BOSS RESOURCES LIMITED

Honeymoon Uranium Project, South Australia

Near term production with substantial exploration upside in underexplored Uranium Province

Resources Rising Stars, May 2016

DISCLAIMER

The information contained in this presentation or subsequently provided to any recipient of this presentation whether orally or in writing by or on behalf of Boss Resources Limited ("Boss") or its respective employees, agents or consultants (Information) is provided to the recipients on the terms and conditions set out in this notice. The purpose of this presentation is to provide recipients with information relating to Boss Projects.

This presentation does not constitute investment advice and has been prepared by Boss without taking into account the recipient's investment objectives, financial circumstances or particular needs. Each recipient must make his/her own independent assessment and investigation of Boss and its business and assets when deciding if an investment is appropriate and should not rely on any statement or the adequacy and accuracy of any information. This presentation is in summary form and does not purpose to be exhaustive. This presentation should be read in conjunction with Boss' periodic and continuous disclosure announcements lodged with the Australian Securities Exchange, which are available to download at www.asx.com.au.

Boss makes no representation or warranty (either expressed or implied) as to the accuracy, reliability or completeness of the Information. Boss and its directors, employees, agents and consultants shall have no liability (including liability to any person by reason of negligence or negligent misstatement) for any statements, opinions, information or matters (express or implied) arising out of, contained in or derived from, or for any omissions from the presentation, except liability under statute that can not be excluded.

This presentation may contain forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Boss. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements.

This presentation does not constitute in any way an offer or invitation to subscribe for securities in Boss pursuant to the Corporations Act 2001 (Cth) and has not been lodged with the Australian Securities and Investment Commission.

The information in this presentation that relates to Exploration Results and Mineral Resources is based on information compiled by Dr. M. Abzalov, who is a Competent Person according to the JORC 2012 Code. Dr. M. Abzalov is a Fellow of the AusIMM. He has sufficient experience in estimation Resources of uranium mineralisation, and have a strong expertise in the all aspects of the data collection, interpretation and geostatistical analysis to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Dr. M.Abzalov is employed as a director of Boss Resources Ltd. Dr. M. Abzalov consents to the inclusion in the report of the matters based on their information in the form and context in which it appears. This information was initially reported to the ASX on 1 September 2015, 20 January 2016 and 6 April 2016 and has not materially changed.

The information in this presentation that relates to the Honeymoon Project Exploration Target and associated Exploration Data is based on information provided by Mr. Neil Inwood, who is a Fellow of the AUSIMM. Consent is granted only for the purposes of outlining an Exploration Target, no warranty is made on the use of the exploration information and data for other purposes. Mr Inwood is a consulting geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr. Inwood has consented to the inclusion of this information in this document in the form and context in which it appears. An entity associated with Mr Inwood has shares in Boss Resources Ltd. This information was initially reported to the ASX on 8 December 2015 and has not materially changed.

The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2004). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve.

HIGHLIGHTS

PERMITTED

Fully permitted Uranium operation (only 1 of 4 in Australia)

TARGET

Significant exploration target
Huge 80+ km potentially mineralised strike
2,600km^2 under explored uranium province
52.5mlb U_3O_8 JORC Resource

INFRASTRUCTURE

$170m plant and infrastructure in place

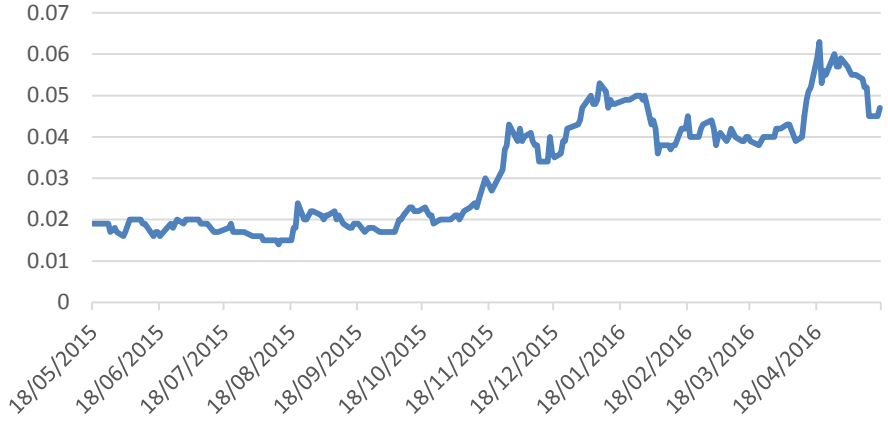
LOW CAPEX

Unique option on Uranium price – operations can commence with low CAPEX targeting cash costs of <$25/lb production

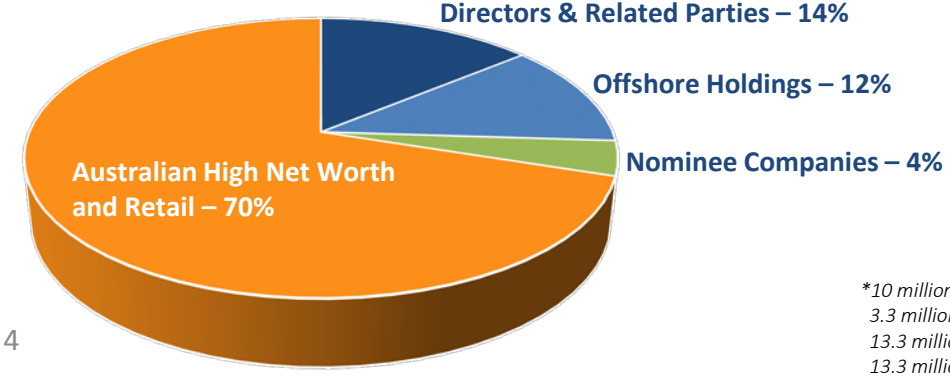
CORPORATE STRUCTURE

Existing Shares (ASX:BOE)	**855** million
Performance Rights*	**40** million
Options ($0.02 Aug 18)	**10** million
Cash (31 March 2016)	**~ $2** million
Market Capitalisation (at $0.05)	**~$40** million
Top 100 Shareholders	**~ 80%**

Share Price Movement



Shareholder Breakdown



*10 million rights convert if share price is greater than 7.5c for 20 consecutive ASX trading days
3.3 million rights convert if share price is greater than 8.5c for 20 consecutive ASX trading days
13.3 million rights convert on discovery and decision to mine of 75kt Ni JORC resource on Scandinavian Projects
13.3 million rights convert on discovery and decision to mine of 125kt Ni JORC resource on Scandinavian Projects

HONEYMOON
TRANSACTION

- Acquiring 80% of Uranium 1 Australia Pty Ltd (option to acquire 100%)
    - 20% free carried to DFS acquisition at independent valuation
- Site access fee A$200,000 payable on signing HOA - PAID
- A$2.48 million payable 3 months after signing SPA - PAID
- A$3 million payable on anniversary of 2 years of signing the SPA – Dec 2017
- A$4 million payable on anniversary of 4 years of signing SPA – Dec 2019
- Later of 5 years or 3 months of production
    - A$2 million in cash or Boss shares (our elective)
    - A$3 million from Net Operating Cash Flow (10% per annum)

DIRECTORS

- **Mark Hohnen** Chairman
  Mr Hohnen has extensive international business experience in a wide range of industries. He is currently a Board member of Swakop Uranium and was the founding Executive Chairman of Kalahari Minerals Plc.
- **Marat Abzalov** Executive Director - Geology
  Dr Abzalov has a PhD in Geology. Marat has recently completed an invited study of ISL styles of mineralization, including those in Australia. He is also an ex-Exploration manager for Rio Tinto Eurasia, with extensive experience in Kazakhstan uranium projects.
- **Evan Cranston** Corporate Director
  Mr Cranston is a corporate lawyer with experience in publicly listed entities including capital raisings, offerings, and liaison with market analysts and investors.
- **Grant Davey** Executive Director
  Mr Davey is a mining engineer with 20 years of senior management and operational experience in the construction and operation of Uranium, gold, platinum and coal mines in Africa, Australia, South America and Russia.
- **Peter Williams** Non Executive Director
  Mr Williams is an explorationist/geophysicist with over 30 years experience. He has extensive experience in West Africa, Australia, Fennoscandia, and Canada.

PEER COMPARISON

ASX LISTED STOCKS

Company	Initial Capex (AUD$)	Mining Permit	Resource mlb	Grade PPM	Mining Type	Market Cap	C1 Costs US$/lb	Comments
Toro Energy (ASX:TOE)	315m	✗	75.3	485	Bulk surface	$106m	33	$29.5m invested by Sentient
Vimey (Energy & Minerals) (ASX:VMY)	378m	✗	65.6	520	Surface	$73m	23	RCF provided $30m funding
Peninsula Resources (ASX:PEN)	46m (stage 1)	✓	51.2 (Lance Deposit)	476	ISL	$220m	43	Recent raising $69m RCF, Pala, Blackrock, JP Morgan
Berkeley Resources (ASX:BKY)	169m	✓	90.5	495	Hard rock Open pit	$114m	15.60	In feasibility studies
Boss Resources (ASX:BOE)	Constructed	✓	53.5	640	ISL	$45m	Target <25	

AUSTRALIAN
URANIUM PROJECTS

- One of the highest grade un-mined uranium resources in Australia
- 1 of 4 fully permitted uranium projects in Australia (3 in South Australia)
- Curnamona Basin – a significant underexplored uranium province
- Exploration target of up to 42-100 Mlb U_3O_8 (at 450-1400ppm U_3O_8) on 2600km^2 of tenement area. The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.
- Currently on care and maintenance

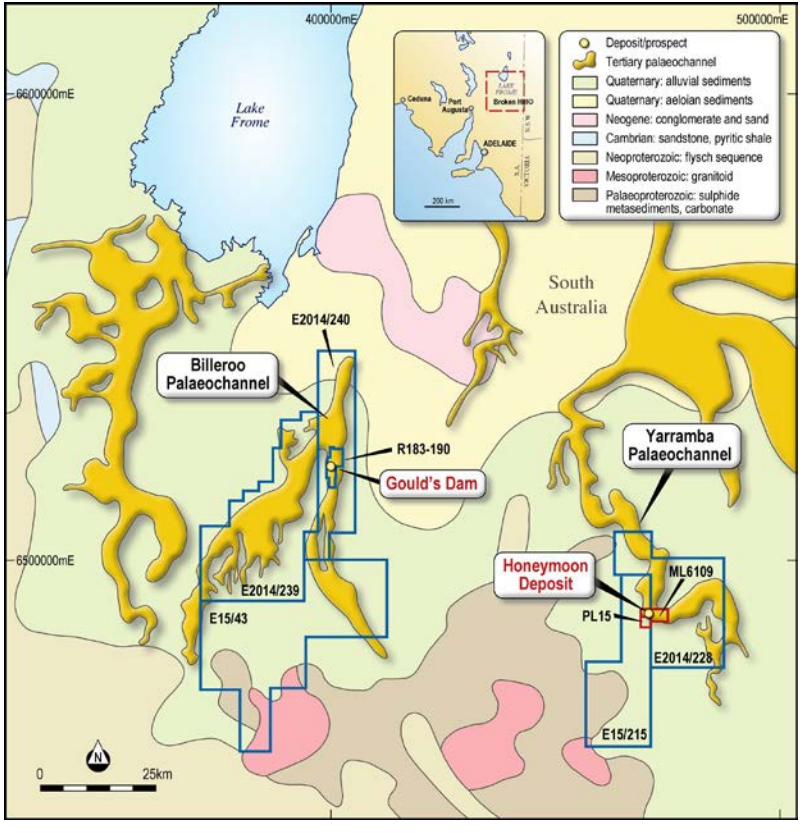
HONEYMOON RESOURCE

Significant existing high-grade resources – highest grade amongst ASX listed peers

2016 Honeymoon Project Mineral Resource Covering the Honeymoon, East Kalkaroo , Brooks Dam and Goulds Dam Deposits Reported Above a preferred 250ppm U_3O_8 lower cut-off.				
Classification	Million Tonnes	U_3O_8 ppm	Contained U_3O_8 (Mkg)	Contained U_3O_8 (Mlb)
Measured	1.7	1720	2.9	6.5
Indicated	5.9	810	4.8	10.6
Inferred	29.6	540	16.1	35.5
Total	**37.3**	**640**	**23.8**	**52.6**

Note: Figures have been rounded. Quoted resources have been adjusted to exclude previous production of approximately 335t of U_3O_8.

HONEYMOON
URANIUM PROJECT

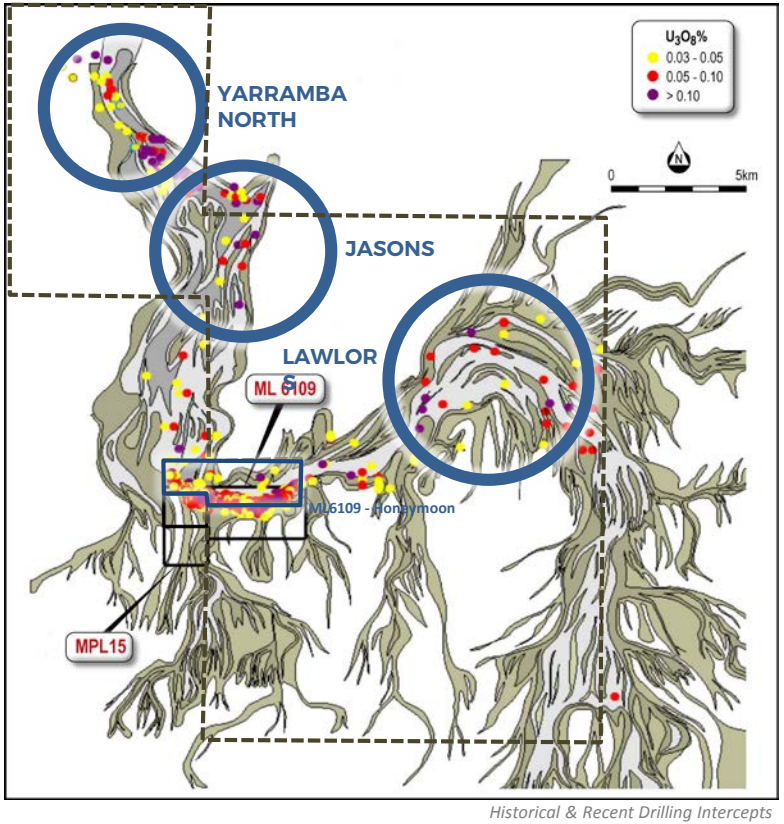


- Located 75Km NW of Broken Hill, in the Curnamona Region of South Australia
- Project contains the Honeymoon and Goulds Dam Resources, a high-grade sandstone hosted Uranium deposit amenable to insitu-leach mining techniques
- Holdings include the granted Honeymoon ML, 4 EL's and 8 RL's
- Mineralisation occurs at 90-120m depth in unconsolidated sand aquifers at the base of a Palaeochannel
- Over 2,500 historical and recent drill holes have been completed between 1960-2012
- Recent airborne electromagnetic survey has outlined significant targets warranting further investigation
- Multiple styles of uranium mineralisation identified

EASTERN TENEMENTS

EXPLORATION POTENTIAL

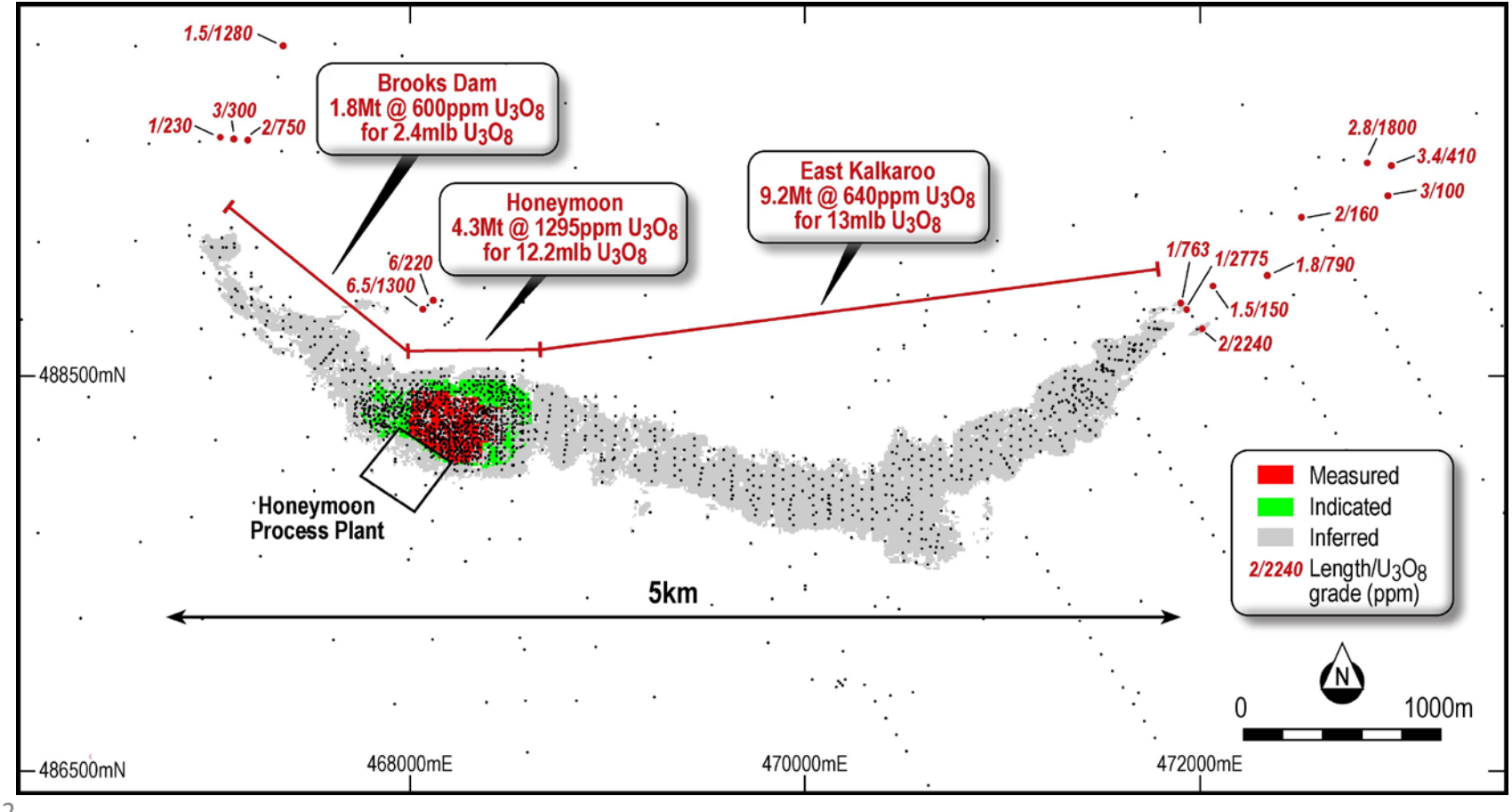
- Global Honeymoon Resource of 52.5mlb U_3O_8, an 330% increase in resource since the project was acquired in December 2015
- Regional exploration target of 11-25Mt between 380 and 1200 ppm U_3O_8 for between 18-47MLb of contained U_3O^8 on Eastern Tenements. The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.
- 30 km of potentially mineralised strike
- Drill ready targets - historical drilling shows numerous > 1,000ppm U_3O_8 intercepts associated with well defined Palaeochannel
  - Three priority regions – Yarramba, Jasons and Lawlors
  - Early potential for resource definition
- Regional scale assessment recently undertaken - Airborne EM survey conducted to identify Tertiary Palaeochannels with brackish groundwater: prospective host for uranium mineralisation
- Advanced targeting model utilising numerical prospect scoring system developed



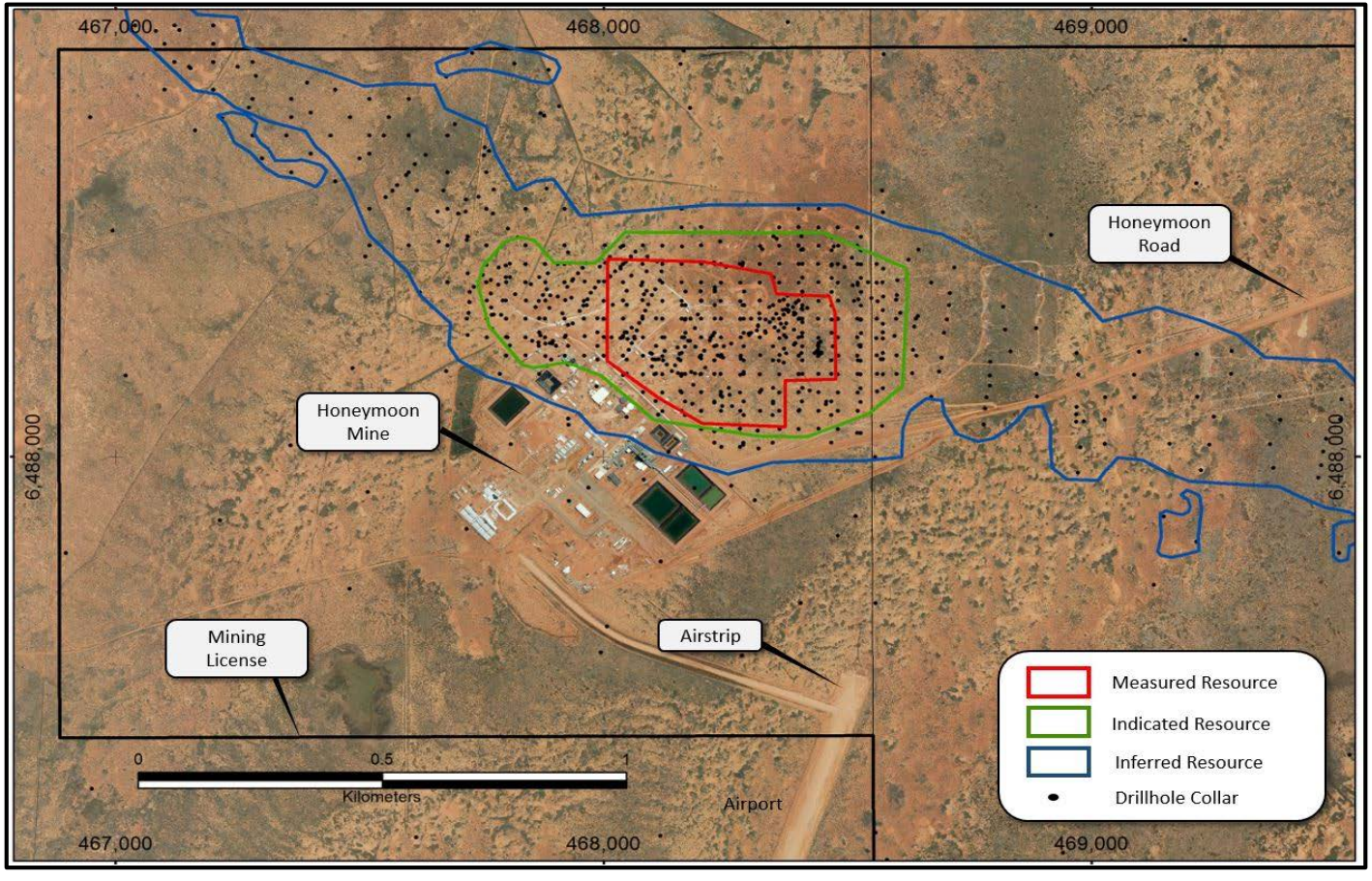
Historical & Recent Drilling Intercepts

HONEYMOON RESOURCE

SIGNIFICANT EXPANSION POTENTIAL

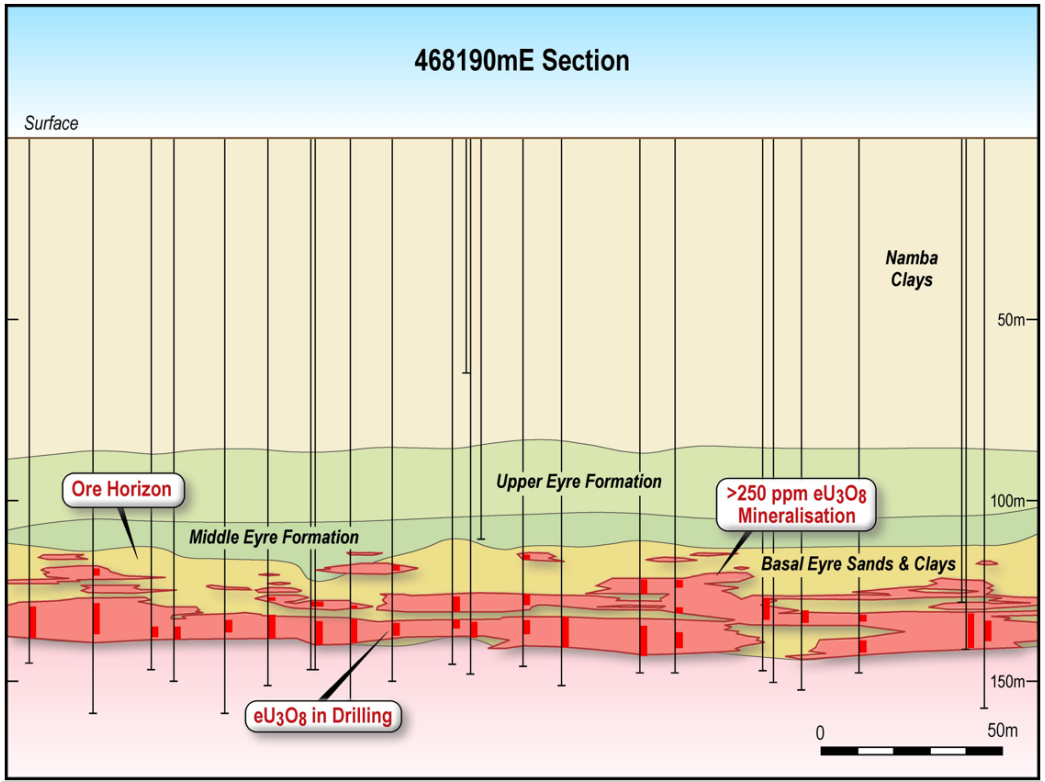


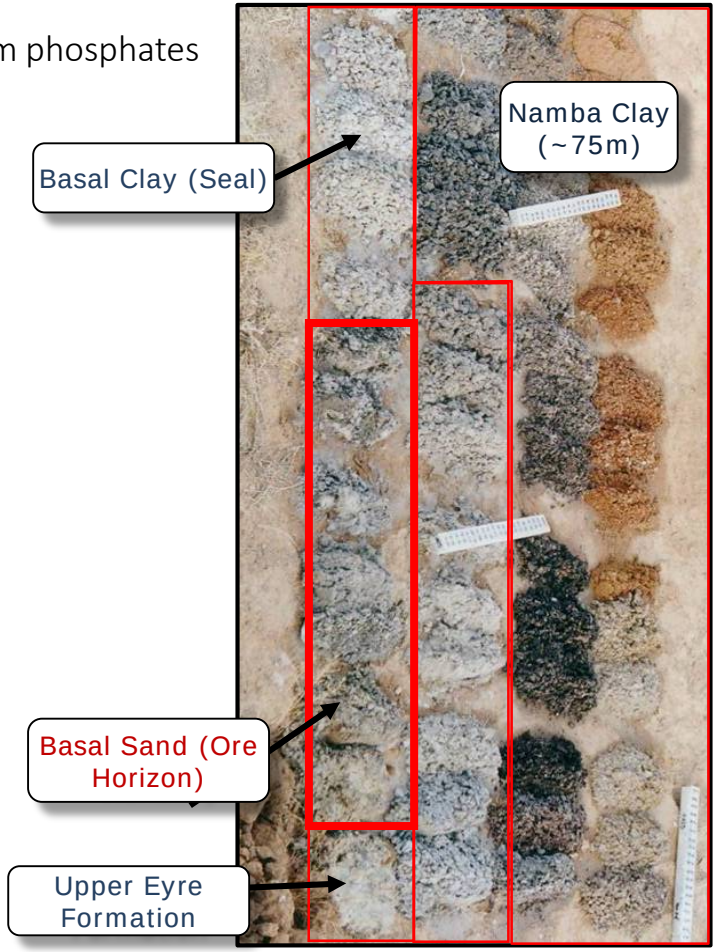
RESOURCE LOCATION



TYPICAL HONEYMOON SECTION

- Mineralisation within permeable Basal Eyre sands and gravels
- Uranium mineralogy of acid-soluble uraninite, coffinite, and uranium phosphates
- Mineralisation 115-125m below surface





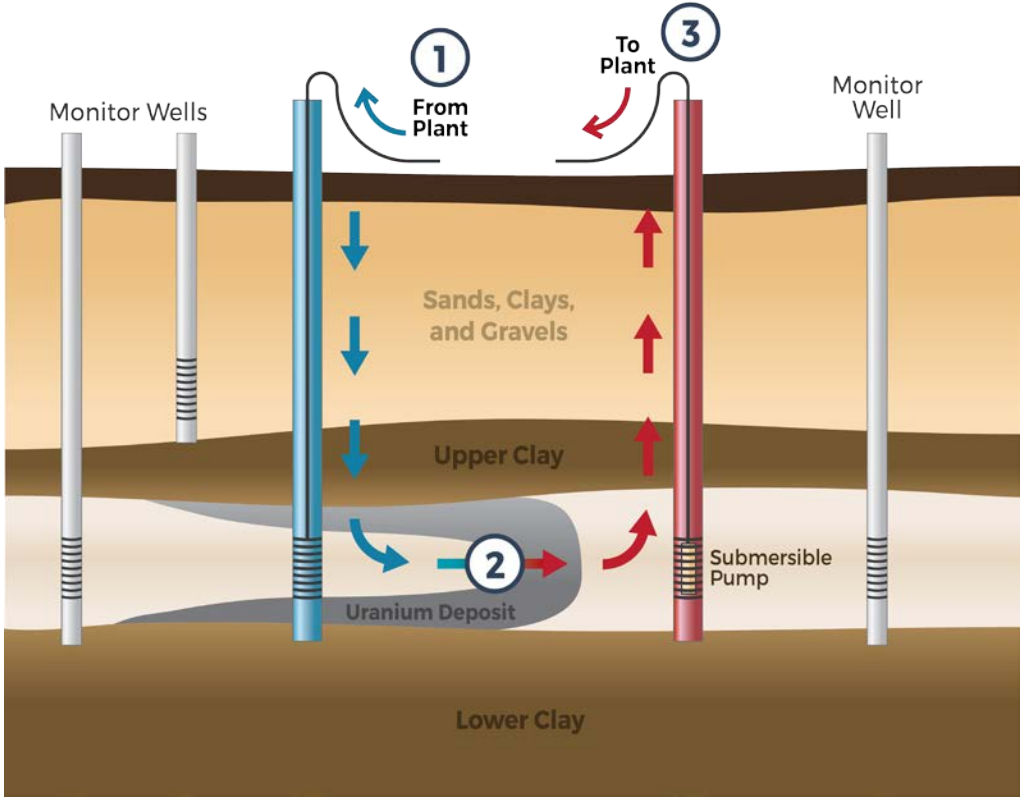
ISL PROCESS

Process Flow

1. An acidic leach solution containing an oxidant is pumped through injection wells into uranium-bearing solution.

2. The solution migrates through the strata sands oxidising and mobilising uranium as a soluble complex.

3. The solution, now referred to as pregnant leach solution (PLS) is intercepted by production wells, located between the injection wells, and pumped to the surface.



INFRASTRUCTURE

Production Bore

Processing Facility

Water treatment plant

Control Room

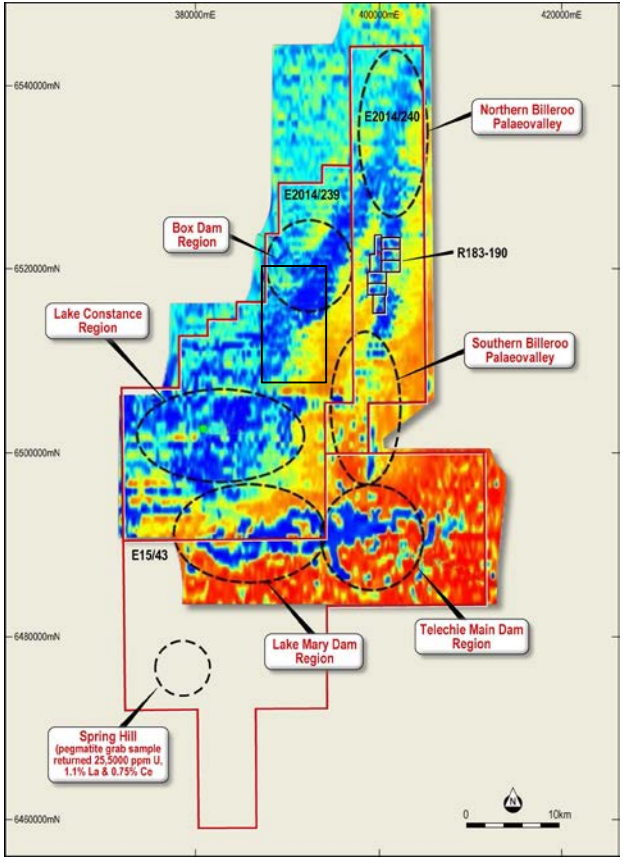
Settling Ponds

Camp

WESTERN TENEMENTS

EXPLORATION POTENTIAL

- 54 km potentially mineralised strike
- Exploration target of 21-53Mt at between 480 and 1400ppm U_3O_8 for between 24 and 53MLB of U_3O_8. The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.
- Previously defined grade estimates in the Retention Leases
  - Validation and resource estimation underway
  - Some 300 drillholes drilled in recent years to be incorporated for the first time
- Goulds Dam / Billeroo system underrated:
  - 12 km strike length
  - Under drilled
  - Highly prospective ground
- EL5043 has pegmatite hosted mineralisation up to 3.5% U_3O_8 (grab sample)
- Broader Exploration licence under application
  - Potential for new paleochannels
  - Along trend of mineralised fluids
  - Massively under explored
  - Grades of up to 1% eU_3O_8 reported from historical drilling (1960 – EAR19)



MILESTONES

☑ Project Acquisition

- Lowest cost per lb acquisition in recent history

☑ Resource Upgraded

- Total resource of 52.5mlb U_3O_8 @ 640ppm – representing a 330% increase in resource size since acquisition in December 2015

☑ Option Study

- Commence a process option study SX, IX, Eluex – March 2016
- Expansion options depending on resource size

☐ Further Resource Estimation underway

- Convert Jasons exploration target into JORC resources

☐ Commence exploration Q3 2016

- Target known mineralised areas for low cost additional resource

☐ Expansion DFS completed 2017

☐ Commencement of Expanded Production estimated mid 2019

FEASIBILITY PLANNING SCHEDULE

Project Activities	Q_2 2016	Q_3 2016	Q_4 2016	End 2017
Resin Testing				
Option Study				
Initial Exploration				
Resource Upgrade - Jasons				
Expansion Feasibility				

MARKET DEMAND

GLOBAL REACTOR GROWTH & URANIUM DEMAND

- Global nuclear generation capacity will increase 70% over the next decade from 374,067MWe to 636,693MWe
- 71 reactors under construction & 173 new reactors planned
- Annual uranium demand will increase from 177mlbs to 280mlbs by 2020, representing a 58% increase
- Additional 390mlbs will be needed for new initial cores

71 UNDER CONSTRUCTION

- ***Generation Capacity:*** 74,886 MWe
- ***Annual Uranium Demand:*** 13,000 tonnes U

434 OPERABLE REACTORS DECEMBER 2013

- ***Generation Capacity:*** 374,067 MWe
- ***Annual Uranium Demand:*** 64,978 tonnes U

173 PLANNED REACTORS

- ***Generation Capacity:*** 187,740 MWe
- ***Annual Uranium Demand:*** 32,600 tonnes U

MARKET

NUCLEAR POWER – THE BEST SOLUTION

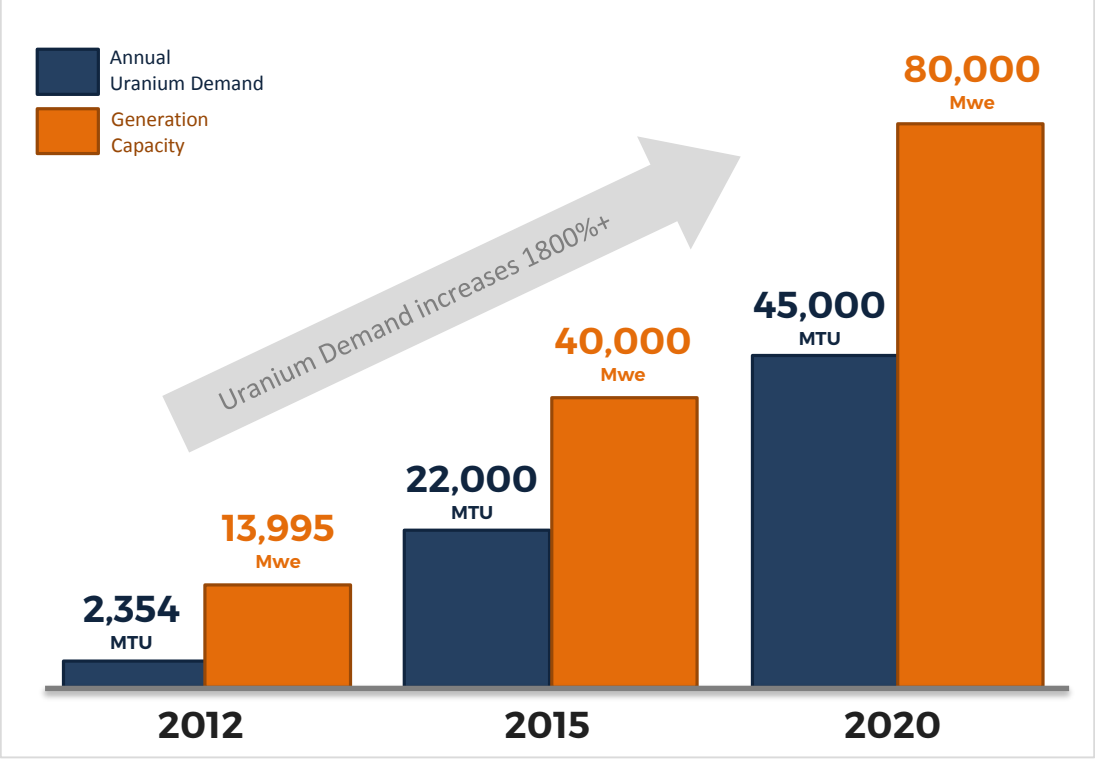
- Nuclear power provides the best solution for a non-polluting 24:7 base load power source
- Zero Carbon Emissions
- Over 430 existing nuclear plants, focused in Europe, North America, Russia, South Korea and Japan
- 1.7 billion of the world's population is still without electricity
- Emerging economies will need to implement a combination of nuclear, coal, gas and renewables to meet their growing power requirements
- Nuclear power needs to be made readily accessible and affordable to the emerging economies to ensure that non-polluting sources are chosen in the hunt for more power

Existing Nuclear Plants, Europe

MARKET

CHINESE NUCLEAR GENERATION 2012 - 2020

- Between 2010 and 2013, China purchased ~$15B of U3O8
- China's demand for U3O8 is forecast to increase over 19 times by 2020



China imported 18,968 tU in 2013.
According to the Chinese General Administration of Customs, China imported 18,968 tU (~49.3 million pounds U_3O_8) in 2013. The country reportedly imported uranium from five countries: Kazakhstan, Uzbekistan, Australia, Namibia, and Canada. China paid US$2.4 billion for its uranium imports in 2013, (US$48.68 per pound U_3O_8).

Graph Source: World Nuclear Association; China Guongdong Nuclear Power Corporation; China National Nuclear Corporation

COMPETITIVE ADVANTAGE

BOSS RESOURCES

TEAM

Executives with project management, development, financing, and operation experience

ASSETS

Honeymoon Uranium asset in South Australia
Underestimated uranium province
Significant exploration target

APPROVAL

All approvals are in place

LICENCED

Only developed project in Australia which is fully licensed and able to be brought into production

Suite 23, 513 Hay Street
Subiaco, WA 6008
+61 8 6143 6730

Grant Davey +61 (0) 447 753 163

www.bossresources.com.au