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# HALLGARTEN & COMPANY

## Coverage Update

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# Colonial Coal International

(TSX-V: CAD, FSE: A1C8BM, OTC: CCARF)

## Strategy: LONG

| Key Metrics | |
|---|---|
| Price (CAD) | $0.39 |
| 12-Month Target Price (CAD) | $1.10 |
| Upside to Target | 182% |
| 12 mth high-low | $0.085-$0.44 |
| Market Cap (CAD mn) | $57.99 |
| Shares Outstanding (millions) | 148.7 |
| Fully Diluted (millions) | 183.4 |

# Colonial Coal Intl

## Flatbed PEA piles on the NPV

- + PEA results have just been announced on the Flatbed deposit showing an NPV of US$691mn (CAD$898mn), starkly highlighting this company's current undervaluation
- + Pre-production capital cost for the underground mine at Flatbed is estimated at US$300mn (CAD$391mn)
- + The PEA uses US$164.80 per tonne as the coking coal price while, currently, transactions are occurring at over $200 per tonne implying even more enhanced economics should the price trend be sustained
- + Existence of two unused coal washing and rail loadouts in close proximity has the potential to slash CapEx for Flatbed
- + Management has past form in positioning coal assets for sale to the highest bidder at the most propitious moment, entering into joint ventures, or taking projects to production
- + The price of coking coal has staged a strong rebound in the last two years now standing at more than twice the level of its nadir in mid-2016
- + Two hard coking coal (HCC) projects strategically positioned in western Canada to service Asian steel producers
- + Using a conservative metric of USD$1 per in situ tonne of resource then, between the two projects, a valuation of around USD$700mn would be appropriate
- ✖ A strategy of projects/company acquisition by a larger player the company is somewhat at the mercy of corporate development decisions, which are outside its control
- ✖ The fortunes of coking coal are closely tied to the steel industry which in turn is closely correlated with global economic activity, particularly in emerging economies. Any slowdown in global activity impacting production of steel and thus coking coal prices

**A Proven Formula of Building Value**

The management at Colonial Coal are no strangers to the "build it and they will come" philosophy of mining evolution. The team built up and advanced the core metallurgical coal assets belonging to Western Canadian Coal and Northern Energy & Mining (NEMI) during the go-go years of the Commodity Supercycle. Those assets were acquired for an eye-watering multi-billion dollar price. In the more subdued environment of the current decade the team has sallied forth to repeat the building process. Underlying met coal prices initially looked challenging but now have returned to robust good health and yet the investor universe is still confused between met coal and thermal coal in the age of global warming. There is no replacing met coal in the steel making process.

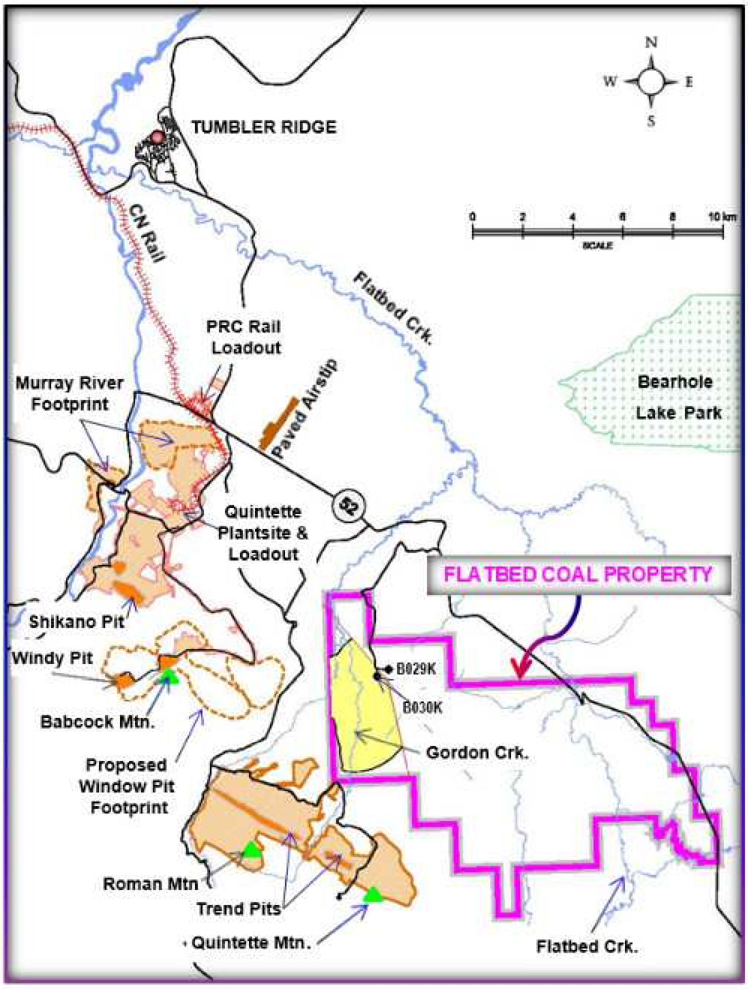
China is no longer perceived as the sole driver of demand in the steel space with India as a rising power.

However, through the long drought of 2011-2016, when investor interest in mining was at a multi-decade low and when certain metals/minerals were regarded as untouchable, Colonial Coal continued to advance its collection of synergistic assets in British Columbia with the goal of servicing the still burgeoning Asian demand for coking coal.

Much to the pundits' surprise coking coal has risen from the dead and yet few, besides Colonial, have focused on creating a new pipeline of projects to meet this opportunity. In this coverage update we shall review the latest PEA announcement of Colonial Coal's Flatbed project and the implications for valuation in possible takeout scenarios.

**Flatbed**

The Flatbed Coal project covers a total area of 9,607 ha and consists of one contiguous block of eight coal licenses. The property is located within the Peace River Coalfield, approximately eight and 10 kilometers from the existing Quintette and PRC (Trend-Roman Mine) loadouts, respectively and approximately 27kms south-southeast of the town of Tumbler Ridge.




The position of the property with respect to population centres, roads, rail lines, coal mines and other major coal deposits is shown in the map at the right.

Flatbed is located adjacent to Anglo-American's Trend mine (under care and maintenance since January 2015), Teck's proposed Window open pit (Mt. Babcock, Quintette), and close to HD Mining's advanced underground coal mining project at Murray River

**History**

Portions of the Flatbed property have been held in the past by two different coal exploration companies; namely, Denison Mines from the early 1970's to mid-1980's, and Kennecott Canada between 2007 and 2009.

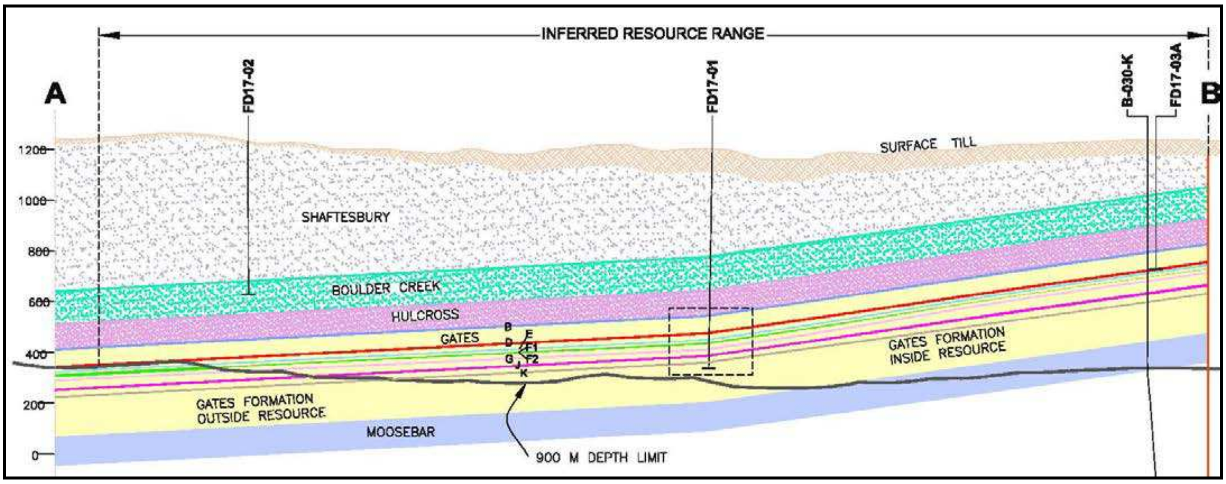
The only historic exploration undertaken within the property, prior to Colonial's appearance on the scene, was four O&G wells and limited geological mapping by Denison in the 1970's. An independent review of O&G well data, completed in 2012, identified three targets within the property, as being worthy of exploration aimed at locating underground mineable coking coal deposits. One of these targets, the Gordon Creek area, was the focus of the Flatbed coal exploration program in 2017.

**Geology**

As with the Huguenot property, the Flatbed Coal Project lies within a belt of Mesozoic strata that form part of the Rocky Mountain Foothills of northeastern British Columbia. The coal seams of greatest potential are again found within the Lower Cretaceous Gates Formation which contains the largest systematically explored coal resources within the Peace River Coalfield. Significant thicknesses of Gates coal first occur in the Bullmoose Mountain area and continue southeast to the B.C./Alberta border, a distance of almost 140km, and beyond.

Within the Tumbler Ridge region, the Gates Formation is divided into three informal sub-divisions; the Quintette member, middle Gates and upper Gates. The main coal seams occur within the middle Gates while thinner, usually non-economic, coal seams are present within the upper Gates. Atypically, in the Gordon Creek area, the upper Gates contains one coal seam of potential economic importance (Seam B). Within the Flatbed property, the Gates Formation ranges between 250m and 310m in thickness.

At Gordon Creek, the Gates Formation contains eight coal seams labelled from B to K, in descending order. The thickest is Seam J, which ranges from 3.38m to 5.30m. Adjacent to the Gordon Creek area, at Babcock Mountain and Roman Mountain, aggregate economic coal seam thicknesses of 15m to 18m are common. Total thickness of the main coal seams at Gordon Creek is approximately 21m. A cross-section illustrating the Gordon Creek area of the Flatbed property is shown below.



The Gordon Creek area contains strata that dip approximately 11° towards the southwest. The resource area is delimited by the property boundary and, in the northeast, by a major high-angle fault that strikes parallel to the NW-SE regional structural trend.

The authors of the early 2018 resource estimate noted that, within the Gordon Creek area, there is no potential for coal seams of interest to crop out. The depth below surface to Seam B within the resource area varies from approximately 390m near the northern limit of the coal resource area, to 900m in the south, near the western boundary of the property.

**Exploration at Flatbed**

Although portions of the current Flatbed property were previously held by other mining companies, other than some limited geological mapping along Gordon Creek, no other previous coal exploration occurred on the property before 2017. However, the property has seen significant O&G exploration over the past 40 years and there are currently four O&G wells and numerous seismic lines within the property.

Exploration conducted by Colonial in 2017 consisted of five HQ-size diamond drill holes located on four, widely-spaced sites for a total of 2,832m of drilling; limited geological mapping was also carried out. Additional geological data was supplied by two O&G holes drilled in 2007 and 2008.

**Resource**

A NI43-101 compliant Resource estimate on the Gordon Creek area of the Flatbed property was prepared by Norwest in January 2018. Using a 1.0m minimum seam thickness, and depth of cover limit of 900m, an in-situ underground mineable coking coal Inferred resource of 298mn tonnes was estimated. The coking coal underground resource estimates are summarized in the table at the right.

**Flatbed - Gordon Creek - Resource**

| Seam ID | Formation | Category | Tonnes mn |
|---|---|---|---|
| B | Gates | Inferred | 52.2 |
| D | Gates | Inferred | 36.6 |
| E | Gates | Inferred | 19.1 |
| F1 | Gates | Inferred | 21.0 |
| F2 | Gates | Inferred | 49.2 |
| G | Gates | Inferred | 34.8 |
| J | Gates | Inferred | 54.2 |
| K | Gates | Inferred | 30.9 |
| **Total** | | **Inferred** | **298.0** |

From the results of the initial coal quality testing program on Gates Formation coal seams in the Gordon Creek area, Seams B to G would be marketed as hard coking coals while Seams J and K, meeting the requirements of semi-soft coking coals, would be better marketed as premium PCI coals.

Analytical results indicated that the Gates coal seams within the Gordon Creek area are metallurgical coals and coal from Seams B to G would yield a coking coal product after beneficiation in a wash plant at an 8% to 9% ash air dried basis (adb) product range.

**Flatbed - Premium Coking Coal (dry basis) Characteristics**

| Seam | Ash % | VM % | FC % | S % | FSI | P % in coal | Theoretical Yield % | RoMax % |
|---|---|---|---|---|---|---|---|---|
| **B** | 8.90% | 25.17% | 65.93% | 0.93% | 8.5 | 0.081% | 57.16% | 1.19% |
| **D** | 8.41% | 25.21% | 66.37% | 0.82% | 6.0 | 0.05% | 56.76% | 1.17% |
| **E** | 8.21% | 22.71% | 69.09% | 1.33% | 8.0 | 0.04% | 77.68% | 1.29% |
| **F1** | 8.62% | 22.03% | 69.35% | 0.58% | 8.0 | 0.06% | 62.78% | 1.32% |
| **F2** | 8.31% | 21.36% | 70.33% | 0.39% | 7.0 | 0.05% | 83.32% | 1.32% |
| **G** | 7.97% | 20.74% | 71.30% | 0.53% | 8.0 | 0.09% | 46.43% | 1.39% |
| **J** | 8.50% | 18.50% | 73.00% | 0.37% | 3.5 | 0.02% | 80.43% | 1.45% |
| **K** | 6.04% | 18.23% | 75.72% | 0.41% | 3.5 | 0.002% | 58.84% | 1.43% |

Clean coal composite (CCC) samples using both floats and froths from each seam indicated that washing to approximately an 8% to 9% ash product (adb) is possible with estimated clean coal free swelling indices (FSI) for the coking coals (Seams B, D, F1 + F2), and G) ranging between 6.0 and 8.5.

Previously, Seams J and K were viewed solely as semi soft coking coals. However, their overall coal quality characteristics are also suitable for premium PCI coals. The table below shows Flatbed coking coal relative to Canadian comparables:

**Flatbed Compared**

| | Flatbed Coking Coal[1] | | Canadian NEBC HCC[2] | Canadian SEBC HCC[2] |
|---|---|---|---|---|
| | Min | Max | | |
| Total Moisture (% as received) | 8 | 9 | 8 - 9 | 8 |
| Volatile Matter (% dry) | 20.74 | 25.24 | 23.0 - 24.5 | 21.0 - 27.0 |
| Ash Content (% dry) | 7.97 | 8.93 | 8.25 - 8.60 | 8.5 - 9.6 |
| Sulphur Content (% dry) | 0.44 | 0.90 | 0.45 - 0.55 | 0.35 - 0.75 |
| Free Swelling Index (FSI) | 6 | 8 | 7 - 8 | 6 - 8 |
| Mean Max Reflectance of Vitrinite (%) | 1.18 | 1.39 | 1.15 - 1.25 | 1.08 - 1.35 |
| Maximum Fluidity (ddpm) | 12 | 1135 | 150 - 300 | 40 - 300 |
| Phosphorus in Coal (% dry) | 0.049 | 0.089 | 0.008 - 0.040 | 0.010 - 0.065 |
| Base/Acid Ratio of Ash | 0.080 | 0.215 | 0.12 - 0.18 | 0.07 - 0.10 |
| Coke Strength after Reaction (CSR)* | 51 | 70 | 58 - 60 | 68 - 72 |

Note: * = Calculated

1) Results based on laboratory scale washing and testing of exploration samples.

2) Results based on full washing plant under operating conditions.

**The PEA**

In recent days the company has reported results of a PEA for the Gordon Creek area of the Flatbed property. The NI 43-101 compliant PEA was prepared by Norwest Corporation now Stantec Consulting Services. The results of the PEA demonstrate the positive economics of the project.

The *in situ* and potentially mineable resources (dating from early this year) were used as a base for the PEA. The consultants developed a conceptual mine plan to exploit the coal resources using underground mining methods, and prepared scoping-level cost estimates and economic analyses.

The PEA is based on a conceptual underground mine plan that targets 111.6mn run-of-mine tonnes of resource, with a yield of 51%, producing 57.4mn tonnes of clean coal over a mine life of 30 years. Seam E is not mined and Seams F1 and F2 are combined to form one mining section referred to as Seam F.

The project's potential coal production is identified as coking coal from Seams B to G and premium PCI coal for Seams J and K. Seams J and K, which would be mined last, are the two deepest seams and represent approximately 28.6% of the reported resources and approximately 31.5% of the reported saleable tonnes.

In full mine operation, projected clean coal production ranges from 1.6mn tonnes per annum to 2.6mn tonnes per annum, averaging approximately 1.9mn tonnes per annum.

**Economics**

The PEA, utilising an exchange rate of US$1.00 equals CAD$1.30, estimated that the Gordon Creek project has an indicative after-tax (and royalty) net present value of US$690.5mn (CAD$897.7mn). This calculation used a 7.5% discount rate, and produced an IRR of 24.4%, based on a weighted average coking coal price of US$164.80 per tonne and a premium PCI coal price of US$140.50 per tonne.

Pre-production capital cost for the underground mine is estimated at US$300mn (CAD$391mn), with additional sustaining capital of US$406mn (CAD$528mn) over the life-of-mine.

The payback of initial capital is estimated to be within three years from the start of coal production.

**Selling Prices**

The financial analysis suggests that the "break-even" coal price is less than US$91.10, US$96.50, and US$103.30 per tonne for discount rates of 5%, 7.5% and 10%, respectively. It also indicates that for a 15% IRR, a minimum coal price of US$119.9 per tonne would be required.

Selling prices were determined for each product coking coal from Seams B, D, F (combined F1 and F2), and G. These prices ranged from US$156 to US$176.50 per tonne; the weighted average coking coal price of US$164.80 per tonne represents a discount of US$20.20 per tonne from a projected long-term benchmark price of US$185 per tonne for premium low volatile hard coking coal.

Seams J and K were priced as premium PCI coals with no discount to the projected long-term PCI benchmark price of US$140.50 per tonne. The overall weighted average price for all coal types is US$160.50 per tonne.

The table below shows how the NPV pans out in both US and CAD dollars at various discount rates:

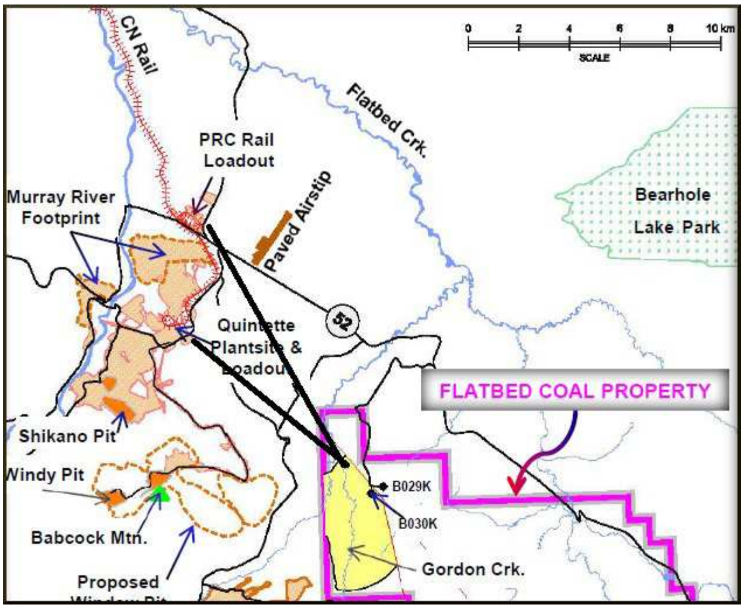
| Coal Price | NPV (millions) at Varying Discount Rates with IRR | | | |
|---|---|---|---|---|
| | 5% | 7.50% | 10% | IRR (%) |
| **US$160.50/t** | **$1,081** | **$691** | **$446** | **24.40%** |
| **CAD$208.70/t** | **$1,405** | **$898** | **$579** | **24.40%** |

**Opex**

Total costs FOB port, including direct mine site costs, offsite costs and indirect costs are estimated at US$80.91 (CAD$105.19) per tonne. This includes mine site costs of US$41.16 per tonne, offsite costs of US$25.42 per tonne for trucking, rail car loading, rail and port charges, and indirect costs of US$14.33 per tonne for mineral taxes, royalties and corporate overhead.

**Logistics**

Production from Huguenot and Flatbed would be shipped by rail to export terminals on the west coast of British Columbia. The rail lines out of the Peace River Coalfield are operated by a Class I Canadian carrier (CN Rail, largest railway company in Canada) and have available capacity to support future production from Huguenot and Flatbed.




The PEA on the Gordon Creek deposit assumed that the output would be trucked 16km by road to the existing rail line south of Tumbler Ridge. The rail line would be accessed via a loadout located in the area of an existing coal loadout operated by Peace River Coal. Costs for trucking product coal to the proposed loadout were included in the project's operating cost projections.

From the existing rail loadouts, coal is hauled by rail approximately 1,000 km to the Ridley Terminal in Prince Rupert. Coal from Huguenot would require an additional 85km rail haul from a rail load out at the proposed plant site, while coal from Flatbed would only require a spur line a few kilometres in length to connect to existing rail.

The Ridley Terminal is a deep water port with a total coal capacity of 18mn tpa. It has one of the deepest, ice-free natural harbours in the world and is 100% owned by the Government of Canada. The port is capable of supporting cape-size vessels (i.e. 250,000 DWT).

**Savings Potential**

One of the largest items traditionally for met coal projects has been the site infrastructure particularly the rail loadout and washing plant. One might expect that this item could be 25% to 30% of the total capex and for a project of the size of Flatbed of the order of more than $100mn.

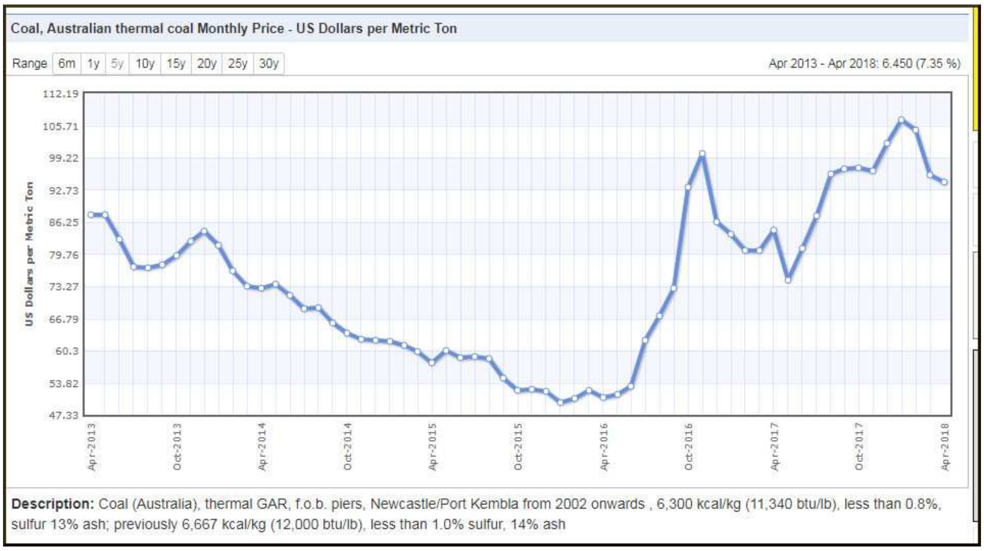
It should be noted though that there are two (currently) unused coal washing and loadout facilities within ten kilometres of Gordon Creek. These are the PRC loadout and the Quintette loadout.

A deal to utilize either of these facilities would massively reduce the capex of the Flatbed project.

**Coking Coal Price Dynamics**

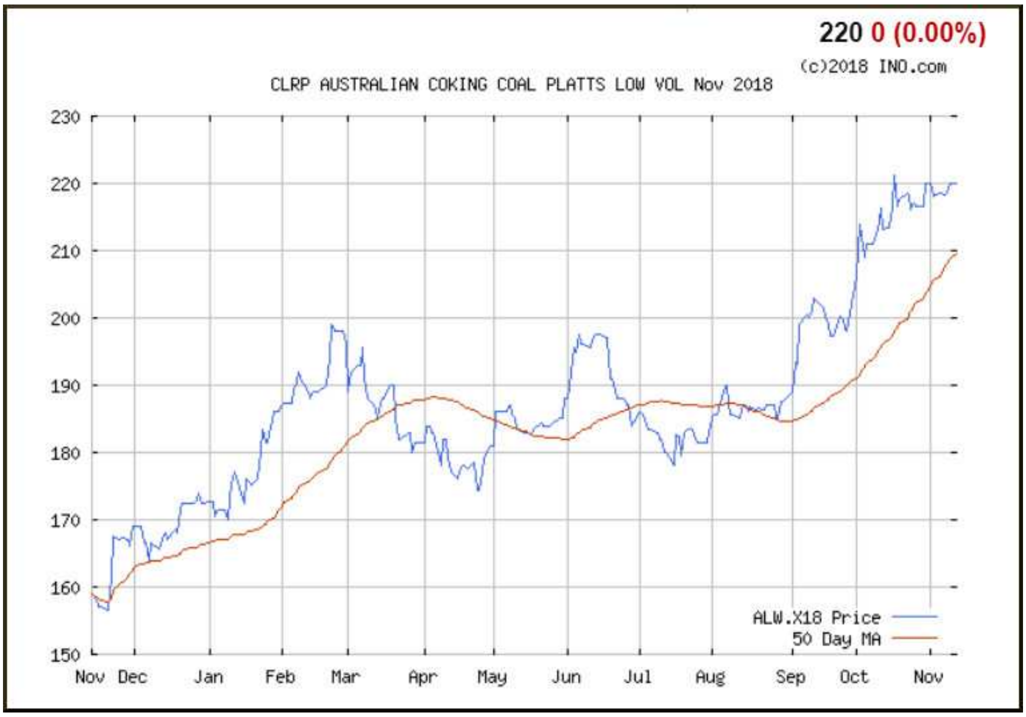
It was inevitable that, with the Commodities Supercycle being driven by the Chinese and the key underpinning of that Supercycle being steel, that coking coal should have been driven up by that economic phenomenon and then sucked back down as sentiment turned against bulk minerals and, indeed, all minerals after 2011.

According to World Steel Association, 70% of steel produced today uses coal, and China is the most important part of the puzzle as it produces half of the total crude steel in the world. With China as the largest consumer of metallurgical coal, its rising crude steel output has pulled coking coal prices higher as can been seen in the chart of coking coal prices from 2013 to early 2018 at the right.




Beyond the rising coking coal demand in China, there were new restrictions on the mining industry which reduced domestic supply and put further upward pressure on metallurgical coal prices since last year. Metal Bulletin reported that the Chinese government implemented a cap on the number of working days for miners, which curbed domestic production of metallurgical coal and helped push prices higher. Hence the dramatic "rising from the dead" of the coking coal price from mid-2016 that saw the price treble (something no other mineral, excepting Cobalt, has managed) which then prompted the inevitable pullback.

As the chart below shows, prices spent most of the middle of this year consolidating but have now returned to a steep upward trajectory. This is a stark contrast to the weak base metals prices which are attributed (we believe incorrectly) to economic nervousness regarding the US-China trade tussle. This dispute seems to have had no negative impact on Australian coking coal prices.




*Source: INO/Platts*

It is useful to reiterate the view of management at Colonial Coal: "…. at US$180 a tonne, everybody makes good money. The steel companies make money, the coal companies make money, and everybody's in good shape".

This is particularly true for Canadian and Australian coking coal vendors who are operating with a strong competitive currency advantage in comparison to US producers.

**The Strategy**

In broad terms the game plan at Colonial Coal is to repeat the strategy that company's founder, David

Austin, pursued at the two coal companies he had previously founded, Northern Energy & Mining and Western Canadian Coal. The latter company was sold to Walter Energy in late 2010 for $3.3 billion while in 2011 Anglo acquired the remaining 25% of PRC (held by NEMI and Hillsborough Resources) for $166mm ($664mn for 100%).

**Possible Outcomes**

In our previous coverage of Colonial Coal we employed a measure to assess the potential dollar value of a Huguenot sale of a rough US$1 per tonne of HCC in the ground. This gave a valuation of USD$278mn to Huguenot on just the M&I resource and potentially another US$119mn when applying the same metric to the Inferred resources. Using the same approach at Flatbed (where the entire resource is Inferred) then one would add a further $298mn in value.

With the current market cap around US$58mn this would imply that the stock is trading at way less than one tenth of the combined value of Huguenot and Flatbed alone, using the very conservative $1 per in-situ tonne metric.

It is also useful to consider the similarities between now and when the previous Western Coal and NEMI deals were consummated. A number of years have gone by since the last fevered moment in the coking coal space but it is interesting to look at some differences between now and then:

- In 2010, coking coal was at US$140 per tonne and the US Dollar was at parity with the Canadian dollar
- In 2018 coking coal is at US$220 per tonne and the US dollar is at $1.32 to the Canadian dollar

The move in price and currency juices up the valuations at which asset sales are likely to be transacted compensating for the absence of the euphoria that existed at the tail end of the Supercycle period when the last bout of transactions were undertaken.

It should also be remembered that back at the end of the last decade it was widely posited that the acquirers would be steel mills in Asia or at least big industrial mining groups, particularly from China while, in reality, the most aggressive bidders were Western mining groups bent on accumulation.

This time around it will be both the Western groups (needing to replace depleted reserves to remain in the game) and the end-users who will most likely slug it out to get positioned in new developments.

**Risks**

There are a number of potential risks that should be taken into consideration:

- Global economic conditions deteriorate due to a rising interest rate scenario or slowing growth or both
- Exchange rates moving closer to parity with the US dollar
- That the coking coal price moves sharply lower
- Financing difficulties
- An acquirer fails to materialise

The main dangers for Colonial Coal are the co-related risks of a slower global economy (with steel production slackening) and a consequent slide in prices for coking coal if steel industry demand softens.

It is not a fanciful projection to posit that insufficient projects will appear to satisfy coking coal demand as there has been underinvestment for some years now and new districts are not being identified (if they indeed exist). If realized, this scenario would extend the upward price cycle, making a campaign by majors to mop up independents such as Colonial Coal more likely. Thus the prospect of predators sitting on their hands is unlikely.

**Conclusion**

The mining markets in general are in a "trade war"-induced swoon that bears little comparison with reality. Life goes on and, moreover, production of steel goes on so the rough treatment meted out to the met coal mining stocks is somewhat ludicrous when one considers the ever-rising prices of seaborne met coal due to supply and other problems. Steel production has continued apace in the emerging economies, particularly China and India, and there was little being done in recent times to add to future reserves to service need when the global economy picked up. This is where Colonial comes to the attention of those looking for the next addition to the supply equation.

The PEA on Flatbed is timely as previously all it had hitherto was a resource statement. The Flatbed project is in a busy piece of territory for major coal mines and global operators as it is located adjacent to Anglo-American's Trend mine (under care and maintenance since January 2015), Teck's proposed Window open pit (Mt. Babcock, Quintette), and close to HD Mining's advanced underground coal mining project at Murray River. The highly transited zone signifies that Colonal's Flatbed is an outlier in not being owned by a major and thus it is prime fodder for the pipelines of majors.

The management team in their previous incarnation at Western and NEMI picked up strategically important coking coal assets at a time of low interest and low prices and were instrumental in moving these assets along the development curve such that they were sold at the top of the last coal wave with stunning value uplift. The Colonial Coal management team has patiently worked their assets through the most recent mining lull with the goal of producing a similar feat to that which they pulled off in 2010 and 2011. As we have noted before Colonial Coal looks ripe for "slicing and dicing" with Huguenot or Flatbed or both being eminently saleable assets now that both have a PEA in hand.

Even using a very conservative valuation of US$1 per in-situ tonne at Huguenot and Flatbed the stock is trading at one tenth of realizable value of its two main assets. Since our last coverage the stock has gone up (briefly) then down and now is back around where the previous note's level. This is despite the storming price of coking coal, particularly in the Australian market.

The Flatbed PEA has been well-received by the market and this has energized the price of Colonial Coal to the upside in recent weeks. In light of all these factors we reiterate Colonial Coal as a **LONG** in our Model Mining Portfolio and confirm our 12-month target price of CAD$1.10.

## Important disclosures

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