



URANIUM IPO

INVESTMENT OPPORTUNITY

World class Frome Basin uranium province in South Australia



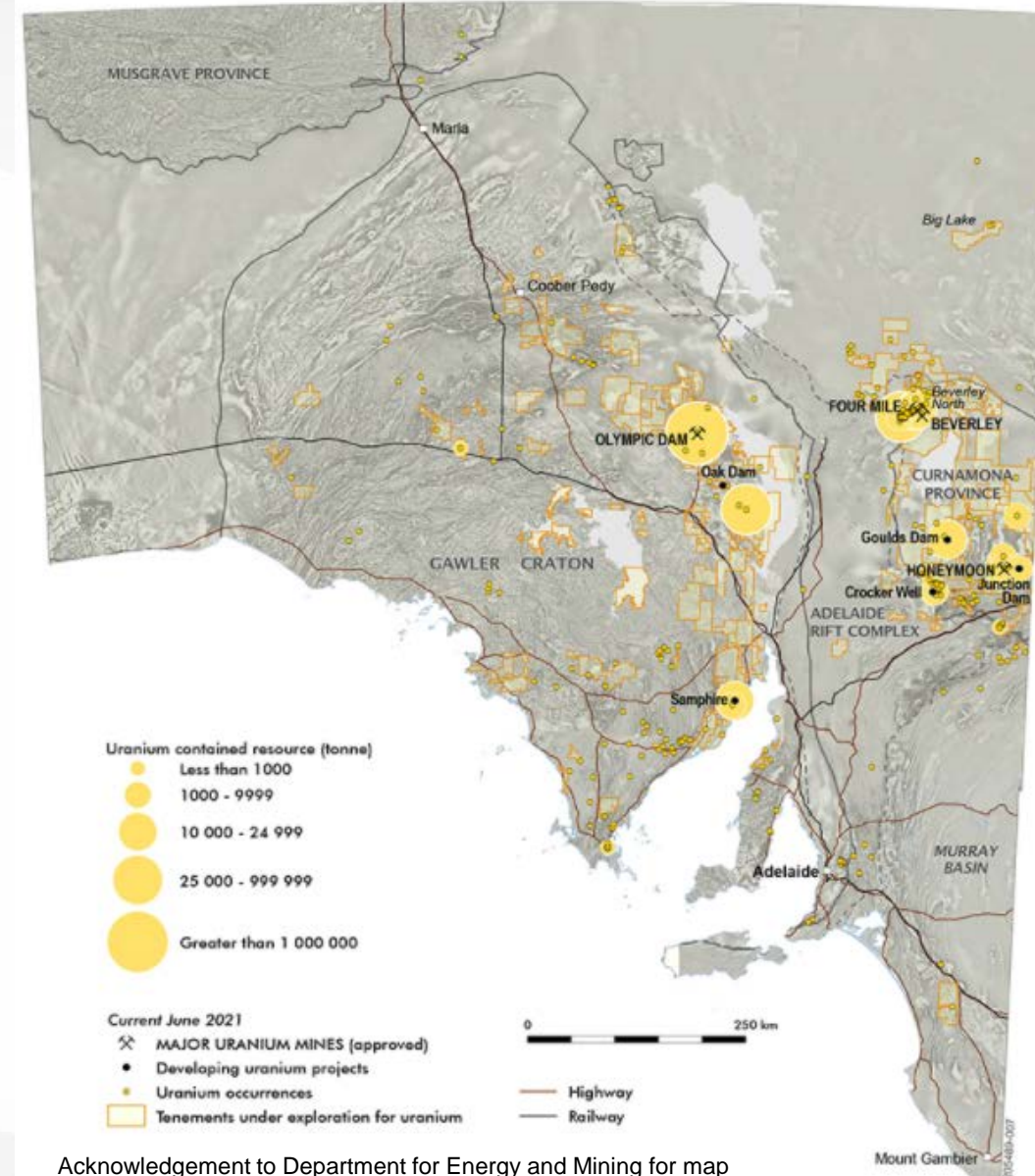
Investment Highlights – NU Energy Resources

- Exploration rights over > 11,000 km² in the world class Frome Basin in situ recovery (**ISR**) uranium province in South Australia that includes the undeveloped 2.1 Kt JORC uranium oxide resource at Oban, which has considerable untested resource expansion potential.
- An extensive legacy of earlier high quality technical data that identified numerous sand-hosted uranium prospects that warrant follow up drilling to potentially delineate new uranium resources.
- The Frome Basin is host to several large third party sand-hosted uranium deposits (eg Beverley, Beverley North, Four Mile, Honeymoon and Goulds Dam).
- ISR is a proven, relatively low capital, safe and non-disturbing mining method used for over 20 years in the Beverley and associated sand-hosted uranium deposits in the western Frome Basin.
- Opportunities to apply current technologies including ion exchange resins and remotely operated solar-powered ISR cells that will facilitate a low capital spoke and hub concept, employing a single centralised processing facility that is able to service many satellite ISR cells.
- South Australia is a low sovereign risk uranium friendly tier 1 mining destination with best practice Environmental, Social and Governance (**ESG**) credentials and a well established uranium mining industry.
- A positive case for uranium-based nuclear power that could be the critical link in generating the huge amounts of base-load CO₂ emissions free energy that will be required to transition the world away from fossil fuels.

Frome Basin – a favourable geological setting for sand-hosted uranium deposits

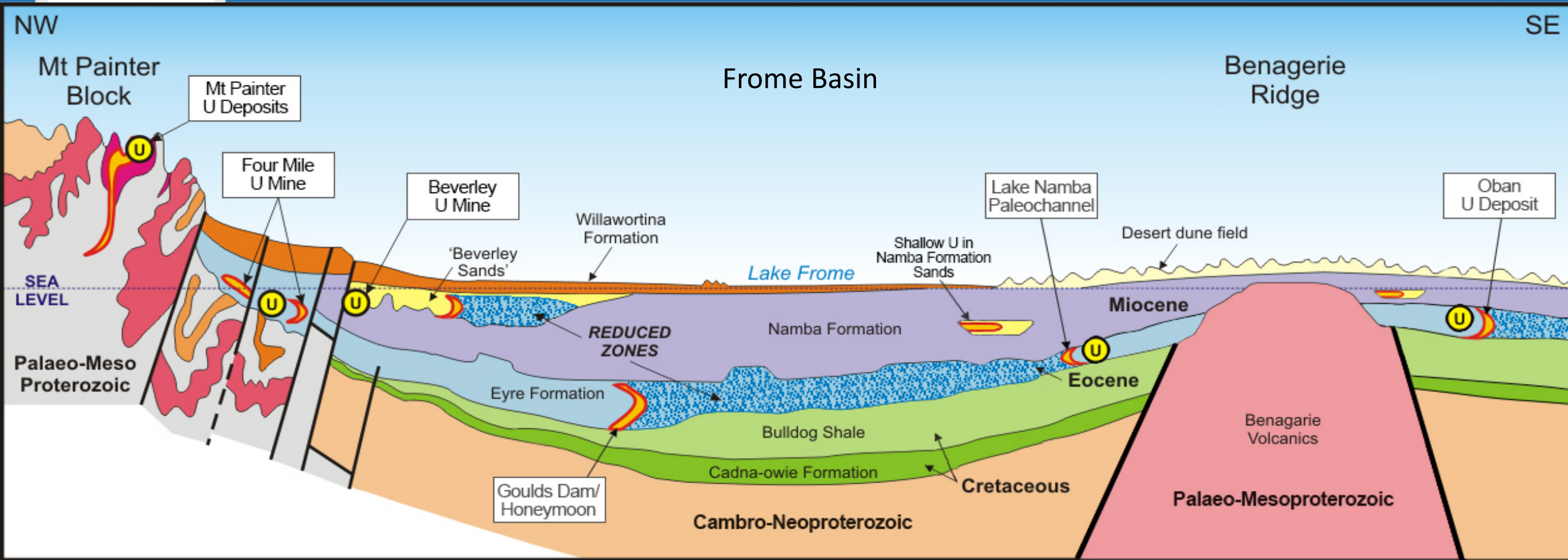
- South Australia hosts approximately 23% of the world's economic uranium resources, mainly in the Olympic Dam orebody, which is the largest uranium deposit in the world.
- Four of the six approved Australian uranium mines are in South Australia, namely Olympic Dam, Beverley, Beverley North and Honeymoon.
- The amount of uranium exported from South Australia during 2016 fueled nuclear reactors that produced enough electricity to power almost 20 million homes for a year.
- Uranium is widespread in uranium rich Precambrian basement rocks of the Curnamona Craton, with high potential for future discoveries in areas of secondary concentration such as the Frome Basin.
- A supportive South Australian government with a regulatory regime that enforces the highest ESG standards.

A long and distinguished uranium mining heritage



Acknowledgement to Department for Energy and Mining for map

Frome Basin – favourable geology for sand-hosted uranium



- Uranium leaches from uranium enriched basement rocks and migrates in oxidised groundwater along palaeochannel sands. It is deposited and concentrated when the groundwater encounters reductants such as organic carbonaceous material and/or pyrite.
- Large uranium deposits of this type occur at Beverley, Four Mile, Honeymoon and Goulds Dam.
- The buried intra-basin Benagerie Ridge basement rock topographic high within NU Energy’s tenements is an ideal uranium source as it is largely comprised of uranium rich volcanic and granitic rocks. The overlapping sands have numerous uranium drilling intersections that have never been followed up, which could be indicators of new uranium deposits such as Oban.



Uranium source rocks

- 1:1 correlation between nearby uranium enriched basement rocks and substantial sand-hosted uranium resources within the Frome Basin as follows:

Mt Painter: Beverley and associated deposits (79.6 Kt eU₃O₈)*

Crockers Well: Gould's Dam (11.4 Kt eU₃O₈)**

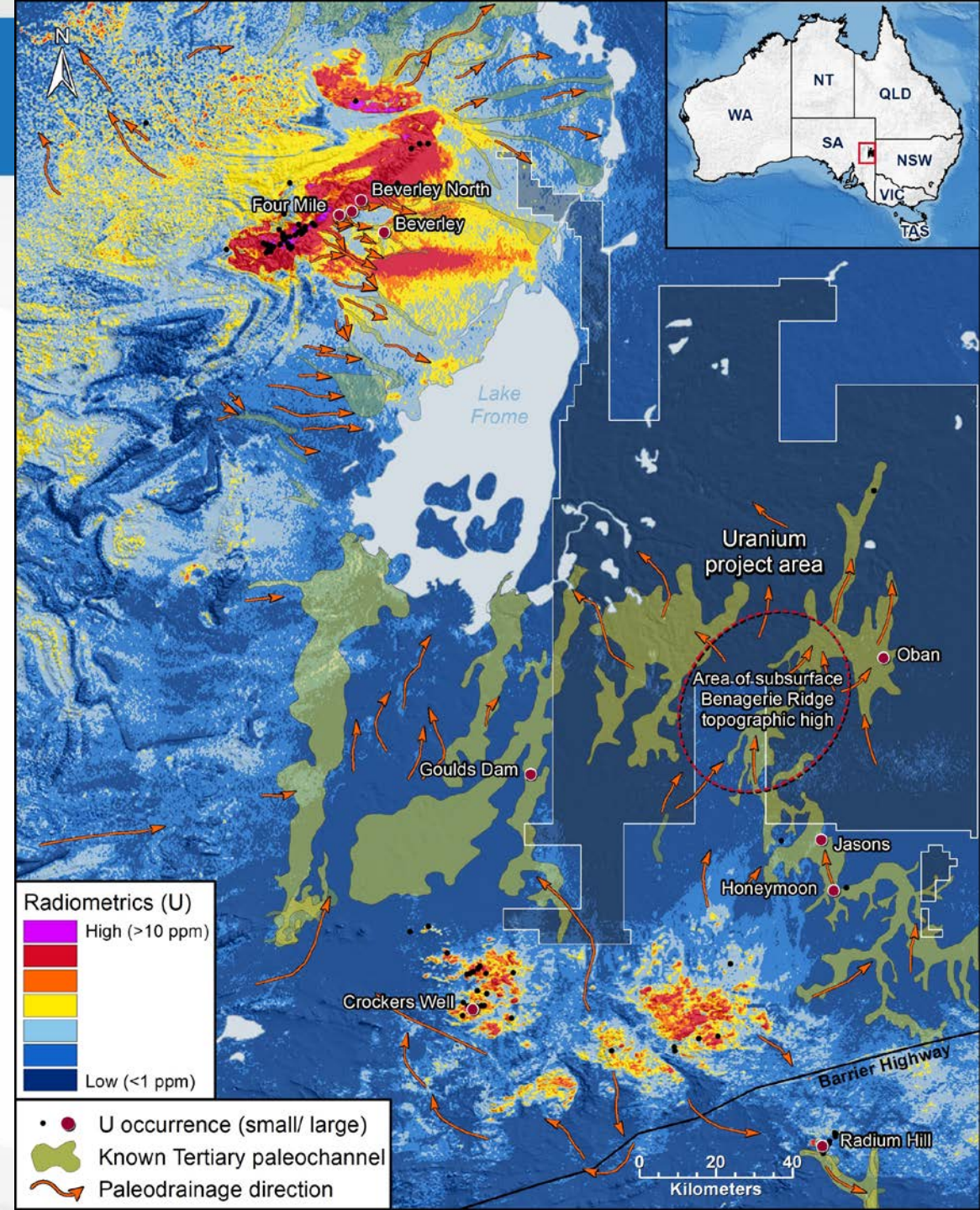
Kalkaroo granites: Honeymoon restart (16.2 Kt eU₃O₈)** and Jason's resource (4.9 Kt eU₃O₈)**

- **Benagerie Ridge** intra-basin topographic high of uranium-rich Precambrian volcanic and granitic rocks has no associated large sand-hosted uranium deposit, but numerous promising prospects with only very limited drilling.
- Indicates that large deposits could exist marginal to the Benagerie Ridge in suitable reduced host sands.
- Oban shows favourable pointers to potentially much larger uranium deposits in the region.

* Department for Energy and Mining [website](#)

** Boss Energy Ltd [2021 Annual Report](#)

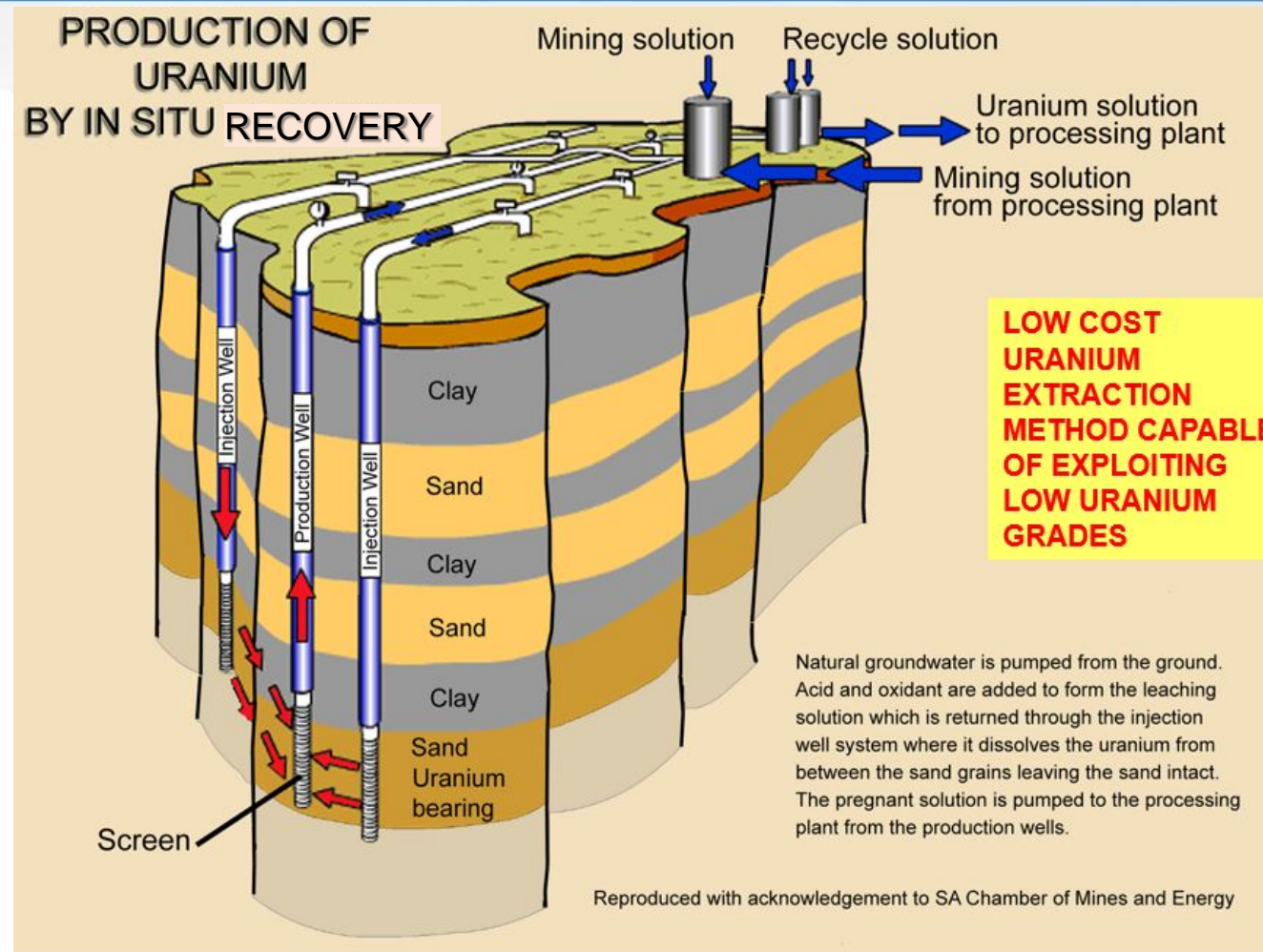
Favourable vectors for a large sand-hosted uranium deposits





ISR is safe and cost-effective for sand-hosted uranium recovery

- ISR is a well proven uranium mining technology that is extensively utilised to exploit sand-hosted uranium deposits in Kazakhstan and the USA.
- [Heathgate Resources Pty Ltd Beverley and nearby](#) uranium mines are a successful, long running ISR operation in the western Frome Basin.
- [Boss Energy Ltd's Honeymoon restart](#) ISR uranium project is located on the Yarramba palaeochannel to the south of Havilah's tenements and is being readied for production.
- ISR mining is an internationally recognised, low impact, safe and environmentally responsible method of mining.
- It is amenable to operating efficiencies afforded by the use of ion exchange resins and remotely controlled automated solar energy driven pumping systems allowing simultaneous mining of multiple satellite deposits.



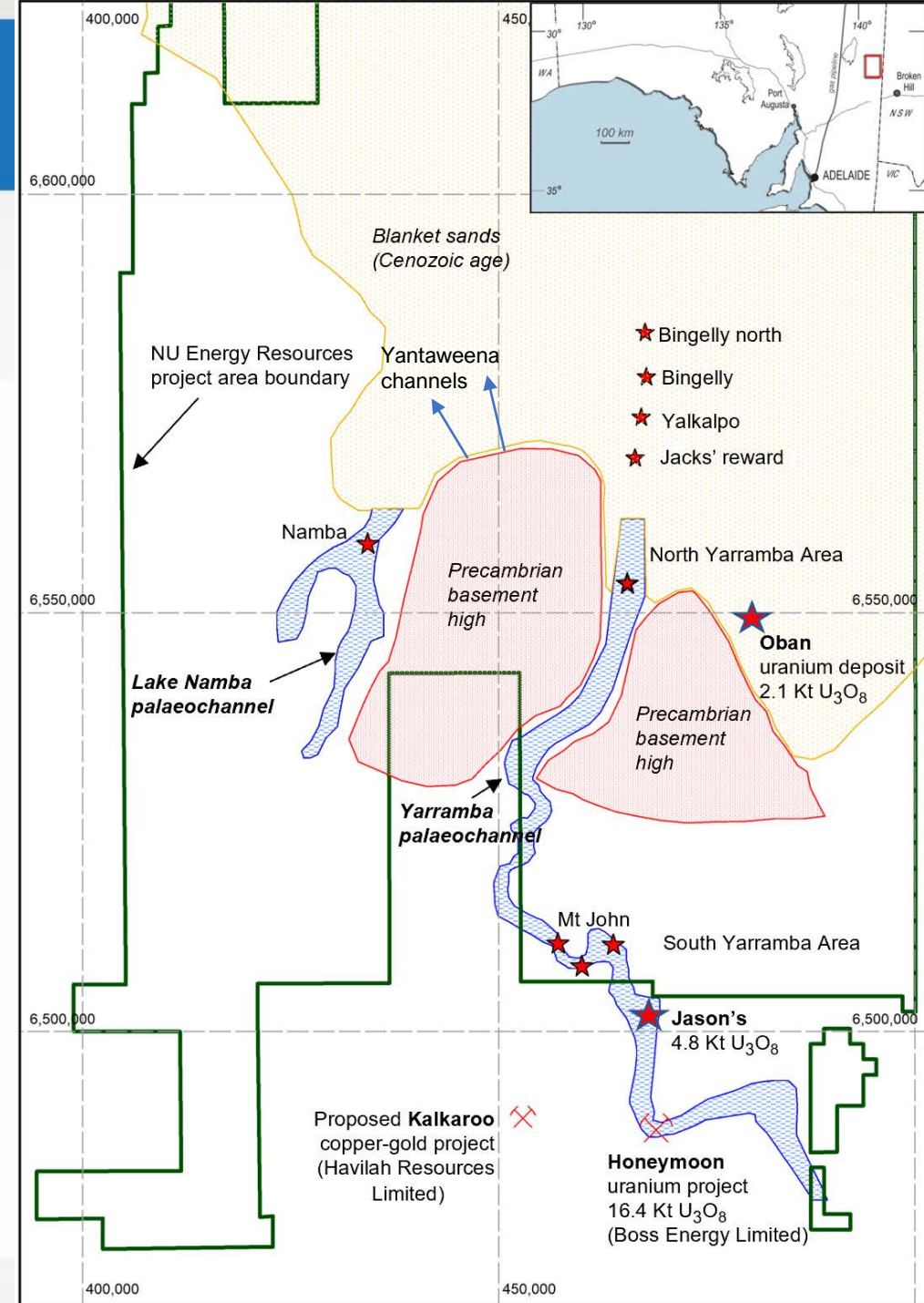
Cost-efficient and effective ISR technology that causes minimal environmental disturbance



Frome Basin project summary

- **Oban deposit** – 2.1 Kt eU₃O₈ JORC resource contained in 8 million tonnes of 260 ppm eU₃O₈.
- **Many promising prospects** – >11,000 km² tenement holding with numerous prospects identified by earlier drilling that warrant follow up.
- **Yarramba palaeochannel** – Mt John area prospects immediately upstream from the Honeymoon (17 km) and Jason's deposits (3 km) (both owned by Boss Energy Ltd).
- **Namba palaeochannel** – shallower uranium in sands discovered by several earlier explorers.
- **Benagerie Ridge basement high** – uranium rich volcanic rocks shedding uranium into numerous buried sandy river channels and blanket sands. Sparsely drilled and excellent prospects for the next major discovery in the region. Includes Oban deposit extensions, Jacks Reward-Yalkalpo-Bingelly prospects, North Yarramba and Yantaweena channels.

High potential for new discoveries in a favourable geological setting





Strategic objectives – development and exploration

1. Development of Oban ISR project

- Expand current JORC uranium oxide resource with further drilling along the sand channel, extending northwards.
- Run new ISR trials at Oban including pressure-induced hydraulic disruption to enhance the permeability of the uranium-bearing organic sands. Trial new resins to recover uranium from leach solutions. Apply the extensive legacy of earlier high quality technical information.
- Test the concept of fully automated, remote-controlled, solar powered, ISR cells. This spoke and hub concept is designed to allow many smaller satellite deposits to be exploited that are distant from a central facility.

2. Exploration for a large uranium resource flanking the Benagerie Dome

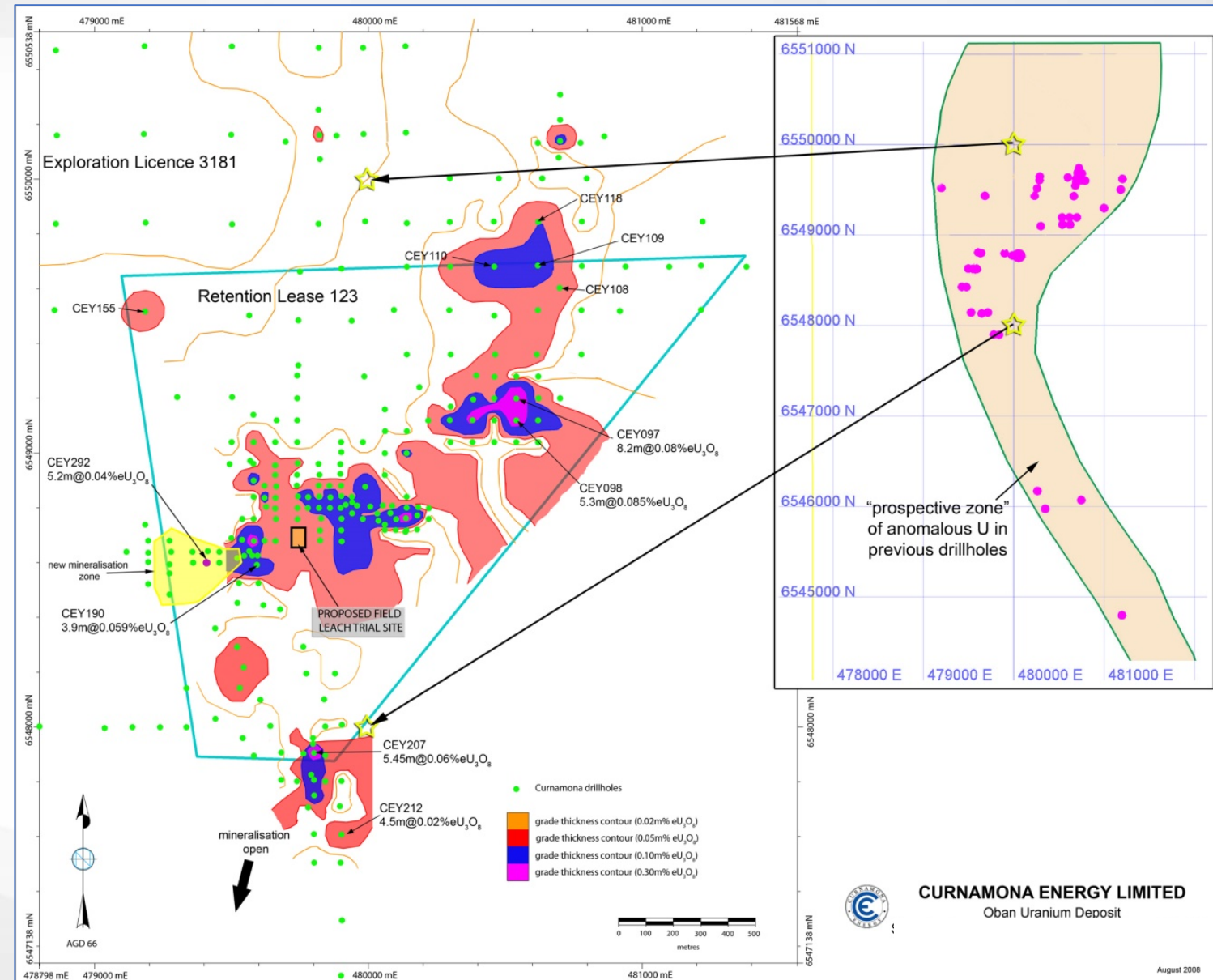
- A favourable geological setting for large sand-hosted uranium deposits with the proven concept of uranium-enriched granitic / volcanic basement source rocks that are flanked by onlapping coarse sands with organic-rich reducing trap sites. All previous explorers have discovered widespread uranium in the region, with many potential ore-grade intersections, including the Oban JORC uranium oxide resource.
- Utilise cost-effective mud drilling and down hole gamma logging as first pass exploration, moving to sonic drilling at an early stage to confirm JORC uranium resources.

Favourable geological setting for sand-hosted uranium deposits



Reinstate Oban ISR project using new technological advances

- Existing 2.1 Kt eU₃O₈ JORC resource, supported by consistent data (see next slide).
- Capable of expansion with more drilling and improved geological understanding.
- Laboratory tests show that uranium readily leaches from the host sands.
- Previous field recovery trial tests in 2009-2011 period were prematurely cut short by collapse of the uranium market after the tsunami that caused the Fukushima nuclear reactor incident.
- Opportunity to trial permeability enhancement by pressure induced hydraulic disruption of uranium-bearing organic sands, as commonly employed in other ISR mines (eg Kazakhstan).
- Improved resins developed over the last decade can potentially promote more cost-effective uranium recovery from leach solutions.
- Solar-powered, remote-controlled operations are possible with current technology.





Oban resource supported by high quality technical data

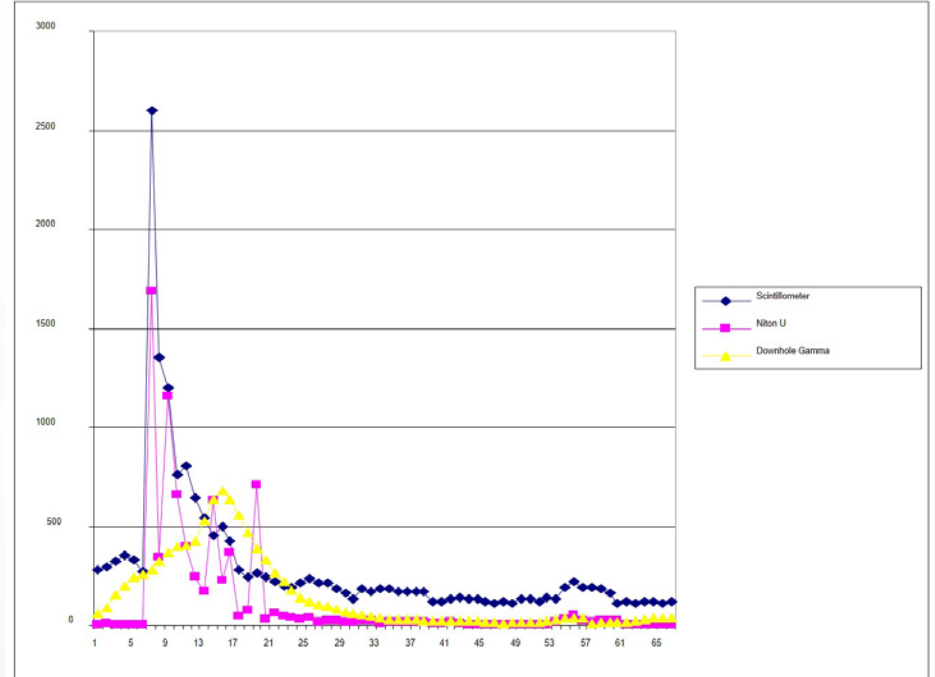
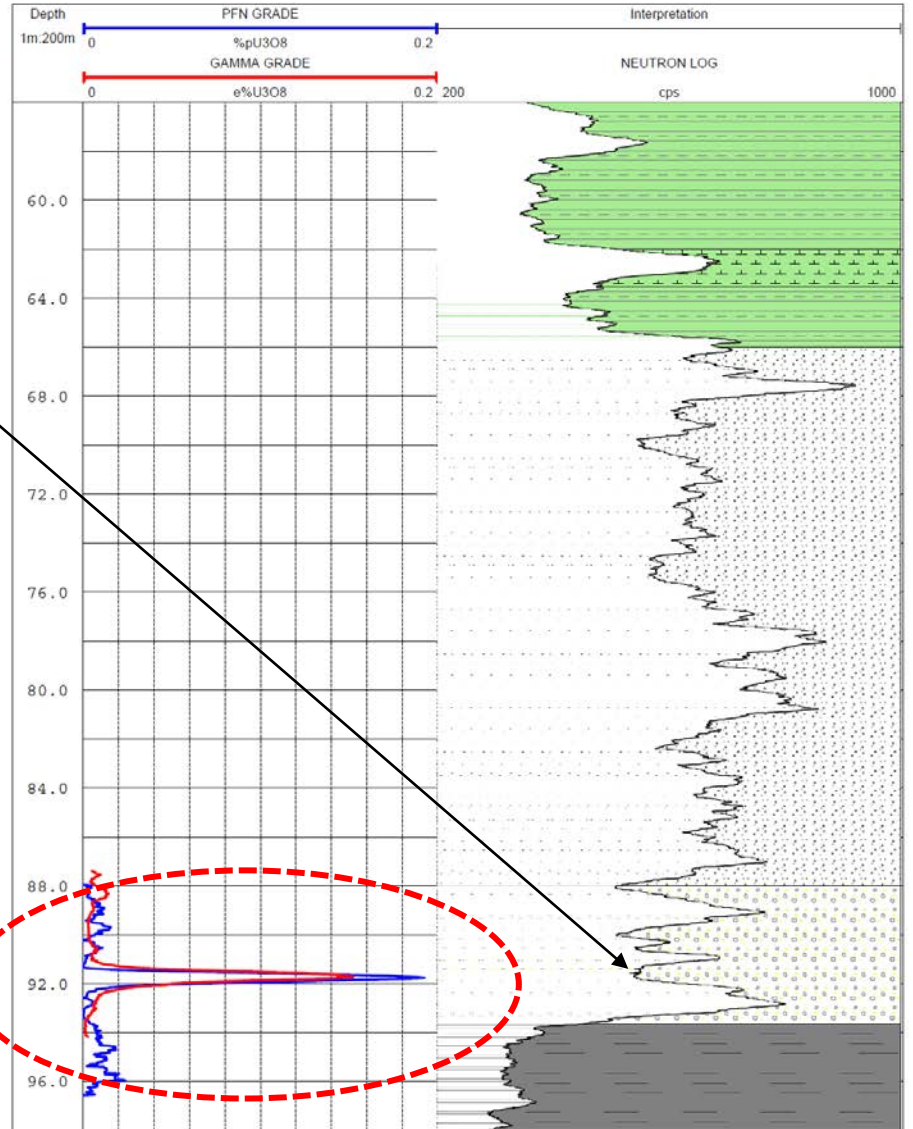


Tenement: RL 123
Co-ords (AGD66): 479975mE 6548825mN
Date: 17/7/2009
Geologist: AMB
Location: OBAN PFN Test Area

Hole ID CEY433

Downhole geological log (right) and geophysical log (left)

- Namba Clay
- Eyre Sand (undiff)
- Cretaceous Clay
- Namba Calcilutite
- Eyre Basal Sand



Downhole PFN log (blue) at right shows uranium is in equilibrium and supports the Oban eU_3O_8 resource estimates based on gamma logs (red). Sonic drill core from Oban (above) provides visual evidence of the uranium mineralisation from which comparative, supportive direct assay measurements can be made as shown on the left.



Uranium is in dark reduced sand layers

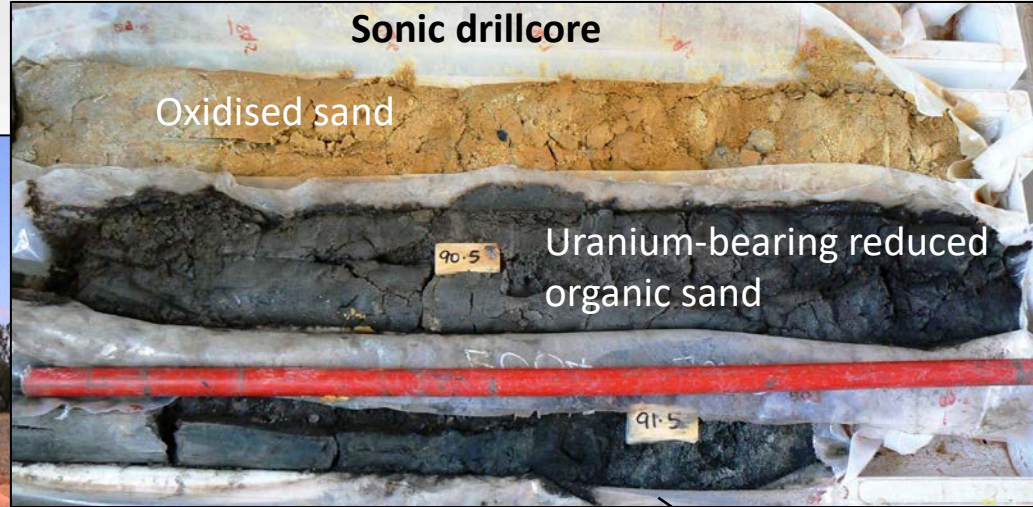


Tenement: Yalu
Co-ords (AGD66) 480035E 6548753N
Date: 14/9/2006
Geologist: MHR

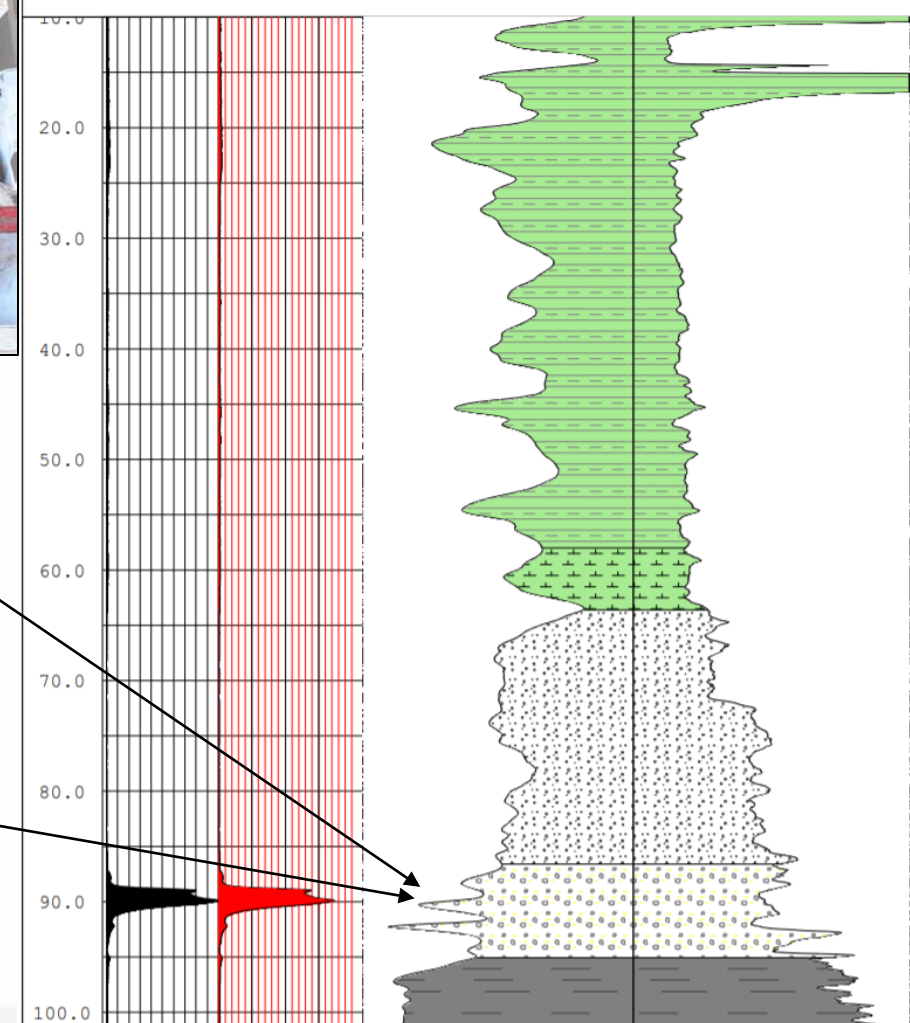
Hole ID CEY001

Downhole geological log (right)
and geophysical log (left)

Uranium recoveries depend on the permeability of these organic sands for the leach solutions.



Depth 1m:500m
Grade 0 0.1
Gamm cps 2000 600
Indu mS/m 100 -50
Guar mS/m 100
Interpretation





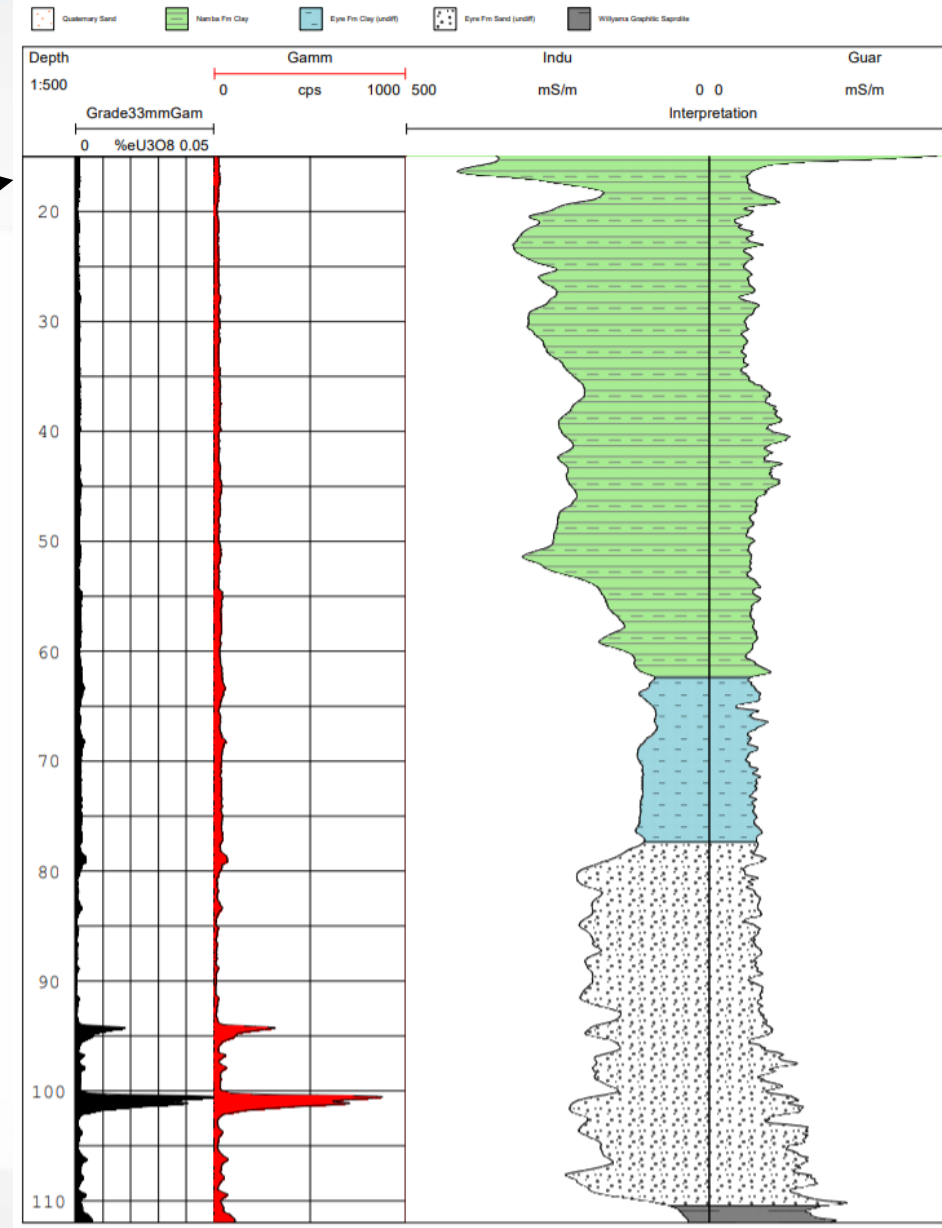
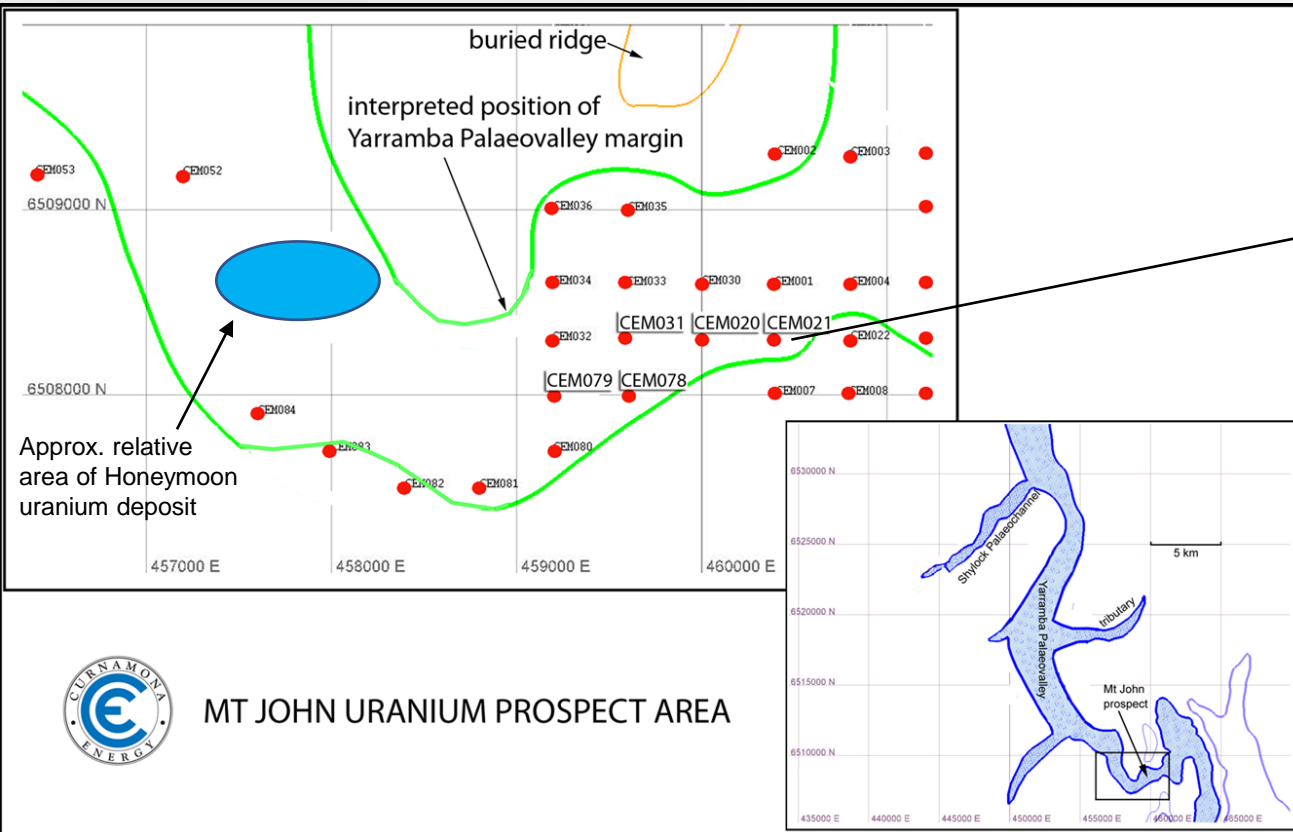
South Yarramba area Mt John prospect



Tenement: Mulyungarie
Co-ords (AGD66) 460400E 6508300N
Date 17/12/2005
Geologist M H Randell

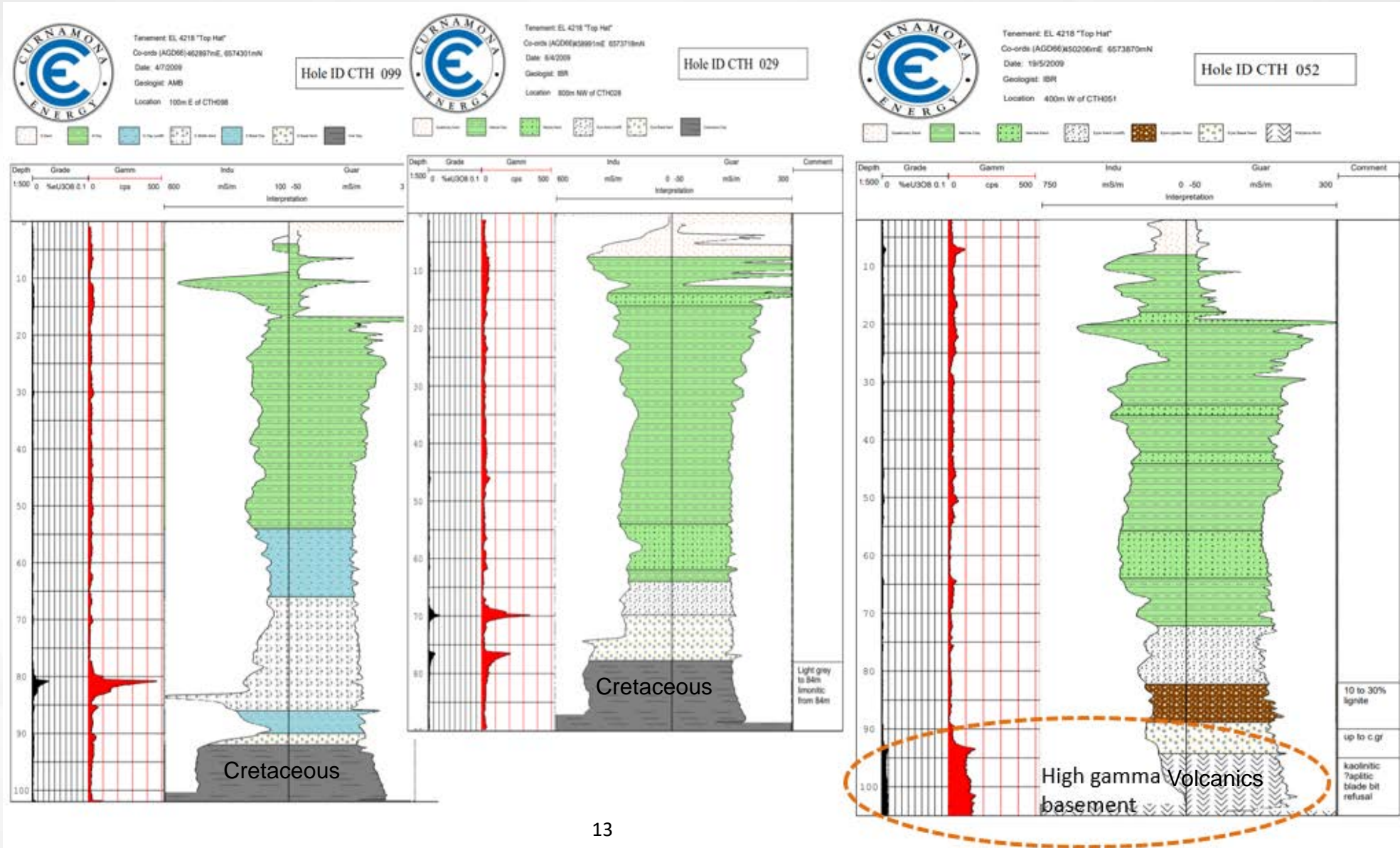
Hole ID CEM021

Downhole geological log (right)
and geophysical log (left)



- Widely spaced drilling with strong uranium mineralisation in the Yarramba palaeochannel roughly 17 km north of the Honeymoon deposit and 3 km north of Jason's resource (both owned by Boss Energy Ltd).
- Sufficient area between existing drillholes to potentially discover another Honeymoon size deposit with further drilling.

- Several times gamma background in channel sands (see logs for CTH099 and CTH029).
- Elevated gamma logs in the Benagerie Ridge volcanic basement rocks (see log for CTH052). Indicative of high uranium and supported by geochemical analysis.
- These rocks provide a large enriched source area for uranium that finds its way into palaeochannels draining from the basement topographic high.





Benagerie Ridge – Namba palaeochannel – shallower uranium mineralisation adjacent to basement topographic high



Tenement: 3178
Co-ords (AGD66) 431132E 6543593N
Date: 22/11/2006
Geologist: MHR

Hole ID CEN002



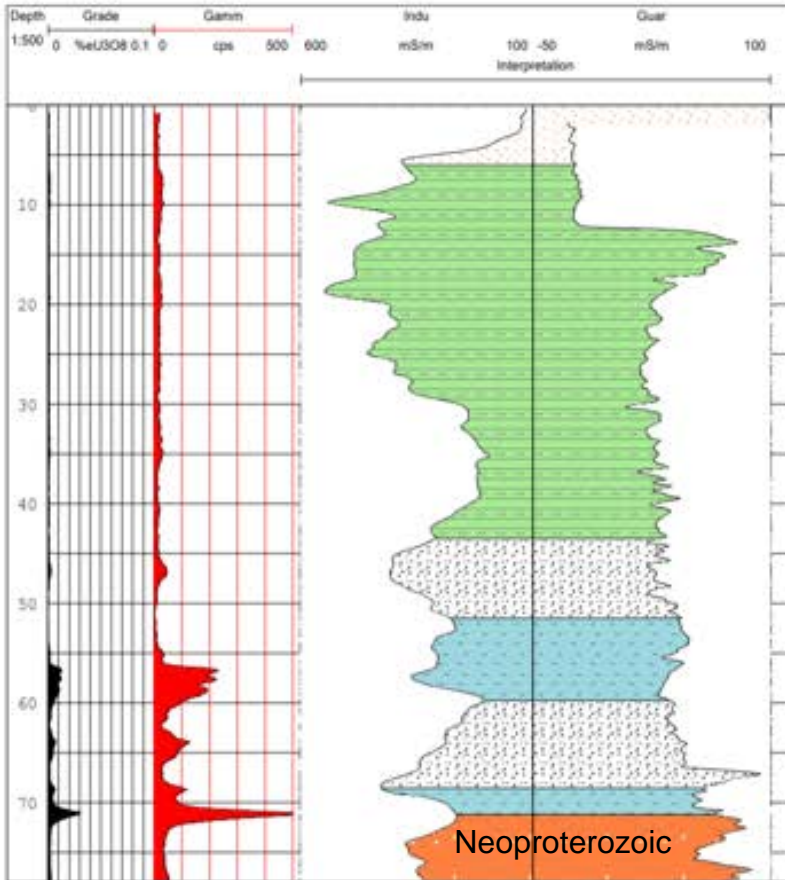
Tenement: Lake Namba
Co-ords (AGD66) 431746mE, 6545866mN
Date: 29th July 2010
Geologist: AMS
Location: 200m N of CEN115

Hole ID CEN116

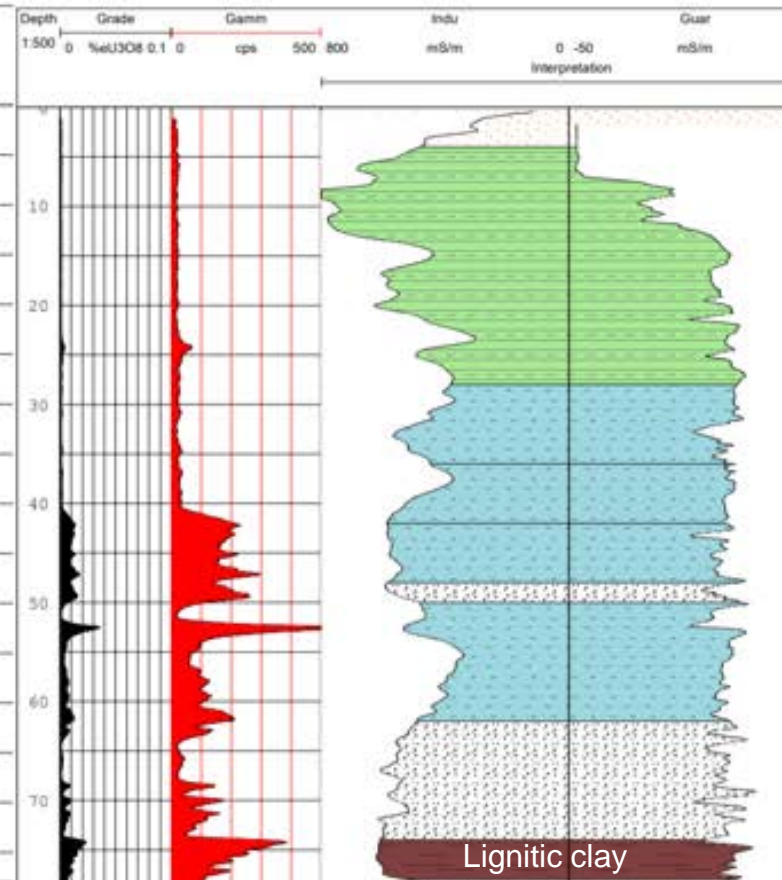


Tenement: Lake Namba
Co-ords (AGD66) 432001mE, 6544498mN
Date: 10th June 2010
Geologist: AMS
Location: 200m E of CEN092

Hole ID CEN093

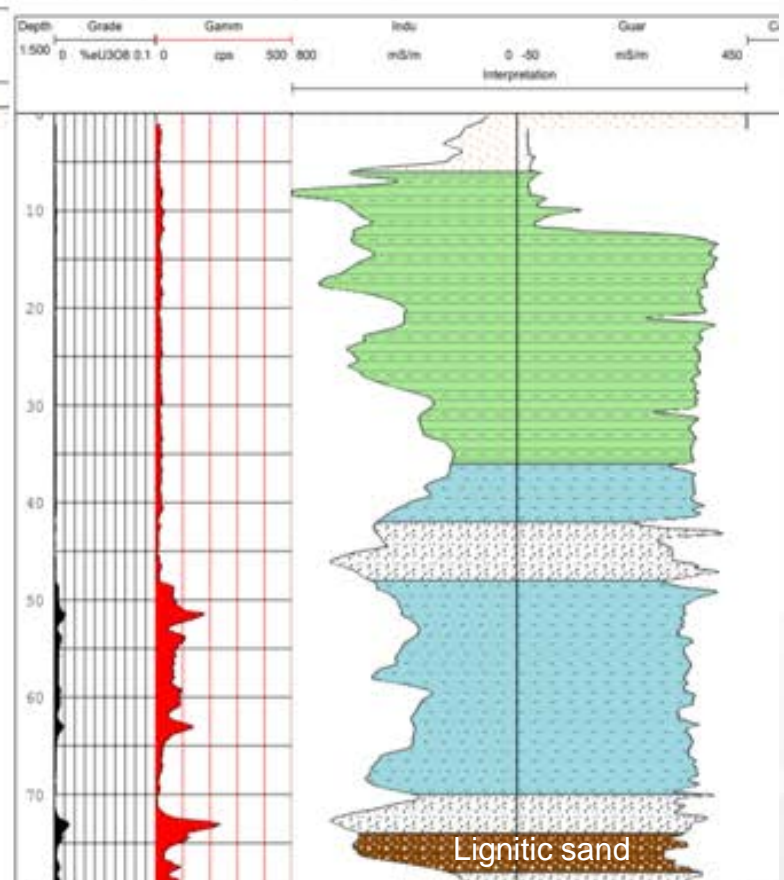


Neoproterozoic



Lignitic clay

Volcanic basement



Lignitic sand

Neoproterozoic



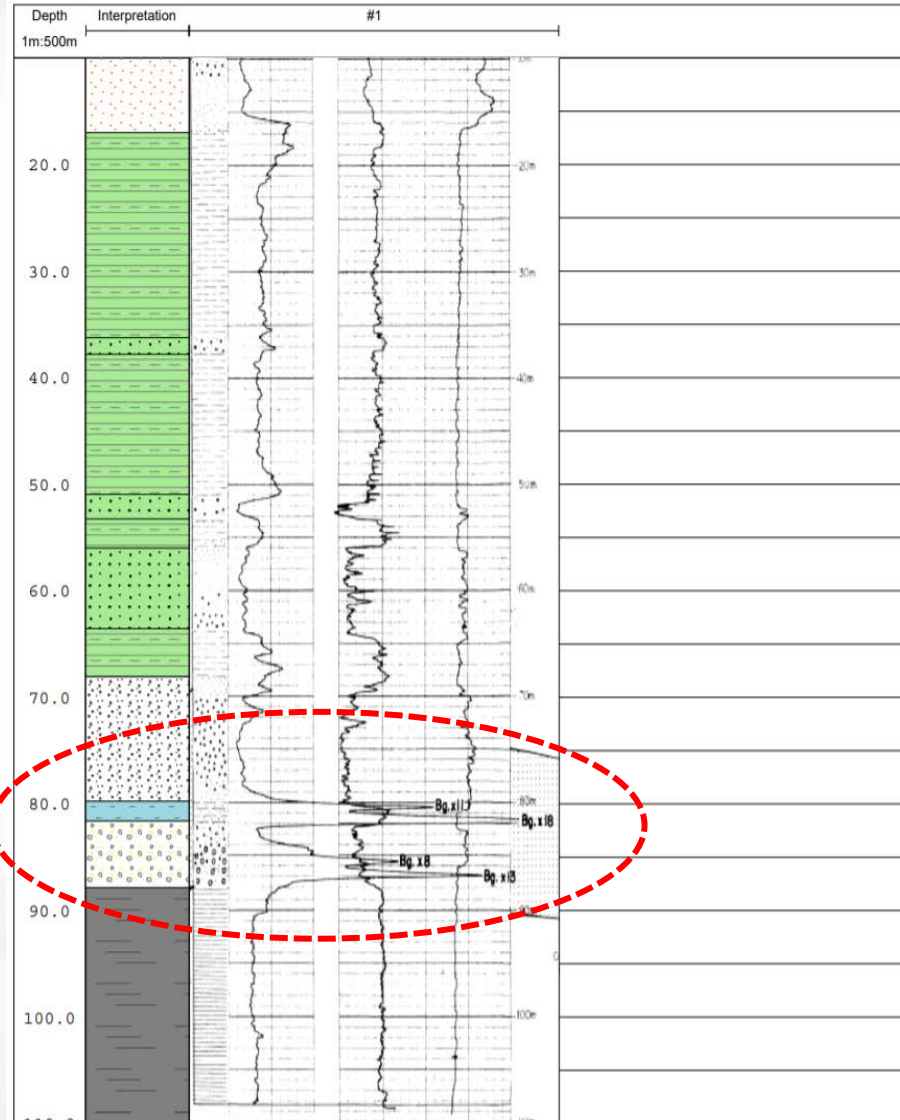
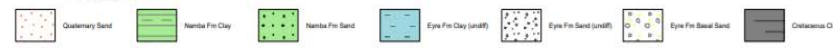
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Co-ords (AGD66)

Date: 1974

Company Name: Southern Ventures

HoleID FE01



Tenement: EL 3770 "Yalkalpo East"

Co-ords (AGD66) 468870mE, 6577859mN

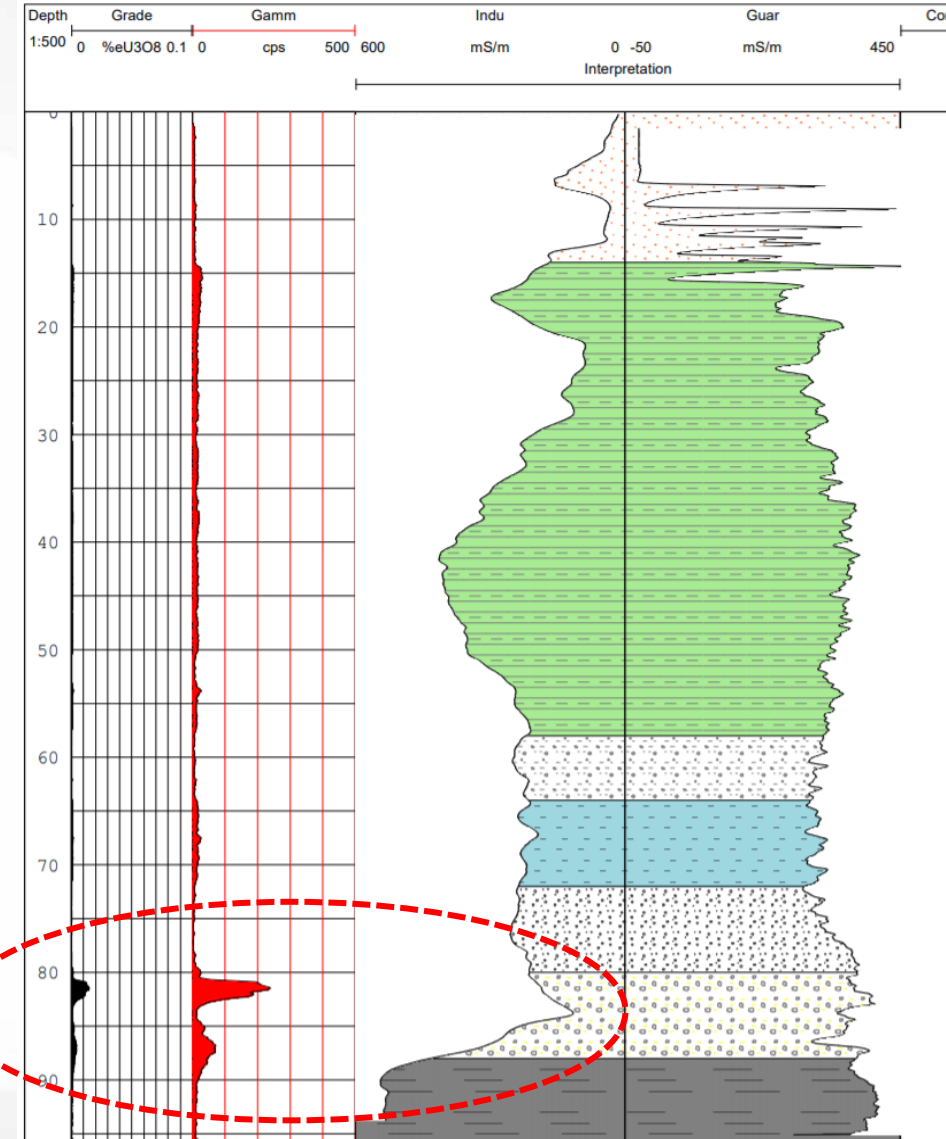
Date: 11/8/2009

Geologist: AMB

Location: Approx 30m S of FE01

Hole ID CYE 002

Downhole geological log (right) and geophysical log (left)



Benagerie Ridge North Yarramba

- **Good uranium drilling results from almost 50 years ago based on drill logs scanned from open file records.**
- Several high grade uranium drill intersections by Southern Ventures in the 1970's at the northern end of the Yarramba palaeochannel where it skirts the Benagerie Ridge.
- Confirmed by Curnamona Energy drilling during 2009.
- Draining from a uranium enriched volcanic basement high.



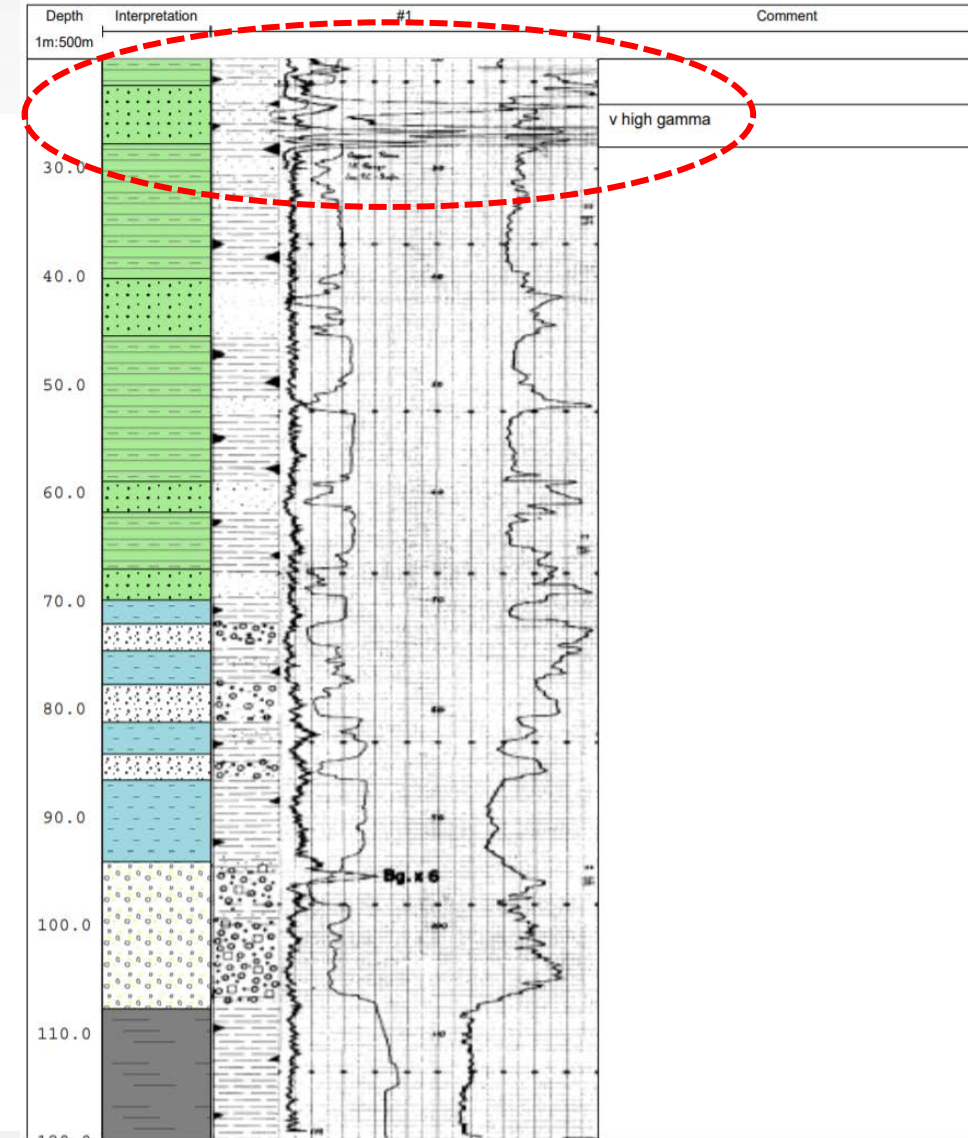
Shallow uranium intersections



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Co-ords (AGD66)
Date:
Company Name:

HoleID FE44

Downhole geological log (left)
and geophysical log (right)

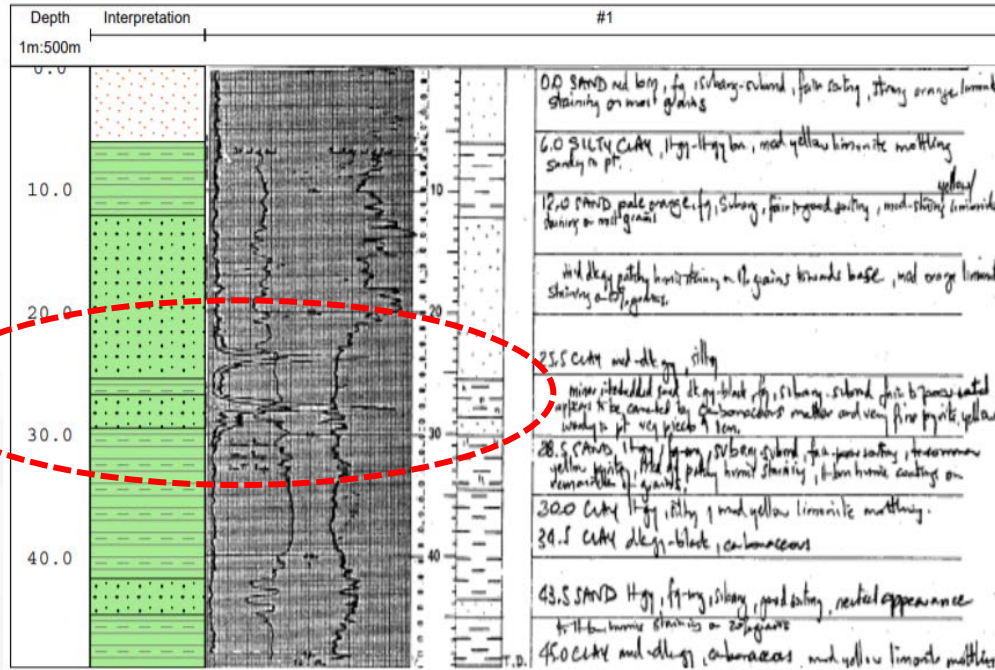


Drill logs scanned from open file records held in Mines Department for almost 50 years



Envelope:
Co-ords (AGD66)
Date:
Company Name:

HoleID LC18



- Some of the old drill logs adjacent to the Benagerie Ridge show high gamma responses at shallow depths **from 25-30 metres below surface** in sand units within the Namba Formation clays.
- Never followed up in the intervening 40-50 years.
- Uranium is potentially within open pit mining depths.



JORC Mineral Resources

JORC Uranium Oxide Resource as at 31 July 2021

Project	Classification	Tonnes (Mt)	eU ₃ O ₈ (ppm)	Contained eU ₃ O ₈ (Tonnes)
Oban ¹	Inferred	8	260	2,100

¹ Details released to the ASX by [Curnamona Energy Limited*](#) on 4 June 2009 applying a grade-thickness cut-off of 0.015 metre % eU₃O₈.

There were no changes in the JORC Mineral Resources as at 31 July 2021 compared with 31 July 2020.

Numbers in the above table are rounded.

* Curnamona Energy Pty Limited (formerly Curnamona Energy Limited) has recently changed its name to NU Energy Resources Pty Ltd (**NU Energy Resources**) (ABN 28 112 712 115).



Cautionary and Competent Person's Statements

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Given the ongoing uncertainty relating to the duration and extent of the global COVID-19 pandemic, and the impact it may have on the demand and price for commodities (including uranium), on our suppliers and workforce, and on global financial markets, the Company continues to face uncertainties that may impact its operating and financing activities.

Competent Person's Statements

The information in this presentation that relates to Exploration Results and Mineral Resources is based on data compiled by geologist Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, a full-time employee and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit and activities described herein to qualify as a Competent Person as defined in the 2012 Edition of *'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'*. Dr Giles consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Information for the Oban Uranium Resource was prepared and first disclosed under the JORC Code 2004 and is presented on the basis that the information has not materially changed since it was last reported. Havilah confirms that all material assumptions and technical parameters underpinning the resources continue to apply and have not materially changed. Except where explicitly stated, this presentation contains references to prior exploration results and JORC Mineral Resources, all of which have been cross-referenced to previous ASX announcements made by Havilah. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant ASX announcements.