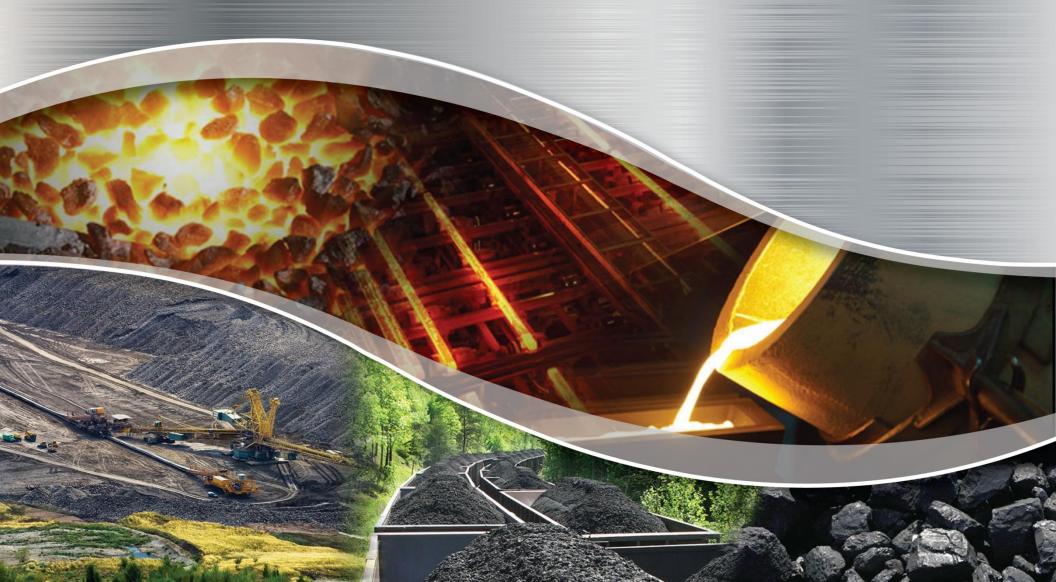


# Colonial Coal International Corp.

Western Canada's Leading Coking Coal Developer

**2023 January Investor Presentation** 



# **Legal Disclaimers**



This presentation may contain forward-looking statements, and forward-looking information under applicable securities laws including management's expectations of future production, cash flow, and earnings. These statements are based on current expectations that involve a number of risks and uncertainties, which could cause actual results to differ from those anticipated. These risks and uncertainties include, but are not limited to: the risks associated with the commodity industry (e.g. operational risks in development, exploration and production; delays or changes in plans with respect to exploration or development projects or capital expenditures; the uncertainty of reserve estimates; the uncertainty of estimates and projections relating to production, costs and expenses, and health, safety and environmental risks), commodity price, price and exchange rate fluctuation and uncertainties resulting from potential delays or changes in plans with respect to exploration or development projects or capital expenditures.

There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Colonial Coal undertakes no duty to update any of the forward-looking information herein. The reader is cautioned not to place undue reliance on forward-looking statements.

The scientific and technical information relating to the Huguenot and Flatbed properties have been derived from the Huguenot Project Technical Reports (dated July 31, 2018 and January 8, 2020) and the Gordon Creek Project (Flatbed Coal property) Technical Report (dated December 21, 2018), respectively. These reports have been filed on sedar.com under Colonial Coal International Corp. (Colonial). Copies of the technical reports will be made available to investors upon request.

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### Cautionary Note to US Investors Concerning Resource Estimate:

The resource estimates in this document were prepared in accordance with National Instrument 43-101, adopted by the Canadian Securities Administrators. The requirements of National Instrument 43-101 differ significantly from the requirements of the United States Securities and Exchange Commission (the "SEC"). In this document, we use the terms "measured," "indicated", and "inferred" resources. Although these terms are required and recognized in Canada, the SEC does not recognize them. The SEC permits US mining companies, in their filings with the SEC, to disclose only those mineral deposits that constitute "reserves." Under United States standards, mineralization may not be classified as a reserve unless the determination has been made that the mineralization could be economically and legally extracted at the time the determination is made. United States investors should not assume that all or any portion of a measured or indicated resource will ever be converted into "reserves". Further, "inferred resources" have a great amount of uncertainty as to their existence and whether they can be mined economically or legally, and United States investors should not assume that "inferred resources" exist or can be legally or economically mined, or that they will ever be upgraded to a higher category.

### **Investment Highlights**



### **Unparalleled Investment Opportunity**

#### • Well-positioned to support projected global steel growth

- Global demand for coking coal continues to increase. Port and enduser coal inventories remain close to historically low levels, supporting the outlook for steelmaking coal demand.
- Sourcing additional high-quality coking coal from northeast British Columbia provides opportunities for diversification of existing supply and transportation options.
- Coal from CCIC's projects into the East-Asian market has cost and logistic advantages

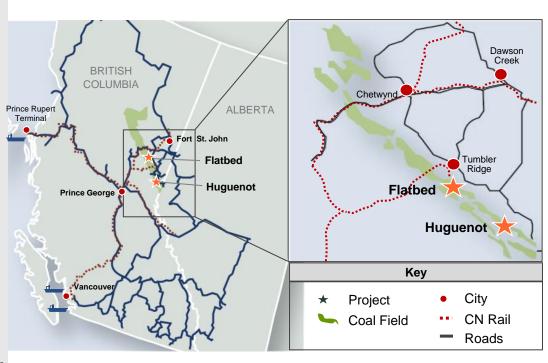
### Gain exposure to one of the most active coal belts in a miningfriendly jurisdiction with excellent infrastructure in place

- Recent M&A and JV activity by Walter Energy, Anglo American (PRC), Glencore (via Xstrata), JX Nippon, Conuma in northeast BC, and Bathurst in southeast BC
- Capacity expanded at western Canadian coal ports

### Strategically located, 100% owned metallurgical coal properties adjacent to other major projects provide logical buyer and partnership opportunities

- Huguenot is located between Anglo's Belcourt and Saxon projects
- Flatbed is located adjacent to Anglo's Trend mine (currently under care and maintenance) and Teck's proposed Window Mine (Quintette); also near Conuma's operating Perry Creek and proposed Hermann mines (Wolverine) plus HD Mining's advanced Murray River underground project.

### **Project Location Map**



### **Company Overview**

### Invest in two of the largest deposits of premium quality hard coking coal in western Canada

- The only Canadian listed, publicly-traded, pure-play metallurgical coal company in western Canada: 100% interest in 2 resource-stage coal projects (Huguenot & Flatbed) in the Peace River Coalfield of northeastern British Columbia
- Surface and underground mineable resources totalling approximately 277.7 Mt of Measured & Indicated plus 119.2 Mt of Inferred resources at Huguenot
- Underground mineable resources totaling approximately 298 Mt Inferred at the Gordon Creek Project on the Flatbed property

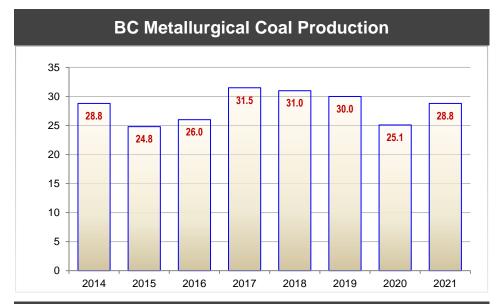
### Highly experienced management team with a proven track record in the Peace River Coalfield

- Highly capable management team with significant experience advancing other development projects to production in the region
- David Austin (President, CEO & Chairman) co-founded and built Western Coal Corp., sold to Walter Energy in 2010 for CAD\$3.3 billion, and is credited for the exploration, development and sale of Northern Energy & Mining Inc. (NEMI) to Anglo for + CAD\$400 million

### Market Overview: Metallurgical Coal

Western Canadian Coal Miners are Poised to Supply Asian Markets







Source: AME, BC Ministry of Energy, Mines and Petroleum Resources Note: Shipping Days calculated at vessel speed of 15 knots

### Western Canadian Coal Overview

- Steelmaking coal prices reached an all-time high of US\$453 per tonne. It is expected that, for British Columbia, the overall 2022 coal production value will remain at a record high level.
- The region enjoys access to low-cost Green power, high-quality road and rail networks, and major deep water seaports
- British Columbian ports provide the closest port of entry on the west coast of North America to eastern Asia, resulting in low shipping costs
- Since 2010 Western Canada has seen significant M&A activity in the metallurgical coal market:

Buyer	Target	Value		
Walter Energy	Western Coal	CAD\$3.3 B		
Anglo American	Residual interest in Peace River Coal	+CAD\$400 M		
Glencore <sup>1</sup>	First Coal and Lossan	US\$193 M		
Winsway / Marubeni	Grande Cache Coal	CAD\$1.0 B		
Glencore <sup>1</sup>	Talisman's Sukunka Project	US\$500 M		
JX Nippon	25% of Glencore's <sup>1</sup> BC coal assets	US\$435 M		
Conuma	Walter Energy's wholly-owned BC assets	n/a		
SonicField (CST Coal)	Winsway / Marubeni	US\$475 M		
Hancock Prospecting	Riversdale Resources	AUS\$737 M		
_Bathurst <sup>2</sup>	50% of Jameson's Crown Mtn. Project	CAD\$122 M		
Note: Met coal includes all coals directed to metallurgical end markets (i.e. coking coals and PCI coals)				

<sup>1</sup> At the time Xstrata <sup>2</sup> Recently, reported election to move to a joint venture

# Management Team and Board of Directors



David Austin Chairman, President & CEO	<ul> <li>Co-founder of Colonial Coal Corp., Western Coal Corp. (WCC), and Northern Energy &amp; Mining Inc. (NEMI)</li> <li>One of the three founders credited for the success on the production of WCC projects         (WCC was sold CAD\$3.3 billion to Walter Energy in 2010)</li> <li>Credited for the success on the exploration/development and sale of NEMI to Anglo (for +CAD\$400mm)</li> </ul>
<b>Ke Feng (Andrea) Yuan</b> <i>CFO</i>	<ul> <li>Chartered Professional Accountant (CPA) and Certified General Accountant (CGA) Canada since 2005</li> <li>Certified Public Accountant (New Hampshire, USA) since 2007</li> <li>Bachelor of Economics – Shanghai University of Finance &amp; Economics</li> <li>Over 10 years experience as CFO of junior public companies listed on the TSX-V, CSE, and with OTC companies</li> </ul>
John Perry COO & Director	<ul> <li>45 years as a professional geologist in exploration and development of coal &amp; mineral projects (domestic and int'l.)</li> <li>Occupied senior corporate &amp; exploration management roles for many coal projects in northeast British Columbia</li> <li>Former Director of Exploration - Belcourt Saxon Coal Limited Partnership 2005-2008</li> <li>Former Manager of Exploration - Northern Energy and Mining Inc. (NEMI) 2004-2005</li> </ul>
Partha S. Bhattacharyya Director	<ul> <li>Director - Deepak Fertilizers and Petrochem. Corp. Ltd. &amp; Haldia Petrochem. Ltd. 2016-Present</li> <li>Former Chairman &amp; Managing Director - Coal India Limited 2006-2011</li> <li>Former Chairman &amp; Managing Director - Bharat Coking Coal Ltd. (BCCL) 2003-2006</li> <li>Fellow - the Institute of Cost and Works Accountants of India &amp; of the World Academy of Productivity Science</li> </ul>
lan Downie Director	<ul> <li>Professional negotiator with an established mediation and dispute resolution consulting company</li> <li>Former Director of Terminal Operations - BC Ferry Corporation 1999-2007</li> <li>Former Director - Cranbrook Credit Union &amp; the Credit Union Deposit Insurance Corp.</li> <li>Former Commissioner – the Financial Institution Commission</li> </ul>
Tony Hammond Director	<ul> <li>Over 40 years of experience as Mining Engineer (including 18 years with Anglo American Corp.)</li> <li>Former Director - Northern Energy &amp; Mining Inc. (NEMI) 1996-2008</li> <li>Founder, Chairman &amp; Managing Director - Great Orme Mines &amp; the Ancient Mining Research Foundation</li> <li>Chief Consulting Mining Engineer - Robertson Research International 1981-1984</li> </ul>
Greg Waller Director	<ul> <li>Retired in 2017 as Senior Vice President Investor Relations &amp; Strategic Analysis - Teck Resources (the world's second largest, &amp; North America's largest, steelmaking coal producer)</li> <li>Extensive knowledge of various commodity markets, industry participants and significant global mining assets</li> <li>Involved with major strategic decisions as leading spokesperson &amp; member of the Teck's senior management team</li> </ul>

TSX-V: CAD

# Western Canada Met Coal Project Comparison



- In mid-2019, Hancock Prospecting Pty Ltd announced that it had acquired all of the outstanding ordinary shares of Riversdale Resources Limited that it did not already own
- Implies a TEV of AUS\$737 million for Riversdale (100.0% basis)
- Riversdale's primary asset is the Grassy Mountain coking coal project, which is within the Crowsnest Pass Coalfield and is located in the province of Alberta

	<b>Grassy Mountain</b>	<u>Huguenot</u>		Gordon Creek (Flatbed)
Project Description				
Stage	Fed. Env. Review - Permitting	PE/	1	PEA
Location	Southwest Alberta	Northea	st BC	Northeast BC
Coal Type	HCC	HCC		HCC & PCI
Total Resource	195 Mt	278 Mt (Measured + Indicat	ed) and 119 Mt (Inferred)	298 Mt (Inferred)
Acquisition Offer / Total Resource	AUS\$3.78 per tonne	•		•
Operating Metrics		Option 1	Option 2	
Mine Type	Surface	Surface Only	Surface & UG	UG
Mine Life	24 years	27 years	31 years	30 years
Strip Ratio	9.2:1	10.5:1	8.6:1	-
LOM ROM Coal Production	154 Mt	99 Mt	122 Mt	112 Mt
LOM Clean Coal Production	88 Mt	72 Mt	89 Mt	57 Mt
LOM Avg. Annual Clean Coal Production	3.7 Mt	2.7 Mt	3.0 Mt (Surface + UG)	1.9 Mt
LOM Avg. Yield	57%	73%	73%	51%
Costs				
Total FOB Cost	US\$96/clean tonne <sup>1</sup>	US\$110.38/clean tonne <sup>2,3</sup>	US\$106.96/clean tonne 4	US\$80.91/clean tonne <sup>5</sup>
Initial Capital Cost	US\$488 M	US\$303 M <sup>2, 3</sup>	US\$661 M <sup>4</sup>	US\$300 M <sup>5</sup>
Notes:	<sup>1</sup> From other sources	<ul> <li>Option for Leased Surface Mining Equipment</li> <li>Exchange Rate Used: US\$1.00 = CAD\$1.316</li> </ul>	4 Exchange Rate Used: US\$1.00 = CAD\$1.30	<sup>5</sup> Exchange Rate Used: US\$1.00 = CAD\$1.30

Note:

HCC: Hard Coking Coal
PCI: Pulverized Coal Injection

## **Company Overview: Colonial Coal**



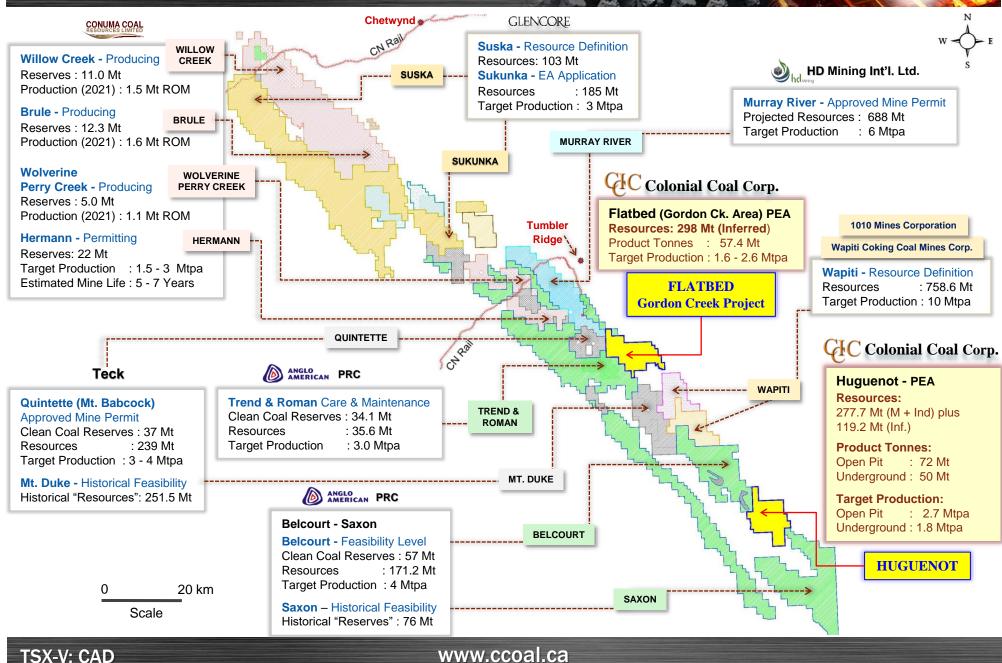


- Huguenot has a contained resource of 277.7 million tonnes of combined Measured and Indicated resources plus 119.2 million tonnes of Inferred
  resources, making it one of the largest deposits in the region
- The Gordon Creek deposit on the Flatbed property has a contained resource of 298 million tonnes of inferred resources
- Coals from both Huguenot and Flatbed rank as premium metallurgical coking coals. The coals are amenable to washing to a low-ash product with low sulfur and low phosphorus
- Premium coking coal: the quality of coal at Huguenot and Flatbed is comparable to that once produced from the Quintette (Denison Mines/Teck) and Bullmoose (Teck) mines, and to coal more recently mined at the Anglo American's Trend Mine, that is currently under care and maintenance. Coal from these mines, together with coal from Conuma's Perry Creek Mine, has been exported to Asian markets for a long time. From 1984 to 2003, well over 100 million tonnes were exported to Japan from the Quintette and Bullmoose operations.

	HUGUENOT			FLATBED	
	North Block	Middle Block	South Block	<u>Total</u>	
Surface Mineable Resources					
Measured + Indicated (MT)	66.2	46.9	18.8	132.0	
Inferred (MT)	0.0	0.5	0.0	<u>0.5</u>	
Underground Mineable Resources				Underground Mineable Resources Gordon Creek Deposit Area	
Measured + Indicated (MT)	37.6	31.2	77.0	<u>145.7</u>	
Inferred (MT)	86.8	1.6	30.2	<u>118.7</u>	298.0
TOTAL Mineable Resources					
Measured + Indicated (MT)	103.8	78.1	95.8	277.7	
Inferred (MT)	86.8	2.1	30.2	119.2	<u>298.0</u>

### **Peace River Coal Tenures**





**Conceptual Infrastructure Development Plan** 

#### **HUGUENOT**

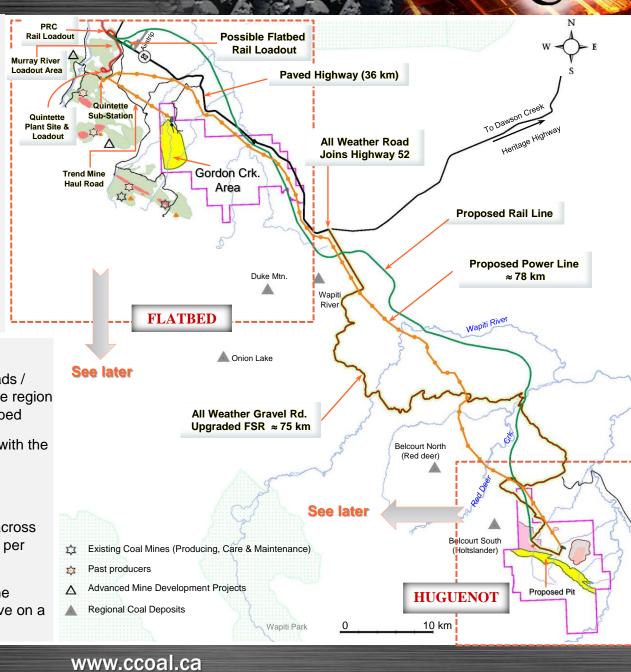
- 2018 PEA contemplates an 85 km, 3<sup>rd</sup> party built rail spur that would be available for use by other potential producers in the region to connect the project to the main rail line. Costs might be reduced by substituting an overland conveyor for the southern portion of the proposed rail line
- 2020 PEA Contemplates trucking to the existing rail line via up-graded off-highway roads (~75 km) and existing paved highway (~36 km)

#### **FLATBED**

- An independent coal loadout, if required, will access existing rail with a short spur line
- Lies within a few kilometers of an existing Provincial Highway

### JOINT DEVELOPMENT POTENTIAL

- Sharing in the development of joint infrastructure (roads / rail) with other operators and potential operators in the region would lower initial capital costs at Huguenot and Flatbed
- Huguenot is adjacent to the Belcourt Project (Anglo) with the Duke Mountain (Teck) and Wapiti (Canadian Dehua) properties located nearby and along the proposed transportation route
- Development / operating costs would be distributed across all operators in the region for greater scale and lower per tonne cost
- While rail is the preferred mode of transportation in the region, trucking coal is viable although more expensive on a per tonne basis

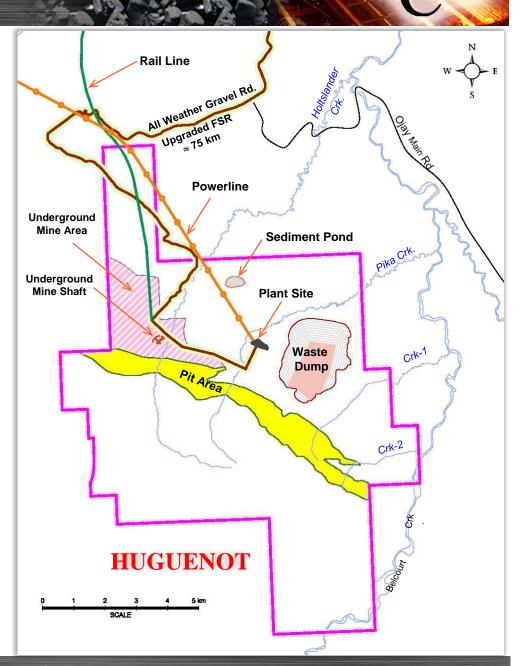




# **HUGUENOT**

# Company Overview: Colonial Coal HUGUENOT PROPERTY

- Situated adjacent to the proposed Belcourt South open pit (owned by PRC/Anglo)
- Trucking distance of ~111 road-km also accessible by ~85 km rail spur (or combination rail and overland conveyor) - to link with the existing rail line
- Amenable to surface and underground mining
- 1.5% royalty FOB port
- Gates Formation coal seams: the same as past and current producers in the Tumbler Ridge area
- 2018 PEA contemplates an 85 km, 3<sup>rd</sup> party built rail spur that would be available for use by other potential producers in the region (less if an overland conveyor is used) to connect the project to the main rail line
- 2020 PEA contemplates trucking to the existing rail line via upgraded off-highway roads (~75 km) and existing paved highway (~36 km)
- Each PEA builds upon an original study prepared in 2013 and updated in 2018, using then-current scoping level cost estimates and economic analyses.
- The 2013 and 2018 mining studies were based upon a combination of open pit and underground mining methods.
- During the 2018 update, Stantec recognized an opportunity for expansion of the open pit to higher stripping ratios, with correspondingly higher recoverable tonnages of mineable coal, which led to the 2020 examination of a stand-alone surface mining option for a new PEA.
- 2020 PEA contemplates a 78 km, 230 kilovolt power transmission line.



TSX-V: CAD

# Company Overview: Colonial Coal HUGUENOT PROPERTY

# CHC

### 2020 PEA Highlights (Open Pit Only)

- The 2020 study used previously reported surface mineable resources to develop a revised conceptual mine plan utilizing a stand-alone open pit.
- A more detailed analysis of the open pit design and equipment selection was carried out, that yielded larger mineable open pit tonnage, longer mine life, and a lower cost mining operation.
- Alternative means of product coal transportation were considered which resulted in a revised plan to transport coal by conventional haul trucks from the mine to the existing rail line south of Tumbler Ridge, as opposed to the previous concept of direct rail transport from the mine.
- The trucking concept has the advantage of lower capital costs, lower risk, and a shorter construction schedule than the rail option.
- The capital expenditures are based on two scenarios.
  - The first scenario assumes that all major mining equipment is purchased outright in the year in which it is required for the mining operation. This includes replacements as they are required over the life of the mine.
  - The second scenario assumes that the major mining equipment will be leased in the year in which it is required for the mining operation and that replacements will also be leased when the equipment needs to be replaced.

# Huguenot Project NPV (millions) at Varying Discount Rates with IRR

PEA 2020 Coal	PURCHASED EQUIPMENT SCENARIO			
Price/Tonne	5%	7.5%	10%	IRR%
US\$174	\$1,482	\$1,027	\$718	26.30%
CAD\$224	\$1,949	\$1,351	\$944	26.30%

PEA 2020 Coal	LEASED EQUIPMENT SCENARIO				
Price/Tonne	5%	7.5%	10%	IRR%	
US\$174	\$1,474	\$1,032	\$732	29.40%	
CAD\$224	\$1,939	\$1,357	\$963	29.40%	

<sup>\*\*</sup> All costs are in US dollars but, where Canadian dollar equivalents are provided, they have been converted using an exchange rate of US\$1.00 equals CAD\$1.316

- Based on the purchased equipment scenario the financial analysis suggests that the coal price required to achieve a zero NPV at discount rates of 5%, 7.5%, and 10%, respectively, is about US\$113, US\$120 and US\$125 per tonne. A coal price of US\$137 per tonne is required for an IRR of 15%.
- Based on the leased equipment option the financial analysis suggests that the coal price required to achieve a zero NPV at discount rates of 5%, 7.5%, and 10%, respectively, is about US\$114, US\$119 and US\$125 per tonne. A coal price of US\$137 per tonne is required for an IRR of 15%.

# Company Overview: Colonial Coal HUGUENOT PROPERTY



### 2020 PEA Highlights (Open Pit Only)

TSX-V: CAD

- Measured and Indicated surface mineable coal resources total 132.0 million tonnes, with an additional Inferred resource of 0.5 million tonnes. Not included for mining in the 2020 PEA are in-situ underground mineable resources totaling 145.7 million tonnes (Measured and Indicated) and 118.7 million tonnes classified as Inferred
- The 2020 PEA economic analysis is based on a conceptual open pit mine plan targeting 99 million run-of-mine ("ROM") tonnes of resource at an overall stripping ratio of 10.5:1 (bank cubic metres (bcm):ROM tonnes), yielding 72 million tonnes of product coal over a mine life of 27 years. The previous PEAs identified a smaller open pit with ROM tonnage of 56 million tonnes at a stripping ratio of 8.6:1, that yielded 39 million tonnes of product coal over 13 years.
- Projected clean coal production from open pit mining operations ranges from 0.7 million tonnes per annum ("Mt/a") to 3.0 Mt/a, averaging approximately 2.7 Mt/a.
- Potential coal production is identified as hard coking coal similar to coking coal currently exported from northeast British Columbia.
  - The stand-alone open pit cash operating costs for the **purchased equipment** scenario are estimated at US\$55.08 per tonne of product coal at the mine gate. The cash operating costs for the **leased equipment** scenario are estimated at US\$61.47 per tonne.
  - Estimated direct operating plus offsite costs for the purchased equipment scenario (i.e., FOB cost), total US\$91.90 per clean tonne (excluding production taxes and royalties). The FOB cost for the leased equipment scenario is estimated at US\$98.29 per clean tonne (excluding production taxes and royalties)
  - Pre-production capital cost for the proposed mine in the **purchased equipment** scenario is estimated at US\$510 million, with additional sustaining capital of US\$215 million over the life-of-mine (LOM). Pre-production capital cost in the **leased equipment** scenario is estimated at US\$303 million, with additional sustaining capital of US\$42 million over the LOM.
  - The Huguenot Project's proposed payback of initial capital is estimated within four years from start-up of operations for both scenarios.

# Colonial Projects Overview: HUGUENOT PROPERTY

# CIC

### 2018 PEA Highlights (Open Pit and Underground Mine)

- The Huguenot Project has an indicative after-tax (and royalty) net present value (NPV) of US\$1,166 million (CAD\$1,516 million) using a 7.5% discount rate, and an internal rate of return (IRR) of 33%, based on a coking coal price of US\$172.0 per tonne.
- The Huguenot PEA is based on conceptual open pit and underground mine plans that target 122.3 million run-of-mine (ROM) tonnes of resource, with a yield of 73%, producing 89.3 million tonnes of clean coal over a mine life of 31 years.

PEA 2018 Coal	NPV (millions) at Varying Discount Rates with				
Price/Tonne	5%	7.5%	10%	IRR%	
US\$172	\$1,669	\$1,166	\$831	33%	
CAD\$224	\$2,170	\$1,516	\$1,080	33%	

<sup>\*</sup> The exchange rate used in this report is US\$1.00 equals CAD\$1.30

- The conceptual open pit mine plan targets 56 million ROM tonnes at an average stripping ratio of 8.6 :1 (bank cubic metres: ROM tonnes) while the conceptual underground mine plan targets an additional 66 million ROM tonnes.
- The open pit operates during Years 1 14 while the underground mine would operate during Years 3 31, with both the open pit and underground mine operating simultaneously during Years 3 14.
- Measured and Indicated coal resources total 277.7 million tonnes (132.0 million tonnes surface plus 145.7 million tonnes underground).
- Inferred resources total an additional 119.2 million tonnes (0.5 million tonnes of surface plus 118.7 million tonnes underground).
- In full mine operation, projected clean coal production from the combined surface and underground mining operations ranges from 1.4 to 5.9 Mtpa, and averages approximately 3.0 Mtpa.
- The pre-production capital cost for the proposed surface and underground mine is estimated at US\$661 million (CAD\$859 million), with additional sustaining capital of US\$178 million (CAD\$231 million) over the life-of-mine (LOM).
- The proposed payback of initial capital is estimated within 5 years from start-up of operations.
- The Huguenot Project's total cash operating cost is estimated at US\$106.96 (CAD\$139.05) per clean coal tonne.
- This includes direct mine site costs of US\$67.20 per tonne, offsite costs (transportation and port charges) of US\$28.30 per tonne and indirect costs of US\$11.46 per tonne.

**Huguenot Project Coal Quality Comparison** 



The Huguenot Project is projected to produce a clean premium hard coking coal (HCC) product with low ash, low sulfur, low phosphorus, and High FSI

### **Coal Quality Comparison:**

### **Huguenot HCC VS. Canadian Export Coking Coals**

	Huguenot HCC <sup>1</sup>	Canadian NEBC HCC <sup>2</sup>	Canadian SEBC HCC <sup>2</sup>	
Total Moisture (% as received)	9	8 - 9	8	
Volatile Matter (% air dry)	22.5 - 23.5	23.0 - 24.5	21.0 - 27.0	
Ash Content (% air dry)	8.50 – 9.00	8.25 - 8.60	8.50 - 9.60	
Sulphur Content (% air dry)	0.40	0.45 - 0.55	0.35 - 0.75	
Free Swelling Index (FSI)	6.5 - 7	7 - 8	6 - 8	
Mean Max Reflectance of Vitrinite (%)	1.15 - 1.20	1.15 - 1.25	1.08 - 1.35	
Maximum Fluidity (ddpm)	100	150 - 300	40 - 300	
Phosphorus in Coal (% dry)	0.044	0.008 - 0.040	0.010 - 0.065	
Base/Acid Ratio of Ash	0.08 - 0.10	0.12 - 0.18	0.07 - 0.10	
Coke Strength after Reaction (CSR)	60 - 65	58 - 60	68 – 72	
		NEBC = Northeast British Columbia	SEBC = Southeast British Columbia	
	<ul> <li>Results based on laboratory scale washing and testing of exploration samples.</li> <li>Results based on full washing plant und conditions.</li> </ul>			
	Data Source: Kobie Koornhof Associates Inc.			

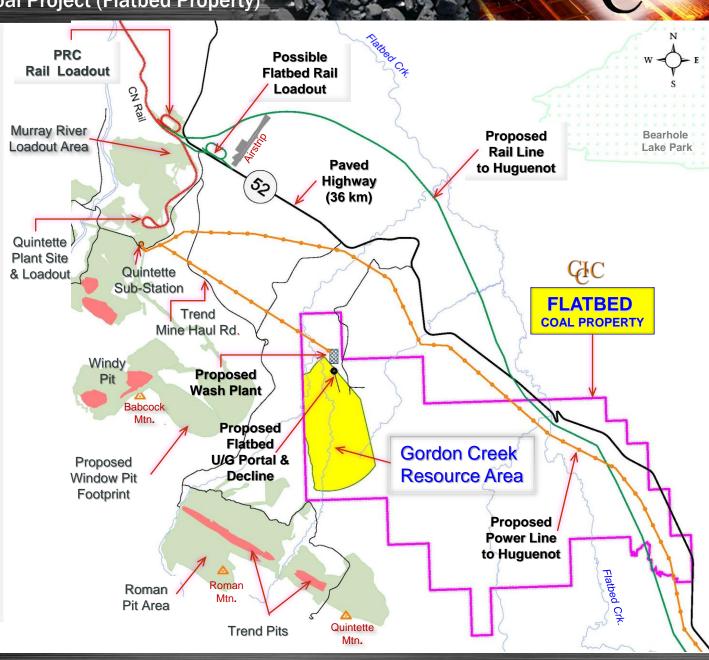


# **FLATBED**

**Gordon Creek Metallurgical Coal Project (Flatbed Property)** 

### **PROJECT SUMMARY**

- Proximal to supportive infrastructure such as existing rail, power, highways, and the town of Tumbler Ridge.
- Located near currently and recently producing coal mines (with rail loadouts and wash plants) plus several other very advanced, permitted, coal projects.
- Amenable to underground mining.
- 1.5% royalty FOB port.
- Gates Formation coal seams: the same as past and current producers in the Tumbler Ridge area).
- Hard Coking Coal (HCC) Seams B to G plus Premium
   Pulverized Coal Injection (PCI)
   Coal Seams J and K.



**Gordon Creek Metallurgical Coal Project (Flatbed Property)** 



# Gordon Creek Project (Flatbed) 2018 PEA Highlights

 The Gordon Creek Project has an indicative aftertax (and royalty) NPV of US\$691 million (CAD\$898 million) using a 7.5% discount rate, and an IRR of 24.4%, based on a weighted average coking coal price of US\$164.8 per tonne and a premium pulverized coal injection coal price of US\$140.5 per tonne.

PEA 2018 Overall Average	Gordon Creek Project (Flatbed) NPV (millions) at Varying Discount Rates with IRR				
Coal Price/Tonne	5%	7.5%	10%	IRR%	
US\$160.5	\$1,081	\$691	\$446	24.4%	
CAD\$208.7	\$1,405	\$898	\$579	24.4%	

Note: The exchange rate used in this report is US\$1.00 equals CAD\$1.30

- The Gordon Creek PEA is based on a conceptual underground mine plan that targets 111.6 million ROM tonnes of resource, with a yield of 51%, producing 57.4 million tonnes of clean coal over a mine life of 30 years.
- Geological modeling and resource estimation of the Gordon Creek deposit have identified an Inferred coal resource of 298 million tonnes.
- In full mine operation, projected clean coal production ranges from 1.6 to 2.6 Mtpa, and averages approximately 1.9 Mtpa.
- The pre-production capital cost for the underground mine is estimated at US\$300 million (CAD\$391 million), with additional sustaining capital of US\$406 million (CAD\$528 million) over the LOM. The proposed payback of initial capital is estimated to be within three years from the start of coal production.
- The Gordon Creek project's total cash operating cost is estimated at US\$80.91 (CAD\$105.19) per clean coal tonne. This includes direct mine site costs of US\$41.16 per tonne, offsite costs (transportation and port charges) of US\$25.42 per tonne and indirect costs of US\$14.33 per tonne.

Gordon Creek Metallurgical Coal Project (Flatbed Property)



Premium clean hard coking coal product (Seams B, D, F (combined F1 and F2), and Seam G, totalling 71.4% of the reported resources) plus a premium pulverized coal injection (PCI) product (Seams J and K, totalling 28.6% of the reported resources).

### **Coal Quality Comparison**

# Gordon Creek PCI Coal VS. Export PCI from Queensland/NEBC

	Gordon Creek PCI Coal <sup>1</sup>		Low Vol QLD/N	
	Seam J	Seam K	Min	Max
Total Moisture (% as received)	8.0 - 9.0	8.0 - 9.0	8.0	10.5
Volatile Matter (% air dry)	18.5	18.2	9.5	20.4
Ash Content (% air dry)	8.5	6.0	7.5	10.5
Sulphur Content (% air dry)	0.37	0.41	0.28	0.70
Free Swelling Index (FSI)	3.5	3.5	0	2
Hardgrove Grindability Index (HGI)	80	79	65	90
Carbon Ultimate DAF %	90	91	88	92
Hydrogen Ultimate DAF %	4.2	4.2	3.6	4.9
Mean Max Reflectance of Vitrinite (%)	1.43	1.43	1.26	1.75
Phosphorus in Coal (% dry)	0.020	0.002	0.030	0.100
Calorific Value (Gross air dry) Kcal/kg	7913	8138	7450	7910
Coke Replacement Ratio*	0.92	0.93	0.87	0.93

Note: \* = Calculated; QLD = Queensland; NEBC = Northeast British Columbia

Data Source: Kobie Koornhof Associates Inc.

# Gordon Creek Coking Coal VS. Canadian Export Coking Coals

	Gordon Creek Coking Coal <sup>1</sup>		Canadian NEBC HCC <sup>2</sup>	Canadian SEBC HCC <sup>2</sup>	
	Min	Max	NEDO 1100	OLDO 1100	
Total Moisture (% as received)	8	9	8 - 9	8	
Volatile Matter (% air dry)	20.7	25.2	23.0 - 24.5	21.0 - 27.0	
Ash Content (% air dry)	8.00	8.90	8.25 - 8.60	8.50 - 9.60	
Sulphur Content (% air 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	0.08	0.22	0.12 - 0.18	0.07 - 0.10	
Coke Strength after Reaction (CSR)	51*	70*	58 - 60	68 - 72	

Note: \* = Calculated; NEBC = Northeast British Columbia; SEBC = Southeast British Columbia

Data Source: Kobie Koornhof Associates Inc.

<sup>&</sup>lt;sup>1</sup> Results based on laboratory scale washing and testing of exploration samples.

<sup>&</sup>lt;sup>2</sup> Results based on full washing plant under operating conditions.

<sup>&</sup>lt;sup>1</sup> Results based on laboratory scale washing and testing of exploration samples.

<sup>&</sup>lt;sup>2</sup> Results based on full washing plant under operating conditions.

### **Access to World Class Infrastructure**

CHC

- Production from Huguenot and Flatbed would be shipped by rail to one of the three export terminals on the west coast of British Columbia.
- Access to deep water export terminals, including the Neptune and Westshore terminals in Vancouver and the Ridley Terminal in Prince Rupert, B.C.
- 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 project would use hydro-electric power which is in line with carbon neutral development goals. Under the pressure of increasing carbon emission tax, the economic advantages of the project will be more significant in the future.



TSX-V: CAD

