

## Developing the Multi-Generational Mardie Salt & Potash Project

**Corporate Presentation** 

26 November 2020

ASX:BCI

www.bciminerals.com.au

### **The BCI Opportunity**







Shareholders	
Australian Capital Equity	39.6%
Sandon Capital	6.1%
Top 20 Shareholders	~68%
Number of Shareholders	~6,400

### Mardie Project: Why Salt and SOP?



### Strong growth in Mardie's target markets

#### SALT

- >10,000 products derived from salt (PVC, alumina, glass, paper, water purification)
- Asian market size of ~160Mtpa salt (annual value of US\$6.5B)



>50Mtpa additional demand
over next decade<sup>1</sup> (growing population,
requiring more industrial and
consumer products)

# GLOBAL DEMAND

**~1Mtpa additional demand over next decade**<sup>3</sup> – (growing population, changing dietary habits and declining arable land)

#### SOP<sup>2</sup>

- Premium fertiliser used on high value crops
- Global market size of ~7Mtpa (annual value of ~US\$3.5B)

### Australian Salt & SOP Landscape



### Mardie: ideal location to produce high-purity salt and SOP

- Pilbara has ideal climate to produce high purity salt
  - High temperature, high wind, low rainfall, low humidity
  - Proven salt production region since the 1960's
- Five large WA Solar Salt Operations (12-13Mtpa)
  - Controlled by Rio Tinto and Mitsui
  - No new large Australian salt project in 20 years
- No current SOP production in Australia
  - Other development projects all based on inland lake brines and >800km road transport to third party ports
- Mardie Salt and SOP Project
  - Only Australian project with commercial salt and SOP from seawater



#### Western Australia – Salt and SOP Projects

### **Significant Progress & Exciting Targets**



### Key milestones achieved in 2020 – preparing for construction in 2021



### **Feasibility Study Design**



### **DFS completed in June 2020 with positive results**

	<ul> <li>100km<sup>2</sup> clay soils – ideal to retain water</li> <li>High net evaporation rates (~10mm/day)</li> </ul>
PRODUCTION	<ul> <li>9 evaporation ponds</li> </ul>
	34 salt and 18 SOP crystallisers
	<ul> <li>Salt wash plant producing 4.4Mtpa salt</li> <li>&gt;99.5% NaCl</li> </ul>
	<ul> <li>SOP process plant producing 120ktpa SOP &gt;52% K<sub>2</sub>O (granular)</li> </ul>
PORT	<ul> <li>2.3km steel trestle jetty with conveyor</li> </ul>
	<ul> <li>Ship loader to transfer salt and SOP</li> </ul>
	<ul> <li>4.5km dredged channel</li> </ul>
SHIPPING	<ul> <li>10,000t transhipment vessel</li> </ul>
<b>T_===</b>	<ul> <li>Handymax, Panamax and Capesize vessels 28km offshore</li> </ul>



### Mardie Scale will be Globally Significant

### Top 3 scale global solar salt project<sup>1</sup>



### **Project footprint vs Sydney/Perth**

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### **Final Detailed Design Underway**



### **Multiple industry experts involved – low residual construction risk at FID**



1. MAIN SEAWATER PUMP STATION



2. SALT WASH PLANT



3. SOP PROCESS PLANT



4. PORT / TRANSHIPPER

### **Attractive Financials**



### DFS delivered strong financial metrics over a 60 year life<sup>1</sup>



<sup>1</sup>With upside based on an inexhaustible seawater resource <sup>2</sup>All-in sustaining opex <sup>3</sup>Roskill (July 2020) long term price forecast less Braemar (June 2020) long term freight forecast for 9 Mardie shipments to target customers <sup>4</sup>FX: 0.68 <sup>5</sup> Pre-tax, ungeared, real

### Salt Cost Curve<sup>1</sup> – Contestable Market<sup>2</sup>



### Mardie will be a low cost supplier of salt into Asia



- Mexican solar salt and Chinese rock salt the marginal cost suppliers to most Asian markets (~US\$33/t)
- Mardie will be cost competitive with all Australian salt operations
- When SOP margin treated as a by-product credit, Mardie becomes one of the lowest cost salt producers

### **Expansion/Optimisation Potential**

### Adjacent tenement acquisition allows optimisation and future expansion\*



#### **PROJECT OPTIMISATION (2020/21)**

- Reconfigure ponds 8 and 9, add a new Pond 10, relocate and expand Primary, Secondary and KTMS crystallisers and expand salt washing capacity.
- Increase production by 0.3Mtpa Salt and 10ktpa SOP
- Lower operation cost

#### **PROJECT EXPANSION (2025/26)**



- New ponds and crystallisers, expand SOP processing/capacity expand transshipping capacity
- Increase production to ~6Mtpa Salt and ~160ktpa SOP
- ~\$100-\$150m capex for significantly reduced OPEX

### **Early Works Commence December 2020**



### **Establish key infrastructure to accelerate Mardie development**

- 1. Major roads
- 2. Accommodation village
- 3. Trial pond earthworks
- 4. Support infrastructure
  - Communications
  - Fuel storage
  - Water bores
  - Initial power
- 5. Geotechnical drilling and surveys



#### MARDIE EARLY CONSTRUCTION WORKS

### Large Scale Trial Pond



### **Test wall designs and construction**

Trial Pond (March 2021 to June 2021) to test constructability of evaporation pond wall types:

- 1. Non-trafficable outer seawall
- 2. Non-trafficable pond separation wall
- 3. Non-trafficable pond dividing wall
- 4. Levee embankment





LARGE SCALE TRIAL POND

### Mardie Village (400 Person)





### **Strong Customer Support for Mardie**

### **MOUs covering a significant proportion of initial sales already in place**

- 13 Salt non-binding MOUs signed throughout Asia covering >100% of first 3 years' salt production
- 2 SOP non-binding MOUs signed covering approximately 65% of first 5 years' SOP production
- Aim to convert MOUs to binding offtake agreements during 2021
- Positive salt sample test results equivalent to other WA salt producers
- KTMS testwork to commence early 2021



SALT SAMPLES FOR CUSTOMER TESTWORK (~10t PILOTING JAN-MARCH 2021)



#### Mardie – Salt Target Specifications



### Salt and SOP Pilot Plants (Illustrative)





**1. SALT PILOT PLANT** 



3. SOP PILOT PLANT



2. MARDIE SALT PLANT



4. MARDIE SOP PLANT

### **Environmental Approvals**



- 3 years of surveys completed
- Project footprint moved inland
- No material sensitive impacts





#### MARDIE PROJECT

ENVIRONMENTAL REVIEW DOCUMENT MARDIE MINERALS PTY LTD

> 22 JUNE 2020 Assessment Number: 2167 ent Number: BCI-MAR-ERD-01\_Rev 0

PREPARED FOR MARDIE MINERALS PTY LTD BY PRESTON CONSULTING PTY LTD



- Public Environmental Review process completed
- EPA endorsement and Ministerial approval targeted by Q1 2021

### **Tenure Well Progressed**



#### Pastoral lands

 Pastoral access agreement signed which allows for full development of the Mardie Project

#### Gas pipeline easement

- Collaborative discussions with gas pipeline owners
- Mardie design will avoid construction and operating risk to pipeline easement area

#### 3)

#### Port lands

- Port land and marine areas approved by PPA
- Lease documents being negotiated with PPA



### Native Title and Heritage

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- Land access deeds in place with all native title groups<sup>1</sup>; compensation obligations confirmed
- Heritage surveys completed for project footprint
- Local engagement initiatives commenced; Aboriginal and Pilbara businesses to be prioritised







### **BCI Developing Regional Hub in Karratha**



# Office leased; Head of Communities appointed; Focus on local engagement and contracting



ANGELA GLOVER – HEAD OF CORPORATE RELATIONS AND COMMUNITIES



THE QUARTER - LOCATION OF BCI KARRATHA OFFICE

### Long Term Stakeholder and Public Benefits





### **Funding Strategy Advanced**



### Positive engagement from NAIF and Banks on potential debt financing

**Funding Requirement** Base case is a conventional funding \$780M Capital Cost model of debt (65%) and equity (35%) (Excluding Working Capital and Funding Costs) Target is to secure debt termsheets by early 2021 **BCI** Minerals **NAIF<sup>1</sup>**: Positive progress towards Equity Debt Limited potential long tenor facility 100% **Banks:** Positive progress with notable NAIF Australian and international banks Mardie Minerals Ptv Ltd Banks/ **Equity**: Corporate level investment is preferred; merits of project level Other investment will be considered. Strong support from existing shareholders in Mardie Salt & recent Entitlement Offer Cost **Potash Project** Overrun Facility

<sup>1</sup>Northern Australia Infrastructure Facility – an Australian Federal Government debt provider

### **Indicative Project Schedule**





### Why Invest in BCI?



### Developing a Tier 1 salt and SOP project supported by iron ore royalties





### Appendix

### **Iron Valley Mine**



### Strong royalty payments to BCI

- Quarterly royalty earnings from operating agreement with Mineral Resources Ltd
- ~7Mtpa production<sup>1</sup>; 82Mt Reserves<sup>2</sup>
- Potential mine life of ~10 years
- 50% lump ore; 59% Fe average
- Since first production in 2014:
  - BCI received revenue: \$290M
  - BCI received EBITDA: \$75M
- FY20: EBITDA: \$23M (a full year record)<sup>3</sup>



### Board



#### Brian O'Donnell NON-EXECUTIVE CHAIRMAN



- Banking and investment background
- Director, Finance and Investments -Australian Capital Equity (ACE)
- Numerous current and previous board positions on ASX-listed and private companies

#### Jennifer Bloom NON-EXECUTIVE DIRECTOR



- Governance, approvals and business background
- Senior positions in both the private and public sector
- Chair BCI Rem & Nom Cmte

#### Michael Blakiston NON-EXECUTIVE DIRECTOR



- Legal and mining business background
- Partner in Gilbert + Tobin's Energy + Resources group
- Chair BCI Audit & Risk Cmte and Chair BCI Equity Cmte

#### Alwyn Vorster MANAGING DIRECTOR



- Geology, Mining and MBA degrees
- Kumba; Rio Tinto; Iron Ore Holdings
- Geology; Mining; Marketing & Sales; Feasibilities; Corporate Development

#### Garret Dixon NON-EXECUTIVE DIRECTOR



- Civil engineering background
- Senior contracting roles (HWE; Mitchell Corp; Watpac - NED)
- Executive Vice Pres Alcoa Corp
- Chair of BCI Project Review Cmte

### **Executive Team / Key Personnel**



#### Alwyn Vorster MANAGING DIRECTOR



- Geology, Mining and MBA degrees
- ➢ Kumba; Rio Tinto; Iron Ore Holdings
- Geology; Mining; Marketing & Sales; Feasibilities; Corporate Development

### Sam Bennett PROJECT DIRECTOR



- Civil engineering degree
- Fortescue; Roy Hill
- Construction

#### Tony Chamberlain CHIEF OPERATING OFFICER



- Chemistry/Metallurgy degrees (PhD)
- ➢ WMC; BHP; Vimy
- Feasibility studies; Construction; Operations

#### Simon Hodge CHIEF FINANCIAL OFFICER



- ➢ Finance degree
- > JP Morgan: Povnton: Quickflix
- Corporate finance; Investment banking

#### Michael Klvac GENERAL MANAGER – SUSTAINABILITY

- Science and Economics degrees
  - Rio Tinto; BHP; Iron Ore Holdings
  - Environment; Native Title; Tenure and Stakeholder management

#### Stephanie Majteles GENERAL COUNSEL

- ➢ Law degree
- ➢ Freehills; Rio Tinto
- Tenure, Approvals; Project Development; Corporate

#### Colyn Louw HEAD OF PEOPLE AND SAFETY



- Commerce and MBA degrees
- ➢ BHP; Roy Hill; Gold Fields
- People, health & safety through studies, construction and operations



- Based in Karratha
- BBI Group, Atlas, Alcan Gove
- Developing productive relationships with local communities, authorities

#### MARDIE MARKETING TEAM:

#### **Matthew Gurr**

Previously Rio Tinto Korea Manager

#### Takashi Kawada

Previously Dampier Salt GM Marketing

#### Kevin Yu

Previously Cliffs China Country Manager

### **Mardie – Site Activity**





1. EXISTING CAMP (36 ROOM)



2. TRIAL POND



3. TEST PIT (FEED)



4. SALT SAMPLES (TRIAL POND)

# BCI MINERALS

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