

## URANIUM PRODUCTION TRENDING UP

### Investment Highlights

- Peninsula Energy (PEN) is in the process of ramping up uranium production at its Lance In-Situ Recovery (ISR) project in Wyoming. Significantly, since commencing production, grades have continued their upward trajectory which should allow the operation to reach Stage 1 production levels during 1H/CY17. Importantly, PEN expects to finalise funding for Stage 2 production over the next quarter, which is expected to bring costs down towards US\$30/lb. We see PEN's key advantage over other uranium producers is that it has secured several long term uranium contracts with fixed pricing close to US\$60/lb that is significantly above the current spot price (cUS\$26/lb). We see a number of short term catalysts that could positively impact the stock including a NYSE MKT listing and further developments at its Karoo project in South Africa. We rate PEN a Speculative Buy with a price target of \$1.20/sh.**
- Uranium Production Ramping-Up:** PEN recently provided an update on its operations which demonstrated that uranium production is moving in the right direction. Since commencing production at the end of last year, uranium grades are gradually increasing and are currently in the 35-40mg/l range. They are expected to peak at around 40-45mg/l over the next half. This should allow Stage 1 production levels of 500-700klbpa U<sub>3</sub>O<sub>8</sub> to be achieved. For July, uranium production has effectively reached an annualised rate of 230,000lbpa with production continuing to ramp-up with contributions from Header Houses 3 & 4.
- Significant Long Term Uranium Contracts:** In our opinion, PEN's biggest advantage over its peers is that it has secured five long-term uranium contracts. In total, PEN has 8.1Mlb contracted at a weighted average price of US\$55/lb over the next 10 years. This demonstrates that the PEN management team has significant relationships with the end-users. Four of these contracts are with US utilities and one with a large European utility. We expect PEN to continue to build these relationships with one more contract expected to be concluded over the next 2-3 months to further de-risk Stage 1 production.
- Valuation \$1.20/sh:** Our valuation for PEN has decreased to \$1.20/sh (from \$1.90/sh). The key driver has been revisions to our uranium price forecasts (refer Figure 1 on page 4). We have incorporated the US\$15m convertible note and have also made some minor adjustments to the production ramp-up which has been delayed due to a significant loss of drilling days during the 2015/6 winter and delays in obtaining the initial production permits.

Year End June 30	2015A	2016F	2017F	2018F	2019F
Reported NPAT (\$m)	(5.3)	(1.8)	3.9	8.5	18.9
Recurrent NPAT (\$m)	(7.0)	(6.5)	3.9	8.5	18.9
Recurrent EPS (cents)	(0.1)	(3.7)	1.9	4.2	9.3
EPS Growth (%)	na	na	na	116.3	122.2
PER (x)	na	na	na	na	na
EBITDA (\$m)	(6.0)	(5.9)	10.5	20.2	36.3
EV/EBITDA (x)	(780.4)	(19.9)	9.7	6.8	3.1
Capex (\$m)	16.1	31.1	0.0	49.9	0.0
Free Cashflow	(23.5)	(45.2)	7.4	(35.8)	26.4
FCFPS (cents)	(0.3)	(25.5)	3.6	(17.6)	13.0
PFCF (x)	na	na	na	na	na
DPS (cents)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0	0.0
Franking (%)	0.0	0.0	0.0	0.0	0.0

29 July 2016

12mth Rating	SPECULATIVE BUY	
Price	A\$	0.68
Target Price	A\$	1.20
12mth Total Return	%	77.0

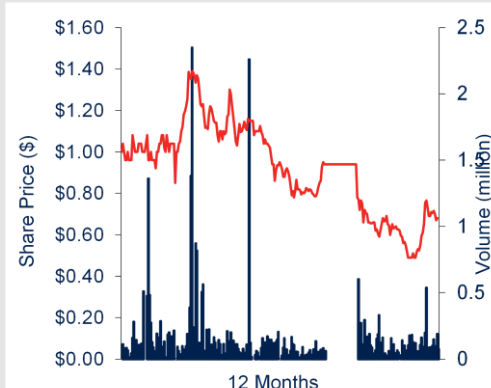
RIC: PEN.AX		BBG: PEN AU	
Shares o/s	m		176.4
Free Float	%		48.0
Market Cap.	A\$m		120.0
Net Debt (Cash)	A\$m		-15.4
Net Debt/Equity	%		na
3mth Av. D. T'over	A\$m		0.12
52wk High/Low	A\$		1.39/0.49
2yr adj. beta			0.85

<b>Valuation:</b>		
Methodology		DCF
Value per share	A\$	1.20

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**Patersons Securities Ltd acted as Joint Lead Manager to a Retail Share Placement of \$8.06m at \$0.02/sh in February 2015. Patersons received a fee for this service.**

### 12 Month Share Price Performance



Performance %	1mth	3mth	12mth
Absolute	-6.8	-36.9	7.9
Rel. S&P/ASX 300	-5.5	-25.3	69.0

## INVESTMENT SUMMARY

The recent operational update on the Lance ISR Project has provided comfort that production is heading in the right direction. PEN has effectively achieved an annualised rate of 230,000lb in July and should move to Stage 1 levels (500-700klbpa) in the 1H/CY2017. This should be achievable with larger contributions from Header House 3 & 4 which have been brought online in the June Q. Funding of US\$35m for Stage 2 (1.2Mlbpa) is expected to be finalised in the September quarter which would allow costs to move towards US\$30/lb. PEN has already executed a term sheet for US\$25m from revenue streaming and requires an additional US\$10-15m. Stage 3 (2.3Mlbpa U<sub>3</sub>O<sub>8</sub>) will require an additional US\$78m. This additional capital is expected to be obtained through debt financing and from cashflows from Stages 1 & 2. In total, PEN is targeting production from Lance of 28Mlb over at least a 20 year mine life. We note there is good potential to increase mine life well beyond 20 years given the significant resource growth potential. All-in sustaining cash costs over the life of the project are expected to be sub-US\$30/lb.

PEN's secondary listing on the NYSE MKT is expected to be completed by the end of the year and should provide a potential re-rating for the stock when we consider the multiples that other uranium companies on the exchange trade. Furthermore, South Africa is moving toward a nuclear future with approximately eight reactor builds under consideration and we would expect this to add significant value to its higher grade Karoo project which is located in the country. With a number of clear catalysts clearly approaching we rate the stock as a **Speculative Buy with a price target of \$1.20/sh.**

## KEY INVESTMENT HIGHLIGHTS

**Uranium Production Moving in the Right Direction:** Positively, PEN recently provided an operational update which demonstrated that uranium production is increasing toward Stage 1 production levels (500-700klbpa) at its Lance ISR project in Wyoming. Uranium grades have improved from c.27mg/l in April 2016 to 35-40mg/l in July. We would expect Stage 1 production levels to be achieved in the 1H/CY2017.

**Stage 2 to Reduce Costs:** Importantly, PEN is expected to finalise funding for Stage 2 (nameplate 1.2Mlbpa) in the September Q. This should allow the number of Header Houses to double from 7 to 14 and increase production levels to c.1.2Mlbpa which provides the scale needed to reduce costs to around US\$30/lb. This is important considering that the spot uranium price is currently US\$26/lb.

**Solid Uranium Contracts with Weighted Average Price (WAP) Near US\$60/lb:** PEN already has five uranium concentrate sale and purchase agreements for up to approximately 8.1Mlb U<sub>3</sub>O<sub>8</sub> remaining to be delivered through to 2030. The first of these agreements was entered into in February 2011 for approximately 1Mlbs U<sub>3</sub>O<sub>8</sub> to be delivered through to 2020. A second contract was announced on 3 December 2014 for up to 912,500lbs. In August 2015, PEN signed two additional agreements for an aggregate of 1.9Mlb of material. A further contract was signed in March 2016 to deliver 4Mlbs U<sub>3</sub>O<sub>8</sub> from 2020-2030 to a European utility.

Overall, we estimate PEN has 8.1Mlb contracted at a WAP of close to US\$60/lb – a price that is much higher than the current Term Contract (US\$40/lb U<sub>3</sub>O<sub>8</sub>) and Spot (US\$26/lb U<sub>3</sub>O<sub>8</sub>) prices. PEN is currently in negotiations with several utilities regarding additional sale agreements and intends to enter at least one more sale agreement within the next 2 to 3 months to further de-risk the cashflow profile for Stage 1. A key facilitator for these more recent contracts is Hink Barker (Non-Executive Director) who has a wealth of experience in the procurement of nuclear fuel and worked for Dominion Resource for over 40 years.

**Solid Management Team with ISR experience:** Whilst recently on-site, we were extremely impressed by the solid US production team that PEN has assembled with extensive ISR build and operating experience. The key technical driver is Ralph Knode who has 30 years of experience with Cameco and Uranium One in ISR mine development and operation in USA, Central Asia and Australia. Mike Brost is VP Geology North America and has 30+ years of experience in uranium roll front exploration and well field planning, design and operation with US subsidiary of Cameco. Ben Schiffer is the lead permitting consultant and has 30 years of operating experience in all facets of the Wyoming regulatory and permitting landscape. Brian Pile is the Senior Project Manager with contracting firm TREC (leading US engineering firm) in design and construction management of ISR facilities in North America.

**US Based Advantage Supplier to US Utilities:** With 99 operating reactors, the US has the highest number of nuclear reactors in the world and has obtained the majority of their material under the recently concluded Highly Enriched Uranium ("HEU") agreement between Russia and the US. Therefore, the US utilities will need to find additional feed sources for their reactors. As such, US utilities will prefer domestic material such as PEN's for security of supply. Obtaining material from Russia, Kazakhstan or Niger would obviously present further country risks for the US utilities.

**Significant Exploration Upside at Lance:** We note, at Lance, that PEN has explored only a small portion of its prospects to delineate its 53.7Mlb  $U_3O_8$  JORC Code-compliant Mineral Resource. The Company has defined an exploration target of 158-217Mlb  $U_3O_8$  (169-196Mt at 426-530ppm  $U_3O_8$ ). This is unlikely to be an immediate priority given that PEN has already outlined over 20 years of material. Recently PEN acquired the Hauber Uranium project which is located some 24km north-northeast of the Lance Uranium project which is a strategic regional opportunity to add further production.

**NYSE MKT Secondary Listing Approaching:** We see PEN's proposal for a secondary listing on the NYSE MKT exchange as a positive which should allow for the re-rating of the stock. Based on our analysis, PEN is trading at a much lower multiple than the other uranium companies on the exchange when we compare production assets. Furthermore, the US is the natural market for PEN given that its main project is in Wyoming. It will provide the US Utilities with further comfort when negotiating long-term uranium contracts with PEN.

**South Africa Going Nuclear; Positive for PEN's Karoo Uranium Project:** The South African Government is considering building a fleet of eight nuclear reactors (9,600MW) to increase its generating capacity. The South African economy has been impacted by the lack of generating capacity with rolling-blackouts continuing to occur throughout the country. The situation became brutally apparent in February 2009 when the country was plunged into darkness for several days. Since then Eskom, the South African Electricity generator, has attempted to build several coal fired power stations which have had limited success (ie Mudupi) and has forced up the cost of power. The move towards nuclear is a significant shift for South Africa as it adds to its two reactors which currently generate 1830MW. The procurement process was expected to be completed in the first half of 2016; however, it has taken longer than expected. Further updates are expected over the next half with potential for construction to commence in 2018. An announcement on the builds could be timely for PEN which is looking to develop its Karoo uranium project which has a sizable JORC Code-compliant resource of 56.9Mlb  $U_3O_8$  with excellent grades (1108ppm  $U_3O_8$ ). The shift towards nuclear power in South Africa would mean that in-country uranium mining projects, such as PEN's Karoo Project, would likely be seen as a source of power for its reactors. Therefore, it should be easier to move the Project into development/production. PEN is currently negotiating with a number of parties to secure a strategic investment partner to accelerate the Karoo Project in South Africa through the completion of feasibility studies.

**Karoo Project shows potential:** Our analysis of the Karoo project in South Africa (PEN 74%) suggests it has merit with a solid uranium resource (56.9Mlb  $U_3O_8$ ) with excellent grades (1108ppm  $U_3O_8$ ) with potential for a conventional mining operation. The other key advantage is that the regional infrastructure is excellent with a town of 30,000 people within 30km, N1 Highway Cape Town to Johannesburg and Railway and regional airport. We value the project at \$39.3m which is based on \$1.30/lb of resource in the ground. This could potentially be revised higher as PEN de-risks and further advances the project. A pre-feasibility on the project is expected to be completed by the end of CY2016.

## VALUATION

We have determined a Net Asset Value (NAV) for PEN of \$1.20/sh (previously \$1.90/sh). The main reason for the significant reduction in our NAV is recent uranium price revisions which reduced our valuation by \$0.50/sh. The uranium market remains depressed (US\$26/lb) and at levels that mean a significant proportion of uranium producers are uneconomic. We believe prices will need to increase to meet the nuclear expansion programs from China, India and Russia. We outline our price revisions in the table below:

Figure 1: Uranium Price Revisions

Uranium Price (US\$/lb)	CY16	CY17	CY18	CY19	CY20	LT
New	28	40	50	55	57	60
Old	40	49	53	57	59	70
% Change	-30%	-18%	-6%	-4%	-3%	-14%

Source: Patersons Securities Limited

The remaining reduction relates to incorporating the recent US\$15m convertible note into our model. This was provided by Pala and RCF for general well field development activity, resource development drilling, final stage 2 engineering design, feasibility studies at the Karoo Projects in South Africa and for general working capital purposes. Furthermore, we have made some minor adjustments to the production ramp-up which has been delayed due to a significant loss of drilling days in April-May 2015 and delays in obtaining the production approvals in 2H/CY2015. We have also assumed Stage 3 will happen 12 months later than we previously expected (mid-2020) as this will be dependent on funding. PEN is well advanced with financing the US\$35m needed to commence Stage 2 with a terms sheet for US\$25m which will be used to implement a revenue streaming arrangement. This will work by assuming a discount on the uranium price received to repay the principle and interest of the loan. The importance of Stage 2 is to reduce costs to c.US\$30/lb. We have assumed a US\$15m equity raise and assumed the US\$25m revenue streaming terms are finalised.

The majority of our sum-of-the parts valuation is related to the Company's Lance Projects in Wyoming, USA (Figure 1). Our assumptions for the project are based on the three stage scalable production development plan as outlined by the design and build contractor (TREC Inc) and PEN in October 2014. In total the Lance Projects have an estimated 20 year mine life with total production of 28Mlb U<sub>3</sub>O<sub>8</sub> which assumes a 53% conversion from Mineral Resources (54Mlb) into recoverable material. This is more conservative than the assumptions (63-78%) made by other producers/developers in Wyoming. The All-in sustaining cash cost is estimated at sub-US\$30/lb U<sub>3</sub>O<sub>8</sub> (uninflated). The lower cost compared to other conventional mining operations is due to the ISR method of extraction.

The three stage development option allows for significantly lower initial upfront capital requirements. With production underway we expect PEN to achieve Stage 1 nameplate production rate of between 0.5-0.7Mlbpa U<sub>3</sub>O<sub>8</sub> during 1H/CY2017. In Stage 1, the uranium is processed through six ion exchange columns with drying and packaging performed offsite under an existing contract. All-In-sustaining cash costs for Stage 1 are estimated at US\$41/lb U<sub>3</sub>O<sub>8</sub>. PEN produced 29,000lb from the Lance Projects in the June Q. However, it sold 55,000lb at US\$62.80/lb for the June Q a function of purchasing material on the spot market to deliver into its well-priced contracts.

Figure 2: PEN Valuation Table

Base Case NPV	A\$m	A\$/sh
Lance	185.9	0.91
Exploration (unmined res.)	32.8	0.16
Karoo	55.4	0.27
Listed investments	0.0	0.00
Corporate	(40.6)	(0.20)
Forwards	6.8	0.03
Unpaid Capital	20.0	0.10
Cash	9.2	0.05
Debt	(24.6)	(0.12)
<b>NAV</b>	<b>244.9</b>	<b>1.20</b>

Source: Patersons Securities Limited

We have assumed that Stage 2 will commence in mid-2017 and will double the number of well field units to 14 with production increasing to 1-1.2Mlbpa  $U_3O_8$ . In Stage 2, PEN will commission wells within the Kendrick deposit which will replace depletion at Ross. It will also allow for the installation of the elution, precipitation, drying and packaging processes circuits in the central processing plant (CPP) and a doubling of the ion exchange capacity. Bringing all processing in-house is expected to reduce cash operating costs by US\$4-5/lb  $U_3O_8$ . Ramp-up to Stage 2 production rates are expected to further reduce cash operating costs by US\$5-6/lb  $U_3O_8$ . At steady state Stage 2 production revenues are forecast to double and cash margins are forecast to expand substantially.

In Stage 3, US\$78m in capital is required which assumes the addition of a satellite plant. We have assumed that a combination of funds from cashflow (c\$30m) and further debt (cUS\$45m) will allow the production rate to reach 1.7-2.3Mlbpa  $U_3O_8$  by 2020. Stage 3 requires building a satellite plant containing an additional ion exchange (IX) circuit, with additional elution, drying and packaging capacity installed in the central processing plant. This will allow production to target the Barber deposit which is at the southern end of PEN's tenure holdings. Once PEN reaches Stage 3, cash costs are expected to drop below US\$29/lb (uninflated).

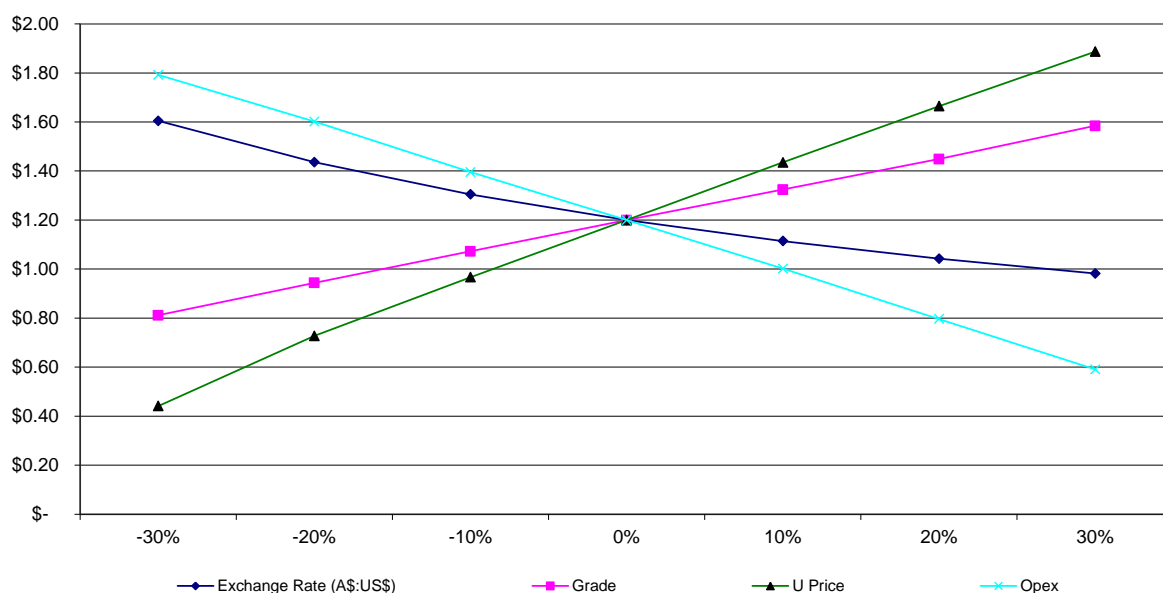
In terms of the remaining value for PEN we have allocated \$32.8m for unmined resources at Lance (which is based on the Mineral Resources that are not mined under the above scenario) based on a peer comparative average value of \$1.26/lb  $U_3O_8$ . We have also used this number for the Karoo resources (59Mlb  $U_3O_8$ ; PEN 74%) given the projects excellent grades (1,108ppm  $U_3O_8$ ). We used corporate costs of \$5mpa escalated. We have also assumed 90% of PEN's material is contracted to 2020 which then reverts to our long term escalated pricing of US\$60/lb.

## SENSITIVITY ANALYSIS

In Figure 3, we have conducted a sensitivity analysis on our NAV of \$1.20/sh and changing parameters within our Lance project financial model. A 10% move in uranium price results in a 20% move in our valuation, while a 10% change in grade results in a 10% change in our valuation. PEN's In-situ resource grade is similar to Ur Energy's Lost Creek project which is currently performing above expectations, however, this could be given back in later years as the well field depletes.

Figure 3: Sensitivity Analysis

NPV	U Price							
		-30%	-20%	-10%	0%	10%	20%	30%
Exchange Rate (A\$:US\$)	-30%	0.52	0.93	1.27	1.60	1.94	2.27	2.59
	-20%	0.49	0.84	1.14	1.44	1.73	2.02	2.29
	-10%	0.46	0.78	1.05	1.30	1.57	1.82	2.07
	0%	0.44	0.73	0.97	1.20	1.43	1.66	1.89
	10%	0.42	0.68	0.90	1.11	1.33	1.54	1.74
	20%	0.41	0.65	0.85	1.04	1.24	1.43	1.61
	30%	0.40	0.62	0.80	0.98	1.16	1.34	1.51



Source: Patersons Securities Limited

## CAPITAL STRUCTURE

PEN has 176.4m shares on issue following a recent 40:1 consolidation. We see the lower number of shares on issue as positive when looking to introduce the story into the North American market. In addition, PEN has the following options on issue:

- 2.25m unlisted options (PENAK) exercisable at \$3.20/sh on or before 31 December 2017.
- 43.3m tradable options (PENOD) exercisable at \$2.00/sh on or before 31 December 2018.
- 0.319m unlisted options (PENAJ) exercisable at \$1.60/sh on or before 1 December 2019.
- There are also 1.8m performance rights (Class F).

PEN had US\$6.9m in cash and US\$18.5m in debt at 30 June 2016. The debt includes the US\$15m convertible note provided by Pala and RCF. There are US\$11.5m available in undrawn facilities (subject to the Company maintaining liquidity levels in the form of cash or undrawn debt).



## PEER COMPARATIVES/NYSE LISTING

PEN appears to be undervalued based on a comparative basis with a potential re-rating based on the following:

- With PEN expected to list on the NYSE MKT exchange by the end of the year there is potential for a re-rating considering other uranium companies on the exchange trade at higher multiples.
- Uranium Producer's trade in the \$1-7.5/lb U<sub>3</sub>O<sub>8</sub> range and with PEN moving towards steady state production there is potential for a re-rating. PEN is currently trading at \$2.52/lb based on its Lance Uranium project only. We also note there are limited options on the ASX for investors to play the uranium market, therefore, if PEN can successfully ramp-up production to Stage 1 and beyond it would be one of only three uranium stocks that are currently in production on the ASX.

We discuss these factors in more detail below:

### NYSE MKT Listing

We see PEN's proposed secondary listing on the NYSE MKT exchange as a positive that should allow for the re-rating of the stock. Based on our analysis, PEN is trading at \$2.52/lb U<sub>3</sub>O<sub>8</sub> resource compared to the average of \$3.11/lb from its peer group for only its US production assets (Figure 4).

We also note that the US (NYSE MKT) is the natural market for PEN given that its main project is in Wyoming. It will provide the US Utilities with further comfort when negotiating long-term uranium contracts with PEN. PEN has announced that it will be reporting in US\$.

Figure 4: Uranium Producers/Developers with US Projects Comparatives Table

Company Name	Code	Exchange	EV (A\$m)	Project Name	Location	Status	Resources			EV/lb
							Mt	Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Mlb (U <sub>3</sub> O <sub>8</sub> )	
Rio Tinto	RIO	LON	80,850	Sweetwater	Wyoming	Care and Maintenance	15	1,950	63.6	NA
Cameco Corporation	CCO	TSX	5,660	North Butte-Brown Ranch	Wyoming	Production	6	704	9.2	NA
Cameco Corporation	CCO	TSX	5,660	Smith Ranch-Highland	Wyoming	Production	23	546	29.5	NA
Energy Fuels Inc.	EFR/UUUU	TSX/NYSE MKT	173.5	Nichols Ranch/Powder River	Wyoming	Production	36	959	69.7	2.49
Ur-Energy Inc.	URE/URG	TSX/NYSE MKT	101.6	Lost Creek	Wyoming	Production	13	457	12.9	3.85
Peninsula Energy Limited	PEN	ASX	134.9	Lance	Wyoming	Production	51	470	53.6	2.52
Azarga Uranium Corp.	AZZ	TSX	5.0	Dewey Burdock	South Dakota	Feasibility: PEA	5.7	972	12.1	0.41
Uranium Energy Corp.	UEC	NYSE MKT	103.8	Hobson (Texas Hub/Spoke)	South Texas	Production	8.6	641	12.1	8.55
Laramide Energy	LAM	TSX	14.6	La Jara Mesa/La Sal/Church	New Mexico/Utah	Reserves Development	12.3	1,013	60.6	0.24
<b>Average</b>										<b>3.11</b>

Source: Patersons Securities Limited

### Producers Can Trade at Higher Multiples

PEN currently trades at \$1.20/lb of Mineral Resources which includes the Lance Projects as well as the Karoo project in South Africa. We note producers can trade at much higher multiples than PEN : Cameco (\$7.50/lb), Denison (\$2.70/lb) and Paladin (\$1.10/lb).

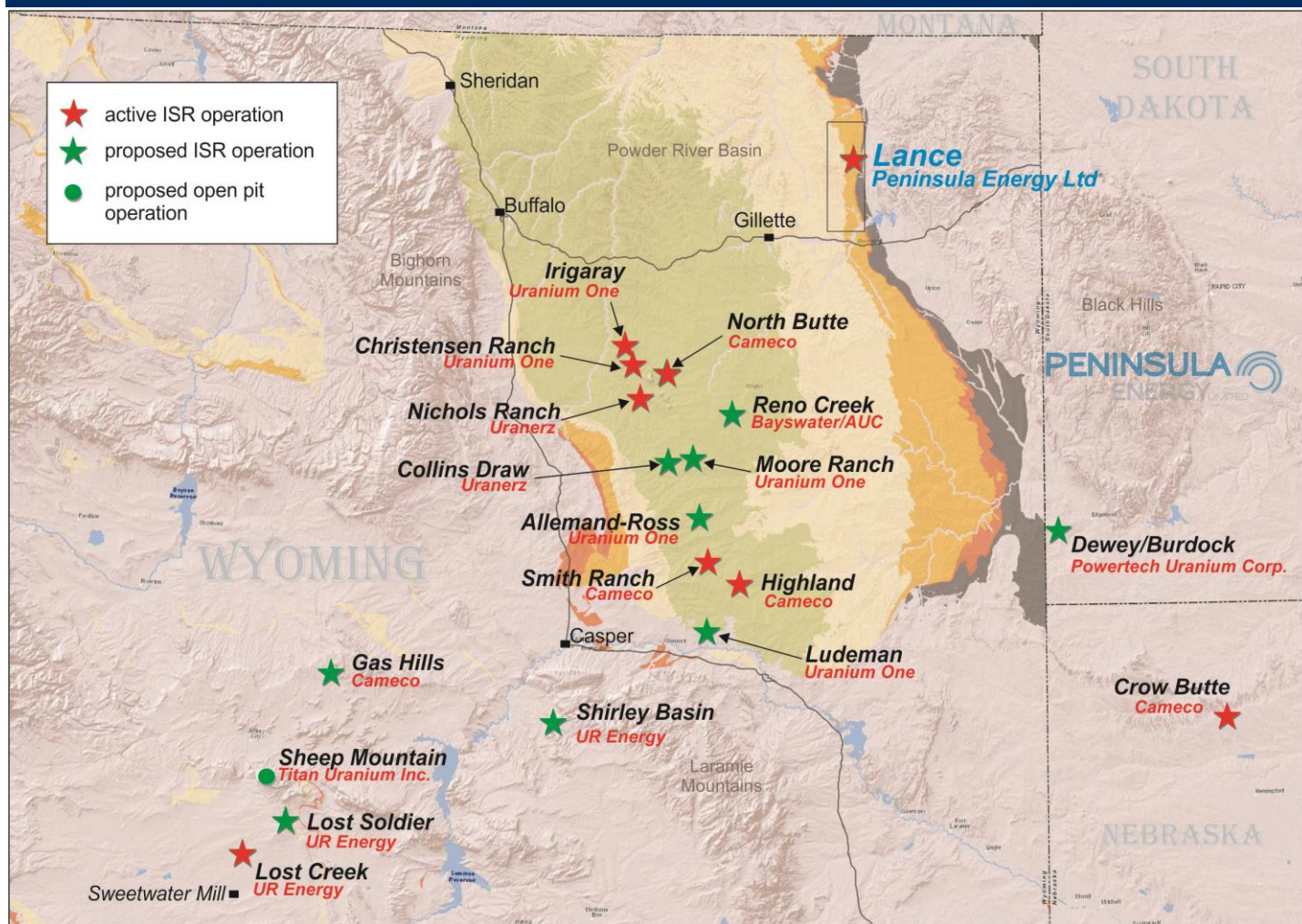
## BACKGROUND OF URANIUM MINING IN WYOMING

Uranium mining in Wyoming has a long history with uranium first discovered in 1918 in silver and copper tailings. Commercial uranium mining began in the early 1950's with good demand from the US Government keen to continue to develop its nuclear program. Early mines were open pit until the early 1960's when In-Situ Recovery (ISR) methods arrived. The uranium mining industry quickly expanded peaking in the 1970's. There have been 24 mines in operation in the state since 1953 and nine mills were in operation during the 1980's. As with many commodities, uranium tends to experience boom and bust cycles. The Three Mile Island incident in 1979 signalled the end of the boom and uranium and nuclear plants went into deep hibernation. Most operations could not be sustained due to low uranium prices. For example, the Sweetwater mill owned by Kennecott (now Rio Tinto) was constructed in 1980 and operated from 1981 to 1983 and has been on standby since. Cameco managed to maintain production at its Smith-Highland project and started its Crow Butte project in the early 1990's.

## OPERATING PEERS

It wasn't until the recent uranium boom of 2006-7 that interest returned to uranium mining in Wyoming. However, given the hiatus in uranium mining it has taken additional time for uranium mines to receive the necessary approvals to move into production. Ur Energy (URE-TSX) and Energy Fuels (EFR-TSX; UUUU-NYSE MKT) were the trailblazers and entered into production in 2013 and 2014 respectively (Figure 5). Uranium One also commenced production in mid-2012 at its Willow Creek project. However, lower uranium prices are beginning to bite with UR Energy laying-off a number of workers in recent weeks. Despite this its production remains in operation.

Figure 5: Uranium Mining In Wyoming



Source: Peninsula Energy



## ASSETS

### Lance Uranium Projects, Wyoming

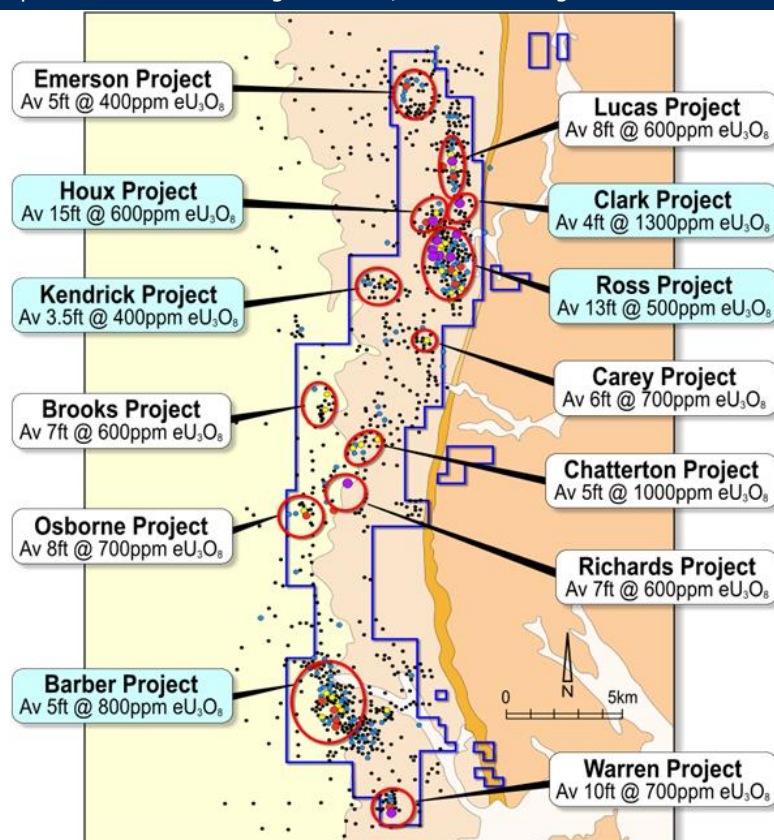
#### Overview

PEN acquired the Lance Projects in February 2007 from PacMag (PMH-ASX) as part of a package of uranium projects which included projects in South Australia and Western Australia. PEN was quick to begin to add to previous work from the NuBeth JV who drilled 4,738 holes in the 1970's. Significantly, PEN subsequently increased the resource from 5Mlb  $U_3O_8$  in 2010 to 53.7Mlb  $U_3O_8$  in 2013. As the resource has continued to grow PEN has conducted several economic studies and received all necessary permits to commence production in mid-2015. As outlined previously PEN has done an excellent job in reducing the upfront capital through a staged production approach as outlined in October 2014. PEN is targeting production of 28Mlb  $U_3O_8$  over a 20 year mine life at cash costs below US\$30/lb  $U_3O_8$ . Stage 1 will involve US\$33m in capital to produce 600-800klbpa  $U_3O_8$ . Stage 2 will essentially double production to 1-1.2Mlbpa  $U_3O_8$  for US\$35m in capital through the doubling of installed wells and the addition of an elution, drying and packaging circuit. Stage 3 requires US\$78m in capital to increase production to 1.7-2.3Mlbpa  $U_3O_8$ . The higher capital cost is needed for a new Satellite plant containing an additional Ion Exchange (IX) circuit and increased elution, drying and packaging capacity in the central processing plant.

#### Background

The Lance Projects are located on the North-East flank of the Powder River Basin in Wyoming (Figure 6). The original NuBeth Joint Venture between Nuclear Dynamics Inc, Bethlehem Steel Corporation and later Pacific Power and Hydro (NuBeth JV), discovered thirteen substantial zones of uranium mineralisation associated with an extensive system of roll fronts confirmed by drilling between 1970 and 1979. As part of this exploration program, the NuBeth JV drilled more than 5,000 exploration and development holes, totalling in excess of 912,000m. A proprietary database of the historic drilling and pilot plant data was acquired by Peninsula in 2007, defining a then relatively unknown uranium district of which Peninsula is now the dominant mineral rights holder.

Figure 6: Main Prospects Identified Through Historic/Recent Drilling



Source: Peninsula Energy

## Resources

The JORC Code-compliant Mineral Resource of 53.7Mlb  $U_3O_8$  is based on previous drilling conducted by PEN who completed 2,250 rotary mud drill holes over 4 years to the end of 2012 and c5,000 historical holes conducted by NuBeth. The resource covers three distinct production units which include: Ross (11.2Mlb), Kendrick (29.6Mlb) and Barber (12.9Mlb). Overall, the Mineral Resource has 32% classified in the measured and indicated with the remainder in inferred.

Figure 7: Lance Projects Wyoming Resource Summary (January 2013)

Total	Tonnes Ore (M)	$U_3O_8$ kg (M)	$U_3O_8$ lbs (M)	Grade (ppm $U_3O_8$ )
Measured	4.1	2.1	4.5	495
Indicated	11.6	5.7	12.7	497
Inferred	35.5	16.6	36.5	467
Total	51.2	24.4	53.7	476

Source: Peninsula Energy Limited

## Processing

Once the pregnant water based uranium solution is pumped to surface it is then put through an ion exchange column which uses a special resin bead to attract the uranium from solution. The uranium loaded resin beads are then transported to a processing plant, where uranium is stripped from beads and produces yellowcake ( $U_3O_8$ ). The yellowcake is then dried and packaged for further processing to be used in a nuclear reactor. In Stage 1, PEN will do the stripping, drying and packaging offsite under contract at 1 of 2 other plants who have scaled back production. During our site visit we went to the processing plant in Wyoming which will be responsible for the stripping, drying and packaging (Figure 8).

Figure 8: Processing Plant (where PEN will deliver its uranium bearing resin)



Source: Patersons Securities Limited

## Exploration Upside

The Lance Projects have 305 line km of identified roll fronts and an exploration target of 104-163mlbs  $U_3O_8$ , which is in addition to the JORC Code-compliant resource. These roll fronts stretch over 50km north-south and are open to the north, south and west. The main prospects are shown in Figure 6. While the potential is large it will not be an immediate focus for the Company given that over 20 year of recoverable resources have been identified based on the current production profile.

## Permitting

If we consider the relatively complex regulatory environment in the US (Figure 8), PEN has done an excellent job in achieving the necessary permits/licences to reach production at the Ross formation. There are 3 key licenses required to commence production which were obtained by PEN with final authorisation to mine in late 2015:

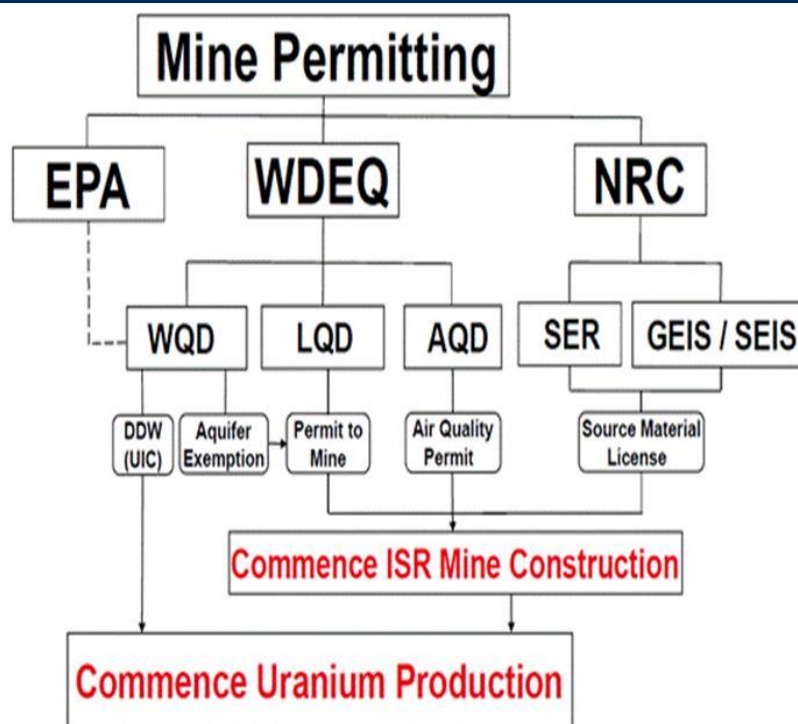
**1. Deep Disposal Well (DDW) License:** In April 2011 Strata received approval from the Wyoming Department of Environmental Quality (WDEQ) for the construction, testing, and operation of Underground Injection Control (UIC) Class 1 wells at the Lance Projects. In June 2015, the deep disposal well (DDW) was drilled. The DDW will be used to inject low-level wastes into an isolated rock formation at a depth in excess of 8,000 feet below the surface. It is anticipated that these DDWs will meet the water management requirements of an ISR operation at Ross.

**2. Permit to Mine (PTM):** In November 2012 the WDEQ granted Peninsula's wholly owned subsidiary Strata Energy Inc. (Strata) a PTM for the Ross permit area, the first planned production unit at the Lance Projects.

**3. Source Materials License (SML):** In late April 2014 the NRC issued Peninsula the final SML. Issuance of the SML concluded the licensing process for the three million pound per annum capacity CPP and the Ross Project. Peninsula now has the capacity to produce uranium from the largest 2012 JORC-Compliant in-situ recovery resource in the USA (54Mlb  $U_3O_8$ ). The SML was the culmination of a four-year permitting process involving multiple local, state and federal regulatory agencies.

Additional permits will be needed to produce from the Kendrick and Barber formations and these will be amendments/extensions to the existing licences. Amendments and extensions to existing licences are common practice in Wyoming with a number of existing operations successfully completing these on their existing permits.

Figure 9: The US Licencing Requirement for Production from Lance



Source: Peninsula Energy Limited

## Karoo Project

### Overview

Our analysis is that the Karoo project has merit with a solid JORC Code-compliant resource (56.9Mlb  $U_3O_8$ ) with excellent grades (1108ppm  $U_3O_8$ ) that has the potential for a significant mining operation. The other key advantage is that the regional infrastructure is excellent with a town of 30,000 people within 30km, N1 Highway Cape Town to Johannesburg, railway and regional airport. We value the project at \$55.4m which is based on \$1.26/lb of resource in the ground which is at the higher end of the peer comparative range. We justify this due to the excellent grades which are well above the average of 545ppm  $U_3O_8$ . Our value on Karoo could potentially be revised higher as PEN de-risks and further progresses the project.

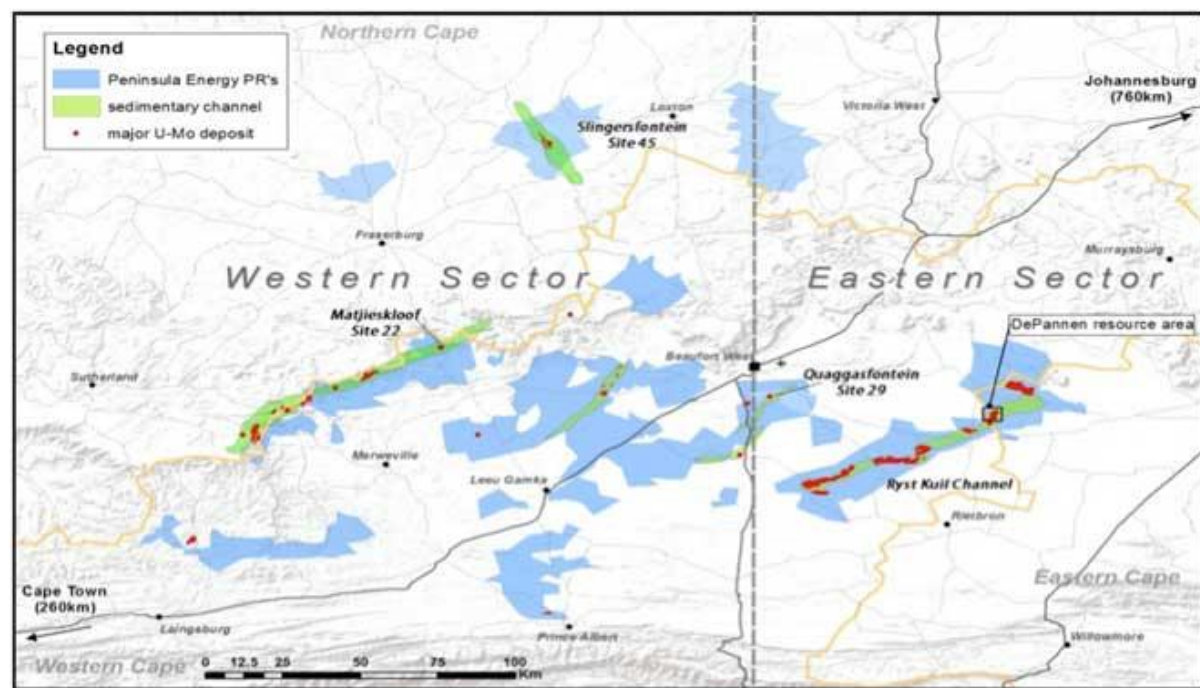
### Background

During the period 1970 -1985 extensive exploration and mineral evaluation has been conducted on the prospecting licenses that now make up the Karoo Projects. The companies that have completed this work include ESSO, Union Carbide, JCI, and Uramin. Within the project areas approximately 10,000 bore-holes have been drilled, several comprehensive mining evaluation studies completed and both trial open-cast and decline mining has been undertaken. Ore from the mining trials was then used in an array of mineral processing studies in an attempt to unlock the extensive mineral potential that the Karoo promises.

PEN has a 74% interest in a total of 40 prospecting rights (PR's) covering 4,657km<sup>2</sup> of the main uranium-molybdenum bearing sandstone channels in the Karoo Basin (Karoo Projects). Peninsula completed the acquisition of 35 of these PR's, previously held by AREVA, in December 2013. The residual 26% interest remains with the BEE partners as required by South African law.

The Karoo Projects are categorised into the Eastern and Western Sectors as shown in Figure 10. In the Eastern Sector, Peninsula has freehold ownership over an area of 322 km<sup>2</sup> which covers a significant proportion of the reported resource and allows unlimited surface access.

Figure 10: Karoo Projects Location



Source: Peninsula Energy



PEN commenced activity in South Africa in 2006 and was awarded prospecting rights by the Department of Mineral Resources over six project areas located in the Western, Northern and Eastern Cape Provinces. These prospecting areas include three historic deposits that were explored by JCI and Union Carbide Exploration Corporation during the late 1970's and early 1980's.

The aim of exploration work on the original six PR's has been to evaluate historic exploration targets and develop new targets throughout the Karoo. Since the commencement of exploration PEN has completed approximately 31,000m of Reverse Circulation and Diamond drilling and geophysically logged an additional 15,000m of open historic holes at three of the original six PR's.

The acquisition of AREVA's assets in South Africa brings an additional 35 PR's and 597,000m of drilling into the database. Recent work has been undertaken to compile and validate all data from Tasman's own drilling areas and the new data acquired from AREVA in order to produce a 3D geological model and JORC compliant resource estimate, as detailed below.

Various studies have determined that uranium and molybdenum mineralisation is hosted in fluvial channel sandstone deposits in the western and central parts of the Main Karoo basin within the Adelaide Subgroup and to a much lesser extent, the Molteno and Elliot formations of the Permian-Triassic Beaufort Group (Karoo Supergroup). The occurrences are epigenetic, tabular and sandstone-hosted and the thickest sandstone bodies tend to contain the highest proportion of mineralisation.

The PR's acquired from AREVA are complementary, in terms of mineral endowment, geology and geographic location, to the assets that Peninsula held in the Karoo Basin prior to the acquisition. The combined Karoo Projects contain 50Mlb Indicated and Inferred Resource (JORC 2012 Code) with a further exploration target of 200 -300Mlb U<sub>3</sub>O<sub>8</sub>.

## Reserves/Resources

The current JORC Code-compliant resource estimate totals 56.9Mlb U<sub>3</sub>O<sub>8</sub> (Figure 10) and is based on 7,230 drill holes from a database comprising 9,343 drill holes, which includes 1,245 additional holes probed or drilled by PEN since 2011, including 16 diamond holes and 801 reverse circulation holes.

Previous exploration conducted by Esso Minerals Africa (Esso), JCI and Union Carbide at the Karoo Projects in the 1970s included 1.6 million metres of drilling together with trial open-cut and trial decline mining programs. Based on the results of these programs, the previous holders of the PR have estimated approximately 99Mlb U<sub>3</sub>O<sub>8</sub> and 61Mlbs molybdenum (Mo).

Figure 11: Karoo Resource Estimate

Classification	eU <sub>3</sub> O <sub>8</sub> (ppm) cut-off	Tonnes (millions)	eU308 (ppm)	eU <sub>3</sub> O <sub>8</sub> (million lbs)
Indicated	600	8.0	1,242	21.9
Inferred	600	15.3	1,038	35.0
Total	600	23.3	1,108	56.9

Source: Peninsula Energy Limited

## Scoping Study

In September 2013, PEN completed a scoping study on the Karoo project. The results suggested that an alkaline leach without Molybdenum would be the preferred route; however, further metallurgical work conducted in April 2014 suggested an acid leach provided higher recoveries of 90.8%. Therefore PEN is currently conducting a Pre-feasibility study (PFS) using an acid leach method of recovery which is due in by the end of 2016. At this stage, PEN has not released any further details on the capital or operating costs for the project. These are expected to become available in due course as part of the PFS. PEN is currently negotiating with a number of parties to secure a strategic investment partner to accelerate the Karoo Project in South Africa through the completion of feasibility studies.

## Permitting

The Mining Licence Application (MLA) for the Karoo Projects, comprising 16 mining rights, was submitted to the Department of Mineral Resources (DMR) in the June Q 2014. Discussions with the DMR are ongoing, and during September 2014 the DMR requested that the Social and Labour Plan (SLP) and Environmental Scoping Reports (ESR) submitted as part of the MLA be updated to include certain community and social uplift clarifications and additional detail regarding potential environmental impacts. These have been agreed to and the SLP and ESR documents are being updated for forwarding to the DMR.

## Exploration Upside

The Karoo Projects cover a significant proportion of the Karoo Basin Permian sandstones, which are believed to represent an Exploration Target of between 250 and 350Mlbs  $U_3O_8$ . This Exploration Target, as shown in Figure 15, is based on the total cumulative prospective strike length of about 200km that occurs within the PR's, together with the reported  $U_3O_8$ lbs/km along the modelled sections of the Eastern Sector channel sandstones. Further drilling will be needed to define further uraniferous resources.

Figure 12: Exploration Target Karoo

Exploration Areas	Tonnes (M)		Grade (ppm $U_3O_8$ )		e $U_3O_8$ (Mlbs)	
	From	To	From	To	From	To
Total	126	133	900	1200	250	350

Source: Peninsula Energy

## RISKS

We see PEN as requiring additional capital to reach Stage 2 uranium production from its Lance Uranium projects in Wyoming. We outline the key risks below.

**Operating:** Whilst we are more comfortable with the ramp-up at Lance production results may differ materially from those outlined in the staged plan as outlined by PEN. This may be due to a number of factors including: sand permeability and porosity which may impact grade and/or recoveries. If the projected porosity, permeability, and transmissivity are incorrect, the consequence could be detrimental to the project. We have become more comfortable with the porosity and permeability with production wells confirming a rate higher than the 20 gal/min is possible. This was the number used in the feasibility study.

**Financing:** In order to achieve our valuation, PEN requires further funding at Lance for Stage 2 (US\$35m) and Stage 3 (US\$78m). At this stage we have assumed equity funding (US\$10-15m) and revenue streaming. There is a risk that further funding may be difficult to achieve, however, PEN has had the continued support from its major shareholders. Despite our uranium price downgrades we are forecast an improving uranium market and expect that funding would be available to expand production.

**Resource to Reserve Conversion:** The conversion of resources into recoverable material may differ from those anticipated by the Company. PEN is expecting a 53% conversion of Mineral Resources into recoverable uranium. We note that this is more conservative than other Wyoming focused uranium producers which use a 68-75% conversion. While sufficient drilling has been conducted to define indicated resources at Ross, extensive drilling will be required over the life of mine to delineate the other production units (Kendrick and Barber)

**Commodity Price:** The majority of revenues will be derived from the sale of uranium and subsequently PEN is highly leveraged to uranium price. Fluctuations in the uranium price affect the Company's ability to mine at a profitable margin. That said, the Company has completed contracts above the uranium spot price for 8.1Mlb U<sub>3</sub>O<sub>8</sub>. We forecast uranium prices to continue to strengthen over the medium to longer term. However, we note nuclear incidents/accidents, such as Fukushima, have the potential to impact the uranium market and its price. PEN is expected to negotiate further long term contract with the US utilities.

**Permitting/Environmental:** Further permits will be required during Stage 2 which will be used to allow the commencement of Stage 3. There is a small risk that this may not be achieved. We also note that PEN will be required to remediate/clean-up the wells in the future, once they are depleted.

**Social Issues:** PEN has engaged an excellent public relations firm and has overcome any social issues that have arisen. The Company has also met or exceeded the standards established in the Equator Principles. The Equator Principles are a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making.

**Exchange Rate:** PEN has a US based Project and as an Australian domiciled Company, is subject to fluctuations in foreign currency exchange rates between the Australian dollar and US dollar that have the potential to decrease the profitability of the Company. PEN has recently converted its reporting currency to US\$.

## DIRECTORS

### Mr John Harrison (Non Executive Chairman)

Mr Harrison brings to Peninsula a wealth of experience and resource sector knowledge acquired over a 45 year career including 20 years of investment banking in London. During this time Mr Harrison has developed an extensive international contact base advising companies across a range of commodities, (including uranium) and raising more than £500m in equity capital in the process. Prior to joining RFC Ambrian and following a successful career in the Lloyd's reinsurance market, Mr Harrison was Managing Director at Numis Securities Ltd where he worked on the development and listing of the then-new Lloyd's corporate underwriting vehicles, an activity upon which the Numis corporate finance franchise was built.

Mr Harrison is currently Non-Executive Chairman (UK) of international advisory and broking firm RFC Ambrian Ltd and Non-Executive Chairman of UK coking coal development company West Cumbria Mining PLC.

### Mr John (Gus) Simpson (Managing Director/CEO)

Mr Simpson is both a Science and Arts graduate from Curtin University, Western Australia. He joined the Peninsula Board in August 2007 and has over 25 years of experience in the management of listed mineral companies. He has had principal involvement in a number of successful mineral discoveries in Africa, Australia and North America. Previously held positions include senior executive roles with Gindalbie Mining NL, Australian Minerals Sands NL, Panorama Resources NL and Tanganyika Gold Limited. Mr Simpson brings a high level of strategic commercial expertise to the company.

### Richard Lockwood (Non Executive Director)

Mr Lockwood is a director of London based Arlington Group Asset Management Limited and was previously the senior resources fund manager at CQS Asset Management Ltd having merged his New City Investment Management group with CQS in 2007.

Mr Lockwood has over 50 years' experience in the funds management and mining investment sectors across the United Kingdom, Australia, and South Africa. He has extensive involvement with the uranium sector via institutional investment markets including being the founder of specialist uranium investment fund, Geiger Counter Ltd.

Mr Lockwood also played a pivotal role at Board level and was a director of AIM-listed uranium company Kalahari Minerals, which held a 42.74% interest in Extract Resources. Extract Resources was the owner of the Husab uranium project in Namibia. Kalahari Minerals and Extract Resources were taken over by China Guandong Nuclear Power Corporation in 2012 for US\$2 billion delivering substantial value to the shareholders of both companies.

### Mr Warwick Grigor (Non Executive Director)

Mr Grigor is a highly respected and experienced mining analyst, with an intimate knowledge of all market related aspects of the mining industry. He is a graduate of the Australian National University having completed degrees in law and economics. His association with mining commenced with a position in the finance department of Hamersley Iron, and from there he moved to Jacksons, Graham, Moore and Partners to become Australia's first specialist gold mining analyst. Mr Grigor left to be the founding research partner at Pembroke Securities and then the Senior Analyst at County NatWest Securities. He retired from County in 1991 to found Far East Capital Limited that was established as a specialist mining company financier and corporate adviser. Mr Grigor is also a founding partner and former Executive Chairman of Canaccord Genuity Australia Limited, an Australian based stockbroking organisation with offices in Melbourne, Sydney and Hong Kong, owned 50% by Canaccord Genuity Limited. Mr Grigor's research knowledge and market intelligence gives Peninsula a strong strategic direction.



### **Mr Harrison (Hink) Barker (Non Executive Director)**

Mr (Hink) Barker retired June 1, 2015 from the Generation segment of Dominion Resources with over 40 years of fossil and nuclear fuel commercial and technical responsibilities. Since 1992, Mr Barker had been the manager responsible for Dominion's procurement of nuclear fuel and the related processing steps of conversion from  $U_3O_8$  to  $UF_6$ , enrichment of  $UF_6$ , and fabrication of nuclear fuel assemblies. He is a former chair of the Nuclear Energy Institute's Utility Fuel Committee, and a past member of the World Nuclear Fuel Market Board of Directors (Chairman for two years). He served on an Advisory Board to American Uranium Corporation while they attempted to develop the Wyoming Reno Creek uranium deposit. From 1975 to 1984 he worked as an engineer and supervisor in the areas of nuclear fuel quality assurance, nuclear core design, nuclear fabrication contract administration, nuclear fuel procurement, spent fuel transportation and disposal planning during a period when Dominion was building its regulated nuclear operating fleet in Virginia. Mr Barker holds a Bachelor of Science degree in Electrical Engineering, and a Master's in Nuclear Engineering Science both from the University of Florida.

### **Mr Evgenij Iorich (Non Executive Director)**

Mr Iorich is currently Vice President, Investment Team at Pala Investments Limited (Pala) and has extensive experience in the natural resources sector across a broad range of commodities with a focus on M&A opportunities, operational, financial planning and corporate structuring.

Prior to joining Pala in 2006, Mr Iorich was a financial manager at Mechel, the Russian metals and mining company, where his responsibilities included all aspects of budgeting and financial modelling.

Mr Iorich graduated from the University of Zurich with a Master of Arts degree and is currently a Non-Executive Director of TSX-listed Serinus Energy and TSX-V-listed Asian Mineral Resources.

### **Mr Mark Wheatley (Non Executive Director)**

Mr. Wheatley is an experienced resources company CEO, Non-Executive Director and Chairman with a career spanning more than 30 years in mining and related industries.

Mr. Wheatley has 10 years' experience in the uranium industry and been involved in ISR project feasibility studies, start up, production, rehabilitation and closure. His uranium experience includes the roles of Chairman and CEO of Southern Cross Resources Inc., the operator of the Honeymoon ISR uranium project and Non-Executive Director of Uranium One Inc. and Uranium Resources Inc. He is currently Executive Chairman of Xanadu Mines Ltd.

## **Key Management**

### **Mr Ralph Knode (Chief Executive Officer - Strata Energy Inc.)**

Mr Knode has over 30 years of experience in uranium exploration, property evaluation, mine construction and mine operations throughout North America, Kazakhstan and Australia. Prior to joining Peninsula, Mr Knode held senior management positions at Uranium One, most recently as Senior Vice President, Projects. For over 25 years Mr Knode held various mid-level and senior management positions for Cameco's USA subsidiaries Crow Butte Resources and Power Resources and JV Inkai in Kazakhstan. In these capacities, Mr Knode has been directly involved in the start-up and/or operation of five In Situ Recovery projects on three different continents.

### **Mr Willie Bezuidenhout (Chief Executive Officer – South Africa)**

Effective 1 June 2016, PEN appointed Mr. Willie Bezuidenhout to the role of Chief Executive Officer (South Africa). Mr. Bezuidenhout is overseeing the progression of the Karoo Projects through feasibility, financing, development and into operations. Mr. Bezuidenhout is a highly credentialed senior mining executive with extensive uranium operational and financial management expertise. Mr. Bezuidenhout has most recently held senior executive and management positions at Uranium One and its subsidiaries for close to a decade.

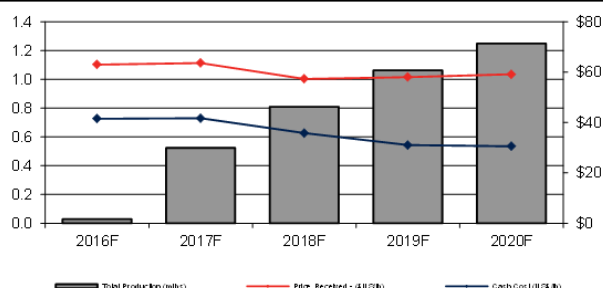
### **David Coyne (Chief Financial Officer)**

Mr Coyne has over 20 years' experience in the mining, and engineering and construction industries, both within Australia and internationally. Prior to joining Peninsula, Mr Coyne held senior executive positions with Australian listed companies Macmahon Holdings Limited and VDM Group Limited, and with unlisted global manganese miner Consolidated Minerals. Over the past 10 years, Mr Coyne has been directly involved in a number of equity and debt raising transactions and has been the project director on a company-wide systems implementation project. Mr Coyne has previously served on the Board of listed iron ore miner, BC Iron Limited, where he also held the role of Chairman of the Audit and Risk Committee.

**Penninsula Energy  
Base Case NPV**

	A\$m	0.68 A\$/sh
Lance	185.9	0.91
Exploration (unmined res.)	32.8	0.16
Karoo	55.4	0.27
Listed investments	0.0	0.00
Corporate	(40.6)	(0.20)
Forwards	6.8	0.03
Unpaid Capital	20.0	0.10
Cash	9.2	0.05
Debt	(24.6)	(0.12)
<b>NAV</b>	<b>244.9</b>	<b>1.20</b>

**Valuation Summary of Major Assets**

**Uranium Production Summary**

**Reserves & Resources**

M & I Resources	Mt	ppm	U <sub>3</sub> O <sub>8</sub> (kt)	(mlbs)
<b>Lance Project</b>				
Ross	9	521	5	9.9
Kendrick	4	498	2	4.8
Barber	3	415	1	2.4
<b>Sub Total</b>	<b>16</b>	<b>496</b>	<b>8</b>	<b>17</b>
Karoo Project	8	1257	11	24
<b>Total (M &amp; I)</b>	<b>24</b>	<b>796</b>	<b>19</b>	<b>42</b>
<b>Inferred Resources</b>	<b>Mt</b>	<b>ppm</b>	<b>U<sub>3</sub>O<sub>8</sub> (kt)</b>	<b>(mlbs)</b>
Lance	35	467	17	36.5
Karoo	15	1040	16	35.1
<b>Total (Inferred)</b>	<b>51</b>	<b>640</b>	<b>32</b>	<b>72</b>
<b>Total</b>	<b>74</b>	<b>689</b>	<b>51</b>	<b>113</b>

**Directors**

Name	Position
John Harrison	Non-Executive Chairman
John (Gus) Simpson	Managing Director/CEO
Warwick Grigor	Non-Executive Director
Harrison (Hink) Barker	Non-Executive Director
Mark Wheatley	Non-Executive Director
Richard Lockwood	Non-Executive Director
Evgenji Iorich	Non-Executive Director

**Substantial Shareholders**

	%
Resource Capital Fund	21.6
Pala Investments	12.1
Blackrock	7.9

Commodity Assumptions	2015A	2016F	2017F	2018F
A\$:US\$	0.84	0.73	0.74	0.73
Uranium (US\$/lb)	37.00	34.50	32.75	45.00
<b>Sensitivities (\$US/sh)</b>	<b>-10%</b>	<b>0%</b>	<b>+10%</b>	
Uranium Price	0.97	1.20	1.44	
Lance Grade	1.08	1.20	1.33	
Lance Opex	1.40	1.20	1.00	

Production Summary	2015A	2016F	2017F	2018F
Lance	0.00	0.03	0.52	0.81
<b>Total Production (mlbs)</b>	<b>0.00</b>	<b>0.03</b>	<b>0.52</b>	<b>0.81</b>

Cash Cost (US\$/lb)	na	41.52	41.67	35.76
All-In-Sustaining Costs (US\$/lb)	na	41.52	41.67	35.76
Price Received - (\$US/lb)	na	63.00	63.61	57.31

Profit & Loss (\$m)	2015A	2016F	2017F	2018F
<b>Sales Revenue</b>	<b>0.0</b>	<b>2.4</b>	<b>45.0</b>	<b>64.0</b>
Other Income	0.2	0.2	1.0	1.3
Operating Costs	0.0	1.6	28.8	38.2
Exploration Exp.	0.0	0.9	1.7	1.8
Corporate/Admin	6.2	6.2	5.1	5.2
<b>EBITDA</b>	<b>(6.0)</b>	<b>(5.9)</b>	<b>10.5</b>	<b>20.2</b>
Depn & Amort	0.2	0.4	3.8	5.9
<b>EBIT</b>	<b>(6.2)</b>	<b>(6.3)</b>	<b>6.7</b>	<b>14.3</b>
Interest	0.8	0.2	1.1	2.2
Operating Profit	(7.0)	(6.5)	5.6	12.2
Abnormals (pre-tax)	(1.7)	(4.7)	0.0	0.0
Tax expense	0.0	0.0	1.7	3.6
Minorities	0.0	0.0	0.0	0.0
<b>NPAT</b>	<b>(5.3)</b>	<b>(1.8)</b>	<b>3.9</b>	<b>8.5</b>
<b>Normalised NPAT</b>	<b>(6.5)</b>	<b>(4.8)</b>	<b>3.9</b>	<b>8.5</b>

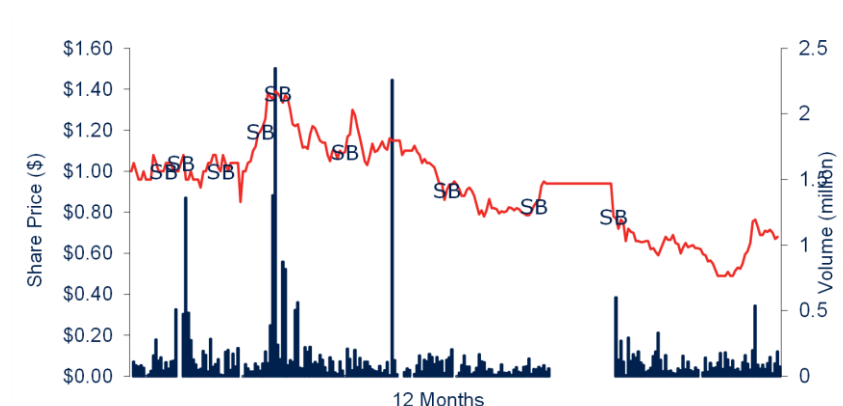
Cash Flow (\$m)	2015A	2016F	2017F	2018F
Adjusted Net Profit	(6.5)	(4.8)	3.9	8.5
+ Interest/Tax/Expl Exp	0.8	1.0	4.5	7.6
- Interest/Tax/Expl Inc	3.5	1.2	4.8	7.9
+ Depn/Amort	0.2	0.4	3.8	5.9
+/- Other	4.1	(1.4)	0.0	0.0
<b>Operating Cashflow</b>	<b>(4.9)</b>	<b>(6.0)</b>	<b>7.4</b>	<b>14.1</b>
- Capex (+asset sales)	16.1	31.1	0.0	49.9
- Working Capital Increase	3.7	11.1	0.0	0.0
<b>Free Cashflow</b>	<b>(24.6)</b>	<b>(48.2)</b>	<b>7.4</b>	<b>(35.8)</b>
- Dividends	0.0	0.0	0.0	0.0
+ Equity Raised	67.1	(0.2)	20.0	0.0
+ Debt Drawdown (Repaid)	(16.9)	24.6	25.0	(6.6)
<b>Net Change in Cash</b>	<b>25.6</b>	<b>(23.4)</b>	<b>52.4</b>	<b>(42.4)</b>
Cash at End Period	32.6	9.2	61.6	19.2

Net Cash/(LT Debt)	32.6	4.6	36.6	0.8
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Balance Sheet (\$m)	2015A	2016F	2017F	2018F
Cash	32.6	9.2	61.6	19.2
Total Assets	185.2	193.6	244.2	247.8
Total Debt	1.4	6.8	25.0	18.4
Total Liabilities	6.2	19.4	46.0	41.1
Shareholders Funds	179.1	174.2	198.2	206.7

<b>Ratios</b>				
Net Debt/Equity (%)	na	na	na	na
Interest Cover (x)	na	na	6.0	6.6
Return on Equity (%)	na	na	2.0	4.1

## Recommendation History



Date	Type	Target Price	Share Price	Recommendation	Return
16 Jan 15	Research Note	0.06	0.02	SB	
17 Mar 15	Resources Review	0.06	0.02	SB	-10.0%
28 Apr 15	Hot off the Press	0.06	0.02	SB	5.6%
23 Jul 15	Hot off the Press	0.06	0.02	SB	
17 Aug 15	Research Note	0.06	0.03	SB	31.6%
26 Aug 15	Hot off the Press	0.06	0.03	SB	
17 Sep 15	Resources Review	0.06	0.03	SB	20.0%
09 Oct 15	Hot off the Press	0.06	1.19	SB	
20 Oct 15	Research Note	2.35	1.38	SB	16.0%
26 Nov 15	Commodity Analysis	2.35	1.03	SB	-25.7%
22 Jan 16	Hot off the Press	2.35	0.88	SB	-14.1%
11 Mar 16	Hot off the Press	1.90	0.80	SB	-9.1%
26 Apr 16	Hot off the Press	1.90	0.84	SB	5.0%
09 Jun 16	Hot off the Press	1.90	0.64		-24.4%
Current Share Price			0.68		

**Stock recommendations:** Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-10% to +10% total return) and Sell (> 10% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may not be of investment grade due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside of these ranges because of price movements and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. This Document is not to be passed on to any third party without our prior written consent.



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