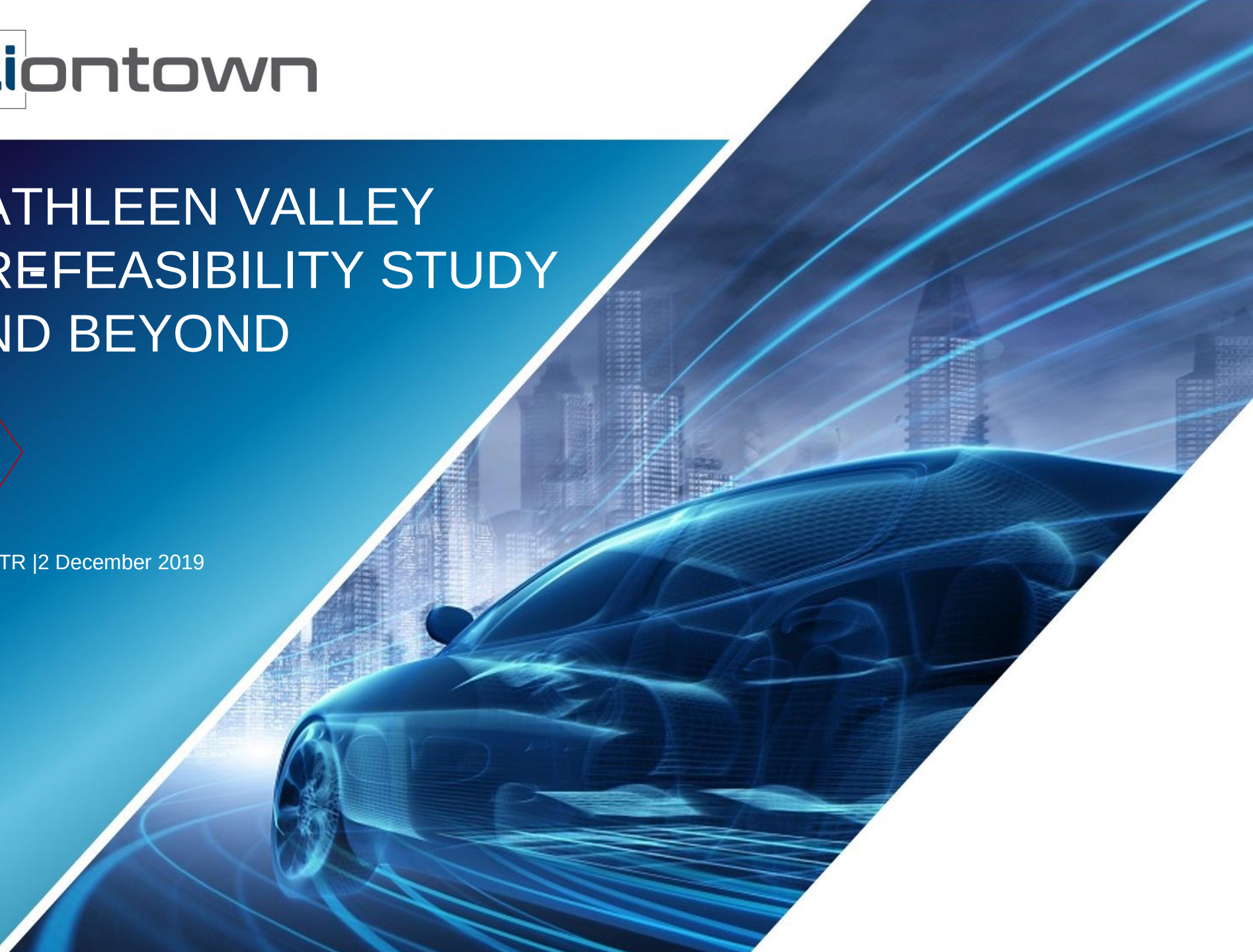
KATHLEEN VALLEY PREFEASIBILITY STUDY AND BEYOND

ASX : LTR |2 December 2019



Important Information

Forward Looking Statements

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Competent Person Statement

The Information in this report that relates to Ore Reserves for the Kathleen Valley Project is extracted from the ASX announcements ò K a t h l e e n V a l l e y P r e - F e a s i b i l i t y S t u d y confirms potential for robust new long-life open pit lithium mine in W A ó released on 2nd December 2019 which is available on www.ltresources.com.au.

The Information in this report that relates to Mineral Resources for the Kathleen Valley Project is extracted from the ASX announcement ò K a t h l e e n V a l l e y L i t h i u m R e s o u r c e jumps 353% to 74.9Mt @ 1.3% Li_2O ó released on the 9th July 2019 which is available on www.ltresources.com.au.

The Information in this report that relates to Metallurgy for the Kathleen Valley Project is extracted from the ASX announcement ò H i g h l y e n c o u r a g i n g metallurgical test work at the Kathleen Valley Lithium-Tantalum Project, W A ó and ò K a t h l e e n V a l l e y L i t h i u m R e s o u r c e jumps 353% to 74.9Mt @ 1.3% Li_2O ó released on the 12th November 2018 and 9th July 2019 respectively which are available on www.ltresources.com.au.

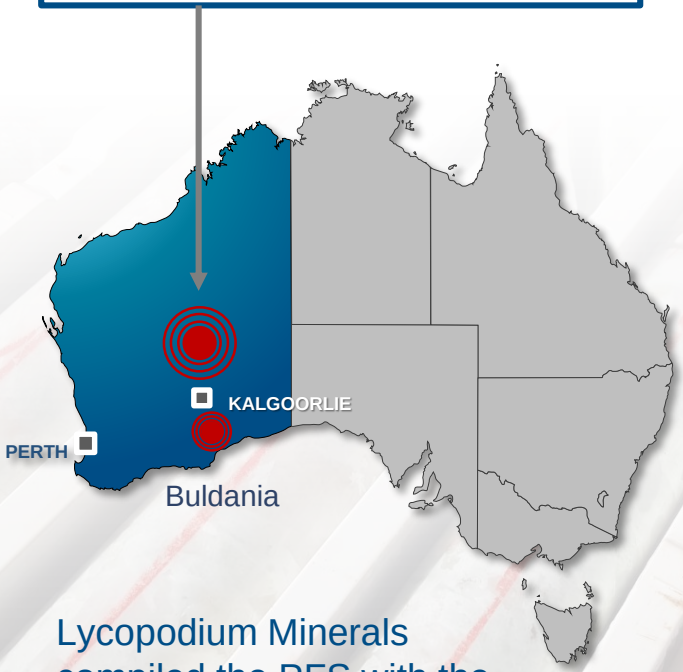
The Information in this report that relates to Exploration Results for the Kathleen Valley Project is extracted from the ASX announcements ò M i n e r a l s y s t e m s e x t e n d e d 400m north at Kathleen Valley ó and ò F u r t h e r e x c e p t i o n a l drill results at Kathleen V a l l e y ó released on the 8th October and 5th November 2019 respectively which are available on www.ltresources.com.au.

The Information in this report that relates to Exploration Targets is is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company. Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the ô A u s t r a l a s i a n C o d e f o r R e p o r t i n g o f E x p l o r a t i o n Results, Mineral Resources and Ore R e s e r v e s . M r R i c h a r d s consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The company confirms that the form and context in which the Competent P e r s o n ' s f i n d i n g s are presented have not been materially modified from the original market announcements.

Project Overview

Kathleen Valley Lithium Project



Lycopodium Minerals compiled the PFS with the assistance of highly reputable and experienced consultants ensuring a high standard study

Strong Financials

- Å NPV +$500M
- Å IRR +25%
- Å LoM Free Cash +$1.9B

Long Life

- Å 26 Years
- Å 50Mt Reserve
- Å +6% Li_2O Spodumene Concentrate
- Å 76% recovery

Significant Upside

- Å Resource upgrade
- Å Potential expansion with concurrent underground mine
- Å Tantalum by -product

Infrastructure

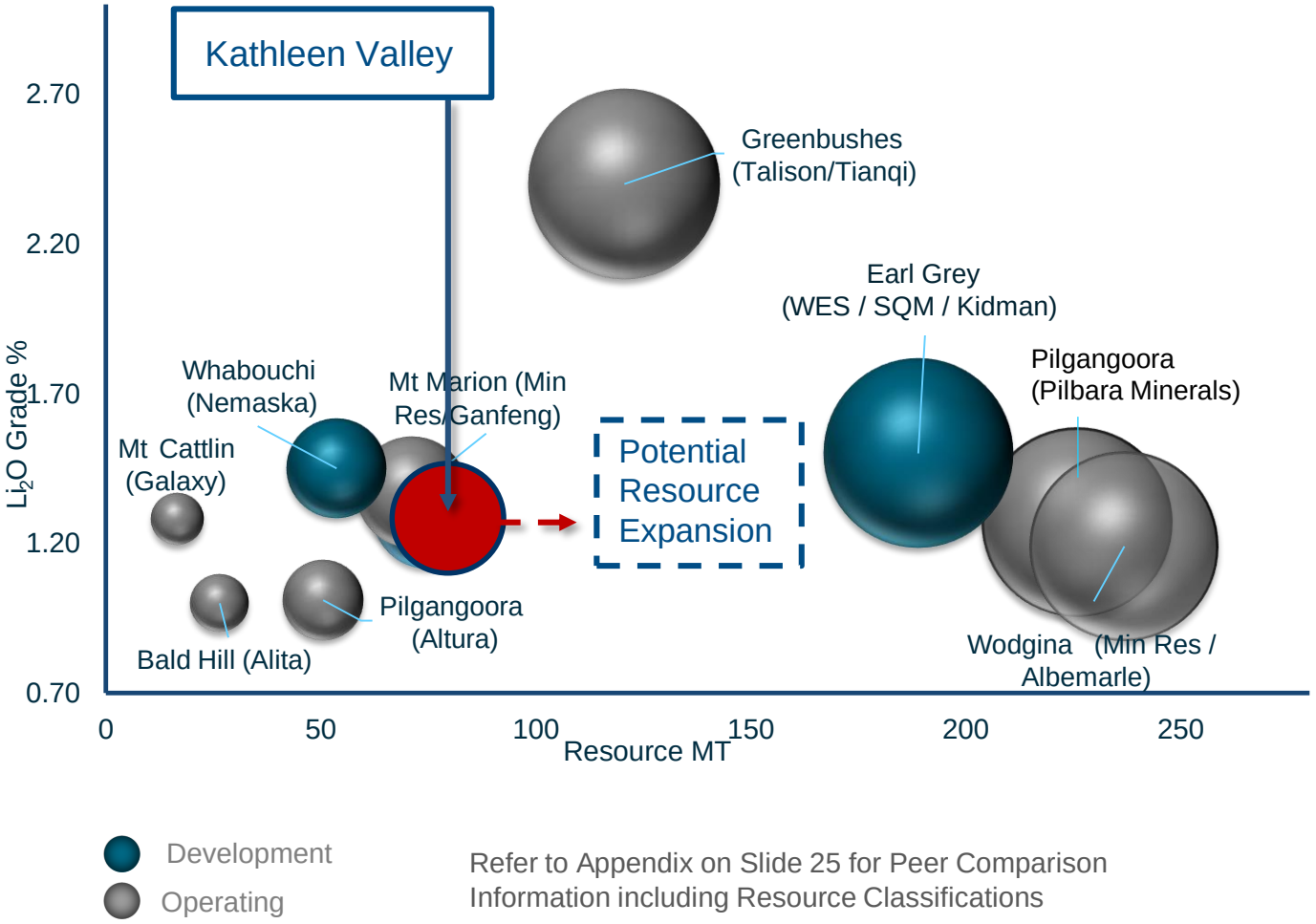
- Å Active mining region
- Å Power
- Å Transport

Low Risk

- Å 100% Ownership
- Å Well funded ~$15M Cash

Hard Rock Lithium Operations and Advanced Projects

Western World | Spodumene Dominant | Tonnes x Grade | Li_2O Only



Development

Operating

Refer to Appendix on Slide 25 for Peer Comparison Information including Resource Classifications

A Globally Significant Resource

Top 5 in Australia,

Top 10 in the world

PFS Key Metrics: Open Pit/Lithium Only

Life of Mine
26 YEARS

Total Free Cash Flow
+$1.9B

Payback Period
~4 YEARS

Capex
$240M

NPV
$507M[1]

IRR 25.1%

OPEX[2]
$564/t conc.
Excl. Ta credits

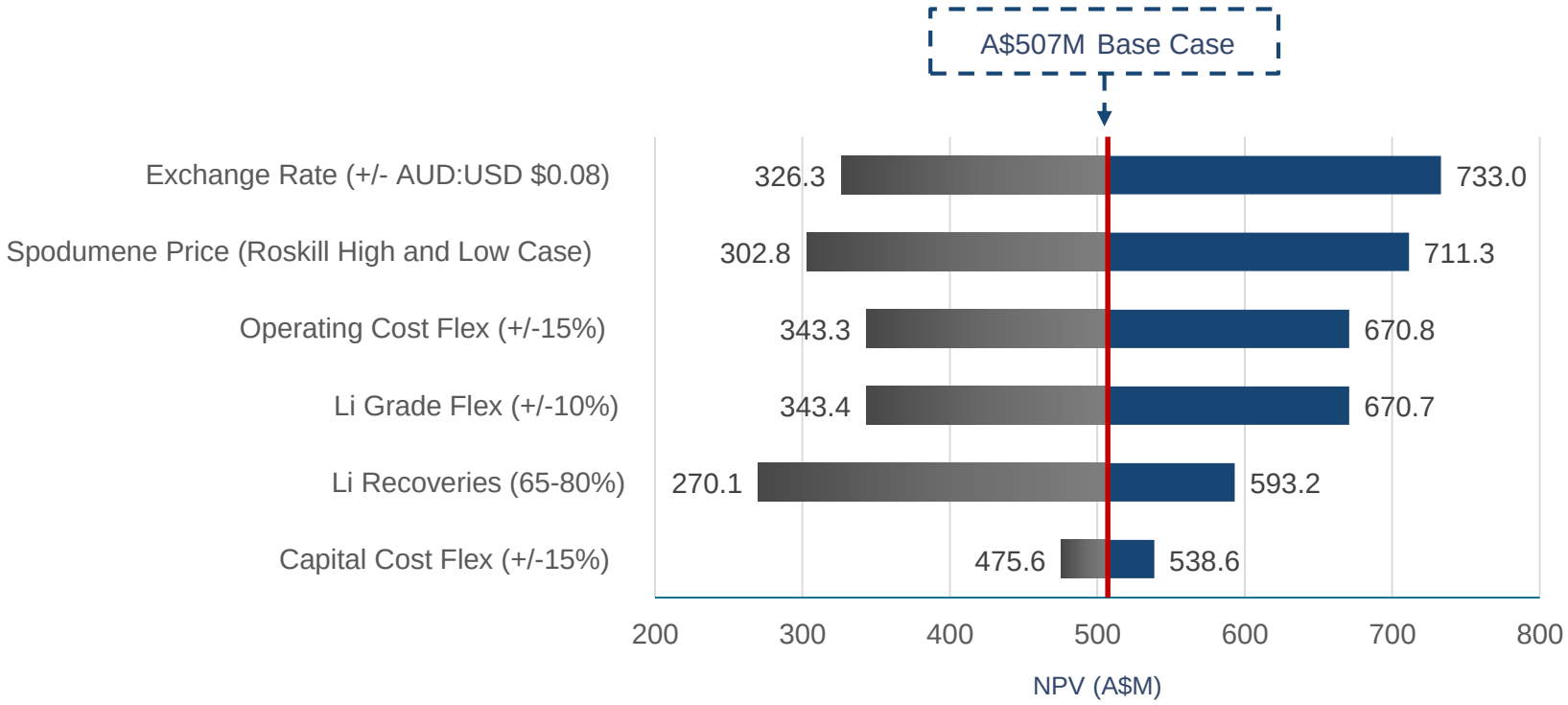
Ave. SC6 Price [3]
US$690/t

Ave. Production
2Mtpa ore
295Ktpa
conc.

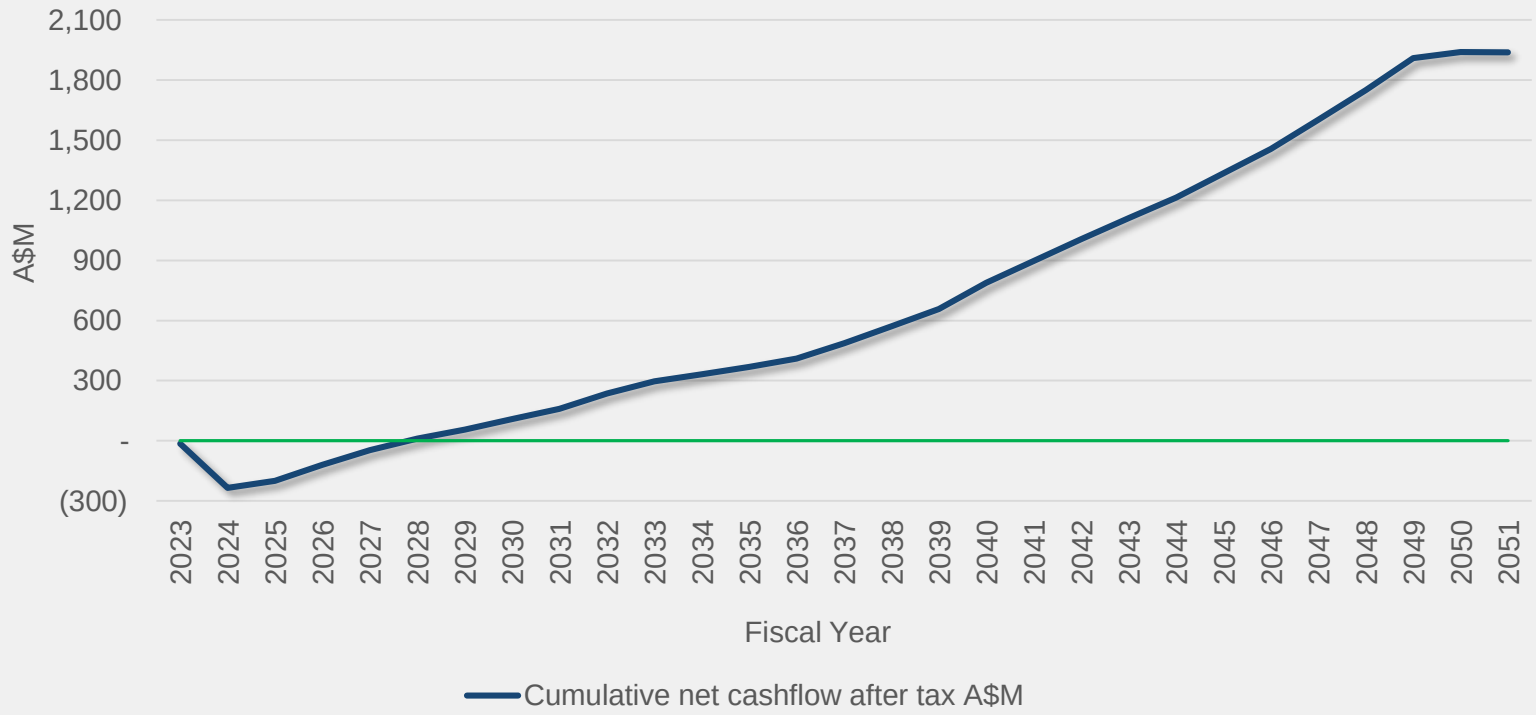
Ave. Strip Ratio
7.7:1

[1] 8% (real) [2]Operating costs include all mining, processing, transport, state and private royalties, freight to port, port costs and site adm inistration and overhead costs.
[3] Source: Roskill 2019 and Liontown base case related party and arms length prices 2024 -2040. Refer to Appendix on Slide 20 for full assumptions.

Kathleen Valley Project - NPV Sensitivity Analysis (A$M)



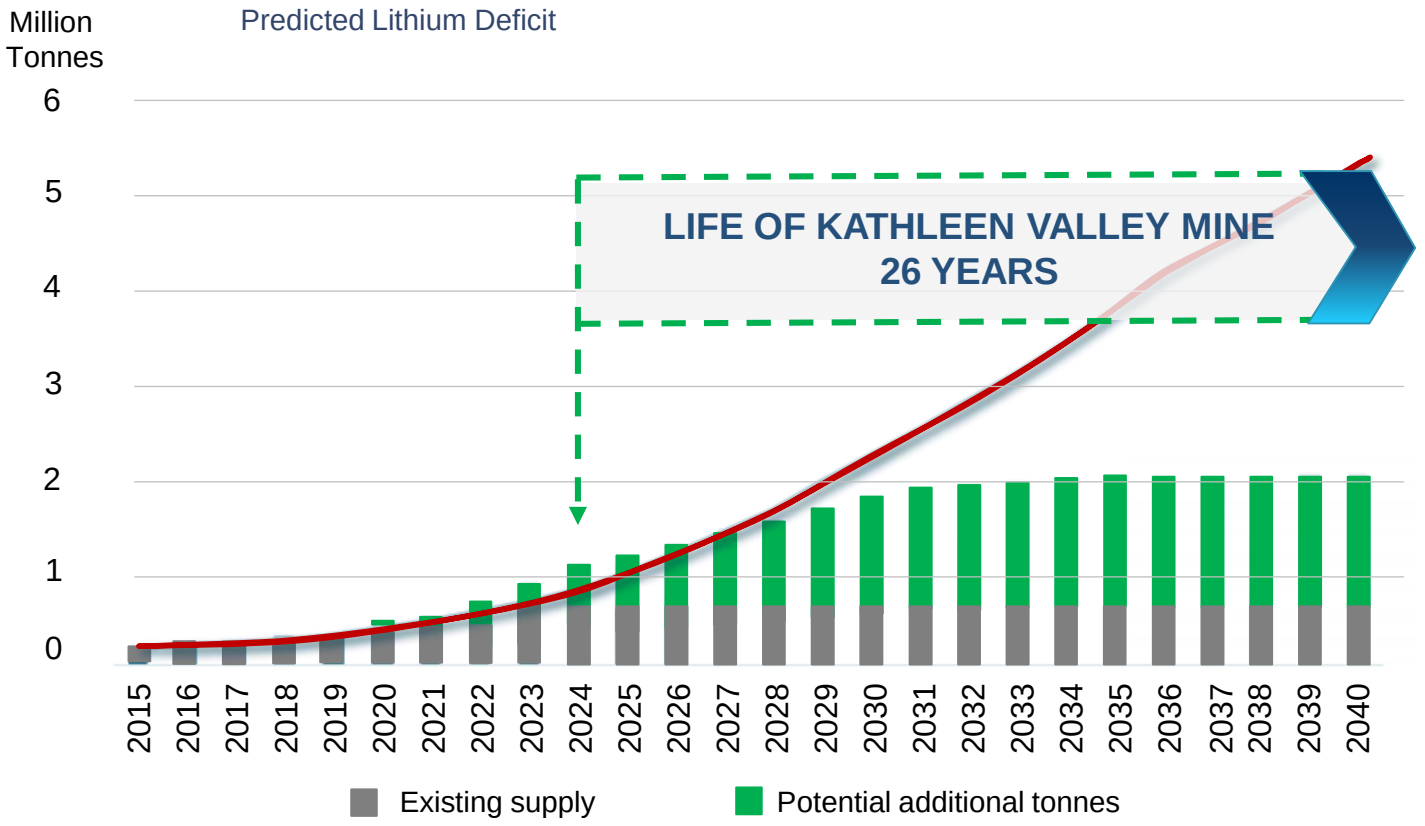
Payback Period and Cumulative Net Cashflow (After Tax)



1 PFS indicates payback period of 4 years from p r o d u c t i o n é

2 é . aLoM free cash flow of +$1.9B

Production is aligned to meet the forecast rise in lithium demand

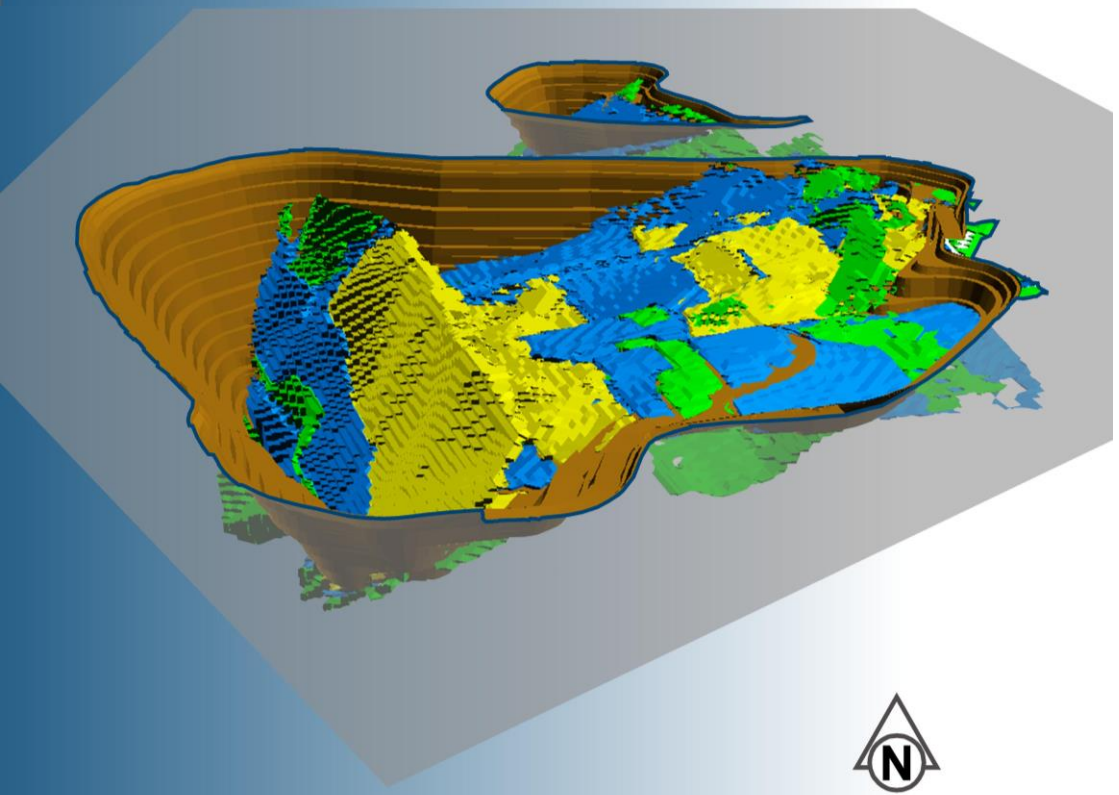


Source: Benchmark Minerals, Battery Raw Material Supply Chains in the Age of the Megafactories , 25 September 2019

Kathleen Valley

A globally significant resource with the potential to help fill future lithium deficit

Maiden Ore Reserve of 50.4Mt @ 1.2% Li_2O



Mineral Resource Estimate* ðJuly 2019

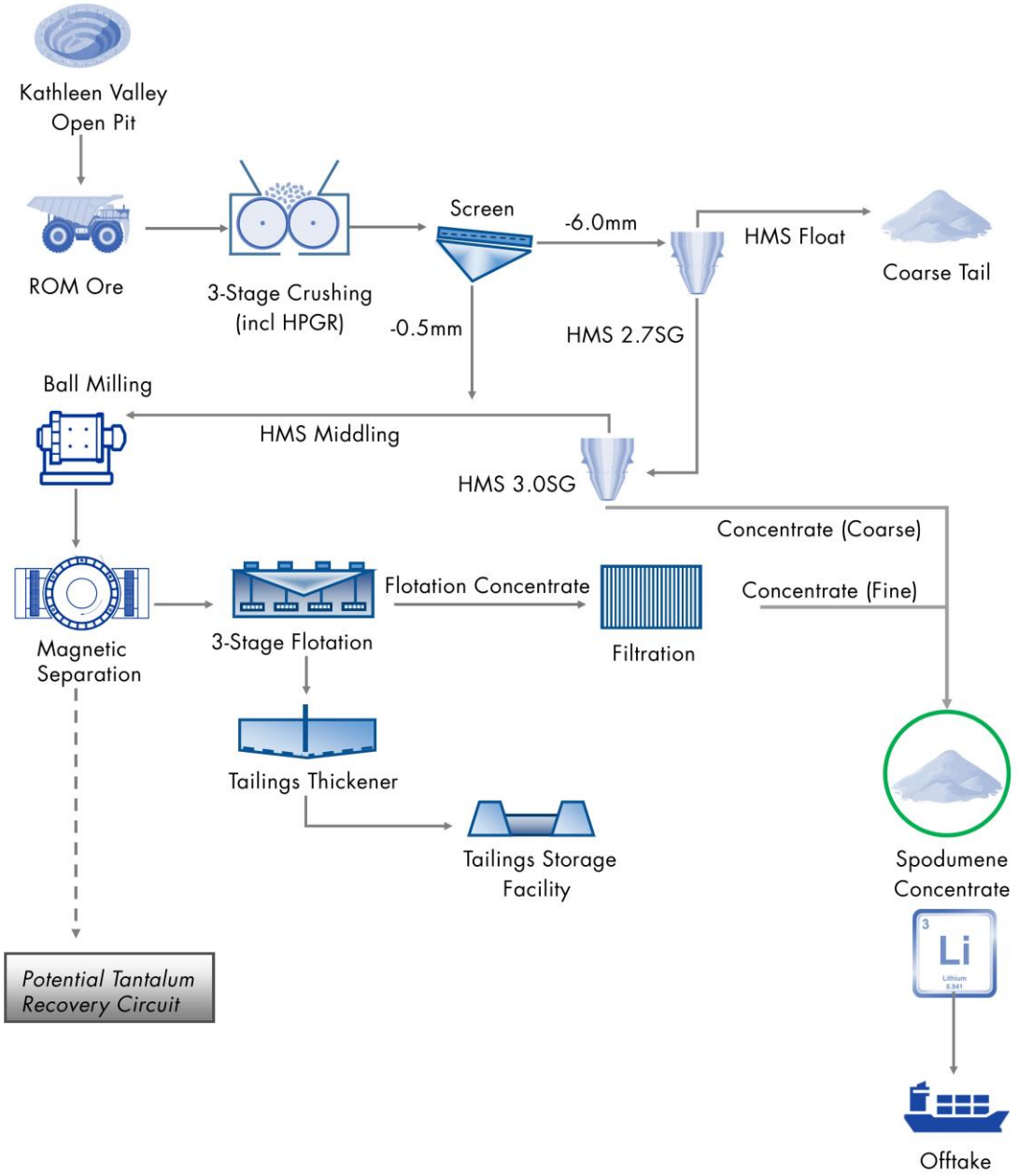
Cut-off Li_2O%	Resource Category	Million Tonnes	Li_2O %	Ta_2O_5 (ppm)
0.5	Measured	17.6	1.3	160
	Indicated	42.2	1.3	140
	Inferred	10.1	1.1	150
	Sub-Total	69.9	1.3	150
0.7	Indicated	2.5	1.4	120
	Inferred	2.5	1.3	110
	Sub-Total	5	1.4	110
TOTAL		74.9	1.3	140

* *Inclusive of Ore Reserve*

ORE Reserve ðDecember 2019

Category	Million Tonnes	Li_2O (%)	Li_2O (T)
Proved	17.1	1.2	204,000
Probable	33.3	1.2	399,600
TOTAL	50.4	1.2	603,600

Metallurgy And Flowsheet

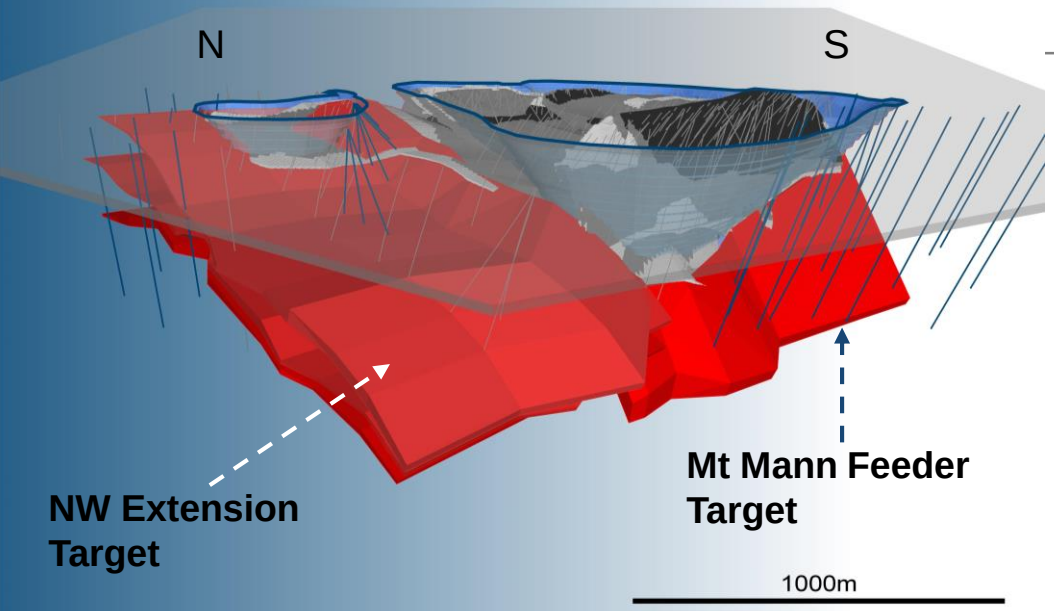


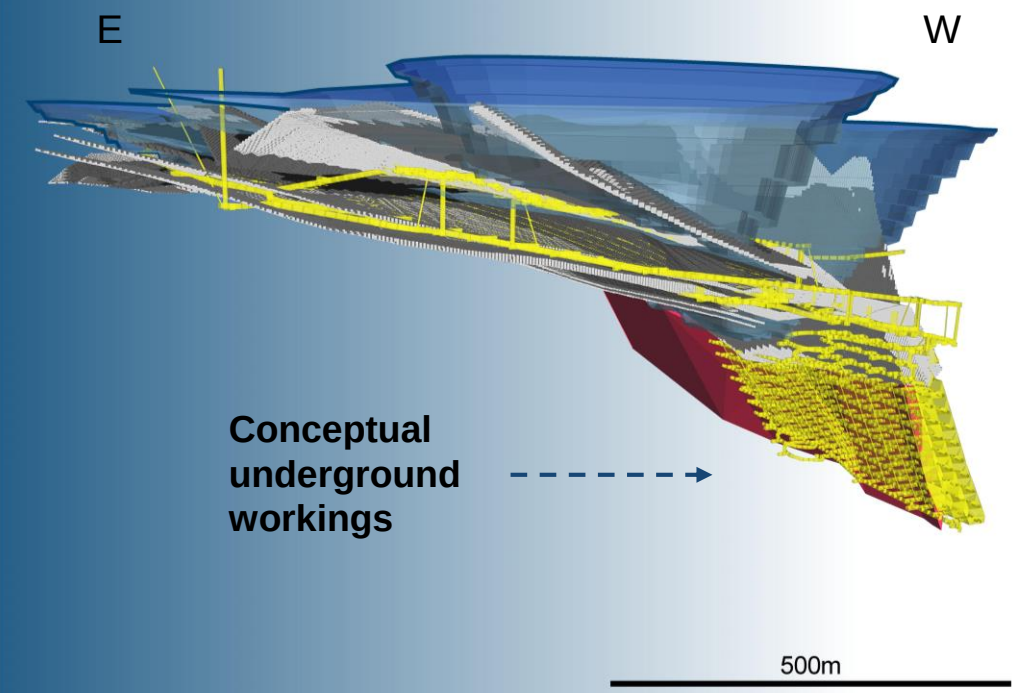
Key Outcomes

- 6.1% Li_2O concentrate
- Predicted 76% recovery of Li_2O
- Chemical grade specifications achievable

Next Steps

- Optimisation of unit processes
- Tantalum recovery
- Variability testing





PFS is a critical step towards the DFS and maximising future opportunities

Resource Expansion

1 Continuous, thick, high -grade mineralisation intersected well beyond the current Mineral Resource

Concurrently Develop Underground Mine

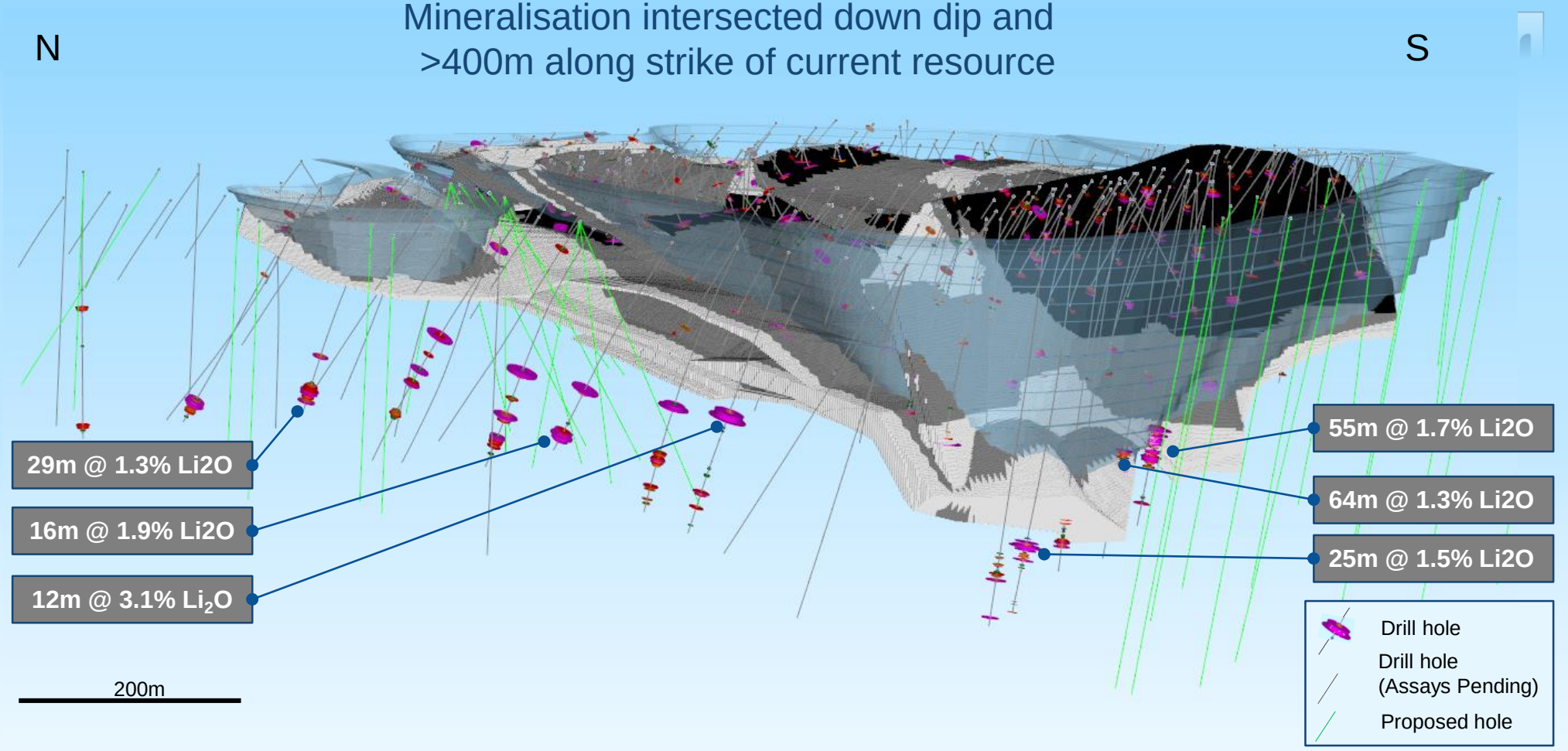
2 Potential to:

- Bring forward higher grade
- Lower strip ratio
- Enable stage production expansion
- Lower environmental footprint

Tantalum Recovery

3 Preliminary test work confirms potential to recover a saleable product

Mineralisation intersected down dip and >400m along strike of current resource

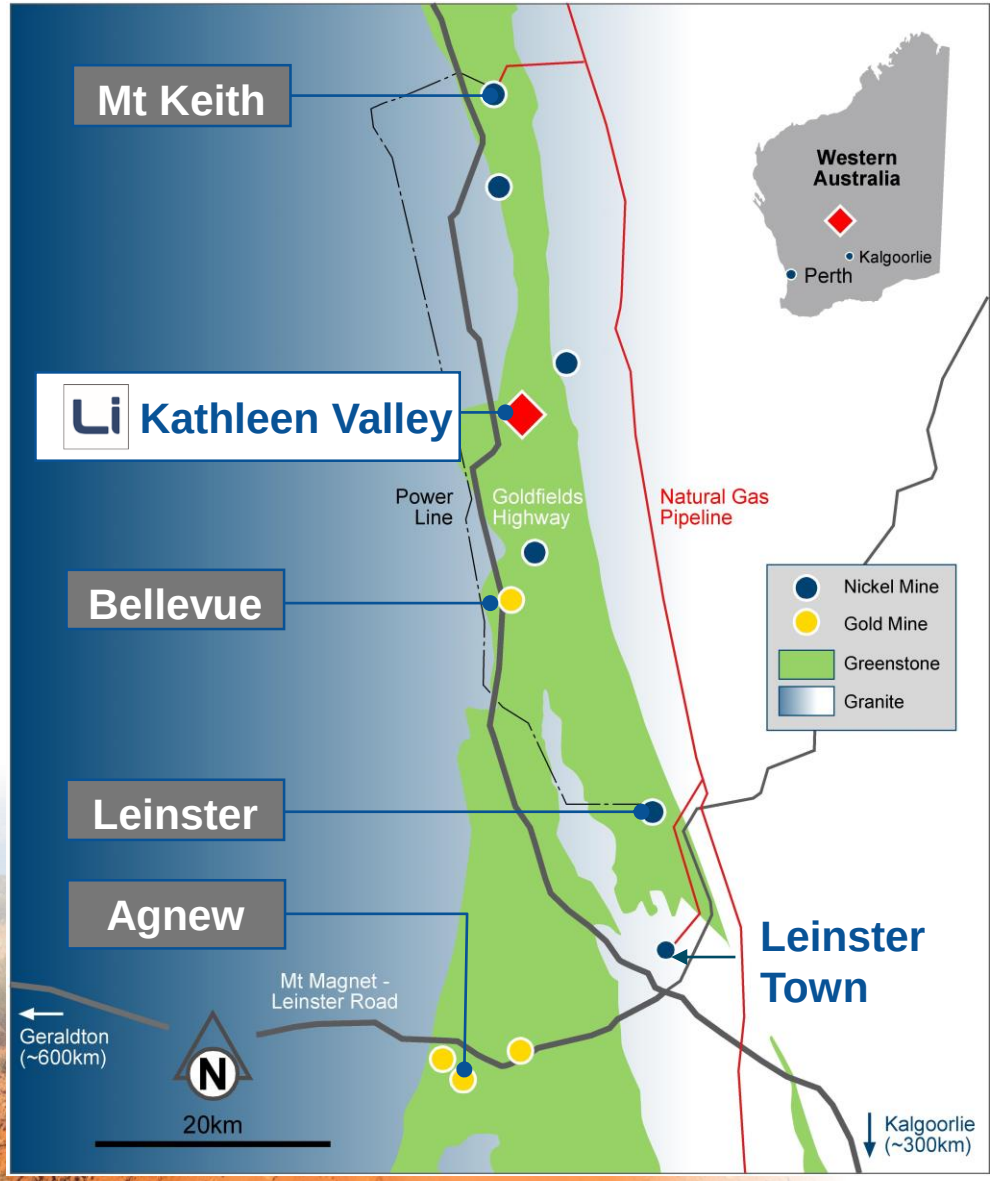


15,000 - 25,000m resource extension drill program in progress

Targeting extension of thick (>45m), high grade zone and along strike to NW

Drilling program expanded with 3 rigs operating

Well serviced and highly active mining region



Major Ni & Au Mines

Goldfields Highway

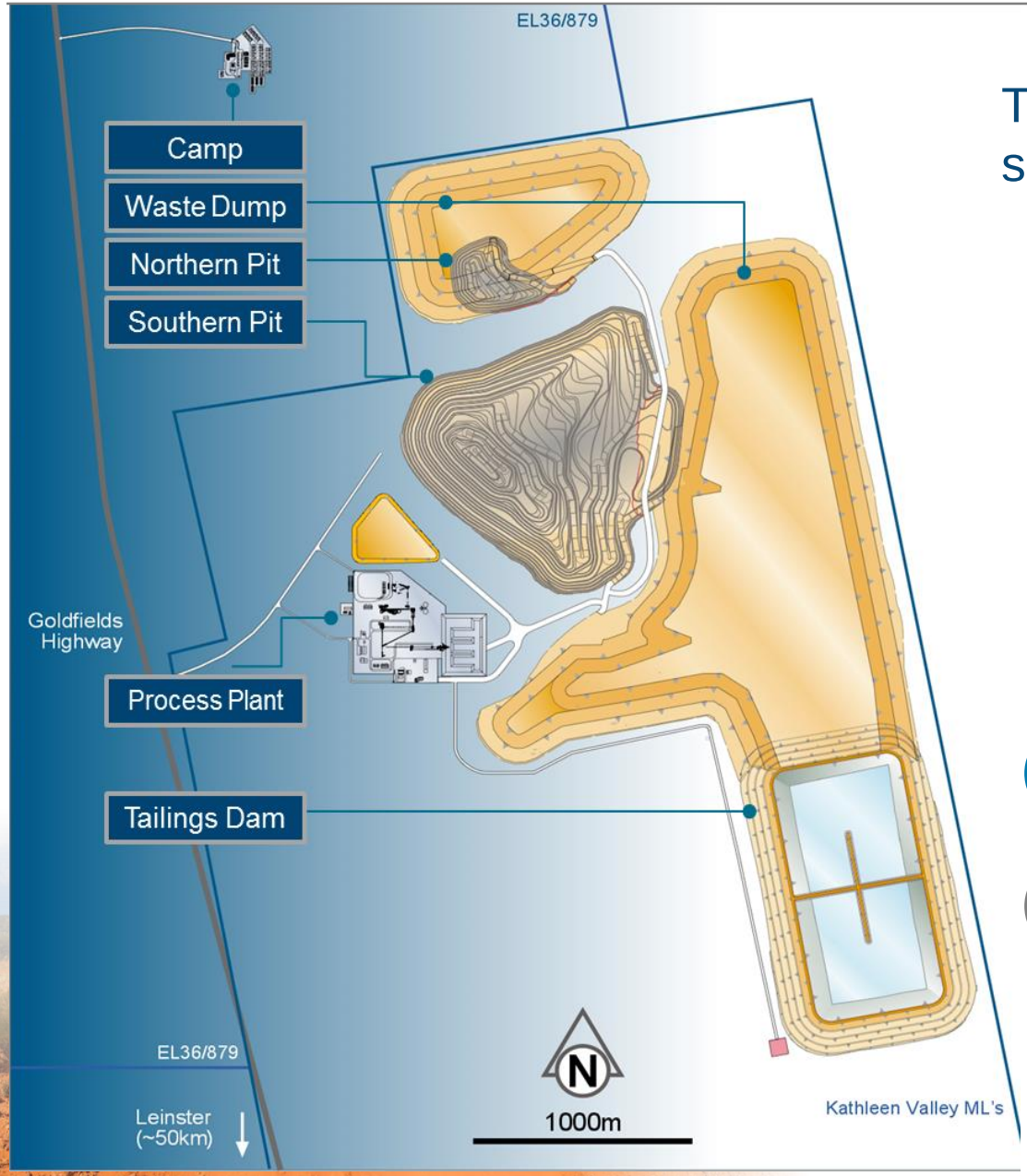
Sealed Airstrips

Town of Leinster

Powerline

Natural Gas Pipeline

Low Risk



The only unencumbered spodumene resource in Australia

- Low sovereign risk
- 100% owned

- Granted mining leases
- Established mining region
- Simple geology

- Well funded (~$15m cash)

- Early studies indicate:
  - Good quality water
  - Low environmental risk
  - No geotechnical issues

Achievements in the last 15 months pave the way for future opportunities

MAIDEN MRE

21.2Mt @ 1.4% Li_2O and 170ppm Ta $_2O_5$

UPGRADED MRE

74.9Mt @ 1.3% Li_2O and 140ppm Ta $_2O_5$

RESOURCE UPGRADE

FURTHER STUDIES

Mine Optimisation inc. underground; Metallurgy; Hydrology; Environmental and Land Access

SEP 18 | JAN 19 | JUL 19 | DEC 19 | Q1/Q2 2020 | Q4/2020

SCOPING STUDY

PRE FEASIBILITY STUDY

MAIDEN ORE RESERVE

50.4Mt @ 1.2% Li_2O

DEFINITIVE FEASIBILITY STUDY

PFS supports a long-life open-pit lithium mine

- 26 Year Mine
- Robust project economics
- Quality concentrate
- Existing, modern infrastructure
- Strategic development timeline
- Multiple opportunities to enhance financial metrics

Maiden Ore Reserve of 50.4Mt @ 1.2% Li_2O

Leadership and Key Financials

David Richards

Managing Director

- +35 years
- Discovered multi - million ounce Vera Nancy Gold Deposits

Tim Goyder

Chairman

- +40 years
- Executive Chairman Chalice Gold Mines
- Major Shareholder

Craig Williams

Non-Executive Director

- +40 years
- Founder and CEO of Equinox Minerals

Anthony Cipriano

Non-Executive Director

- +30 years
- Former Senior Partner at Deloitte

Steven Chadwick

Non-Executive Director

- +40 years
- Director of Lycopodium Minerals

Corporate Snapshot

ASX CODE	LTR
Shares on Issue	~1,689.5M
Market Capitalisation	~$137M (AT 8.0CPS)
Major Shareholder	Tim Goyder~17%
Top 20 Shareholders	~42%
Cash (as at 30-Sept-19)	~A$15.6M

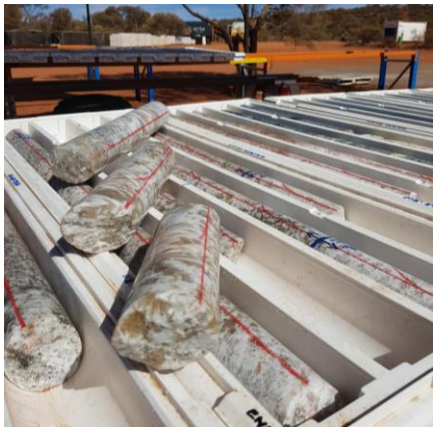
Liontown

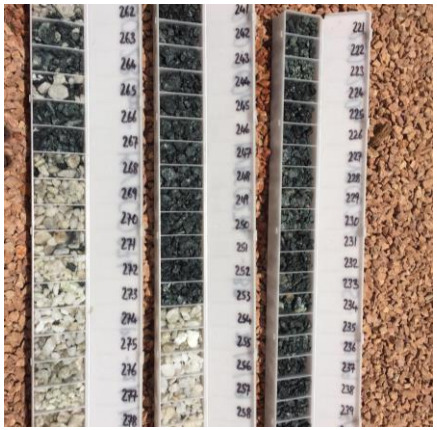
THANK YOU

For more information visit
www.ltresources.com.au

APPENDIX 1

Kathleen Valley Project Additional Information



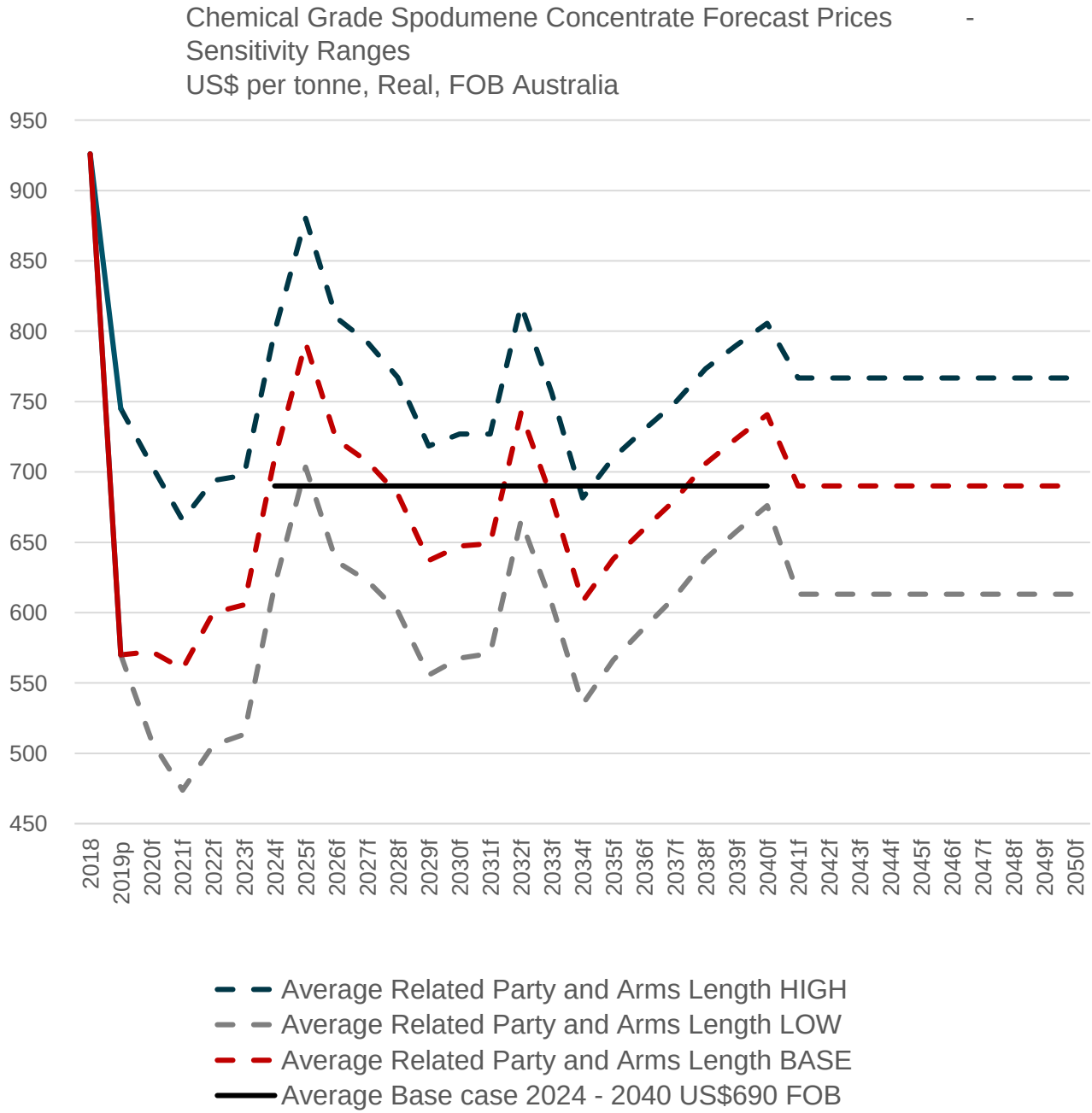


PFS v Scoping Studyï Key Parameters And Assumptions

Parameter		
General and Economic	PFS	Scoping Study
Discount rate (real, post tax)	8%	8%
Spodumene concentrate price	US$690/dmt FOB SC6 (See next slide)	US$650/dmt FOB SC5.6
Exchange rate ðAUD/USD	0.72	0.72
Mining and Production		
Average Life -of-Mine strip ratio	7.7:1	8.2:1
Processing rate	2Mtpa	2Mtpa
Life-of-Mine Production Target	50.4Mt ore	15.7Mt ore
Average Li_2O grade (diluted)	1.18%	1.26%
Li_2O recoveries	76%	79%
Spodumene concentrate grade	6.1%	5.6%
Moisture content of concentrate	9%	13%

Parameter		
Cost Assumptions	PFS	Scoping Study
LOM average open pit mining costs ($/t ore processed)	$35.12	$37.72
LOM average processing cost ($/t ore processed)	$18.20	$19.32
Logistics and transport ($/ wmt concentrate)	$77.26	$75.65
General and admin ($/t ore processed)	$4.71	$6.01
Western Australia State royalty	5%	5%
Other royalties	3% gross sales and $0.5/t ore mined	3% gross sales and $0.5/t ore mined
Corporate tax rate	30%	30%
Estimated opening tax losses available	$30m	$25M

Spodumene Concentrate (SC6) Forecast Pricing



SC6 Prices				
	Related Party*	Arms Length*	50% Related Party and 50% Arms Length	50% Related Party and 50% Arms Length
	US$ CIF China	US$ CIF China	US$ CIF China	US$FOB Australia
2019p	650	550	600	570
2020f	617	588	602	572
2021f	557	624	590	560
2022f	583	677	630	600
2023f	589	682	636	606
2024f	695	785	740	710
2025f	778	866	822	792
2026f	710	796	753	723
2027f	695	780	738	708
2028f	673	756	714	684
2029f	626	708	667	637
2030f	637	717	677	647
2031f	640	718	679	649
2032f	734	810	772	742
2033f	674	749	711	681
2034f	601	675	638	608
2035f	632	704	668	638
2036f	654	725	690	660
2037f	675	744	710	680
2038f	702	770	736	706
2039f	721	787	754	724
2040f	738	803	771	741
2040f - 2049f			720	690

*Source: Roskill October 2019 Base Case Related Party and Arms Length 2040 Prices 2019

PFS ï LoM Financials And Capital Expenditure

Life of Mine Financials

	A$M
Revenues	7,185
Operating costs	(3,563)
Capital expenditure	
- pre-production	(240.5)
- sustaining	(24.9)
Royalties	(600)
Corporate tax	(818)
Life of Mine Project Free Cash flow	1,939

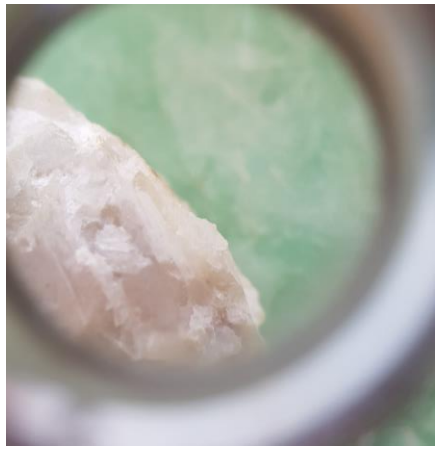
Capital Costs Summary

Main Area	Capital (A$M)
Treatment Plant	76.2
Reagents & Plant Services	13.2
Infrastructure ðgeneral	41.2
Mining	8.5
Contractor and Construction Indirects	22.9
Subtotal	162.0
Management Costs	24.7
Owners Costs	22.7
Subtotal	47.4
Contingency	31.1
Project Total	240.5

PFS ï Operating Costs

Cash Opex (+/ -25%)

Op. Cost	A$/ dmt ore processed	A$/ dmt
Mining	35.12	239.70
Processing	18.20	124.20
Transport/ Logistics	12.18	83.10
G & A	4.71	32.10
Other	0.52	3.60
Royalties	11.91	81.30
Total	82.64	564.00*



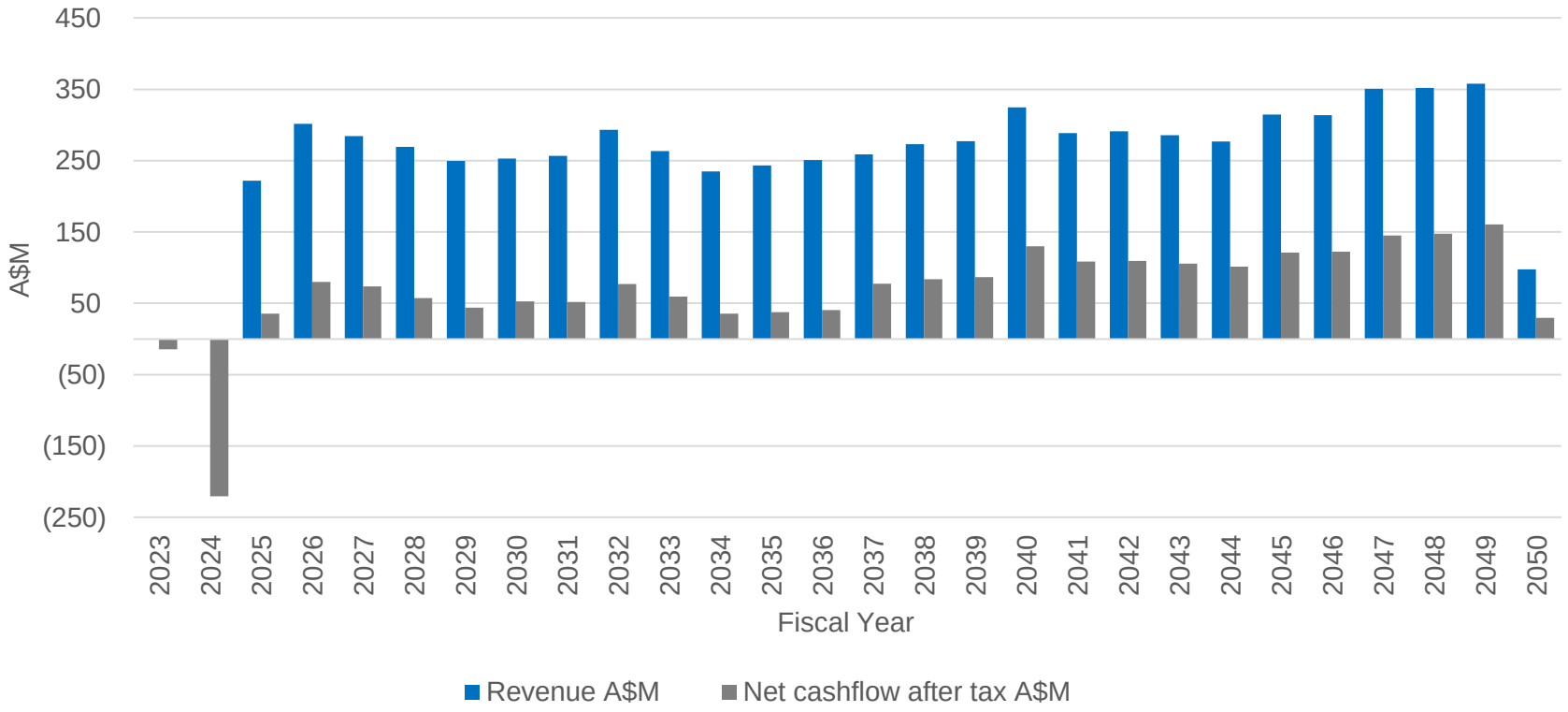
Process/G&A Opex (+/ -25%)

Cost Centre	A$/ dmt ore processed	Proportion
Mobile Equipment	0.32	1
Labour - Processing	3.40	15
Consumables	6.48	28
Power	4.28	19
Maintenance and Repairs	2.00	9
Laboratory	1.72	8
Sub Total	18.20	79
Labour - Admin	1.45	6
G & A Cost	3.26	14
Sub Total	4.71	21
Total	22.91	100

*Excludes credits for possible tantalum recovery which is supported by preliminary test work

Life of Mine Cash Flow

A$ Revenues and Net Cashflows (After Tax)



1. 4 year payback period post production

2. LoM free cash flow of +$1.9B