

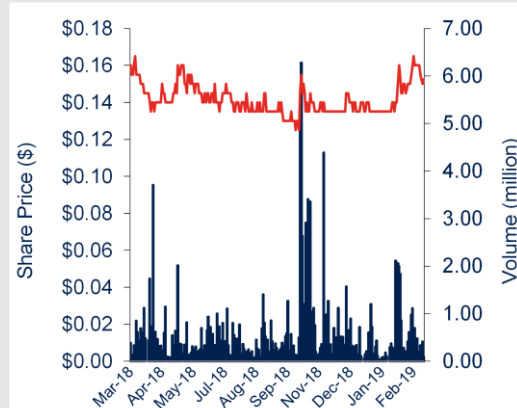
USING IRON VALLEY CASH FLOWS TO ADVANCE MARDIE

- BCI Minerals Limited (BCI) is an industrial minerals company primarily focused on developing its 100% owned Mardie Salt & Potash project situated on the West Pilbara coast of Western Australia. In June 2018, BCI released a Pre-Feasibility Study (PFS) for Mardie which showed a strategic long-life Salt and Potash project that has the potential to supply Asia with 3.5Mtpa of >99.7% Sodium Chloride (NaCl) and 75ktpa of Sulphate of Potash (SOP). BCI also has a number of other assets including the operating Iron Valley Mine, from which it receives a quarterly royalty which has ranged between \$6m-\$18m in EBITDA over the past few years. The company has a robust Balance Sheet with a strong cash position of \$37m, a supportive long-term major shareholder in Australia Capital Equity Ltd (Kerry Stokes) and an experienced management team that has a track record of seeing companies through to production and executing value accretive transactions.
- With two-thirds of BCI's current market capitalisation being cash-backed, we feel that the market is undervaluing the Mardie project, Iron Valley Royalty and other assets up for divestment. We initiate coverage with a \$0.25c price target and a Speculative Buy rating.
- Mardie Salt & Potash is a tier 1 project.** The salt and SOP project, located in one of the world's premium locations for solar evaporation operations represents a compelling long-life development opportunity as the demand for salt and SOP continues to rise in Asia. With an infinite resource from stable quality seawater, evaporated through sun and wind, BCI will look to supply a minimum of 3.5-4Mtpa of NaCl (salt) and 75-100ktpa Sulphate of Potash (SOP) to Asia over at least the next 50 years. PFS results indicate cash costs for salt to be \$19.7/t FOB which are highly competitive with existing Western Australian salt operations and SOP cash costs of \$250/t which are in the lowest quartile of the global SOP cost curve.
- Iron Valley Royalty.** Iron Valley is a direct shipping ore (DSO) iron ore mine in the Central Pilbara, which is operated by Mineral Resources Limited (MIN) with BCI receiving a royalty. BCI has received between \$6m-\$18m in EBITDA over the past few years, however, with the recent increase in the iron ore price and the potential implementation of the BOSS light rail system, we believe those numbers could increase in the short-term.
- Divestment Strategy.** BCI commenced the divestment of its iron ore portfolio in 2018, which includes Iron Valley, Kumina, Buckland and other assets. In December 2018, BCI completed its first sale, selling Kumina for a total consideration of \$35m, with the first \$27m received in December 2018. Funds received through the divestment of these assets will be used to rapidly progress the development of the Mardie project.

Year End June 30	2017A	2018A	2019F	2020F	2021F
Reported NPAT (A\$m)	5.7	(16.9)	10.9	(6.6)	(5.3)
Recurrent NPAT (A\$m)	5.7	(16.9)	(6.1)	(6.6)	(5.3)
Recurrent EPS (cents)	1.4	(4.3)	(1.5)	(1.7)	(0.7)
EPS Growth (%)	na	na	na	na	na
PER (x)	na	na	na	na	na
EBITDA (A\$m)	9.5	(14.4)	(4.8)	(4.1)	(3.6)
Capex (A\$m)	2.2	10.1	10.1	29.3	51.0
Free Cashflow	11.2	(22.0)	(16.5)	(28.0)	(48.8)
FCFPS (cents)	2.8	(5.5)	(4.2)	(7.0)	(6.2)
PFCF (x)	na	na	na	na	na
DPS (cents)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0	0.0
Franking (%)	0.0	0.0	0.0	0.0	0.0

12 March 2019		
12mth Rating	SPECULATIVE BUY	
Price	A\$	0.15
Target Price	A\$	0.25
12mth Total Return	%	65.3
RIC: BCI.AX		BBG: BCI AU
Shares o/s	m	397.6
Free Float	%	63.0
Market Cap.	A\$m	60.6
Net Debt (Cash)	A\$m	-36.6
Net Debt/Equity	%	na
3mth Av. D. T'over	A\$m	0.056
52wk High/Low	A\$	0.17/0.13
2yr adj. beta		0.75
Valuation:		
Methodology		DCF
Value per share	A\$	0.25
Analyst: James Farr		
Phone: (+61) 3 9263 1215		
Email: jfarr@psl.com.au		

12 Month Share Price Performance



Performance %	1mth	3mth	12mth
Absolute	(1.6)	8.9	(4.7)
Rel. S&P/ASX 300	(3.6)	(0.4)	(7.8)

COMPANY OVERVIEW

BCI Minerals Limited (previously known as BC Iron) is very well known to the investment market through its successful operation of the Nullagine project in the Pilbara region of Western Australia. In 2009, BCI established a joint venture with Fortescue Metals Group Limited and by early 2011, became the first junior minor to gain access to an iron ore major's port and rail infrastructure. Nullagine was a successful operation for BCI shareholders for a number of years, with approximately \$100m being paid out in dividends. As a result of falling iron ore prices the project was sold to Fortescue Metals Group in 2016 and BC Iron shifted its focus toward growth and asset diversification.

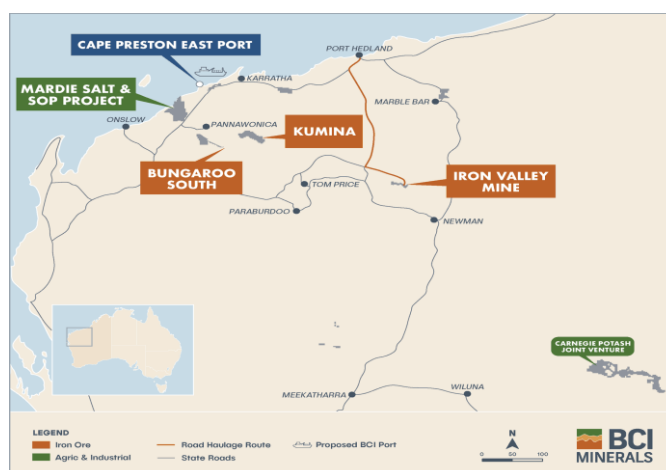
BCI has now diversified into the industrial minerals business and is primarily focussed on developing its 100% owned Mardie Salt & Potash project located on the west Pilbara coast of Western Australia. In June 2018, BCI released a Pre-Feasibility Study (PFS) which showed a strategic long-life Salt and Potash project with the potential to supply Asia with up to 3.5Mtpa of >99.7% NaCl and 75ktpa of Sulphate of Potash (SOP). Results from the PFS indicate a pre-tax NPV of A\$335m over a 30 year life of mine. We have used similar numbers in our valuation however we have applied a 50% risk weighting on the project to reflect any uncertainties around timing, funding and capital expenditure. A definitive feasibility study is underway that is targeting an improved 4.0Mt9a of NaCl and 100ktpa of SOP which could increase the NPV of the project to A\$450m. A final investment decision is targeted by the March 2020 quarter.

In 2014 BCI acquired Iron Ore Holdings (IOH) which included the Iron Valley, Buckland and Mardie assets. Around this time, Mineral Resources (MIN) commenced production at the Iron Valley Mine with MIN spending all capex to develop the mine and all opex to operate the mine. BCI receives a quarterly royalty, which has ranged from \$6M to \$18m in EBITDA per annum in recent years. The mine currently produces 7Mtpa of a dual product of lump and fines ore that is transported by road to the Utah Point Bulk Handling Facility in Port Hedland. Iron Valley is anticipated to form the basis for a potential deployment of MRL's Bulk Ore Shuttle System (BOSS), a mine-to-port transport service that has the potential to increase the mine's production rate to 14Mtpa. We have not included this in our valuation of Iron Valley, instead we have assumed a conservative 7Mtpa production rate through the life of mine. The BOSS railway would significantly increase our value of this project (see page 16).

In line with the Company's growth strategy to consider assets in commodities with strong long-term growth profiles such as salt and SOP, in 2017, BCI entered into a binding agreement to become the JV partner at Kalium Lakes (KLL) Carnegie Potash Project. The Carnegie Project is prospective for a sub-surface brine deposit which could be developed into a solar evaporation and processing operation that produces SOP. BCI and KLL have agreed to proceed to a staged Pre-Feasibility Study, with an initial focus on securing tenure and access to all required tenements.

In August 2018, BCI began a formal divestment process through the sale of its iron ore portfolio, which includes Iron Valley, Kumina, Buckland (Bungaroo South, Cape Preston East Port) and a number of other iron ore exploration tenements. In December 2018, BCI completed its first transaction with the sale of the Kumina iron ore tenements to Mineral Resources for total consideration of A\$35m cash, of which \$27M was banked in December 2018. Funds received for the sale of these assets will be put towards rapidly progressing the development of the Mardie project.

Figure 1: BCI Minerals Limited Current Projects



Source: BCI Minerals Limited

VALUATION

We have valued BCI using a sum-of-parts methodology, deriving a valuation of \$0.25/sh, which has been risked and fully diluted for the development of Mardie. We have applied a Discounted Cash flow (DCF) valuation for Mardie, Iron Valley and the Company's corporate costs. A nominal value was given to the Buckland project, based on the book value of the Cape Preston East Port. The Company's cash was added to the valuation. The Valuation Methodology for each segment is described in further detail below;

- **Mardie Project:** We have used a discount rate of 10% and a risk weighting of 50% to derive our DCF valuation of \$121.0m, or \$0.09/sh. With the 50% risk weighting being used to reflect any uncertainties around timing, funding and capital requirements. As the project moves forward it will progressively be de-risked. We must also note that BCI has over \$75.0m in accumulated tax losses that we have incorporated into our post tax valuation of both the Mardie project and the Iron Valley royalty.
- **Iron Valley:** We have used a discount rate of 10% to derive our DCF valuation of \$45.0m, or \$0.03/sh. Our 62% iron ore price forecast has the price staying relatively stable in the short term and coming off in the long term. Our long-term price forecast is \$US65/t, well below the current iron ore price.
- **Other Assets:** We have applied a nominal value of \$8m for the Buckland project, based on the book value of the Cape Preston Port rights, we have estimated the value of the other assets to be approximately \$6.0m, which includes the deferred payments on the Kumina sale, deriving a total value of approximately \$14.0m.
- **Corporate costs:** We have used a DCF methodology to value the outflow of the corporate costs using a 10% discount rate, this derived a value of -\$30.0m, or -\$0.02/sh.
- **Cash:** BCI currently has \$37m in cash and we expect them to spend up to \$20m over the next year to facilitate the DFS, approvals and early construction works, leaving \$17.0m in our valuation.
- **Unpaid Capital:** We have assumed a highly dilutive 50% equity raise (\$170m; based on a 10% discount to the proposed raising price) and 50% debt (\$170m) based on an interest rate of 8%.

The total sum-of-parts valuation derived and NPV of \$336m (or \$0.25/sh) for BCI. On a per share basis, our valuation was calculated using the fully diluted number of shares issued after the supposed \$170m equity raise of 1,333m.

Figure 2: Valuation Matrix

Valuation	\$m	\$/sh
Mardie Project (Risked at 50%)	121	0.09
Iron Valley	45	0.03
Other Assets	14	0.01
Net Cash (Post DFS Spend)	17	0.01
Unpaid Capital	170	0.13
Corporate costs	(30)	(0.02)
Total Valuation	336	0.25

Source: PSL Analysis

CAPITAL STRUCTURE AND SUBSTANTIAL SHAREHOLDERS

As at the 31st of December 2018, there were 397,608,910 shares on issue, with no listed options. BCI has a single substantial shareholder in the Company, Wroxby Pty Ltd, which owns 27.56% of the issued capital. Wroxby Pty Ltd is a wholly owned subsidiary of Australian Capital Equity Pty Ltd (ACE), which is the holding company for Kerry Stokes' private business interests.

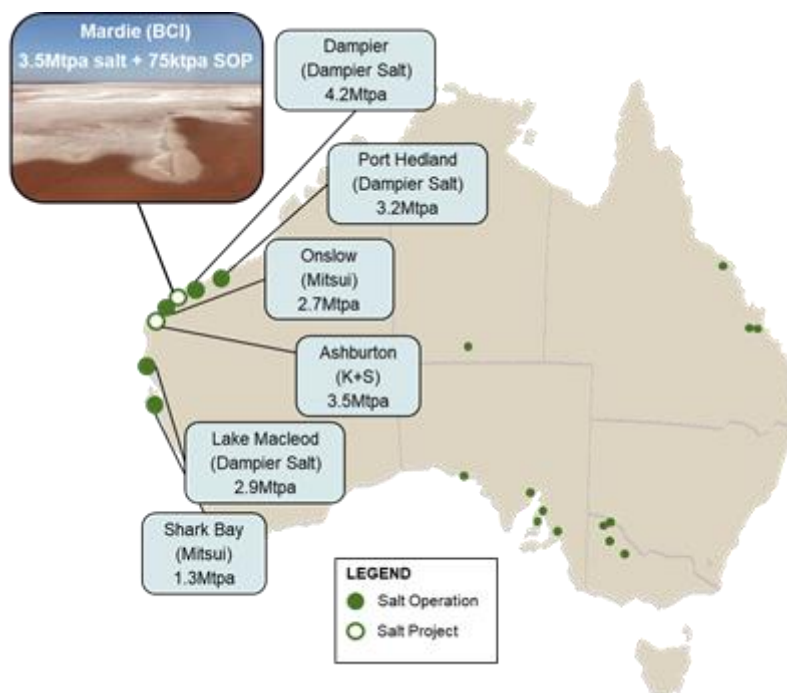
As at 31st of December BCI had \$36.6m in cash and zero debt.

At the current share price there are 11,052,271 performance rights on issue, which vest for no consideration but with high share price vesting hurdles.

MARDIE SALT & POTASH PROJECT

The Mardie Salt & SOP project is located along the West Pilbara coast, approximately 95km North–West of Onslow. The Pilbara coast is a proven salt producing region, with some of the five existing operations (Onslow, Shark Bay, Lake Macleod, Port Hedland and Dampier) having operated for over five decades. BCI plans to develop the project to produce 4.0Mtpa of high purity industrial grade salt from seawater via solar evaporation. Through the processing of the remaining brine, the project will also aim to produce 100ktpa of SOP. The PFS indicates BCI will export the salt via their planned Cape Preston East Port, while the SOP will be exported via the existing cargo wharf in Dampier.

Figure 3: Location of Mardie and Other Australian Salt Operations/ Projects



Source: BCI Minerals Limited

Background

Iron Ore Holdings (who were acquired by BCI in 2014) gained ownership of the Mardie tenements at minimal cost in 2011. The tenements were initially purchased under the assumption the area would be drilled and explored for iron ore. As drilling became restricted due to thick salt forming across a large proportion of the mudflats, BCI commenced option studies to explore the idea of a potential salt operation. In July 2017 a scoping study was then prepared by BCI in conjunction with industry consultants and specialists, results indicated the potential for a low-cost high purity industrial-grade salt operation that could produce 3.0-3.5Mtpa of salt over a 30 year mine life. In June 2018, BCI completed a PFS which built on the project scope defined in the 2017 Scoping study. Results from the PFS indicated the potential to produce a minimum of 3.5Mtpa of NaCl as well as 75ktpa of SOP. A Definitive Feasibility study that is targeting 4.0Mtpa and 100ktpa of SOP is currently underway and it expected to be completed towards the end of 2019.

The major barrier to entry for large scale salt evaporation projects are large flat landholding on the coast in an area with low rainfall and high heat/wind conditions, and favourable impermeable clay-type soil conditions. Given that the operations are normally spread across 20-30km, the operations also need to be in an area with minimal environmental and social impact. BCI has indicated that extensive environmental and geotechnical work to date demonstrates that the Mardie site has all these characteristics.

Land Access & Project Approvals

The Mardie project currently holds five exploration licences extending over 910km² and another exploration licence application that covers 6km². As the DFS moves forward, all significant areas of the exploration licences will be converted to mining leases prior to a final investment decision being made, which will likely be by the March 2020 quarter. In addition, BCI will apply for a miscellaneous license for the haul road which will connect the Project to BCI's existing miscellaneous license for the proposed haul road to the Cape Preston East Port (or to the North West Coastal Highway if BCI develops a port at the Mardie site – refer to the logistics section below).

There are still a number of approvals required from a range of both State and Federal government departments before the construction of the Mardie project can occur. BCI has identified all the approvals necessary and has developed a strategy to secure these approvals by early 2020.

Geotechnical, Climate & Hydrology

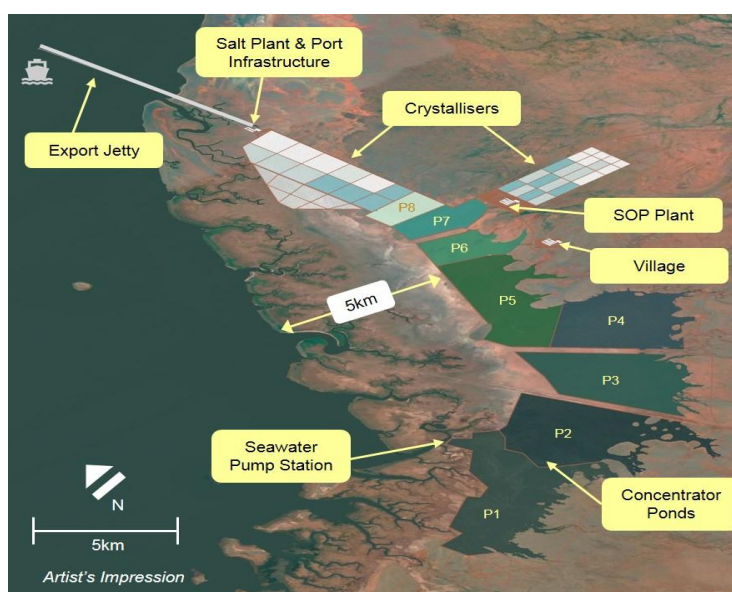
Mardie is situated on the Western Pilbara coast, which is described by the Bureau of Meteorology as having a "Grassland" climate, meaning the weather is hot all year round with a summer drought. Based on the analysis of monthly evaporation, rainfall and temperature data at the Dampier and Learmonth weather stations, conditions were considered ideal for solar evaporation, with results indicating a net evaporation rate of 2,970mm per annum.

Geotechnical investigations undertaken throughout the PFS confirmed that the project site has the two geotechnical requirements needed for the construction of 89km² of concentrator and crystalliser ponds, the two types of ponds needed in a solar evaporation project. These requirements are;

- An existing low permeability clay layer that extends across the planned pond footprint, this reduces the amount of product lost to seepage whilst also eliminating the need to line the ponds, which can typically cost between \$20m-\$25m.
- Material for the construction of low permeability walls which eliminates the need to transport suitable materials up to site.

Hydrological studies were also undertaken throughout the PFS, which analysed the effects of storm surges and hinterland water flow. Results indicate that only a relatively small amount of water flows occur from the minor catchments, and these can be accommodated by diversion bunds and diversion channels situated in the project area which can enable water flows to be redirected without impacting the project infrastructure. The area is known to sometimes be affected by cyclones which can bring in extended periods of heavy rain, these diversion bunds and channels are essential in ensuring these have minimal effect on the operation.

Figure 4: Mardie Project

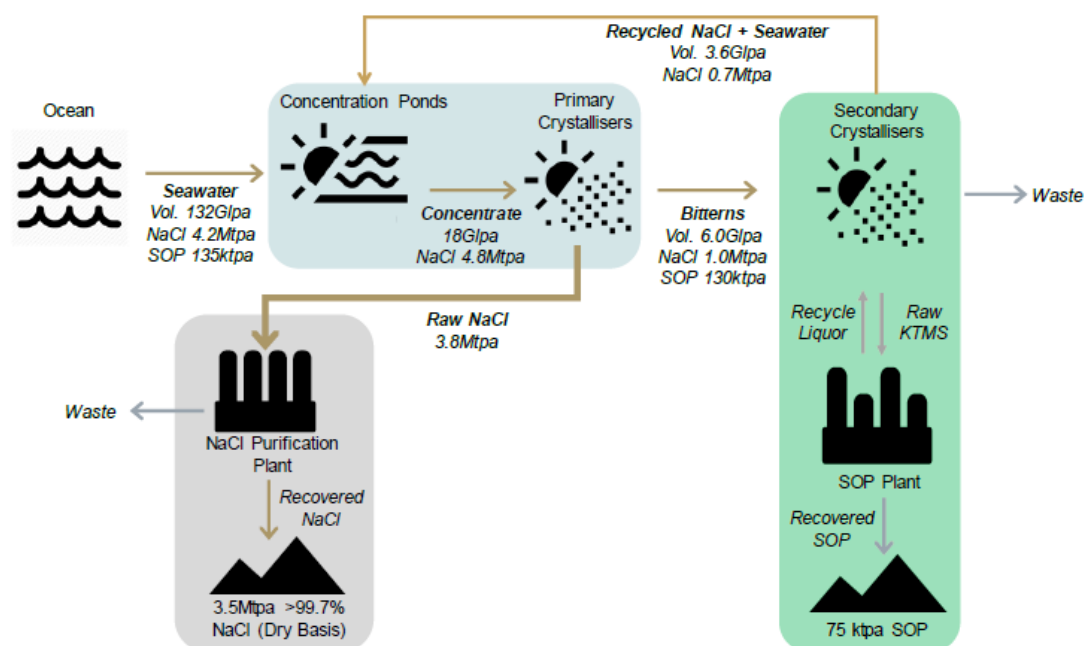


Source: BCI Minerals Limited

Production Process

Salt will be produced via the solar evaporation of seawater and the crystallisation of raw salt, which will then be dry harvested and purified through a wash plant to produce high purity industrial grade NaCl. The remaining brine (bitterns) will then be extracted from the primary salt crystalliser and undergo further crystallisation and processing to produce SOP.

Figure 5: Mardie Production Process



Source: BCI Minerals Limited

Seawater intake & Concentrator Ponds

- A seawater pump station will pump out 132 gigalitres (GL) of seawater from the ocean and transfer it to the first of eight ponds.
- Over a period of one year, seawater progresses from pond 1 to pond 8, gradually reducing in volume through solar evaporation (approx.12% of original volume).

Crystalliser Ponds

- From pond 8, 18GL of concentrated seawater containing 4.8mtpa of NaCl is deposited into 12 crystalliser ponds, evaporation crystallises 3.8Mtpa of NaCl at a specific gravity (SG) of between 1.227 and 1.25.
- When the salt reaches SG levels of 1.25 the crystallisers are drained and raw NaCl is harvested for treatment in the purification plant.
- 6.0GL of left over solution (bitterns) containing 1.0Mtpa of NaCl and 130Ktpa of SOP, is then transferred to the secondary crystallisers.

Salt Production

- The dry-harvested salt is then taken to the purification plant, from which it undergoes a standard wash process.
- The product is then stockpiled on site for up to six months, depending on dewatering requirements and product quality. Overall product losses amount to 7% from harvest through to export, resulting in saleable production of 3.5Mtpa.

SOP Production

- The 6.0GLpa of bitterns from the primary crystallisers is pumped into the secondary crystallisers, which are configured in four parallel streams of nine sequential crystallisers.
- The first four crystallisers will precipitate mainly NaCl that contain enough contaminants to make it unfit for processing. These crystallisers will be dry-harvested and dissolved in seawater before they are then re-introduced back into the Concentrator pond 7, from which the NaCl will be re-concentrated and purified.
- Crystallisers 5 and 6 will crystallise a mixed salt with low potassium content, this is considered waste and will be disposed of.
- Kainite-type mixed salts ("KTMS") will form in Crystallisers 7 and 8, with Crystalliser 9 used to hold surplus liquid. Different types of KTMS salts are then harvested from each crystalliser and are stockpiled separately.
- The KTMS salts are then blended together to provide a consistent feed into the SOP plant.
- The first stage is crushing, screening and dissolution in process water. The liquor transfers through a separation plant which removes the majority of the NaCl.
- This results in a Schoenite mother liquor with the majority of the NaCl returning to the crystallisers and the primary Schoenite proceeding to decomposition, washing, concentration and drying to become SOP product.
- The K-UTEC study indicates that up to 91ktpa of SOP is recoverable through this process. BCI has adopted a conservative production rate of 75ktpa for the PFS.

Waste Disposal

The majority of waste is sourced from the bitterns from the salt purification plant that contains the low potassium mixed salts that are collected from the secondary crystallisers 5 and 6. This waste is transported to a holding pond from which it is diluted in seawater, mixed and pumped via a pipeline over the tidal flats and released into deep water.

Logistics

Under the PFS, salt is to be transported from the Mardie site to the proposed Cape Preston East Port via a 67km sealed private road. At the port the salt will be loaded on to a transshipment vessel and transported roughly 5 nautical miles to either Handymax or Panamax vessels from which it will then be shipped to Asian markets.

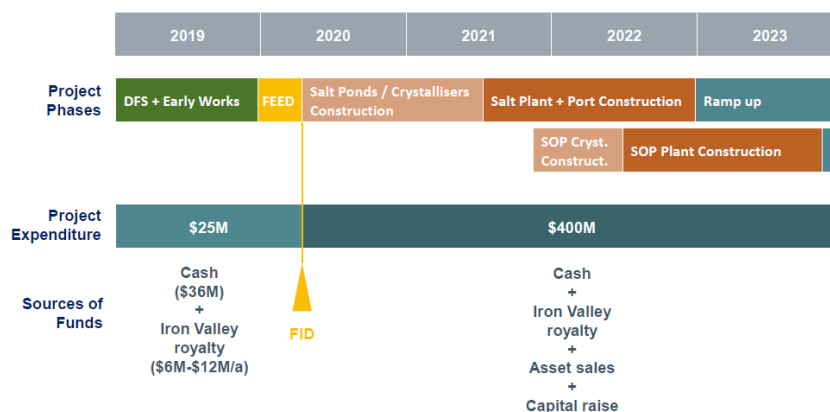
However, the company is currently in discussions with the government for the approval to construct an export jetty at the Mardie site which will prevent BCI from having to truck the salt to the Cape Preston East Port (see figure 4). Although this will increase capex by approximately \$65m, it will enable for significant reductions in operating costs (roughly 20%) and as displayed in Figure 7, the project is more sensitive to changes in opex over capex.

Under the PFS, SOP that is to be exported will be bulk packaged at the Mardie site and trucked via the site access road to Dampier Port, where the product will be packed at the General Cargo Wharf and exported to overseas markets.

Timeline & Funding

The project has roughly a three and half year development timeline from construction of the first ponds at the start of 2020 to first production of salt in 2023. Total capital expenditure required to produce and export is estimated to be \$335m, however this could potentially increase to \$400m if the proposed export jetty goes ahead at the DFS.

Figure 6: Mardie Timeline



Source: BCI Minerals Limited

As shown in the diagram above, the company plans to spend approximately \$25m throughout the year, primarily focussing on the DFS, approvals and early works. This expenditure will be funded from existing cash reserves.

The Project execution strategy is planned to occur in a “just in time” basis, commencing in early 2020 with construction of the key infrastructure, concentrator pond 1 and the seawater pump station. Once developed, concentrator pond 1 and the seawater pump will be transferred to operations for the introduction of seawater. Then the following will occur:

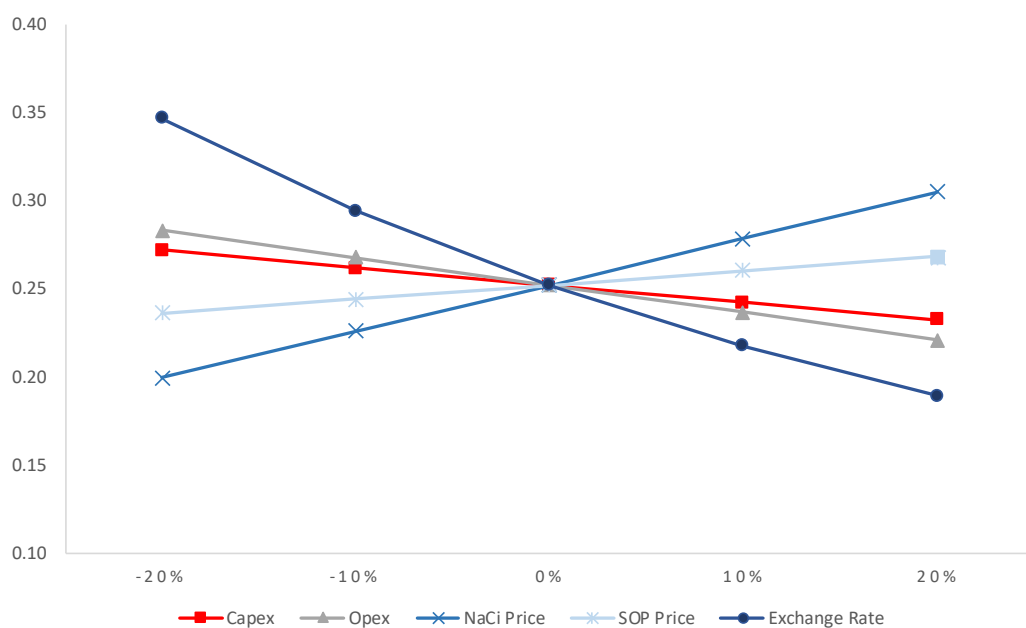
- April 2020 – August 2021: Construction ponds to be completed in sequence and transferred to operations.
- By month 15 (June 2021): the first primary crystallisers will be ready for service and nominal 400mm thick salt floors will be prepared by the operations team over the next 12 months, with the first raw salt harvest another six months later (June 2023).
- 2H 2023: The construction of the salt purification plant will be constructed ready in time for the first production of salt in 2H 2023.
- Secondary crystallisers for SOP production will be constructed in 2022/23 and salt floors will be prepared in 2023/24. Recycled NaCl will be harvested from the secondary crystallisers, along with KTMS salts, for feed into the SOP plant in 2025. First SOP will be produced in 1H 2025.

In terms of funding the project, in our model we have assumed that BCI will use a combination of both debt and equity, and as previously stated we have used a conservative 50/50 split of the two. BCI have commenced discussions with potential offtake partners and strategic investors and we believe this will progress through to the completion of the DFS and as a final investment decision becomes more apparent. We feel that the Company and its Board have displayed a strong track record of securing funding for resource projects, and have been successful in seeing projects through from an early stage right through to production. BCI has indicated that its major shareholder, Australia Capital Equity Ltd (Kerry Stokes’ privately owned investment company), is fully supportive of BCI’s strategic direction and plans to rapidly develop the Mardie Project. ACE has participated in and underwritten all IOH and BCI equity raisings since it was a shareholder. Combining these factors with the projects positive PFS results gives us confidence to assume that capital costs will be funded on the completion of a positive DFS.

Sensitivity & Cash flow Analysis

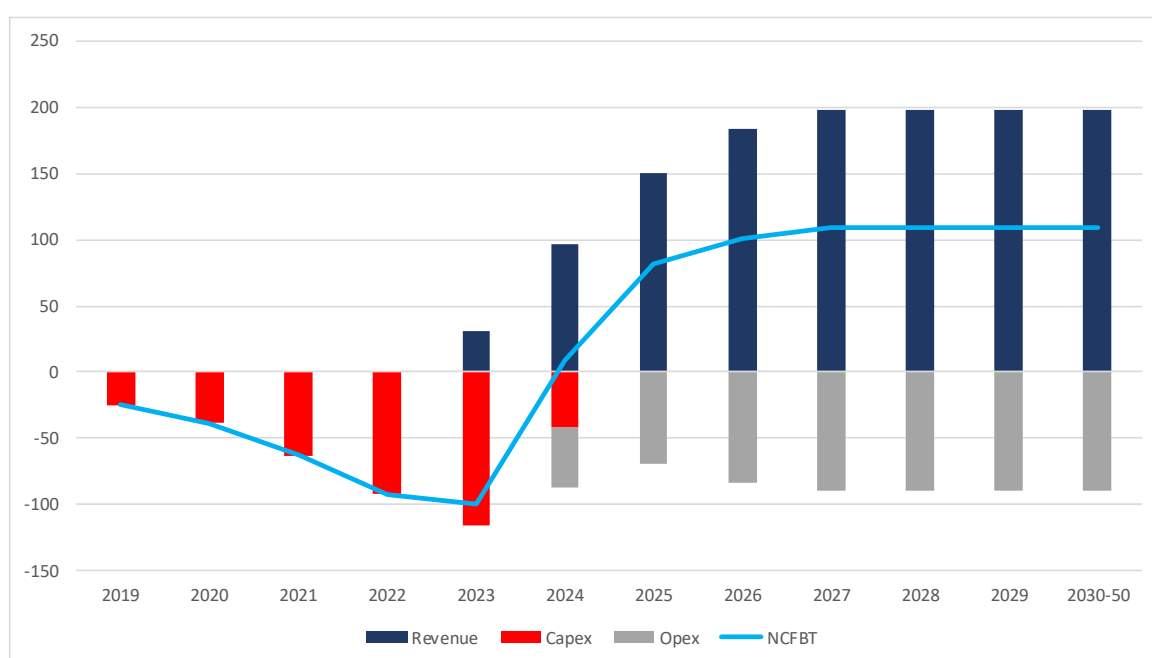
As displayed in the diagram below, we can see that the BCI share price is mostly sensitive to changes in the exchange rate and salt price assumptions. This comes as no surprise as approximately 75% projects revenue is generated through the salt side of the operation, which is priced in terms of USD. The Project is least sensitive to changes in the SOP price assumption which is due to the lower amount of revenue generated from the product.

Figure 7: BCI share price sensitivity to key assumptions on the Mardie project



Source: PSL Analysis

Figure 8: Cash Flow analysis of the Mardie Project

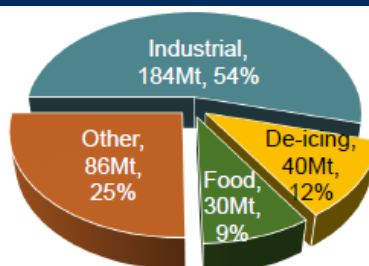


Source: PSL Analysis

The Salt Market

Salt is white crystalline substance that is composed primarily of sodium chloride (NaCl). It is one of the most important materials in the chemical industry, with 1000's of chemical and industrial products needing salt at some stage of their development. Its primary industrial uses are in the production of soda ash, caustic soda and chlorine; these products are then used in numerous industrial processes including the manufacture of glass, plastics, rubber, and many other products. Salt is also an essential source of nutrition for the human body and approximately 9% of all salt produced is used on food. In Europe and across North America roughly 40mt (12%) of salt is used for the de-icing of roads.

Figure 9: Salt End Market

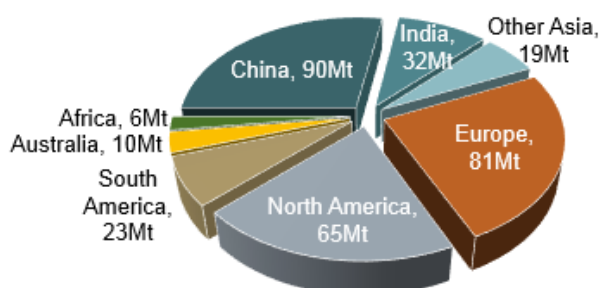


Source: BCI Minerals Limited, Roskill

The steady growth of the world economy is increasing the global consumption of salt, especially in Asia, where, according to industry consultants Roskill, salt demand is forecast to increase significantly over the next 10 years. This demand can be attributed to the increased production of chlorine, caustic soda and soda ash, which will mainly be driven by the expansion of the chlor-alkali industry (the chemical process in which chlorine and caustic soda are formed) and the increasing number of water treatment plants expected to be developed throughout Asia in the coming years. In 2017 Asia accounted for nearly 50% of the 339mt of salt consumed globally, with approximately 75Mt coming from the chlor-alkali industry. The chlor-alkali industry is expected to grow substantially over the next 10 years with chlorine production in China alone growing from 28mt to over 42Mtpa, along with an increase in Soda ash production by 8Mtpa. This will therefore increase salt demand in Asia from 155Mtpa in 2017 to 213Mtpa by 2027.

Currently, China produces the vast majority of salt globally, producing a total of 90mt in 2017. However, urbanisation due to a rapidly growing Chinese middle class is significantly increasing the demand for coastal regions, the areas where existing salt fields are operating, we therefore expect Chinese production of salt to diminish in the future. This reduction in salt produced internally will result in an increased demand for imported salt, specifically from Australia, as its high grade nature caters to the membrane cell method used for the chlor-alkali process.

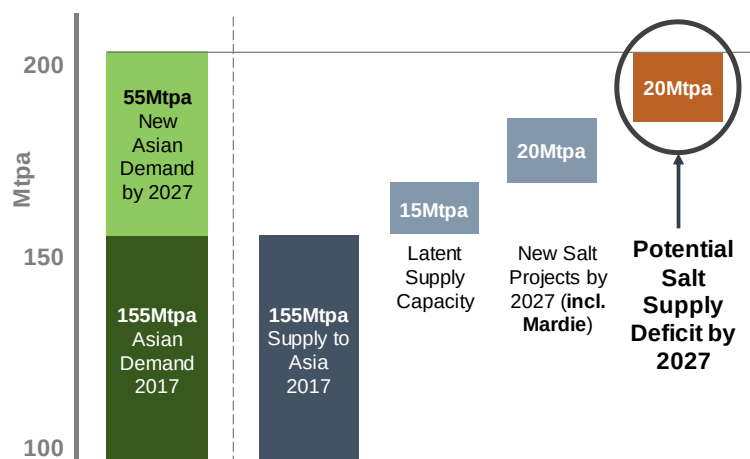
Figure 10: Top Salt producers by region



Source: BCI Minerals Limited, Roskill 2017 Salt Market Report

According to Roskill, by 2027 there will be 35Mtpa of additional supply coming on to the market from operations that are suitably positioned to supply Asia (Mardie included). It is expected that 20Mtpa will come from new projects and 15Mtpa will come from increased capacity utilisation at existing salt operations, leaving a supply shortfall of approximately 20Mtpa by 2027. To put this into perspective this is the equivalent to five new Mardie size salt operations.

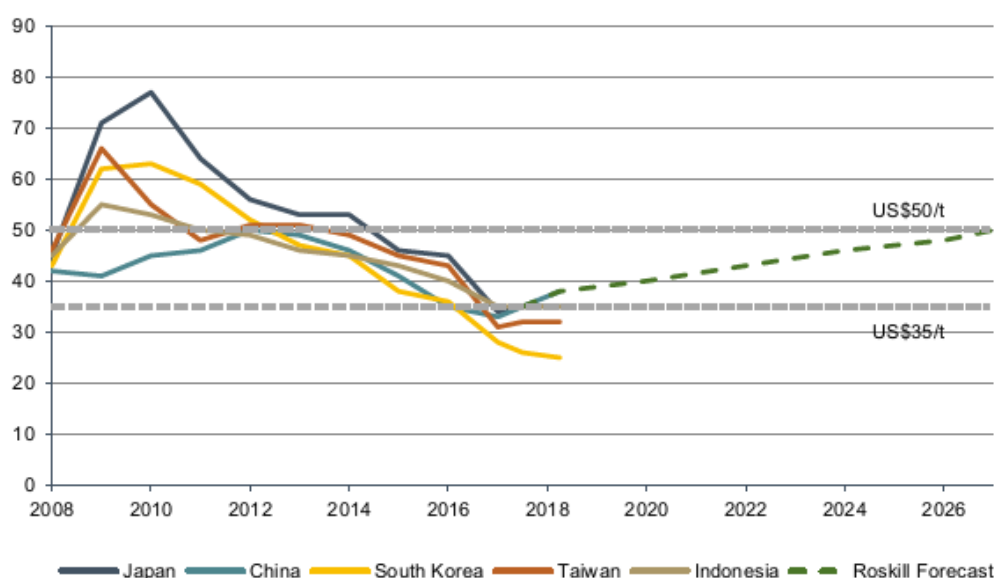
Figure 11: Estimated Asian Salt Supply/Demand Balance in 2027



Source: Roskill's Salt: Global Industry, Markets & Outlook to 2027, BCI Analysis

In terms of pricing, we have used the 5-year historical average of US\$43/t (Costs, Insurance and freight) ("CIF") which we feel is relatively conservative given Roskill's forecast value is >US\$45/t CIF to China when Mardie is in operation. Forecast freight rates for Handymax and Panamax Vessels indicate that Mardie can assume an average longer-term freight rate of US\$13/t, leading to our assumption of a long term salt price of US\$30/t FOB.

Figure 12: Annual Value of Imports of Australian Salt, 2008 to 2027 (US\$/t CIF)



Source: Roskill, GTT, Roskill Consultancy Group

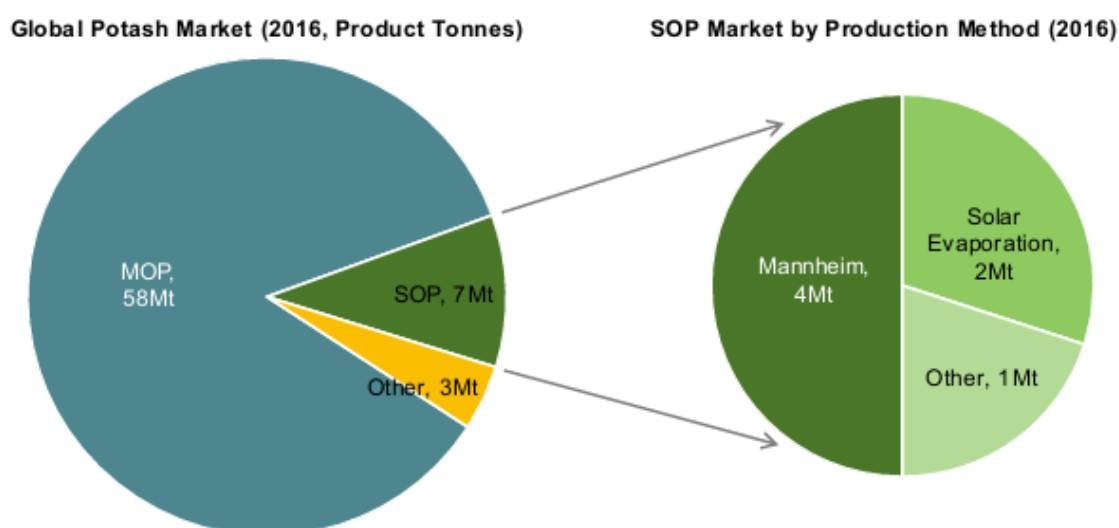
The SOP Market

Potassium is essential in nearly all processes needed to sustain plant growth and reproduction. Plants lacking sufficient potassium are generally far less resistant to drought, excess water and temperature variations. They are also less resistant to pests and diseases. The main sources of potassium come from Potash minerals and they come in different forms including Sulphate of Potash (SOP) and Muriate of Potash (MOP), which is the most commonly used potash fertiliser. SOP is considered a premium fertiliser and is generally used as a source of potassium for high value crops and crops that are intolerant to fertilisers that contain chloride such as MOP. SOP also has an added benefit of supplying sulphur to the plant which is another key macronutrient.

Integer Research estimated the total potash market in 2016 to be approximately 68Mt, with roughly 58Mt (85%) made up of MOP and 7Mt (11%) coming from SOP, approximately 3Mt came from other products. The diagram below illustrates the potassium fertiliser market by type and the SOP market by production method.

There are two main processes by which SOP is produced. One method is the Mannheim process, in which MOP is chemically converted to SOP through the reaction of MOP with sulphuric acid at an elevated temperature. This accounts for approximately 50% of total SOP produced. This method however is becoming less favourable due to its negative environmental impact and higher costs. Another commonly used practise to produce SOP is the solar evaporation and crystallisation of brines from salt lakes and seawater, this accounts for roughly 30% of total SOP produced and is becoming a favourable alternative due to its relatively small environmental impact and low operating costs.

Figure 13: Potassium fertiliser market by type and SOP market by production method.

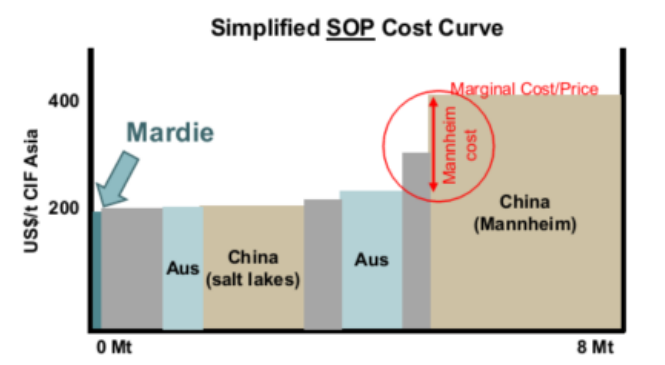


Source: Integer Research, BCI Minerals Limited

According to Integer, the current 7.1Mtpa SOP market will increase to 7.9Mtpa by 2027. The main drivers are a growing middle-class in many developed countries creating demand for more and better quality food, and urbanisation decreasing the arable land per capita and increasing demand for higher quality less land intensive crops. South Asian markets are where demand is expected to grow the most, with Integer Research forecasting an 11.9% per annum growth in this region. We also feel that with perceived environmental benefits of SOP over MOP there will be a push for the substitution of the second.

The SOP cost curve displayed in figure 14 illustrates the significantly higher production costs of SOP through the Mannheim production methods compared with that of solar evaporation operations. As shown on the chart, Mardie is extremely low on the cost curve which is mainly due to SOP production being a by-product and its coastal location, with the project ten times closer to port than the other Australian SOP projects, thus significantly reducing transportation costs.

Figure 14: SOP Cost Curve



Source: BCI Minerals Limited

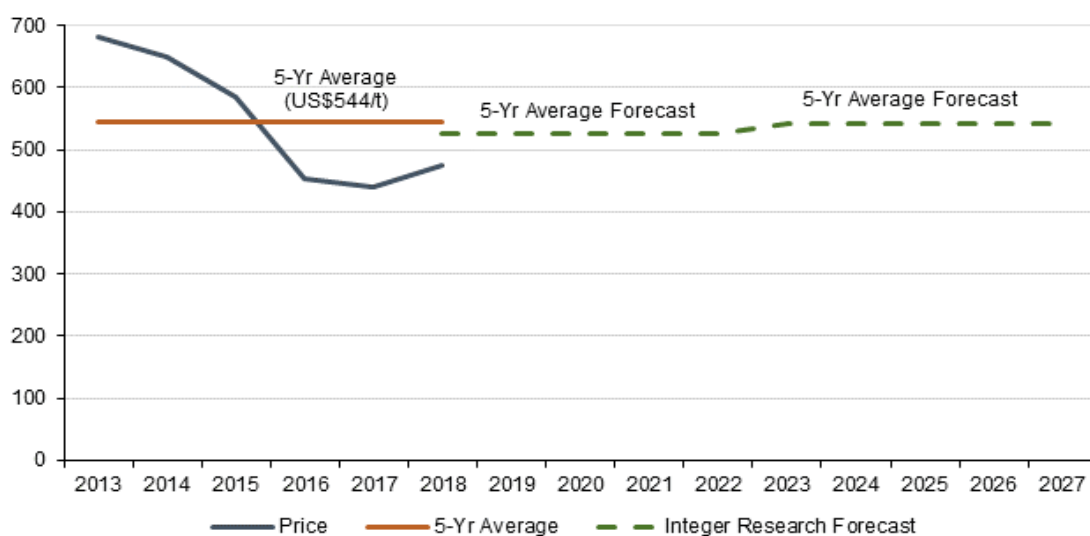
Figure 15: Mardie Project location compared to other SOP projects



Source: BCI Minerals Limited

BCI will look to sell its SOP primarily to South East Asian markets as well as some domestic markets. In terms of pricing, similarly to BCI we have used the reported Taiwan FOB price as a proxy, using a conservative US\$500/t FOB which is below the 5-year historical average of US\$544/t FOB Taiwan.

Figure 16: Historical and Forecast SOP Prices to 2022 (US\$/t FOB Taiwan)



Source: Integer Research

IRON VALLEY

Iron Valley is a direct shipping ore (DSO) iron ore mine in the Central Pilbara, which is operated by Mineral Resources Limited (MIN). The asset was originally owned by Iron Ore Holding Limited (IOH), acquired by BCI in October 2014 in a friendly scrip-based takeover. As at 30 June 2018, Iron Valley's Mineral Resources were 197.8.7Mt at 58.4% Fe, and its Ore Reserves were 95.4Mt at 58.8% Fe.

Figure 17: The Iron Valley Mine



Source: Mineral Resources Limited

The Iron Valley operation is a fairly simple DSO operation, which commenced production in December 2014. The mine produces a dual product of lump and fines ore, with lump being priced at a premium to fines. The product is trucked to Port Hedland using road trains travelling primarily on public roads, after which, it is exported out of the Utah Point Bulk Export facility. BCI receives cash from the Iron Valley operation linked to the realised sale price obtained by MIN, and not from MIN's operating profits. This agreement, entered into in February 2013, is framed as a mine gate sale of ore with MIN committed to buying a minimum annual tonnage. The detailed terms of the mine gate purchased price and minimum annual tonnes are confidential between MIN and BCI. In FY18, MIN shipped 6.1m wet metric tonnes ("Mwmt") (June 2017: 8.0 wmt) which generated revenue for BCI of \$33.0m (June 2017: \$63.5m), which, after the payment of third party royalties left BCI with an EBITDA of \$5.6m (June 2017:\$18.3m). Under the current agreement with MIN, BCI's annual Iron Valley EBITDA for the next two years will at a minimum be in line with the 2018 financial year, however, with the recent increase in iron ore price and the potential implementation of the BOSS railway system, we believe this could potentially increase.

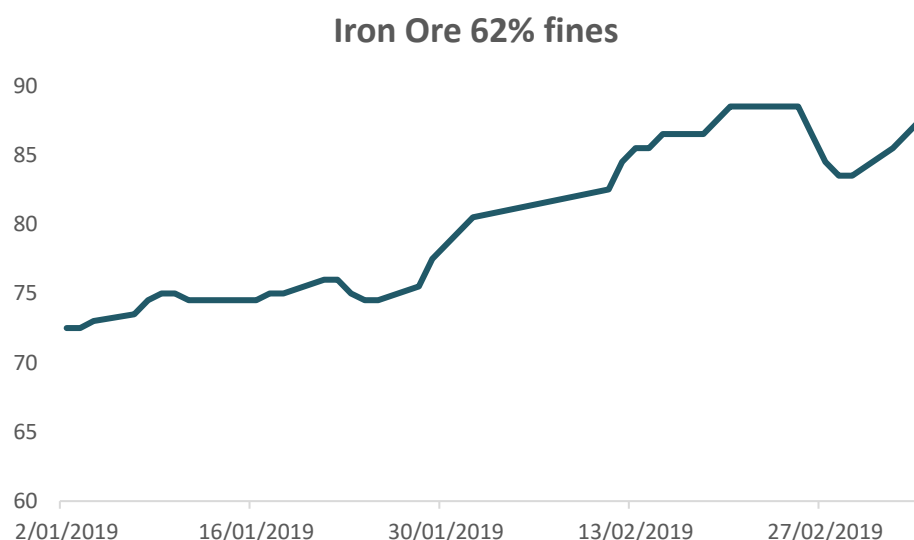
Recent Changes to the State Royalty

Under the terms of the agreement between BCI and MIN, BCI is responsible for the payment of third party royalties such as the State Government royalty, the native royalty and private royalties. The State Government royalty is the largest and had previously been tied to an indexed price, which lead to volatility in BCI's net income given revenue is based on MIN's received price. In June 2018, the State Government agreed to change of the royalty calculation from an indexed price to MIN's received price. This has now resulted in a smoothing out of net income received from Iron Valley to resemble a price close to A\$1/t over that period.

Iron Ore Price

After the world's largest Iron ore producer Vale announced in late January that it will halt the production of 40Mtpa of iron ore, Brazilian iron ore exports are set to decrease in 2019. With no recent major changes to supply, it is no surprise that iron ore prices have surged since the Córrego do Feijão disaster. Combining the above with the fact that iron ore prices circumvented the sell-off we saw in several commodities late last year, the outlook for iron ore prices and assets appears to be positive in the near-term.

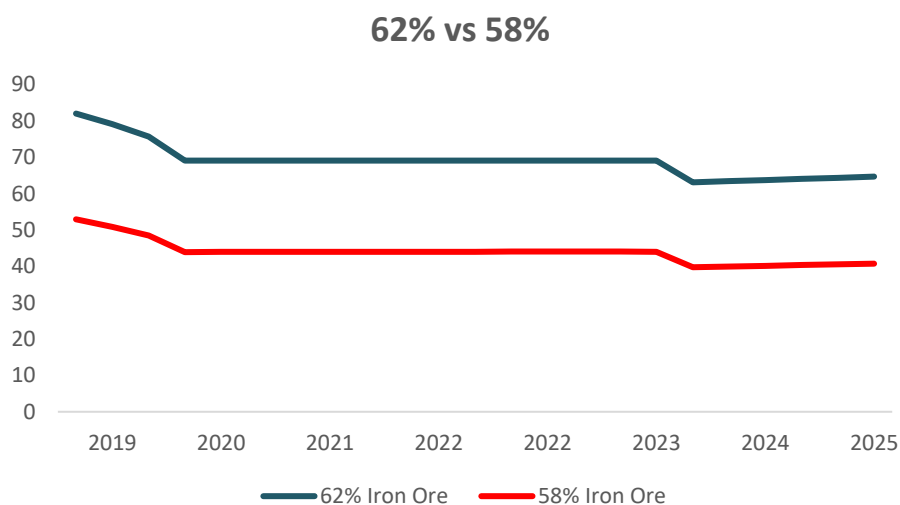
Figure 18: Iron Ore Price Chart CY19 in \$US/t



Source: PSL Analysis, Asian Metals

In our model of Iron Valley we have used Bloomberg's forward curve, which as shown in the diagram below takes a conservative outlook on the 62% Iron ore price, deriving a long term price of \$US65/t. As the Iron Valley product is a mixture of 58% fines and Lump we have assumed a 30% price discount to the 62% Iron ore price. Changes in the relative price discounts between 58% Iron ore and 62% Iron ore are outlined in the Sensitivity analysis on page 17.

Figure 19: Forward Curve 62% Iron Ore Price Forecasts %US/t



Source: PSL Analysis, Bloomberg

Bulk Ore Shuttle System (BOSS)

Mineral Resources is looking to cut down its transport and truck haulage costs through its development of the Bulk Ore Shuttle System (BOSS), a low cost mine-to-port transport solution for bulk commodities and freight. BOSS is essentially a lightweight rail based transport system, consisting of fully automated shuttle units each with a 120t payload. As a result of the ore car being only 1.8m in height and fully automated, cars are able to load and discharge in a continuous movement at a fraction of the costs of traditional heavy haul rail systems, with all-in FOB costs estimated to be less than US\$20/tonne. The overall capacity of this new BOSS network is 30 to 50Mtpa.

Figure 20: Bulk Ore Shuttle System (BOSS)



Source: Mineral Resources

The implementation of the BOSS light railway system will allow Iron Valley to double its production rate to 14Mtpa. The increase in production will flow through to the royalty received by BCI, essentially doubling it. The comparative table below outlines the increase in our post tax NPV valuation from \$45m to \$73m, assuming the iron ore price and exchange rate stay the same.

Figure 21: BOSS Scenario Analysis

Case 1: No Boss		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
Production	Mtpa	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	91
Royalty	A\$/t	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Royalty	A\$M	7.4	7.5	7.4	7.4	6.9	6.9	7.0	7.1	7.1	7.1	7.1	7.1	7.1	85.9
Tax									-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	
Royalty	A\$M	7.4	7.5	7.4	7.4	6.9	6.9	7.0	5.0	5.0	5.0	5.0	5.0	5.0	75.3
Post Tax NPV	A\$M	\$45													
Case 2: Boss		1	2	3	4	5	6	7	8	9	10	11	12	13	Total
Production	Mtpa	7	7.0	13.0	13.0	13.0	14.0	14.0	10.0						91
Royalty	A\$/t	1.2	1.1	1.5	1.5	1.5	1.5	1.5	1.5						1.4
Royalty	A\$M	7.4	7.5	19.5	19.5	19.5	21.0	21.0	15.0						130.4
Tax							-6.3	-6.3	-4.5						
Royalty	A\$M	7.4	7.5	19.5	19.5	19.5	14.7	14.7	10.5						113.3
Post Tax NPV	A\$M	\$74													

Source: PSL Analysis

Sensitivity Analysis

We have used a price discount of 30% for the price of 58% iron ore vs 62% iron ore in our valuation for Iron Valley, and have assumed this remains consistent throughout the life of mine. The sensitivity table below shows small changes in our valuation due to changes in the iron ore price.

Figure 22: Share Price Sensitivity to Iron ore price change (30% discount)

Iron Ore Price	-20%	-10%	0%	10%	20%
Valuation A\$/share	0.244	0.247	0.251	0.254	0.257

Source: PSL Analysis

Figure 23: Iron Valley NPV Sensitivity to iron ore price change (30% discount)

Iron Ore Price	-20%	-10%	0%	10%	20%
Iron Valley NPV A\$m	37	42	45	50	55

Source: PSL Analysis

If we make the assumption that the price discount between 58% iron ore and 62% iron ore reverts back to a low discount of 15%, such as that shown in early 2016, we see greater variations in our valuation due to price changes.

Figure 24: Share Price Sensitivity to Iron ore price change (15% discount)

Iron Ore Price	-20%	-10%	0%	10%	20%
Valuation A\$/share	0.246	0.250	0.257	0.265	0.269

Source: PSL Analysis

Figure 25: Iron Valley NPV Sensitivity to iron ore price change (15% discount)

Iron Ore Price	-20%	-10%	0%	10%	20%
Iron Valley NPV A\$m	45	50	55	60	66

Source: PSL Analysis

Figure 26: Iron Valley NPV Sensitivity to changes in annual production

Iron Ore Production (currently 7Mt)	-30%	-20%	-10%	0%	10%	20%	30%
Iron Valley NPV A\$m	33	37	42	45	51	55	59

Source: PSL Analysis

BUCKLAND

One of the iron ore assets up for divestment is BCI's Buckland project. Buckland is a mine to port project located in the West Pilbara that is made up of a proposed mine at Bungaroo South and a proposed port at Cape Preston East. As at 30 June 2018, the project has total Mineral Resources of 283Mt at 56.5% Fe, and Ore Reserves of 134Mt at 57.6% Fe.

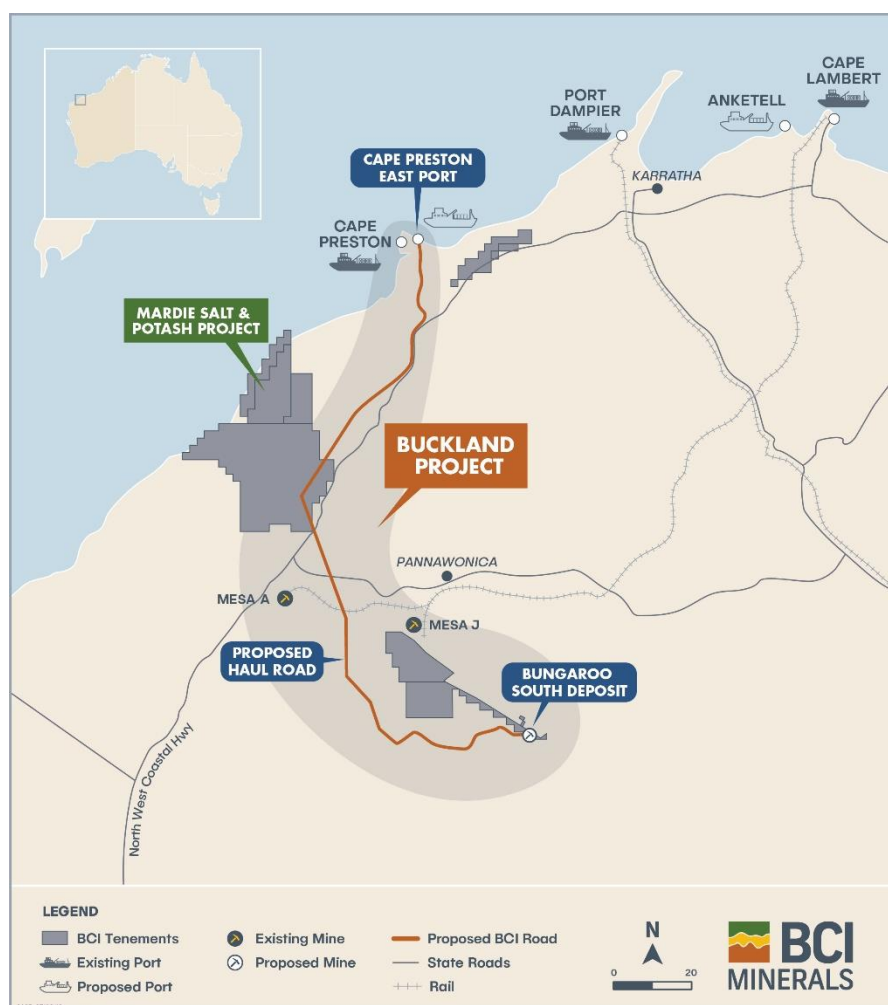
The Project includes the construction of a private haul road linking the Bungaroo South mine to the Cape Preston East port. Approximately 8Mtpa of product would be hauled via the private road up to Cape Preston East where it would be shipped out through the proposed transshipment port.

The Company has approval to construct and operate a 20Mtpa transshipment port at Cape Preston East for an initial period of 20 years. Capex for a transshipment port is estimated to be <20% of that of a similar sized deep water port, with competitive operating costs. The port would load ore into a transshipment vessel before then transferring the ore to a Cape Size vessel anchored offshore.

The West Pilbara would benefit massively from the Cape Preston East Port. The port will be located in an area with many other projects and prospects including the Australian Premium Iron Joint Venture with Red Hill that would be able to service a large proportion of the potential output of these projects.

We expect BCI will continue to explore divestment opportunities for the Buckland Project.

Figure 27: Buckland Project



Source: BCI Minerals

CARNEGIE POTASH PROJECT

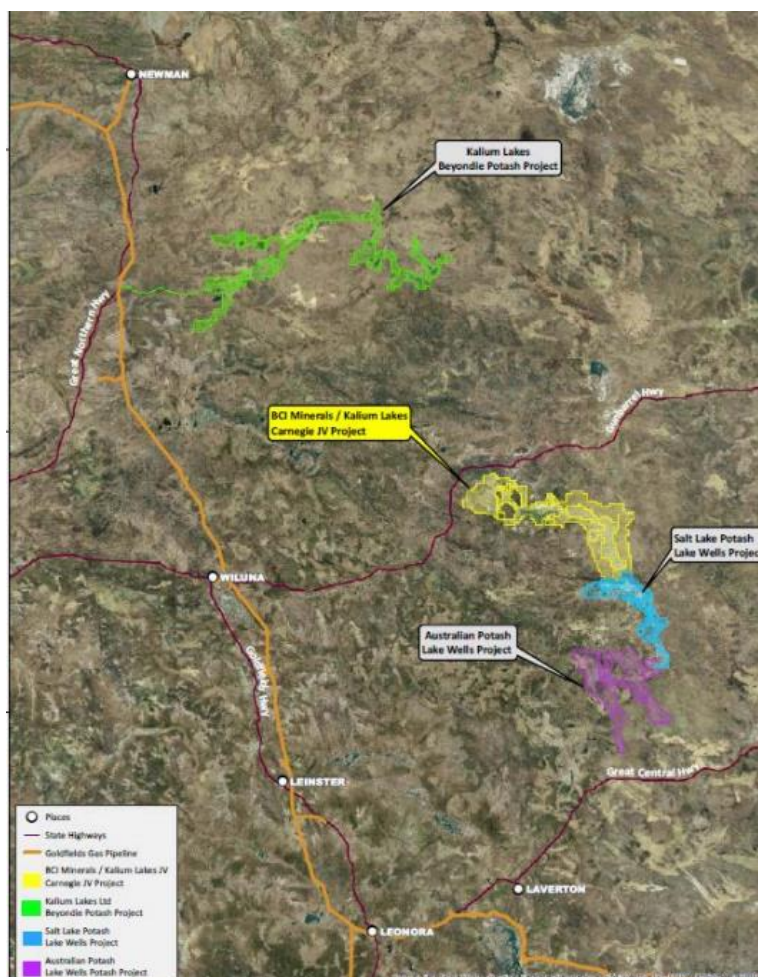
In line with the Company's development strategy to consider assets in commodities with strong long-term growth profiles such as salt and SOP, in 2017, BCI entered into a binding agreement to become the JV partner at Kalium Lakes Carnegie Potash Project.

The exploration project is located approximately 220km north-east of Wiluna, hosting a prospective sub-surface brine deposit which has the potential to be developed into a solar evaporation operation that produces sulphate of potash (SOP). BCI currently has a 30% stake in the joint venture with Kalium lakes limited (KLL) having a 70% interest, however, under the terms of the agreements, BCI has the rights to earn up to a 50% interest in the project if they sole-fund the Pre-Feasibility study and Feasibility Study phases.

In the financial year 2018, KLL progressed the Scoping Study, which was completed in July 2018 with a maiden Resource and Exploration Target estimate. The Scoping Study, which leveraged KLL's technical knowledge, experience and intellectual property from their Beyondie Sulphate of Potash Project, confirmed Carnegie has the potential to be a technically and economically viable project.

BCI and KLL have agreed to proceed to a staged Pre-Feasibility Study, with an initial focus on securing tenure and access to all required tenements.

Figure 28: Carnegie Project location



Source: BCI Minerals Limited

ADDITIONAL OPERATIONS

In addition to the Company's assets outlined above, BCI has several non-core projects, situated in Western Australia, which are prospective for a range of commodities including iron ore, base metals and gold. Some of the assets include:

Maitland River

The Maitland River tenement is located in the West Pilbara region, approximately 20km south east of Cape Preston East and within 5km of the North West Coastal Highway and the Bunbury to Dampier natural gas pipeline. This deposit has a Mineral Resource of 1,106Mt at 30.4% Fe, which is hosted in three deposits. A concept study was completed in December 2012.

Extension Royalty

The Extension Project is owned by Australian Aboriginal Mining Corporation Limited ("AAMC"). BCI is entitled to a royalty of up to 2.5% of FOB revenue on any iron ore produced from the project.

Koodaideri South Royalty

This forms part of the Rio Tinto proposed Koodaideri mine in the Central Pilbara. BC Iron is entitled to a royalty of 2.0% of FOB revenue on any ore mined from the Koodaideri South project area.

RISKS

Execution risk – The Mardie project is a large scale operation with a long lead time, which means there is significant execution risk present in its development. The project also requires a large amount of capex and with financing not secured this poses as another risk.

Commodity price – There is significant commodity price risk for BCI. The Company's cash flow is tied to the price of salt, SOP and Iron Ore. Significantly negative movements in the price of these commodities would negatively impact the cash flows of the Company, and hence our valuation.

Exchange rate – There is significant exchange rate risk for BCI. The Company's costs are denominated in AUD whilst the salt, SOP and iron ore price is denominated in USD. A significant strengthening in the AUD vs USD would negatively impact the cash flows of the Company, and hence our valuation.

Operational risk – Every mining operation has associated risks. geotechnical risks; major environmental or safety incidents; and force majeure events can cause a major loss of revenue whilst still being liable for significant costs.

Weather Risk – The Mardie project is located on the West Pilbara Coast which is often impacted by cyclones. Heavy wind and rain has the potential to cause significant damage to the project infrastructure, as well as having a negative impact on evaporation rates.

BOARD OF DIRECTORS/KEY MANAGEMENT

Mr Brian O'Donnell – Non-Executive Chairman

Mr O'Donnell is Director, Finance and Investments for the Australian Capital Equity Pty Limited Group (ACE), which includes the Company's largest shareholder, Wroxby Pty Ltd. Mr O'Donnell is a director of various ACE group companies, including companies active in the agricultural, advertising and investment sectors, in Australia and China.

Mr O'Donnell is also a non-executive director of ASX-listed Capilano Honey Limited, and The Guide Dog Foundation Pty Ltd (WA). He is a former director of Iron Ore Holdings Limited, Coates Group Holdings Pty Ltd, WesTrac Pty Ltd, Landis & Gyr AG, Fremantle Football Club Ltd and YMCA of Perth Inc. Brian is a Fellow of the Institute of Chartered Accountants, and has 31 years' experience in the finance and investment industry.

Mr Alwyn Vorster – Managing Director

Mr Vorster commenced as Chief Executive Officer of BC Iron in May 2016 and was appointed as Managing Director in September 2016. He has more than 25 years' experience with numerous mining houses in technical and commercial management roles covering the total supply chain from mine to market for iron ore, coal and other minerals.

He has most recently been employed as Group Executive Mining at ACE, and other recent roles include Chief Executive Officer of API Management, the company responsible for developing the multi-billion dollar West Pilbara Project; and Chief Executive Officer and Managing Director of Iron Ore Holdings Ltd.

Mr Vorster is a non-executive director of Volt Resources Ltd, and a board member of the RSPCA WA..

Ms Jenny Bloom – Non-Executive Director

Ms Bloom has an extensive business background with experience in the private and public sector and is currently the Deputy Chair of the Waste Authority Western Australia. Jenny held senior positions with Ansett Australia leading high level change projects across various areas of the business including major operational business realignment. Ms Bloom has owned and operated successful businesses in the Kimberley and was Councillor and Deputy Shire President for the Shire of Broome from 2009 to 2014 and an independent director of an Aboriginal corporation from 2008 to 2011. Resource sector exposure includes involvement in the approval processes for large onshore shale oil & gas and mineral sands projects.

Mr Michael Blakiston – Non-Executive Director

Mr Blakiston is a partner in Gilbert + Tobin's Energy and Resources group. He has over 30 years' experience gained across a range of jurisdictions. Michael advises in relation to asset acquisition and disposal, project structuring, joint ventures and strategic alliances, development agreements and project commercialisation, capital raisings and company merger and acquisitions. Michael has served on numerous ASX listed companies and not-for-profit boards and is currently the Chairman of Precision Opportunities Fund Ltd, a specialist small to medium cap fund.

Mr Simon Hodge – Chief Financial Officer

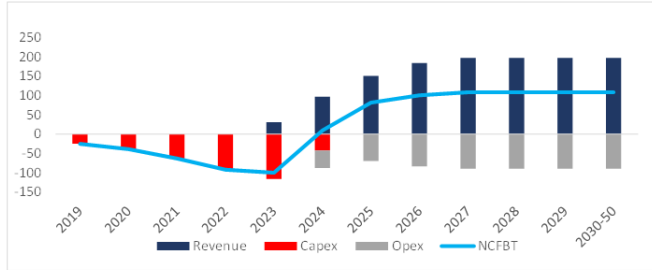
Mr Hodge commenced as Chief Financial Officer on 1 February 2017. He has more than 25 years' experience in senior executive, corporate advisory and equity research roles.

He was most recently engaged in a consulting capacity as Corporate and Commercial Advisor to BC Iron. Prior to joining BC Iron, Mr Hodge was Chief Financial Officer and Chief Operating Officer for Quickflix limited, an ASX-listed company he co-founded. He has extensive finance, capital markets, corporate advisory and equity research experience having held senior positions in corporate advisory with Poynton and Partners and in equity research with JP Morgan (London) and a major Australian stockbroker.

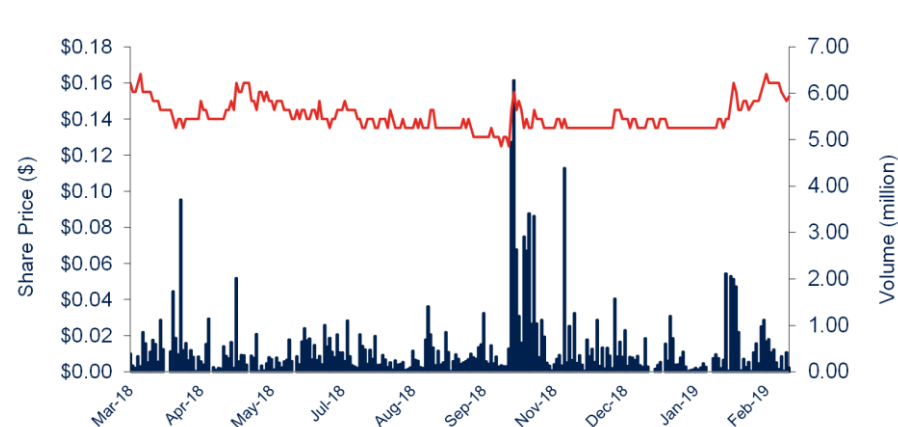
Mr Hodge has a Bachelor of Commerce (First Class Honours in Accounting and Finance) from University of Western Australia.

Susan Hunter – Company Secretary

Ms Hunter has over 23 years' experience in the corporate finance industry and extensive experience in Company Secretarial and Non-Executive Director roles with ASX, AIM and TSX listed companies. Ms Hunter holds a Bachelor of Commerce, is a Member of the Australian Institute of Chartered Accountants, a Fellow of the Financial Services Institute of Australasia, a Graduate Member of the Australian Institute of Company Directors and a Graduate Member of the Governance Institute of Australia. She is currently Company Secretary of several ASX listed companies.

BCI MINERALS (BCI.ASX)				Price	\$0.15	Year End 30 June				
Valuation		\$m	\$/sh	Commodity Assumptions		2017A	2018A	2019F	2020F	2021F
Mardie Project (Risked at 50%)		121	0.09	US\$/A\$		0.75	0.77	0.72	0.72	0.72
Iron Valley		45	0.03	Platts 62%Fe (US\$/dmt CFR)		72	70	76	69	69
Other Assets		14	0.01	NaCl Price (FOB) (US\$/t)		30	30	30	30	30
Net Cash (Post DFS Spend)		17	0.01	SOP Price (FOB) (US\$/t)		500	500	500	500	500
Unpaid Capital		170	0.13	Iron Valley		2017A	2018A	2019F	2020F	2021F
Corporate costs		(30)	(0.02)	Annual production (Mt)		8.0	6.1	7.0	7.0	7.0
Total Valuation		336	0.25	Royalty A\$/t		2.3	0.9	1.2	1.1	1.1
Cash Flow Mardie Project 				EBITDA A\$m		18.3	5.6	7.4	7.5	7.4
				Profit & Loss (A\$m)		2017A	2018A	2019F	2020F	2021F
				Total revenue		63.5	33.0	44.8	47.0	46.7
				Cost of Sales		(54.0)	(47.4)	(49.7)	(51.1)	(50.3)
				EBITDA		9.5	(14.4)	(4.8)	(4.1)	(3.6)
				DD&A		(3.0)	(2.9)	(3.0)	(3.0)	(3.0)
				EBIT		6.5	(17.3)	(7.8)	(7.1)	(6.6)
				Net interest income (expense)		0.6	0.4	0.2	0.5	1.3
				NPAT (Before abnormals)		5.7	(16.9)	(6.1)	(6.6)	(5.3)
				NPAT (Reported)		5.7	(16.9)	10.9	(6.6)	(5.3)
				Diluted EPS (cps)		1.4	(4.3)	(1.5)	(1.7)	(0.7)
				DPS (cps)		0.0	0.0	0.0	0.0	0.0
				Cash Flow (A\$m)		2017A	2018A	2019F	2020F	2021F
Operating Cashflow				11.9	(12.0)	(6.5)	1.2	2.2		
Capex (+exploration)				(0.6)	(10.0)	(10.0)	(29.3)	(51.0)		
Property, plant & equipment				(1.6)	(0.1)	(0.1)	0.0	0.0		
Divestment of Assets				0.0	0.0	27.0	10.0	0.0		
Cash Flows from Investing activities				(2.2)	(10.1)	16.9	(19.3)	(51.0)		
Proceeds from equity issues				24.2	0.0	0.0	70.0	50.0		
Proceeds from borrowings				0.0	0.0	0.0	0.0	0.0		
Repayment of borrowings				(2.0)	0.0	0.0	0.0	0.0		
other				(5.2)	(1.3)	0.0	0.0	0.0		
Cash Flows from Financing activities				17.1	(1.3)	0.0	70.0	50.0		
Net increase in cash and cash equivalents				26.7	(23.3)	10.4	52.0	1.2		
Cash at beginning				9.7	36.4	13.0	23.5	75.5		
Cash at end				36.4	13.0	23.5	75.5	76.6		
Balance Sheet (A\$m)				2017A	2018A	2019F	2020F	2021F		
Cash				36.4	13.1	23.5	75.5	76.6		
Total Assets				119.6	100.5	111.4	187.6	235.3		
Creditors				12.1	9.4	11.5	11.5	11.5		
Current Borrowings				0.0	0.0	0.0	0.0	0.0		
Non-current Borrowings				0.0	0.0	0.0	0.0	0.0		
Provisions				5.2	6.1	(2.4)	10.4	13.4		
Total Liabilities				17.3	15.4	9.1	21.9	24.8		
Shareholders Funds				107.2	90.6	102.3	165.7	210.4		
Top Shareholders										
		Shares (m)	%							
Wroxby Pty Ltd		110	27.6							
One Managed Investment Funds Limited		10	2.6							
Mineralogy Pty Ltd.		6	1.5							
Padfic Level Pty Ltd		5	1.2							
Alwyn Vorster		4	1.0							
Top 5 Shareholders		134.4	34							
Iron Valley Ore Reserves		Mt	%Fe	%Si						
Proved - In-situ		56.6	58.4	4.6						
Proved - Stockpiles		5.2	56.1	8.3						
Probable		33.6	58.6	5.0						
Total		95.4	58.4	5.0						
Iron Valley Mineral Resources		Mt	%Fe	%Si						
Measured - In-situ		86.8	57.9	5.2						
Measured - Stockpiles		5.2	56.1	8.3						
Indicated		79.6	58.4	5.2						
Inferred		26.1	57.8	6.6						
Total		197.7	58.1	5.4						
Directors & Management										
Name		Position								
Mr Brian O'Donnell		Chairman: Non-Executive								
Mr Alwyn Vorster		Managing Director								
Mr Michael Blakiston		Director: Non-Executive								
Ms Jennifer Bloom		Director: Non-Executive								
Simon Hodge		Chief Financial Officer								
Susan Hunter		Company Secretary								

Recommendation History



Date	Type	Target Price	Share Price	Recommendation	Return
21 Mar 17	Research Note	0.34	0.21	SB	
24 Apr 17	Hot off the Press	0.34	0.15	SB	-28.6%
21 Jun 17	Ceased Coverage	0.34	0.13	SB	-16.7%
	Current Share Price		0.15		22.0%

Stock recommendations: Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-10% to +10% total return) and Sell (> 10% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may not be of investment grade due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside of these ranges because of price movements and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. This Document is not to be passed on to any third party without our prior written consent.



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Patersons Securities Limited Disclosure of Interest

Patersons Securities and its respective officers and associates may have an interest in the securities or derivatives of any entities referred to in this material

Patersons Securities does, and seeks to do, business with companies that are the subjects of its research reports.

Patersons Securities Corporate Relationship Disclosure

88E	Patersons Securities have acted for 88 Energy Limited (88E) within the past two years and have received fees for these services.
AKM	Patersons Securities have acted for Aspire Nmining Limited (AKM) within the past two years and have received fees for these services.
AXL	Patersons Securities have acted for Axesstoday Limited (AXL) within the past two years and have received fees for these services.
BOE	Patersons Securities have acted for Boss Resources Limited (BOE) within the past two years and have received fees for these services.
BRB	Patersons Securities have acted for Breaker Resources NL (BRB) within the past two years and have received fees for these services.
BSX	Patersons Securities have acted for Blackstone Minerals Limited (BSX) within the past two years and have received fees for these services.
BUX	Patersons Securities have acted for Buxton Resources Limited (BUX) within the past two years and have received fees for these services.
CSS	Patersons Securities have acted for Clean Seas Seafood Limited (CSS) within the past two years and have received fees for these services.
GLL	Patersons Securities have acted for Galilee Energy Limited (GLL) within the past two years and have received fees for these services.
IBG	Patersons Securities have acted for Ironbark Zinc Limited (IBG) within the past two years and have received fees for these services.
NUS	Patersons Securities have acted for Nusantara Resources (NUS) within the past two years and have received fees for these services.
PEX	Patersons Securities have acted for Peel Mining Limited (PEX) within the past two years and have received fees for these services.
RCL	Patersons Securities have acted for ReadCloud Limited (RCL) within the past two years and have received fees for these services.
STN	Patersons Securities have acted for Saturn Metals Limited (STN) within the past two years and have received fees for these services.
SYA	Patersons Securities have acted for Sayona Mining Limited (SYA) within the past two years and have received fees for these services.
VMY	Patersons Securities have acted for Vimy Resources Limited (VMY) within the past two years and have received fees for these services.
WKT	Patersons Securities have acted for Walkabout Resources Ltd (WKT) within the past two years and have received fees for these services.
XTE	Patersons Securities have acted for Xtek Limited (XTE) within the past two years and have received fees for these services.



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