Iluka - Addressing supply in the medium term
Iluka Resources Limited
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This document contains non-IFRS financial measures including cash production costs, non production costs, Mineral Sands EBITDA, Underlying Group EBITDA, EBIT, free cash flow, and net debt amongst others. Iluka management considers these to be key financial performance indicators of the business and they are defined and/or reconciled in Iluka’s annual results materials and/or Annual report. Non-IFRS measures have not been subject to audit or review.

All figures are expressed in Australian dollars unless stated otherwise.

Mineral Resources and Ore Reserves Estimates

As an Australian company with securities listed on the Australian Securities Exchange (ASX), Iluka is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act and the ASX. Investors should note that it is a requirement of the ASX listing rules that the reporting of ore reserves and mineral resources in Australia comply with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the “JORC Code”) and that the Ore Reserve and Mineral Resource estimates underpinning the production targets in this presentation have been prepared by a Competent Person in accordance with the JORC Code 2012.

Information that relates to Mineral Resources estimates has been previously announced to ASX on 24 July 2019 in Eneabba Mineral Sands Recovery Project Updated Mineral Resource Estimate, on 20 February 2017 in Updated Mineral Resource and Ore Reserve Statement, on 21 February 2019 in 2018 Annual Report and on 27 February 2018 in 2017 Annual Report, all available at www.iluka.com/investors/media/asx-disclosures. Iluka confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. Iluka confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

Production outlook

Production outlook and the basis thereof are noted within the relevant disclosure. The outlook included in this presentation is indicative only and should not be construed as guidance. The information is subject to changes in market and operating conditions; political risk; and any significant unplanned operational issues.
Zircon and High Grade Titanium Markets
Zircon Market Outlook

Short term demand softness …

- Business confidence affected by trade tensions and global economic uncertainty
- Destocking of zircon in downstream supply chain

… solid long term fundamentals

- Urbanisation and growing middle class in Africa and Asia over next ten years
- Caution on quantum of demand growth
- Zircon will sell based on value in use with new technical specifications
- Declining supply from existing producers
- Iluka has project pipeline to maintain supply

1. Illustrative demand CAGRs (2019-23) are indicative only and not Iluka forecasts. 2019 demand forecast of 1.2mt is from TZMI (August 2019). Demand is underlying (net of inventories). Iluka (sand) production forecast is sourced from TZMI and does not represent Iluka’s production forecast. In addition to zircon sand, Iluka also produces ZIC which is processed elsewhere and included in ‘Other operations’.

Source: TZMI August 2019
Pigment Market Outlook

Recent Global Pigment Price Cycles Analysis

- Demand recovery + capacity utilization increase + inventory decline = Price increase
- Restocking + flattening demand + higher Chinese utilization rates = Price levelling
- Destocking + flattening demand + feedstock price increase + Chemours contracts = Price /Volume/ Margin Reduction

Iluka’s Pigment Demand Model

- Uses a range of economic indicators
- Forecasts 12 month outlook
- Indicates pigment demand upturn by mid 2020
- Consistent with industry forecasts

Long Term Pigment Demand Linked to Industrial Production

- Industry consultant TiPMC shows link of pigment demand to industrial production, with some volatility of stocking and destocking cycles.

Source: TiPMC and Robert Fry Economics

% chg qoq
1Q16 3Q16 1Q17 3Q17 1Q18 3Q18 1Q19

-5 0 5 10

2000 3000 4000 5000 6000 7000 8000 9000

TiO2 Demand Model Forecast


000 Tonnes

Source: TiPMC and Robery Fry Economics
Positive dynamics in high grade titanium market

- Long term demand underpinned by pigment market growth and rising living standards
- Rutile and other very high grade feedstocks have unique properties and uses in niche markets as well as ability to increase pigment plant yield
- Increasingly important in reducing pigment plant waste footprint
- Declining supply from existing producers
- Iluka has project pipeline to maintain supply

Source: Iluka and TZMI
Implications for Industry

- Economic growth, urbanisation and technology advances support long term demand
- Supply tightness in zircon and high grade titanium market developing / already evident
  - recent mine closures, grade decline and short mine life of operations contribute to supply outlook
- Industry will require reinvestment to maintain supply to markets
- New projects under review (including Iluka’s) will likely have higher risk, higher capital or higher costs owing to:
  - distance to infrastructure and processing facilities
  - ore body characteristics
- Iluka has well developed pipeline of quality projects and track record of project delivery
## 2019 Projects Delivered

### Zircon / Rutile / Synthetic Rutile

- **Cataby, Western Australia**
  - $270m capex budgeted
  - Construction of new mine and infrastructure
  - Highway upgrade
  - Processing plant upgrades
  - Utilises existing processing and kiln assets

- **Gangama Expansion, Sierra Leone**
  - Doubling of capacity
  - Duplication of existing design
  - Delivered on schedule
  - Reached design rates end H1

- **Lanti Expansion, Sierra Leone**
  - Doubling of capacity
  - Second mining unit and doubling of concentrator capacity
  - Delivered on schedule
  - Reached design rates late Q3

- **Ambrosia Mine Move, South Australia**
  - ~$35m capex in 2019 budgeted
  - Commissioning complete – delivered ahead of schedule and under budget
  - Smooths zircon production

- **SR2 Kiln Major Maintenance Outage, Western Australia**
  - ~$35m capex budgeted
  - SR2 kiln reline
  - New rotary cooler shell and quench tower
  - Ramp up rate exceeded expectations

### Total 2019 Capital Expenditure of ~$215 million
# Pipeline of Growth Projects

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Details</th>
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<tbody>
<tr>
<td><strong>Atacama, South Australia</strong></td>
<td>Satellite deposit to existing J-A operation</td>
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<tr>
<td></td>
<td>Pre-feasibility study progressing</td>
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<td></td>
<td>Potential to add material zircon production</td>
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<tr>
<td><strong>Sembehun, Sierra Leone</strong></td>
<td>Expansion to new deposits</td>
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<tr>
<td></td>
<td>Development of next phase at SRL</td>
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<td></td>
<td>Re-scoping development options – focus on optimising risk/return</td>
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<tr>
<td><strong>Wimmera, Victoria</strong></td>
<td>Zircon and rare earth project</td>
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<tr>
<td></td>
<td>Pre-feasibility study progressing</td>
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<tr>
<td></td>
<td>Test pit completed product samples with customers</td>
</tr>
<tr>
<td><strong>SR1 restart, Western Australia</strong></td>
<td>Scoping study progressing</td>
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<td></td>
<td>Detailed execution planning underway and long lead time items ordered.</td>
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<tr>
<td></td>
<td>Potential for 110 - 120ktpa of synthetic rutile</td>
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<tr>
<td></td>
<td>Subject to appropriate commercial arrangements</td>
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<tr>
<td><strong>Eneabba Mineral Sands Recovery, Western Australia</strong></td>
<td>Monazite-rich stockpile from historic mining</td>
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<tr>
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<td>Offtake secured, execute phase</td>
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<td>Simple process proposed with low capital expenditure</td>
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<tr>
<td><strong>Balranald, New South Wales</strong></td>
<td>Rutile and zircon rich deposits</td>
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<td>Development of innovative underground mining method via directional drilling</td>
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<td></td>
<td>Pre-mobilisation activities underway to prepare for 3rd trial</td>
</tr>
<tr>
<td><strong>Other</strong></td>
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</tbody>
</table>

**Other**

- Development of new deposits
- Re-scoping development options – focus on optimising risk/return
- Detailed execution planning underway and long lead time items ordered.
- Potential for 110 - 120ktpa of synthetic rutile
- Subject to appropriate commercial arrangements

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Eucla Basin
Pipeline of Growth Projects

Historic Global Zircon and Rutile Supply

- 2019 Projects Producing
  - Cataby
  - Ambrosia
  - Gangama
  - Lanti
  - Eneabba
  - SR1 restart

2020-2022*
- Sembehun
- Atacama
- Balranald
- Wimmera

2022-2024*

2025+*
- Australian near-mine deposits
- Sierra Rutile exploration potential
- Cataby extensions

* Project timing and approval remains subject to Iluka Board approval

Source: Iluka and TZMI

Graph showing Zircon and Rutile supply outlook excluding new projects from 2013 to 2023.
Project Funding
Iluka has funded recent projects (including Cataby, Sierra Rutile expansions) and Sierra Rutile acquisition (Dec 2016) from cash flows and debt.

As at end September had modest net debt and gearing (net debt $89 million, 6.9% gearing ratio).

Retain significant funding headroom (total facilities ~$520 million).
Recently announced formal review has commenced to determine most appropriate corporate and capital structure of two principal businesses – Mineral Sands and Mining Area C Royalty

- A number of significant issues to be considered as part of the review and no certainty that it will result in change

Irrespective of outcome, mineral sands business remains strong

- $545 million underlying mineral sands EBITDA 2018
- Broad and valued customer base
- Quality assets producing high quality products
- Committed and experienced workforce
- Pipeline of exciting projects

Well placed to remain in market leading position within zircon and high grade titanium feedstock markets
Deliver Sustainable Value

Strong Market Fundamentals
Mineral sands demand linked to urbanisation, rising living standards, increasing array of applications

Quality Mineral Sands Assets
Australia and Sierra Leone operations
Product mix weighted to premium zircon and high grade titanium dioxide

Value Driven Marketing Model
Direct customer relationships
Price driven by value in use
Focussed on sustainable pricing

Project Pipeline
Sustaining and growth projects in Australia and Sierra Leone

Capital Discipline Framework
Strong balance sheet, disciplined capital allocation
Focus on shareholder returns via dividend framework

World-class Iron Ore Royalty
Royalty stream from BHP’s Mining Area C hub in Western Australia
Growth from BHP’s South Flank development
Ore trial at Ambrosia, South Australia