



6 December 2017

South32 Limited
(Incorporated in Australia under the *Corporations Act 2001* (Cth))
(ACN 093 732 597)
ASX / LSE / JSE Share Code: S32 ADR:SOUHY
ISIN: AU000000S320
south32.net

WORSLEY ALUMINA REFINERY & BODDINGTON BAUXITE MINE SITE TOUR

South32 Limited (ASX, LSE, JSE: S32, ADR: SOUHY) (**South32**) will today host an equity analyst and investor site tour of its Worsley Alumina refinery and Boddington bauxite mine.

About South32

South32 is a globally diversified mining and metals company with high quality operations in Australia, Southern Africa and South America. Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. We have a simple strategy to maximise the potential of our assets and shareholder returns by optimising our existing operations, unlocking their potential and identifying new opportunities to compete for capital.

FURTHER INFORMATION

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Further information on South32 can be found at www.south32.net.

JSE Sponsor: UBS South Africa (Pty) Ltd

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WORSLEY ALUMINA REFINERY & BODDINGTON BAUXITE MINE

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THIS PRESENTATION SHOULD BE READ IN CONJUNCTION WITH THE “FINANCIAL RESULTS AND OUTLOOK – YEAR ENDED 30 JUNE 2017” ANNOUNCEMENT RELEASED ON 24 AUGUST 2017, WHICH IS AVAILABLE ON SOUTH32’S WEBSITE (WWW.SOUTH32.NET).

FINANCIAL INFORMATION

To assist shareholders in their understanding of the South32 Group, pro forma financial information for FY15 has been prepared to reflect the business as it is now structured and as though it was in effect for the period 1 July 2014 to 30 June 2015. The pro forma financial information is not prepared in accordance with IFRS.

FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements, including statements about trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; and provisions and contingent liabilities. These forward-looking statements reflect expectations at the date of this presentation, however they are not guarantees or predictions of future performance. They involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this presentation. Readers are cautioned not to put undue reliance on forward-looking statements. Except as required by applicable laws or regulations, the South32 Group does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance. The denotation (e) refers to an estimate or forecast year. FY18 year-to-date information is unaudited.

NON-IFRS FINANCIAL INFORMATION

This presentation includes certain non-IFRS financial measures, including Underlying earnings, Underlying EBIT and Underlying EBITDA, Basic Underlying earnings per share, Underlying effective tax rate, Underlying EBIT margin, Underlying EBITDA margin, Underlying return on invested capital, Free cash flow, net cash, net operating assets and ROIC. These measures are used internally by management to assess the performance of our business, make decisions on the allocation of our resources and assess operational management. Non-IFRS measures have not been subject to audit or review and should not be considered as an indication of or alternative to an IFRS measure of profitability, financial performance or liquidity.

NO OFFER OF SECURITIES

Nothing in this presentation should be read or understood as an offer or recommendation to buy or sell South32 securities, or be treated or relied upon as a recommendation or advice by South32.

RELIANCE ON THIRD PARTY INFORMATION

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NO FINANCIAL OR INVESTMENT ADVICE – SOUTH AFRICA

South32 does not provide any financial or investment 'advice' as that term is defined in the South African Financial Advisory and Intermediary Services Act, 37 of 2002, and we strongly recommend that you seek professional advice.

MINERAL RESOURCES AND ORE RESERVES

The information that relates to the Mineral Resource and Ore Reserve estimates of Worsley Alumina was declared as part of Capital Market Investor Day Presentation issued on 5 December 2017 (www.south32.net). South32 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement. All material assumptions and technical parameters underpinning the Mineral Resources and Ore Reserves continue to apply and have not materially changed. South32 confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

RESERVE AND RESOURCE STATEMENT



Mineral Resources⁽¹⁾

As at 1 December 2017

As at 30 June 2017

Deposit	Ore Type	Measured Mineral Resources			Indicated Mineral Resources			Inferred Mineral Resources			Total Mineral Resources			South32 Interest	Total Mineral Resources		
		Mt	% A. Al ₂ O ₃	% R. SiO ₂	Mt	% A. Al ₂ O ₃	% R. SiO ₂	Mt	% A. Al ₂ O ₃	% R. SiO ₂	Mt	% A. Al ₂ O ₃	% R. SiO ₂		Mt	% A. Al ₂ O ₃	% R. SiO ₂
Worsley ⁽²⁾⁽⁴⁾⁽⁵⁾	Laterite	371	28.2	1.5	411	29.2	2.1	402	28.8	2.2	1,180	28.7	1.9	86	1,120	28.6	2.0

Ore Reserves⁽¹⁾

As at 1 December 2017

As at 30 June 2017

Deposit	Ore Type	Proved Ore Reserves			Probable Ore Reserves			Total Ore Reserves			Reserve Life	South32 Interest	Total Ore Reserves			Reserve Life
		Mt	% A. Al ₂ O ₃	% R. SiO ₂	Mt	% A. Al ₂ O ₃	% R. SiO ₂	Mt	% A. Al ₂ O ₃	% R. SiO ₂			Mt	% A. Al ₂ O ₃	% R. SiO ₂	
Worsley ⁽²⁾⁽³⁾⁽⁴⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾	Laterite	279	27.3	1.8	5.9	27.8	2.0	285	27.3	1.8	16	86	291	27.3	1.8	16

(1) Mineral Resources information is inclusive of Mineral Resource that have been modified to produce Ore Reserves reported on 100% basis.

(2) All tonnage is reported on dry metric tonne basis.

(3) Commodity price and exchange rates used to estimate economic viability of Ore Reserves are based on long range forecasts.

(4) Cut-off grade

Mineral Resource: Variable ranging from 20-25% A.Al₂O₃, ≤ 3.5% R.SiO₂ and ≥ 1m thickness.

Ore Reserve: Variable ranging from 22.5-25% A.Al₂O₃, ≤ 3.5% R.SiO₂ and ≥ 1m thickness.

(5) Increase in Mineral Resources is due to additional drilling and updated West Murradong area resource model.

(6) Decrease in Ore Reserves is due to depletion.

(7) Ore delivered to process plant.

(8) Metallurgical recovery at Worsley refinery: 94.1%

Integrated mine and refinery

**Positioned in 1st quartile
of cost curve¹**

**Achieved production rates
at expanded capacity²
during FY17**

**Focussed on improving
safety performance**

**Supplies own smelters
and merchant market³**

Large bauxite resource

1.2Bt bauxite Resource

Alumina to reactive silica ratio 15:1

**Opportunities to further
improve industry position**

Energy supply flexibility

Caustic consumption

**Driving improvement in
ROIC following significant
historical investment**

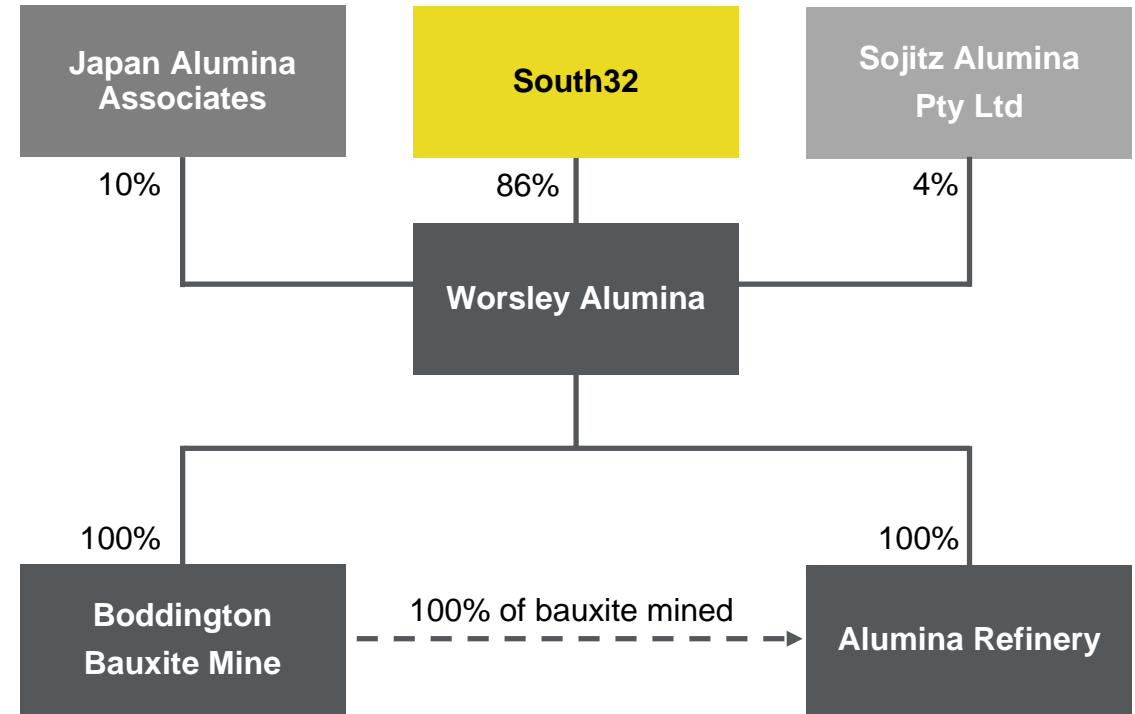
Notes:

1. Alumina cost curve sourced from CRU based on CY18 production and operating cash costs, overlaying with Worsley Alumina operating unit cost guidance for FY18.
2. Refinery expanded to 4.6Mtpa in 2012 following completion of US\$3.2B (South32 share) Efficiency & Growth project.
3. South32's share of production from Worsley Alumina to merchant market was 2.2Mt in FY17.

OWNERSHIP STRUCTURE



- Integrated bauxite mine and alumina refinery
- Capacity of 4.6Mtpa (100%) low impurity smelter grade alumina
- Large, low cost mine and refinery in the first quartile of industry cost curve¹
- Mining leases
 - Primary tenure granted in 1983 under a State Agreement²
 - Rolling 21 year terms with options until 2046
 - Number of smaller tenements granted under Mining Act over freehold land over 21 year terms
- Refinery land lease from the WA Government for same term as Mining Lease
- ~45% of attributable production sold to South32 smelters³ in FY17 on arms-length commercial terms

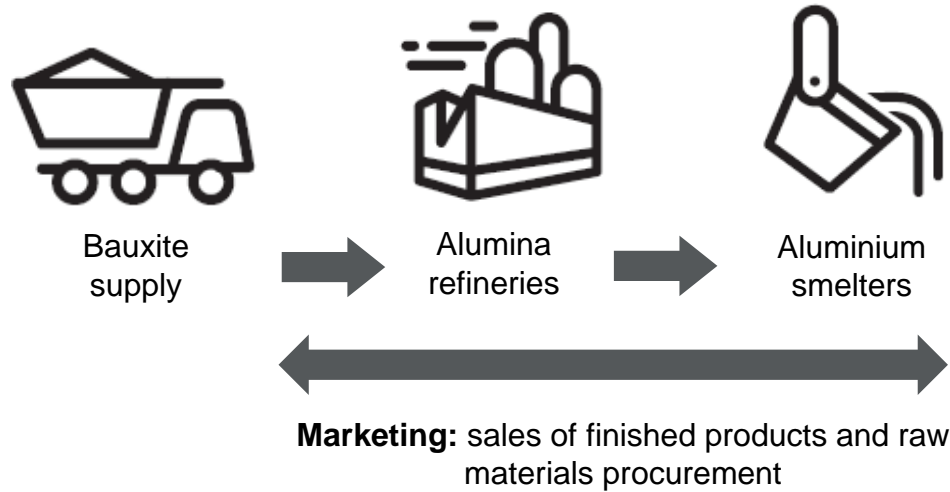


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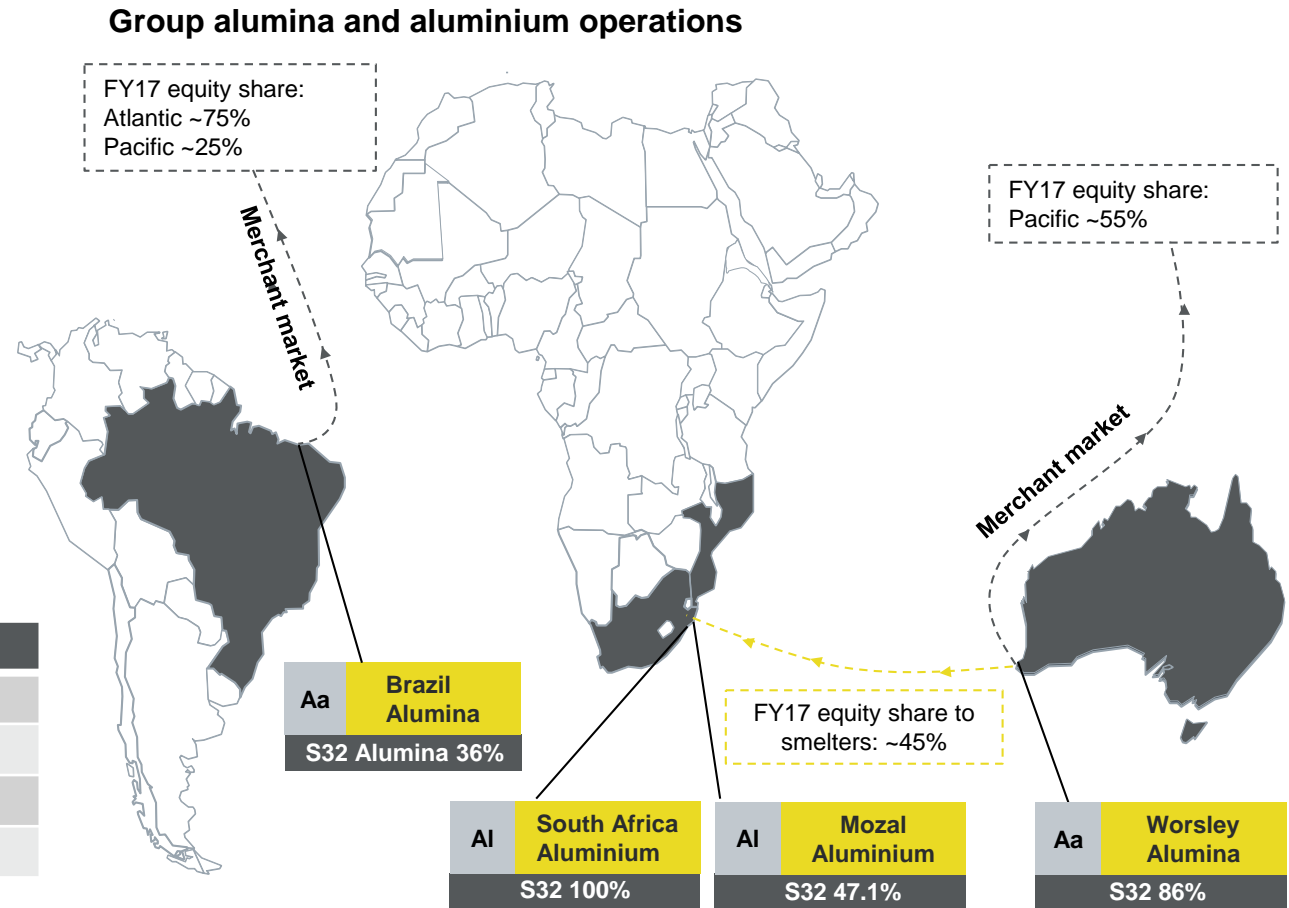
1. Alumina cost curve sourced from CRU based on CY18 production and operating cash costs, overlaying with Worsley Alumina operating unit cost guidance for FY18.
2. Special Act Lease M258SA.
3. Mozal Aluminium (47.1% owned) and South Africa Aluminium (100% owned).

ALUMINIUM VALUE CHAIN

South32 Group net long alumina position was ~3.3Mt in FY17



Worsley Alumina (South32 share)	Alumina (kt)
FY17 South32 equity share of alumina sales	3,847
FY17 South32 equity share of alumina sales to own smelters	2,227
FY17 South32 alumina equity consumption at smelters ¹	1,646
FY17 net long position²	2,201

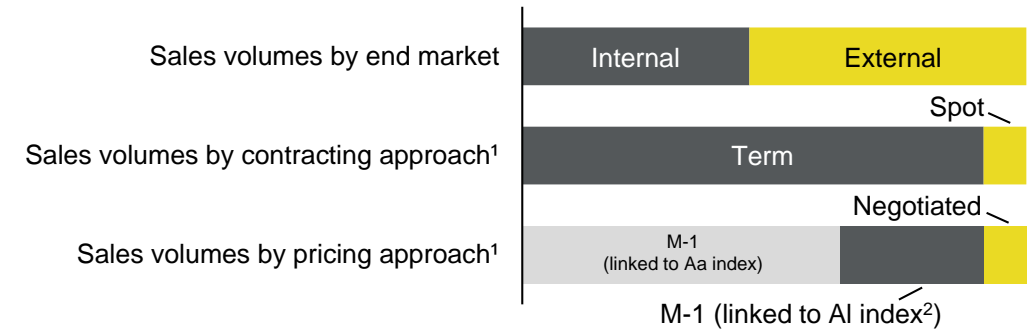


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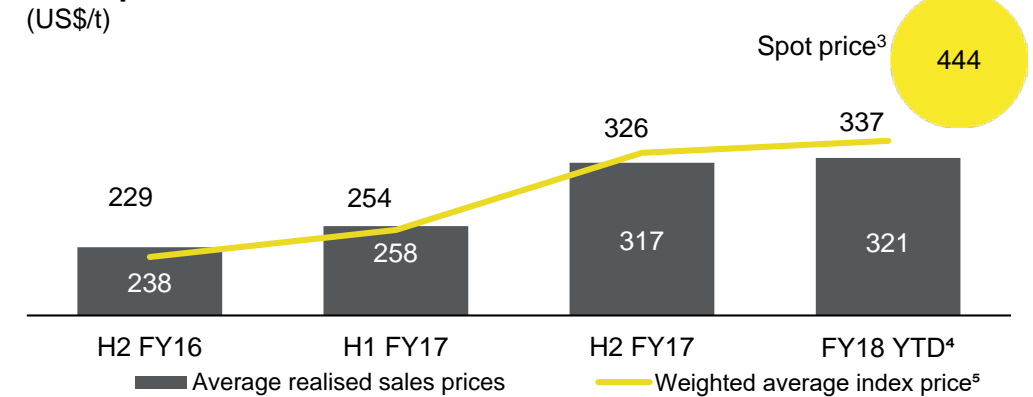
1. Represents South32 share, South Africa Aluminium at 100% and Mozal Aluminium at 47.1%.
2. FY17 net long position is FY17 South32 equity share of alumina sales less FY17 South32 alumina equity consumption at smelters.

Where we sell our products	<ul style="list-style-type: none"> Internal consumption (Hillside and Mozal smelters) Exports to Middle East and Asia
Product types	<ul style="list-style-type: none"> Smelter grade alumina that can attract a premium for its value in use characteristics
Contract strategy	<ul style="list-style-type: none"> Sell at market price ~85% sold on long term contracts of 1-3+ years realising an index price Some shipments sold on a spot basis each quarter to support overall liquidity in the market
Pricing and price exposure	<ul style="list-style-type: none"> Industry pricing has transitioned from LME aluminium linked pricing to alumina index pricing Other than legacy Mozal Aluminium contract at LME linked pricing, all alumina is sold on an index basis Negotiated prices for spot sales

FY17 Worsley Alumina sales



Average realised alumina sales price and weighted average index price



Notes:

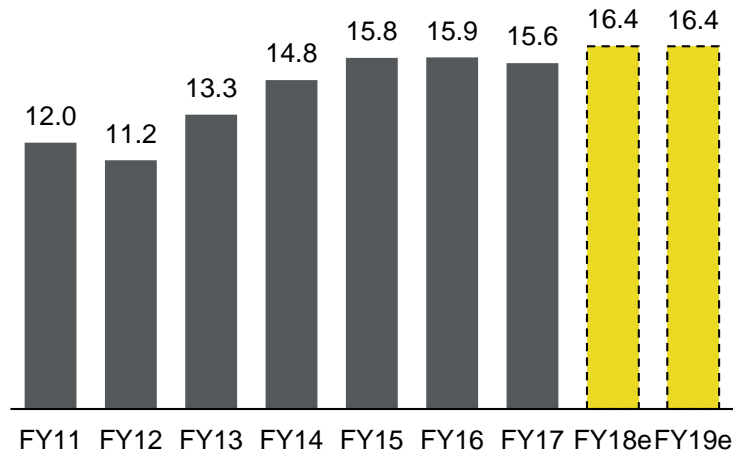
- Reflects percentage allocation of internal and external sales.
- Represents sales referenced to a legacy Mozal Aluminium contract.
- Spot price reflects price on 30 November 2017. Source: Platts Alumina Index (PAX) Free on Board (FOB) Australia.
- FY18 YTD average realised sales price reflects YTD October 2017 (1 July to 31 October 2017).
- Weighted average index price reflects South32 quarterly sales volume weighted average of Platts Alumina Index (PAX) FOB Australia on the basis of a one month lag (month minus one or "M-1") for each six month period.

OPERATING AND CAPITAL INVESTMENT HISTORY

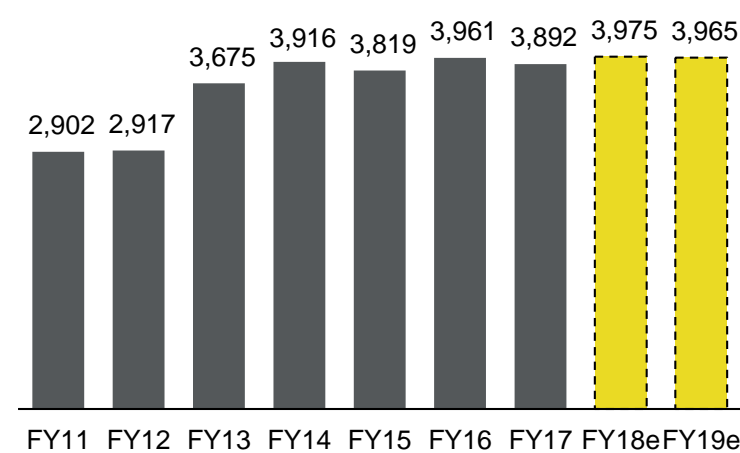


Refinery operated at expanded technical capacity in FY17 following US\$3.2B¹ investment between 2008 and 2012

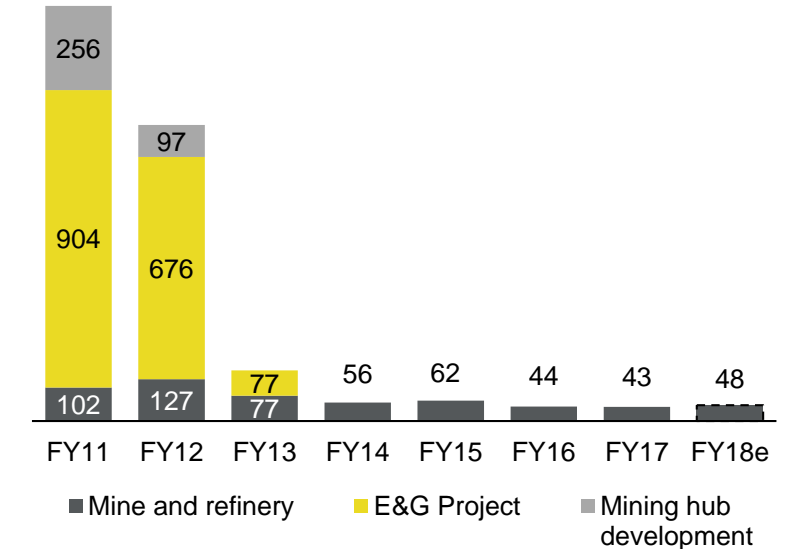
Bauxite mined¹
(Mwmt)



Alumina production¹
(kt)



Capital expenditure¹
(US\$M)



Notes:

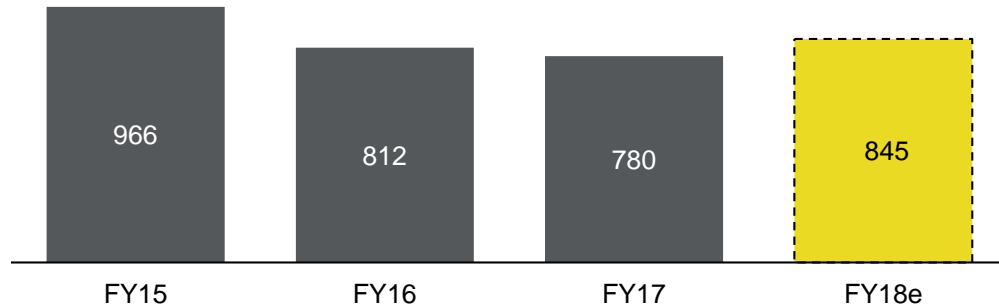
1. South32 share.

WORSLEY ALUMINA KEY METRICS

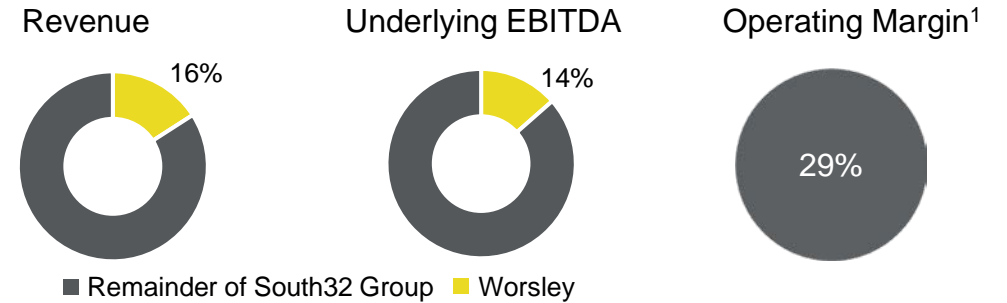


Cost base guidance

(US\$M, South32 share)

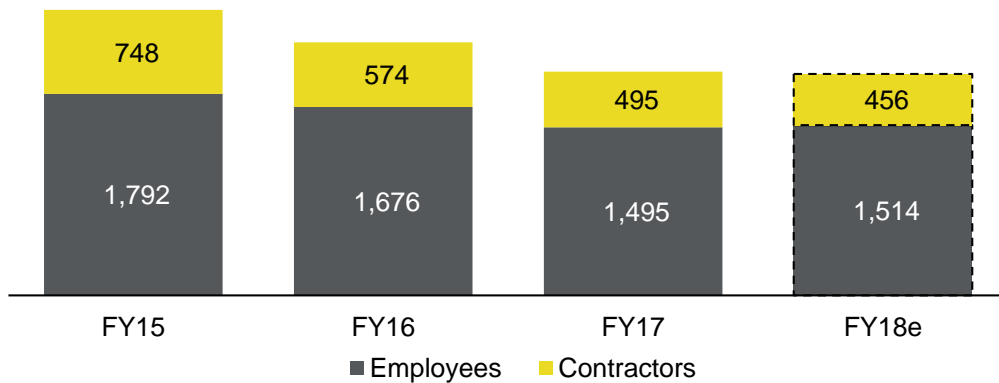


FY17 contribution



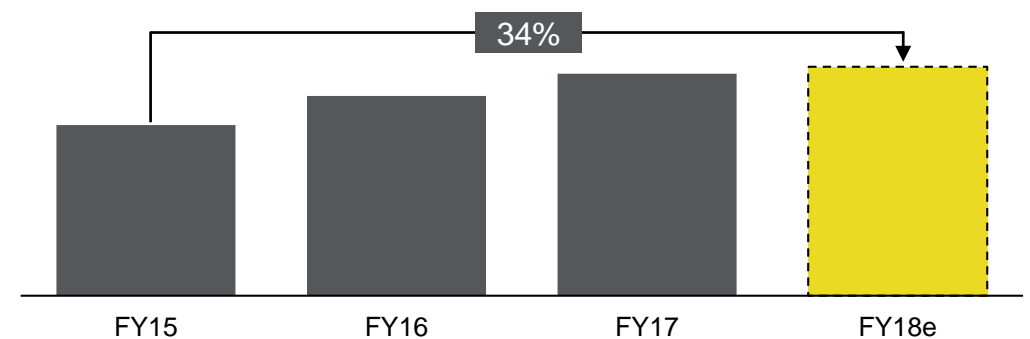
Employee and contractor headcount

(Full time equivalent employee^{2,3})



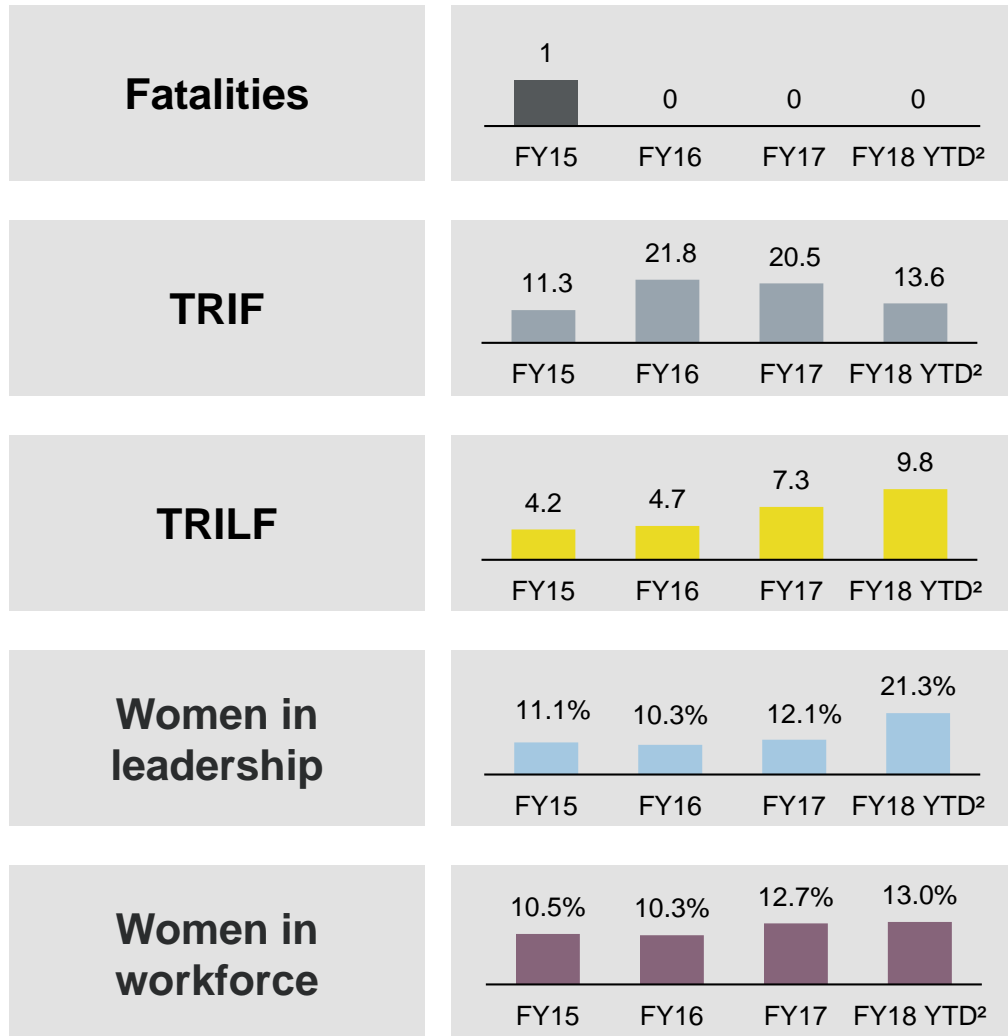
Employee productivity

(Alumina tonnes produced (100% basis) per full time equivalent employee^{2,3})



Notes:

1. Operating margin is Underlying EBITDA margin, excluding third party product.
2. Represents employees and contractors at the end of FY15.
3. Represents the average employees and contractors during FY16 and FY17. Represents the expected average employees and contractors during FY18. All rounded to the nearest whole number.



Worsley Alumina Safety Plan developed based on our culture of care and accountability:

Safety leadership

- Support line leaders with coaching, risk training and knowledge

Targeted safety interventions

- Targeting areas of concern
- Using modern techniques to remove manual tasks

Improved functional support

- Improving local HSE and risk teams
- Consistent assurance for single fatality risks
- Improving injury management
- Specialist coaching in key exposure areas

Focused on improving diversity and supporting an inclusive workplace:

- Family and carer support programs
- Work Inspirations Program to engage young females in the industry

Notes:

1. Total Recordable Injury Frequency (TRIF) per million hours worked and Total Recordable Illness Frequency (TRILF) per million hours worked, are calculated in accordance with the United States Government Occupational Safety and Health Assessment (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.
2. FY18 YTD reflects the period from 1 July to 31 October 2017.

Water Management

Climate modelling shows a drying trend in the South West of Western Australia and an increasing risk of flood events

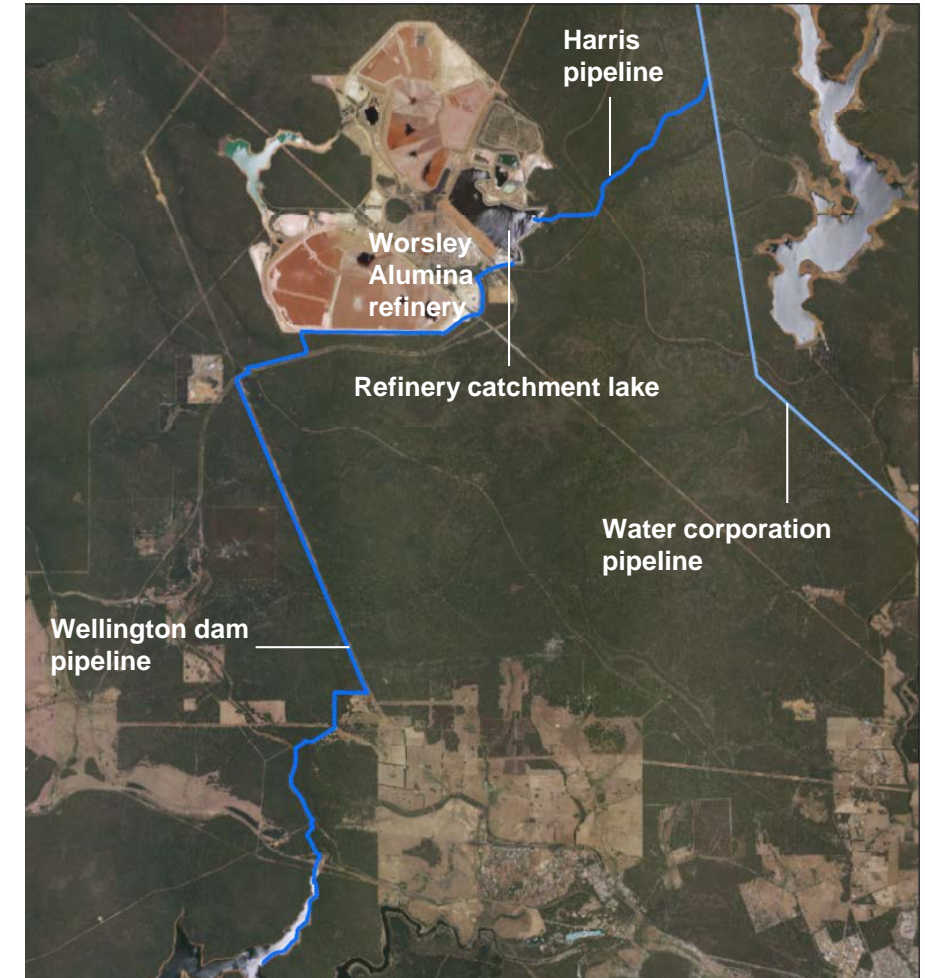
We are reviewing forecast water supply over the short, medium and long-term

Short term

- Completed US\$14M¹ water pipeline in FY17:
 - Sources non-potable surface water
 - Diversifying supply options
 - Addresses refinery's short term risk
- Material risk controls include:
 - Monitoring and maintenance of dams and bauxite residue tailings dams
 - Flood event management

Medium to long-term

- Focus is to manage risk to an acceptable level
- Current options for additional water supply include:
 - Ongoing access to Wellington Dam and contingency water
 - New technologies including climate independent water sources
- Working on ways to reduce our process demand for 'new' water:
 - Improved efficiency of water use
 - Increased water recycling



Notes:

1. South32 share.

- Multi-fuel cogen (MFC) boilers generate steam and electricity for refinery
- Capability to operate with wood biomass from forest and plantation waste
- Six month biomass trial started in August 2017 to assess commercial viability
- Potential to reduce reported greenhouse gas emissions

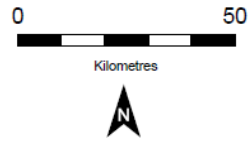
Worsley biomass trial



World class bauxite resources

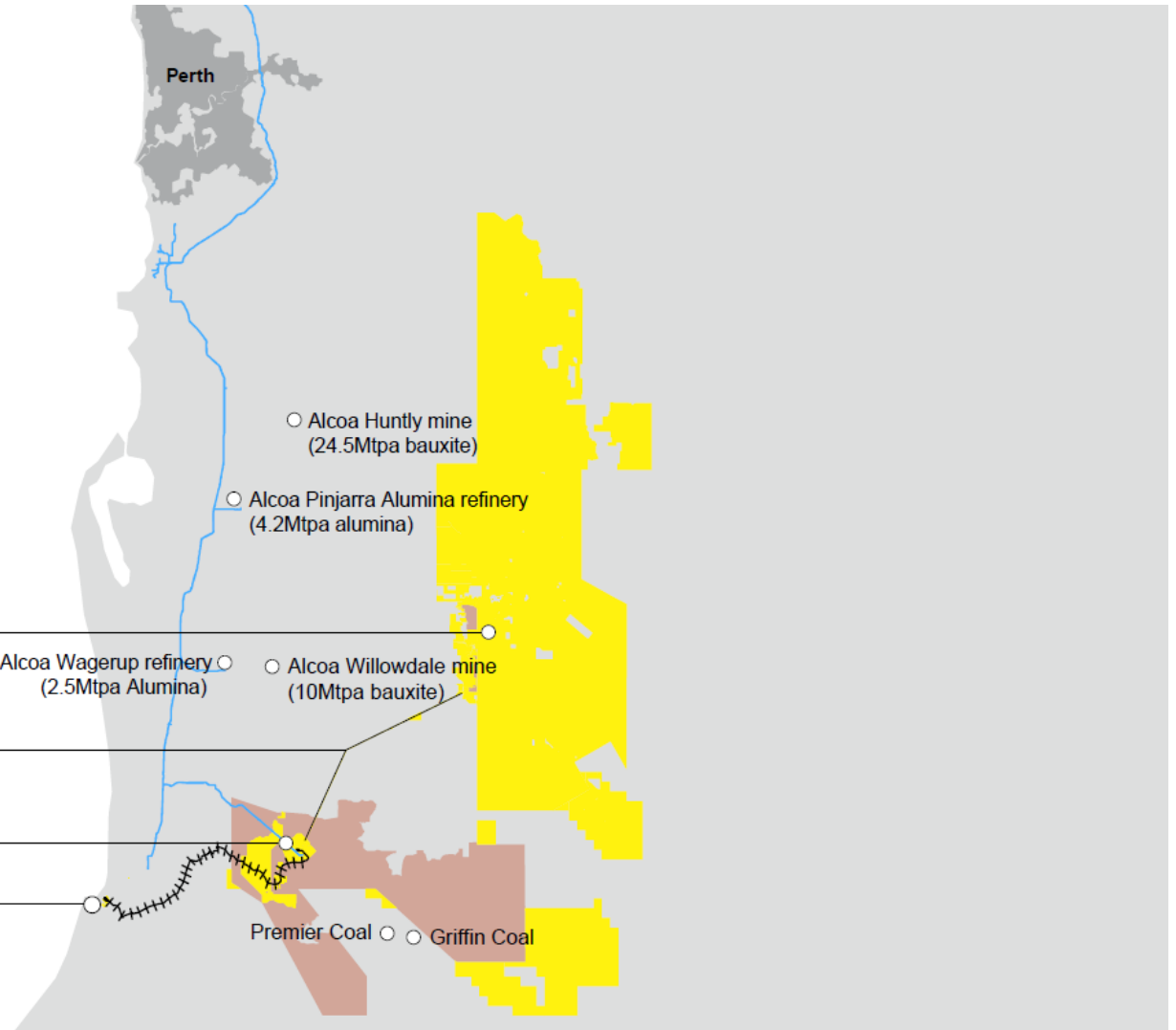
Developed infrastructure

Access to energy including low cost coal



- ++++ Railway
- South32 Worsley agreements & leases
- Alcoa sub leases
- Dampier to Bunbury natural gas pipeline

Boddington Bauxite mine	~18Mwtpa bx ¹
Boddington Bauxite conveyor	3,200tph ¹
Worsley Alumina refinery	4.6Mtpa Alumina ¹
Bunbury port	3,000tph ¹



Notes:

1. 100% basis.

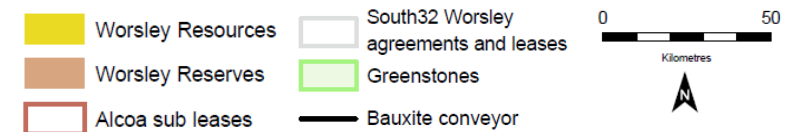
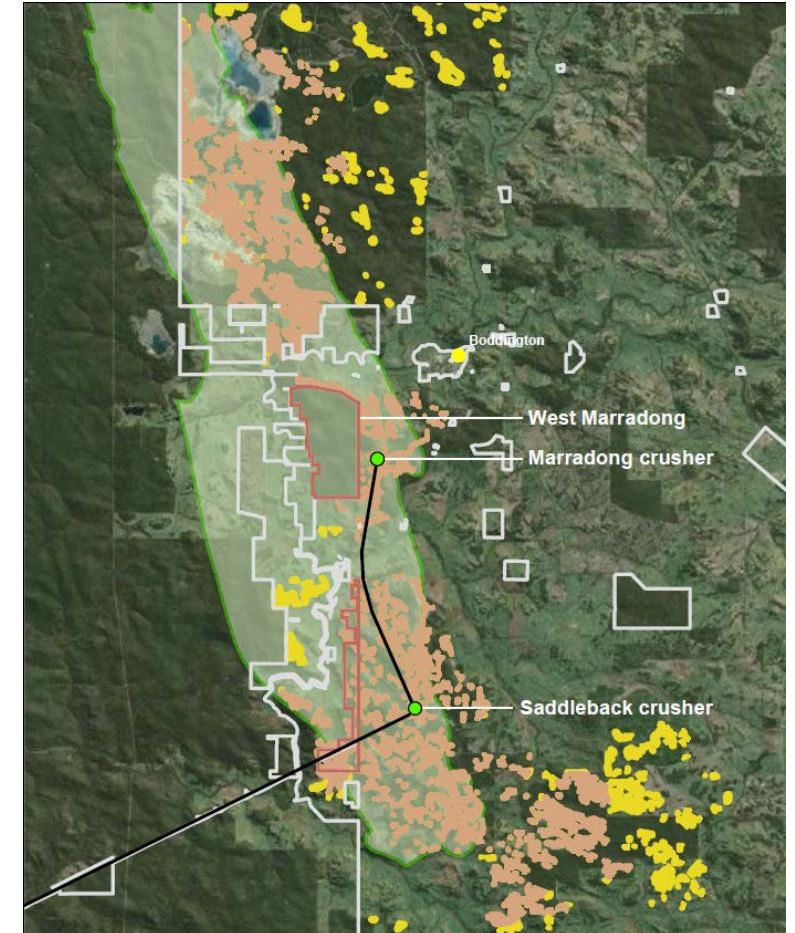
BODDINGTON BAUXITE MINE OVERVIEW



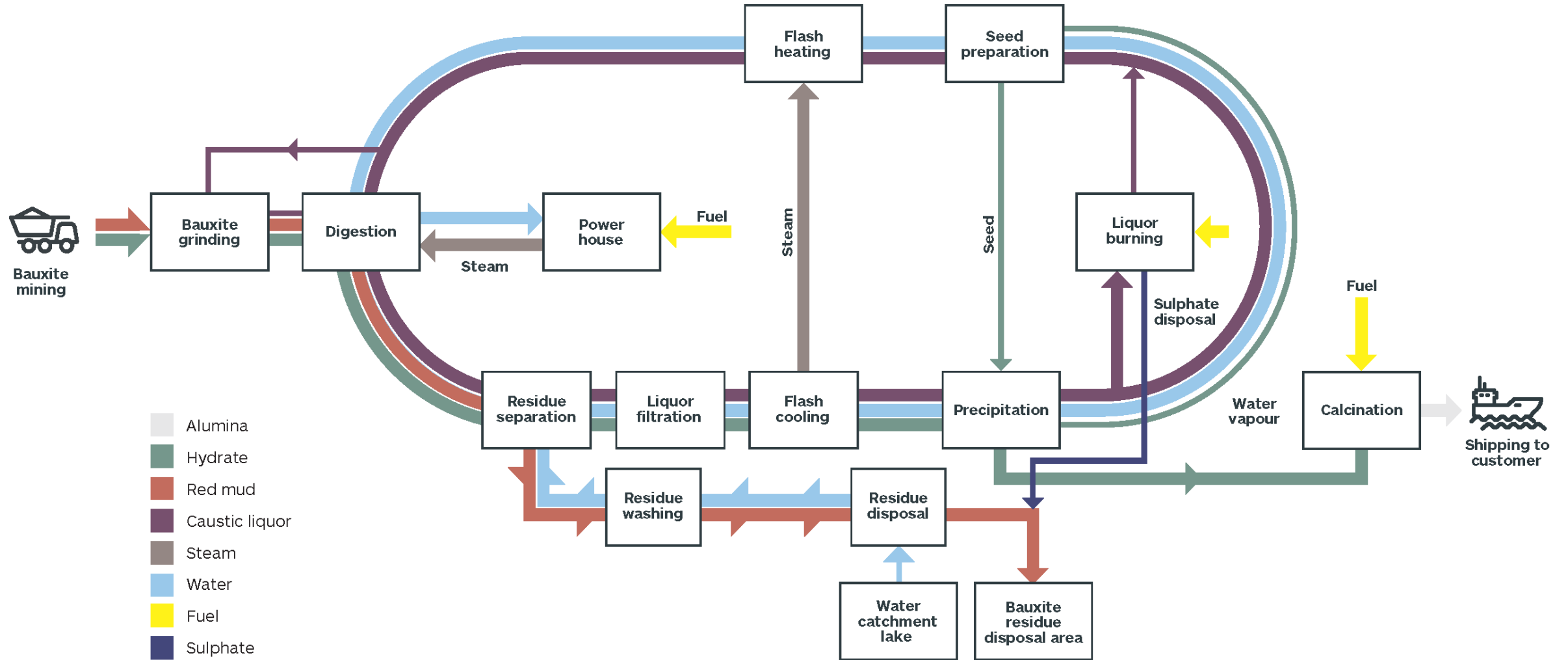
- Large, low cost bauxite resources and reserves¹:
 - 285Mt Reserve @ 27.3% available alumina and 1.8% reactive silica
 - 1,180Mt Resource @ 28.7% available alumina and 1.9% reactive silica
 - Gibbsite, which benefits from lower energy intensity when processed
- Open-cut mining from multiple discrete pods
- Bauxite close to surface and ~5m thick
- Two mining hubs extracting ~18Mwmt² pa:
 - Saddleback
 - Marradong (mining started in FY12)
- Current mining fleet:
 - 4 x hydraulic excavators – 15 x haul trucks (785C)
 - 4 x front end loaders – 3 x dozers
- Bauxite supplied to refinery via 51km overland conveyor system

Notes:
1. Based on the Mineral Resource and Ore Reserve declaration for Worsley Alumina disclosed 5 December 2017 in the Strategy and Business Update (www.south32.net).
2. 100% basis.

Boddington Bauxite Mine



REFINERY PROCESS FLOW CHART



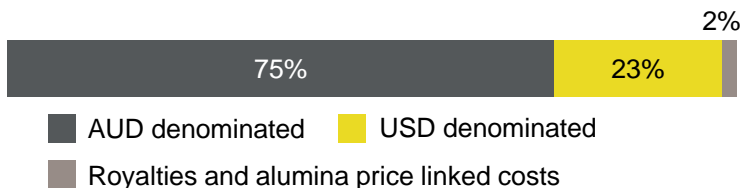
WORSLEY ALUMINA COST ANALYSIS



FY17 Worsley Alumina cost breakdown

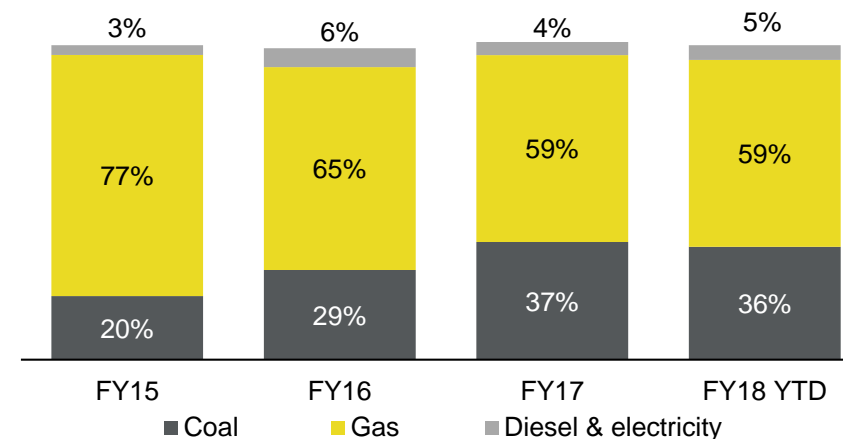


- Access to low cost energy and flexibility to optimise energy mix
- Competitive bauxite cost from large integrated mining operation at Boddington
- Low reactive silica bauxite reduces caustic soda consumption per ton of alumina
- Caustic soda is the major variable cost and is exposed to industry-wide price volatility
 - Priced M-1 with each US\$100/t rise in caustic soda over a full year adding ~5% to cost base

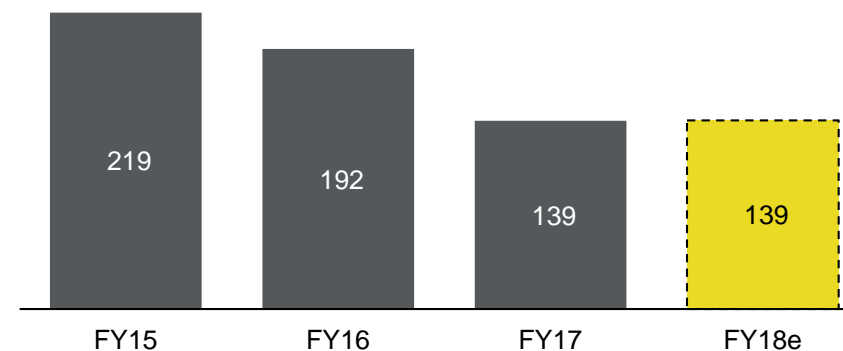


- Worsley’s energy costs have declined by 37% since FY15
- Gas favoured for calcination of high purity alumina (~85% of gas spend is for calcination)
- Supplied through two agreements expiring 2018 and 2023
 - Currently engaged to replace existing tranches
 - West Australian gas market dynamics provide further opportunity to improve energy costs
- Coal currently preferred for steam generation due to cost competitiveness
 - Supplied through long-term contracts with local suppliers Griffin Coal and Premier Coal
 - Low cost
 - Closely managed for security of supply
- Future optionality in energy supply for steam generation exists with co-generation and biomass

Refinery energy consumption by fuel source (%)

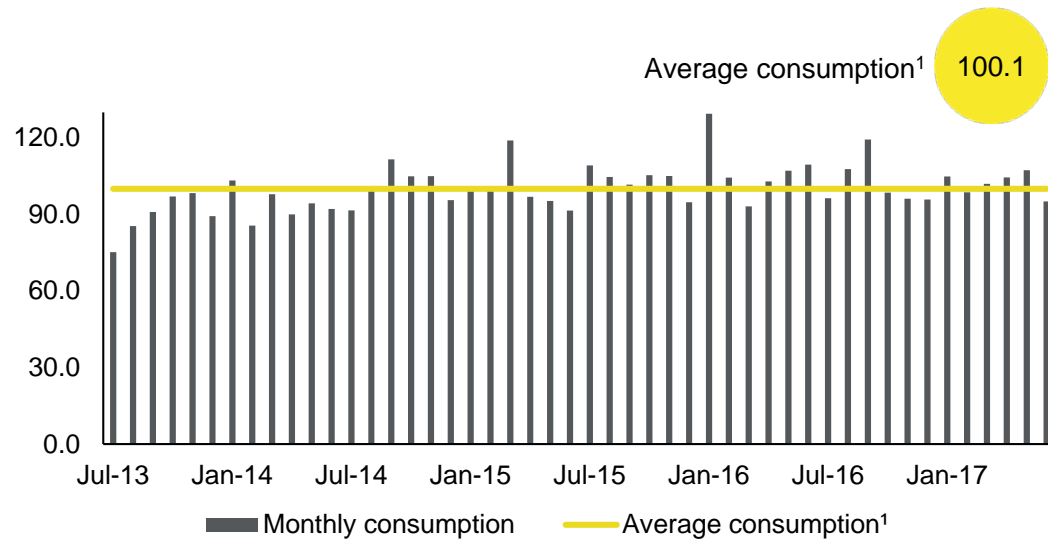


Refinery energy costs (US\$M, South32 share)

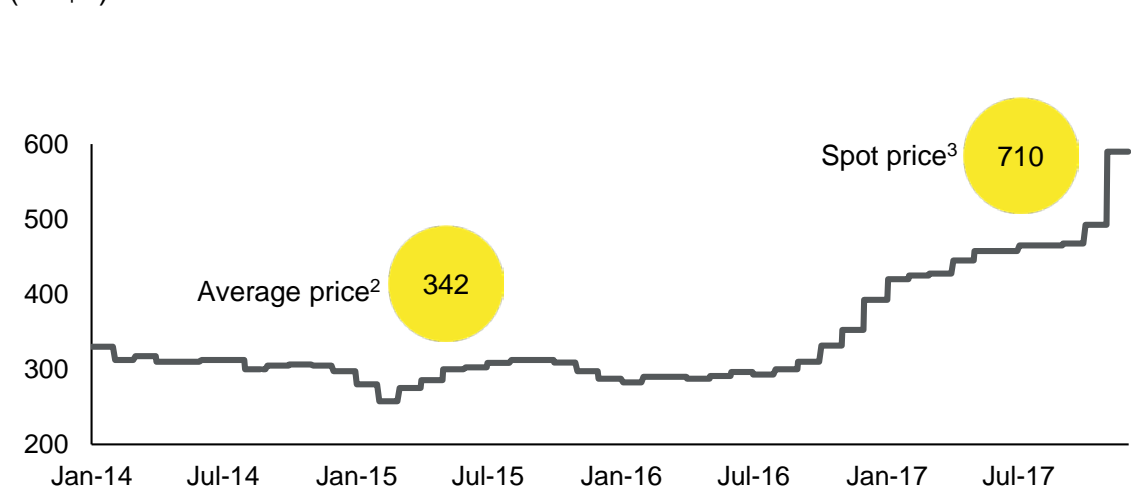


Caustic soda consumption linked to reactive silica content of bauxite

Caustic soda consumption
(kgNaHO/tA)



Caustic soda price
(US\$/t)



Notes:

1. Average consumption between 1 July 2013 and 30 June 2017.
2. Average price between 2 January 2014 and 30 November 2017 on a M-1 basis. Source IHS Markit.
3. Spot price as at 30 November 2017. Source IHS Markit.

West Marradong will be accessed under an existing sublease agreement with Alcoa

Access to bauxite	Delays capital spend	Blending optionality
<ul style="list-style-type: none"> 74Mt Mineral Resource of higher quality bauxite¹ Higher available alumina and lower reactive silica content Contributes to lower average caustic consumption (~94kgNaOH/tA) across FY19 and FY20 	<ul style="list-style-type: none"> Will push out capital intensive move to next mining hub, now expected in late 2020's Last move (Saddleback to Marradong), completed in FY12 at a capital cost of US\$552M² 	<ul style="list-style-type: none"> Extends period for current blending of Marradong and Saddleback ore Provides flexibility around mine and resource planning

Converting high quality West Marradong Resource to Reserve will unlock significant value

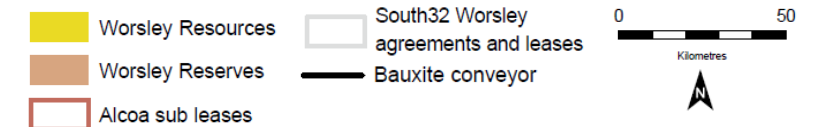
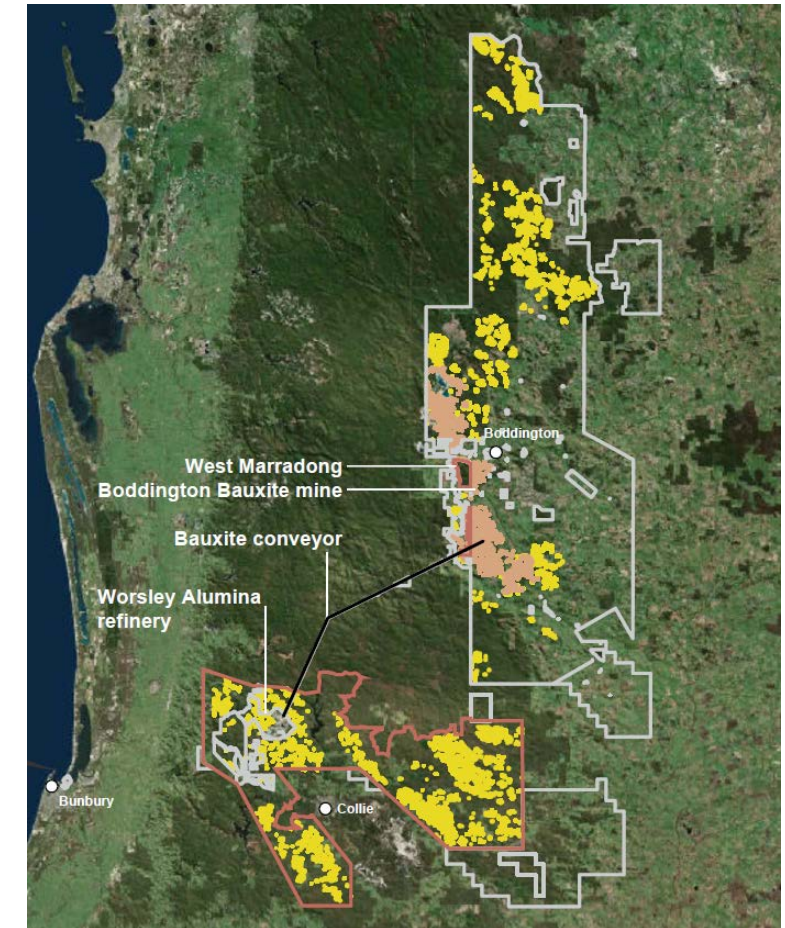
Worsley Mineral Resources³

Deposit	Ore type	Total Mineral Resources		
		Mt	%A. Al ₂ O ₃	% R. SiO ₂
Worsley (Inc West Marradong)	Laterite	1,180	28.7	1.9

Notes:

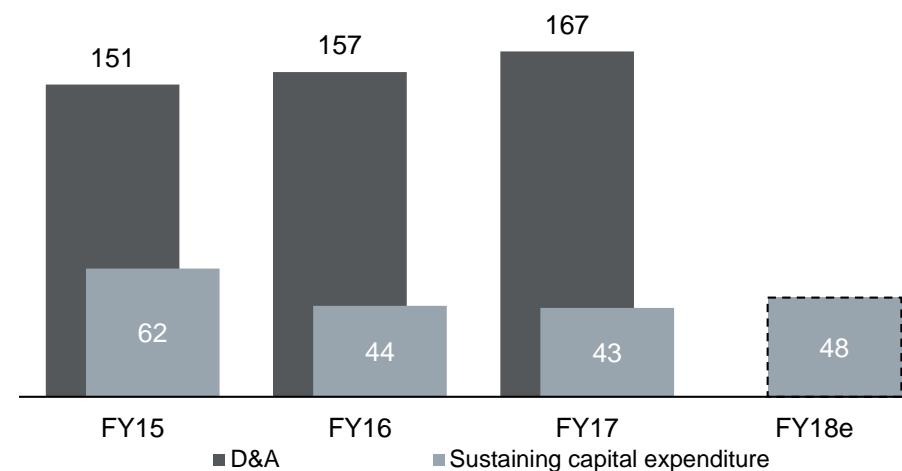
- West Marradong Mineral Resources consist of 27Mt measured, 40Mt indicated and 7Mt inferred Mineral Resources.
- 100% basis.
- Refer to slide 3.

Boddington Bauxite Mine



- Significant historical investment with completion of US\$3.2B¹ refinery expansion project in FY12
- Expansion coincided with last mining hub move
 - West Marradong will delay next major mining hub move, now expected in late 2020's
- Expect to see a substantial increase in Return on Invested Capital as depreciation outstrips sustaining capital
- Medium term capital expected to be allocated to:
 - Construction of bauxite residue disposal areas
 - Additional fresh water catchment capacity
 - Refinery asset management strategy
 - Package boiler project (in execution)

Sustaining capital expenditure guidance, depreciation and amortisation
(US\$M, S32 share)



Notes:

1. South32 share.

Integrated mine and refinery

**Positioned in 1st quartile
of cost curve¹**

**Achieved production rates
at expanded capacity²
during FY17**

**Focussed on improving
safety performance**

**Supplies own smelters
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Large bauxite resource

1.2Bt bauxite Resource

Alumina to reactive silica ratio 15:1

**Opportunities to further
improve industry position**

Energy supply flexibility

Caustic consumption

**Driving improvement in
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