

# Bell Potter Emerging Leaders Conference

September 2022



# PALADIN

Clean energy. Clear future.

IAN PURDY

CHIEF EXECUTIVE OFFICER

# Disclaimer and competent person's statement



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This presentation contains summary information about the Company's activities current as at the date of this presentation. The information in this presentation is of a general background nature and does not purport to be complete or contain all the information investors would require to evaluate their investment in the Company, nor does it contain all the information which would be required in a prospectus or product disclosure statement prepared in accordance with the Corporations Act 2001 (Cth). The Company is not responsible for updating, nor undertakes to update, this presentation. This presentation should be read in conjunction with the Company's other periodic and continuous disclosure announcements, available at <http://www.paladinenergy.com.au>.

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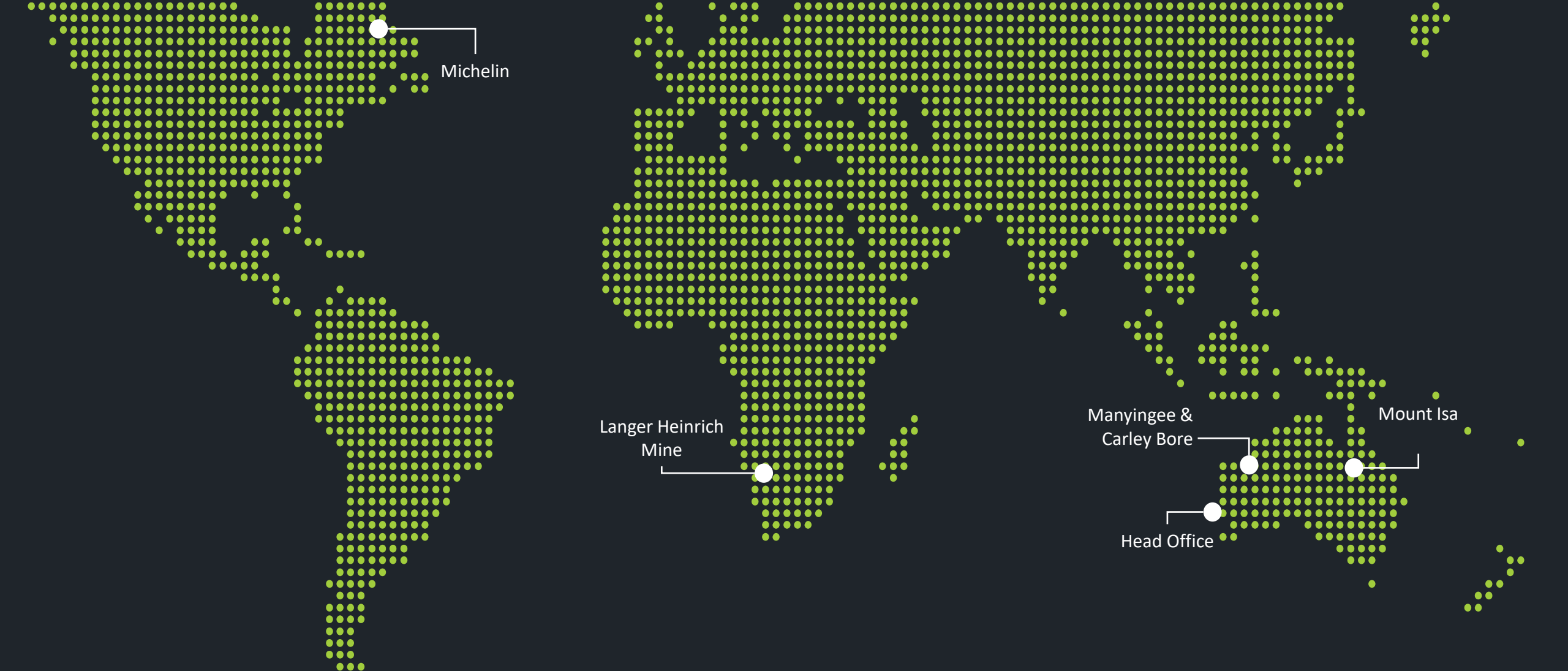
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The information in this presentation relating to the Mineral Resources and Ore Reserves for all of the Company's deposits other than Langer Heinrich, Michelin, Jacques Lake and Manyingee was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that this information has not materially changed since it was last reported. Refer to the Mineral Resource Table slides in the Appendix of this presentation.

## Competent Persons Statement

The information contained within this presentation is extracted from the report titled "Equity Raising Investor Presentation March 2022" released on 31 March 2022 which is available to view on [paladinenergy.com.au](http://paladinenergy.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and, in the case of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.



**PALADIN**

Clean energy. Clear future.

LHM target  
production in Q1 2024

Low risk  
restart project

Balance sheet  
strength

Global exploration  
portfolio

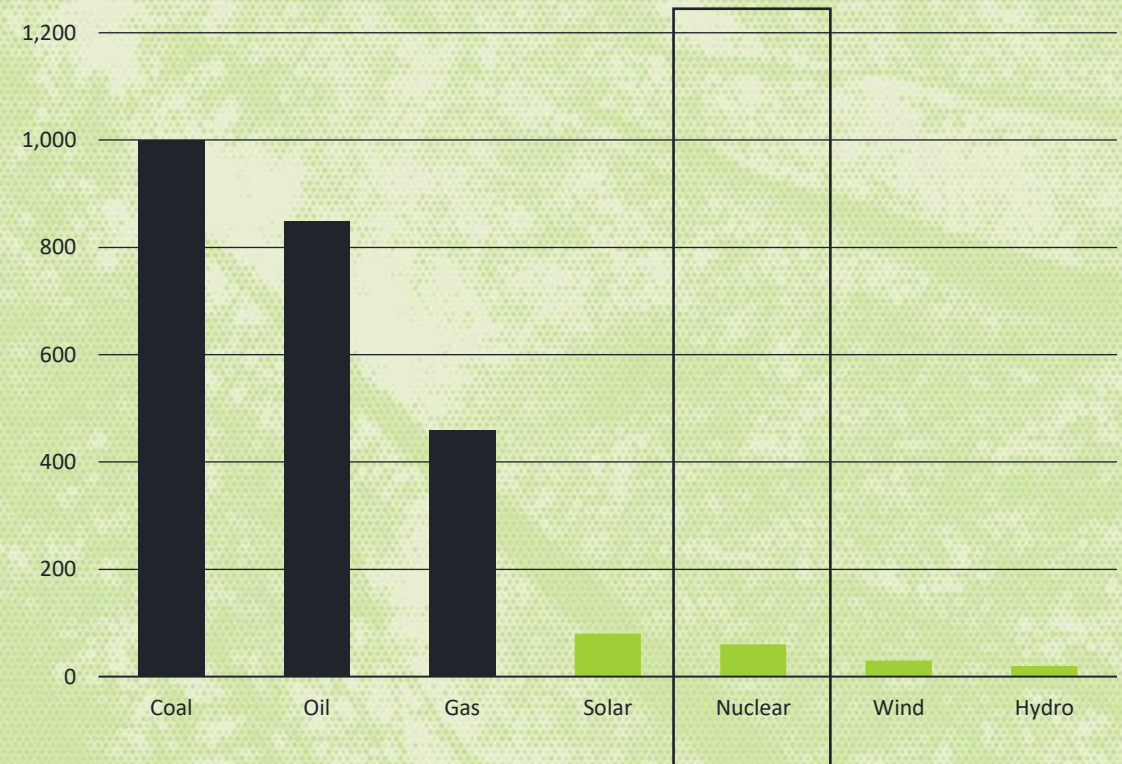
# Our mission: Resourcing a global carbon-free future

Nuclear energy is playing a critical role in the transition to a decarbonised economy.

Today nuclear energy accounts for 47% of carbon-free electricity generation in the US<sup>1</sup>.

The uranium from the Langer Heinrich Mine will significantly reduce global CO<sub>2</sub> emissions by fueling low-carbon nuclear energy and displacing fossil fuel power generation.

Emissions Intensity by Energy Source<sup>2</sup> (g/kWh)







Source: 1) U.S. Energy Information Administration (EIA) 2) World Nuclear Association (WNA)





# Paladin is committed to sustainable development



## ESG Highlights and FY2022 Performance

-  No environmental non-compliances or breaches
-  100% local employee workforce at the LHM
-  30% of Paladin staff are female
-  Applicable permits valid and in good standing

## Our ESG Reporting Commitments

-  Transparent reporting on ESG targets and outcomes
-  SASB framework being implemented
-  GRI framework and TCFD principles to be implemented ahead of production in 2024
-  Committed to Ethical Procurement with Modern Slavery Act compliance ahead of production in 2024



# Langer Heinrich Mine

(75% Paladin ownership)



# Langer Heinrich – a globally significant uranium mine

**Q1 CY2024  
production  
target**

**Cornerstone  
offtakes  
secured**

**4% of annual  
global uranium  
production<sup>2</sup>**

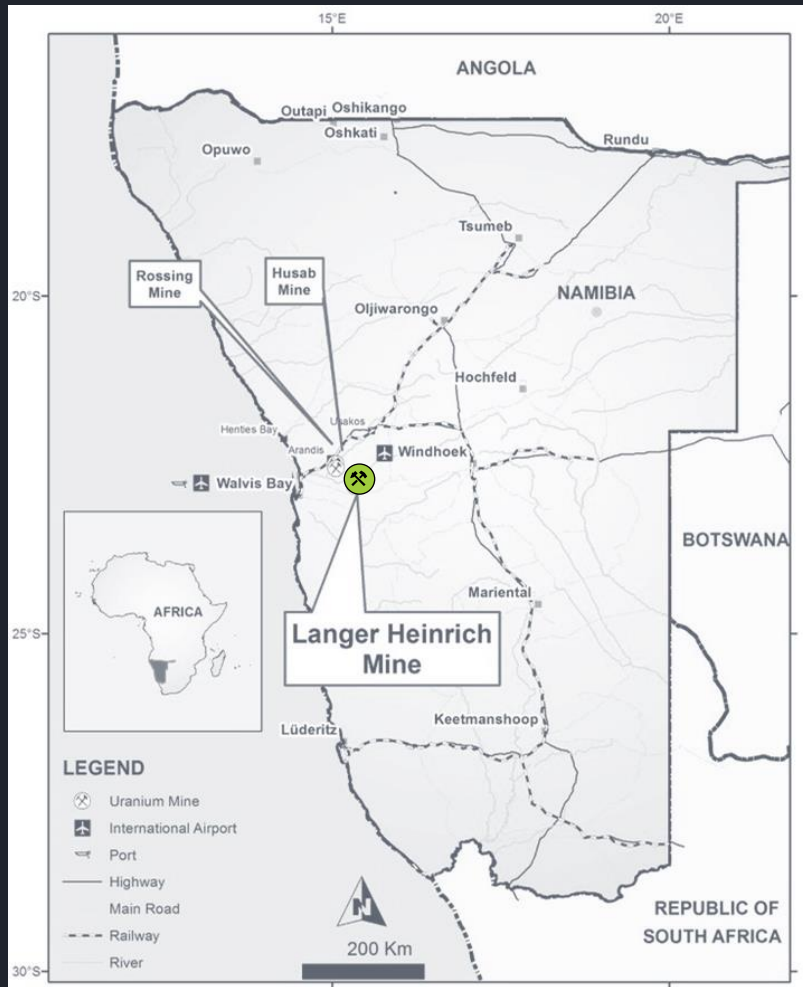
**Independent  
producer  
in a premier  
jurisdiction**

**10 years of  
production  
history**

**Peak  
production of  
6Mlb<sup>1</sup> of U<sub>3</sub>O<sub>8</sub>**

**17 year mine  
life producing  
77Mlb<sup>1</sup> of  
U<sub>3</sub>O<sub>8</sub>**

# Namibia – a premier uranium jurisdiction



Globally significant uranium province (Husab, Rössing and Langer Heinrich) and a major supplier of the world's uranium



Uranium has been produced in Namibia since 1976 under a stable mining and uranium regulation regime



Excellent local infrastructure (port, road, rail, water & power) with proximity to the Walvis Bay industrial hub



Mining contributed ~10% to the country's GDP in 2021<sup>1</sup>



Strong community and government support for the uranium industry

<sup>1</sup> Source: Bank of Namibia

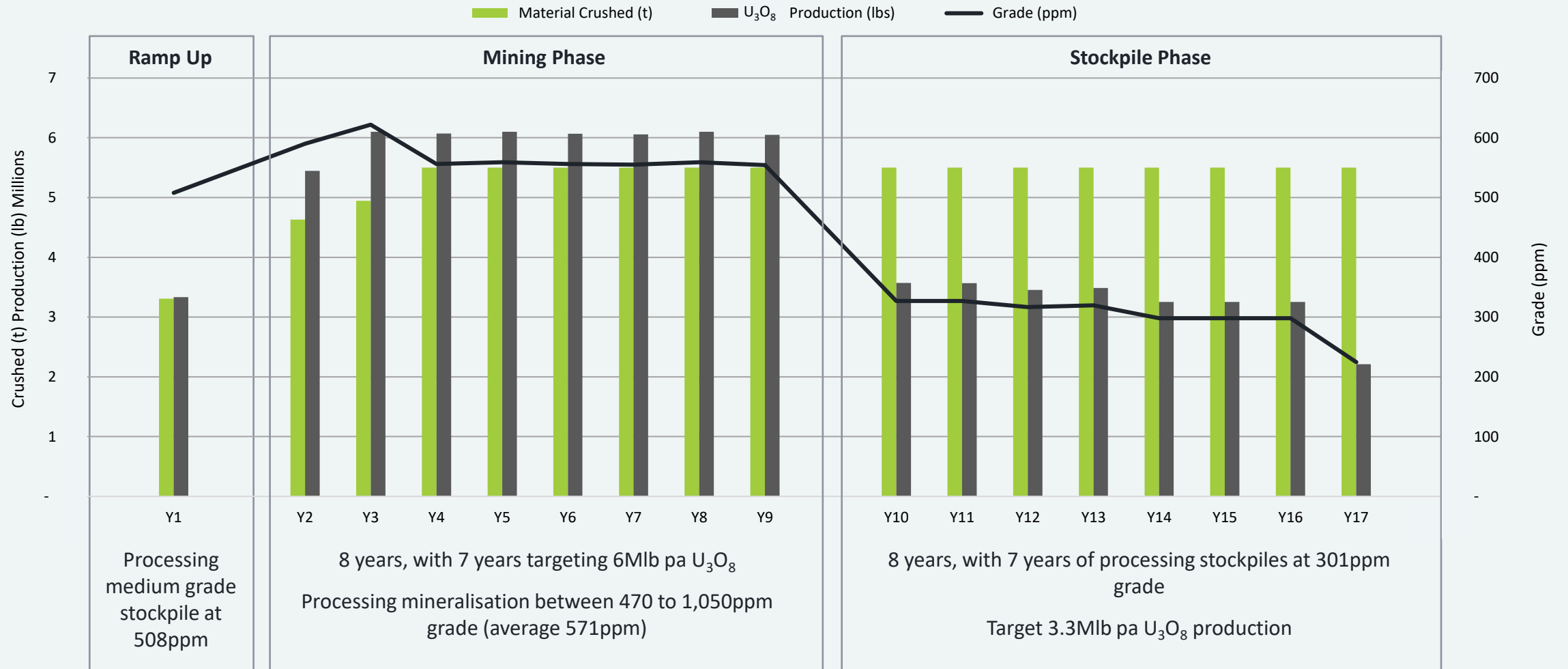


# Langer Heinrich Mine – a low risk restart



- Restart project is underway with target production Q1 CY2024
- Scope of work includes:
  - general repairs and refurbishment required to return the existing process plant to operational readiness
  - delivery of process upgrades to increase throughput capacity and operational availability
- Project capital forecast of US\$118M
- ADP Group will work alongside the Company's owners' team as an EPCM delivery partner to further de-risk project execution
- Current work packages include:
  - completion of detailed engineering and design for process upgrades
  - procurement of project materials and equipment
  - the commencement of plant refurbishment and upgrade works
  - finalisation of water and power agreements

# Langer Heinrich Mine - production profile



Note: Year 1 is the first 12 months post commencement of production. The years do not reference calendar or financial years

# Langer Heinrich Mine - uranium marketing update



## Cornerstone counterparties

- A leading Fortune 150 North American power utility
- CNNC, a leading Chinese nuclear utility and one of the largest consumers of uranium in the world



## Current Activities

- Expanded uranium marketing team with appointment of US-based executive
- Engaging in bilateral discussions with global power utilities and continuing to participate in Request For Proposal processes



## Long-term offtake agreements

- Sales agreement<sup>1</sup> for approximately 5% of production to 2030 with a base escalated pricing mechanism
- Life of Mine Offtake for up to 25% of production with a market pricing mechanism



## Strategic Focus

- Continue to build the contract portfolio in attractive uranium pricing environment
- Target high-quality counterparties and a balance of pricing mechanisms

<sup>1</sup> See ASX announcement dated 31 March 2022 in relation to Tender Award, for which the Offtake Agreement has been subsequently executed

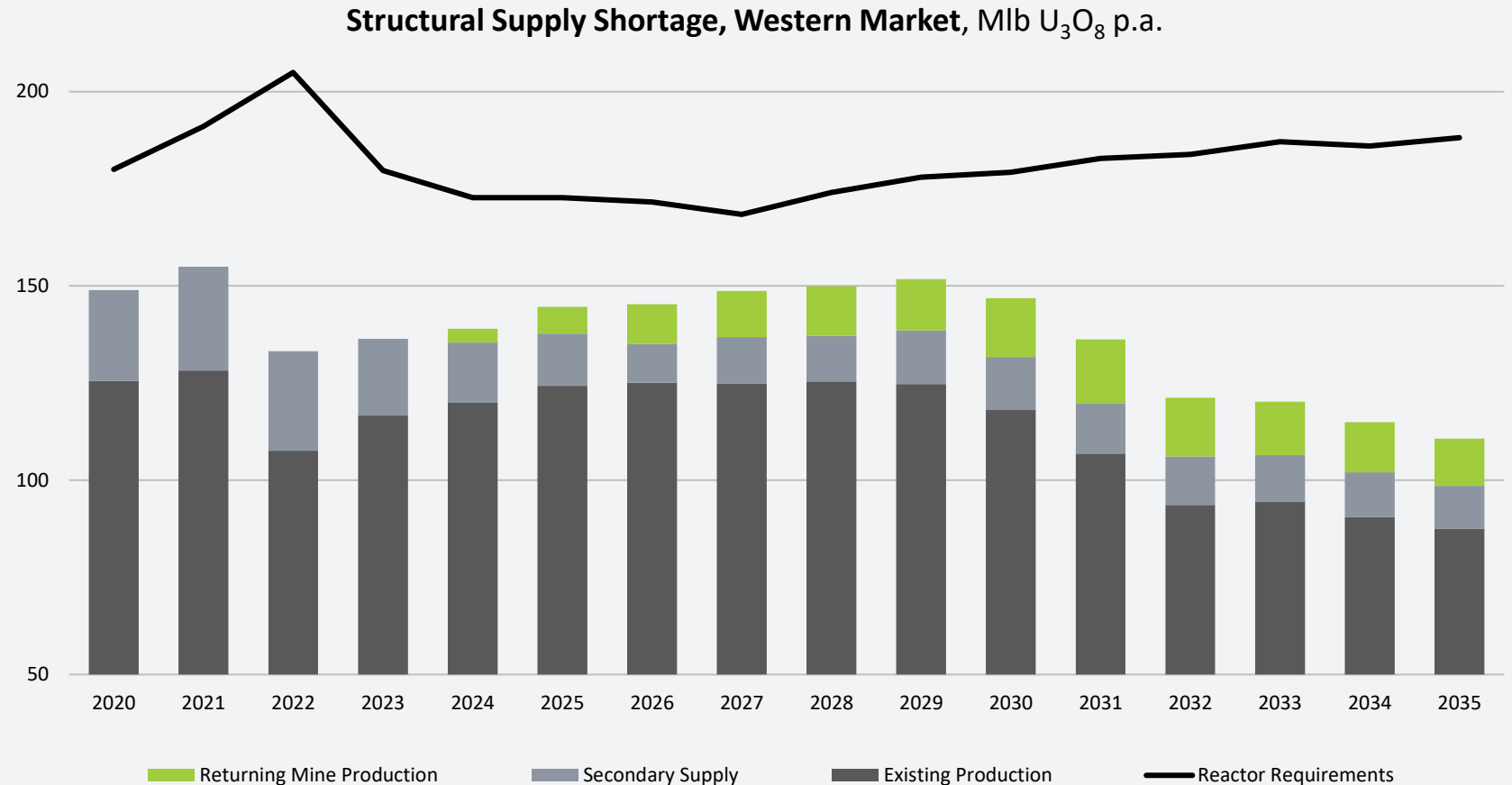
# Uranium Market



# Structural supply deficit with growing demand



- Current primary uranium supply unable to meet current demand. Deficit met by secondary supplies and inventory drawdowns
- Projected production from returning mines will not be sufficient to meet the deficit
- Trade Tech have recognised the bifurcation of markets in their base case projections, further widening the deficit
- Average annual deficit is ~40Mlb over the coming decade

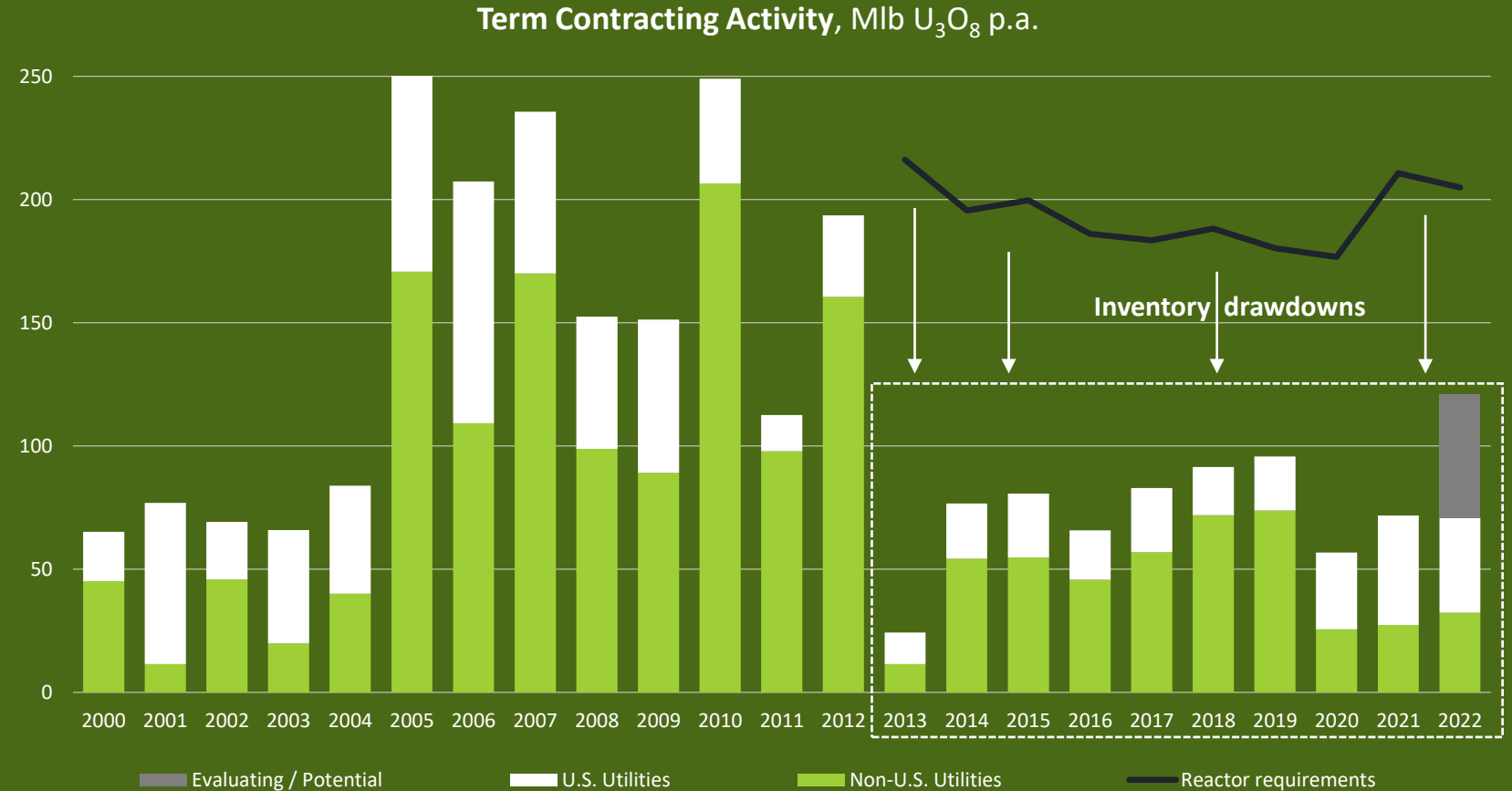


Source: Trade Tech, 2Q 2022

# Term contracting volumes on the rise



- For over a decade utilities have been “under-contracting” and drawing down their inventories
- In an environment of rising uranium prices and shrinking secondary supplies out of Russia, this is no longer a viable option
- Significant increase in term contract activity is emerging in 2022. Decade high level is expected by UxC
- “Catch-up” in contracting volumes is required to balance the market



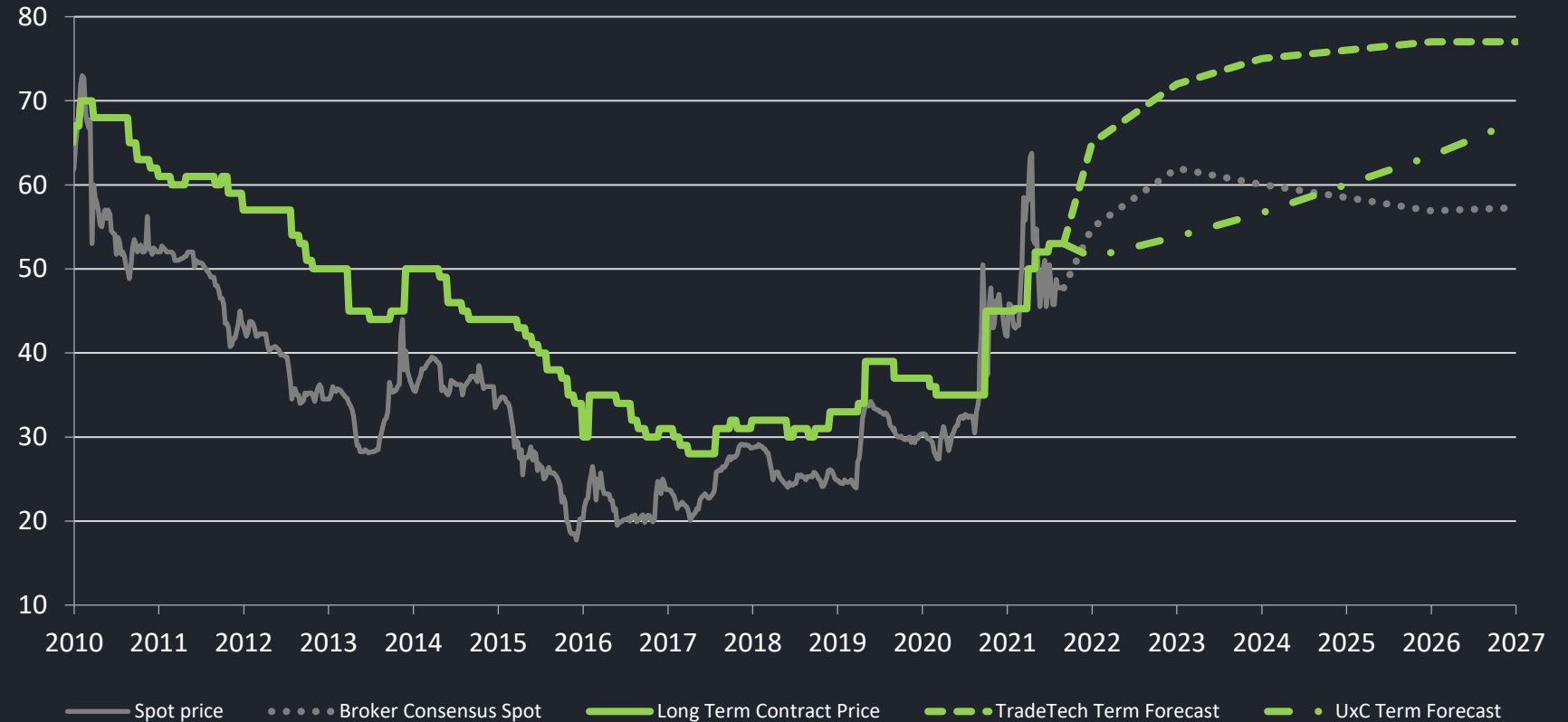
Source: UxC 2Q 2022

# Strong uranium pricing environment



- Spot and Long-term contract prices have rebounded strongly in the last 12 months
- Outlook is strong, supported by uranium market fundamentals and geopolitical uncertainties

Uranium Prices, Spot and Long-term, US\$/lb



Sources: TradeTech 2Q.2022, UxC 2Q.2022; Broker forecasts: BofA, BMO, Cannacord, Investec, Macquarie, Morgan Stanley, Research Capital, Shaw & Partners and UBS, June 2022

# Recent uranium market activity



## Geopolitical uncertainties

- Recent events in Russia, Ukraine and Kazakhstan have emphasised the need for energy independence and supply from producers in low-risk, stable jurisdictions
- Bifurcation of markets has put further pressure on existing supply-demand deficit



## China's commitment to nuclear energy is strengthening

- 150 nuclear reactors scheduled for construction over the next 15 years
- Construction of the first commercial land-based Small Modular Reactor has commenced
- Recent contracts signed with Kazatomprom



## Financial players have significantly altered uranium spot market dynamics

- Spot market has become more liquid and more transparent with the entrance of Sprott and the re-vamp of the physical uranium trust, which it now manages (SPUT)
- Other financial players are entering (eg ANU Energy physical uranium fund)
- Spot and Long-term uranium prices have increased to US\$53.50/lb and US\$53.00/lb (both up 51%) over the last 12 months, respectively<sup>1</sup>



## Other global developments

- **Small Modular Reactors:** developments are underway in North America, Europe and Asia. Floating SMR already operational in Yakutia (Russia)
- **Japan:** reactor restarts are being accelerated. New reactors are contemplated
- **South Korea:** nuclear phase-out program is being reversed
- **EU taxonomy:** inclusion of nuclear power as “green” energy

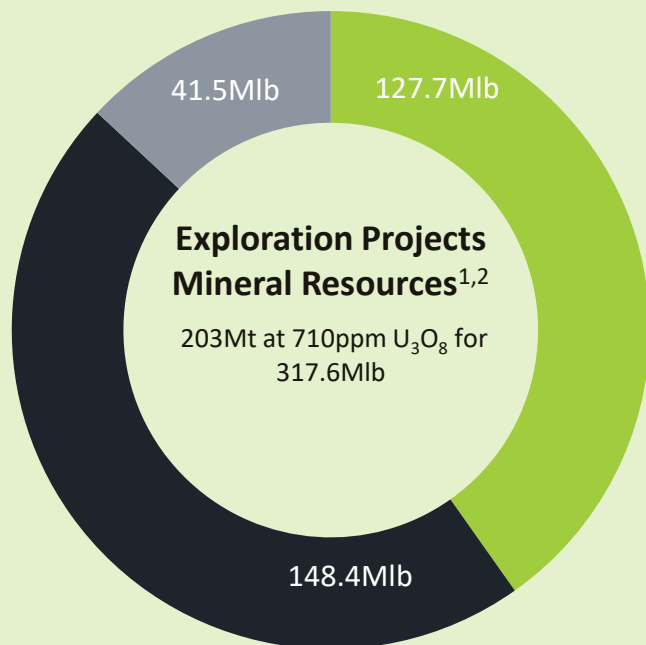
<sup>1</sup> TradeTech as at 31 August 2022



# Exploration



# A quality global suite of exploration assets



- Michelin Project
- Mount Isa Project
- Manyingee & Carley Bore Project



Globally significant, high-grade exploration portfolio



Extensive historical exploration activity has seen over US\$140M previously spent



Diverse portfolio of assets provides optionality



Exploration activity has re-commenced at Michelin with activities focused on development pathways and regional exploration opportunities



Paladin will continue to pursue a disciplined approach to exploration activity whilst assessing global opportunities

<sup>1</sup> See the "About Paladin" section for more information and Mineral Resource Tables; <sup>2</sup> Measured, Indicated and Inferred Mineral Resources for the Michelin, Mount Isa and Manyingee & Carley Bore Projects on a 100% Project basis as at 30 June 2021

# Michelin uranium project<sup>1</sup> (70% Paladin ownership)



## Restart of exploration activities at the Michelin Project (Labrador, Canada)

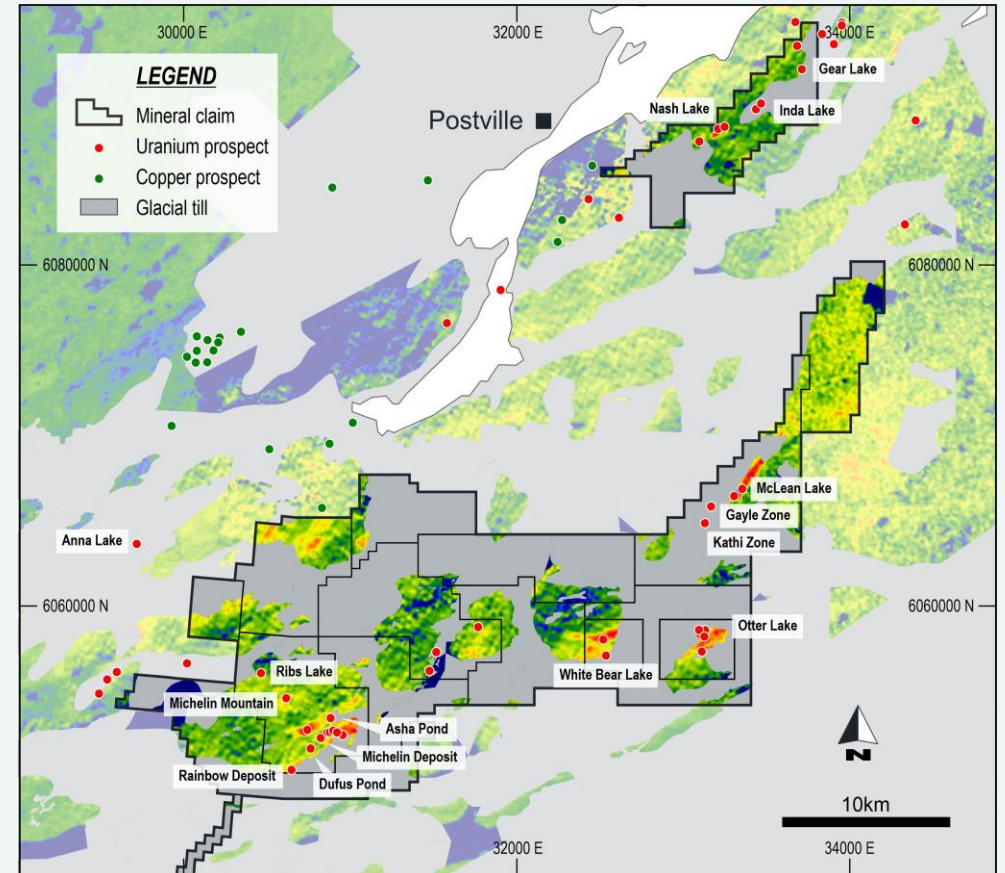
- Activity has re-commenced at the Michelin project with a dual-track workstream focused on defining development pathways and improving the understanding of the regional exploration potential

## Development pathway

- Rework of the 2009 concept study incorporating up to date pricing, technology and geological understanding
- Opportunity for a staged development given the extensive nature of tenements and the potential for shallow lying deposits. 80% of tenements under thin glacial cover with limited historical drilling in those areas
- Potential for shallow lying deposits can reduce capital costs and development timeframes

## Exploration pathway

- Uranium exploration will comprise an airborne gravity-gradiometry in 2022 and a drilling program over 2023-2024
- Global-scale Rare Earth Element deposits present in the region with knowledge to be extended via review of existing core samples at Michelin



### Michelin upside potential

Tenement area shown by black outline; image is U<sup>2</sup>/Th radiometrics; glacial till cover shown in grey; deposits known in areas of outcrop where there is no till cover

<sup>1</sup> As required under the terms of the Michelin Joint Venture Agreement, Paladin will be conducting a sales process for the Michelin Project. Paladin has the right to determine if the terms of any offer made under the sales process are acceptable. Paladin has a right of pre-emption to acquire the Michelin Joint Venture partner's interest in the Project

# Investment Conclusion



**PALADIN**



Clean energy. Clear future.



### Returning the Langer Heinrich Mine to production

- Project approved, fully funded and under way
- Low risk Restart project with well defined scope and strong project execution team
- First production targeted for Q1 CY2024

### Cornerstone offtakes secured and strong uranium market

- Offtakes secured with leading global counterparties
- Structural supply deficits and growing demand
- Global marketing team pursuing further offtake opportunities

### Balance sheet strength and financial discipline

- US\$177<sup>1</sup>M in net cash
- No corporate debt
- Disciplined approach to growth plans providing future optionality and value

### Sustainable future

- Resourcing a carbon free future
- Committed to delivering value through sustainable development
- Focus on delivering shareholder value

<sup>1</sup> As at 30 June 2022

# About Paladin



# Meet the Board



**Cliff Lawrenson**  
Non-Executive Chairman

Mining executive with deep expertise in the minerals and energy sectors derived from global experience having worked extensively in project development and investment banking. A successful track record of leading strategic direction in companies and executing corporate transactions.



**Peter Main**  
Non-Executive Director

Mining and financial experience spanning more than 30 years. Peter's experience is wide and diverse with the major focus in senior management roles in mining and investment banking. A proven international track record in equity capital markets and sales and trading spanning more than two decades.



**Peter Watson**  
Non-Executive Director

Chemical engineer with extensive experience in the global resources sector across senior technical, project, and management roles as well as running ASX-listed companies. His experience includes project development, project delivery, asset optimization and mining facilities operations across multiple commodities and global jurisdictions.



**Melissa Holzberger**  
Non-Executive Director

Commercial and mining lawyer with significant experience in the energy and resources sector, including the uranium industry. She is an experienced company director having served on ASX-listed, public, government and not-for-profit boards spanning a wide range of sectors. She brings legal, risk, compliance, corporate ethics and corporate governance expertise.



**Joanne Palmer**  
Non-Executive Director

A registered Company Auditor, a Fellow of the Institute of Chartered Accountants in Australia, England and Wales and was previously an Assurance Partner at EY. She brings over 25 years of industry experience providing audit and assurance services on company listings, mergers, acquisitions and takeovers and significant experience in auditing international mining companies.

# The Executive Team



**Ian Purdy**  
Chief Executive Officer

Highly-respected executive with over three decades' experience within Australian and international resources companies. He has delivered significant shareholder value through managing and optimizing operations, delivering large projects and executing on business improvements and asset sales. He also has extensive capital markets experience and a proven track record of delivering company funding requirements.



**Anna Sudlow**  
Chief Financial Officer

Corporate finance professional with 25 years' experience across the energy and resources sectors in senior management roles. Her experience includes funding execution, commercial management, accounting, finance and treasury in both the ASX listed and private sectors, and includes experience in international jurisdictions.



**Johan Roux**  
General Manager  
Langer Heinrich

Legal professional with over 30 years' experience in the management of corporate, labour, mining, commercial, human resources and legal compliance laws in Namibia and South Africa, largely in the mining and oil & gas sectors. Prior to joining Langer Heinrich, he was a partner of a legal firm in Namibia.



**Jess Oram**  
Senior Vice President  
Exploration

An experienced exploration geologist with 30 years experience in mineral exploration and management across a variety of commodities and companies. He has significant experience in uranium exploration and has been involved in mineral discovery, resource delineation and expansion and mining feasibility studies.



**Alex Rybak**  
Senior Vice President  
Marketing & Business Development

Mergers & Acquisitions, Business Development and Strategy professional with over 20 years of in-house and investment banking experience across a broad range of sectors including energy and resources. He has extensive international experience and has worked in a range of private, public and government-owned enterprises.



# Mineral Resources and Ore Reserves – Langer Heinrich



## Summary Mineral Resources<sup>1</sup>

Location	Classification	Millions of Tonnes (Mt)	Grade U <sub>3</sub> O <sub>8</sub> (ppm)	Contained U <sub>3</sub> O <sub>8</sub> (Mlb)	Grade V <sub>2</sub> O <sub>5</sub> (ppm)	Contained V <sub>2</sub> O <sub>5</sub> (Mlb)
In situ -open pit	Measured	79.1	450	78.6	145	25.5
In situ -open pit	Indicated	23.5	375	19.5	120	6.3
In situ -open pit	Inferred	11.0	345	8.4	115	2.7
<b>Total In situ</b>	<b>All</b>	<b>113.6</b>	<b>425</b>	<b>106.5</b>	<b>140</b>	<b>34.5</b>
MG <sup>2</sup> stockpiles	Measured	6.3	510	7.1	165	2.3
LG <sup>3</sup> stockpiles	Measured	20.2	325	14.5	105	4.7
<b>Total</b>	<b>All</b>	<b>140.1</b>	<b>415</b>	<b>128.1</b>	<b>135</b>	<b>41.5</b>

## Summary Ore Reserves<sup>1</sup>

Location	Classification	Millions of Tonnes (Mt)	Grade U <sub>3</sub> O <sub>8</sub> (ppm)	Contained U <sub>3</sub> O <sub>8</sub> (Mlb)
In situ -open pit	Proved	48.3	488	52.0
In situ -open pit	Probable	10.0	464	10.2
Stockpiles	Proved	26.5	369	21.6
<b>Total</b>	<b>All</b>	<b>84.8</b>	<b>448</b>	<b>83.8</b>

### Mineral Resources

Notes: 200ppm U<sub>3</sub>O<sub>8</sub> cut-off applied to in-situ Mineral Resources – 250ppm U<sub>3</sub>O<sub>8</sub> cut-off applied to stockpiles at the time of mining. Mineral Resources reported on a 100% ownership basis, of which Paladin has a 75% interest. The Measured and Indicated U<sub>3</sub>O<sub>8</sub> Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves (as reported above). Depleted for mining. Tonnage information has been rounded and as a result the figures may not add up to the totals quoted.

<sup>1</sup> Refer ASX Announcement “Langer Heinrich Mine Restart Plan Update, Mineral Resource and Ore Reserve Update” dated 4 November 2021. <sup>2</sup> “MG” refers to medium grade. <sup>3</sup> “LG” refers to low grade

### Ore Reserves

Notes: Ore Reserves are reported on a dry basis. Proved Ore Reserves are inclusive of ore stockpiles. 250ppm cut-off applied. Tonnage figures have been rounded and may not add up to the totals quoted. Ore Reserves reported on a 100% ownership basis, of which Paladin has a 75% interest. Vanadium does not report to Ore Reserves. 1. Refer ASX Announcement “Langer Heinrich Mine Restart Plan Update, Mineral Resource and Ore Reserve Update” dated 4 November 2021

# Mineral Resources table – Canadian exploration portfolio



Mineral Resources		Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Paladin Ownership (%)
<b>Canada</b>					
Measured	Michelin <sup>1</sup>	17.6	965	37.6	70
	Rainbow <sup>2</sup>	0.2	920	0.4	70
Indicated	Gear <sup>2</sup>	0.4	770	0.6	70
	Inda <sup>2</sup>	1.2	690	1.8	70
	Jacques Lake <sup>1</sup>	13.0	630	18.0	70
	Michelin <sup>1</sup>	20.6	980	44.6	70
	Nash <sup>2</sup>	0.7	830	1.2	70
	Rainbow <sup>2</sup>	0.8	860	1.4	70
Inferred	Gear <sup>2</sup>	0.3	920	0.6	70
	Inda <sup>2</sup>	3.3	670	4.8	70
	Jacques Lake <sup>1</sup>	3.6	550	4.4	70
	Michelin <sup>1</sup>	4.5	985	9.9	70
	Nash <sup>2</sup>	0.5	720	0.8	70
	Rainbow <sup>2</sup>	0.9	810	1.6	70
<b>Total Canada</b>		<b>67.7</b>	<b>860</b>	<b>127.7</b>	<b>70</b>

Note: Values may not add due to rounding. <sup>1</sup>- Refer ASX Announcement dated 31 January 2018 "Correction to 30 June 2017 Annual Report" pp13-15 (reporting standard JORC 2012) <sup>2</sup>- Refer SEDAR lodgment (TSX:FRG) dated 8 September 2009 "Fronteer Reports Positive Preliminary Economic Assessment for Michelin Uranium Project" (reporting standard JORC 2004)

# Mineral Resources table – Australian exploration portfolio



Mineral Resources		Mt	Grade ppm U <sub>3</sub> O <sub>8</sub>	Mlb U <sub>3</sub> O <sub>8</sub> (100% basis)	Paladin Ownership (%)	
<b>Australia</b>						
Measured	Valhalla <sup>1</sup>	16.0	820	28.9	100	
Indicated	Andersons <sup>2</sup>	1.4	1,450	4.6	100	
	Bikini <sup>3</sup>	5.8	495	6.3	100	
	Duke Batman <sup>4</sup>	0.5	1,370	1.6	100	
	Odin <sup>5</sup>	8.2	555	10.0	100	
	Skal <sup>6</sup>	14.3	640	20.2	100	
	Valhalla <sup>1</sup>	18.6	840	34.5	100	
	Carley Bore <sup>7</sup>	5.4	420	5.0	100	
	Manyingee <sup>8</sup>	8.4	850	15.7	100	
	Inferred	Andersons <sup>2</sup>	0.1	1,640	0.4	100
		Bikini <sup>3</sup>	6.7	490	7.3	100
Duke Batman <sup>4</sup>		0.3	1,100	0.7	100	
Honey Pot <sup>9</sup>		2.6	700	4.0	100	
Mirrioola <sup>10</sup>		2.0	560	2.5	100	
Odin <sup>5</sup>		5.8	590	7.6	100	
Skal <sup>6</sup>		1.4	520	1.6	100	
Valhalla <sup>1</sup>		9.1	640	12.8	100	
Watta <sup>11</sup>		5.6	400	5.0	100	
Warwai <sup>11</sup>		0.4	360	0.3	100	
Carley Bore <sup>7</sup>	17.4	280	10.6	100		
Manyingee <sup>8</sup>	5.4	850	10.2	100		
<b>Total Australia</b>		<b>135.4</b>	<b>635</b>	<b>189.8</b>	<b>100</b>	

Note: Values may not add due to rounding. <sup>1</sup> Refer Announcement (ASX:SMM) dated 19 October 2010 "Resource Upgrade for the Valhalla Uranium Deposit" (reporting standard JORC 2004) <sup>2</sup> Refer ASX Announcement dated 16 April 2012 "Quarterly Activities Report for period ending 31 March 2012" (reporting standard JORC 2004) <sup>3</sup> Refer ASX Announcement dated 15 April 2011 "Quarterly Activities Report for period ending 31 March 2011 (reporting standard JORC 2004) <sup>4</sup> Refer ASX Announcement dated 31 August 2011 "30 June 2011 Annual Report" p29 (reporting standard JORC 2004) <sup>5</sup> Refer ASX Announcement dated 17 January 2012 "Quarterly Activities Report for period ending 31 December 2011" (reporting standard JORC 2004) <sup>6</sup> Refer ASX Announcement dated 13 July 2012 "Quarterly Activities Report for period ending 30 June 2012" (reporting standard JORC 2004) <sup>7</sup> Refer ASX Announcement (ASX:EMX) dated 12 February 2014 "Energia Delivers Significant Uranium Resource Upgrade" (reporting standard JORC 2012) <sup>8</sup> Refer ASX Announcement dated 14 January 2014 "Manyingee Minerals Resources - Amendment" (reporting standard JORC 2012) <sup>9</sup> Refer ASX Announcement dated 10 December 2008 "Maiden Uranium Resource at Valhalla North Project" (reporting standard JORC 2004) <sup>10</sup> Mirrioola - ASX Announcement dated 15 March 2012 "Half Yearly Financial Report 31 December 2011" (reporting standard JORC 2004) <sup>11</sup> Watta - ASX Announcement Summit Resources Ltd dated 29 January 2013 "Half Year Financial Report – 31 December 2012, (reporting standard JORC 2004); Warwai - ASX Announcement Summit Resources Ltd dated 29 January 2013 "Half Year Financial Report – 31 December 2012 (reporting standard JORC 2004)



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