ALLEGIANCE COAL
LIMITED

18 March 2019

TENAS METALLURGICAL COAL PROJECT DEFINITIVE FEASIBILITY STUDY RESULTS

The Tenas Project DFS reinforces the potential of the Telkwa metallurgical coal complex with excellent results highlighting an extremely robust project, and significant improvements on the Company's two pre-feasibility studies undertaken in 2017.

DFS HIGHLIGHTS

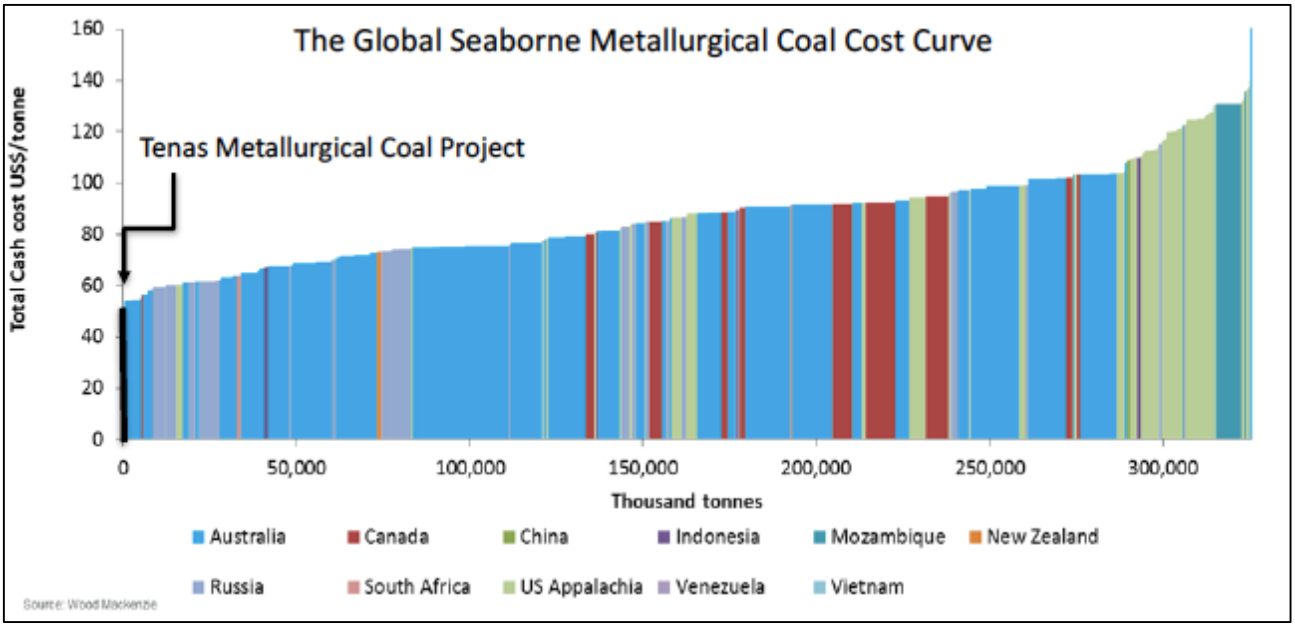
- 750,000 tonnes per annum of saleable coal.
- 22 year mine life extracting just 15% of the entire Telkwa coal resource.
- 3.6:1 BCM/ROMt strip ratio.
- 75% average yield for all metallurgical saleable coal.
- US$49.7 per tonne average all-in FOB cash cost (ex-port) before interest and tax.
- A$121.3M average revenue per annum.
- A$63.7M EBITDA average per annum at a ratio to revenue of 53%.
- US$54.3M start-up capital expenditure.
- A$407.3M NPV8% pre-tax.
- 56.9% IRR pre-tax.
- 2.5 years capital payback after commencement of production.

Mr David Fawcett, Non-Executive Chairman, commented:

"The Tenas project is truly unique. Our two pre-feasibility studies completed in 2017 highlighted to us that this project has the potential to be a very low cost producer of a product highly sought after by the steel mills. But to achieve a cash cost of US$49.7/t, for coal loaded on a vessel at Ridley Coal Terminal is quite extraordinary. I commend our DFS team, including SRK Consulting (Canada) Inc. and Sedgman Canada for the excellent work they have done to optimize the mining potential of the Tenas deposit. We look forward to working closely with our joint venture partner, Itochu Corporation, in securing permits to mine over the next 18 months and bringing the Tenas Project into production".

Allegiance Coal Limited (**Allegiance** or the **Company**) is pleased to present the results of the Tenas Project Definitive Feasibility Study (**DFS**). The DFS follows two pre-feasibility studies undertaken by Allegiance in 2017, first in relation to the entire Telkwa metallurgical coal complex (published on 3 July 2017), and second in relation to a standalone Tenas Project (published on 11 September 2017).

Significantly, the DFS concluded that the Tenas Project is likely to be one of, if not, the lowest cost producers of metallurgical coal on the global seaborne market. The seaborne market comprises around 325 million tonnes of metallurgical coal per annum, with semi-coking coals accounting for around 60 million tonnes of that trade. The vast majority of semi-coking coals on the seaborne market come from the Hunter Valley coal mines in New South Wales from companies such as Glencore, Yancoal, and Whitehaven.

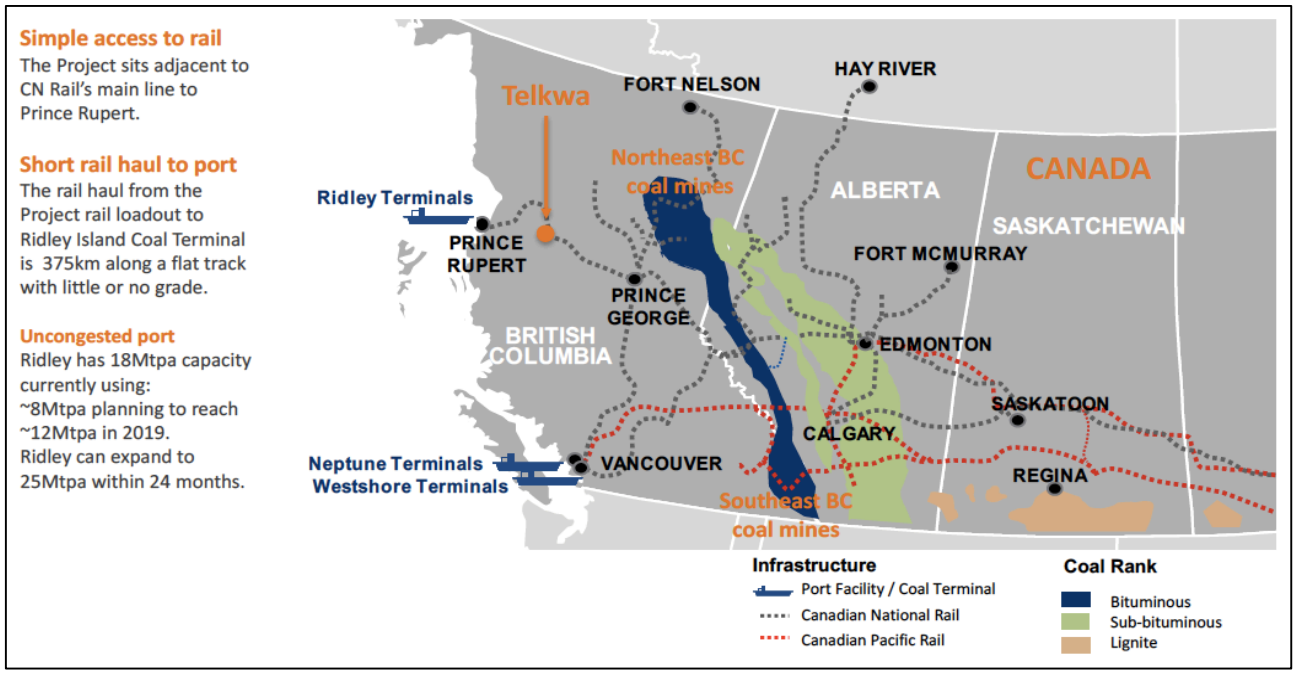


Source: Wood Mackenzie seaborne metallurgical coal cost curve as at November 2018

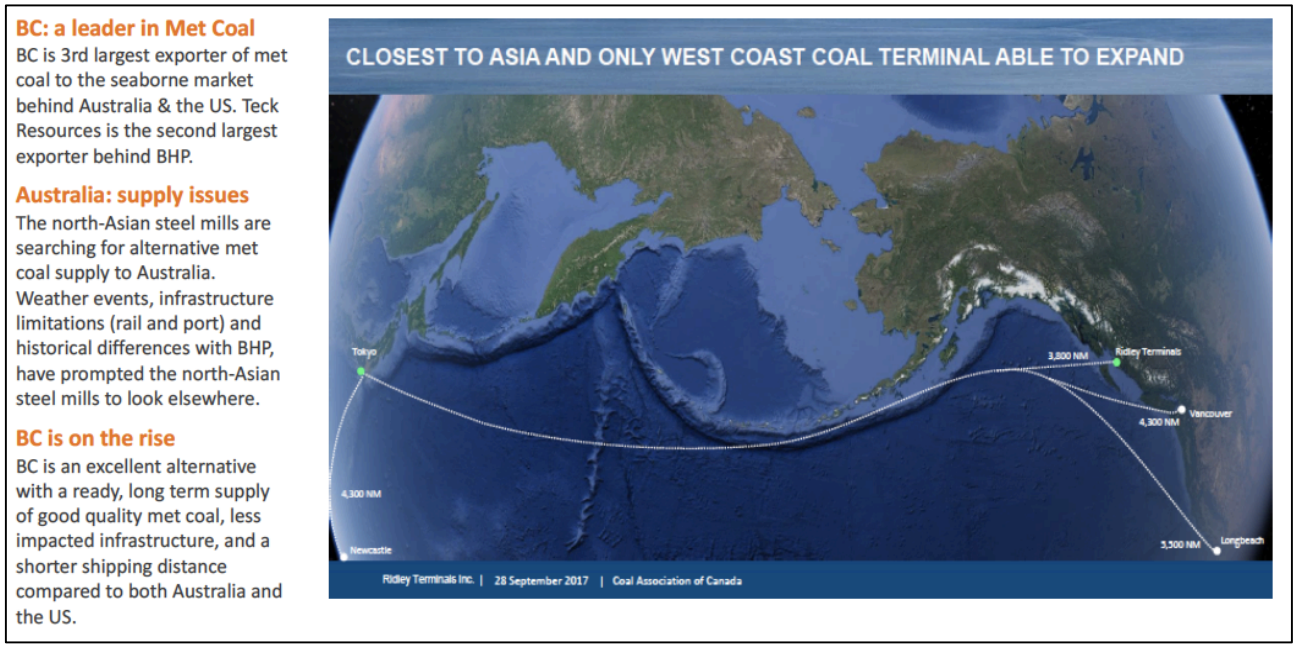
SRK Consulting (Canada) Inc. (**SRK**) and Sedgman Canada (**Sedgman**) were the lead DFS consultants along with an extensive team of technical experts and Allegiance Management. The DFS team is listed below.

Company	Area of responsibility
SRK	Geotechnical engineering
SRK	Geochemistry
SRK	Coal reserves and mining
SRK	Water management
SRK	Hydrogeology
Sedgman	Coal processing
Sedgman	Coal quality
Ron Parent, Independent geologist	Geology and resource
MCA Engineering Ltd and BV Electric	Power
Hooper Engineering and Morch Engineering Ltd	Rail loop
DWB Engineering	Mine access road and bridges
Kobie Koornhof & Associates Inc	Coal analysis and marketing
All the above	Capital and operating costs
Dan Farmer, Chief Operating Officer, Allegiance	Ancillary infrastructure
Angela Waterman, Director Environment & Govt. Relations, Allegiance	Environment, social and permitting
Jonathan Reynolds, Chief Financial Officer, Allegiance	Financial model & economic analysis
David Fawcett, Non-Executive Chairman, Allegiance	Technical review

Located in the northwest of British Columbia, Canada, the Tenas Project enjoys exceptional location to rail and port. Simple logistics is a key factor contributing to the Tenas Project as a low cost producer.



Added to this, it is a shorter shipping distance to target markets, in particular the Japanese and South Korean steel mills, than from its main competitor of semi-soft coking coals in Hunter Valley via the port of Newcastle. It is 3,800 nautical miles from Ridley Terminals to Tokyo, whereas it is 4,300 nautical miles from Newcastle.



Equally importantly, there is no congestion at Ridley Terminals with no delays in ships berthing; unlike Newcastle (and Queensland) where ships often wait two to four weeks before they can berth. Mine owners incur expensive demurrage and steel mills suffer a delay in the supply of raw materials for their coke ovens and blast furnaces which disrupts steel production.

First Nations

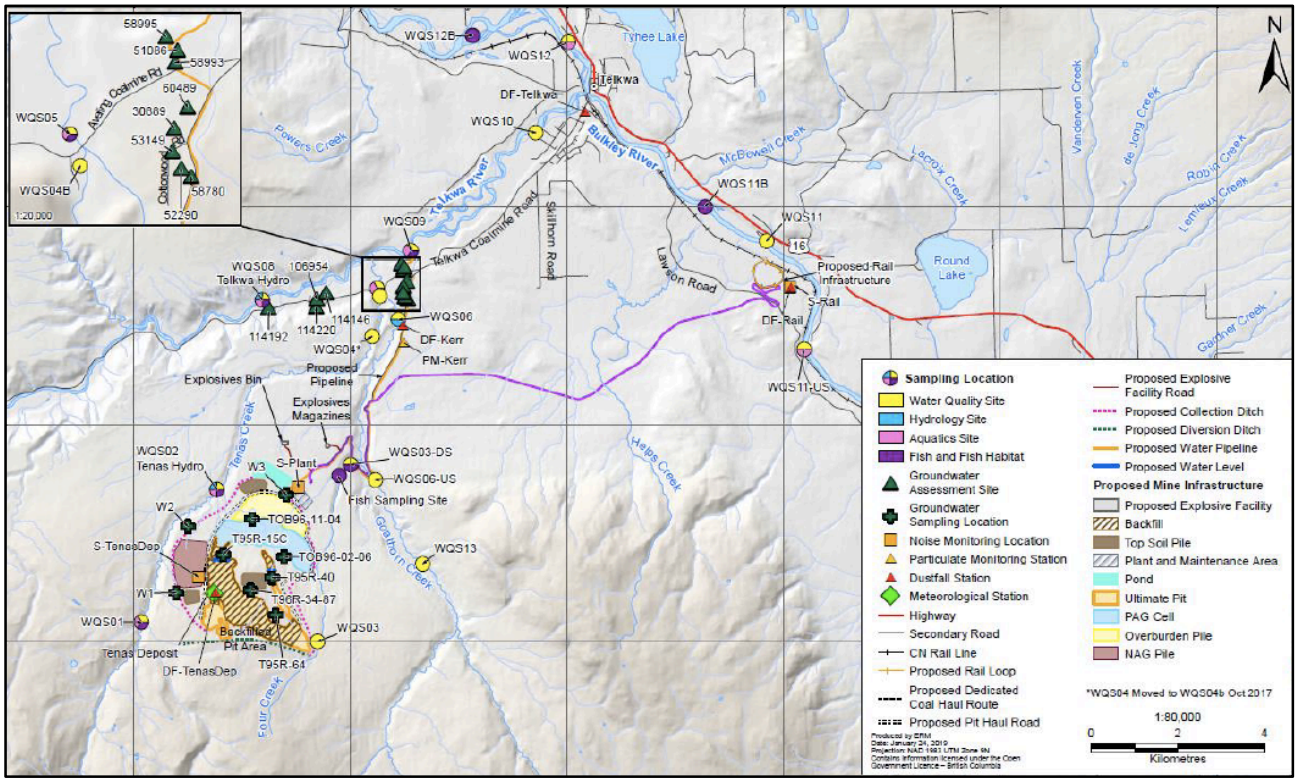
Allegiance acknowledges the unceded rights of the Wet'suwet'en nation to 22,000 square kms of traditional territory within which the Tenas Project sits. Allegiance has and continues to engage with the Office of the Wet'suwet'en (**OW**) in respect of all Tenas Project activities. The OW is the central office for the Wet'suwet'en focusing on the management of their lands and resources, fisheries and wildlife, human and social services, and treaty negotiations. The OW is governed by the Wet'suwet'en Hereditary Chiefs residing throughout their traditional territories.

In April 2017, a Communication and Engagement Agreement was signed between Allegiance's subsidiary company Telkwa Coal Ltd and the OW. The Tenas Project minesite area is within the traditional territory of the Cas'Yex (Grizzly House) of the Gitdumden clan of the Wet'suwet'en and the rail loadout is located within Laksilyu territory of the Wet'suwet'en.

Permitting Schedule

The permitting process first involves the collection of environmental baseline data (over at least two years), and then an environmental impact assessment of the Project on the baseline data collected. The Tenas Project fortuitously has baseline data across most environmental disciplines dating back to the 1990s. This provides more substance to the modelling of environmental impact assessment.

The map below illustrates Allegiance's baseline monitoring activities over the last 2 years.

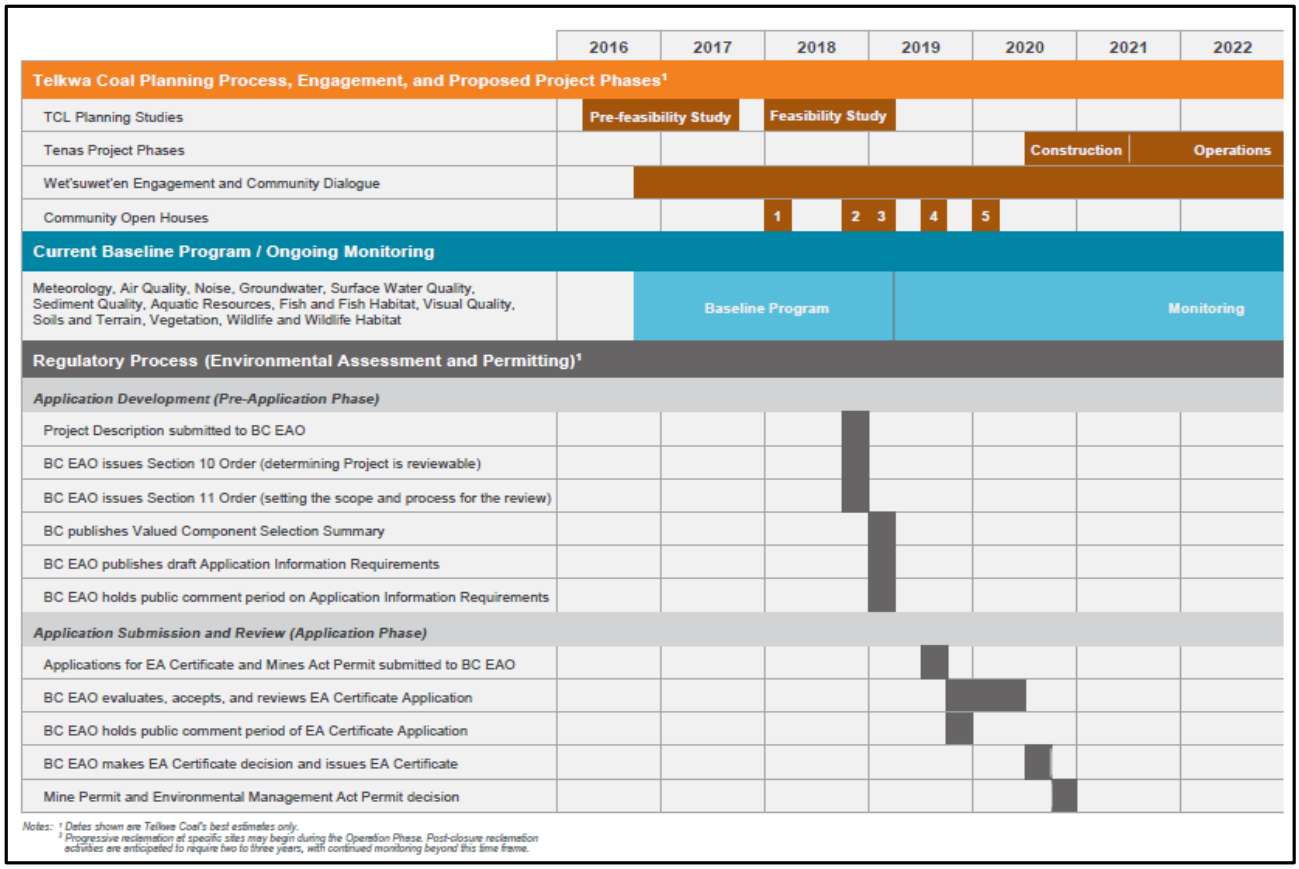


The main areas of focus (not limited to), are listed below:

- Geochemistry;

- Surface water quality and quantity;
- Groundwater quality;
- Soil and Terrain;
- Noise;
- Air quality;
- Vegetation;
- Fish and aquatic species; and
- Wildlife.

Allegiance is in the pre-application phase of permitting, and on schedule with the timeline below.



In addition to constant engagement and dialogue with the Wet'suwet'en, Allegiance has been very active in wider community consultation, meeting frequently with a range of stakeholder and special interest groups, and having organised and held to date, two of five planned community open houses. BC Government guidelines recommend two community open houses.

To reinforce Allegiance's commitment to the community, Company CEO, Mark Gray, relocated to Telkwa 12 months ago and is now resident there. This has proven to be very valuable, enabling informal, daily, ad hoc community consultation with the Company.

Environmental baseline programmes are now largely complete. Less intensive environmental monitoring continues during the permitting phase and into production. Allegiance has prepared and submitted the Valued Component Selection Summary document to the Environmental Assessment Office for review, and is now preparing the Application Information Requirements document. Target period for lodgement of applications for an EA Certificate and Mines Act Permits remains Q3 2019.

Summary of DFS Results

A summary of the key results of the DFS are set out in Tables 1 to 4 below.

Table 1: Coal Resource and Production Parameters Life of Mine	Units	
Total Telkwa coal complex coal resource across 3 deposits	MTonnes	148.1
Total Tenas deposit coal resource	MTonnes	36.5
DFS life-of-mine ROM coal production	MTonnes	22.0
DFS life-of-mine saleable coal production (at 10% moisture)	MTonnes	16.5
DFS average ROM coal production (at 5% moisture)	MTonnes per annum	1.0
DFS average product coal yield	%	75
DFS average saleable coal	KTonnes per annum	750
DFS average strip ratio	BCM/ROMt	3.6:1
DFS mine life (incl. pre-production)	Years	22

Table 2: Start-up Capital	Lease finance US$M	Owner finance US$M
Pre-production activities		4.2
CHPP and associated plant infrastructure	3.3	14.0
Minesite infrastructure		12.5
Water management		17.3
Rail loop and loadout		5.4
Mobile equipment	32.9	0.9
Total Start-up Capital (excludes contingency)	**36.2**	**54.3**

Table 3: Operating Costs Life of Mine		US$/Saleable t
Site Costs		
Mining – waste removal and coal recovery		19.5
Coal processing		6.3
General and administration		4.2
Reclamation		0.9
Transportation and Marketing		
Marketing costs		1.9
Haulage (CHPP to Rail Siding)		3.8
Rail to port and loaded		13.1
Total all-in cash cost FOB pre-interest and tax		**49.7**

Table 4: Key Performance Indicators Life of Mine	Units	Value
2021 and 2022 average coal price	US$/t	120
2023 onwards average coal price	US$/t	114
Exchange rate Canadian dollars to US dollars	CAD:USD	1.33
Exchange rate Australian dollars to US dollars	AUD:USD	1.41
Exchange rate Canadian dollars to Australian dollars	AUD:CAD	1.06
Pre-tax net present value @ 8%	A$M	407.3
Pre-tax Internal rate of return	%	56.9
Payback from commercial production	Years	2.5

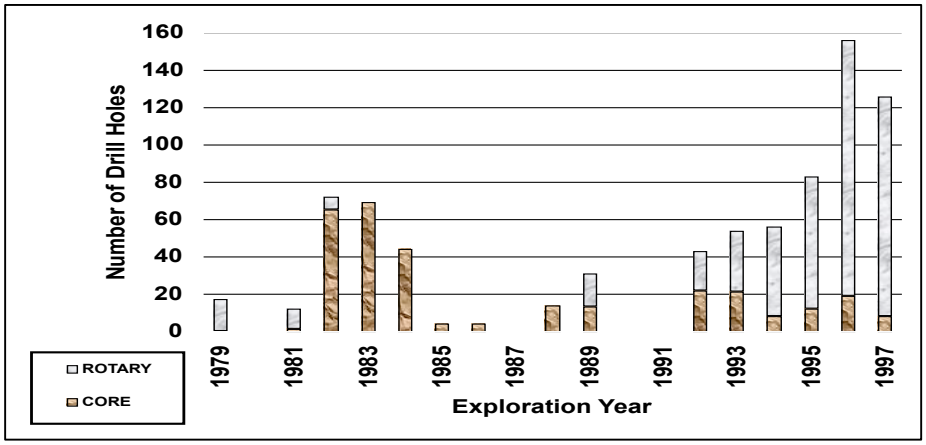
Production Targets and Forecast Financial Information

Allegiance notes the following in relation to the production targets disclosed in this announcement:

- All material assumptions on which the production targets and forecast financial information are based are disclosed in the announcement;
- The coal resources and reserves on which the production targets are based have been prepared by competent persons in accordance with the requirements of the 2012 edition of the JORC Code; and
- The production targets and forecast financial information in this announcement are underpinned solely by a combination of coal reserves and measured and indicated coal resources. The relevant proportions of probable coal reserves and proven coal reserves is 12:78.

Telkwa Coal Resources & Reserves

The Telkwa metallurgical coal complex has had several drilling and bulk sample programmes completed by previous owners between 1980 and 1997, and most recently by Allegiance in 2018. Other than the 2018 Allegiance drill programme, all coal resource data and quality analysis was undertaken during the period illustrated in the table below, an estimated A$40M worth of historical exploration data.



In total, 826 drill holes recovered core from 91,000m of drilling; plus, a 208t bulk sample in 1983, and a 80t bulk sample in 1996.

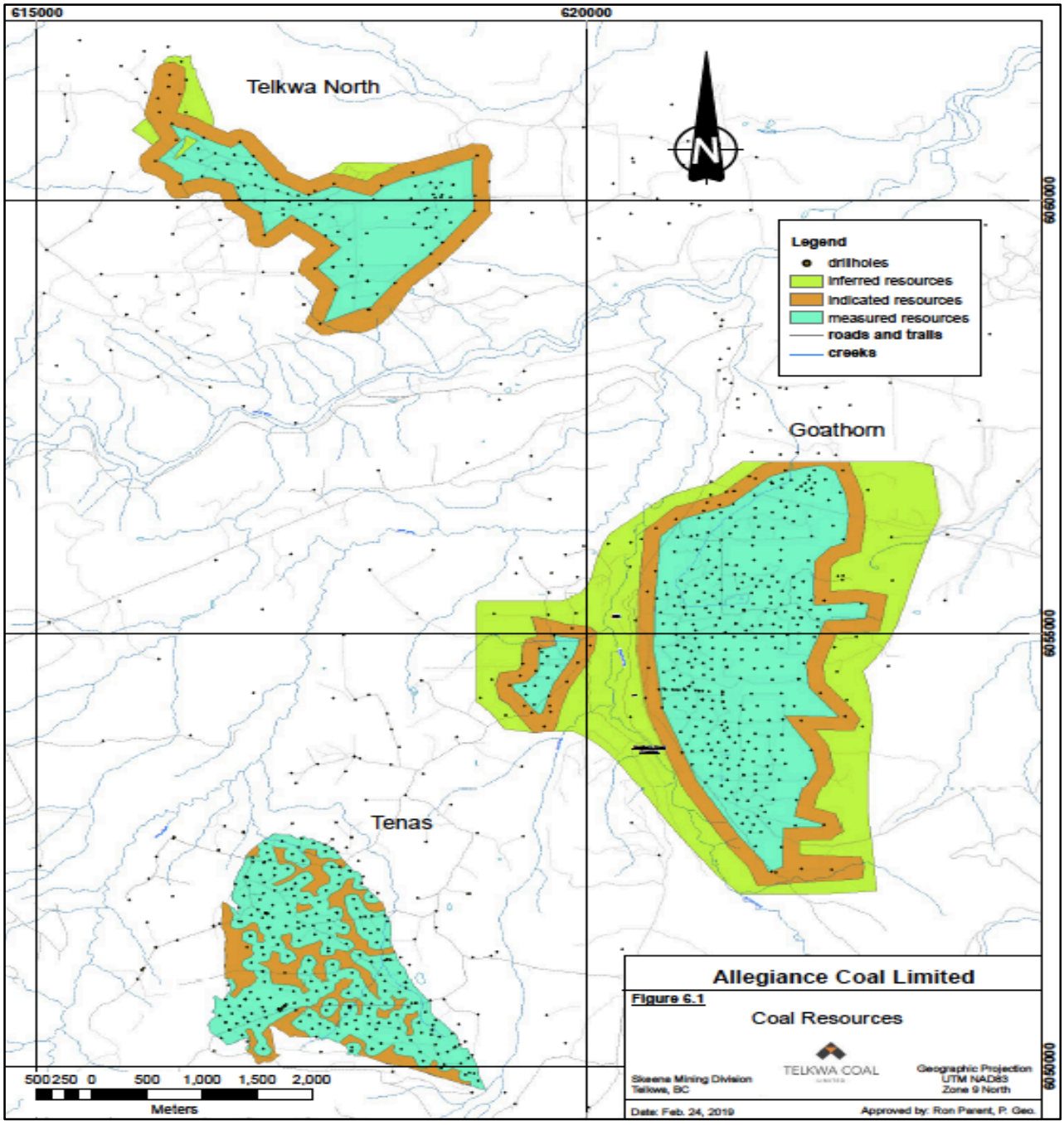
From this, coal was recovered to undertake coal washability and quality tests and petrographic analysis.

On 3 July 2017, Allegiance published the results of the first of two pre-feasibility studies (**PFS**) in relation to the Telkwa metallurgical coal complex (**3 July 2017 Announcement**). In that PFS, SRK prepared a statement of resources and reserves in accordance with JORC 2012 Edition (**JORC Code**) and National Instrument NI 43-101 'Standards of Disclosure for Mineral Projects' (**NI 43-101**), as is set out in the 3 July Announcement. For ease of reference, a summary of the PFS resources and reserves is repeated in Tables 5 and 6 below.

Table 5: Resources	Measured Mt	Indicated Mt	Inferred Mt	Total Mt (adb)
Tenas deposit	58.8	-	-	58.8
Goathorn deposit	59.5	9.2	0.2	68.9
Telkwa North deposit	15.7	3.7	1.0	20.4
Total	**134.0**	**12.9**	**1.2**	**148.1**

Table 6: Reserves		ROM Coal Mt	Clean Coal Mt	Saleable Coal Mt
Tenas Proven		29.1	20.6	21.0
Tenas Probable		-	-	-
Tenas Total		**29.1**	**20.6**	**21.0**
Goathorn Proven		22.1	12.6	18.8
Goathorn Probable		0.2	0.1	0.1
Goathorn Total		**22.3**	**12.7**	**13.9**
Telkwa North Proven		10.8	6.4	7.0
Telkwa North Probable		0.7	0.4	0.5
Telkwa North Total		**11.5**	**6.8**	**7.5**
Grand Total		**62.9**	**40.1**	**42.5**

The coal resources including drill hole locations of the Telkwa metallurgical coal complex, as listed in Tables 5 and 6 above, are illustrated in the map that follows.



Following a 34-hole drill programme in the Tenas deposit undertaken by Allegiance in 2018, the Tenas geology was re-interpreted and the coal resources updated based on the identification of a series of faults. In addition, non-continuous, thin and high ash coal seams were excluded from the resource statement reducing the number of coal seams from 13 to just three, one of which was split into a lower and upper ply. The updated resource statement for Tenas was published by Allegiance on 18 June 2018 (**18 June 2018 Announcement**). For ease of reference, 18 June 2018 Announcement statement of resources is repeated in Table 7 below.

Table 7: Tenas Resources	Measured Mt	Indicated Mt	Inferred Mt	Total Mt (adb)
c Seam	4.5	1.4	-	5.9
1 lower seam	8.1	2.7	-	10.9
1 upper seam	4.5	1.6	-	6.2
1 Seam	9.9	3.5	-	13.5
Total	**27.1**	**9.4**	**-**	**36.5**

Estimation Methodology

Coal quality and seam thickness parameters were estimated using inverse distance squared within the seam wireframes which control the distribution of interpolated values in 3D. The model is of the coal seams only and the interburden has been modelled by default but to sufficient detail to assist with waste rock characterisation and waste rock management. The model block size ranges from 5 to 25 m along strike, 5 to 10 m down dip and 5 m in height. Average drillhole spacing for Tenas is 110 m and the average core hole spacing (with quality data) is 237 m.

A key assumption utilized in the resource estimate was the relationship between ash content on an air dried basis and bulk density used for conversion of volume to tonnes. The geological interpretation is based on the "stacking" of seam bottoms along 25 m spaced cross sections from the lowermost seam upward. The main validation method used was a comparison between wireframe solids volume and volume generated from the 3D block model after coding. The model accurately represents the drilled seam true thicknesses to +/- 0.1 m at a given XY location. The elevations may vary up to 3 m at any drillhole intercept. This is due to the sectional nature of the modelling process, projecting all seam intersections a maximum of 12.5 m to the nearest cross section.

Updated Tenas Reserve Statement

In the DFS, SRK updated the Tenas reserves in accordance with the JORC Code and NI 43-101, which is summarised in Table 8 below. The DFS accounts for just 15% of the entire coal resource of the Telkwa metallurgical coal complex.

Table 8: Tenas Reserves			ROM Coal Mt	Saleable Coal Mt
Tenas Proven			17.1	12.9
Tenas Probable			4.9	3.7
Tenas Total			**22.0**	**16.5**

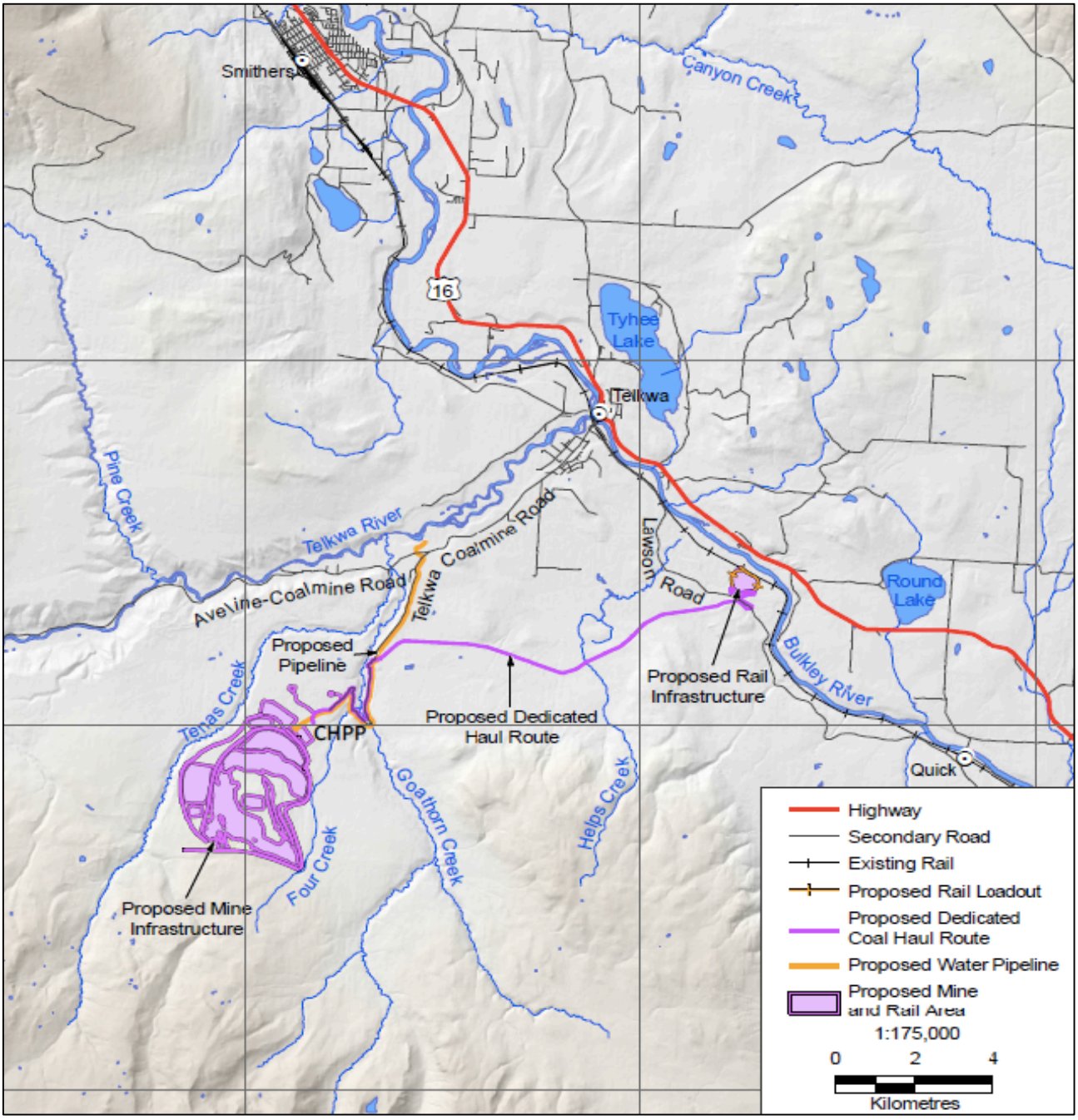
The production targets and forecast financial information outlined in this announcement in relation to the new Tenas Reserves, are based solely on the Proven and Probable Reserves in Table 8. Modifying factors such as mining dilution, mining recovery, raw ash and density, and coal yield have been estimated using accepted techniques considered by Allegiance and SRK. The accuracy of the Tenas Reserve estimate is subject to geological data and modelling procedures to estimate the coal resource and to modifying factor assumptions for dilution and loss. While the Tenas Project is not in production and such reconciliation is not possible, the assumptions are based on sound principles and experience from mines with similar conditions.

All Telkwa Reserve estimates are based on: minimum seam thickness of 0.8 m; maximum ash content of 50%; dilution of 0.15 m (unless blasting through seams, where it is 0.25 m) and coal loss of 0.10 m (0.20 m where blasting through seams) per coal seam; ROM coal and saleable product bases, with a moisture contents of 5% and 10% respectively; and coal yields are based on washabilities at a float-sink specific gravity of 1.6.

Tenas Project Components

The Tenas Project is located 7km southwest of the small town of Telkwa (population ~2,000), and 25km south of the larger town of Smithers (population ~6,000) which has an airport with daily direct flights to Vancouver. The town of Telkwa has a long history of coal mining dating back to the late 1800s with coal production ceasing as recently as 1985.

The Tenas Project has access to excellent road infrastructure developed by the forestry industry, is just 3km from power, and 16km from the proposed CHPP to the proposed rail loadout along a gentle declining private designated haul road (to be constructed). The excellent existing infrastructure has kept the cost of infrastructure construction low helping to minimize start-up capital expenditure.



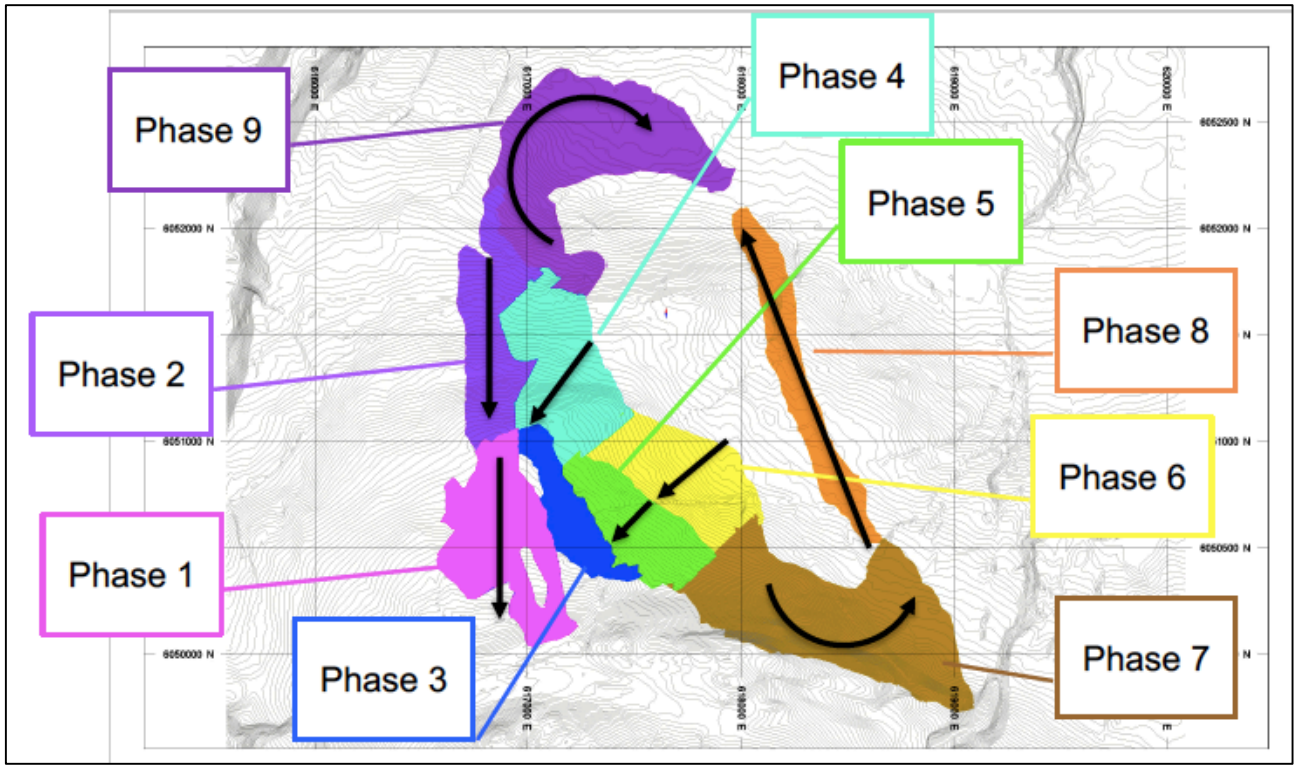
The Tenas Project components, highlighted on the map above, will include, amongst other things:

- One single open pit mine;
- Typical open pit mine operations equipment including 91t dump trucks, excavators and dozers;
- Waste rock dumps outside the pit as well as back-fill dumps during mining within the pit;
- Diversion ditches to divert 'contact' water into the water management ponds;
- Water management ponds to submerge under water potentially acid leaching waste rock during mining;
- Sedimentation pond;
- Dedicated pipeline from the sedimentation pond to a watercourse for discharge;
- ROM coal haul roads from pit operations to the coal handling and preparation plant (**CHPP**);
- The CHPP itself and associated infrastructure;
- Mine infrastructure including amongst other things equipment maintenance shop;
- 3km power line connecting the mine to a local 25kV powerline;
- A dedicated 16km private clean coal haul road from the CHPP to the rail loadout;
- Several small bridges along the clean coal haul road;
- A rail loop and loadout facility adjacent to Canadian National Rail's (**CN Rail**) main line to Ridley Terminals.

Mining Method and Schedule

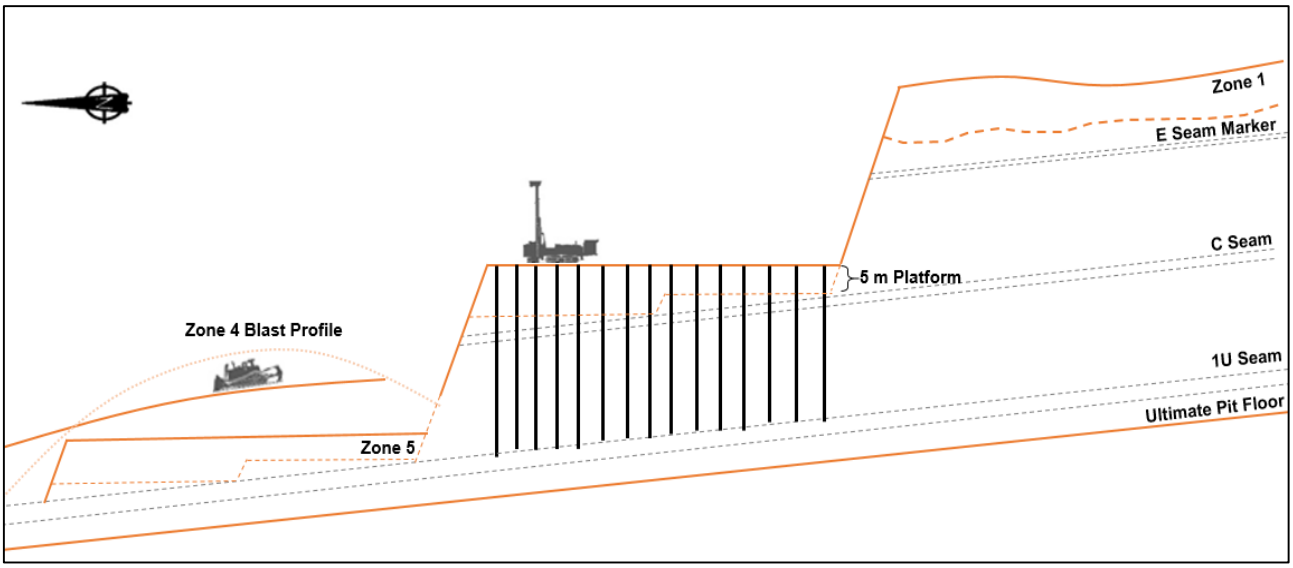
The Tenas deposit is a syncline basin with the coal seams gently dipping from the west meeting the syncline on the east. The deposit is to be mined by open pit mining methods involving nine phases.

Mining commences with phase 1 in the shallowest area to the southwest, then progressively mining towards the syncline to the east, north and south, as illustrated below.



Multiple mining approaches can be deployed to take advantage of the unique geological and topographic setting of the Tenas deposit. Shallow dipping coal strata, and reasonably near surface coal strata allow for a bottom-up mining approach.

For this, a box-cut is established at the lower end of a phase and successive cuts advance up-dip, progressively expanding available backfill space down-dip from the active cuts. Hydraulic excavators mine the bulk of the waste, with track dozers pushing some of the waste above 1U-seam on to final pit bottom. Coal is also mined by hydraulic excavator. Blasting is in benches above C-seam, and then through C-seam standing off from 1U/1-seam. Not all phases are amenable to this method due to steeper seam dips nearer the syncline, relying instead on more conventional top-down bench mining. The up-dip mining is illustrated below.



The mine production schedule for the Tenas Project is nominally 1,050,000 ROM tonnes per annum for a 22-year mine life including construction, producing on average 750,000 saleable tonnes per annum, at a strip ratio of 3.6:1 BCM/ROMt, and at a yield of 75% (at 10% moisture when loaded onto a vessel).

Equipment Requirements

The primary fleet at full production will include:

- Two production drills (one 250mm and one 140mm bit diameter);
- Three hydraulic backhoes (12m3);
- One backhoe excavator (6m3);
- 12 rigid frame haul trucks (91t);
- Four track dozers (3.9m blade);
- Three graders (4.26m blade); and
- Two water trucks (91t).

The production fleet will be supported with ancillary equipment similar to other open pit operations in western Canada.

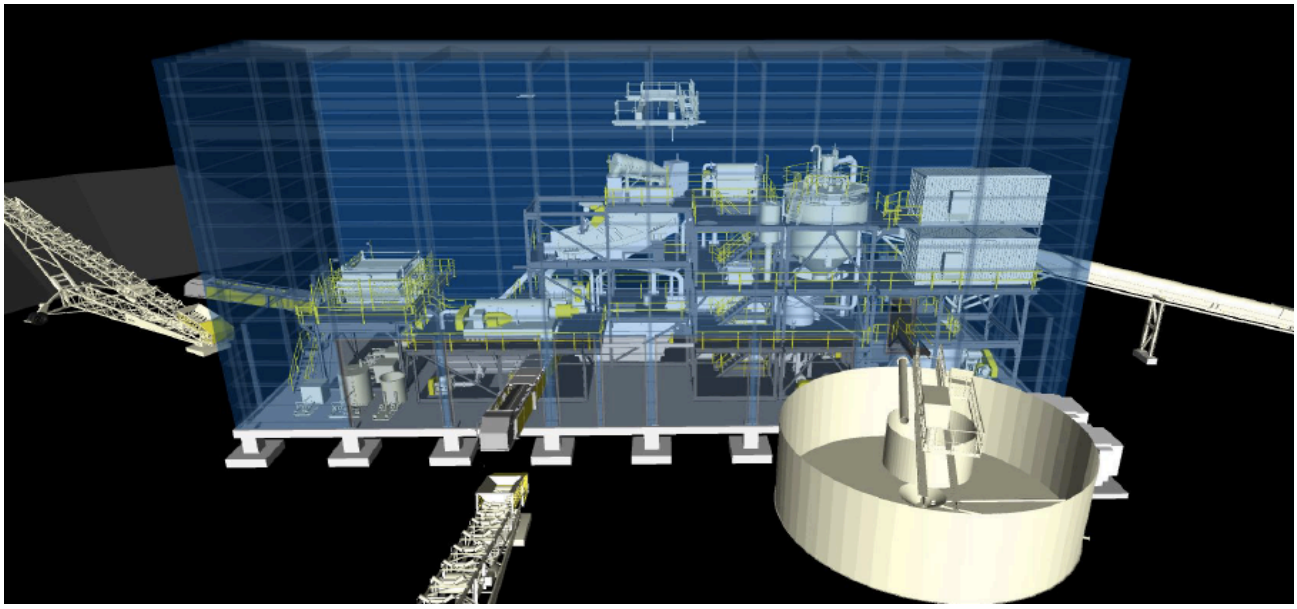
Labour Requirements

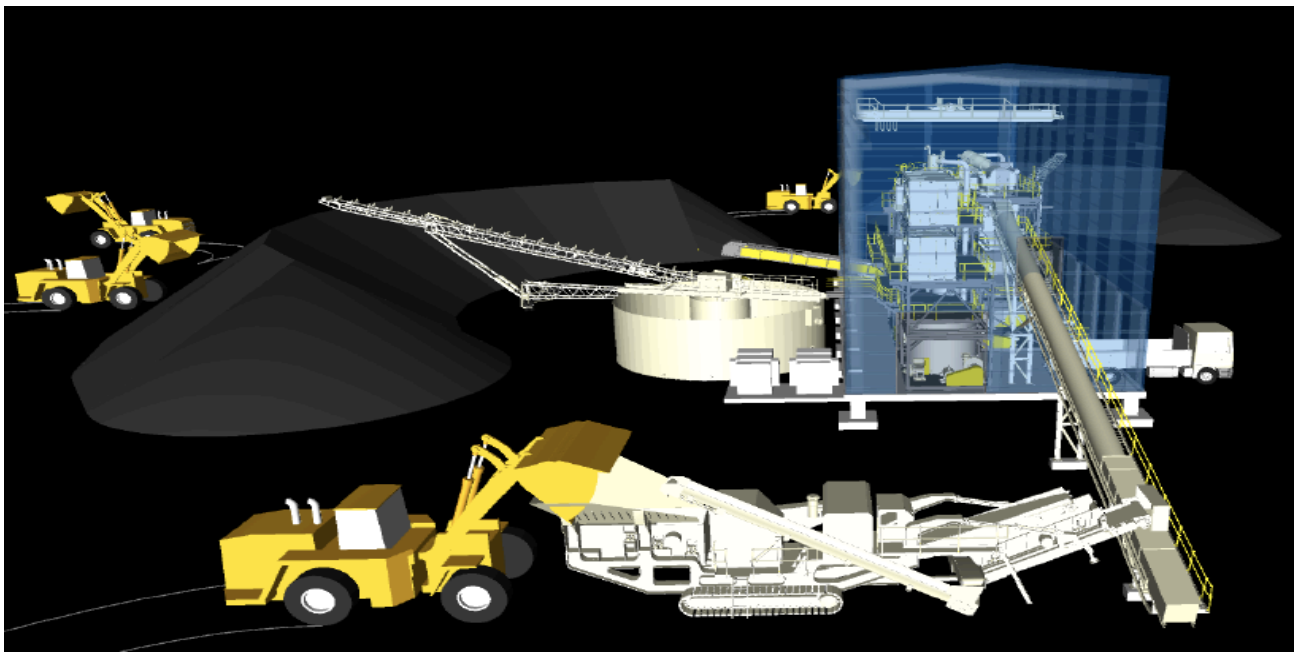
The mine will operate 24/7 with four crews on a seven shift on, seven shift off rotation, alternating days and nights, while the maintenance workforce is assumed to largely work a dayshift four-on / four-off schedule with two tradespeople working night shift to support mine operations. At full production, the mine averages 95 mine workers, 29 mine maintenance workers along with technical support and supervisory staff. The neighbouring towns of Telkwa, Smithers, and 50km south of Telkwa, Houston, all house skilled mine workers

who support the hardrock mining industry in the region. In addition, the primary industry in the region is forestry, where skilled equipment operators provide a readily available labour pool.

Coal Handling and Preparation Plant

The CHPP configuration will be a DMC/flotation plant designed and constructed to process 145t/h of raw coal (ROM) over the mine's life. A key factor to this processing rate was a desire by Allegiance to use a Sedgman modular plant with minimal upfront capital expenditure. However, to allow for increased production once cashflow is established, the CHPP has been designed to be able to expand to 190t/h of ROM coal (equivalent to 1.35Mt of annual ROM production) by adding a secondary float cell and belt filter press for fine rock dewatering. The CHPP can be further expanded to 350t/h (equivalent to 2.5Mt annual ROM production) by adding a reflux classifier circuit, a reject drain and rinse screen, flotation cell, belt filter press module and increasing the size of the building. The images that follow illustrate the Sedgman designed modular CHPP and related infrastructure.





The CHPP is located approximately 2km to the northeast of the Tenas pit. This location was selected as it has a relatively flat profile which minimises bulk earthwork costs required to construct the pad required for both the CHPP and ancillary infrastructure.

The plant location also allows for any future expansion of the pit as there are known coal resources residing in the 2km between the selected plant location and Tenas pit.

The CHPP flowsheet incorporates the following process stages:

- Raw coal reclaiming and size reduction;
- Coarse coal (DMC) circuit for coal between 50.0 by 0.50 mm with horizontal basket centrifuge for dewatering;
- Magnetite recovery circuit;
- Fine coal flotation for coal <0.50 mm with screen bowl centrifuge for dewatering;
- Fine rock thickening and dewatering using a belt press filter;
- Washed coal loadout at the plant via an 8,400-tonne open air stockpile;
- Plant Rock loadout via a 6,600-tonne open air stockpile;
- 16 km on-highway truck haul to the Rail Loadout;
- Washed coal loadout via a 30,000-tonne open air stockpile;
- 375 km rail transport using 116 car unit trains to Ridley Terminals.

Infrastructure

The construction of the infrastructure required to support the mining operation will occur in stages to minimize the upfront capital but also allow for expansion:

- 2020/21 – Infrastructure constructed to support the immediate operational needs are constructed;
- 2022 – Maintenance infrastructure upgraded; and
- 2023 – Stacker/reclaimer upgrade to be more efficient at the rail loadout.

The Infrastructure facilities outlined below will be constructed in years 2020 and 2021 of the operation:

- One 50,000L diesel fuel tank and dispensing station for mine and light vehicles;
- Electrical substation and site distribution;
- Improvements to 6.0km of existing forestry access road through the Goathorn Creek Valley;
- A fit for purpose 110 tonne single lane bridge over Goathorn Creek;
- A newly constructed 10.0 km access road to the train load out;
- A train load out pad with sprayer apparatus;
- 2.5 km rail loop which includes 500 metres for the lead tie in track to support a 116-car unit train;
- 3.6 km of 25 kV transmission line to site;
- A new 25 kV to 600 V substation and electrical rooms on site;
- A pole mounted 25 kV to 600 V transformer at Goathorn Creek;
- A second pole mounted transformer located at the Explosive storage facility;
- Communication system;
- Explosive Facilities and magazines;
- Flocculant sheds at the rail loadout and the main sedimentation pond at site; and
- Administration and mine dry building.

The Infrastructure facilities outlined below will then be added in 2022 to support the operation:

- Mine truck shop facility including a warehouse with a loading dock;
- Cold storage facility;
- Light vehicle shop and emergency rescue fabric structure;
- Second 50,000L diesel storage tank;
- Bulk lube facility at the truck shop; and
- Dust suppression system at the rail loadout and plant site.

The Infrastructure facilities outlined below will then be added in 2023 to support the operation:

- Stacking and Reclaiming system at the rail loadout;
- Additional conveyor antifreeze system; and
- Automated signals at Telkwa Crossing.

It is estimated that the facilities constructed in 2020/2021 will take up to eight months to deliver with the rail loop and access road being the longest lead items.

Coal Quality

Telkwa coal will be washed at an SG of 1.6 to produce a target 9% ash, mid-volatile semi-soft coking coal, at a saleable coal yield of 75%.

Table 9: Telkwa Coal Quality	Units	Tenas	NSW HV SSCC	QLD MV SSCC
Inherent moisture	%	**1.1**	2.5-4.5	2-2.5
Volatile matter	%	**25.8**	33-38	25-27
Ash	%	**9.0**	5-9.5	9.5-10
Sulphur	%	**0.98**	0.35-0.85	0.35-0.55
Fixed carbon	%	**65.3**	50-60	55
Free swell index		**3-4**	3-6	3-3.5
HGI		**63**	40-52	70-80
Reflectance	%	**0.96**	0.65-0.85	0.99-1.06
Maximum fluidity	Ddpm	**6**	10-500	15-50
Base acid ratio		**0.15**	0.10-0.20	0.12-0.21

The quality parameters for Telkwa coal are summarized in Table 9 above, and are compared to similar products exported from New South Wales and Queensland.

Coal Pricing

Kobie Koornhof & Associates Inc (**Koornhof**), a respected coal market specialist with particular expertise in North American coals, provided Allegiance with a market outlook for metallurgical coal along with a price guide for Telkwa coal as a mid-volatile semi-soft coking coal, and a mid-volatile PCI. The DFS has relied on Koornhof's pricing guidance for a Telkwa mid-volatile semi-soft coking coal.

According to Koornhof, demand for hard coking coal is continuing at robust levels as steel industry fundamentals remain a strong driver for seaborne coking coal imports. The current constraints to supply availability for high quality coking coals is likely to remain for the foreseeable future, since global coking coal supply is not coming on line at a pace that will upset the current supply/demand balance. In the medium term, the biggest risk to metallurgical coal pricing lies in a possible global economic slowdown, fuelled by the fear of burgeoning trade wars.

In determining a suitable price point for Telkwa semi-soft coking coal, Koornhof notes Telkwa SSCC is a closer match with the Queensland medium volatile SSCC (**MV SSCC**), than New South Wales high volatile SSCC (**HV SSCC**). The net effective carbon content of the MV SSCC, which is considerably higher than that of the HV SSCC, results in a premium of US$2-3/tonne for the MV SSCC.

Koornhof noted that Australian SSCC for Q4 2018 was settled on January 29, 2019 at US$135 per tonne. The net result for Telkwa SSCC, considering a sulphur penalty/ash premium, and factoring in the US$2.50/tonne premium for MV SSCC over HV SSCC, is a US$2.05/tonne discount to HV SSCC pricing. Based on the settlements for Q4 2018, that would indicate a price of US$132.95 per tonne for Telkwa SSCC today.

Koornhof assumed a price range for premium benchmark coking coal for the medium term (2020 to 2022) and long term (2023 onwards), against which it then applied the current trend discount for HV SSCC to benchmark hard coking coal.

The benchmark parameters used for pricing are summarized in Table 10 below.

Table 10: Benchmarking	Price as % of HCC	Medium term price US$/t	Long term price US$/t
		Years 2020 - 2022	Years 2023 onwards
Premium low vol coking coal	100%	185 - 210	175 - 210
Semi-soft coking coal	66%	122 - 139	116 - 139

Using a value in use methodology, Koornhof provided a price range forecast for Telkwa coal summarised in Table 11 below. For the purposes of the DFS, Allegiance assumed the lowest price of US$120/t for coal sold in 2021 and 2022, and the lowest price of US$114/t for coal sold from 2023 onwards.

Table 11: Price forecast		Medium term price US$/t	Long term price US$/t
		Years 2020 - 2022	Years 2023 onwards
Telkwa MV SSCC price range		120 - 137	114 - 137

Coal Markets

All steel mills use a blend of coking coals ranging from hard coking coals to semi-coking coals to feed their coke ovens. Generally, the steel mills blend at a ratio of 70:30 hard coking coal to semi-coking coal. In some instances, semi-coking coal is the primary feed for a coke oven.

Tenas Project's target customers are the north Asian steel mills. Using coal derived from the 2018 drill programme, Allegiance provided bulk sample coal to the three Japanese steel mills and one South Korean steel mill, all of whom undertook coal quality tests.

Following the test results, expressions of interest were lodged for the purchase of Telkwa coal once the Tenas Project is in production. Feedback from the steel mills emphasised the scarcity of mid-volatile semi-soft coking coals on the seaborne market. They advised that the semi-soft market is dominated by the supply of high volatile semi-soft coking coals from the Hunter Valley and that there only a few mines, producing low volumes, of mid-volatile semi-coking coal from central Queensland. They also advised there was no non-Australian supplier of mid-volatile semi-soft coking coal to the seaborne market, placing Telkwa coal in a unique position.

Koornhof also noted in his report, that "Telkwa SSCC is expected to be well received due to limited availability of midvol SSCC on the seaborne market, in contrast to the more readily available high volatile SSCC coals from NSW. The market should react favourably to the introduction of a new midvol SSCC, not only as

diversification from Australia, but also due to the fact that Canadian SSCC supplies have largely been eliminated with the closure of the Coal Mountain operation."

Capital

The start-up capital expenditure is summarized in Table 12 below.

Table 12: Start-up Capital	Lease finance US$M	Owner finance US$M
Pre-production activities		4.2
CHPP and associated plant infrastructure	3.3	14.0
Minesite infrastructure		12.5
Water management		17.3
Rail loop and loadout		5.4
Mobile equipment	32.9	0.9
Total Start-up Capital (excludes contingency)	**36.2**	**54.3**

Pre-production activities includes land clearing, logging, topsoil salvage and pre-strip.

Minesite infrastructure primarily includes:

- Earthworks;
- Connecting to power including sub-station;
- Upgrading existing forestry roads;
- ROM and clean coal haul road construction including several small bridges;
- Raw water system;
- Fuel tanks; and
- Fencing.

As discussed previously, the CHPP is a Sedgman designed modular wash plant which will have a feed capacity on start-up of 145 t/h and the potential with expansion to feed 350 t/h. The wash plant configuration was driven by a desire to minimise start-up capital expenditure without materially compromising yield and performance, as well as allowing an increase in production in due course.

Effective and reliable water management is critical for any mine operation in British Columbia. Managing surface water from rain and snow melt that contacts mine operations is very important. Contact water is diverted via ditches to ponds where the water is held allowing sediment to settle prior to the water being discharged into the catchment area.

The DFS also assumes the water will be discharged into the Telkwa River (a large watercourse) via a pipe. Water is discharged in spring and summer once the ponds have thawed after the spring melt and during high water flows.

In addition, some of the waste rock mined has the potential to leach acid when exposed to air and water, which the DFS assumes will be submerged under water in management ponds constructed during the first 10 years of production eliminating the opportunity for the rock to acidise.

The DFS assumes that start-up production equipment will involve new equipment. Attractive equipment financing terms were offered by several well known equipment brands for fleets of new equipment.

The sustaining capital expenditure is summarized in Table 13 below.

Table 13: Sustaining Capital	Lease finance US$M	Owner finance US$M
Production milestone payments relating to project acquisition		5.6
Mining		8.1
CHPP and associated plant infrastructure		11.4
Minesite infrastructure		4.4
Water management		52.4
Rail loop and loadout		2.8
Mobile equipment	10.8	21.6
Administration infrastructure		0.7
Total Sustaining Capital (excludes contingency)	**10.8**	**107.0**

The milestone payments are to Altius Minerals Corporation in the first two years after the commencement of production and represent the majority of the purchase price paid by Allegiance for the acquisition of the Telkwa coal exploration tenements.

The DFS assumes US$10.8M of the mobile equipment will be lease financed and the balance funded from cashflow.

As discussed above, on going water management, and mitigating the risk of environmental impact is important and requires significant ongoing capital investment during the life of mine. This is not uncommon in British Columbia, and Canada generally, and reflects the high standards that Canada sets for the protection of the environment from industry, not just mining.

Operating Costs

The DFS operating costs are summarized in Table 14 below.

Table 14: Operating Costs Life of Mine		US$/Saleable t
Site Costs		
Mining – waste removal and coal recovery		19.5
Coal processing		6.3
General and administration		4.2
Reclamation		0.9
Transportation and Marketing		
Marketing costs		1.9
Haulage (CHPP to Rail Siding)		3.8
Rail to port and loaded		13.1
Total all-in cash cost FOB pre-interest and tax		**49.7**

The Tenas Project enjoys relatively easy mining conditions with flat gentle dipping coal seams, and a low average life-of-mine strip ratio of 3.6:1 BCM/ROMt, or 4.8:1 BCM/PRODt. This along with dozer pushing and back filling a significant amount of waste rock material during mine operations, has contributed to very low mining costs.

Itochu Corporation are the appointed sales agent for Telkwa coal, and receive a sales commission of 3 percent of the FOB price, of which 1.5% is paid on sale, and 1.5% is paid as a profit share after EBITDA, assuming EBITDA is positive. The EBITDA marketing fee is not included in the all in cash cost/t above because it is subject to profitability, not revenue.

A royalty is also payable to Altius Minerals Corporation for the life of mine as part of the project acquisition purchase price, equal to 3% of the FOB price, and paid quarterly after sales, which royalty is not included in the all in cash cost/t above.

Financing

The Board of Allegiance considers that there is a reasonable basis to assume the necessary funding for development of the Tenas Project will be able to be obtained when required, because of (but not limited to) the reasons outlined below.

Funding from completed DFS to completion of permitting

As previously announced by Allegiance on 5 November 2018, Itochu Corporation of Japan (**Itochu**) has agreed to invest C$6.6M (A$6.9M) into Telkwa Coal Ltd (**TCL**), subscribing for shares in TCL representing 20 percent of the issued share capital of TCL, as follows:

- C$1.5M for a 5.3% interest in TCL, completed in January 2019, following the issue of a section 10 order under the Environmental Assessment Act of British Columbia (which formally acknowledges the Tenas Project has been accepted for environmental review and permitting and was received by TCL early November 2018);
- C$1.5M for a further 4.8% interest in TCL, following completion of the Tenas Project DFS to the satisfaction of Itochu; and
- C$3.6M for a further 9.9% interest in TCL, following lodgement of an application for an Environmental Assessment Certificate, targeted for Q3 2019; and
- In addition to the shares that Itochu receives in TCL, Itochu has been granted the exclusive right to market and sell all coal mined at Telkwa, including from the Tenas Project.

It is anticipated that the Itochu investment will fund TCL through to the completion of permitting. To the extent that it does not, Allegiance may have to raise additional capital for that purpose. If required, it is presently anticipated that such capital would most likely be raised through:

- Equity capital markets; and/or
- Further farm-out of participating interests in the Tenas Project to Itochu, or other potential investors.

Mine development funding post permitting

Itochu has the right, after permits to mine the Tenas Project are granted, to subscribe for additional shares in TCL on the basis of a valuation where all permits to mine are granted. That valuation is to be determined between the parties, or failing that by an independent expert. It is Allegiance's view that a valuation of the Tenas Project where all permits to mine are granted, will properly reflect value and that Itochu is likely to be prepared to invest further equity towards Tenas Project construction in order to monetise the value of their coal marketing rights. The Board considers this view reasonable. Without this further investment, and in the absence of alternative funding, the coal marketing rights will not be of value.

Two major equipment suppliers have offered favourable financing terms for the supply of new mining equipment during the mine start-up phase. The DFS has assumed that the major equipment supplied from the preferred supplier will be lease financed from that supplier at the offered interest rate of 5.6% pa, and repaid in full over five years from the commencement of production. In addition, the DFS assumed that ancillary mobile equipment will also be lease financed and assumed the same finance lease rate offered by the same preferred supplier.

Table 15 below lists the major mine equipment, for the start-up phase, with indicative price and finance terms from the preferred supplier, and summarises the ancillary mobile mine equipment assuming the same finance rate.

Table 15: Equipment lease financed on start-up	Number of units	C$'000
Crawler-mounted Rotary Drill 6.00-9.88 inch diameter	1	2,662
Crawler-mounted Rotary Drill 4.5 inch diameter	1	778
Diesel 15.7 cubic yard Backhoe	2	7,366
Diesel 7 cubic yard Backhoe	1	1,228
100-ton class Haul Truck	10	20,354
D8 class 12.9 inch blade Dozer	3	2,988
14H class 14 inch blade Grader	3	1,608
100-ton class 75,000 L Water Truck	1	2,335
Articulated Haul Truck 43 st 30 yd	2	1,902
988 class Front End Loader	4	4,335
Ancillary mobile equipment		3,664

In addition to the above, mine development funding options will be explored during the permitting phase of the Tenas Project and include:

- Project finance;
- Vendor finance;
- Customer finance; and/or
- Equity capital markets.

Project Economics

In addition to the coal production inputs discussed throughout this announcement, additional inputs into the key performance indicators of the Project economics are set out in Table 16 below.

Table 16: Additional inputs to Key Performance Indicators	Units	Value
Average Coal price for Tenas product coal – 2021 and 2022	US$/t	120
Average Coal price for Tenas product coal – 2023 onwards	US$/t	114
BC Minerals tax rate (deductible from corporate taxes)*	%	2 or 13
BC Corporate tax rate	%	11
Federal Corporate tax rate	%	15

*BC Minerals tax rate comprises a net current proceeds tax rate of 2% or a net revenue tax rate of 13% depending on taxable income.

The Project key performance indicators are summarized in Table 17 below.

Table 17: Key Performance Indicators	Units	Value
Pre-tax NPV8%	A$M	407.3
Pre-tax IRR	%	56.9
Post-tax NPV8%	A$M	260.5
Post-tax IRR	%	47.0
Payback from commencement of production	Years	2.5

Allegiance currently owns 95% of TCL. TCL owns 100% of the Tenas Project. The remaining 5% of TCL is owned by Itochu. On that basis, Allegiance's current 95% share of Project NPV is summarized in Table 18 below:

Table 18: Allegiance's share of NPV	Units	Value
Pre-tax NPV8%	A$M	386.9
Post-tax NPV8%	A$M	247.5

Sensitivity analysis was undertaken to determine the effect on the post-tax NPV8% and the IRR. The results of the sensitivity analysis are set out in Tables 19 and 20 below.

Table 19:		Operating and Capital Costs (US$M)						
NPV (US$M)	185	944	1,079	1,213	1,348	1,483	1,618	1,753
Price US$/Product tonne	84.0 & 79.8	130	95	59	22	-18	-61	-110
	96.0 & 91.2	182	148	114	78	41	3	-39
	108.0 & 102.6	234	200	166	133	97	61	23
	120.0 & 114.0	286	252	219	**185**	152	116	80
	132.0 & 125.4	338	304	271	237	203	170	135
	144.0 & 136.8	390	356	323	290	256	222	189
	156.0 &148.2	442	408	375	342	308	275	241

Table 20:		Operating and Capital Costs (US$M)						
IRR (%)	47	944	1,079	1,213	1,348	1,483	1,618	1,753
Price US$/Product tonne	84.0 & 79.8	47%	31%	19%	12%	6%	2%	0%
	96.0 & 91.2	69%	47%	32%	22%	14%	9%	4%
	108.0 & 102.6	93%	66%	47%	34%	24%	17%	11%
	120.0 & 114.0	118%	87%	64%	**47%**	35%	26%	19%
	132.0 & 125.4	147%	108%	82%	62%	47%	36%	27%
	144.0 & 136.8	179%	132%	101%	78%	61%	47%	37%
	156.0 &148.2	215%	158%	121%	95%	75%	59%	47%

Tables 19 and 20 show that the Tenas Project performance indicators are sensitive to changes in commodity price and operating and capital costs. The Project can sustain a 30% decrease in product selling price resulting in a post tax NPV8% of US$22M and 12% post tax IRR. The Project can sustain a 30% increase in capital and operating costs resulting in a post tax NPV8% of US$80M and 19% post tax IRR.

Risks

The key risks in relation to the Tenas Project are summarised below:

- Environment: The impact of mining on the environment is always an issue irrespective of the type of mine and its location. Once the Company has completed its environmental affects assessment of the Project, targeted for Q2 2019, the Company will have a solid understanding of what the impacts might be.

- Water Management: Related to the first point of environmental impact, one area of particular concern to the Company is water management. The Project has several streams within its vicinity which all feed into a major river system. Ensuring that the Project discharges clean surface water back into the river system is a matter of high priority to the Company.

- Acid Rock Management: The Project has some waste rock that has potential to generate acid leaching of metals when mined and exposed to air and water. The DFS assumes this rock will be permanently stored under water cover in management ponds constructed in the first 10 years of mining. This plan will prevent oxidisation of the rock which in turn will eliminate the requirement for treatment of acidic water.

There is a risk that the water balance will not be positive requiring water to be pumped from a watercourse to maintain the water cover, or active ongoing water treatment.

- Water Discharge Quality: The Government provides thresholds for water quality discharge. Until an effects assessment of the Project on water quality being discharged into the catchment is completed, and which is part of the environmental assessment process, it will not be known for certain whether the treatment of water prior to discharge is required.

- Permitting: There is no guarantee that the Project will be granted all permits required to operate a mine at whatever stage of planned production. Whilst British Columbia is in a first world country, with a very prescriptive mine permitting regime, there is always uncertainty and doubt as to whether Government ministries will support a particular mining activity.

- Finance: Notwithstanding the Company's confidence in this regard, there is no guarantee that if and when the Project is permitted and ready for development, there will be funding available to do so. Whilst the Project is very low down the cost curve and can withstand a material drop in the price of coal, the volatility of commodity prices in a downward trend often dampens the interest of investors in a particular commodity, such that funding may be difficult to secure.

- Coal performance: unless and until a particular coal has been tested for its performance in a blast furnace, there remains an uncertainty as to how it will actually perform, and this may have an impact on coal pricing.

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About Allegiance Coal

Allegiance Coal is a publicly listed (ASX:AHQ) Australian company advancing a metallurgical coal mine into production in British Columbia, Canada. The Telkwa metallurgical coal complex (Project) includes three pit areas comprising 125.8Mt of JORC compliant coal resource of which 102.3Mt is in the Measured Category; 22.3Mt is in the Indicated Category; and 1.2Mt is in the Inferred Category. The Tenas Project the subject of this DFS represents the first development of the complex and comprises 36.5Mt of the Project resource and 16.5Mt of the Project reserves.

Coal Resources & Reserves: Goathorn Deposit & Telkwa North Deposit

The estimates of coal resources or coal reserves in this announcement in respect of the Goathorn Deposit & the Telkwa North Deposit, were first reported in the Company's announcement of 3 July 2017. The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 3 July 2017 insofar as it relates to the coal resources or coal reserves for the Goathorn Deposit & the Telkwa North Deposit and that all material assumptions and technical parameters underpinning the estimates in the announcement of 3 July 2017 continue to apply and have not materially changed.

Coal Resources & Reserves: Tenas Project

The estimate of coal resources in this announcement in respect of the Tenas Project was first reported in the Company's announcement of 18 June 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 18 June 2018 insofar as it relates to the coal resource for the Tenas Project and that all material assumptions and technical parameters underpinning the estimates in the announcement of 18 June 2018 continue to apply and have not materially changed.

Competent Persons Statement

The estimate of coal reserves in this announcement in respect of the Tenas Project is based on and fairly represents, information and supporting documentation prepared by by Mr Ron Parent and Mr Robert McCarthy. Mr Parent is a Professional Geologist registered with the Association of Professional Engineers and Geoscientists of British Columbia. Mr McCarthy is a Professional Engineer registered with the Association of Professional Engineers and Geoscientists of British Columbia. Mr Parent and Mr McCarthy are independent consultants to the Company, and have sufficient experience which is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which they undertook to qualify as Competent Persons as defined in the JORC Code (2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves"). Mr Parent and Mr McCarthy as competent persons for this announcement have consented to the inclusion of the information in the form and context in which it appears herein.

APPENDIX - JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representativeness and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• All boreholes, where conditions permitted, were geophysically logged with some or all of the following tools: deviation, gamma, density, caliper, neutron, dip. • Geophysical logging operators routinely calibrated their tools between programs. • Core holes were sampled, where core recovery permitted, as whole core collected for coal quality analysis and rock geochemistry. • The results from the geophysical logging were used to determine the lithology of the strata in the hole. • The cored intervals are compared to the geophysical log in order to determine sample intervals and core loss. • Samples from these programs were sent to the Crowsnest Resources Limited (CNRL) company laboratory and to Loring Laboratories in Calgary. • A bulk sampling test pit was also excavated with a 219 tonne sample collected from 7 seams. The samples from this test pit were tested by Birtley Laboratory in Calgary. • A further coal quality drilling program was conducted in 2018 that consisted of four PQ core holes and a bulk sample comprised of 14, 6 inch core holes. The PQ holes were tested at the Birtley Labortory in Calgary, AB while the 6 inch holes were tested by the SGS Laboratory in Delta, BC
Drilling techniques	• Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• A variety of drilling techniques were utilized on this project including mainly core, air rotary or a combination of both. • From 1979 to 1989 the drilling was done for CNRL using top-head drive Ingersoll Rand (IR) rotary rigs and Longyear 38 diamond core rigs. Core diameter was 1 7/8" NQ core plus some 6" diameter cores. • From 1992 to 1998 the drilling was done for Manalta using top-head drive Failing 1250 and IR rotary rigs and an Acker diamond core rig. Core diameter was 1 7/8" NQ core. Sampling of coal was done by the diamond core rig. Rotary coring to obtain 10 cm (4") diameter core was also used. • Core was not orientated. • A drilling program was completed in 2018 consisting of PQ diamond core holes which were logged plus a bulk sample obtained from 6 inch air rotary holes. •
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• The cored intervals were compared to the geophysical log in order to determine sample intervals and core loss. • The drilling contractor was responsible for ensuring that core recovery was maximized. • Due to the nature of the deposit, core quality was generally not affected by coal recovery. • Core recovery records were reported on the written core description sheets for each core hole. The average recovery from 1992 to 1998 was typically in the 80% to 100% range and was typically better than that achieved during the CNRL tenure period • Core recovery for the 2018 program was between 80 and 100% for the PQ core holes and 95 to 100% for the 6 inch core holes.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	• All core was logged using similar logging criteria included lithology, weathering, core quality/hardness and observation of structural features.

Criteria	JORC Code explanation	Commentary
	estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core photography. • The total length and percentage of the relevant intersections logged.	• The logging with respect to the down hole logs is quantitative and core photographs are available in some instances. • All boreholes, where conditions permitted, were geophysically logged with some or all of the following tools: deviation, gamma, density, caliper, neutron, dip. • Geophysical logging operators routinely calibrated their tools between programs. • The geophysical logs were used to determine the lithological intervals in rotary holes where no core was retrieved. In general, coal was determined by its low response on the density tool (~<1.8 g/cc). Once determined if the interval was coal or not, a lithotype for rock intervals was determined by observing the gamma log response, which had the lowest response in clean sandstones with little clay content and the highest response in shales due to the high clay content, which contained K that emits radiation. • All holes in 2018 were logged geophysically and dipmeter was run on holes. The 6 inch core holes were only logged geologically.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representativeness of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• All samples taken were of whole core. • Of the few rotary sampled holes, none of the analytical data were used in the resource estimate. • Quality control was provided via referencing the geophysical log. The analytical results were checked for reasonableness against the gamma and density results. There should be a direct relationship between density and ash content. • Whole core material of each seam or ply, either as single samples or a series of samples by depth increments, were sent to the laboratory for analysis. All coal core samples were bagged on site before being transported to Loring and Birtley Laboratories in Calgary for coal quality test work.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• Loring , SGS, and Birtley Laboratories are ISO 9001 certified, adhere to ASTM preparation and testing specifications and have quality control processes in place.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• The verification in terms of coal quality was by comparison of analytical results with the geophysical log. The sampling and analytical results were overseen and reviewed by qualified geologists. • Anomalously thick intersections in the dataset were checked to ensure correctness. • Twinning of holes is generally not required except in the absence of a geophysical log. • In general all core logs and intervals were recorded using handwritten logs, some of which were transcribed into spreadsheets or other software.

Criteria	JORC Code explanation	Commentary
		• Data prior to 1992 have paper geophysical logs, however all hole drilled from 1992 – 1998 have log asci (.las) files in digital format. • All of the data has been stored in an MSAccess database. • 2018 data was compared to historical information and the geophysical logs to validate the results obtained
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All historical drillholes have been surveyed using total station survey equipment. Extensive documentation of survey traverses is available as part of the record. • All historical data points used in the resource estimate were surveyed in NAD27. These were converted to NAD83 for the purposes of this study and future work. • Topographic contours at 2 m intervals provide appropriate topographic control. • 2018 drill holes were surveyed using GPS with RTK corrections resulting in accuracies of +/- 5 cm in NAD83
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied	• Average drillhole spacing for Tenas is 110 m, 125 m for Goathorn and 135 m for Telkwa North. The average core hole spacing (with quality data) is 237 m in Tenas, 173 m in Goathorn, and 157 m in Telkwa North. • The resource classification is based on an assessment of the geological (seam thickness) and coal quality continuity. This has then been summarised using the distance from nearest acceptable data point (drillhole) for coal seam thickness identification and an assessment of the confidence in coal seam continuity / correlation. The drillhole spacing and continuities are considered appropriate to define Measured, Indicated and Inferred Resources on the following basis: o Measured = within 75 m of drillhole utilized in the model (that is, holes identified as appropriate for use in the current resource estimate); o Indicated = within 75 m to 150 m of drillhole; o Inferred = within 150 m to 300 m of drillhole.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Drilling was oriented on cross sections at 25 m spacing oriented perpendicular to local trend. • Drilling was vertical and coal seams dip at between 0 and 65 degrees. Seam thickness intercepts are corrected to true from apparent thickness using the locally interpreted seam dip.
Sample security	• The measures taken to ensure sample security.	• No known special sample security measures were applied at the time of sample submission to the laboratories,
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Extensive checks and comparisons between data has been undertaken to verify and validate data for this resource estimate

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties, such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• Coal tenure is held in the form of coal licenses (22 parcels for 5579 Ha) and freehold coal (5 parcels for 1301 Ha). The coal licenses are held by Telkwa Coal Limited and Bulkley Valley Coal Limited (BVCL). • The BVCL license ownership are under an agreement signed between CDC and BVCL and this agreement has been assigned to Telkwa Coal Limited.. • The tenure is secure and maintenance payments are all up to date. • The freehold areas are owned by Telkwa Coal Limited

Criteria	JORC Code explanation	Commentary
		• The only known impediment to obtaining a license to operate will be negotiations with select private land holders in the area for development.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• In the period from 1979 to 1998 a total of 867 documented drillholes were completed on the Telkwa property by CNRL and Manalta. Of those, 525 were drilled using conventional rotary methods, while 310 were cored. In 47 of the drill-holes, 59 piezometers were selectively installed at various stratigraphic levels. 32 surficial bore-holes have also been completed to date on the property. In addition, there are reports of about 30 holes being drilled by Cyprus and Canex sporadically in the period from 1969 to 1978; this data has not been compiled due to the poor quality of the records. • Additionally, surface geophysics has been conducted periodically by both CNRL and Manalta with the intention of tracing coal seams on surface.
Geology	• Deposit type, geological setting and style of mineralisation.	• These medium to high volatile bituminous coal deposits are part of the Red Rose formation of the Skeena Group. • The Skeena Group sediments of the Telkwa Coalfield are an erosional remnant of Lower Cretaceous sedimentary rock which were initially deposited within a large deltaic complex along the southern flanks of the Bowser Basin. Throughout late Jurassic and early Cretaceous time the Bowser Basin was the focus of rapid sedimentation, subsidence and increased tectonic activity, which resulted in thick accumulations of coal-bearing sedimentary rock. • The geology type classification for Canadian coal deposits is "complex". Minimum open pit mineable thickness for complex coal deposits is 0.8 m. • The main economic seams range from a minimum mineable thickness of 0.8 m to 9 m in thickness.
Drill hole Information	• A summary of all information material to the understanding of the exploration results, including a tabulation of the following information for all Material drill holes: • Easting and Northing of the drill hole collar • Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • Dip and azimuth of the hole • Down hole length and interception depth • Hole length • If the exclusion of this information is justified on the basis that the information is not Material, and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Modern exploration of the Telkwa Project started with Cyprus Anvil Mining in 1978 and since then over 800 exploration drillholes and 3 bulk samples have been carried out on the property. • Other ancillary activities such as trenching, geological mapping and surface geophysics have also been carried out.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• All compositing was length based. • Seams consist of minimum 2:1 coal to rock ratio with a maximum internal "parting" of 0.3 m for Tenas complex and 0.5 m for Goathorn and Telkwa North complex. • Seam composites were made from compositing of lithological intervals (Coal or Parting) honouring the seam code. • Coal quality intervals are cross referenced with the seam composites
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this	• Composited seam intervals were assigned a dip from a geological section and the true thickness of the intervals was established

Criteria	JORC Code explanation	Commentary
	effect (e.g. 'down hole length, true width not known').	
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to, a plan view of drill hole collar locations and appropriate sectional views.	• Diagrams have been developed for the project by Telkwa Coal Limited in accordance with JORC Code requirements. • Diagrams include location maps, drillhole plots and geology cross-sections.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Not applicable. While full details of all the exploration results have not been released, there are no significant or material issues not summarised in this Table 1.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported, including (but not limited to): • Geological observations • Geophysical survey results • Geochemical survey results • Bulk samples – size and method of treatment • Metallurgical test results • Bulk density, groundwater, geotechnical and rock characteristics • Potential deleterious or contaminating substances	• Bulk samples have contributed considerably to the understanding of the quality characteristics of the Telkwa coals and have been extracted from each of the three main resource areas. On each, a complete suite of coal quality analyses was performed, including testing on a variety of simulated preparation plant products. • In 1983, a 219 tonne bulk sample was collected from 7 major seams within the Goathorn East (Pit 3) area. In 1989, a bulk sample was extracted from the Bowser (Telkwa North – East Pit) area via a large-diameter coring program. And, in 1996, an 80 tonne bulk sample was collected from the three mineable seams in Tenas area. • Total sulphur and three forms of sulphur (organic, inorganic, and sulphate) have been estimated for the various seams so as to determine the potential for water treatment.
Future work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions, or large-scale step-out drilling).	• Any additional future work will involve drilling mainly in support of acid rock drainage, structural understanding, hydrogeology, and geotechnical evaluations. • Some 2d seismic programs may also happen to aid with fault locations and overburden depths and material types.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• By overlaying the geophysical log density data on the lithological intervals, the coal intercepts were assigned a density value which was then checked for reasonableness (i.e. density from geophysics should be between 1.30 and 1.80 g/cc). • Downhole geophysical data was used to validate and verify seam intercepts and to assist with seam correlation and stratigraphy. • Other data validation included visual inspection of every seam intersection on cross section to allow for proper seam correlations and to look for anomalies in the stratigraphic interval. • For Data capture and current database storage MS Access is utilized, along with cataloguing and electronic filing of all pertinent data stored on the SRK server.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• A site visit was conducted on April 11, 2017 by: o Ron Parent – Resource Competent Person (Independent) o Bob McCarthy – Reserve Competent Person (SRK) o Ed Saunders – Geotech (SRK) o David Maarse – Water Lead (SRK) o Karl Haase – Processing (Sedgman) • The visit consisted of an aerial tour via helicopter and a ground tour on accessible roads. The core storage facility was observed as well as several outcrops. • Ron Parent also spent five weeks on site supervising the 2018 exploration program.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• There is a high level of confidence in the geological interpretation, especially in areas of the resource that have been included in the reserves.

Criteria	JORC Code explanation	Commentary
	• Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Stratigraphic sequence is well understood and correlations are relatively straightforward: the current interpretation has modified the seam nomenclature in places. • Structure and faulting are commonly shallow dipping with predominantly normal faulting up to 100m displacement. Local thrust faulting is observed in the Goathorn area. • Limits of the deposits need to be better defined; since some of the sub-crop or structurally controlled boundaries have not been fully defined. • No alternative interpretations are considered as the current interpretation is well supported by available data. • The geological model is a thickness model, whose data is composited from drillhole seam intersections and confirmed by geophysical log intercepts. • The coal quality parameters do not affect the quantity of coal, but the recovery and generation of a suitable product.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The Tenas deposit is approximately 3 km north-south by 2 km east-west, reaching a maximum depth of 400 m for the lowermost 1Le Seam. • Goathorn East is 5 km by 2 km reaching a maximum depth of 650 m for lowermost 1 Seam. • Goathorn West is 1.5 km by 800 m reaching a maximum depth of 300 m lowermost 1 Seam. • Telkwa North is 1.6 km by 3.6 km reaching a maximum depth of 300 m for the lowermost 2 Seam.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed • Any assumptions behind modelling of selective mining units.	• Coal quality and seam thickness parameters were estimated using inverse distance squared within the seam wireframes which control the distribution of interpolated values in 3D • The model is of the coal seams only and the interburden has been modelled by default but to sufficient detail to assist with waste rock characterisation and waste rock management. • The current resource estimate is comparable with previous resource estimates completed in 1989, 1997, and 2015 • Sulphur (total, organic, inorganic, and sulphate) have been interpolated in the model where data was available • The model block size ranges from 5 to 25 m along strike (Tenas and Telkwa North are rotated), 5 to 10 m down dip and 5 m in height. • Average drillhole spacing for Tenas is 110 m, 125 m for Goathorn and 135 m for Telkwa North. The average core hole spacing (with quality data) is 237 m in Tenas, 157 m in Telkwa North and 173 m in Goathorn.
Estimation and modelling techniques (continued)	• Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• A key assumption utilized in the resource estimate was the relationship between ash content on an air dried basis and bulk density used for conversion of volume to tonnes using the formula 1.2713+0.0092*ash% (adb), which was developed from the relationship between ash and bulk density presented in GSC Paper 88-21. • The geological interpretation is based on the “stacking” of seam bottoms along 25 m spaced cross sections from the lowermost seam upward. • The main validation method used was a comparison between wireframe solids volume and volume generated from the 3D block model after coding. • The model accurately represents the drilled seam true thicknesses to +/- 0.1 m at a given XY location. The elevations may vary up to 3 m at any drillhole intercept. This is due to the sectional nature of the modelling process, projecting all seam intersections a maximum of 12.5 m to the nearest cross section.

Criteria	JORC Code explanation	Commentary
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are estimated on an air-dried basis, while the moisture content measurements are available within the coal quality testing results.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• All coal quality parameters modelled were on an air-dried basis. • To assist in developing the coal reserves, coal yields were based on washability testing at a cut-point of 1.65 g/cc. • Clean coal objective of the process will be 9.50% with a target saleable product at the port at 10% moisture.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Minimum coal ply thickness = 0.80 m for Tenas, Goathorn, and Telkwa North. • Maximum included parting thickness = 0.30 m for Tenas and 0.50 m for Goathorn and Telkwa North • Minimum coal:rock ratio = 2:1 • The resources are all considered potentially surface mineable, and restricted to a 20:1 BCM:in place coal tonne cut-off strip ratio depth. Despite there being previous underground mining on the property, no underground resources are considered at this time for this table.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Metallurgical amenability was simulated from testwork using industry standard models for coal beneficiation • Ash content of dilution is assumed 80%, sizing of Ash is similar to sizing of coal and with a density of 2.50 g/cc. This was based off results of the bulk sample completed in 1996 which used completed dilution analysis.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• Potential for ARD was studied extensively in the 1990s to support feasibility studies and environmental assessments • The Property hosts both non-PAG and PAG seam interburden and overburden rock. Tenas, Goathorn and Telkwa North have been characterized to estimate non-PAG and PAG rock in each phase. • The ratio of NP to MPA, NPR was used as the basis for classifying each interburden and the overburden zone as non-PAG or PAG. Much of the rock is non-PAG while all of the overburden material and material excavated in the management ponds is non-PAG • Methods used to estimate NP and MPA in the 1990s are different from those used currently and to varying degrees over-estimate both NP and MPA resulting in uncertainty in the threshold NPR used to delineate PAG and non-PAG strata. Based on the exploration program conducted in 2018, modern testing methods were used to measure NP and MPA and also allowed the historical data to be correlated to modern values which allowed a reduction in the amount of uncertainity in NP and MPA values and which threshold NPR value to use. • The ratio selected to define PAG rock is NPR<2.0 which still allows for the uncertainty in NP. A lower value may be suitable as understanding of the mineralogical characteristics of the rock improves. • To assign estimated volumes to non-PAG or PAG, the samples within each phase and seam interburden / overburden were binned into two NPR groups, <2.0, and >2.0. • The intent of the mine plan was to schedule and place all PAG rock into designated management ponds that are flooded with water to prevent rock oxidation and acid generation. • There is no Tailings Management Facility. Both CCR and fines rejects will be placed in designated surface storage piles, and periodically capped with compacted overburden covers to prevent acid rock drainage.

Criteria	JORC Code explanation	Commentary
		• A flocculation system will be used for water prior to discharge to meet regulatory requirments for total suspended solids. • Further optimization of PAG management including blending PAG rock into non-PAG rock and /or using a lower cut off to segregate PAG rock fron non-PAG rock should be investigated in the operations phase of the project.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• The bulk density (BD) was assumed based on an empirical relationship with the air dried ash for high volatile bituminous coal. This empirical formula was extracted from Table 1 of Geological Survey of Canada Paper 88-21: BD (adb) = 1.2713 + 0.0092 x ASH (adb)
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The resource classification is based on an assessment of the geological (seam thickness) and coal quality continuity. • This has then been summarised using the distance from nearest acceptable data point (drillhole) for coal seam thickness identification and an assessment of the confidence in coal seam continuity / correlation. • The drillhole spacing and continuities are considered appropriate to define Measured, Indicated and Inferred Resources on the following basis: o Measured = within 75 m of drillhole utilized in the model (that is holes identified as appropriate for use in the current resource estimate); o Indicated = 75 m to 150 m of drillhole; o Inferred = 150 m to 300 m of drillhole. • The surface resources (those resources considered to have prospects to be open pit mineable) are restricted to within a 20:1 COSR bcm/tonne coal from surface, which is considered reasonable for coal of this type.
Audits or reviews.	• The results of any audits or reviews of Mineral Resource estimates.	• Peer review by SRK personnel was carried out on the geological interpretation. No external audit or review of the resource estimate for this model was carried out. The resource estimates are similar to those from previous studies performed with the same data and any differences are not deemed to be material.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The resources estimates are assumed to be within +/- 10% to 15% on a global basis (or over an assumed annual mining volume) and this accuracy is considered appropriate for the classification classes of Indicated and Measured Coal Resources, and appropriate to support at least a FS level of study and reserve assessment.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Tenas, Goathorn and Telkwa North resource estimates were carried out following the guidelines of the JORC Code (2012) by SRK Consulting (Canada) Ltd. and reported in June 2017. The Tenas resource estimate was updated and reported by Telkwa Coal Ltd. in October 2018 • The Mineral Resources are inclusive of the Ore Reserves.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken, indicate why this is the case.	• The Competent Person for the Ore Reserves estimation is Bob McCarthy. Mr. McCarthy visited the site on April 11, 2017 along with Allegiance Coal personnel. • The visit consisted of an aerial tour via helicopter and a ground tour on accessible roads. The core storage facility was observed as well as several outcrops and water courses.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Telkwa Coal Limited completed two prefeasibility studies on the Telkwa Coal Project in 2017. • The Ore Reserves were reported in conjunction with those studies in June and September 2017. • An updated ore reserve for the Tenas deposit is based upon a feasibility level study where geological confidence is sufficient and mine planning has been completed to a level required to determine technical and economic viability. • Modifying factors considered material to the development and economic extraction of the coal resource have been taken into account.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	• The Tenas project uses a combination truck and shovel open cut mining as well as dozer pushing to execute an up-dip mining method for areas of shallower dipping coal seam (<22°). At steeper dips (three of the nine phases), more conventional bench mining of waste and coal is performed. • The basis of design is a lerch-grossman economic pit optimization combined with a cut-off strip ratio analysis to determine the ultimate pit limits. The ultimate pit shell was then developed into a detailed pit design and broken into practical pit phases and mining cuts. • Conventional mobile equipment (excavators and haul trucks) is used for overburden and waste rock mining. non-PAG interburden is dozer pushed on to mined out footwalls whenever possible. • For the Tenas project, water management ponds are excavated to allow sub-aqueous storage of PAG rock hauled from the pit. • Coal loss and dilution were modelled as skins on the hanging wall and footwall of each seam. The total coal loss and dilution skin thickness applied to the Tenas deposit was 15cm for 1/1U-seam and 20cm for C-seam (through-seam blasting involved). Dilution and coal loss for the Goathorn and Telkwa North pit were set at 20cm total. • The minimum seam thickness for mining was set at 0.80 m for all deposits. • Pit slope criteria were updated by SRK as part of the FS for Tenas and were largely driven by the slope of the bedding seams in each sector of the pit. Many pit walls are simply foot walls daylighting into the overburden and topography. Where high wall benching is required the bench face angles are determined by the slope of the bedding plane and 8m benches are required over a maximum height of 45m. Thus, pit slopes vary between 35-60 degrees. Pit slopes in areas with identified faults that reduce the rock mass strength were adjusted appropriately. • Coal resources with limited geological certainty are classified as inferred and cannot be converted to coal reserves. Thus, any inferred coal resources are considered as waste in this study and there are no inferred resources included in the production schedule or coal reserve estimate. The Tenas deposit has no Inferred resources

Criteria	JORC Code explanation	Commentary
		• The financial evaluation of the proposed mine plan is sufficient to support economic viability of the coal reserve. • The primary infrastructure required for the development of the open cuts at Telkwa are water containment and management facilities. Numerous ditches are required for both containing contact water and diverting some non-contact water from the mining areas. Contact water is collected in sedimentation ponds before discharge.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• Process flowsheet is a traditional 2-circuit approach with customised equipment sizing to allow for nominal throughput for this specific coal • All metallurgical processes and technology have been used extensively within the coal industry worldwide • Testwork to date was completed under Australian Standard methods at the time of the testwork and is suitable for this level of study • It has been assumed that the organic liquids used for float-sink has had no effect on the coal properties • 2 Bulk samples have been completed in the past with one pilot scale testwork being completed. Pilot testwork was completed on a 19mm x 0mm size fraction using a DSM heavy media cone for 19mm x 0.6mm and 2 stage spiral/water only cyclone for below 0.6mm fraction. Due to the testwork practices this pilot wash was not suitable for use as a framework for this study and the results were not used in the analysis. • A further coal quality and washability program was completed in 2018 using current lab techniques and a bulk sample wash was performed by SGS at their Lakefield lab located in Ontairio, Canada. • 1998, 1996 Bulk samples and 2018 test work were used in the process simulations and it is believed from these results that the coal is fairly homogeneous within seams. • The current proposed plant will produce a clean coal which is of marketable specification
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• For geochemistry data, refer to section titled “Environmental factors or assumptions” • Existing data on background surface and ground water quality and flow has allowed for the development of a conceptual site water balance and preliminary water quality modelling. These will be revised to a detailed site water balance and final water quality modelling prior to the submission of regulatory applications. • The results indicate that due to background levels already exceeding BCWQG that a site-specific water quality objective will need to be developed for aluminium. • In addition, due to the conservativeness of the water quality model utilizing MDL where measurements were below MDL, a number of parameters were predicted to exceed BCWQG. It is anticipated that with better water quality data using lower MDLs that the model can be refined and the parameters could achieve compliance • If necessary, a water treatment plant may need to be introduced for the co-precipitation of elements.

Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The Telkwa Site is served by the following infrastruce for the development:
		  ○ A 138-kV power line to the east and a 25-kV powerline to the north of the property
		  ○ A high capacity main rail line owned and operated by CN rail which is already in use for the transport of coal unit trains is approximately 7 kilometers east of the property. Initial discussion between Allegiance and CN rail have occurred and CN has agreed that the rail capacity is sufficient for this project
		  ○ The port of Prince Rupert is located 375 km to the west and has sufficient capacity for this project

Criteria	JORC Code explanation	Commentary
		• The project is located to nearby towns of Smithers, Telkwa, and Houston for the supply and accommodation of labour • The site is currently serviced by a Forestry Service Road and current topography will allow the construction of a dedicated coal haul road between the rail and the proposed plant site • The proposed plant site will be on crown land with a coal license owned by the proponent
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• The costing of the Tenas FS has assumed an owner-operated approach, wherein, all infrastructure and equipment is leased or purchased by TCL and operated by TCL. • Costs are developed from first principles wherever possible, utilizing inputs from engineering firms and vendors. The designs upon which these costs are based are to feasibility / class 3 level. • Engineering work has been undertaken to establish the capital cost requirement for the project, including the mine, processing plant, rail and roads, as well as other supporting infrastructure. • Capital costs for the project are supported by work by: o SRK Consulting – mining, geochemistry, water management, hydrogeology o Sedgman –process plant o Hooper Engineering and Morch Engineering Inc. – rail infrastructure o Bulkley Electric – powerline and substation construction • Operating costs are based on work by: o SRK Consulting – all mining costs inclusive of mobile equipment, support services and labour o SRK Consulting – water management o Sedgman – processing and coal handling o TCL – site general & administrative costs, o Hooper Engineering –rail o IEG - relamation
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• ACL plans to produce a mid-volatile semi-soft coking quality coals at a nominal rate of 750,000 clean tonnes per annum. • Mid-volatile semi-coking coals are scarce in supply and are priced at a premium to the more common high-volatile semi-coking coals. • Commodity pricing for the project was advised by ACL based on the study conducted by Kobie Koornhof & Associates. • An average price of US$120/t coal product was assumed for the Tenas project for 2021 and 2022, and 2023 onwards, US$114/t • According to Kobie Koornhof and Assoc, current pricing for Telkwa coal is US$132.5/t. • An exchange rate of 1.33 CA$:US$ was applied to calculate the revenue. • Private royalty to Altius Mineral was applied at a rate of 3.0% on revenue. • Itochu Corporation of Japan is the company's sole sales and marketing agent and receives a sales fee of 3% of the FOB price, 1.5% on sale, and 1.5% after EBITDA assuming EBITDA is positive.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Per Kobie Koornhof and Assoc, demand for hard coking coal is continuing at robust levels as steel industry fundamentals remain a strong driver for seaborne coking coal imports. The current constraints to supply availability for high quality coking coals is likely to remain for the foreseeable future, since global coking coal supply is not coming on line at a pace that will upset the current supply/demand balance. In the medium term, the biggest risk to metallurgical coal pricing lies in a possible global economic slowdown, fuelled by the fear of burgeoning trade wars. • Per Kobie Koornhof and Assoc., the coal to be produced at Telkwa can be classified as a medium volatile semi-soft

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		coking coal (MV SSCC) and as such is expected to find a market in the international steel industry. • Telkwa MV SSCC is expected to be well received due to limited availability of MV SSCC on the seaborne market, in contrast to the more readily available high volatile SSCC coals from NSW. The market should react favourably to the introduction of a new MV SSCC, not only as diversification from Australia, but also due to the fact that Canadian SSCC supplies have largely been eliminated with the closure of the Coal Mountain operation. • Competitor coals are: o HV SSCC from Hunter Valley in NSW, Australia; and o MV SSCC from Centrl Queensland, Australia.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• An after-tax economic model was prepared by the Company, substantially at monthly rests, to test the economic viability of the Coal Reserve. • The economic model took into account project revenue, freight and selling costs, marketing fee to Itochu, royalty to Altius Minerals, capital costs, operating costs and administrative costs. • Allowance was made in the economic model for financing the mobile fleet by way of lease for the start-up and early operational phases. • The project economics were evaluated using a standard discounted cash flow method at a nominal mid-period discount rate of 8%. No allowance was made for inflation. • The economic analysis was conducted in Canadian dollars. • Results are reported in US dollars using an exchange rate of 1.33 CAD:USD and in Australian dollars using an exchange rate of 1.06 AUD:CAD.. • Based on the economic analysis, the current mine plan results in a positive post-tax NPV8% of US$185M and an IRR of 45%. • Sensitivity analyses showed that the project can withstand a 30% decrease in commodity prices resulting in positive post tax NPV8% of $22M and post tax IRR of 12%. The project would also sustain positive return with a 30% increase of both capital and operating costs resulting in a post-tax NPV8% of $80M and 19% post-tax IRR.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Property is within the traditional territory of the Wet'suwet'en (OW). In April 2017, the company signed a Communication and Engagement Agreement with the OW. • The company shares all its raw data collected by environmental monitoring with the OW, and actively involves the OW in all key decisions and developments. • The company has commenced engagement with several of the land owners, stakeholder groups and local and provincial government. A comprehensive community engagement strategy has been developed and being implemented. • The company has engaged local community (including holding two public open houses in Telkwa), Smithers and Telkwa environmental expertise to carry out the baseline data programs • The company has established communication protocols with the Government regulators as it progresses through the environmental assessment and permitting stage.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such	The key risks in relation to the Tenas Project are summarized below: • **Environment:** The impact of mining on the environment is always an issue irrespective of the type of mine and its location. Once the Company has completed its environmental affects assessment of the Project, targeted for Q3 2019, the Company will have a solid understanding of what the effects might be.

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	as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• **Water Management:** Related to the first point of environmental impact, one area of particular concern to the Company is water management. The Project has several creeks within its vicinity which all feed into a major river system. Ensuring that the Project discharges clean surface water back into the river system is a matter of high priority to the Company. • **Acid Rock Management:** The Project has some waste rock and rock separated in coal washing process that has potential to generate acid leaching of metals when mined and exposed to air and water. The DFS assumes this rock will be permanently stored under a water cover in management ponds constructed in the first 10 years of mining. This plan will prevent oxidization of the rock which in turn will eliminate the requirement for treatment of acidic water. There is a risk that the water balance will not be positive requiring water to be pumped from a watercourse to maintain the water cover, and/or active ongoing water treatment and/or lining of the management ponds. • **Water Discharge Quality:** The Government provides thresholds for water quality discharge. Until an effects assessment of the Project on water quality being discharged into the receiving environment is completed, and which is part of the environmental assessment process, it will not be known for certain whether the treatment of water prior to discharge is required. • **Permitting:** There is no guarantee that the Project will be granted all permits required to operate a mine at whatever stage of planned production. Whilst British Columbia is in a first world country, with a very prescriptive mine permitting regime, there is always uncertainty and doubt as to whether Government ministries will support a particular mining activity. • **Finance:** Notwithstanding the Company's confidence in this regard, there is no guarantee that if and when the Project is permitted and ready for development, there will be funding available to do so. Whilst the Project is very low down the cost curve and can withstand a material drop in the price of coal, the volatility of commodity prices in a downward trend often dampens the interest of investors in a particular commodity, such that funding may be difficult to secure. • **Coal performance:** unless and until a particular coal has been tested for its performance in a blast furnace, there remains an uncertainty as to how it will actually perform, and this may have an impact on coal pricing.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• Proved and probable ore reserves are declared based on the measured and indicated mineral resources contained within the pit design and scheduled in the LOM plan. • The financial analysis showed that the economics of the Tenas project are positive. • No probable ore reserves have been derived from measured mineral resources.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No external review or audits have been completed on this coal reserve estimate as of the issue date of this table 1.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	• The relative accuracy and confidence level of the ore reserve estimate is inherent in the reserve classification. • The accuracy of the reserve estimate is subject to geological data and modelling procedures to estimate the coal resource and to modifying factor assumptions for dilution and loss. The accuracy can only truly be confirmed when reconciled against actual production. While Telkwa is not in production and such reconciliation is not possible, the assumptions are based on sound principles and experience from mines with similar conditions.

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	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Modifying factors such as mining dilution, mining recovery, ROM ash and density, and coal yield have been estimated using accepted techniques.