6,000</td>
</tr>
<tr>
<td>Chandgana Tal Coal Project</td>
<td>Prophecy Coal Corp.</td>
<td>Feasibility Study</td>
<td>3,000</td>
</tr>
<tr>
<td>El dev</td>
<td>Mongolian Alt Group</td>
<td>Operating</td>
<td>500</td>
</tr>
<tr>
<td>Khushuut Colliery</td>
<td>Mongolia Energy Corporation Limited</td>
<td>Operating</td>
<td>6,000</td>
</tr>
<tr>
<td>Mogoin Gol Colliery</td>
<td>Global Met Coal Corporation (50%) &amp; Mogoin Gol JSC (50%)</td>
<td>Feasibility Study</td>
<td>200</td>
</tr>
<tr>
<td>Naryn Sukhait</td>
<td>Mongolian Alt Group</td>
<td>Operating</td>
<td>5,000</td>
</tr>
<tr>
<td>Ovoot Coal Project</td>
<td>Aspire Mining Limited</td>
<td>Pre-feas/Scoping</td>
<td>1,500</td>
</tr>
<tr>
<td>Ovoot Tolgoi Colliery</td>
<td>SouthGobi Resources Limited</td>
<td>Operating</td>
<td>7,000</td>
</tr>
<tr>
<td>Sharyn Gol Colliery</td>
<td>Sharyn Gol JSC</td>
<td>Operating</td>
<td>2,500</td>
</tr>
<tr>
<td>Shineijnst</td>
<td>Global Coal &amp; Energy</td>
<td>Feasibility Study</td>
<td>5,000</td>
</tr>
<tr>
<td>Soumber Coal Project</td>
<td>SouthGobi Resources Limited</td>
<td>Feasibility Study</td>
<td>3,000</td>
</tr>
<tr>
<td>South Gobi Coal Project</td>
<td>Guildford Coal Limited (75%) &amp; Mongolian Company (25%)</td>
<td>Feasibility Study</td>
<td>4,000</td>
</tr>
<tr>
<td>Tavan Tolgoi</td>
<td>Government (51%) &amp; Private Conglomerate (49%)</td>
<td>Operating</td>
<td>20,000</td>
</tr>
<tr>
<td>Tavan Tolgoi Colliery</td>
<td>Tavan Tolgoi JSC</td>
<td>Operating</td>
<td>5,000</td>
</tr>
<tr>
<td>Tsagaan Tolgoi Coal Project</td>
<td>SouthGobi Resources Limited (100%) selling to Modun Resources</td>
<td>Feasibility Study</td>
<td>3,000</td>
</tr>
<tr>
<td>Tsant Uul Colliery</td>
<td>Banpu Minerals (Singapore) Pte Ltd (90%) &amp; Mongolian Company (10%)</td>
<td>Adv. Exploration</td>
<td>3,000</td>
</tr>
<tr>
<td>Ukhaa Khudag Colliery</td>
<td>Mongolian Mining Corporation LLC</td>
<td>Operating</td>
<td>10,000</td>
</tr>
<tr>
<td>Ulaan Ovoo Colliery</td>
<td>Prophecy Coal Corp.</td>
<td>Operating</td>
<td>2,000</td>
</tr>
<tr>
<td>Zeegt</td>
<td>Global Coal &amp; Energy</td>
<td></td>
<td>3,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>93,100</td>
</tr>
</tbody>
</table>

*Source: Company information & PSL estimates*

**Infrastructure**

Mongolian producers are not able to reach the seaborne market except via long land transport routes across either Russia or China. The most likely route to be utilised is rail access along the Trans-Mongolian Railway to the north, linking in with the Trans-Siberian Railway in Russia and exporting through the Russian ports of Vostochny and Vanino. However this route is unlikely to carry any significant volumes of coal for some time as the quality of coal transportation infrastructure within Mongolia is quite poor. The majority of coal produced in Mongolia is transported by truck and exported directly into China via two border crossings: Shiveekhuren (Mongolia) / Ceke (China) and Gashuun Sukhait (Mongolia) / Gants Mod (China). These routes are utilised given the close proximity of the mines to the border. SouthGobi Resources and Mongolyn Alt Group are located only 45km from Shiveekhuren, while Mongolian Mining Corp is 240km from Gashuun Sukhait. Traditionally these companies all trucked their product to the border along gravel roads (essentially graded desert). These gravel roads are being replaced by paved roads and rail. Mongolian Mining Corp commissioned its 240km paved road in October 2011 under a 10-year build, operate & transfer (BOT) agreement with the Government. Mongolyn Alt Group and SouthGobi Resources have constructed paved roads to the Shiveekhuren boarder crossing.

Until recently coal crossing the boarder at Shiveekhuren – Ceke has gone through a single gate. Empty trucks would be admitted into Mongolia in the mornings and then loaded trucks could export to...
China in the afternoons. In May this year eight new border gates exclusively for coal were opened. This has significantly increased capacity as a constant two-way flow of traffic can be facilitated. At this time, the eight gates will be operated from 8am to 8pm six days per week.

**Figure 6: Planned 3-phase rail development**

Existing bulk rail infrastructure in Mongolia is limited. There are only a couple of major rail lines. The Trans-Mongolian Railway (TMR), linking the Trans-Siberian Railway (TSR) in Russia to the north, crossing through Ulaanbaatar and linking to China in the south at Zamyn Uud and another in the north-east from Choibalsan to the border town of Ereen Tsav.

The Government has embarked on an ambitious multi-phase rail development program, which would open up multiple additional export routes for mining operations, including the seaborne market via the Russian ports in the east. One objective of this is to enable the giant Tavan Tolgoi mines to access the seaborne market. However we believe it is likely that the majority of production will be absorbed by Chinese demand. Earlier this year 1Mt of coal was exported by the state-owned Erdenes Tavan Tolgoi, through the Chinese port of Tianjin.

The 3 phases of the development are outlined (Figure 6):

- **Phase 1** (red line): from Tavan Tolgoi running north-east, crossing the TMR at Sainshand, and linking to Choibalsan, providing access to the TSR and ultimately the seaborne market via the Russian far east ports;
- **Phase 2** (green lines): linking the Phase 1 line to various selling points into China. These include: from Khutu to Nomrog, opening up access to Dandong and Dalian ports (see Figure 9); from Khutu to Bichigt, opening up alternative access to Qinhuangdao port; from Tavan Tolgoi to Gashuun Sukhait; and from Naryn Sukhait to Shiveekhuree;
- **Phase 3** (blue lines): opening up the west of Mongolia for mining and industrial activity and passenger transportation. We view this Phase as purely a long-term option for the Government.

The Government has estimated a construction cost for Phase 1 of approximately $3.0B for 1,000km of rail which equates to a capital intensity of $3M/km. In Australia capital intensity of rail is closer to $10M/km. However, we believe this is achievable given the terrain and low labour costs. Delays in the financing, development of the Tavan Tolgoi coal project, and the new government has delayed the construction of the Phase 1.
Investment Ideas

Trading metrics of the small population of ASX listed Mongolian coal companies are variable, as shown in figure 6. This reflects the diverse stages of asset development and location of these assets. After the producers of SouthGobi Resources (1878 HK) and Mongolian Mining Corp (975 HK), Guildford Coal (GUF) is the only company with a project, South Gobi close to production. Aspire Mining (AKM) and Xanadu Mines (XAM) are advanced exploration companies however the defined resources are located in the Selenge and Dornogovi Provinces respectively, some distance from Chinese markets. The average EV/resource multiple is 0.84/t which is skewed towards the companies with producing assets, SouthGobi Resources (1878 HK) and Mingolian Mining Corp (975 HK). The only recent transaction is the takeover of Hunnu Coal by Banpu. The all-cash offer of $1.80 per share represented an in-situ value of $0.49/t for Hunnu's total resource of 843.5Mt.

Hunnu’s only near-term producing asset was Tsant Uul in South Gobi, 40km south of Tavan Tolgoi and 150km from the Gashuun Sukhait border crossing. It is likely that companies developing projects with metallurgical coal, a faster development timeline than Tavan Tolgoi and close to the Chinese border will provide the best value to investors. This is because it will be some time before the rail networks are developed, especially beyond linking Tavan Tolgoi. It is also difficult to estimate the impact a project the size of Tavan Tolgoi will have on global coal markets and we believe that companies in production with established supply chains and offtake partners will be in the best position to absorb the impact.

Figure 7: In-situ valuation (Total Resources)

Source: Company reports
Key Points on the ASX-Listed Mongolian Players

Guildford Coal (GUF)

- GUF has defined a JORC resource on one of the four defined pits on its South Gobi project. GUF is still waiting for the mining license over that covers the North Pit but it has been busy preparing mining contracts and evaluating expressions of interest for coal off-take. GUF has been in discussions with off-takers and are hopeful pricing will be linked to metallurgical coal prices as it will be producing a coking coal and a semi-soft coking coal.

- The North Pit has a 70Mt JORC compliant resource. GUF also has a large amount of historic drilling information for the central and east pit. Future drilling will meet JORC code requirements for these other pits providing adequate resources to support a >4Mtpa operation. GUFs neighbour to the east and west, South Gobi Resources (SGS) has had considerable exploration success at the Zag Suuj, Soumber and Biliut Deposits.

- Initial evaluation supports the production of two raw (unwashed) products similar to SGS Ovoot Tolgoi Mine with a primary raw coking product; and a Secondary higher ash product. This is supported by the raw quality for the resource on the North Pit. Quality varies from east to west with the coal in the east potentially being classified under the Chinese System as Coking Coal and trending towards 1/3rd Coking Coal classification in the west.

- GUF is fully funded to start a 2Mtpa operation with $27M in cash. Management plans to ramp up production 4Mtpa in the short term. We retain our Buy recommendation with a price target of $1.25/share.

![GUF location map](source: Company reports)
Aspire Mining (AKM)

- AKM, Market Cap of $12m, $28.7m in cash, spending ~$6M per quarter on exploration and admin. AKM is spending on resource definition, feasibility and optimisation studies. Capital structure is 620.5M shares on issue and 247M options and performance shares. 241M options and performance shares have an exercise price of 5 cents. The stock is tightly held with the directors, Noble Group and SouthGobi Resources holding 56% of shares on issue (fully diluted).

- AKM primary asset is the 100% owned Ovoot coking coal project in northern Mongolia. Ovoot contains high-quality hard coking coal, featuring amongst others, very high energy and vitrinite content and low ash. The latest drilling campaign lead to a defined reserve and a smaller resource. The main reason for the Coal Resource reduction from 331Mt to 252Mt is the loss of tonnes largely from a change in the interpretation of the position of the basement in the northern part of the tenement.

- AKM have been targeting an open cut and the 178Mt reserve is defined as open cut, however the reserve is defined to a depth of 300m. Target production is 15Mtpa (ROM), producing 12Mtpa of saleable coal via 3 wash plants. AKM estimates of first production in 2016 appear optimistic.

- The key selling routes available to AKM are Russia’s far east ports via the Trans-Siberian Railway (TSR) or into China via the Trans-Mongolian Railway (TMR). The relatively depth nature of the deposit and the transportation distance involved (~4,900km from Ovoot to Vostochny port in Russia) indicates the project will be high cost to develop. AKM will need to connect Ovoot to the main line at Erdenet and this depends on several other mining and agriculture projects to create the critical mass that would allow the line to be economic.

Source: Company reports
**Draig Resources (DRG)**

- DRG, Market Cap of $12m, $6.7m in cash, spending ~$1.5m per quarter on exploration and admin. This means than they can continue exploring for another 12 months or so without raising equity, but probably longer since work slows down in winter months. It has tight capital structure with 65.5m shares on issue and only 6.2m in options.

- The MD is Mark Early, a well-known coal veteran who has worked at the coal face, in mine management, in project development, due diligence, and consultancy. He is a Mining Engineer and has worked in the coal industry for over 30 years. This gives us good confidence that the MD can identify and foster the development of the most attractive deposits within the DRG portfolio.

- DRG is an early stage coal explorer in Mongolia. It is based in the southern provinces of Ovorhangay and South Gobi and has 8 exploration licences. DRG has recently concluded a 6,000m Phase1 drilling campaign.

- Phase1 was conducted at its Teeg licences in Ovorhangay, which is about 500km from the Chinese border. Teeg was the first target because it is adjacent to an existing mine and has the potential to be attractive coking coal.

- On a preliminary basis, the Teeg project looks heavily faulted but it also contains some very thick coking coal seams, including cumulative seam thicknesses of 86m, 67m, 38m, and 36m, down to a maximum depth of 146m. The single thickest seam was 33m thick down only to 94m. This is uncommonly thick, for seams of hard coal and if continuity can be proven, would indicate a large volume of low-strip ratio coal. The company is still conducting the resource modelling but some of those drill intercepts are very impressive. Thick opencut coking coal is hard to find and this looks like a promising start for DRG.

- Phase2 drilling will begin later this year and will include work on DRG’s other licences further to the south which are closer to the Chinese border, 3 of which are within 100km of the border and close to existing coal mining operations.

- Being half cash-backed and with a maiden JORC for what could be attractive coking coal over the coming months makes it a very cheap (EV of $6m) play on both the resource discovery and the broader theme of metallurgical coal supply into China.

![Figure 10: DRG location map](source: DRG)
Modun Resources (MOU)

- MOU Market Cap of $12m, $3.5m in cash, spending ~$1m per quarter on exploration and admin. Spending has been rationed until the dispute between SouthGobi Resources and the Mineral Resources Authority of Mongolia (MRAM) is resolved. As MOU is trying to acquire two licences from SouthGobi, the Tsagaan Tolgoi Mining Licence and the Ajlyn Talbai Exploration Licence. There are a lot of shares on issue, 844.6m, and 48.5m in options.

- Following completion of the Acquisition, SouthGobi will become a major shareholder in MOU and will be entitled to appoint a director of MOU. Unfortunately the sales process has been held up by a MRAM request to suspend exploration and mining activity on certain licences owned by SouthGobi Sands LLC, a wholly-owned division of SouthGobi. SouthGobi considers that MRAM’s request is in connection with the proposed proportional takeover bid by Aluminium Corporation of China Limited for up to 60% of SouthGobi. The deadline of the transaction has been extended to 31 December 2012.

- MOU has raised $4M to facilitate the acquisition and provide working capital to advance all projects. The funds raised to date have been released to fund working capital on the Nuurst Coal Project.

- The Nuurst Project in Central Mongolia has a JORC compliant resource of 489Mt (417Mt indicated and 72MT inferred). The coal is low energy thermal coal and the project is adjacent to a Peabody/Winsway owned project. A scoping study has commenced, including in-fill drilling in preparation of a mining license application. Nuurst is 610km from the Chinese border but is only 6km from a TMR rail siding.

![Figure 11: MOU location map](source: Company reports)
Xanadu Mines (XAM)

- XAM, Market Cap of $39m, $15.5m in cash, spending ~$8M per quarter on exploration and admin. Capital structure is 199.3M shares on issue and 25.7M options. The recent climb in exploration investment implies XAM will need to raise capital in the next 6 months to continue to develop its metals and coking coal opportunities.

- XAM is currently conducting exploration and drilling of its highly prospective suite of licences for copper and gold in the South East Gobi, porphyry copper at Sharchuluut and coking coal on its Ekhgovin Chuluu (EC) joint venture projects with Noble Group.

- The Ekhgovin Chuluu LLC joint venture company was established with Xanadu and Noble each holding a 50% interest. EC identifies metallurgical coal projects in the Trans Mongolian rail corridor or within close proximity to the Chinese and Russian borders. Two projects have been acquired in Northern Mongolia which are highly perspective coking coal projects. As with the AKM projects these are dependant on significant rail infrastructure to be developed. EC has also acquired 3 projects in Southern Mongolia. These are located in close proximately to the Chinese boarder. Noble Group have marketing rights for product coal on all EC assets.

- XAM has defined a sizable low quality thermal coal resource on the 100% owned Galshar project in Central Mongolia. Galshar is located within 65 kilometres of a rail spur at the Bor Undor fluorite mine, which connects to the Trans Mongolian Rail system to China.
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