

**Analyst**

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**Recommendation**
**Buy** (Initiation)

**Price**
**\$0.215**
**Target (12 months)**
**\$0.47** (previously not covered)

**GICS Sector**
**Materials**
**Expected Return**

Capital growth	<b>119%</b>
Dividend yield	<b>0%</b>
Total expected return	<b>119%</b>

**Company Data & Ratios**

Enterprise value	<b>44</b>
Market cap	<b>86</b>
Issued capital	<b>399</b>
Free float	<b>71%</b>
Avg. daily val. (52wk)	<b>\$64,686</b>
12 month price range	<b>\$0.14-\$0.24</b>

**Price Performance**

	(1m)	(3m)	(12m)
Price (A\$)	0.17	0.15	0.19
Absolute (%)	30.30	48.28	16.22
Rel market (%)	28.66	35.16	21.75

**Absolute Price**


SOURCE: IRESS

# BCI Minerals (BCI)

## Initiation: Crystallising growth

### Strong foundation for company-making salt & SOP project

BCI's iron ore earnings stream, strong cash position and cornerstone shareholder all provide a strong foundation for the development of its 100% owned Mardie Salt and sulphate of potash (SOP) project in Western Australia. At 30 June 2020, BCI had cash of \$42m and no debt, having generated \$23m in EBITDA from its iron ore operations over FY20. The July 2020 Mardie definitive feasibility study (DFS) outlined a project producing 4.4Mtpa salt and 120ktpa SOP fertiliser and generating steady-state annual EBITDA of \$197m over a minimum 60-year project life. The market is currently attributing little value to this attractive portfolio.

### Next 12 months focusses on Mardie approvals & funding

BCI expect to reach a final investment decision (FID) and receive ministerial approval for Mardie in early 2021. The project will have a large capital requirement of over \$800m. However, there are several potential paths to funding including joint venturing, concessional government debt for regional infrastructure components, offtake finance, traditional debt and the support of existing or potentially new cornerstone equity investors. With 99.9% of its energy provided by sun and wind sources and with a fertiliser product stream, the project is attractive in an increasingly ESG driven investment community. We expect financing to be arranged for development to commence in mid-2021 and first production from 2024.

### Iron ore business keeps delivering cash flow to BCI

BCI generates earnings from iron ore sales from its Iron Valley tenements mined by Mineral Resources Ltd (MIN). Since 2014, this agreement has generated BCI more than \$75m in EBITDA from the sale of around 34Mt of iron ore. With Ore Reserves of around 80Mt, this income stream is likely to continue for a number of years.

### Investment thesis: Buy, Target Price \$0.47/sh

BCI combines an iron ore royalty-like business with a large scale greenfields salt and fertiliser project. BCI's current enterprise value is 3.4x its iron ore EBITDA alone. The Mardie Salt and SOP Project has the potential to add significant further value and is suited to ESG concerned debt and equity investors looking to diversify their resources portfolios. BCI's supportive share register will also mitigate some of the financing risks.

**Earnings Forecast**

Year ending 30 June	2020a	2021e	2022e	2023e
Sales (A\$m)	82	77	52	50
EBITDA (A\$m)	7	15	8	8
NPAT (reported) (A\$m)	6	13	6	5
NPAT (adjusted) (A\$m)	6	13	6	5
EPS (adjusted) (cps)	1.4	3.4	1.1	0.4
EPS growth (%)	-57%	140%	-68%	-67%
PER (x)	15.3x	6.4x	19.7x	59.4x
FCF Yield (%)	4%	-22%	-108%	-112%
EV/EBITDA (x)	6.7x	3.0x	5.2x	5.7x
Dividend (cps)	-	-	-	-
Yield (%)	0%	0%	0%	0%
Franking (%)	-	-	-	-
ROE (%)	5%	12%	4%	2%

SOURCE: BELL POTTER SECURITIES ESTIMATES

# Investment thesis

## Key investment points:

- **Two key assets; iron ore & salt projects:** BCI has two key sources of value: (1) its iron ore royalty-like income stream from the Iron Valley Resource being mined by MIN; and (2) the undeveloped Mardie Salt and SOP Project. Both of these projects are located in the Pilbara region of Western Australia.
- **Iron ore royalty-like arrangement:** The Iron Valley arrangement generated EBITDA of \$23.1m in FY20 for BCI, when benchmark iron ore prices (62% Fe CFR China) averaging US\$94/t over that period. In recent years, Iron Valley has contributed \$0.7-8.6m EBITDA per quarter, depending on the iron ore price and the volumes mined (range 1.3-2.1Mt per quarter). Iron Valley is BCI's only operational and cash generating business and is expected to produce at 6-8Mtpa to around 2030.
- **Mardie Salt & SOP Project:** Mardie has a completed DFS (July 2020) for a 4.4Mtpa salt and 120ktpa SOP solar evaporation project. BCI expect the project to receive regulatory approvals and make a FID on the project in early 2021. Mardie has the potential to generate around \$200m in steady-state EBITDA from around 2025 and has been modelled to a 60 year project life. Concessional Northern Australia Infrastructure Facility (NAIF) funding could assist with financing the estimated \$779m capital cost of the project, which includes around \$200m for a new multi-user port.
- **Salt production to meet growing Asian market:** Over 50% of salt demand is driven by the manufacturing chemicals sector, with other applications in water treatment, animal feed, de-icing and the food industry. Salt is used in manufacturing chlorine and caustic soda, making it an input to the manufacture of industrial and household products containing glass, plastic, aluminium, and many other common chemicals. Demand is linked to population growth and urbanisation. The Mardie project is ideally positioned to supply the seaborne Asian market.
- **SOP's increasing share of the potash market to drive demand growth:** SOP (sulphate of potash,  $K_2SO_4$ ) is a premium potash fertiliser and accounts for around 10% of the global potash market (muriate of potash, MOP or KCl, accounts for the other 90%). SOP is the preferred fertiliser for many higher-value food crops which are sensitive to the high levels of soil chloride which MOP can cause. SOP demand has the twin drivers of population growth and increasing potash market share as its higher value-in-use over MOP is increasingly recognised.
- **A resources investment with improving ESG credentials:** 99.9% of the energy required for the Mardie project is provided by sun and wind energy and the project utilises an inexhaustible seawater resource. Through SOP manufacturing, the Mardie project also adds significant value to a by-product, which can improve crop yields and security of food supply. Mardie is the type of project which debt and equity investors are increasingly seeking exposure to, to diversify risks from more carbon intensive resources investments.

## Investment thesis: Buy, Target Price \$0.47/sh

BCI combines an iron ore royalty-like business with a large scale greenfields salt and fertiliser project. BCI's current enterprise value is 3.4x its iron ore EBITDA alone. The Mardie Salt and SOP Project has the potential to add significant further value and is suited to ESG concerned debt and equity investors looking to diversify their resources portfolios. BCI's supportive share register will also mitigate some of the financing risks.

### Value catalysts & near-term news flow

- Ongoing – leverage to iron ore prices from Iron Valley agreement with MIN.
- Mardie Salt & SOP Project:
  - 2H 2020:
    - Commence Front End Engineering Design.
    - Progress discussions with potential lenders and investors.
  - Q1 2021:
    - Ministerial approval.
    - BCI Board take FID.
  - Q2-Q3 2021:
    - Other required approvals.
    - Financial close of equity and debt financing.
  - Mid-2021:
    - Commencement of construction

### Short-term funding: Adequate cash to progress past FID

At 30 June 2020, BCI had cash of around \$42m and no debt (\$34m at 30 June 2019). The company's Iron Valley project generated EBITDA of \$23m in FY20. BCI has been funding asset studies, including the Mardie DFS, from its iron ore earnings. We do not expect that BCI will need to raise capital ahead of the Mardie project FID, financing and commencement of development.

### Longer-term funding: Financing the Mardie Salt & SOP Project

We expect the Mardie project will require equity of around \$310m. However, assuming BCI's cornerstone shareholder contributes its 29% and taking into account the company's cash reserves, the requirement for new equity could be less than \$200m.

#### Likely capital requirement and potential sources of funding

The Mardie Project DFS (July 2020) estimated a capital cost of \$779m. Taking into consideration working capital and funding cost requirements, it is likely that the project will have a total funding requirement to first salt production of around \$900m.

BCI will consider a number of options with respect to funding this large capital requirement. Potential funding sources include, but are not limited to:

- Strategic funding from potential offtake counterparties or their agents;
- Project level sell-down to a strategic cornerstone shareholder;
- Government concessional debt finance including from the NAIF;
- Traditional bank/project finance; and
- Equity financing at the BCI level.

#### Potential Mardie funding scenario

We recognise the high capital cost of the Mardie project compared with BCI's current market capitalisation. However, factors mitigating total funding risks include:

- **Supportive major shareholder:** ACE's 29% shareholding in BCI (see below).

- **NAIF funding component:** The project capital cost includes around \$200m for a new multi-user port facility and other infrastructure. We expect that a large component of this investment could be funded through the NAIF.
- **Potential project level sell-down:** BCI controls 100% of the Mardie project, enabling a joint venture partner to enter and contribute to the capital requirement.
- **High green credentials:** Likely to attract funding from banks and funds looking to diversify into less carbon-intensive resources projects.

The following table provides a high-level scenario of how the Mardie project funding could play out.

Under this scenario around \$310m in equity would be required. Assuming contributions from cash generated by BCI's iron ore business of around \$50m and from BCI's cornerstone shareholder, the new equity requirement is likely to be less than \$200m.

**Table 1 - Potential Mardie project funding split**

	Total A\$m	Split Debt	Equity	Gearing	Bell Potter Securities assumption
Mardie salt & SOP facilities	319				
EPCM, owners costs, services & other	129				
Contingency	83				
<b>Total project</b>	<b>531</b>	<b>345</b>	<b>186</b>	<b>65%</b>	<b>Bank debt</b>
Port & supporting infrastructure	247	173	74	70%	NAIF finance
<b>Total capital cost</b>	<b>779</b>	<b>518</b>	<b>260</b>	<b>67%</b>	
Working capital (Bell Potter Securities est.)	50		50		Potentially offtake finance
Pre-startup funding costs	70	70			
<b>Total project</b>	<b>899</b>	<b>588</b>	<b>310</b>	<b>65%</b>	
Cornerstone shareholder 29%			90		Contributes to equity share
Cash reserves			50		From Iron Valley
<b>New equity required</b>			<b>170</b>		

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

### Share register: ACE's 29% shareholding

- Australian Capital Equity Group (ACE) is BCI's largest shareholder with 29% of issued capital through subsidiary Wroxby Pty Ltd.
- BCI's Non-executive Chairman since October 2014, Brian O'Donnell, is Director, Finance and Investments for ACE group.
- Kerry Stokes is Chairman of ACE group, which has significant interests in activities which include media and entertainment, resources, energy, property, pastoral and industrial activities. ACE Group is deemed to be controlled by Kerry Stokes. Kerry Stokes is also Executive Chairman of Seven Group Holdings.

# Valuation & company financials

**Table 2 - Risked & diluted valuation summary**

<b>Shares &amp; rights on issue m</b>	<b>411m</b>	
<b>Valuation</b>	<b>A\$m</b>	<b>A\$/sh</b>
Mardie Salt & Potash project (unrisked)	\$179m	
Risk discount to account for project stage	30%	
Mardie Salt & Potash project (risked)	\$125m	\$0.30
Iron Valley agreement	\$52m	\$0.13
<b>Value of core projects (risked)</b>	<b>\$177m</b>	<b>\$0.43</b>
Corporate & admin	-\$25m	-\$0.06
<b>Enterprise value (risked)</b>	<b>\$152m</b>	<b>\$0.37</b>
Net debt / (cash)	-\$42m	-\$0.10
<b>Equity value of core projects (risked)</b>	<b>\$194m</b>	<b>\$0.47</b>
Other projects (risked)	\$33m	\$0.08
Tax losses (present value)	\$36m	\$0.09
<b>Equity value of all assets (risked)</b>	<b>\$263m</b>	<b>\$0.64</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## Valuation & methodology

### Mardie Salt & SOP project

BCI's July 2020 DFS pre-tax NPV (7% real discount rate) was \$1,197m.

We have modelled the Mardie project based on broadly the same DFS assumptions with the exception of:

- Tax: We have calculated a post-tax NPV at the Australian corporate tax rate of 30%.
- Foreign exchange: Our commodity forecasts use a long term exchange rate of US\$0.74/A\$ (compared with the DFS at US\$0.68/A\$).
- Discount rate of 10% (real): Consistent with our analysis of similar projects.

The result is a post-tax NPV (7% discount rate) of around \$600m. Applying a higher discount rate reduces this NPV to \$179m.

Consistent with other projects at the DFS stage, we have applied a 30% risk discount.

It is important to note that:

- Given Mardie's long project life (minimum 60 years), any adjustment to the assumed discount rate has a large impact on the project's NPV.
- Current debt markets will likely result in a cost of capital significantly lower than our 10% assumed discount rate, making our modelling assumption highly conservative.

### Iron Valley iron ore arrangement with Mineral Resources

We have modelled the continuation of the Iron Valley arrangement with MIN. Key assumptions are:

- Average annual sales of 7.6Mtpa ore at a grade of 58% Fe until depletion of the Iron Valley Ore Reserve in 2030; and
- Benchmark (68% Fe, CFR China) iron ore prices averaging US\$75/t, long term. BCI's realised prices are adjusted off this benchmark.

### Other assets & corporate costs

We have applied the following valuations to BCI's other assets and corporate costs:

- Corporate costs -\$25m: Present value of \$2.5m in annual corporate and administrative expenses at our 10% assume discount rate (real).

- Other assets \$33m: BCI has a number of other tenements, projects and royalty agreements. The valuation is our estimate of the risked present value of these assets.
- Tax losses of approximately \$36m: At 31 December 2019, BCI had unrecognised deferred tax assets relating to tax losses of \$75m and an R&D offset available of \$6m. The valuation is our estimate of the present value of the tax losses.

## Dilution assumptions

Our BCI valuation includes dilution from issued performance rights only. We have not assumed dilution from a capital raising. Reasons supporting this methodology are:

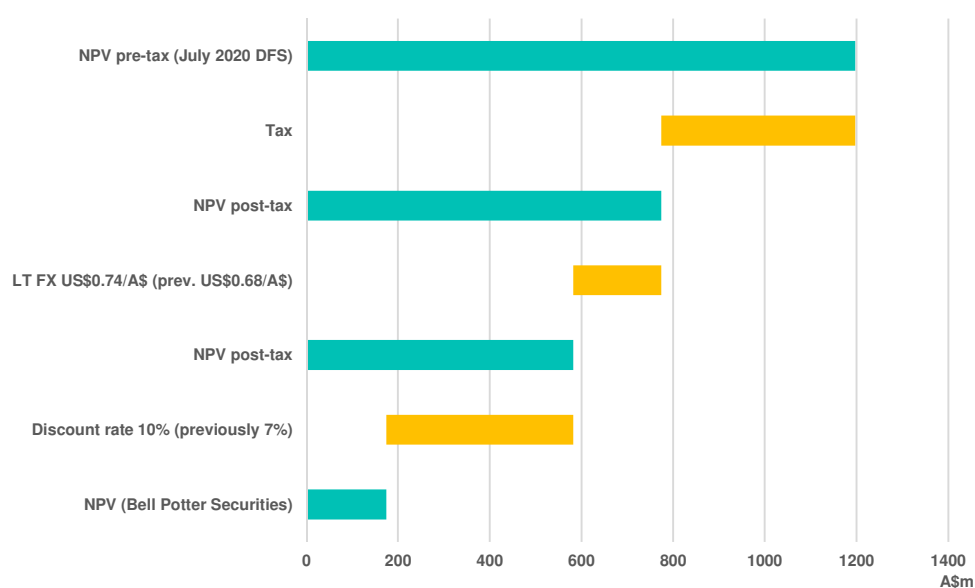
- BCI will fund the Mardie project to development stage through its existing iron ore earnings stream.
- We expect equity to be the final component of any financing solution. By the time an equity financing component for the Mardie is considered:
  - Approvals (Government and BCI internal) will be substantially re-risked;
  - BCI will likely have formal and binding offtake contracts for salt and SOP products agreed; and
  - Binding terms sheets for the debt component of the project's financing will have been agreed.

These factors will see a substantial de-risking of the Mardie project and we expect will result in a re-rating of BCI's listed equity. As such, any assumed dilution would be over-cautious on top of our already conservative assumptions, in our view.

## DFS to Bell Potter Securities Mardie project valuation bridge

The following chart outlines Bell Potter Securities' modelling of the impact of our more conservative valuation assumptions on the Mardie project NPV.

**Figure 1 - DFS to Bell Potter Securities Mardie project valuation bridge**



SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

# Mardie Salt & SOP Project

## Project summary: July 2020 DFS on 4.4Mtpa salt, 120ktpa SOP

The Mardie Salt & Potash Project is a proposed seawater solar evaporation salt project. It is located on the West Pilbara coast, around 135km by road southwest of Karratha, Western Australia. A DFS completed in July 2020 supported a project capable of producing 4.4Mtpa high-purity salt (>99.5% NaCl) and 120ktpa SOP fertiliser (>52% K<sub>2</sub>O), effectively with an indefinite project life.

BCI are targeting FID by early 2021, commencement of construction in mid-2021, for first salt sales by mid-2024 and first SOP sales by mid-2025. To support this timeline, BCI expect completion of regulatory approvals by early 2021. Discussions with NAIF and commercial bank debt providers are ongoing.

## Key July 2020 DFS parameters

The following tables outline the key physical and economic parameters from the July 2020 DFS. The DFS work streams were managed by BCI with input from industry consultants covering technical, engineering, commercial and regulatory disciplines. In total, \$20m was spent on the DFS. This investment followed previous project studies including a Scoping Study (July 2017), Pre-Feasibility Study (PFS in June 2018) and a PFS optimisation study (May 2019).

**Table 3 - July 2020 DFS project physicals & timeline**

### Production

- Salt (>99.5% NaCl)	4.4Mtpa
- SOP (>52% KCl)	120ktpa
Project life	minimum 60 years

### Target timeline

- W.A. Ministerial approval	Early 2021
- FID	Early 2021
- Commence construction	Mid-2021
- First salt sales	Mid-2024
- First SOP sales	Mid-2025

SOURCE: BCI ASX RELEASE

**Table 4 - July 2020 DFS project economics**

### Project economics

- Capital cost	A\$779m
- Salt AISC	A\$20.30/t FOB
- SOP AISC	A\$310/t FOB
- Pre-tax NPV (7% real)	A\$1,197m
- Annual steady-state EBITDA	A\$197m
- Pre-tax IRR	15.3%

### Pricing assumptions

- Salt	US\$40/t to US\$45/t FOB LT
- SOP	US\$480/t to US\$583/t FOB LT
- FX	US\$0.68/A\$

SOURCE: BCI ASX RELEASE

## Project location: Australia's premier salt producing region

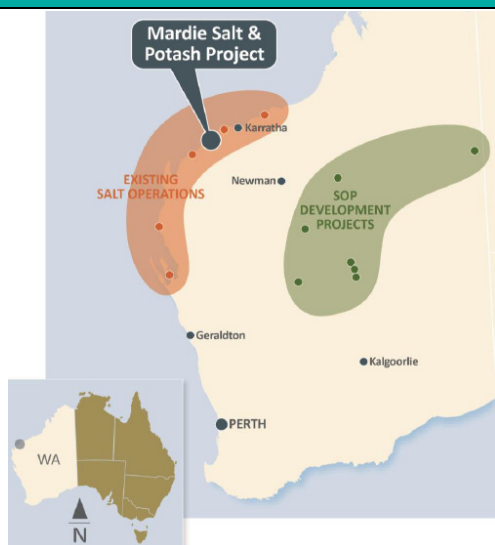
The Mardie Project's location on the West Pilbara coast is proximal to some of Australia's largest resources developments including iron ore, base metal and precious metal mining, salt production and natural gas processing. It has excellent access to existing road, port and gas pipeline infrastructure, and to the labour and services required for project development and ongoing operation.

Established salt producers in the region have combined capacity of around 14Mtpa and include:

- Dampier Salt (Rio Tinto 68%, Marubeni 22% and Sojitz 10%), including the Dampier (4.2Mtpa), Port Hedland (3.2Mtpa) and Lake McLeod (2.9Mtpa) operations; and
- Shark Bay Salt (Mitsui 100%), including the Shark Bay Resources (1.3Mtpa) and Onslow Salt (2.7Mtpa) operations.



Figure 2 - Australia's major salt producing regions



SOURCE: BCI ASX RELEASE

Figure 3 - Mardie project location



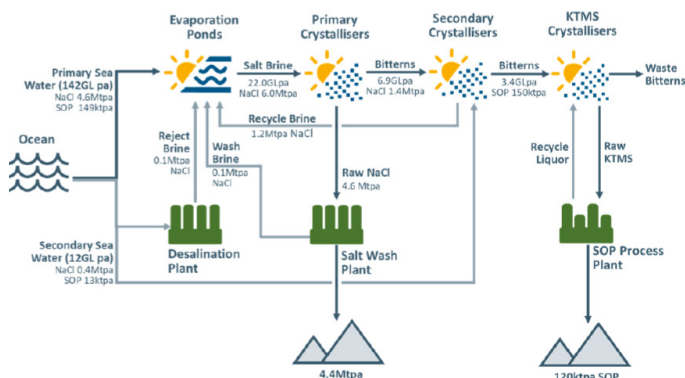
SOURCE: BCI ASX RELEASE

## Process flow sheet

The Mardie Project production flowsheets are outlined in the following diagrams. This process is consistent with other salt projects which employ the solar evaporation route of production. The Mardie Project further processes by-product bitterns to extract SOP fertiliser.

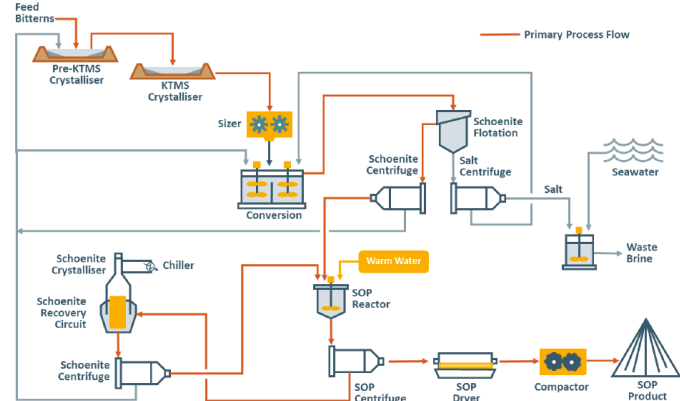
With solar evaporation salt production, salt water from the ocean or lakes is captured in a series of ponds where the sun and wind progressively evaporate and concentrate the brine until crystallisation occurs. Further mechanical processing is then employed to refine the product to marketable specifications.

Figure 4 - Salt production process flow



SOURCE: BCI ASX RELEASE

Figure 5 - SOP production process flow



SOURCE: BCI ASX RELEASE

## Project components, infrastructure and layout

Key project components include:

- **Evaporation ponds** – A series of 9 ponds covering an area of 74km<sup>2</sup> varying in size and layout. The seaward side of the pond system is dammed by a seawall extending approximately 26km. Internal pond walls and levees separate the pondage system. The system has been designed to optimise geotechnical requirements against material movement in construction and brine flow in operation.



- **Pumping stations** – A diesel powered pumping station draws seawater from an adjacent tidal creek at a rate of 142GLpa (containing approximately 4.6Mtpa NaCl). Brine flow between ponds is facilitated by a combination of gravity flow and pumped flow.
- **Primary salt crystallisers** – Receive approximately 22GLpa brine containing 6.0Mtpa NaCl where further evaporation crystallises 4.6Mtpa raw salt. Primary crystallisers are drained and mechanically harvested.
- **Salt wash plant and stockyards** – A Swiss designed salt purification plant and patented process produces a >99.5% NaCl product (dry basis) which is delivered to a 0.6Mt stockpile area for further dewatering and export.
- **Secondary salt crystallisers** – Receive approximately 6.9GLpa bitterns containing 1.4Mtpa NaCl from the primary salt crystallisers. Salt from the secondary crystallisers is recycled to the pondage system. Bitterns from the secondary crystallisers is transferred to kainite-type-mixed-salts (KTMS) crystallisers.
- **KTMS crystallisers** – Precipitate kainite-type-mixed-salts ( $\text{KCl} \cdot \text{MgSO}_4 \cdot 3\text{H}_2\text{O}$ ) from the secondary salt crystallisers for harvesting and refining in an SOP plant.
- **SOP processing plant** – KTMS is converted to schoenite ( $\text{K}_2\text{SO}_4 \cdot \text{MgSO}_4 \cdot 6\text{H}_2\text{O}$ ) salt and further decomposition produces SOP which is dried and compacted into granular form. SOP product is then screened and anti-caking agents are applied prior to haulage and shipping.

Key supporting infrastructure includes:

- **Port of Cape Preston West** – A proposed new multi-user port facility to be managed by Pilbara Ports Authority. The port will have a 2.3km trestle jetty and 4.5km dredged channel. The jetty will carry a single lane access road, product conveyor and services.
- **Transshipment vessel** – The jetty head is designed to accommodate 12,000dwt self-propelled transshipment vessels (TSVs). The port design enables the BCI's self-unloading TSV to operate under certain tide conditions and will transfer salt and SOP product to ships at seven anchor berths located approximately 30km offshore. Ocean going vessels ranging in size from Supramax (50,000dwt) to Capesize (160,000dwt) will receive the product from the TSVs.
- **Accommodation village** – A 400 room (200 temporary construction and 200 permanent) accommodation facility and administration buildings.
- **Electricity supply** – A 14MW gas fired power station will be constructed in time for commissioning to supply electricity to the salt wash plant, SOP facility, jetty, accommodation village and other infrastructure. Gas supply will be provided via a spur pipeline from the Dampier to Bunbury Natural Gas Pipeline located approximately 15km from the Mardie Project. Diesel gensets will provide power during construction and will supply certain seawater and brine pumping stations.

#### Pilbara Ports Authority

Pilbara Port Authority currently operate the Port of Ashburton (LNG), Port of Dampier (iron ore, salt, LNG, ammonia and other general cargo) and Port of Port Hedland (iron ore, lithium, salt and other bulk commodities).

### Capital cost: \$779m including owner's costs & contingencies

The headline capital cost of the Mardie Project is \$779m including owner's costs and contingencies. The following tables outline the split in capital costs and which components are directly incurred by BCI.

The capital cost estimate assumes:

- BCI funds the development of the new Cape Preston West multi-user port facility. We see scope for an infrastructure investor to partner in the development of this port.
- Mobile equipment is funded and operated by a third party contractor.

Table 5 - June 2020 DFS project areas of funding

Area	Owner	Capex	Operator
<b>Production</b>			
Salt production	BCI	BCI	BCI
SOP production	BCI	BCI	BCI
<b>Haulage</b>			
Salt product harvesting and haul fleet	Contractor	Contractor	Contractor
SOP product harvesting and haul fleet	Contractor	Contractor	Contractor
<b>Mardie port facility</b>			
Port	PPA	BCI	BCI
Transhipper	Contractor	Contractor	Contractor
<b>Supporting infrastructure</b>			
Village	Contractor	Contractor	Contractor
Power station	Contractor	Contractor	Contractor
Waste management & recycling	BCI	BCI	Contractor
<b>Corporate</b>			
Sales & marketing	-	-	BCI
Corporate services	-	-	BCI

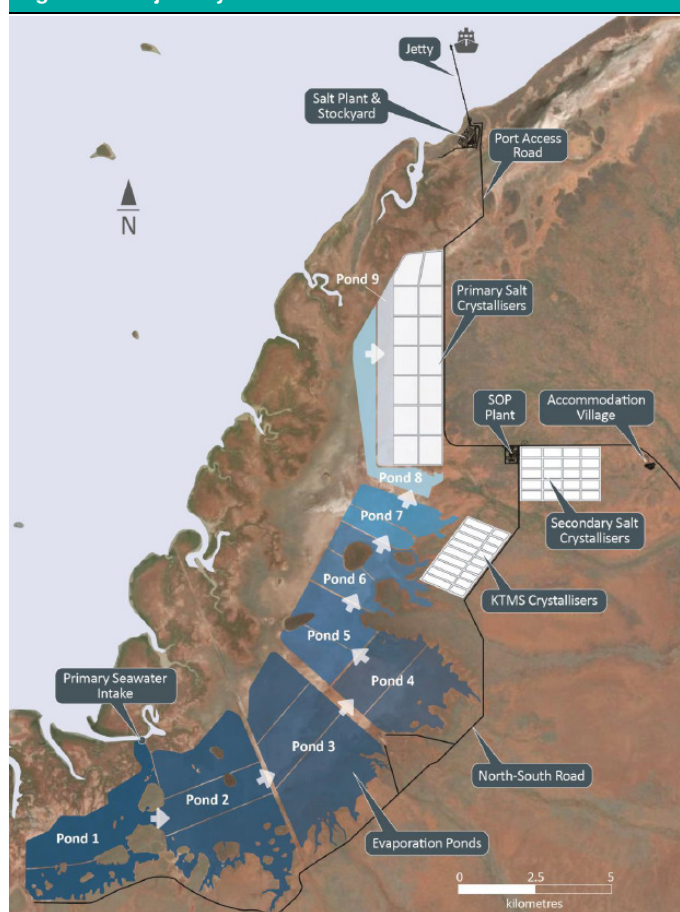
SOURCE: BCI ASX RELEASE

Table 6 - June 2020 DFS project capital costs

Area	A\$m
Salt	210
SOP	109
Port	197
Supporting infrastructure	51
Services	9
Other	5
<b>Direct capital cost</b>	<b>580</b>
Indirects (EPCM & construction facilities)	91
Owner's costs	25
Contingency & growth allowance	83
<b>Total capital cost</b>	<b>779</b>

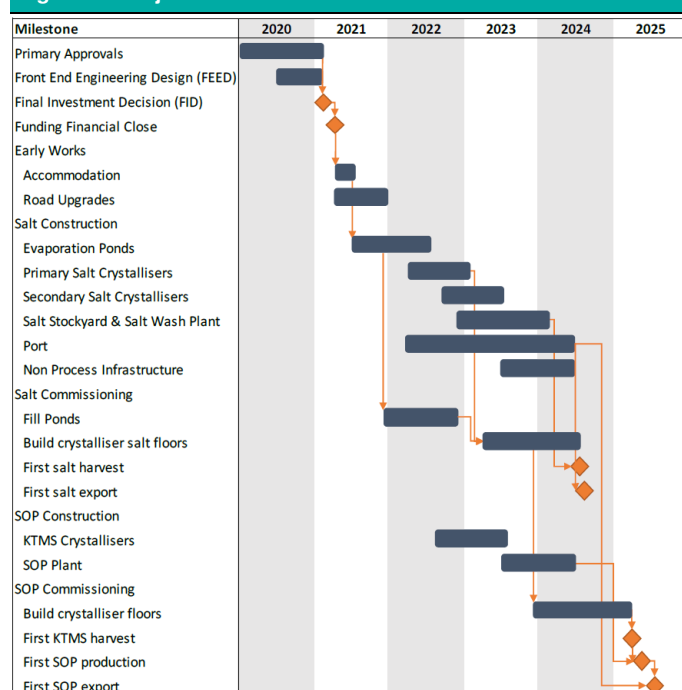
SOURCE: BCI ASX RELEASE

Figure 6 - Project layout



SOURCE: BCI ASX RELEASE

Figure 7 - Project schedule



SOURCE: BCI ASX RELEASE

## Operating costs

The July 2020 DFS points to AISC per unit of production of A\$20.3/t FOB for salt and A\$310/t FOB for SOP. These unit costs compare with the DFS long term price assumptions of US\$34/t FOB (US\$45/t CIF) for salt and US\$583/t FOB for SOP.

BCI has assessed that these operating costs put the Mardie Project in the second quartile of the cost curve for salt production. If the SOP revenue is included as a by-product revenue, the Mardie Project becomes one of the lowest cost producers supplying the Asian contestable market.

The Mardie Project DFS operating cost estimates assume that contractors are responsible for:

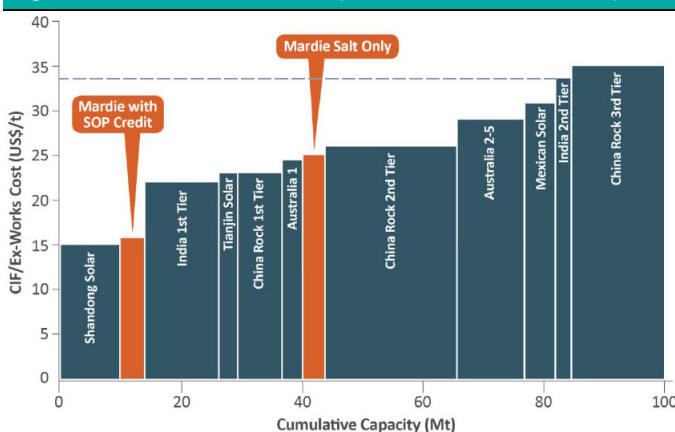
- Salt and SOP haulage;
- Accommodation village management;
- Electricity generation;
- Transshipping of product from the port head to offshore berths; and
- Provision of other mobile equipment.

**Table 7 - Mardie project salt unit cost breakdown**

	A\$m pa	A\$/t salt	US\$/A\$	US\$/t salt
US\$/A\$			0.68	
Evaporation ponds	4.6	1.1		0.7
Salt crystallisers	17.3	3.9		2.7
Salt wash plant	15.7	3.6		2.4
General & administration	11.1	2.5		1.7
Salt sustaining capital	4.4	1.0		0.7
<b>Salt cash cost (ex-works)</b>	<b>53.1</b>	<b>12.1</b>		<b>8.2</b>
Salt port handling & transshipping	29.4	6.7		4.5
<b>Salt cash cost (FOB)</b>	<b>82.4</b>	<b>18.7</b>		<b>12.7</b>
Marketing & royalties	5.0	1.1		0.8
Corporate & overheads	1.7	0.4		0.3
<b>Salt AISC (FOB)</b>	<b>89.2</b>	<b>20.3</b>		<b>13.8</b>
Ocean freight assumption		16.2		11.0
<b>Salt AISC (CIF)</b>		<b>36.5</b>		<b>24.8</b>

SOURCE: BCI ASX RELEASE & BELL POTTER SECURITIES ESTIMATE

**Figure 8 – Asian salt cost curve (Mardie contestable market)**



SOURCE: Roskill, SMM, BCI Analysis

SOURCE: BCI ASX RELEASE

## Project schedule

### Tenure and approvals

The Mardie Project requires approximately 180km<sup>2</sup> of tenure granted through a combination of Mining Leases, General Purpose Leases, licences and Port Leases.

Over the last three years, BCI has been working with the Western Australia Environmental Protection Authority (EPA) and other relevant departments with respect to its Environmental Review Document. This document has been accepted by the EPA and was released for public comment in June 2020. The closing date for public submissions is 7 September 2020.

BCI will provide ongoing supplemental information during the public review period and the subsequent EPA and Federal Department of Agriculture, Water and Environment (DAWE) assessment. This assessment is expected to be completed by late 2020. Ministerial approval is then possible in early 2021.

### Native title and heritage

Land access deeds and compensation arrangements for the Mardie Project are in place with Traditional Owner Groups. The Mardie Project is located on land of cultural significance to the Yaburara Mardudhunera People and the Kuruma Marthudhunera People. BCI is finalising its Indigenous Engagement Strategy which includes management of Native Title agreements, heritage management, relationship and ongoing structures for engagement, potential Aboriginal employment and procurement management.

## Value opportunities through optimisation & expansion

In parallel with project permitting and financing, BCI are exploring two key value enhancing optimisation opportunities. These two will be examined over the next 6-12 months.

The opportunities stem from BCI's May 2020 acquisition of a further 112km<sup>2</sup> in tenements adjacent and to the north of the Mardie Project tenements. The tenements provide significant additional coastal mudflats suitable for evaporation ponds and crystallisers.

The additional tenements provide the scope for:

- 1. Optimisation of the project layout to incrementally increase salt and SOP production volumes by around 7-8% to 4.7Mtpa and 130ktpa, respectively**

The July 2020 DFS points to the opportunity to redesign the pondage system and relocate crystallisers, thereby increasing raw salt and SOP production capacity. Additional washing and SOP processing capacity would also be required.

- 2. Expansion of the project through the development of 4-5 additional evaporation ponds, additional crystalliser area and a second seawater intake, lifting production by over a third on the project base case to 6Mtpa salt and 160ktpa SOP.**

This expansion may also require additional supporting infrastructure including a second transshipment vessel and accommodation capacity.

# Salt market summary

## Pricing & outlook

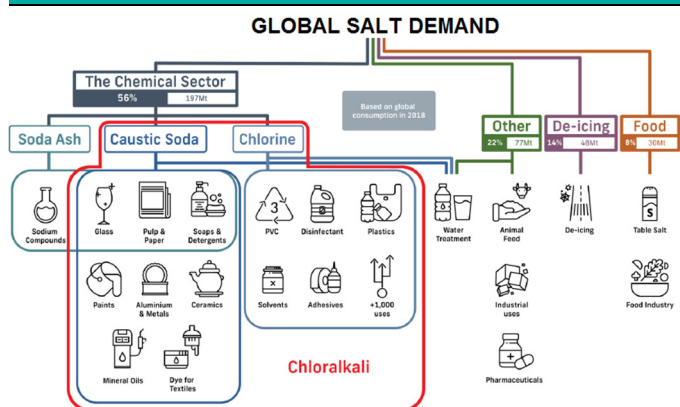
BCI's Mardie Project DFS assumes a life of mine average salt price of US\$34/t FOB (US\$45/t CIF). These prices are consistent with Roskill's April 2020 salt price forecast, adjusted for ocean freight and other product discounts and premiums. Ocean freight (Western Australia to Asia) costs are Braemar estimates (June 2020) of around US\$11/t.

The price of salt delivered into Asia over the last 10 years has ranged US\$33-62/t CIF and averaged US\$44/t CIF (BCI Mardie DFS). At the US\$11/t ocean freight assumption, the 10-year average is US\$33/t FOB.

## Demand: Manufacturing & chemical sectors drives usage

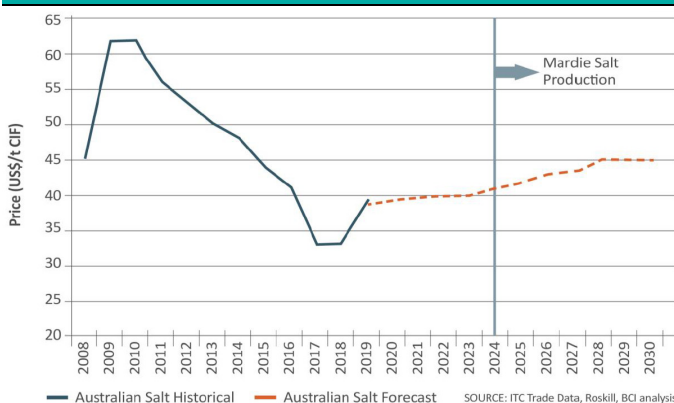
Over 50% of global salt demand is driven by the manufacturing chemicals sector. Salt is a key input into the Chloralkali production of caustic soda and chlorine. These two chemicals are widely used in the production of many industrial and household products and chemicals. Salt is also used in water treatment, animal foods, for de-icing roads and, obviously, in the food industry.

Figure 9 - Sources of salt demand



SOURCE: BCI

Figure 10 - Australian salt price into Asia US\$/t CIF



SOURCE: BCI MARDIE DFS

Independent research and consulting group Roskill estimate that:

- In 2019, the global salt market grew to a record high of 330Mt, up from 325Mt in 2018. This growth was stimulated by higher consumption in the de-icing market during a cold North American winter.
- The Asia region is the largest global consumer of salt, accounting for over 160Mt demand (2019).
- Chloralkali production is the largest single demand sector, accounting for around 36% of demand.

Looking forward, Roskill estimate that:

- Global production of chlorine is forecast to rise from 72.9Mt in 2018 to 98Mt in 2028 or at an average annual rate of around 3%.
- The majority of this production growth is expected from production in China.

- Between 2019 and 2028, Asian region salt demand will grow by around 54Mtpa, of which 38Mtpa will be from increased Chinese demand.
- Rising salt production and consumption is ultimately driven by rising populations and urbanisation.

## **Supply: Routes of production**

### **Solar evaporation is the principal route of global salt production**

There are three commercial methods of salt production:

- Solar evaporation (~40% global supply) – Salt water from oceans and lakes is evaporated, allowing salt levels to concentrate then crystallise for mechanical harvesting and processing.
- Solution mining (~35% global supply) – Water is pumped into underground rock salt deposits to dissolve the salt. The resulting brine is then pumped to the surface for salt crystallisation and recovery.
- Hard rock mining (~25% global supply) – Salt is recovered from underground deposits using common underground mining methods.

Solar evaporation has the advantage of typically being low cost and producing medium to high grade salt products. As a generalisation, solution mining is known to be higher cost; hard rock mining is known to produce lower quality salt products.

## **Supply: Asia-Pacific regional market**

In dollar per tonne terms, salt is a relatively low value bulk commodity. The 10 year average price of salt delivered into Asia of US\$44/t CIF compares with the average price of iron ore of US\$100/t CIF over the same period (Metal Bulletin).

The low value nature of the salt therefore results in relatively discrete regional markets compared with most higher-value commodities; salt's high freight cost as a proportion of total costs reduces the economic incentive to trade large quantities over vast distances.

### **Asia Pacific salt production and consumption**

China and India are the largest suppliers of salt into the Asia Pacific market, producing 93Mtpa and 31Mtpa, respectively. However, key exporters to the region are Australia and to a lesser extent, Mexico.

Australian salt production is currently dominated by Rio Tinto and Mitsui & Co. The following table outlines the ownership and capacities of the key Australian export operations in Western Australia. Rio Tinto and Mitsui & Co are also joint venture partners in the Robe River Joint Venture iron ore assets operated by Rio Tinto and also located in the Pilbara region of Western Australia.

The major Australian salt producing assets outlined below were mostly developed around five decades ago. These projects were mostly developed under State Agreements, which are ratified acts of parliament and are considered a sign of the state's support for the project<sup>1</sup>.

<sup>1</sup> <https://www.jtsi.wa.gov.au/what-we-do/manage-state-agreements/list-of-state-agreements>



**Table 8 - Existing Western Australia salt export operations**

	Year of first shipment	Capacity Mtpa
<b>Dampier Salt</b>		
<i>(RIO 68%, Marubeni Corp 22%, Sojitz 10%)</i>		
Dampier	1972	4.2
Port Hedland	1969	3.2
Lake Macleod	1969	2.9
Total Dampier Salt		10.3
<b>Shark Bay Salt</b>		
<i>(Mitsui &amp; Co Ltd 100%)</i>		
Shark Bay Salt	1967	1.3
Onslow	2001	2.7
Total Shark Bay Salt		4.0
<b>Total WA export solar salt capacity</b>		<b>14.3</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

**Figure 11 - Major Australian salt operations**

SOURCE: BCI

### Case study: Dampier Salt prices, costs & capital costs

Rio Tinto is the only public, large scale solar evaporation salt producer and publishes limited information on its interest in the Dampier Salt joint venture in its corporate filings. We have compiled recent annual data from Rio Tinto's 2019 annual report.

Key observations over the years 2017-19 are:

- Dampier Salt accounted for less than 0.5% of annual group Rio Tinto revenue, EBITDA and capital expenditure.



It is widely recognised that Rio Tinto's salt operations are not considered core to the mining major's operations. It is also likely that any expansion of these operations would require onerous amendments to the State Agreements under which they were developed with potential for less favourable terms. We also believe that Rio Tinto's salt operations are guarded for strategic purposes, given their port allocations at major Pilbara iron ore export facilities.

- Average realised prices received (Revenue divided by production tonnes) ranged US\$27-34/t. We expect that these prices reflect a mix of FOB and CIF sales contracts over that period.
- Average unit costs were US\$21-25/t, again relating to a mix of FOB and CIF cost reporting.

Table 9 - RIO consolidated & Dampier Salt financials				Table 10 - Dampier Salt			
	2017	2018	2019		2017	2018	2019
<b>Rio Tinto (group level)</b>				<b>Dampier Salt</b>			
Consolidated revenue US\$m	40,030	40,522	43,165	<u>Bell Potter Securities calculated</u>			
Consolidated EBITDA US\$m	14,474	18,200	11,767	<u>EBITDA margin %</u>			
Capital expenditure US\$m	4,482	5,430	5,488	RIO Consolidated	36%	45%	27%
				Dampier Salt	13%	23%	28%
<b>Dampier Salt</b>				<u>Per tonne metrics</u>			
Salt production '000 t	7,446	9,001	7,931	Revenue US\$/t	29	27	34
Revenue US\$m	215	246	271	Costs US\$/t	25	21	25
EBITDA US\$m	27	56	75	EBITDA US\$/t	4	6	9
Net earnings US\$m	3	18	27	Net earnings US\$/t	0	2	3
Capital expenditure US\$m	13	14	21	Capital expenditure US\$/t	2	2	3
Depreciation & amortisation US\$m	22	20	19	<u>As a % of RIO Consolidated</u>			
Operating assets US\$m	150	165	152	Revenue %	0.4%	0.4%	0.4%
				EBITDA %	0.1%	0.2%	0.4%
Employees no.	232	239	347	Capital expenditure %	0.2%	0.2%	0.3%
SOURCE: RIO 2019 ANNUAL REPORT				SOURCE: BCI MARDIE DFS			

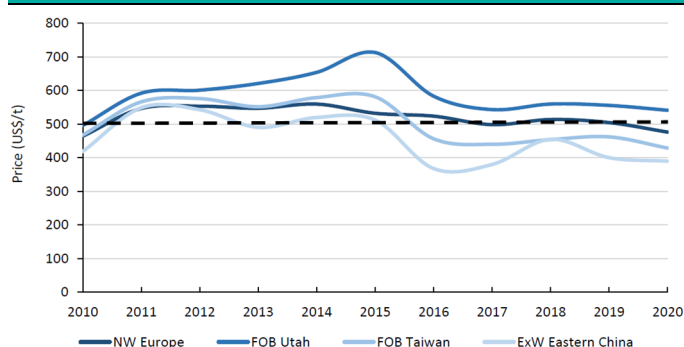
# SOP market summary

## Pricing & outlook

BCI's Mardie Project DFS assumes SOP prices of around US\$450/t (North West Europe) in 2025, increasing to around US\$550/t by 2040. The Mardie Project realised price is adjusted off this price to reflect quality premiums (Mardie SOP is expected to be 52% K<sub>2</sub>O, granular) and freight differentials.

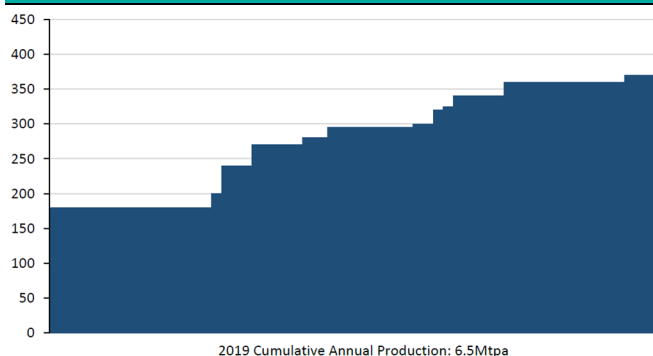
Over the last 10 years, the price of the North West Europe SOP price has ranged US\$417-630/t FOB and averaged US\$532/t FOB (BCI Mardie DFS).

Figure 12 - SOP prices 2010-2020



SOURCE: ADAPTED FROM AMN DFS ASX RELEASE 21 JULY 2020

Figure 13 - Global SOP cash cost curve US\$/t



SOURCE: ADAPTED FROM AMN DFS ASX RELEASE 21 JULY 2020

## Agrimin Ltd, ASX: AMN, no rating

ASX listed AMN provides pure-play leverage to SOP markets through developing the Lake Mackay SOP project in Western Australia. The company recently announced the results of a DFS with highlights including: SOP production of 450ktpa; a total cash cost of US\$159/t; an initial mine life of 40 years and a post-tax NPV<sub>8</sub> of US\$655m. Lake Mackay is a brine extraction and processing SOP project. AMN are aiming to commence construction in mid-2021 for first sales from 2024.

For further information see <https://agrimin.com.au/>

## Market size: SOP is ~10% of global potash market

The global market for potash fertiliser is around 70Mtpa, of which SOP accounts for around 10%. The international traded potash fertiliser market is around 50Mtpa. China and Russia's domestic potash production-consumption balance accounts for the smaller traded market.

Potash is the generic term for potassium salts used as fertilisers. Potassium is one of the three key macronutrients which plants require, and is known to improve the yield, nutrient value and disease resistance of food crops. The two other key macronutrients plants require are nitrogen and phosphorus.

### MOP and SOP?

The most common potash product is potassium chloride (KCl or MOP, "muriate of potash"). SOP (K<sub>2</sub>SO<sub>4</sub>) is a more specialised potassium fertiliser product than MOP.

The advantages of SOP (over MOP) are that it:

- Supplies a fourth macronutrient (sulphur).

- Improves a plant's ability to absorb essential nutrients like phosphorus and iron.
- Works better on crops that are sensitive to chloride (many fruits, vegetables and tree nuts). Application of MOP can create a toxic imbalance in soil nutrients (high chloride levels).

### **Supply: Seawater, brine or Mannheim**

The global ~6.5Mtpa of SOP supply is produced by:

- Primary production (~50% of supply): Direct extraction by evaporating and crystallising SOP from seawater and brines, or extraction from mineral ores.
- Secondary production (~50% supply): Reacting MOP (KCl) with sulphuric acid ( $\text{H}_2\text{SO}_4$ ) (Mannheim process) under high temperatures, producing hydrochloric acid as a by-product.

### **Primary SOP production is lower cost and less carbon intensive**

Primary production of SOP has distinct advantages over secondary production:

- Primary production is typically lower cost, owing to lower direct energy consumption and no MOP feedstock.
- Secondary production sulphuric acid inputs and hydrochloric acid by-products can be difficult to manage and dispose of.
- Secondary production is more carbon intensive owing to its higher direct energy usage.

### **There's seawater everywhere; why isn't SOP in over-supply?**

- The extraction of SOP from seawater (evaporation and crystallisation), like salt, is highly energy intensive. However, certain locations, like the Pilbara in Western Australia, have environmental conditions which naturally provide this energy through sunlight and wind, assisted by a dry atmosphere.
- SOP production utilises the bitterns (the magnesium, calcium, and potassium salt solution left over after NaCl or table salt has precipitated) by-product from salt production. Therefore, much capital and time has had to be expended prior to SOP production.

### **Excess high-cost capacity raises the investment hurdles for new projects**

Like in the MOP market, there is excess SOP production capacity. It is estimated that global SOP production capacity is only around 60% utilised and is dominated by several large fertiliser companies. This higher cost supply is understood to set the market clearing price for SOP. The excess capacity also acts as a barrier to entry for new supply. New projects with marginal economic outcomes are unlikely to be developed with the threat of potential market oversupply. Only the few projects positioned low on the cost curve are likely to be able to manage the risks should incumbents ramp-up production.

### **Demand: Population growth driven**

Potash fertiliser demand is principally driven by the need to increase crop yields to support growing populations. SOP demand is further driven by the recognition of its superior performance over MOP in higher value, chloride intolerant crops. This higher value-in-use is expected to see increasing substitution of SOP where MOP would otherwise have been applied.

**India, Indonesia, Malaysia and Brazil to play a key role in SOP demand growth**

Commodity market analysts CRU Group have recently commented that "India, Indonesia, Malaysia and Brazil account for around one third of global MOP demand but just 2% of SOP demand" (Source: AMN presentation 21 July 2020).

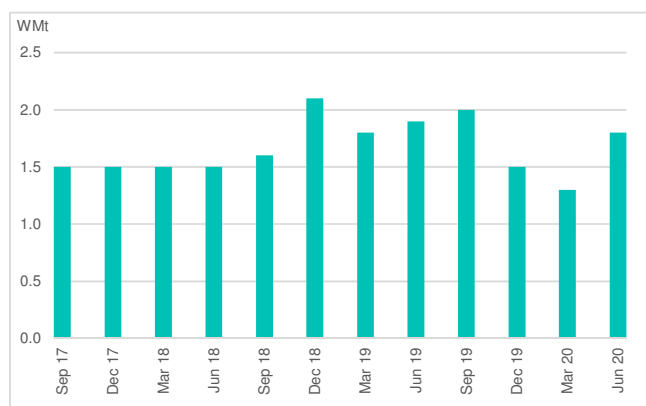
# Iron Valley iron ore arrangements

## Iron ore royalty-like arrangement with MIN

BCI receives quarterly payments from MIN under the terms of a 2014 purchase agreement for the sale of iron ore from its Iron Valley tenements. Under the purchase agreement, MIN operates the mine at cost and will purchase the iron ore product from BCI at the mine gate at a provisional price linked to MIN's realised iron ore sale price. BCI is responsible for paying third party royalties including Western Australia Government royalties, Native Title royalties and a private royalty.

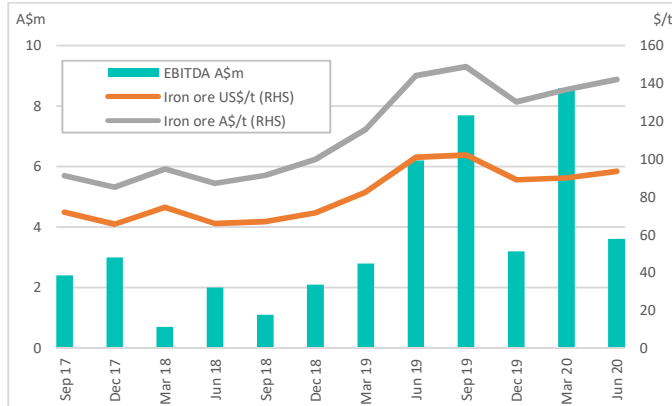
Iron Valley has produced and shipped close to 34Mt since operations commenced, and has generated BCI more than \$75m in EBITDA. Until FY20, annual EBITDA from the Iron Valley arrangement has ranged \$6-18m. In FY20, Iron Valley contributed \$23.1m EBITDA from 6.7Mt of iron ore shipped.

Figure 14 - Iron ore shipments (M wmt)



SOURCE: BCI

Figure 15 - Iron Valley EBITDA (A\$m)



SOURCE: BCI

## Mine summary: Simple DSO operation

Iron Valley is a simple direct shipping ore (DSO) operation in the Central Pilbara, which is operated by MIN, and produces both lump and fines iron ore products. Iron Valley's Mineral Resource is 189.9Mt at 58.0% Fe with Reserves of 89.0Mt at 58.3% Fe (30 June 2019), giving it a potential mine life greater than 10 years at the current 6-8Mt annual production rate.

In February 2013, Iron Ore Holdings (later acquired by BCI) entered into the purchase agreement with MIN, which outlined conditions whereby:

- MIN would contribute all capital costs to develop the mine on BCI's behalf;
- MIN would contribute all operating costs and use its mining, processing and logistic infrastructure to operate the mine; and
- MIN would purchase minimum annual volumes of iron ore product from BCI at the mine gate.

BCI retains ownership of the Iron Valley tenements and therefore is responsible for securing mining approvals, paying third party royalties and any environmental remediation liabilities.

## Iron Valley optimisation announced in March 2020

On 31 March 2020, BCI amended its purchase agreement with MIN to support the significant capital investment (planned by MIN in November 2019) to improve the longevity of the mine. The proposed capital investment will support MIN in preparing and developing additional areas of the existing Reserve which include waste stripping and infrastructure upgrades.

As part of the new agreement, BCI will rebate 40% of its net royalties to MIN until a total of \$25m has been rebated. The royalty rebate is subject to BCI receiving a minimum net royalty of \$1.5 million per quarter, and in the event that MIN suspends operations, a minimum of \$1.5 million net royalty will continue to be paid for the subsequent two quarters.

**Table 11 - Iron Valley Resource & Reserves as at 30 June 2019**

Resource	Mt	Fe %	CaFe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %
Measured - In-situ	81.8	57.8	62.7	5.2	3.2	0.19	7.9
Measured - Stockpile	4.6	56.4	59.9	8.1	3.7	0.14	5.9
Indicated - In-situ	77.4	58.5	63.0	5.1	3.2	0.17	7.2
Inferred - In-situ	26.1	57.8	61.3	6.6	3.9	0.14	5.6
<b>Total</b>	<b>189.9</b>	<b>58.0</b>	<b>62.5</b>	<b>5.5</b>	<b>3.3</b>	<b>0.17</b>	<b>7.2</b>
<b>Reserves</b>							
Proved - In-situ	52.3	58.3	63.2	4.7	3.1	0.19	7.8
Proved - Stockpiles	4.6	56.4	59.9	8.1	3.7	0.14	5.9
Probable - In-situ	32.2	58.6	63.2	5.0	3.1	0.16	7.2
<b>Total</b>	<b>89.0</b>	<b>58.3</b>	<b>63.0</b>	<b>5.0</b>	<b>3.1</b>	<b>0.18</b>	<b>7.5</b>

SOURCE: COMPANY ASX ANNOUNCEMENTS

## Other iron ore assets: Royalties & deferred payments

- Bungaroo South: Sold to MIN in March 2020 with deferred consideration of \$14m following certain project milestones, plus a 1% FOB revenue royalty on iron ore mined from Bungaroo South. At the time of sale to MIN, Bungaroo South had Ore Reserves of 134Mt at 57.6% Fe.
- Kumina: Sold to MIN in October 2018 for total cash consideration of \$35m. A final \$4m deferred payment is due 12 months after first export of product from Kumina.
- Nullagine Royalty: BCI sold its 75% interest in the Nullagine Project to Fortescue Metals Group (FMG) in October 2016. BCI retains a royalty on 75% of all future iron ore mined from Nullagine of 1-2% of FOB revenue for  $\geq 55\%$  Fe iron ore and \$0.50-1.00/t for  $< 55\%$  Fe iron ore, adjusted for 15% yield loss. A 50% reduction in the royalty rate will apply to all iron ore mined above 15Mt and a 75% reduction will apply to all iron ore mined above 25Mt. At the time of sale to Fortescue, the Nullagine Project had Ore Reserves of 21.6Mt.
- Koodaideri South Royalty: BCI is entitled to a royalty of 2% of FOB revenue on any ore mined from the Koodaideri South project area. This project area forms part of Rio Tinto's proposed Koodaideri mine in the central Pilbara. At the time of sale to Rio Tinto, Koodaideri South had a Mineral Resource of 106Mt at 58.6% Fe. Rio Tinto is currently undertaking a feasibility study on the larger Koodaideri mine, with the potential for first production early this decade.
- Extension Royalty: BCI is entitled to a \$1.75m cash payment 90 days after production commences and a royalty of 1.25% to 2.50% of FOB revenue on all iron ore produced. At the time of sale Extension had a Mineral Resource of 15.6Mt at 54.0% Fe.

# Capital structure & significant holders

## Capital structure

**Table 12 - Capital structure**

Issued shares m	399
Share price \$	0.215
Market cap \$m	86
Net debt \$m	(42)
EV (undiluted) \$m	44
Options / rights m	12
Issued shares (diluted) m	411
Market cap (diluted) m	88
Net debt \$m	(42)
EV (diluted) \$m	46

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## Major shareholders

**Table 13 - Substantial shareholders**

Substantial shareholders	Shareholding	% held
Australian Capital Equity	116	29%
Sandon Capital	23	6%
Other	260	65%
<b>Total</b>	<b>399</b>	

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES



# Board of directors & management

**Table 14 - Board of Directors**

Name	Position	Appointed to Position
Mr Brian Francis O'Donnell	Non-Executive Chairman	October 2014
Mr Alwyn Vorster	Managing Director	September 2016
Mr Michael Blakiston	Non-Executive Director	March 2017
Ms Jennifer Bloom	Non-Executive Director	March 2017
Mr Garret Dixon	Non-Executive Director	June 2020

SOURCE: COMPANY ANNUAL REPORTS

## Board of Directors & executive team

### Mr Brian Francis O'Donnell – Non-Executive Chairman

In addition to being Chairman of BCI, Mr O'Donnell is Director, Finance and Investments for the Australian Capital Equity Pty Limited (ACE) group, which includes BCI's largest shareholder, Wroxby Pty Ltd. He is a director of various ACE group companies, including companies active in the property, agricultural, financial services and investment sectors.

Mr O'Donnell is also a non-executive director of Bravo Holdings Pty Ltd (the holding company for Hive and Wellness Australia Pty Ltd - formerly Capilano Honey Limited), the West Australian Football Commission and The Guide Dog Foundation Pty Ltd (WA). He is a former director of Capilano Honey Limited, Iron Ore Holdings Limited, Coates Group Holdings Pty Ltd, WesTrac Pty Ltd, Landis & Gyr AG, Fremantle Football Club Ltd and YMCA of Perth Inc. He is a Fellow of the Institute of Chartered Accountants and has 34 years' experience in the finance and investment industry.

### Mr Alwyn Vorster – Managing Director

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

Recent roles include Group Executive Mining at Australian Capital Equity Pty Limited (ACE), Chief Executive Officer of API Management and Managing Director of Iron Ore Holdings Ltd. Mr Vorster was a non-executive director of Volt Resources Limited until 30 June 2019.

### 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. He 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.

Mr Blakiston 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.

**Ms Jennifer Bloom – Non-Executive Director**

Ms Bloom has an extensive business background with experience in the public and private sectors in Western Australia and Victoria. She was most recently the Deputy Chair and Member of the Waste Authority Western Australia for 8 years and was a member of the Program and Risk Committee. She is a non-executive director of Breaking the Silence Inc and is a director of various private businesses. Ms Bloom previously held an elected position as a Councillor and Deputy Shire President for the Shire of Broome and was an independent director of a Broome-based Aboriginal Corporation.

**Mr Garret Dixon – Non-Executive Director**

Garret is an experienced senior executive with extensive experience in the resources, transport, and contracting sectors in Australia and overseas. His work in both private and ASX listed companies spans more than three decades, having worked in senior executive roles for major mine owners, mine operators and contractors.

Garret's career includes various roles with civil construction and contract mining group Henry Walker Eltin Ltd, Managing Director of logistics company Mitchell Corporation, Managing Director of ASX listed Gindalbie Metals Ltd. Most recently, Garret held the position of Executive VP Alcoa & President Bauxite of Alcoa Corporation where he was responsible for the global bauxite mining business. Garret has B.Eng. (Hons) and MBA degrees, and is a member of the AICD.

SOURCE: COMPANY WEBSITE AND ANNUAL REPORT

# BCI Minerals Ltd (BCI)

## Company description

BCI's key assets are the Mardie Salt and SOP project and a portfolio of iron ore tenements. A DFS on Mardie was published in July 2020 outlining a project capable of producing 4.4Mtpa salt and 120ktpa SOP and with a pre-tax NPV (7% discount rate) of \$1,197m. BCI's key iron ore asset is its Iron Valley Resource which is mined under agreement by Mineral Resources Ltd (MIN) and provides a royalty-like earnings stream. BCI also has a number of royalty agreements on other iron ore tenements at earlier stages of development.

## Investment thesis: Buy, Target Price \$0.47/sh

BCI combines an iron ore royalty-like business with a large scale greenfields salt and fertiliser project. BCI's current enterprise value is 3.4x its iron ore EBITDA alone. The Mardie Salt and SOP Project has the potential to add significant further value and is suited to ESG concerned debt and equity investors looking to diversify their resources portfolios. BCI's supportive share register will also mitigate some of the financing risks.

## Valuation methodology

Principal inputs into our valuation of BCI are discounted cash flow models of:

- Mardie Salt & SOP project, with parameters consistent with the July 2020 DFS, however, using more conservative discount rate and foreign exchange assumptions and a risk discount applied to account for project stage.
- Iron Valley agreement with MIN, operating at on average 7.6Mtpa and generating annual EBITDA of around \$13m until 2030 assuming a long term iron ore price of US\$75/t (real).
- Other assets assessed on the basis of the royalty agreement, the in-ground value of the iron ore and a discount to account for risks associated with timing and development.
- Corporate costs and tax assets.

# Investment risks

Risks include, but are not limited to:

- **Commodity price and exchange rate fluctuations.** The future earnings and valuations of exploration, development and operating resources companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates.
- **Infrastructure access.** Bulk commodity producers are particularly reliant upon access to transport infrastructure. Access to infrastructure is often subject to contractual agreements, permits, and capacity allocations. Agreements are typically long-term in nature (+10 years). Infrastructure can be subject to outages as a result of weather events or the actions of third party providers.
- **Operating and capital cost fluctuations.** Markets for exploration, development and mining inputs can fluctuate widely and cause significant differences between planned and actual operating and capital costs. Key operating costs are linked to energy and labour markets.
- **Resource growth and mine life extensions.** Future earnings forecasts and valuations may rely upon resource and reserve growth to extend mine lives.
- **Sovereign risks.** Mining companies' assets can be located in countries other than Australia and are subject to the sovereign risks of that country.
- **Regulatory changes risks.** Changes to the regulation of infrastructure and taxation (among other things) can impact the earnings and valuation of mining companies.
- **Environmental risks.** Resources companies are exposed to risks associated with environmental degradation as a result of their exploration and mining processes. Fossil fuel producers (coal) may be particularly exposed to the environmental risks of end markets including the electricity generation and steel production industries.
- **Operating and development risks.** Resources companies' assets are subject to risks associated with their operation and development. Risks for each company can be heightened depending on method of operation (e.g. underground versus open pit mining) or whether it is a single operation company. Development assets can be subject to approvals timelines or weather events, causing delays to commissioning and commercial production.
- **Occupational health and safety risks.** Resources companies are particularly exposed to OH&S risks given the physical nature and human resource intensity of operating assets.
- **Funding and capital management risks.** Funding and capital management risks can include access to debt and equity finance, maintaining covenants on debt finance, managing dividend payments, and managing debt repayments.
- **Merger/acquisition risks.** Risks associated with value transferred during merger and acquisition activity.
- **COVID-19 risks:** Resources companies' rely on freedom of movement of workforces, functioning transport routes, reliable logistics services including road, rail, aviation and ports in order to maintain operations and get their products to market. They also rely on liquid, functioning markets to sell their products. Measures being put in place to combat the COVID-19 pandemic are posing risks to these conditions.

Table 15 - Financial summary

Date	11/08/20						Bell Potter Securities							
Price	A\$/sh	0.22						Stuart Howe (showe@bellpotter.com.au, +61 3 9235 1856)						
Target price	A\$/sh	0.47						Joseph House (jhouse@bellpotter.com.au, +61 3 9235 1624)						
PROFIT AND LOSS														
Year ending 30 June	Unit	2019a	2020a	2021e	2022e	2023e	Year ending 30 June	Unit	2019a	2020a	2021e	2022e	2023e	
Revenue	\$m	54	82	77	52	50	VALUATION							
Expenses	\$m	(59)	(75)	(62)	(44)	(42)	EPS	Ac/sh	3.3	1.4	3.4	1.1	0.4	
EBITDA	\$m	(5)	7	15	8	8	EPS growth (Acps)	%	0%	-57%	140%	-68%	-67%	
Depreciation & amortisation	\$m	(3)	(1)	(1)	(2)	(3)	PER	x	6.6x	15.3x	6.4x	19.7x	59.4x	
EBIT	\$m	(8)	5	13	6	5	DPS	Ac/sh	-	-	-	-	-	
Net interest expense	\$m	1	0	-	-	-	Franking	%	0%	0%	0%	0%	0%	
Profit before tax	\$m	(8)	6	13	6	5	Yield	%	0%	0%	0%	0%	0%	
Tax expense	\$m	2	-	-	-	-	FCF/share	Ac/sh	5.2	0.8	(4.7)	(23.2)	(24.0)	
NPAT (reported)	\$m	(6)	6	13	6	5	FCF yield	%	24%	4%	-22%	-108%	-112%	
NPAT (adjusted)	\$m	13	6	13	6	5	EV/EBITDA	x	-8.5x	6.7x	3.0x	5.2x	5.7x	
CASH FLOW STATEMENT														
Year ending 30 June	Unit	2019a	2020a	2021e	2022e	2023e	LIQUIDITY & LEVERAGE							
OPERATING CASH FLOW							Net debt / (cash)	\$m	(34)	(37)	(18)	65	189	
Receipts from customers	\$m	40	91	79	56	49	Net debt / Equity	%	-33%	-34%	-15%	37%	51%	
Payments to suppliers and employees	\$m	(48)	(80)	(64)	(48)	(42)	Net debt / Net debt + Equity	%	-48%	-51%	-17%	27%	34%	
Tax paid	\$m	2	-	-	-	-	Net debt / EBITDA	x	6.5x	-5.6x	-1.2x	7.8x	24.6x	
Net interest	\$m	1	0	-	-	-	EBITDA /net int expense	x	-8.2x	24.4x	0.0x	0.0x	0.0x	
Other	\$m	-	(0)	-	-	-	PROFITABILITY RATIOS							
Operating cash flow	\$m	(6)	11	15	8	8	EBITDA margin	%	-10%	8%	19%	16%	16%	
INVESTING CASH FLOW							EBIT margin	%	-15%	6%	18%	12%	10%	
Capex	\$m	(0)	(8)	(34)	(139)	(324)	Return on assets	%	-	4%	10%	3%	1%	
Disposal of assets	\$m	27	-	-	-	-	Return on equity	%	-	5%	12%	4%	2%	
Other	\$m	(0)	(0)	-	-	-	ASSUMPTIONS - Prices (nominal)							
Investing cash flow	\$m	27	(8)	(34)	(139)	(324)	Year ending 30 June	Unit	2019e	2020e	2021e	2022e	2023e	
FINANCING CASH FLOW							Iron ore price (62% CFR China)	US\$/t	80	94	89	74	74	
Debt proceeds/(repayments)	\$m	-	-	-	100	500	Salt price (CFR Asia)	US\$/t			38	39	40	
Dividends paid	\$m	-	-	-	-	-	SOP price (FOB Australia)	US\$/t			436	430	438	
Proceeds from share issues (net)	\$m	-	-	-	48	192	FX	US\$/A\$	0.72	0.67	0.68	0.71	0.73	
Other	\$m	-	(0)	-	-	-	ASSUMPTIONS - Sales (equity)							
Financing cash flow	\$m	-	(0)	-	148	692	Year ending 30 June	Unit	2019e	2020e	2021e	2022e	2023e	
Change in cash	\$m	13	34	37	18	35	Iron ore sales	Mt	7.4	7.2	7.2	7.6	7.6	
Free cash flow	\$m	21	3	(19)	(131)	(316)	Salt sales	Mt	-	-	-	-	-	
							SOP sales	kt	-	-	-	-	-	
BALANCE SHEET														
Year ending 30 June	Unit	2019a	2020a	2021e	2022e	2023e	SEGMENT EBITDA							
ASSETS							Year ending 30 June	Unit	2019a	2020a	2021e	2022e	2023e	
Cash	\$m	34	37	18	35	411	Iron Valley	\$m	10	24	20	13	13	
Receivables	\$m	22	13	11	7	8	Mardie Salt & SOP	\$m	-	-	-	-	-	
Inventories	\$m	-	-	-	-	-	Other	\$m	(15)	(18)	(5)	(5)	(5)	
Capital assets	\$m	42	50	82	220	540	Total	\$m	(5)	7	15	8	8	
Other assets	\$m	32	33	33	33	33	VALUATION							
Total assets	\$m	130	133	144	295	992	Shares on issue						399	
LIABILITIES							Shares and rights on issue						411	
Creditors	\$m	18	14	12	8	8	Valuation				A\$m	A\$/sh		
Borrowings	\$m	-	-	-	100	600	Mardie Salt & Potash project (unrisked)				\$179m			
Provisions	\$m	8	8	8	8	8	Risk discount to account for project stage				30%			
Other liabilities	\$m	0	1	1	1	1	Mardie Salt & Potash project (risked)					\$125m	0.30	
Total liabilities	\$m	27	23	22	118	618	Iron Valley agreement					\$52m	0.13	
NET ASSETS	\$m						Value of core projects (risked)					\$177m	0.43	
Share capital	\$m	267	267	267	315	507	Corporate & admin					-\$25m	(0.06)	
Reserves	\$m	5	5	5	5	5	Enterprise value (risked)					\$152m	0.37	
Accumulated losses	\$m	(169)	(163)	(150)	(144)	(139)	Net debt / (cash)					-\$42m	(0.10)	
Non-controlling interest	\$m	-	-	-	-	-	Equity value of core projects (risked)					\$194m	0.47	
SHAREHOLDER EQUITY	\$m	104	109	123	177	374	Other projects (risked)					\$33m	0.08	
Weighted average shares	m	397	398	399	566	1,316	Tax losses (present value)					\$36m	0.09	
							Equity value of all assets (risked)					\$263m	0.64	

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

**Sell:** Expect <-5% total return on a 12 month view

*Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.*

*Such investments may carry an exceptionally high level of capital risk and volatility of returns.*

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