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FAR EAST CAPITAL
The Mining Investment Experts

Company Review

2 November 2016

Analyst: Mike Harrowell

Pacific American Coal Limited (ASX:PAK)

"Exposure to the global coking coal price recovery at a discount to peers"

Share Price	10.5	¢ at 1/11/16
12 Mth High/Low	3.5-20.0	¢
Market Cap'n	$16.8	mill. undiluted
Issued Shares	160.8	mill. Ordinary
Options - PAKO (at 2.8¢)	47.7	mill. 25¢, Dec 17
Options - Unlisted	14.6	mill. 25¢, Dec 17
Total Issued	223.1	shares + options
Cash Balance	$2.8	mill.
Debt	Nil	

Issued shares and options, cash balance, total issued and market capitalization assume the 1:8 issue is taken up in full.

Largest Shareholders 31 October 2016

HFT Nominees	11.4%
Gregorach Group	10.0%
John Wardmann & Assoc	5.6%
Chelaise & Honey Bunch	3.4%

Source: ASX

Investment Perspective:

The coking coal price recovery has been driven by the Central Government mandated closure of mining capacity in China, combined with year on year growth in Chinese steel demand of 3% and Chinese electricity generation of 9% from mid year. Fears that Chinese growth had ended now appear overdone.

PAK has 257Mt resource of hard coking coal. A 2Mtpa hard coking coal mine located at Elko with a cash operating cost of US$90/t and a pre-production cost of US$350M would have an NPV after tax of around US$181M or A$242M (Discount 10%, ungeared, coking coal price US$140/t), giving an idea of the potential upside if PAK can deliver a project that looks like this. At A$160/t coking coal price, the NPV of our indicative model increases A$242M to A$493M, highlighting the high level of price sensitivity.

Price Catalysts:

- *Market gaining comfort that coking coal prices will be sustained at profitable levels.*
- *Market recognition that the PAK share price has lagged the price performance of its peers*
- *Progress on project delivery in the next 12 months*
  - *Capital cost estimate due from Hatch soon*
  - *Metallurgical testing of Elko coal*
  - *Additional resource drilling*
  - *Conclusions of concept study*
  - *Maiden reserve statement*
  - *Project development partner*

Directors and Management

Geoffrey Hill	Non-Exec Chairman
Simon Bird	Non-Exec Director
Paul Chappell	Non-Exec Director
Mark Sykes	CEO
Dom Hill	Business Development

Company Description

Pacific American Coal (PAK) holds Canadian coking coal leases through its 100% owned subsidiary PAC Canada, and a carbon/graphene based nanotechnology investment through its 100% owned subsidiary, Pacific Technology investments Pty Ltd (PacTech)

PAK is leveraged to the seaborne coking coal price and to the delivery of its 100% owned Elko Project. The project has a 257Mt metallurgical coal resource, within 20km of rail infrastructure.

Compelling Points

- PAK capitalized at A$0.06/t resource v peers at A$0.20-0.38/t.
- At A$0.20/t resource, PAK would be trading at A$0.32/sh
- Elko potential value of A$242M depending on prices & costs
- Assumed hard coking coal price US$140/t vs spot >US$240/t
- Chinese economy has entered a period of strong growth, with consequences for commodities in general and coal in particular. Electricity consumption (+9% yoy), Oct Manufacturing PMI 51.2

Figure 1 Basis for Price Target of A$0.45/sh Post Rights Issue

Valuation	A$M	A$/sh	Shares M
Unrisked value of target project	242	$1.09	222.3
Risk Factor	34%		
Risked value of target project	81.3	0.37	222.3
Cash + Cash from options	16.3		
Investment in Imagine IM (book)	2.5		
PAK Valuation	100.0	0.45	222.3

Source: FEC estimates, (see Table 2 for data) Shares post issue –

Disclosure: Far East Capital Ltd is Lead Manager to a 1 for 8 entitlement issue that is raising $1.75m

Report layout

The Coking Coal Investment Proposition

Indicative financial model and key elements

The indicative simplified model in Figure 2 shows the Life of Mine (LOM) totals and first four years of financial flows for a 20 year project that Elko has the potential to be. The NPV at a 10% real discount rate is US$181M, or A$242M, and gives an indication of the uplift in PAK share price if the market became confident that the company could deliver these cash flows.

To do that, the Elko Project must deliver the following:

- A reserve base sufficient to support 2Mtpa for 20 years
- The initial capital cost of US$350M or lower
- The offsite operating cost of US$30/t FOB saleable or lower
- The onsite operating cost of US$48/t saleable or lower, which means the yield from Run of Mine (ROM) to saleable must be 65% or better, and the site operating cost must be US$31/t ROM or lower.
- The coal must be saleable as Hard Coking Coal
- The Hard Coking Coal price must be US$140/t in current dollars or more
- There must be either project delivery or a monetization event (eg sale)

As PAK delivers on the key investment elements that are under its control we expect the share price to re-rate. The coal prices are discussed later in this report, and we believe our choice of US$140/t is a solid balance between the unsustainable US$80/t lows at the start of this year, and the current spot price of over US$240/t.

Figure 2 Financial Model of an Indicative Coal Mine in the Elko Region

Year	LOM	0	1	2	3	4
Hard Coking Coal Price US$/t		140	140	140	140	140
Saleable Product Mtpa	40.0		2.0	2.0	2.0	2.0
Financials US$M						
Revenue	5600	0	280	280	280	280
Costs	-3600	0	-180	-180	-180	-180
Royalty	0	0				
D&A	-458	0	-23	-23	-23	-23
EBIT	1542	0	77	77	77	77
Interest Expense	0	0	0	0	0	0
PBT	1542	0	77	77	77	77
Tax	-601	0	-30	-30	-30	-30
NPAT	941	0	47	47	47	47
Cash Flow						
Cash From Operations	1399	0	70	70	70	70
Capex	-458	-350	-5	-5	-5	-5
Debt Drawn	0	0	0	0	0	0
Equity Raised/Dividends	-941	350	-65	-65	-65	-65
Cost Structure						
Site Costs US$/t ROM	31	31	31	31	31	31
Yield		65.0%	65.0%	65.0%	65.0%	65.0%
Site Costs US$/t Saleable		48	48	48	48	48
Transport US$/t Saleable		30	30	30	30	30
Admin US$/t Saleable		12	12	12	12	12
Cash Cost US$/t Saleable	90	90	90	90	90	90
NPV US$M	10%	$181	$549	$540	$529	$518
NPV A$M @ 0.75 AUDUSD		$242	$733	$720	$706	$690

Source: FEC estimates (see Figure 7 for supporting data)

Potential to deliver key milestones

Reserve base starts with a substantial resource of 257Mt

The company will need to do some drilling to produce a reserve, so the timing of delivery is dependent on funding the drill program. Drilling is a summer activity in this part of Canada, and would take place from April-May 2017, with the delivery of the conclusions in an October 2017 time frame.

To sustain 2Mtpa of product at a 65% process plant yield for 20 years, 61.5mt of reserves will be required. PAK has a strong starting position:

- Resource of 257.5Mt at Elko
- The 19.2Mt of measured resource is in the northwest corner of the lease where mining is planned to start, so there is significant density drilling and adits there already, which should reduce the risk of a negative surprise.
- The coal has been sampled from adits on the Elko leases for quality assessment (lab scale) and bulk metallurgical testing of samples from the adjacent Fernie Leases has been conducted by steel makers in Japan. Management expect that Elko coal will be similar.

Figure 3 Elko Resources (JORC 2012)

	Mt
Measured	19.2
Indicated	57.0
Inferred	181.3
Total	257.5

Source: PAK presentation 19 May 2016

In addition to Elko, PAK has an exploration target at Hazell South estimated at 84Mt, but is further down the project pipeline, and not a major current focus. The prospect has some historical drilling and surface mapping to indicate that there could be a resource, but not enough drill density to permit the calculation of a resource under JORC 2012.

Initial quality testwork suggests premium hard coking coal

The quality testing reported by PAK to date refers to:

- the extensive test work carried out on the Fernie lease to the north of and adjoining PAK's Elko leases. The Fernie Leases were the southern end of the pink and orange shaded Dominion Coal Block 82 in Figure 11, and
- sampling from adits driven into outcropping coal on the Elko leases resulting in the data in Figure 4.

The PAK management have mapped the Fernie seams into Elko, and is confident that that the Fernie seams of similar quality to those in the Elko leases.

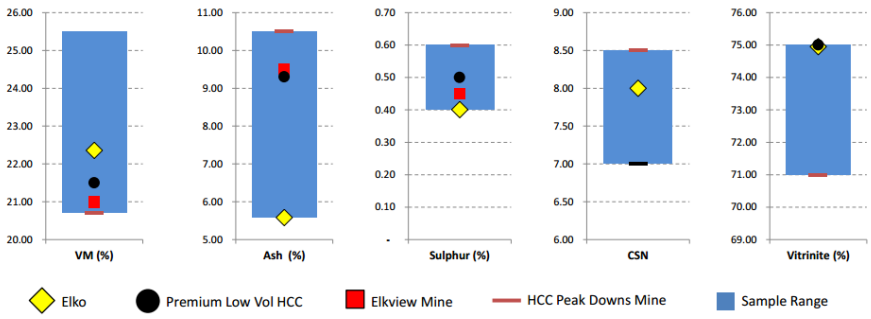
Figure 4 Average Properties of Washed Coal From Test Work on Elko Samples

Adit	Seam	Thickness m	Ash	Volatiles	Fixed Carbon	Sulphur	Swell (FSI)
F-5	7 Seam	5.9	3.9%	21.9%	74.3%	0.5%	7.5
F-6	6 Seam	3.0	6.3%	21.3%	72.4%	0.6%	8.0
F-4	5 Seam	11.2	7.4%	21.5%	71.1%	0.5%	6.0
F-3	4 Seam	6.7	8.4%	19.6%	72.0%	0.4%	5.0
F-2	3 Seam	12.2	11.3%	17.7%	71.0%	0.7%	2.5
F-1	1 Seam	14.0	10.4%	18.0%	71.0%	0.8%	1.0

Source: PAK presentation 19 May 2016

Figure 5 shows the range of results across the different seams, compared to coal specifications from mines regarded as producers of benchmark hard coking coals. Peak Downs coal is regarded as the benchmark for the Australian Hard Coking Coal Price, and the best coal from Fernie/Elko appears to match that quality.

Figure 5 Washed Coal Quality Range vs Major Producer Benchmark Coals



Source: PAK presentation 19 May 2016

Initial capital cost estimated from projects In region

PAK has yet to release and any data on costs, mine lives, or production rates, so we had to look at companies with projects in the same region that have released more detailed information. These include Atrum's Groundhog North underground mine, which is not in the same coal field as Elko but is in British Columbia, Jameson Resources' Crown Mountain, and Riversdale's Grassy Mountain, which are in the same general region as Elko. The data from these projects are presented in Figure 7.

On the bottom line of that table, we have calculated the pre-production capex in US$ per installed tonne of capacity, which ranges from US$84.6/ROM tpa to US$100.9/ROM tpa. For PAK's Elko project we have conservatively assumed US$113.8/ROM tpa or US$350M for 2Mtpa of finished saleable product. This reflects additional cost for starting both an open cut and an underground operation

Because Elko is expected to have an open cut stage followed by an underground, the pre-production expenditure may be lower, with the underground development costs being incurred after open cut mining has started. The open cut mine fleet may to be supplied by a contractor, and so would not show up as capital.

The comparison projects in Figure 7 are similar to Elko in that the transport services are provided by others, and each project needs its preparation plant, train loader, supporting infrastructure and the initial mine development. Atrum's Groundhog North is an underground mine, while the other two are open cut mines.

Offsite operating costs evidenced by existing mines

The offsite costs include rail transport to port and the port and shipping charges. The Elko rail is provided by Canadian Pacific, shipping through Vancouver. Atrum's Groundhog will ship through Ripley Island, so we have ignored their offsite costs, while all the others would ship through the Vancouver ports of Westshore and Neptune.

We also have the actual transport costs incurred by Teck, which would be comparable to the charges Elko is likely to see. Elko will be 100Km or US$2/t closer to the port that Teck's mines on average, so we would expect to see a transport cost around US$27/t saleable product, to which we add 20Km of truck haul from mine to rail at US$0.10/t/Km and rehandling to get the US$30/t we assume in Figure 2. The current Teck costs have fallen since 2013, when Jameson set their US$40/t estimate.

Figure 6 Operating Costs For Other Operations and Projects

USD/tonne saleable	Teck	Jameson Resources JAL	Riversdale Resources	Atrum ATU	Pacific American PAK
	Various	Crown Mountain	Grassy Mountain	Groundhog North	Elko
Mine Type	OC	OC	OC	UG	OC/UG
Site Costs	24	74		71	60
Transport	29	40		23	30
Total OpEx	53	114	71	95	90

Source: Figure 7 sources and Teck June quarterly report

Onsite operating costs are very specific to each project

Onsite costs are the hardest to estimate, because they depend on the type of mine (open cut or underground) and then the detailed conditions. They will drive the US$/t ROM or raw coal costs, and the cost of producing a saleable tonne depends on the yield, which we do not know for Teck, but is 62.5% for Groundhog, and in Crown Mountain's case is estimated at between 40% and 60%. We have used 65%, in line with the Fernie test work, and allowing for 5% mining dilution (source: BC Mines & Energy Geological Survey Assessment Report 00356).

Of the three cost elements (Initial Capex, Offsite Opex, Onsite Opex) the Onsite Opex estimate in our indicative model is the most speculative, and could be above or below our estimate by a material amount.

Figure 7 Source of Cost Data: Projects in the Region

	Atrum ATU	Jameson Resources JAL	Riversdale Resources	Pacific American PAK
	Groundhog North	Crown Mountain	Grassy Mountain	Elko
Mine Type	UG	OC	OC	OC/UG
As At	Mar-16	17-Apr-13	2015	
Measured MT	156	59.2		19.2
Indicated MT	453	7.1		57.0
Inferred Mt	407	66.3		181.3
Total Mt	1016	132.6	154	257.5
Life Yrs	28	24	23	20
Waste M BCM	0.00	13.57	37.60	
Strip Ratio BCM:tonne		4.3	5.17	
Production Mtpa ROM	1.41	3.16	7.27	3.08
Yield	62.5%	50.0%	55.0%	65.0%
Saleable Production Mtpa	0.88	1.58	4.00	2.00
Currency	USD	USD	USD	USD
Mining US$/t Moved		2.75		
Mining US$/t ROM	30.14	28.80		26.20
Processing US$/t ROM	6.76	4.43		5.00
Contingency US$/t		3.64		
Site Costs US$/t ROM	36.9	36.87		31.20
Mine Cost US$/t Saleable	59.03	73.74		48.00
Transport US$/t Saleable	23.37	40.00		30.00
Royalties US$/t Saleable	1.35			
Admin US$/t Saleable	12.21			12.00
FOB Cash Cost US$/t Saleable	95.97	113.74	71.54	90.00
Sustaining Capex US$/t ROM		3.17		
Capex US$M				
Mining Fleet & Construction	72.7	100.4		
Prestrip		28.4		
CHPP & Loadout	12.3	65.9		
Infrastructure	6.9	63.4		
Power Supply	12.6			
Offsite Infrastructure	32.5			
Contingency		25.8		
Feasibility Studies & Permitting	5.0			
Preproduction Cost US$M	142	284	615	350
Capex US$/tpa ROM	100.9	90.0	84.6	113.8

Source: Atrum PFS 16 June 2016, Jameson PFS 17 April 2013, Riversdale November 2017 Pres.

Project Delivery/Monetization Event

Monetization likely to be closer than development

The Elko Project has the potential to be a particularly attractive asset to other corporate buyers or partners, if it can deliver on the project elements discussed above. This would open the way for:

- Partnering with another (larger) company to contribute equity and share development risk
- Selling the project for cash to a larger developer
- Takeover of PAK by a larger developer

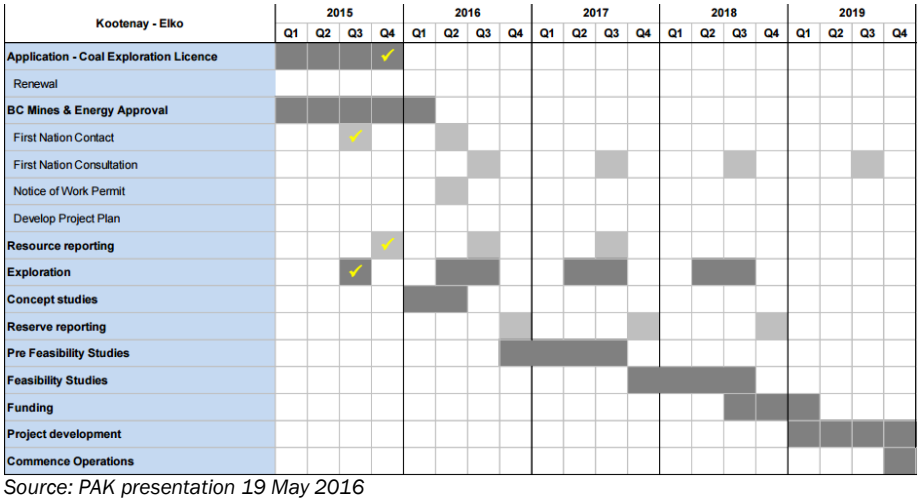
What would make the project particularly attractive is if the coal was demonstrated to be saleable as Hard Coking Coal, and there was sufficient quality. This is an element that we believe could be demonstrated relatively soon (ie in the next 12 months).

Teck is a Canadian miner with a market capitalization of US$12bn which earned US$154M or 37% of its June 2016 quarter gross profit from mining in the same region as Elko. In the quarter, Teck mined 6.7 Mt of mainly hard coking coal, at an average realized price of US$83/t, and a gross margin of US$23/t.

Teck could be a potential partner or acquirer, among others.

Development schedule forecasting production in late 2019

Figure 8 Development Timetable



Source: PAK presentation 19 May 2016

While slippage against schedules like this is common, we note that the concept studies have begun on schedule, and have been accelerated, with Hatch being appointed to estimate the capital cost of the concept mine infrastructure and coal processing. This was announced on 30 August 2016, with the comment that the results were expected "within 2 months" ie the end of October 2016.

Funding required to stay on schedule

At 30 September 2016, the company had A$0.67M cash on hand and on 21 October 2016 announced an equity raising of A$1.8M. The sale of the 30% interest in GCI will bring in US$1.0M over 24 months with A$130K received on 25 October 2016.

Sustaining the corporation is costing A$0.8M pa. The 27 May 2016 Repositioning of Coal release indicated the following costs, which suggest that the current equity issue will take the company through to at least December 2017, before additional funding will be required.

- Complete concept (scoping) study A$0.4M
- Pre Feasibility Study including Resource drill out A$4.0M
- Bankable Feasibility Study A$5.0M

Description of Coking Coal Assets

Located in a traditional coking coal export region

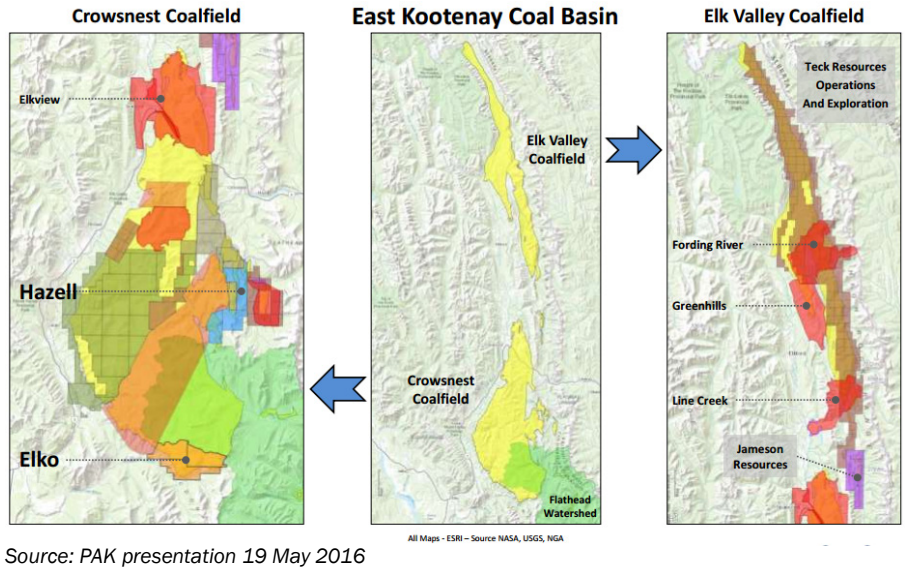
Figure 9 Location Map of Lower Western Canadian Coalfields With PAK's Elko

Source: Jameson Resources PFS release 17 April 2013

PAK's Elko and Hazell South leases are located in the Crowsnest Coalfield, which forms the southern limb of the East Kootenay Coal Basin, which in turn hosts major Canadian producers Fording River, Greenhills and Elkview. That basin is connected to the West Shore and Neptune Export Terminals in Vancouver by the Canadian Pacific rail line shown in Figure 9. A detailed review of the British Columbian Coal industry is available at:

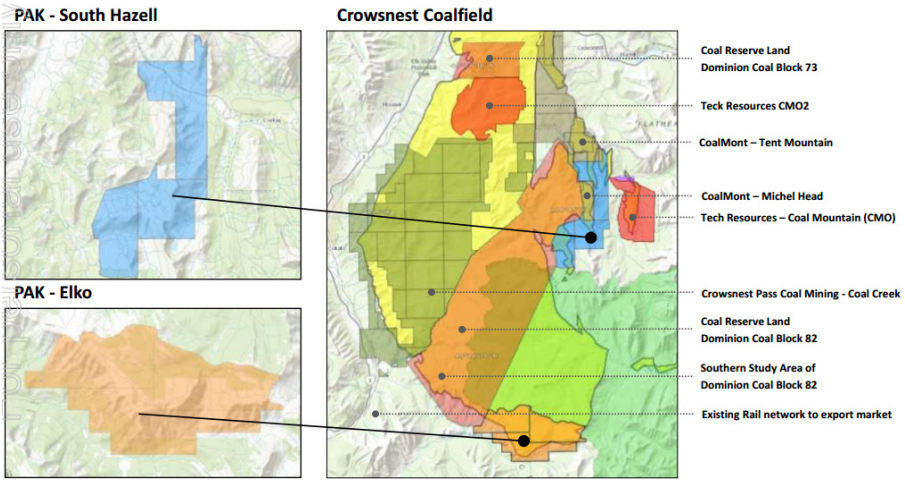
http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/InformationCirculars/Documents/IC2016-2%20coal.pdf

Figure 10 Pacific American Coal Lease Locations



Source: PAK presentation 19 May 2016

Figure 11 More Detailed Lease Location and Neighbours



Source: PAK presentation 19 May 2016

PAK has a number of neighbours. Coal Mountain, the Teck operation in the red lease to the right centre of the Crowsnest Coalfield map above, is the location of the nearest rail spur to PAK's South Hazell lease. Teck plan to shut Coal Mountain in six years time.

The rail line shown near Elko runs up the Elk River Valley to the west of all these leases. Elko is most likely to truck due west to the rail.

Figure 12 Greenhills Open Cut Mine, Elk River Coalfield, BC

Source:http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/InformationCirculars/Documents/IC2016-2%20coal.pdf

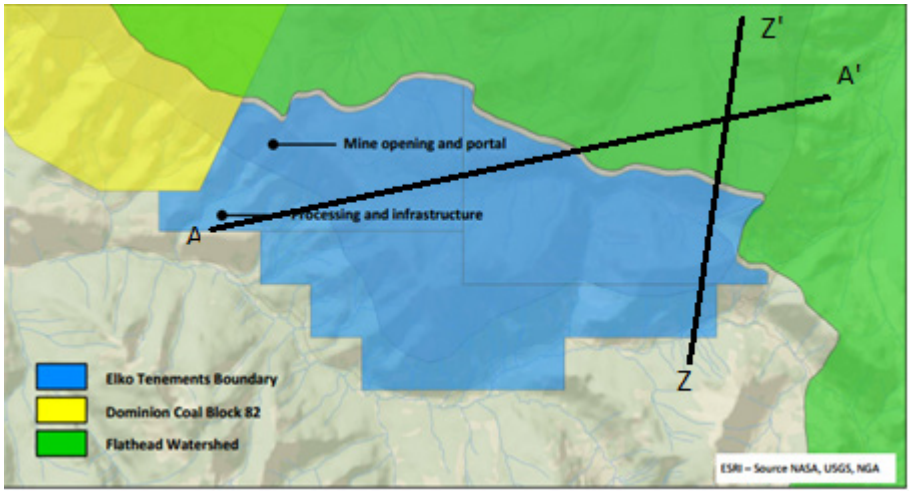
Mine location and plant design has commenced

The company commissioned Hatch to work on the mine and plant design. The following details have been released to the market so far:

- 1-2Mtpa saleable production
- Short term open cut mine to provide initial coal to provide early cash flow
- Longer term underground production to follow
- Two stages of crushing and screening
- 3 circuit preparation plant
- Product will go to the rail head 20Km to the west of the deposit by truck
- From the flowchart, it looks like a single product

The open cut stage would last no more than a couple of years at best. Other projects are modelled on stripping ratios of around 5 BCM waste:1 tonne coal, and we would expect that PAK will mine along the outcrop down to around a 5:1 strip ratio until outcrop was exhausted, with the waste being dumped inside the previously mines pit.

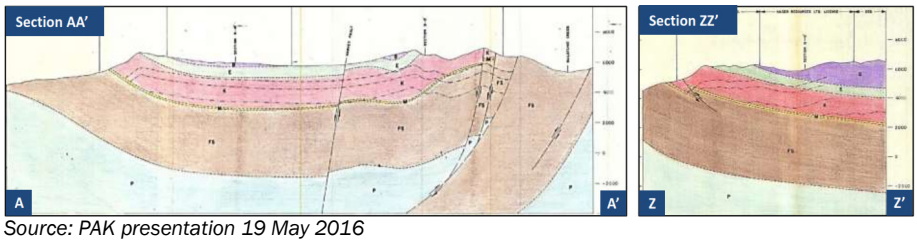
Figure 13 Location of Mine and Plant



Source: PAK release 27 June 2016

From the graphic in Figure 15, the open cut looks like it is mining 3 seams (5,6 & 7), and conveying downhill (requiring low fuel consumption) to the processing plant.

Figure 14 Section through deposit showing flat structure (refer A-A' Z-Z' in Fig 9)



Source: PAK presentation 19 May 2016

While the strata are shown as being relatively flat dipping, the underground will depend on the detailed structure, including minor faulting, intrusions, variations in seam thickness that will require detailed drilling to determine the location and amount of mineable coal. The focus appears to be on seams 6 and 7, which appear to have the highest quality (72.4-74.3% Fixed Carbon, 3.9-6.3% ash, and 7.5 to 8.0 FSI or Swell Index). At outcrop, those seams are 5.9m and 3m thick, which may allow selection of the best part of the seam to improve recovery.

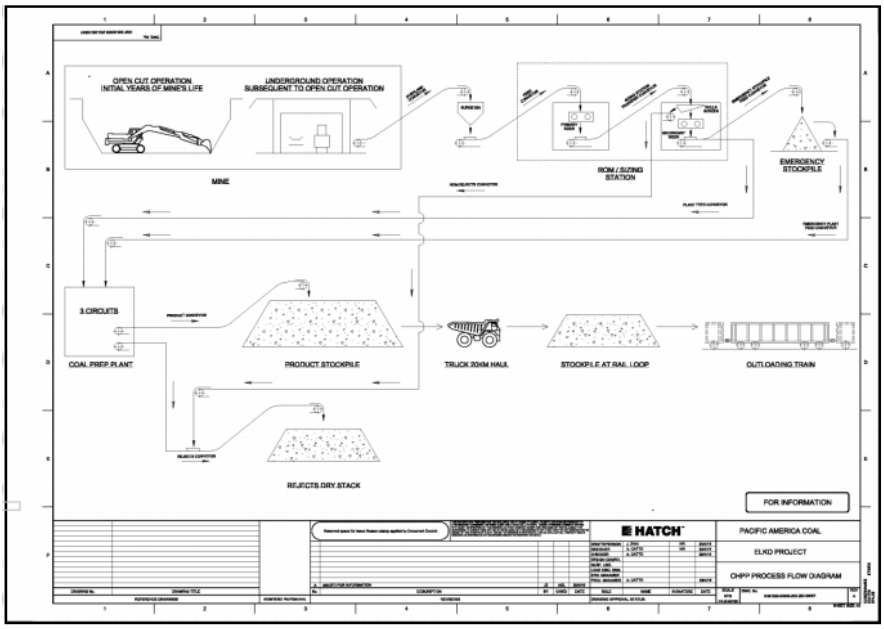
Figure 15 Open Cut Mine, Processing Plant and Topography

Source: PAK release 27 June 2016

The processing plant has the role of separating the coking coal from the entrained stone and ash. Stone comes from mined roof , floor and stone partings within the coal seam. This tends to separate from the coal and is removed in the initial crushing and screening stages. Ash is finer entrained non carbonaceous material that is removed, at the cost of losing some coal, using dense media separation in the processing plant.

The detailed drilling may reveal that a higher quality part of the seams can be selected at the mining stage, reducing the size of the plant or increasing its product output.

Figure 16 Project Flowsheet



Source: PAK release 27 June 2016

Infrastructure

Available port capacity

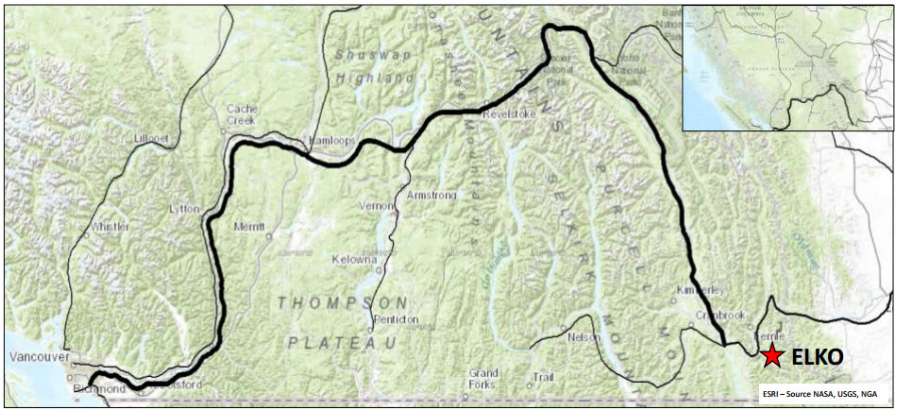
- West Shore Terminal 29Mtpa capacity
- Neptune Terminal 12.5Mtpa and expanding to 18.5mtpa
- Combined utilization 65%
- Fraser Surry Docks planning to build 4Mtpa of capacity

There is some 17mtpa of spare capacity, with another 10Mtpa planned for construction.

Rail path to port

Road transport to rail head)	20Km
Rail to Port of Vancouver	1000km

Figure 17 Rail Path to Port



Source: PAK release 27 June 2016

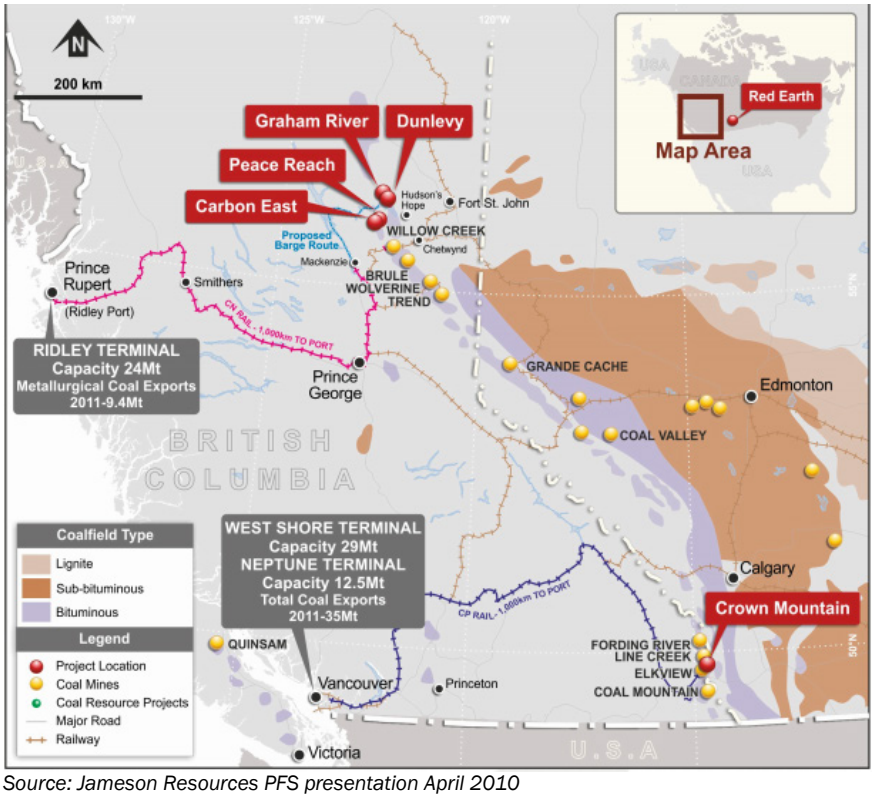
All the other mines or projects are around 100Km further from port than Elko. Based on Google Maps, we estimate the distances as:

- Fording River 1109Km
- Greenhills 1108Km
- Line Creek 1086Km
- Elkview 1068Km
- Coal Mountain 1101Km

Jameson's Crown Mountain is between Elkview and Line Creek

Riversdale's Grassy Mountain is 1106Km plus 20-30Km of truck haul.

Figure 18 Western Canadian Coal Transport Infrastructure



Source: Jameson Resources PFS presentation April 2010

Comparisons: PAK relatively cheap

Figure 19 Share Price Performance in 2016

Company	ASX Code	Price 4/01/16	Price 24/10/16	Price increase	Market Cap. A$M
Realm Resources	RRP	0.001	0.041	4000.0%	96.7
Terracom	TER	0.005	0.037	640.0%	98.1
Aspire Mining	AKM	0.008	0.035	337.5%	32.5
Jameson Resources	JAL	0.022	0.084	281.8%	18.7
Tigers Realm	TIG	0.03	0.075	150.0%	134.4
Pacific American	PAK	0.053	0.105	98.1%	15.0
Prairie Mining	PDZ	0.18	0.335	86.1%	50.8
Atrum Coal	ATU	0.45	0.77	71.1%	155.0
Cokal	CKA	0.048	0.052	8.3%	38.6

Source: Yahoo Finance

The two best performers, Realm and Terracom, acquired operating or ready to operate coal mines for token payments during this period, which puts them in a different class to the other companies. The others are more directly comparable.

Figure 20 Project Status

Company	Background
Realm Resources	Acquired 70% of Foxleigh PCI coal mine
Terracom	DFS Mongolian coking project, acquired Blair Athol thermal mine
Aspire Mining	Proving up coking coal project in Mongolia
Jameson Res.	Proving up coking coal project in Canada
Tigers Realm	Developing export coking coal project in Russia
Pacific American	Proving up coking coal project in Canada
Prairie Mining	Proving up coking coal project in Poland
Atrum Coal	Proving up coking coal project in Canada
Cokal	Coking Coal Indonesia

Source: Company websites

At a market capitalization of A$0.06/t resource, PAK is the cheapest company in our comparison table by far, and would be cheaper if we included the Hazell Exploration Target of 84Mt. The conversion of resources into reserves is much higher for open cut projects compared to underground, but PAK is also cheap relative to the underground projects, which are at A$0.20-0.38/t (PDZ,TIG,ATU). Atrum has additional resources, but not at Groundhog North.

Figure 21 Market Capitalization Per Resource Tonne

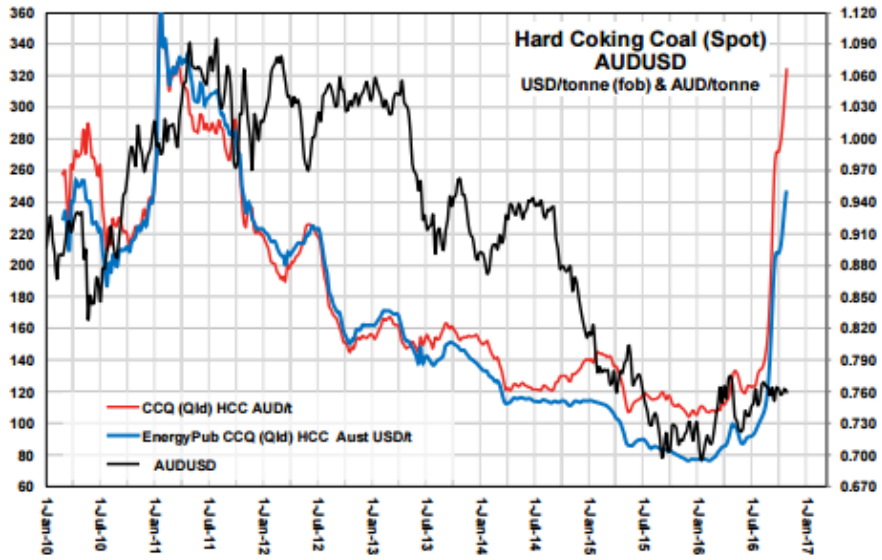
Company	Reported Resources, Reserves and Targets	Mkt Cap/ Resource A$/tonne
Aspire Mining	12.85Mt Resource OC	50.57
Jameson Res.	98.6Mt Resource OC 55.8Mt Reserves	0.19
Tigers Realm	632Mt Resource, 16.1Mt Reserve OC	0.21
Pacific American	Elko Resource 257.5Mt UG	0.06
Prairie Mining	Exploration Target 210Mt to 260Mt HCC UG	0.20
Atrum Coal	Groundhog North resource 407Mt,	0.38
Cokal	Resource BBM 266.6Mt UG	0.14

Source: Company websites

Coal Market

Forward curve volatile but forecasting US$142/t hard coking coal

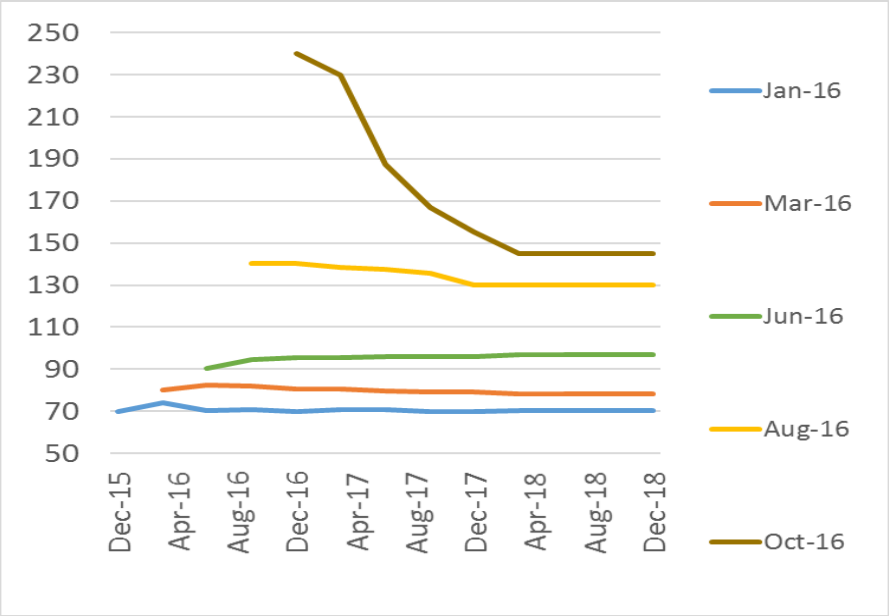
Figure 22 Coking Coal Price Trend to December 2015



Source: Matau Advisory

The five year bear market in coal prices from the 2010 peak of US$340/t to US$74/t has ended in early 2016. The recovery started slowly until to June, with prices recovering to around US$90/t and the forward curve lifting but remaining flat across the curve itself. The upward momentum increased dramatically in July, and by October, the spot price reached over US$240/t while the 2018 forward prices reached US$142/t. We are using US$140/t as our long term price

Figure 23 The Coking Coal Forward Curve in 2016



Source: Freight Investor Services

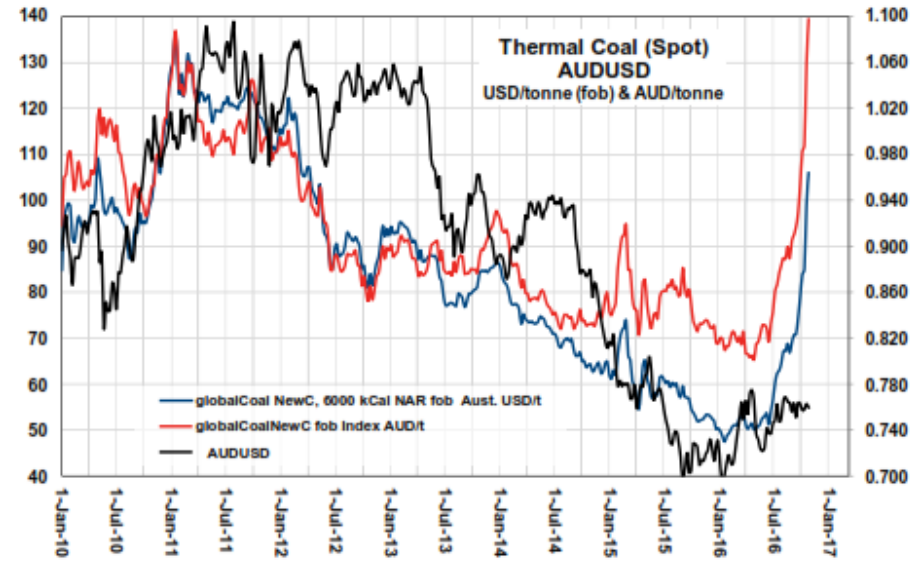
Drivers of the coking coal price recovery

The coking coal price recovery has been driven by major changes in China in supply and demand across the entire coal sector, both coking and thermal. The supply and pricing of thermal coal impacts coking coal, which is why we discuss both.

- The closure of thermal and coking capacity in China (impacts supply of both)
- The strength of electricity demand in mid 2016 (indication of Chinese growth)
- The surprising strength of steel demand in China (direct demand for coking coal)

The closure of capacity lifted prices of all varieties of coal to June, and the surge in steel and power production evident from July 2016 has driven the surge in prices.

Figure 24 Thermal Coal Prices - Asian Region



Source: Matau Advisory

With electrical consumption and steel demand (actual and expected) both suggesting that China has ended its period of contraction, and with the Central Government saying it wants to see an end to financial support for loss making coal producers by ending excessive production, we have two major forces supporting the view that higher prices will last longer than the market expects.

We do not expect coking coal prices to be sustained over US$200/tonne, but the period of sub US$100/t of the second half of 2015 appears to be the anomalous period, where prices were very oversold.

We agree with industry commentators like Teck that coking coal price should be between US$100/t and US$200/t going forward, and we have assumed US$140/t in our modelling, similar to the US$142/t forward price discussed above.

Chinese coal producing days cut from 330 to 276 ie 600tpa less supply

On 18 April 2016, Reuters (http://www.reuters.com/article/us-china-coal-idUSKCN0XF1I9) reported that The Chinese National Government was reducing the number of statutory working days for coal miners from 330 to 276 days per year, a reduction of 16.4% in official days worked.

On 2015 coal production of 3.68 billion tonnes, that reduction in days would amount to a 600Mtpa supply reduction. The real change would depend on the level of compliance to official working hours before and after the mandated change.

Such mandated capacity reductions have historically not been effective, but in this case they have, given the move in coal prices. We attribute the success to two factors:

- Compliance was managed by China's State Administration of Work Safety (www.chinasafety.gov.cn/), which had the manpower to monitor the change.
- The cuts have meant that Chinese coal miners have moved from a position where much of the industry was producing below cost, to one at current prices where every mine is generating a surplus, and therefore not drawing on Provincial Government Credit to stay in production. This is effectively a coal OPEC inside China.

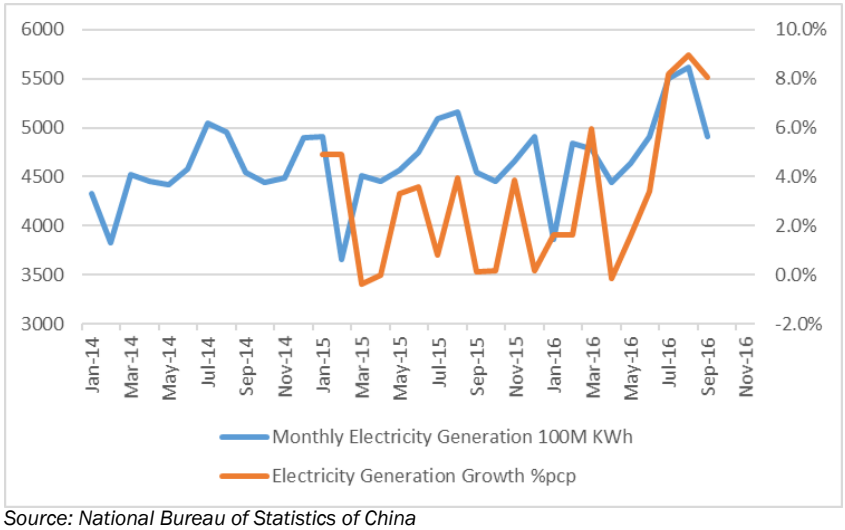
The rationale behind the reduction in production days is the result of a nationally managed rebalancing of profit sharing between the power generators, who were making good profits, and the coal miners, many of whom were booking cash losses. However, the authorities will not want the higher coal prices to drive inflation in China, and can be expected to loosen the controls in response to the surge in coal prices.

9% surge in Chinese electricity demand = a stong economy

Any return of supply would have to be sufficient to infill the demand surge in power generating of 9% yoy that emerged from July 2016, This strong growth is positive on two counts:

- More generation directly impacts demand for coal
- Electricity consumption is one of the most reliable proxies for measuring economic activity in China, and strong generation growth means a strong economy.

Figure 25 China Electricity Production 100 Million KWh and Yr on Yr Growth



Source: National Bureau of Statistics of China

Surprising strength of steel demand in Asia

Every six months, the World Steel Association forecasts expectations for current year and next year steel demand, shown in Figure 26. The outstanding feature is that 2016 Chinese demand has increased by 21Mt in 2016 (+3.1%) and a further 26Mt in 2017 (+4.2%).

Global demand is up in both years by an extra unspectacular 1%, but the regions losing growth are those that have their own coking coal production (eg USA) or those that use gas fired direct reduction (eg Middle East), and the region gaining production is China and India both of which use imported coking coal.

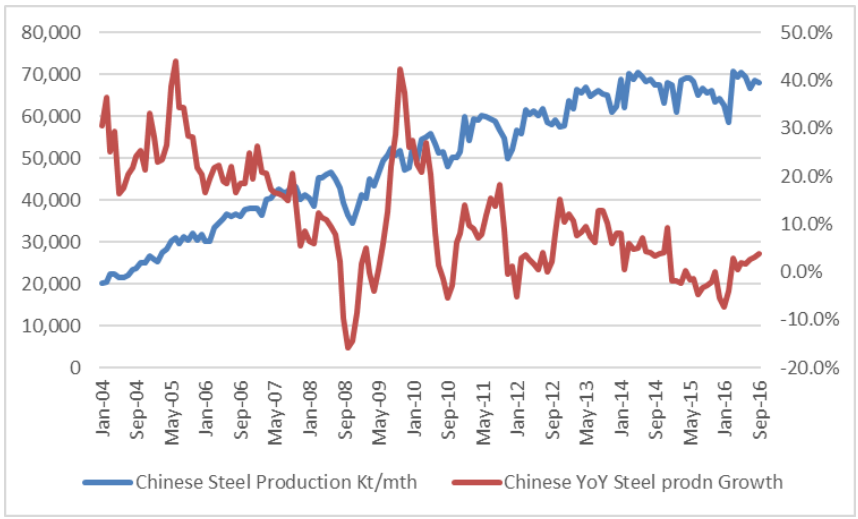
Figure 26 Global Steel Demand Forecasts April 2016 and October 2016

million tonnes	2016	2016	Growth	2017	2017	Growth
Date of forecast	Apr-16	Oct-16	YoY	Apr-16	Oct-16	YoY
EU-27	155.4	154.8	-0.4%	158.1	156.9	-0.8%
Other Europe	41.3	42.1	1.9%	42.6	43.7	2.6%
Europe	196.7	196.9	0.1%	200.7	200.6	0.0%
C.I.S.	46.3	49.6	7.1%	48.4	50.7	4.8%
N.A.F.T.A.	138.8	133.6	-3.7%	142.3	137.4	-3.4%
South America	42.6	40.8	-4.2%	44.0	42.5	-3.4%
Africa	40.5	39.5	-2.5%	43.1	41.1	-4.6%
Middle East	54.3	53.0	-2.4%	56.4	53.1	-5.9%
Japan	64.4	62.7	-2.6%	63.6	63.6	0.0%
India	83.8	84.4	0.7%	88.3	89.1	0.9%
Asia ex China	167.9	168.2	0.2%	173.7	172.2	-0.9%
Australia & NZ	7.0	7.0	0.0%	7.0	7.0	0.0%
Rest of the World	842.3	835.7	-0.8%	867.5	857.3	-1.2%
China	645.4	665.6	**3.1%**	626.1	652.3	**4.2%**
World	1487.7	1501.3	0.9%	1493.6	1509.6	1.1%

Source: World Steel Association half yearly demand forecasts

While Chinese steel production grew strongly from early in 2016, the yoy comparisons only turned positive from around April. and this was feeding through to firmer coking coal prices ahead of the capacity closures that lifted thermal coal.

Figure 27 Chinese Crude Steel Production Kt/month and Year on Year Change



Source: World Steel Association Monthly Production Report

Carbon Nanotechnology Business

Pacific American Coal Limited holds a 40% equity interest in Imagine IM, which forms the cornerstone of the Company's investment into technology companies. Imagine IM is focused on delivering value through the commercialization of graphene based technologies. The Imagine Intelligent Materials website is http://imgne.com/.

Imagine IM has a pilot graphene plant able to produce up to 10 tpa of graphene in Geelong, Victoria, and tailors products for various applications. Graphene is still a small volume industry and a plant of this size is regarded as commercial in scale.

At this stage, we do not have a clear path to valuing the investment. PAK paid A$1.25M to purchase 20% on 2 June 2016, and a second 20% for the allotment of 26.099M PAK shares on 2 August 2016, which at the time was worth A$4.3M at market prices for PAK. The book value in PAKs accounts of the second tranche was A$1.25M giving a book value of the 40% interest of A$2.5M.

Imagine IM business model

The business model is to generate revenue streams in three areas:

- Licencing
  - Royalties paid by customers for technical solutions
  - Certification across supply chain part of licencing agreements
- Manufacturing
  - Manufacture of graphene and certified master batches
  - Sale of certified material to other manufacturers' supply chains
- Certification
  - Provision of characterization and materials analysis to ensure quality assurance across the supply chains of others

Commercial agreements being signed

Imagine IM has announced the following commercial arrangements with customers:

1. MoU with Duromer Group to develop permanently anti-static and static dispersive thermoplastic pipes, packaging and consumer products.
2. MoU with TenCate Geosynthetics, the largest geotextile manufacturing company in the USA, and will be Imagine IM's first move into polypropylene geotextiles. Geotextiles are long life fabrics with varying degrees of porosity used control soil and moisture movement. In this case, the Imagine IM graphene will be used to add leakage detection ability to the fabric. This application is expected to consume 2-3 tpa of Imagine's production.
3. Executed sales and certification deal with MRL Corporation to provide characterization analysis and certification for the graphite mined by MRL, with a commission on graphite and graphene sold.
4. Supplier of graphene to Geofabrics Australia
5. First sales order from Geofabrics received on 1 November 2016 for imgne® X3 master batch for a coal seam gas tailings tank liner.

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1. http://www.pamcoal.com/Assets/Documents/2016ASX/1604704%20-%20Imagine%20IM%20expands%20graphene%20commercialisation%20markets.pdf
2. http://www.pamcoal.com/Assets/Documents/2016ASX/1601212%20-%20Imagine%20Intelligent%20Materials%20-%20Update.pdf
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Share Structure

Shares and options on issue

Figure 28 Share and Option Detail

As At:	Shares M	Options M
30-Jun-16	116.21	53.38
9-Aug-16	26.10	
Total	142.31	53.38
Rights Issue	17.79	8.89
Total	160.09	62.28

Source: PAK June 2016 Accounts, releases of 9 August 2016, and 21 October 2016

- The existing options have a conversion price of A$0.25/sh and expire on 31 December 2017.
- The options associated with the rights issue have a conversion price of A$0.25/sh and an expiry date 0f 31 December 2017 as well.

The current rights issue

PAK has announced a 1:8 non-renounceable rights issue to raise A$1.8M on 21 October 2016, at A$0.10/sh, with one attached option for every two shares subscribed, to fund ongoing development of the Elko Coal Project.

Far East Capital is the lead manager to the issue.

Figure 29 Issue Timetable

Event	Date
Market Announcement of offer	Friday 21 October 2016
Notice to option holders that they cannot participate without first exercising	Wednesday 2 November 2016
Notice containing Appendix 3B details and indicative timetable sent to shareholders	Thursday 3 November 2016
Shares trade "ex Entitlement"	Friday 4 November 2016
Record date for determining eligibility to participate in the entitlement offer	Monday 7 November 2016
Offer Document and Entitlement and Acceptance Forms despatched to Eligible Shareholders	Thursday 10 November 2016
Entitlement Offer opens	Thursday 10 November 2016
Last day to expend closing date	Friday 25 November 2016
Entitlement offer closes - last date for lodging Acceptance forms and lodging application money in full by 5.00pm Sydney time.	Wednesday 30 November 2016
Deferred settlement trading of new shares	Thursday 1 December 2016
Announcement of shortfall	Monday 5 December 2016
Allotment of new shares and new options under entitlement offer and dispatch of holding statements for new shares. Deferred settlement trading stops.	Wednesday 7 December 2016
Commencement of trading of new shares and new options on a normal basis.	Thursday 8 December 2016

Source: PAK release 21 October 2016

Board and Management

Board

Geoffrey Hill, Chairman B.Ec, MBA, FCPA, FAICD

Geoffrey Hill currently serves as the Chairman of Pacific American Coal and is a founder and the Chairman of Texas and Oklahoma Coal Co. He is currently Chairman of International Pacific Securities and a principal of Sherlock and Willis. Mr Hill has over 30 years of experience in merchant banking with expensive experience in the resources industry.

Simon Bird, Director, B.Acc. (Hons) FCPA FAICD

Simon Bird is an accomplished senior executive with over 30 years of experience in Africa, Europe and Australia. Simon's career includes six years with PWC and time in the resources, financial services, property, infrastructure and agricultural sectors. Mr Bird currently holds non-executive director and Chairman roles on ASX listed resources companies.

Paul Chappell, Director, B. Comm, FCPA, MAICD

Paul Chappell has more than 30 years in the coal industry, including as a Director in trading international commodities. He has a substantial board experience in coal exploration, development and mining, He has extensive experience in Asian, Latin American and European markets.

Management

Mark Sykes, Chief Executive Officer, B,Eng (Mining), MMEE

Mark Sykes is an experienced mining engineer with operational and project management experience gained over 25 years in the industry. Mark has worked in operational and management roles in both underground and open cut mines in Australia.

Dom Hill, Business Development Manager

Dom bases his time between Dallas and Vancouver and is responsible for project identification, acquisition and investor relations and engagement. Dom has recently been involved with developing and delivering the Elko exploration program.

Investment risks

PAK is exposed to risks including:

- Geological risk: the actual characteristic of a coal deposit may differ significantly from initial interpretations.
- Resource risk: all resource estimates are expressions of judgment based on knowledge, experience and industry practice. Estimates, which were valid when originally calculated may alter significantly when new information or techniques become available. In addition, by their very nature, resource estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate.
- Environmental Risk: The exploration lease abuts the Flathead catchment reserve inside which no coal mining is allowed. The reserve is a joint agreement between Canada and the USA, and any changes must be agreed between both countries. The border of the reserve is the crests of the mountain range that defines the water catchment, and the Elko leases are on the other side of that divide. We see minimal risk from this source.
- Capital cost and operational cost risk: an increase in capital costs and operating costs will reduce the profitability and free cash generation of the project.
- Commodity price and exchange rate risk: as with all mining and mineral exploration companies, commodity price and exchange rate risks should also be considered.
- Management and labour risk: an experienced and skilled management team is essential to the successful development and operation of mining projects.

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