

14 November 2017

Companies Announcement Office Via Electronic Lodgement

PENINSULA ENERGY PRESENTATION

Peninsula Energy Limited (**Peninsula**) is presenting at shareholder and investor sessions hosted by Proactive Investors in Melbourne today and Sydney tomorrow, as advised on 3 November 2017.

A copy of the presentation made by Peninsula's Finance Director and CFO Mr David Coyne is enclosed, and is also available on Peninsula's website: http://www.pel.net.au under "Investor Info" subsection "Audio Broadcasts".

Yours sincerely

Jonathan Whyte Company Secretary

For further information, please contact our office on +61 8 9380 9920 during normal business hours.

UNLOCKING THE FULL POTENTIAL

Corporate Presentation | Wyoming | November 2017







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Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

Please note that Production Targets within this presentation are based on a proportion of inferred resources. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resource or that the production target itself will be realised.

Competent Person Statement

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves at Peninsula's Lance Projects is based on information compiled by Mr. Jim Guilinger. Mr. Guilinger is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (Member of Mining and Metallurgy Society of America and SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guilinger is Principal of independent consultants World Industrial Minerals. Mr. Guilinger has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guilinger consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves at Peninsula's Karoo projects is based on information compiled by Mr. George van der Walt. Mr van der Walt is a Member of the South African Council for Natural Scientific Professions (SACNASP)). Mr van der Walt is a Geological Consultant and Director of Geoconsult International (Pty) Ltd. Mr van der Walt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. van der Walt consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Uranium Market Overview







Source: The Ux Consulting Company, LLC

Uranium Market Correction

- Market currently oversupplied
- Production restraint is occurring
- Cameco suspend production at Key Lake (~14m lbs p.a.) on 8 Nov 17
- Term price has been flat
- Spot price has been range bound
- Future utility demand projections remain positive
- Long term contracts that supported excess production are falling off

Peninsula Energy's Defining Strengths



World Class Management

- World class technical, financial and commercial team
- Supportive major shareholders

Large Scale Project

- The Lance Projects contain resources of 53.5 mlbs of U3O8¹
- 'Game Changing' low pH lixiviant being evaluated

Scalable Production

• Lance is licensed to produce up to 3m pounds per annum

Premier Uranium Jurisdiction

Wyoming is an established uranium mining jurisdiction

Valuable Contract Book

- Average uranium sales price of US\$ 54 per pound until 2030
- Current mark-to-market value of up to ~US\$250 million

Board and Management Team



Board

John Harrison, Non-Executive Chairman Capital Markets

Wayne Heili, Managing Director & CEO Exec. Leadership & Technical

David Coyne, Finance Director & CFO Finance & Risk Management

Harrison (Hink) Barker, Non-Executive Director Nuclear Fuel Markets

Evgenij Iorich, Non-Executive Director Buy Side Capital Markets

Mark Wheatley, Non-Executive Director Mining CEO & ISR Technical

World Class Management

Ralph Knode, CEO USA

David Hofeling, CFO USA

Mike Brost, VP Geology USA

Jay Douthit, VP Operations USA

Mike Griffin, VP Permitting, Regulatory & Environment USA

Willie Bezuidenhout, CEO South Africa

Corporate Overview



Capital Structure	
Shares on issue	232m
Share price (27-October-17)	\$0.285
Market capitalisation	A\$66m
Enterprise Value	A\$78m
Cash and Security Deposits (30-Sep-17)	US\$11.8m

Shareholding*	Holding (%)
RESOURCE CAPITAL FUNDS _®	21.8%
PALA	11.5%
GLOBAL X	8.6%
BLACKROCK	6.9%
AREVA	2.5%
Top 20 Shareholders	61.9%

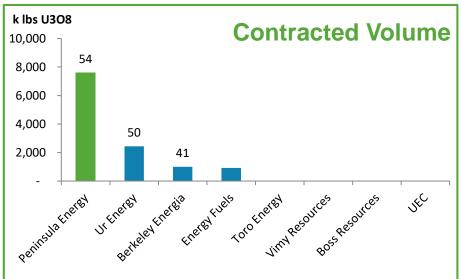
Share Price 8	Volume Histor	у		
Price (A\$/share)				Volume (m)
0.90				2.0
0.80	hn 1			
0.70	N'WY.			- 1.5
0.60	, W \	٨		
0.50		han		
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0.30				SALW.
0.20				- 0.5
0.10				
				0.0
Oct 16	Jan 17	Apr 17	Jul 17	Oct 17

Research Coverage BMO Capital Markets Alex Pearce Numis Justin Chan VIII Capital Dave Talbot H.C. Wainwright & Co. Roth Capital Partners Joe Reagor

^{*}Undiluted as at 2 October 2017

Peer Comparison











Note: Market capitalisations are as at 30 October 2017

Strategy – Unlocking the Value



 Develop long-life, low-cost assets underpinned by strong product sales contracts

Existing Operations

Continue existing Lance operations under alkaline leach

Step Change at Lance

- Continue low pH research and apply for license amendments
- Convert to low pH operations in 2019/2020

Sales & Marketing

 Lance production and low cost purchases for deliveries under term contracts at weighted average price of \$54 per pound

Non-Core Assets

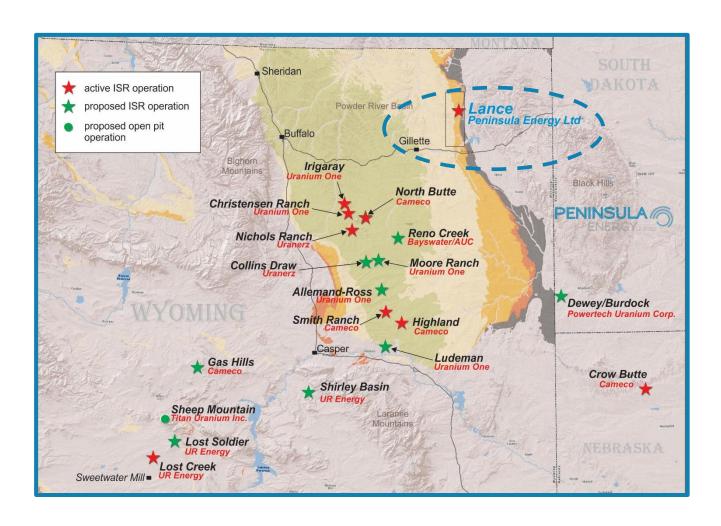
- Divest Karoo projects
- May retain some exposure and marketing rights upon divestment
- 2020 Vision: Peninsula capitalising on uranium market rebound with 1st quartile cost base at Lance ISR Project in USA



Premier Uranium Jurisdiction



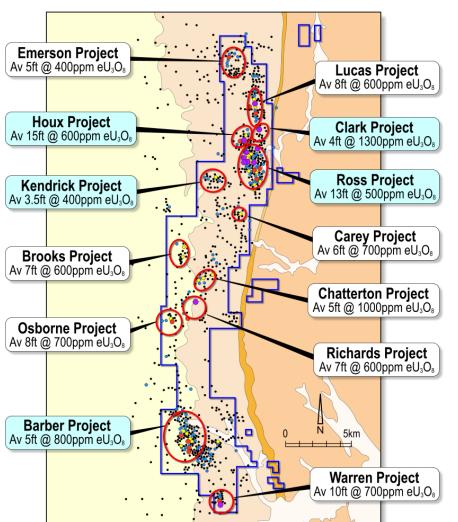
 Wyoming is a premier uranium extraction jurisdiction, hosting multiple ISR operations

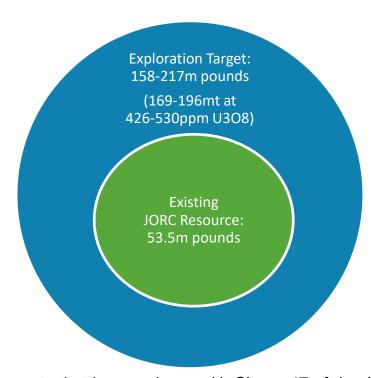


Large Scale Resource: +20 years mine life



 53.5m lbs JORC (2012) compliant resource base¹ (50.7Mt at 473ppm U3O8) offers long mine life with existing infrastructure





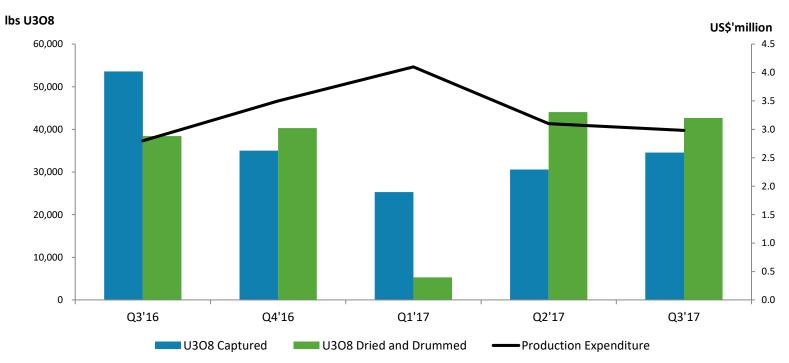
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Production Results



- Operational Performance is being aligned to the contract book
 - Nine Header Houses operating
 - Production rate sustained at ~400 pounds day

Quarterly Production and Expenditure



'Game Changing' Low pH ISR Initiative



The Potential

- ✓ Extremely positive testing results using low pH solutions
- ✓ Potential to transform the performance and cost profile in line
 with the global industry leading ISR projects

Low pH = High Potential



1. Lance mineral better suited for low pH ISR process

- Cretaceous aged deposition with low carbonate content
- Secondary alteration reduces ease of access to uranium mineral for alkaline ISR

2. Guided by laboratory results

- Multiple laboratory tests confirm extremely positive results
- 95% Uranium recovery in laboratory tests
- High grade product solutions
- Efficient ground water restoration process

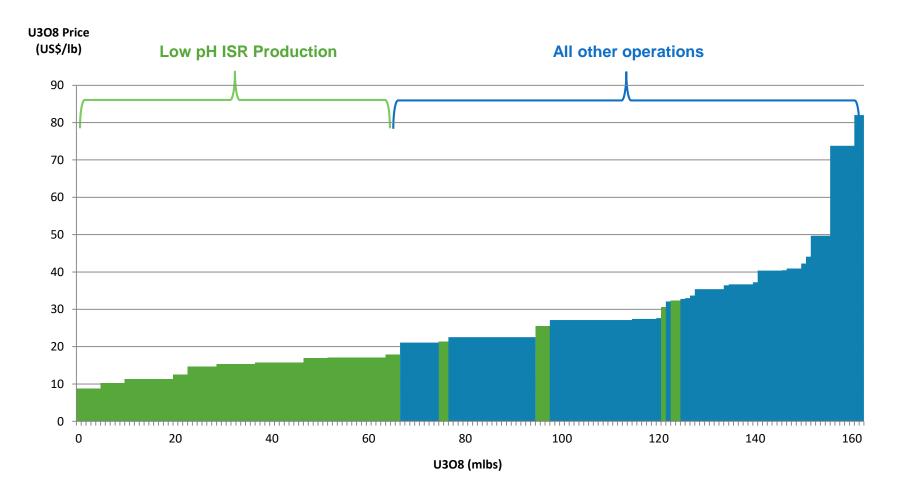
3. Ongoing research

- Development of low pH ISR White Paper
- Independent laboratory research by Australian based CSIRO

Low pH ISR = Low Production Cost



 Low pH ISR has the potential to place the Lance Project in the first quartile of the global uranium production cost curve



Data Source: UxC

'Game Changing' Low pH ISR Initiative



The Potential

- ✓ Extremely positive testing results using low pH solutions
- ✓ Potential to transform the performance and cost profile in line
 with the global industry leading ISR projects

Timeline

- ✓ Continue alkaline ISR operations until transition
- ✓ Amendment of the current permit and licenses

Timeline for Low pH ISR Transformation





'Game Changing' Low pH ISR Initiative



The Potential

- ✓ Extremely positive testing results using low pH solutions
- ✓ Potential to transform the performance and cost profile in line with the global industry leading ISR projects

Timeline

- ✓ Continue alkaline ISR operations until transition
- ✓ Amendment of the current permit and licences

Capital Cost

- ✓ CAPEX and OPEX Studies initiated
- Only minor modifications are expected with minimal capital spend required to change lixiviant chemistry

Funding for the Transition



1. CAPEX and OPEX

- TREC Inc. contracted to identify requirements and estimate capital and operating costs
- Current facilities generally built with appropriate materials of construction
- Expectation of low capital funding requirement

2. Ongoing Production and Sales

- Reducing sustaining capital spending for the short-term
- 9 operational header houses support production
- Sales agreements generating on-going cash inflow during the transition

Unlocking the Full Potential of Lance



High Potential

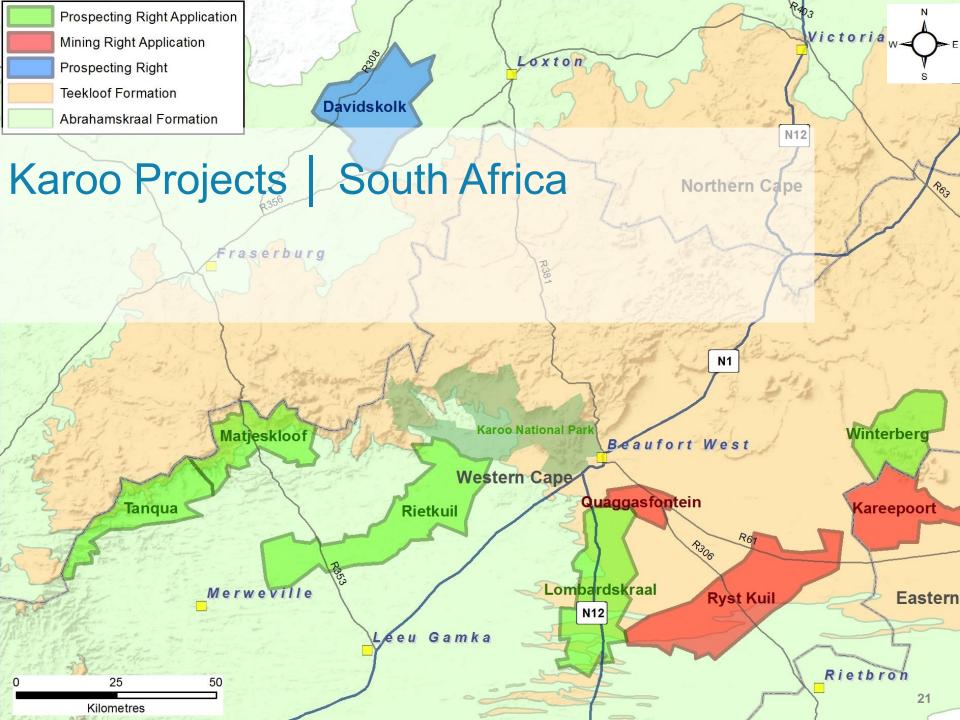
- ✓ Lance Project holds a large scale uranium resource
- ✓ Potential to transform the performance and cost profile using low pH ISR process

Short Timeline

- ✓ Permit and licence Amendments in under two years
- ✓ Continued alkaline ISR operations until permitted

Low Capital Cost

- ✓ CAPEX for minor modifications = Minimal
- ✓ Funded by production and sales contracts



Karoo Projects Divestment Underway



Highly valuable resource with a significant amount of data available

Large Resource

√ 56.9 million pounds eU3O8 at 1,108 ppm JORC (2012) compliant resource² (23.3mt at 1,108ppm)

Internal PFS Completed

 Significant work in the way of technical studies have been completed on the project

Tenure

- ✓ A combination of Prospecting Rights, Mining Right
 Applications and Prospecting Right Applications
- ✓ Ownership: Peninsula 74% and BEE Partners 26%

Divestment Status

- ✓ Formal process underway
- ✓ Targeting a decision by end of CY-2017



Uranium Sales and Marketing Strategy



Significant contract portfolio carries through year 2030

- Current Mark-to-Market value of up to ~US\$250m
- Projected revenue of up to US\$415 million remaining under contract
- Up to 7.6 million pounds U₃O₈ remaining under contract through 2030
- Term contracts weighted price between 2017 2022 is US\$54/lb U₃O₈
- Customers include multiple US and European Utilities

Peninsula has built strong relationships throughout the industry

- Active participant in supply contracting activities
- Seeking to progressively commit future production to term contracts

Substantial Long Term Sales Contracts



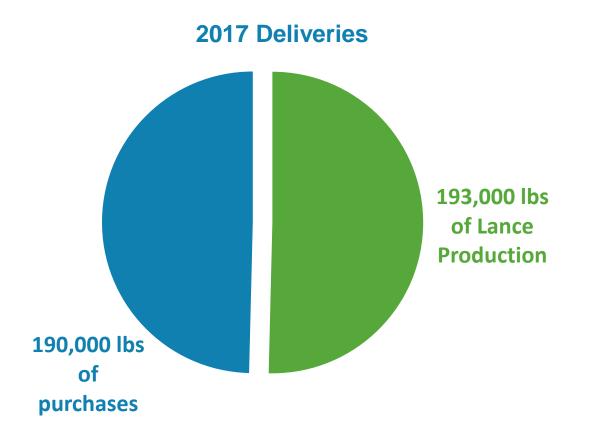
- Long term sales contracts underpin Peninsula's business
 - Average sales price of US\$54 per pound



Uranium Marketing

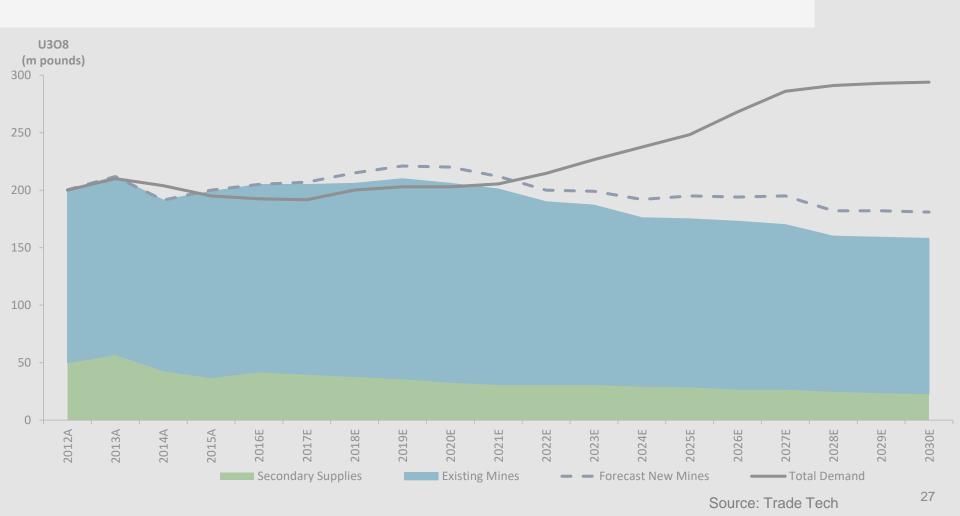


- CY2017 deliveries completed at an average of US\$54/lb
- CY2018 forecast deliveries of 500,000 lbs of U₃O₈



Contracted to purchase a further 300,000 lbs p.a. over next 3 years at average cost of US\$25/lb

The Uranium Market



Uranium Market Themes



1. Production Restraint has become a common theme

- The big miners continue reducing production target levels
- Cameco suspend production at Key Lake (~14m lbs p.a.) on 8 Nov 2017
- Kazakhstan 10% production cut January 2017
- "Optimization" and "cost reduction" efforts are prevalent
- Even the large state-owned corporations are effected
- Kazakhstan changing its sales and marketing strategy through the establishment of THK

2. Demand for carbon-free nuclear power remains strong

- Demand forecasts continue to grow through 2030
- Over 800 million lbs U₃O₈ of uncovered demand over the next 10 years

3. Secondary supply volumes are a function of current demand trends

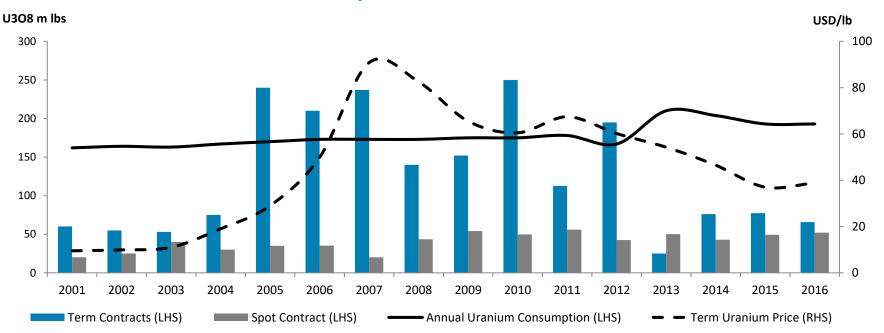
Greater interrelationship between uranium purchasing and enrichment supply

Demand Trends



Utilities have been avoiding the term market since 2012

Term and Spot Market Contract Volumes



Source: UxC, Trade Tech, US Energy Information Administration; EurAtom Supply Agency

A large number of last decade's term contracts are due to roll off soon



Peninsula Energy Investment Highlights



Continued improvement in Quarter over Quarter results

Large Uranium Resource

✓ Long life flagship project advanced into production stage

Long Term Revenue

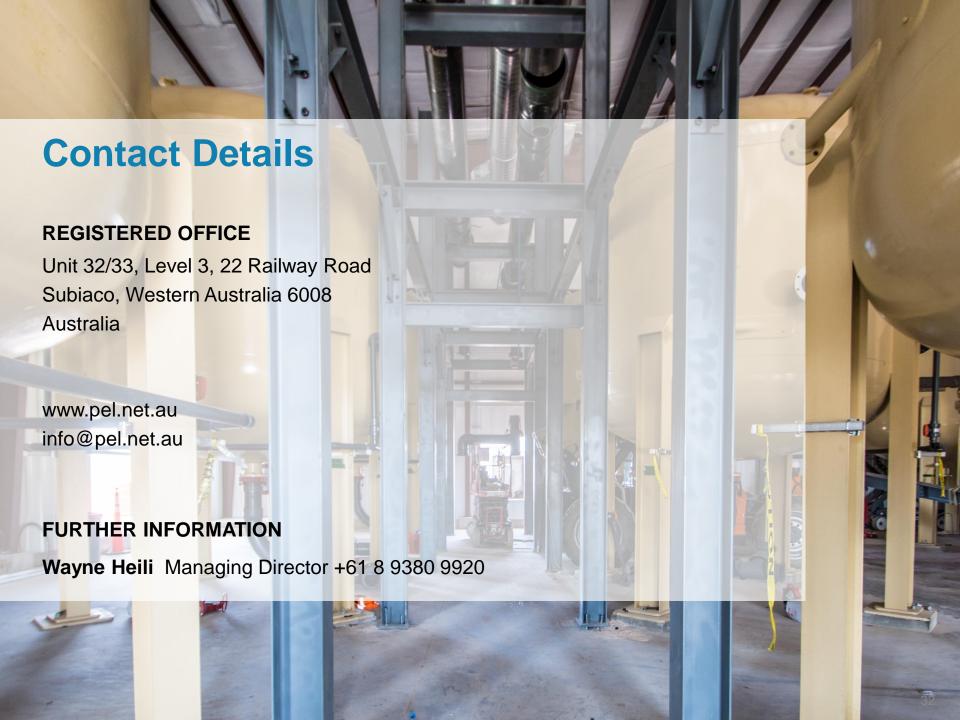
- ✓ Sales agreements extending out to 2030 with above market pricing structures
- ✓ Strong committed cash margins for near term sales

Spending Discipline

- ✓ Divestment of second tier Karoo project
- ✓ On-going meaningful results on cost reduction efforts

Unlocking Value

- ✓ Lance Project transformation process initiative
- ✓ Positioning to capitalize on anticipated market rebound



Appendix 1 - Lance JORC Resource



Classification	Tonnes (million)	U3O8(kg)	Grade (ppm U3O8)	U3O8(lbs)
Measured	3.7	2.0	489	4.3
Indicated	10.0	5.1	466	12.7
Inferred	37	17.5	463	36.5
Total	50.7	24.6	473	53.5

ISR Reserves are determined after well field development drilling

1JORC Table 1 included in an announcement to the ASX released on 27th March 2014:"Company Presentation – Mines and Money Hong Kong". Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates 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 been materially modified from the original market announcement.

Appendix 2 - Karoo JORC Resource



JORC Compliant Resource March 2014

Classification	Cut-off: eU3O8(ppm)	Tonnes (million)	eU3O8 (ppm)	eU3O8 (million lbs)
Indicated	600	8.0	1,242	21.9
Inferred	600	15.3	1,038	35
Total	600	23.3	1,108	56.9

Classification	Sector	Cut-Off: eU3O8 (ppm)	Tonnes (million)	eU3O8 (ppm)	eU3O8 (million lbs)
Indicated	Eastern	600	7.1	1,206	18.7
	Western	600	0.9	1,657	3.2
Inferred	Eastern	600	11.8	1,046	27.2
	Western	600	3.5	1,019	7.8
Total		600	23.3	1,108	56.9

Large resource potential: 100+ year mine life

Note: Totals may not sum exactly due to rounding

²JORC Table 1 included in announcement to the ASX released on 11th March 2014:"13% Resource Expansion and Upgrade at Karoo Projects". Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Appendix 3 - Lance Exploration Target Additional Disclosure



Exploration Target

The Lance Projects cover a significant proportion of the Powder River Basin Basin Cretaceous sandstones of Wyoming, which are believed to represent an Exploration Target of between 158 and 217mlbs U₃O₈ which includes 54mlbs of existing JORC (2012) Code compliant resource.

Lance Projects Exploration Target (including the existing JORC (2012) Code Compliant Resource)

Exploration Target	Tonnes (million)		Grade (ppm eU ₃ O ₈)		eU ₃ O ₈ (mlbs)	
Range	From	To	From	То	From	То
Total	169	196	426	530	158	217

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Basis of Exploration Target

Exploration Target is based on a combination of Exploration Results and on proposed exploration programs.

Exploration Results

Approximately 7,500 drillholes, of which over 2,500 have been drilled and PFN logged since 2009. The data from these holes has been used to determine a JORC (2012) Code compliant resource and to extrapolate between areas of limited drilling but still within the mineralised trends.

Proposed Exploration Programs

The Company has minerals rights and surface access rights to 122.2 square kilometres and 107.8 square kilometres respectively. This package covers the most prospective mineralised redox /roll front trends that have a cumulative strike length of over 300km. The Company intends to continue exploration over this ground with drilling in order to validate the exploration target and convert to resources.

Appendix 3 - Lance Exploration Target Additional Disclosure



Basis of Grade and Tonnage Range Determination

With a database of approximately 7,500 drillholes together with several decades of geological research the level of exploration activity on which the Exploration Target is based, is considered to be high.

The known Lance resources are located in the upper Lance Formation and in the lower Fox Hills horizons in which roll fronts have been identified over a cumulative length of over 300kms. These horizons have only been partially explored and towards the south (Barber area) the lower unit of the Fox Hills has not been systematically tested. Along these channels JORC-compliant resources have been estimated in localised areas in which reliable drilling data is available. The zones between the JORC (2012) Code compliant resource areas form the Exploration Target because of the following:

- Continuity of the prospective sandstone established by geological mapping and regional drilling
- Historic estimates of mineralisation based on drilling which has not yet been validated by Peninsula

The Exploration Target is based on a combination of:

- A tonnage calculation that incorporates the total cumulative prospective strike length of the identified redox fronts multiplied by the average width, thicknesses as determined in the resource estimate,
- The grade range represents the lowest resource area grades and highest resource area grades

Summary of the Relevant Exploration Data Available and the Nature of the Results

For a comprehensive description of drilling information readers are referred to JORC Table 1 at the end of this presentation.

Proposed Exploration Activities Designed To Test Validity of the Exploration Target

Over the life of mine ongoing exploration drilling is proposed to expand the JORC (2012) Code compliant resource within the Exploration Target areas. This initial program will be focussed on the Kendrick area. Exploration activities will mostly comprise geophysical logging of additional drillholes.

Lance Projects Competent Person Statement

The information in this presentation that relates to Exploration Targets, Exploration Results and Exploration Potential at the Lance Projects is based on information compiled by Mr. Jim Guilinger. Mr. Guilinger is a Member of a Recognized Overseas Professional Organization included in a list promulgated by the ASX (Member of Mining and Metallurgy Society of America and SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc.). Mr. Guilinger is Principal of independent consultants World Industrial Minerals. Mr. Guilinger has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guilinger consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.