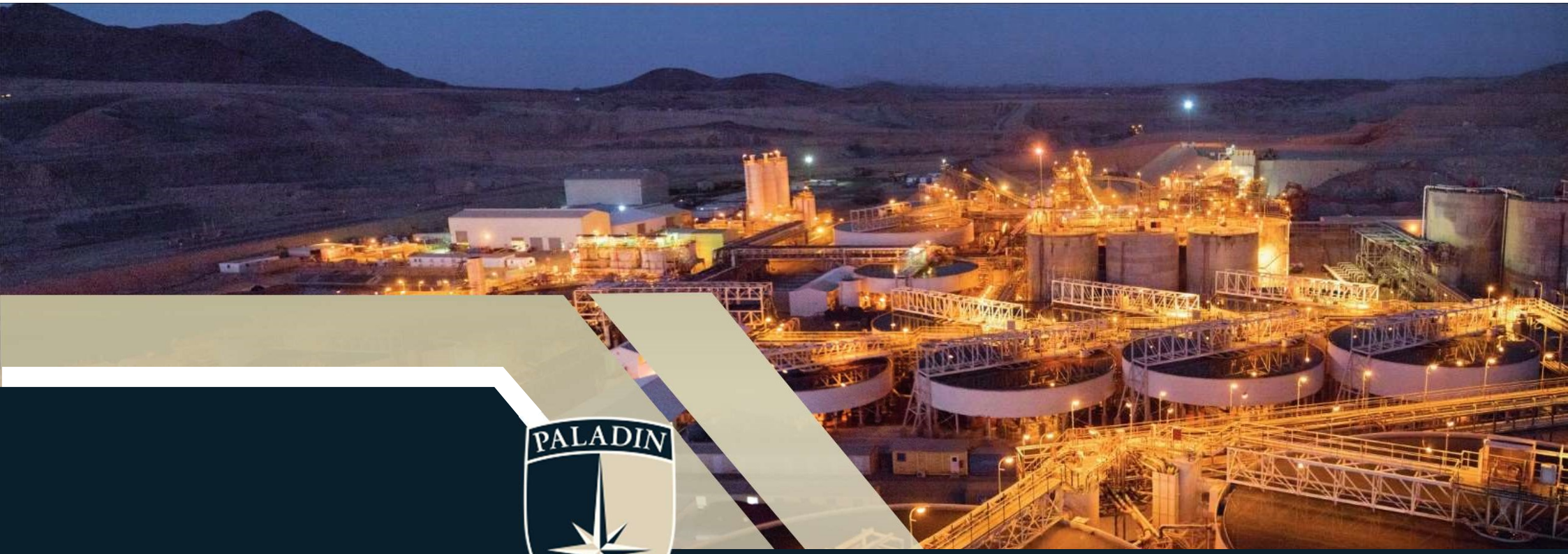

PALADIN ENERGY LTD

Langer Heinrich Mine Restart Plan
June 2020

Ian Purdy – Chief Executive Officer

Disclaimer and Competent Persons Statement

Disclaimer

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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Competent Persons Statement

The information in this announcement that relates to Exploration Results and Mineral Resource estimates for the Langer Heinrich deposit were prepared by David Princep of Gill Lane Consulting who is an independent consultant. Mr. Princep has visited the Project on numerous occasions since 2003, with the most recent being in July 2016. Mr. Princep, a Competent Person, is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist. Mr. Princep has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012). Mr. Princep approves of and consents to the inclusion of the information in this announcement in the form and context in which it appears.

Why Paladin?

Paladin has streamlined the company with its sole focus on the restart of the globally significant Langer Heinrich operation in mining friendly Namibia

The Langer Heinrich Mine Restart Plan (The Restart Plan) confirms the asset's position alongside other large-scale suspended Uranium operations and confirms restart capital, costs and operational performance

Our existing infrastructure, historic mine development and 10-year operations track record provides Paladin an early mover option in an improving Uranium price market

Paladin has a strong financial position with approximately US$35M[1] in cash reserves and a FY2021 cash spend forecast of < US$10M

Recent supply disruptions have exacerbated the structural supply deficit in the global Uranium market. Term contract pricing is responding to the growing imbalance

We have the right team to deliver and execute on the Company's strategy

1. As at 31 May 2020

Langer Heinrich Mine

A Globally Significant Uranium Operation

Langer Heinrich – a proven mining operation and Uranium supplier

Paladin owns 75%
CNNC 25%

10-year production track record

43Mlb U_3O_8 produced and sold

Fully permitted to resume mining and Uranium exports

Located in a Uranium mining province with stable regulatory regime

Restart Plan objectives & outcomes

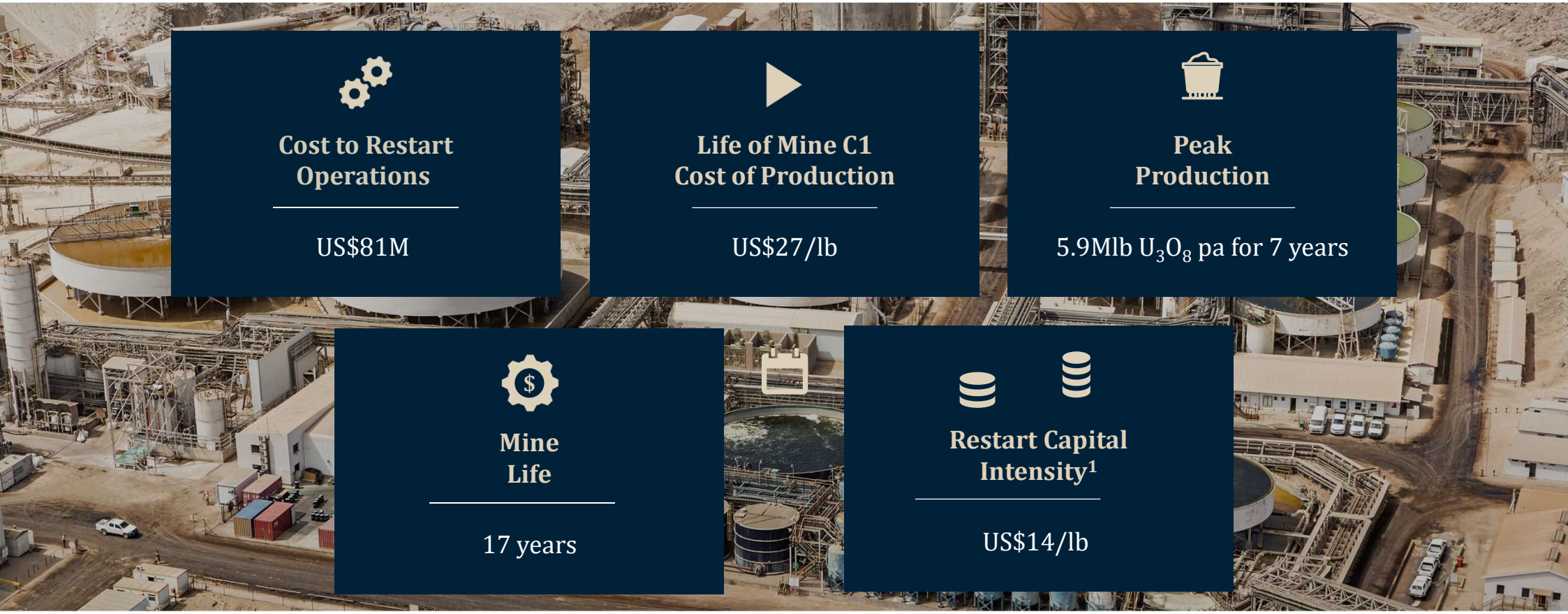
Objectives: Low risk, reliable restart plan balancing ability to rapidly respond to strengthening Uranium prices and maximising asset value

Outcomes: The Restart Plan has optimised previous PFS work and delivered a path to bring Langer Heinrich back into production:

- Capital improvements defined to increase plant runtime to 95%
- Growth options and work packages identified to de-bottleneck plant throughput by 25%
- Management systems and process control improvements to increase process stability
- Verified license, permits and certificates required for restart
- Restart plan detailed and schedule derisked to ensure that benefits will be realised
- Modelling key operational Life of Mine metrics

Independent Verification: All key outcomes have been externally reviewed and verified by AMC Consultants and PQ Partners

Restart Plan confirms economic significance of Langer Heinrich Mine



Cost to Restart Operations

US$81M

Life of Mine C1 Cost of Production

US$27/lb

Peak Production

5.9Mlb U_3O_8 pa for 7 years

Mine Life

17 years

Restart Capital Intensity[1]

US$14/lb

1. Capital restart costs divided by annual production volume. 2. $Namibia to US$ FX 16.5. 3. 100% Basis quoted

US$81M pre-production expenditure required to restart & deliver reliable operations

Operational Readiness (US$34M)

Working capital and other cash expenditure to restart baseline operations:

- Perform maintenance on plant and infrastructure
- Replenish reagents, purchase spare parts and other working capital
- Workforce recruitment, mobilization and training. Mobilise key contractors, including mining contractor

Discretionary capital investment to improve plant availability (US$47M)

Targeted investments to maximise plant reliability and runtime (c.85% to 95%):

- Product drying and packaging facility upgrade reducing product volumes and transport weight
- Leach feed surge tank to decouple crushing from leach, increasing availability
- Increase water storage mitigating production interruption when primary water supply is disrupted
- Process control upgrade and process equipment changes to increase stability and control
- Address known asset integrity issues – piping, structural and electrical
- Increased tailing capacity 12 months in advance of production needs

Operational Readiness	US$34M
Maintenance	13
Working capital replenishment	14
Work force and mobilisation	7

Improving Plant Availability and Process Stability	US$47M
Product drying and packaging	14
Leach surge capacity and water storage	7
Process control and stability	6
Infrastructure asset integrity	16
Tailings dam	4

Restart scope of work to deliver mine to mill improvements

Additional Water Storage prevents interruptions from external water supply

Process control upgrade

Leach heating and mixing upgrades to improve extraction

Pumping, piping and instrumentation upgrades throughout plant

Replace & improve product drying and packaging plant

Thickener and pumping upgrade to maximise density

Surge Tank decouples ore crushing from leaching

Second Hydrosorter improves metal selectivity for leaching

Key restart operational metrics

Ramp Up Phase

- Ramp up to full production targeting 80% nameplate within six months and 100% nameplate within twelve months (McNulty Curve, Type One)
- Targeted reliability improvements deliver 95% runtime, which increases leach capacity to 12.5% above historical levels
- Processing medium grade stockpile at 520 ppm grade

Mining Phase

- 7 years targeting 5.9Mlb pa U_3O_8
- Processing mineralization between 350 to 900 ppm grade (average 593 ppm)
- Further debottlenecking completed in year 3 to increase leach capacity by an additional 12.5% (US$12M):
  - Pumping, piping, electrical upgrades and process control to debottleneck alkaline leach pressing rate
  - Staged debottlenecking after restart enables more focused improvement based on two years of operating experience

Stockpile Phase

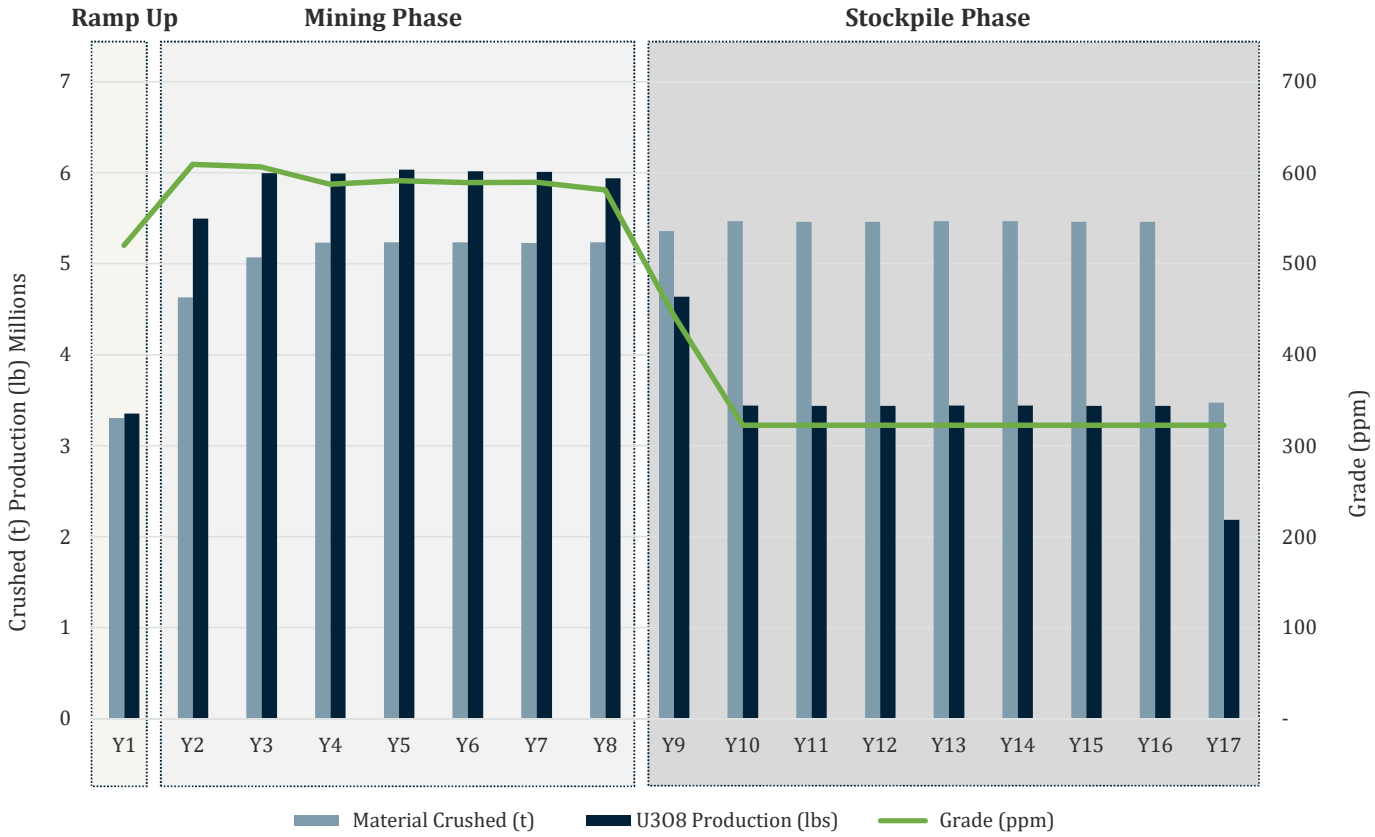
- 9 years of processing stockpiles at 336 ppm grade
- Target 3.5Mlb pa U_3O_8 production

	Ramp Up Phase (Year 1)	Mining Phase (Years 2-8)	Stockpile Phase (Years 9-17)
Mining Rate (TMM Mt pa)	0	28.8	0
Mill Throughput (Mt pa)	3.3 (from stockpile)	5.1	5.3 (from stockpile)
Mill Availability (%)	71	95	95
Mill Feed Grade (ppm)	520	593	336
Process Recovery (%)	88.5	88.4	88.5
Production (Mlb pa U_30_8)	**3.3**	**5.9**	**3.5**
Mining & Stockpile Rehandling Cost ($M pa)[1, 3]	11	72	16
Processing & Maintenance Cost ($M pa)	57	81	67
G&A & Other ($M pa)	9	9	9
Capex ($M pa)[2]	1.5	14.5	13.1

The Mineral Resource estimate that underpins the production target has been prepared by a Competent Person in accordance with the requirements of the JORC Code. The production target is based on Mineral Resources of 86.1Mlb and comprises 86% Measured category (inclusive of 30.8Mt ROM stockpiles), 13% Indicated category, and 1% Inferred category Mineral Resource. There is a low level of geological confidence associated with the Inferred category Mineral Resource and no certainty that the production target associated with the Inferred category Mineral Resource will be realised. The Company notes that the Inferred Mineral Resource, representing 1% of Mineral Resources underpinning the production target, is not a material component of the study work. Given The Restart Plan is a new plan which the previously announced Ore Reserves are not applicable to, moving forward the Company proposes to undertake the necessary work to ascertain the extent to which the Measured and Indicated category Mineral Resources can be defined as Ore Reserves pursuant to the JORC Code.

1. Excludes stockpile inventory adjustments. 2. Sustaining, minor improvement, progressive rehab and tailings mgt capex. Excludes pre-production capex and post-production closure costs 3. No in-situ mining occurs in Ramp Up and Stockpile phases. Stockpile re-handling only. 4. Figures quoted in table reflect yearly average over the operational phases.

Rapidly returning to full production rate



Mine Plan

- Plant is self sufficient in Year One drawing from existing Medium Grade Stockpile (4.7Mt @ 520 ppm)
- In-situ mining for 7 years with peak mining total material movement of ~38Mtpa
- Strip ratio of mining phase is 1.8, including stockpiled mineralisation (2.6:1 for in-situ mineralisation)
- Mining via 3 excavators and 18 Cat 985 or similar size trucks
- Contract mining with local work force of ~300 FTEs
- Mining phase will add 23Mt to Low Grade stockpiles over the 7 year period

Stockpiles

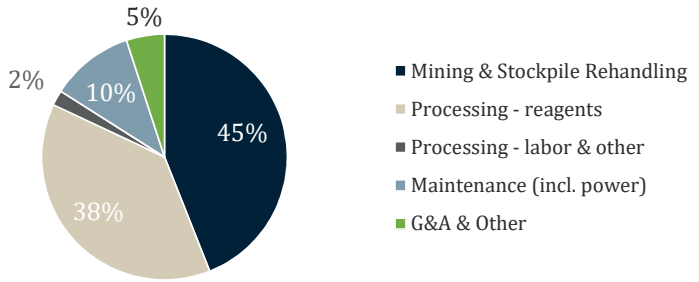
- Existing stockpile level of 26 Mt Low Grade (~325 ppm) 4.7Mt Medium Grade (~520 ppm)
- Stockpiles written down and have zero book value
- Stockpiles will peak at ~49Mt in year 7
- Stockpiles allow processing to continue for over 9 years post mining phase

Langer Heinrich cost profile

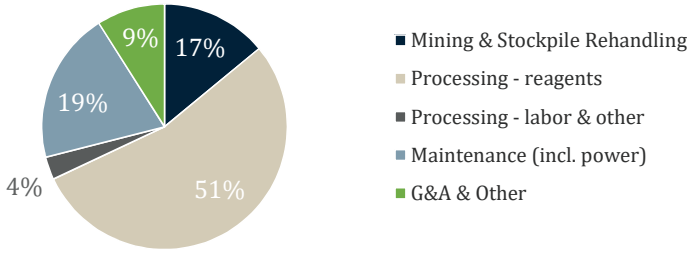
US$/lb U_3O_8	Ramp Up Phase	Mining Phase	Stockpile Phase	Life of Mine (all 3 Phases)
Mining & Stockpile Rehandling[1]	3.3	12.2	4.6	**8.7**
Processing & Maintenance	16.9	13.7	19.3	**16.2**
G&A and Other	2.8	1.5	2.6	**2.0**
Production Cash Cost	**23.0**	**27.4**	**26.5**	**26.9**
Non-Cash Inventory Adjustments[4]	-	(7.9)	10.5	**-**
C1 Cost of Production	**23.0**	**19.5**	**37.0**	**26.9**
Freight & Logistics	0.95	0.95	0.95	**0.95**
Capex[3]	0.45	2.4	3.7	**2.9**
Government Royalties[2]	3%	3%	3%	**3%**

Production Cash Cost

Mining Phase



Stockpile Phase



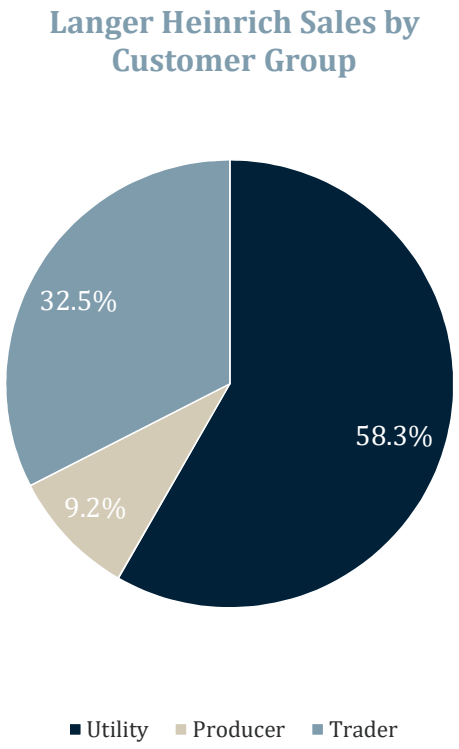
1. Excludes stockpile inventory adjustments. 2. Namibian Royalties of 3% US$ sales. Excludes 3rd party royalty of A$0.12/kg. 3. Sustaining, minor improvement, progressive rehab and tailings mgt capital. Excludes pre-production capex and post-production closure costs 4. Opening stockpiles have no book value (written off in 2017/2018)

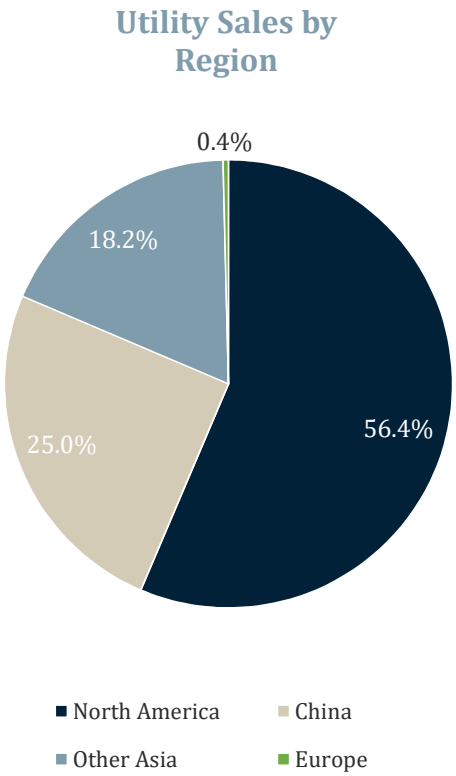
Why Uranium?

Positive Structural Dynamics

Langer Heinrich's proven Uranium product

- 43Mlb U_3O_8 successfully marketed over 10 years
- Delivered product aligned to feedstock specifications of global UF_6 conversion facilities operated by Cameco, Honeywell, Orano and CNNC
- Langer Heinrich never missed a shipment or had a shipment rejected
- Customers know the Langer Heinrich product
- Product packaging upgrade will enable UO_4 or U_3O_8 production upon restart
- Langer Heinrich has a LOM offtake with CNNC for up to 25% of annual production at approximately the then prevailing spot price
- The CNNC offtake is complimentary to the Company's plan to secure term offtake for the remaining 75% of uncontracted production and provides upside exposure to uranium prices





Structural supply deficit

World Nuclear Association Supply Shortage Graph

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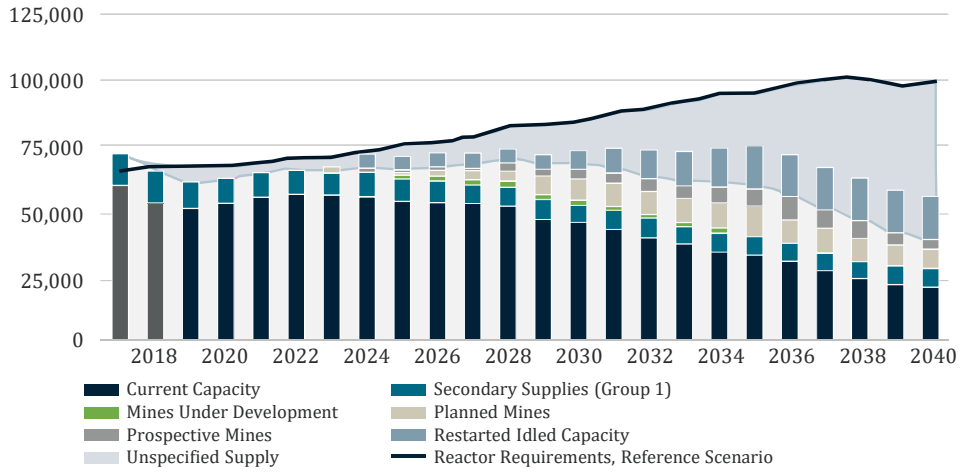
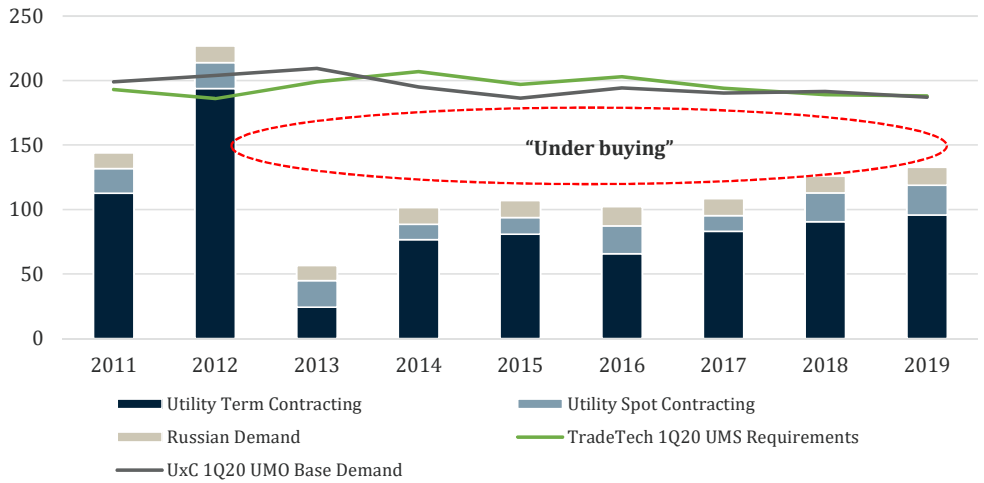


Source: World Nuclear Association

- Current uranium supply unable to meet current demand
- 135 new nuclear reactors forecast to be built by 2040, further increasing demand
- Re-start of idled mine capacity and the development of Planned & Prospective mines requires incentive prices US$40-80/lb

Stockpile Drawdown

MIb



Source: Paladin Research/UxC/TradeTech

- Since 2012, utilities have been "under buying" at an average rate of 90Mlb per year relative to consumption
- US and European utilities have largely rundown stockpiles and contract positions put in place pre-Fukushima
- Asian utilities have higher stockpiles than their Western counterparts, but these are also decreasing

Current pricing unsustainable

Uranium Market Prices 2011-20

US$/lb

Source: TradeTech Nuclear Market Review

Uranium Prices

- Until April 2020, Spot Uranium prices had declined c.60% since the Fukushima nuclear accident
- Term prices have been below US$50/lb since April 2015
- Current pricing remains sub-economic for existing producers and below incentive pricing for suspended operations

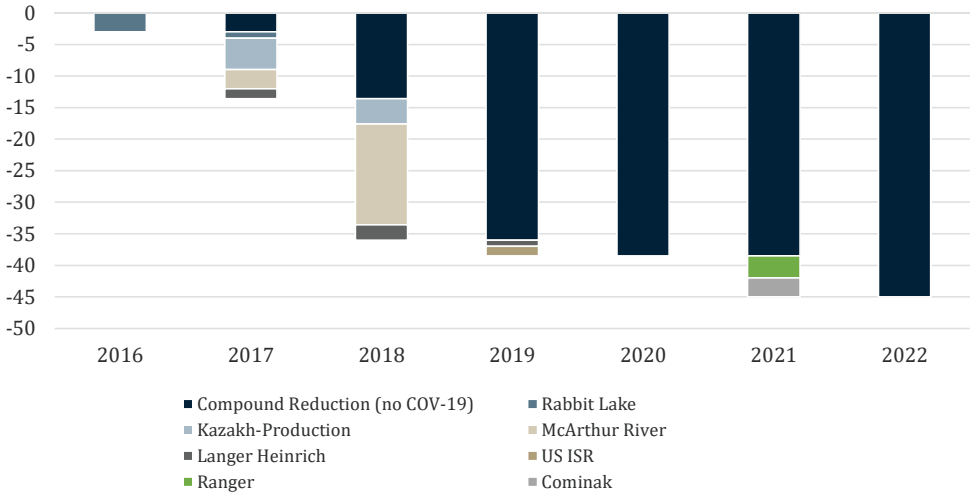
Recent Supply Disruptions

- Mining operation disruptions at Cigar Lake, Kazatomprom and Namibian operations
- Short term suspensions are exacerbating the structural supply deficit
- Upward movement in spot market price may be a precursor to term market activity
- Spot Uranium prices increased by over 36% since the start of the year (US$25/lb to US$34/lb)
- TradeTech quoted term price increased to US$39/lb at the end of April 2020 (+18% since the start of the year)

Impact of sub-economic pricing

Cumulative Primary Supply Cuts

Mlb pa

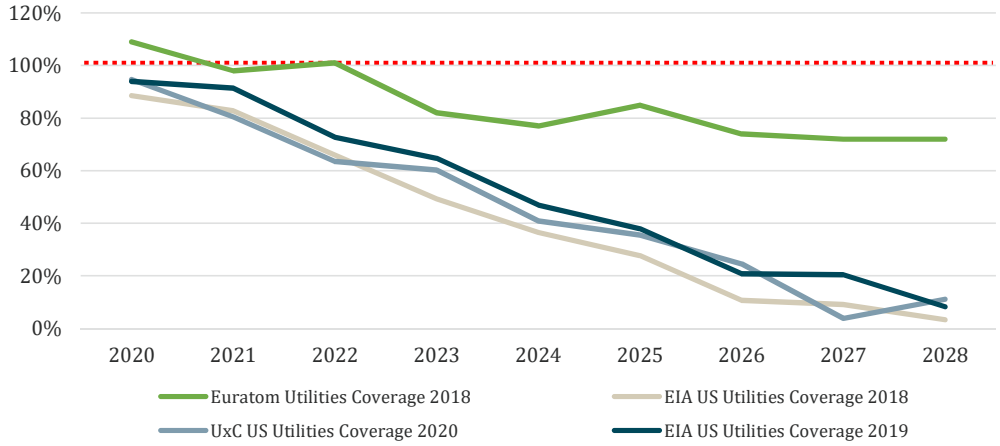


Source: TradeTech Nuclear Market Review

- Primary Uranium production cut-backs announced since 2016 total 45Mlb pa (excluding 2020 disruptions)

Future Contracted Coverage Rates of US & European Utilities

Contract coverage (% of total requirements)



Sources: Euratom Supply Agency Annual Report 2018/US EIA 2018 Uranium Marketing Annual Report/UxC UMO Q1 2020
Note: Euratom - European Atomic Energy Community

- US contract coverage reaching critical lows
- Minimal change in contract coverage since 2018

Paladin Investment Conclusion

What does it mean for Paladin?

1 Advance the critical path elements of The Restart Plan

- Continue detailed mine planning to support the preparation of contract mining commercial documentation
- Detailed as-is condition survey of the processing plant, to support the preparation of EPCM commercial documentation
- Utilise the forward work program to publish a revised Ore Reserve
- Continue detailed technical and commercial work aimed at de-risking restart activities

2 Paladin is poised to take advantage of improving Uranium market

- Growing structural supply deficit
- Primary production cuts continuing & recent disruptions further tightening supply
- US utility contract coverage reaching critical lows
- Securing the appropriate term contracts is key to the restart of Langer Heinrich Mine

3 Langer Heinrich is competitively positioned versus other suspended mines

- Industry competitive capital and operating costs
- Proven product quality
- Globally significant operation
- Significantly shorter time to deliver production and lower incentive price than green-fields projects

4 Strong Financial Position

- Significant runway to execute strategy with US$35M in cash
- Greatly reduced cash burn rate and significant cash on hand
- Disciplined and patient approach
- Flexibility to respond to market conditions

Appendix

Reconciliation of The Restart Plan to The Prefeasibility Study (October 2019)

- In October 2019 the Company released the findings of its Prefeasibility Study (refer ASX announcement '*PFS delivers for Langer Heinrich*' released on 14 October 2019)
- The October 2019 PFS ('The PFS') outlined two potential alternative options for restarting operations at the Langer Heinrich Mine:
  - Restart at a 5.2Mlb average annual peak production rate ('PFS 5.2Mlb Option')
  - Restart at an expanded 6.5Mlb average annual peak production rate ('PFS 6.5Mlb Option')
- The Restart Plan is the result of further optimisation and review processes and is the Company's chosen restart option, allowing for a low risk, reliable restart balancing the ability to rapidly respond to strengthening uranium prices, whilst maximising the value of the asset
- The Restart Plan is based on a re-sequencing of mining and processing activities outlined in The PFS and takes elements from both the PFS 5.2Mlb Option and the PFS 6.5Mlb Option. Material assumptions underpinning the production target and forecast financial information derived from the production target continue to apply from The PFS and have not materially changed
- These two options are tabled below, as per the October 2019 ASX Announcement, as well as the current Restart Plan:

Option	Total Life of Asset		High and Medium Grade Mineral Resources		Low Grade Mineral Resources		Restart & Improvement Cost (US$ real)
	Timeframe[1] (years)	AISC (US$/lb)	Peak Production Rate (Mlb pa)	Timeframe (years)	Peak Production Rate (Mlb pa)	Timeframe (years)	
PFS: 5.2Mlb	20	33	5.2	8	2.7	12	80
PFS: 6.5Mlb	16	29	6.5	6	3.4	10	110
The Restart Plan	16	32	5.9	7	3.5	9	81

1. Excluding Ramp-up year

- Further discussion on The Restart Plan versus The PFS has been included within the accompanying ASX Announcement '*Langer Heinrich Mine Restart Plan*' released in conjunction with this presentation

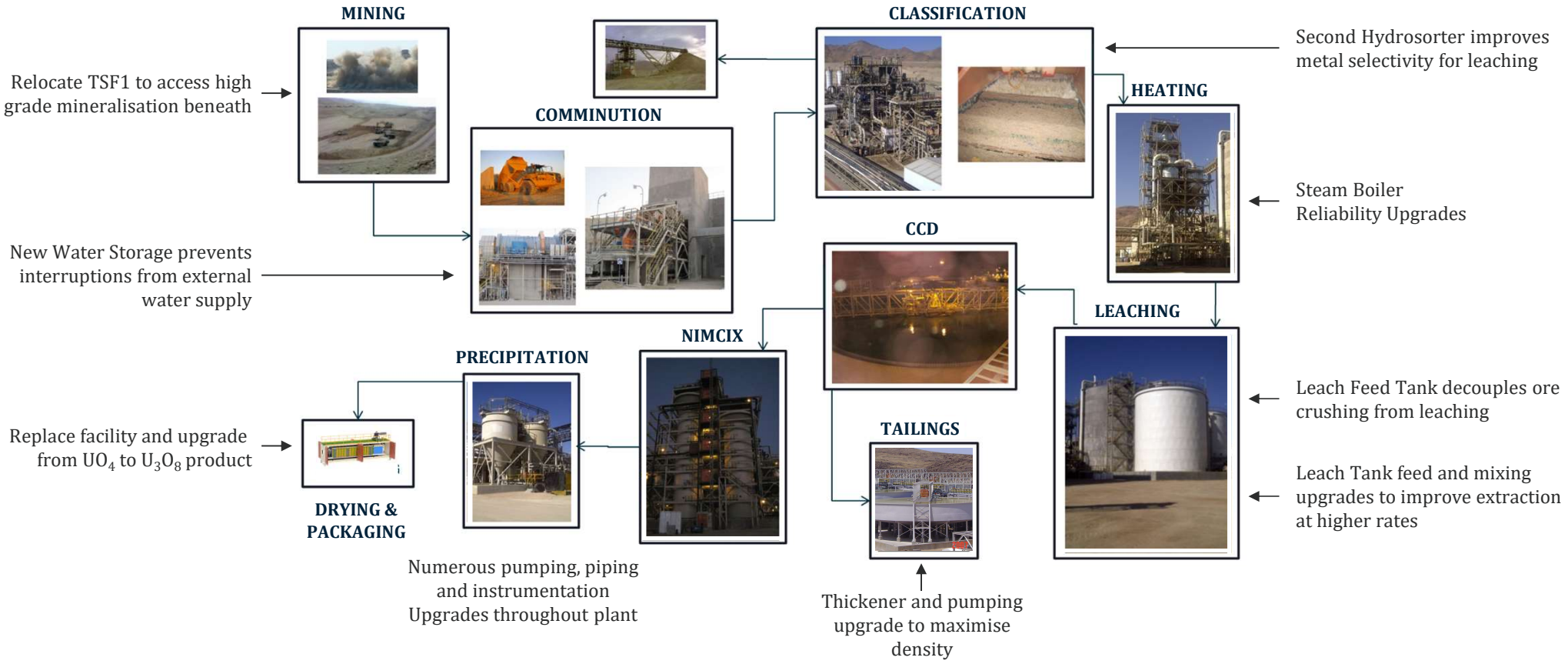
Langer Heinrich Mine historical performance parameters

		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Mining Rate (in-situ)	Mt	27.8	21.6	20.2	24.6	7.6	0
Mill Throughput	Mt	3.44	3.72	3.40	3.57	3.52	2.95
Mill Feed Grade	ppm	812	783	768	699	610	475
Recovery	%	86.0%	87.0%	87.6%	86.3%	87.7%	88.5%
U_3O_8 Production	Mlb	5.3	5.6	5.0	4.8	4.2	2.7
C1 Cost of Production	US$/lb	30.0	27.7	29.0	25.9	18.9	26.2

Notes:

1. Stage Three Expansion Project completed in 2013 generating 5Mlb pa U_3O_8 production capacity
2. Mining suspended November 2016
3. Production suspended May 2018

Proven process flow sheet with increased reliability and stability



Other financial information

Corporate (Paladin Energy)

- US$34.8M unrestricted cash at 31 May 2020
- US$144.6M of senior debt (10% non-cash coupon rate) at 30 April 2020, including accrued interest, repayment due January 2023
- US$62M of Australian carry forward tax losses at 30 June 2019

Langer Heinrich Mine
(75% Paladin Energy; 25% CNNC Overseas Uranium Holding)

- US$364M carry forward Namibian tax losses at 30 June 2019
- US$238M fixed asset book value at 30 June 2019. Depreciation based on units of production over Life of Mine (once producing)
- Namibian Company tax rate 37.5%
- Royalties 3% of Uranium Sales plus 3rd Party Royalties of A$0.12 per kg

Meet the new Board and CEO

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 finance professional with extensive experience of the financial markets with a wealth of industry experience, having spent almost 15 years in a variety of roles in the mining industry from operations through to CEO of a TSX-V listed mining company.

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.

Ian Purdy
Chief Executive Officer

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

Future growth options

Restart Plan highlights several mineral-processing technology innovations

Paladin declared a maiden vanadium Mineral Resource Estimate in 2019. As part of a reagent recycling project (membrane technology) there is potential for vanadium to be extracted and sold

Reagent recycling using Paladin's patented nanofiltration technology. Paladin has a successful track record of deploying membrane technology to recycle reagents such as bi-carbonate and carbonate. Patent granted

Increased ore beneficiation allowing more uranium metal to leach. Opportunity to increase low grade processing margins from Year 8 onwards. Ore sorting (radiometric, colour), beneficiation scrubbing increase / expansion and flotation options

Increase leach feed and discharge density to alleviate plant bottleneck. Thickening upgrade using HiG equipment or resin in pulp technology. Tails thickening to increase reagent and water recycling

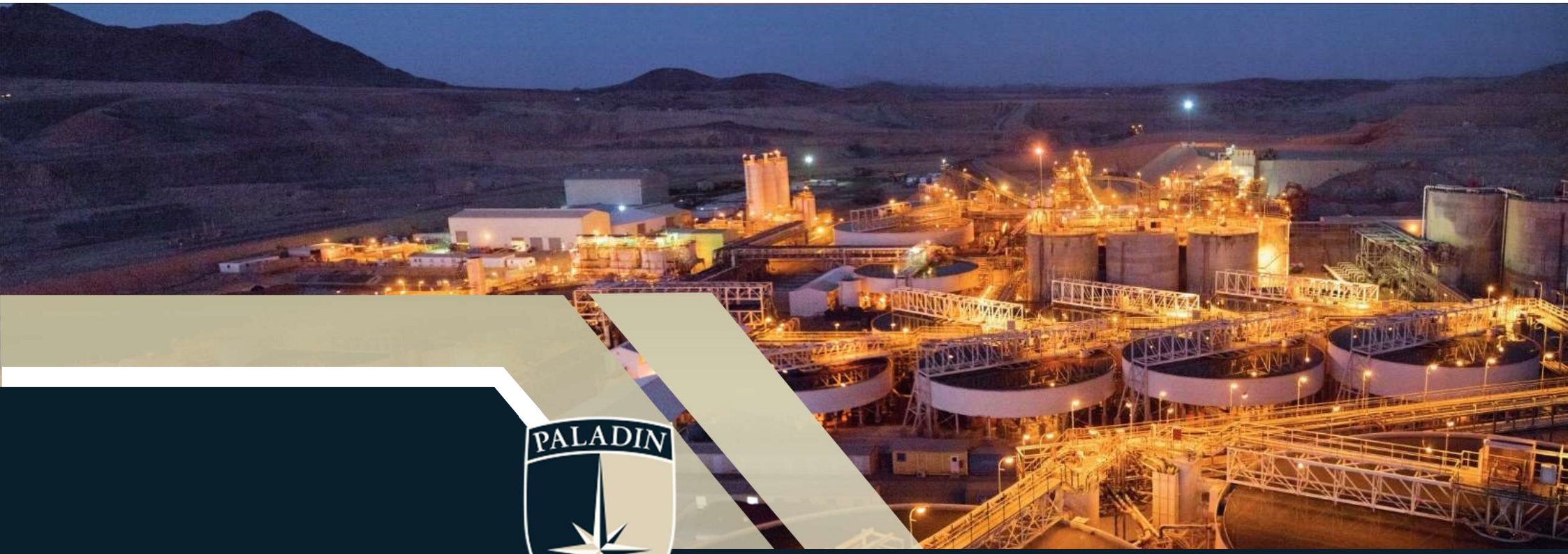
Primary focus remains restart and operational stability. Innovations will be pursued once this has been achieved

Mineral Resources Table

Uranium Mineral Resources[1] 250ppm U_3O_8 cutoff	Measured			Indicated			Inferred			Total			Paladin Ownership (%)
	Mt	Grade ppm U_3O_8	Mlb U_3O_8 (100% basis)	Mt	Grade ppm U_3O_8	Mlb U_3O_8 (100% basis)	Mt	Grade ppm U_3O_8	Mlb U_3O_8 (100% basis)	Mt	Grade ppm U_3O_8	Mlb U_3O_8 (100% basis)	
Langer Heinrich													
In-situ	66.2	490	71.9	18.8	435	18	6.3	420	5.8	91.3	475	95.7	75
MG[2] ROM Stockpiles	4.7	520	5.4	-	-	-	-	-	-	4.7	520	5.4	75
LG[3] ROM Stockpiles	26.1	325	18.7	-	-	-	-	-	-	26.1	325	18.7	75
Total	97	445	95.9	18.8	435	18	6.3	420	5.8	**122.1**	**445**	**119.7**	75

Vanadium Mineral Resources[1] 250ppm U_3O_8 cutoff	Measured			Indicated			Inferred			Total			Paladin Ownership (%)
	Mt	Grade ppm V_2O_5	Mlb V_2O_5 (100% basis)	Mt	Grade ppm V_2O_5	Mlb V_2O_5 (100% basis)	Mt	Grade ppm V_2O_5	Mlb V_2O_5 (100% basis)	Mt	Grade ppm V_2O_5	Mlb V_2O_5 (100% basis)	
Langer Heinrich													
In-situ	66.2	160	23.3	18.8	140	5.8	6.3	135	1.9	91.3	155	31	75
MG[2] ROM Stockpiles	4.7	170	1.8	-	-	-	-	-	-	4.7	170	1.8	75
LG[3] ROM Stockpiles	26.1	105	6	-	-	-	-	-	-	26.1	105	6	75
Total	97	145	31.1	18.8	140	5.8	6.3	135	1.9	**122.1**	**145**	**38.8**	75

Note: Values may not add due to rounding
1. Refer accompanying ASX announcement 'Langer Heinrich Mine Restart Plan' released in conjunction with this presentation. 2. 'MG' refers to medium grade. 3. 'LG' refers to low grade



CONTACT US

HEAD OFFICE
Level 4, 502 Hay Street
Subiaco Western Australia 6008

T: +61 (0) 8 9423 8117
E: paladin@paladinenergy.com.au
www.paladinenergy.com.au