

## YANREY URANIUM PROJECT

### BROAD, HIGH-GRADE URANIUM MINERALISATION IN FIRST FOUR HOLES AT MANYINGEE SOUTH CONFIRM SIGNIFICANT DISCOVERY

#### Highlights

- Cauldron's Manyingee South prospect (Target 15) lies 4.5kms south of Paladin's (ASX: PDN) Manyingee Deposit, a globally significant ISR uranium deposit.
- Each of the first four (4) holes drilled at the Manyingee South target have intersected mineralisation; defining a thick, high-grade mineralisation along a continuous 1.5km strike length, open in all directions.
- Further drilling is occurring to test extensions of the identified mineralisation.
- Drill hole logging at Manyingee South indicates that the stratigraphic units show strong similarities to Paladin's adjacent Manyingee Deposit with uranium mineralisation interpreted to lie in a palaeochannel parallel to the Manyingee deposit channel.
- Mineralisation is developed at prominent stacked redox boundaries and is interpreted to be "roll-front-type" uranium mineralisation similar to that reported at Manyingee.
- Drilling intersected several discrete zones of uranium mineralisation, better results included:
  - 5.90 m @ 374 ppm eU<sub>3</sub>O<sub>8</sub> from 73.76 - 79.66m in hole 24YRAC048, including 1.20m @ 789 ppm eU<sub>3</sub>O<sub>8</sub> from 75.48 – 76.68m, and
  - 4.12 m @ 622 ppm eU<sub>3</sub>O<sub>8</sub> from 61.48 – 65.60m in hole 24YRAC051, including 2.24m @ 908 ppm eU<sub>3</sub>O<sub>8</sub> from 62.02 – 64.26m.
- Cauldron's Yanrey Uranium Project covers more than 80 kms length of ancient, Cretaceous-age sedimentary coastline, host to multiple prospective palaeochannel systems sourced by uranium-bearing granitoid uplands to the east and stretching from the Carley Bore Uranium Deposit in the south to the Spinifex Well Uranium prospect in the north.
- Historical exploration work has primarily focused on three of these uranium-bearing palaeochannel systems, viz. Bennet Well, Manyingee, and Carley Bore.
- Several additional prospective palaeochannel systems are yet to be effectively tested, including the Manyingee South (Target 15) channel. All up, historical work has identified a further 15+ palaeochannels for immediate testing.
- With the largest tenement holding in the region, Cauldron is well placed to explore for, and identify further uranium deposits as it targets prospective palaeochannel systems.

## **ABOUT YANREY URANIUM PROJECT**

Cauldron's fully owned Yanrey Uranium Project is located approximately 100 km south of Onslow and covers an area of ~1,270km<sup>2</sup> (Figure 1) with over 80 kms of ancient, Cretaceous-age sedimentary coastline prospective for sedimentary-hosted uranium deposits. It is located within a highly prospective, mineral-rich region containing multiple uranium deposits including the neighbouring Manyingee Deposit (owned by Paladin Energy Ltd).

The Yanrey project area hosts the Bennet Well Uranium Deposit which contains **30.9 Mlb of uranium-oxide (38.9Mt at 360ppm eU<sub>3</sub>O<sub>8</sub>** (at 150ppm cut-off), refer ASX announcement of 17 December 2015 and Appendix A), and is therefore a **globally significant project**. Laboratory based testwork has confirmed that the Bennet Well Uranium Deposit is amenable to in situ leaching. Much of the Yanrey project area remains ineffectively tested or untested, with 22 high priority targets identified for drilling.

Manyingee South (Target 15) is a high priority target, lying approximately 4.5 kilometres south of Paladin's (ASX: PDN) Manyingee Deposit (containing an estimated 25.9Mlbs of uranium-oxide (13.8Mt at 850ppm eU<sub>3</sub>O<sub>8</sub> at 250ppm cut-off – ASX: PDN "Fy2024 Annual Report").

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Cauldron Energy Limited (ASX: CXU) ("Cauldron or the Company") is pleased to announce the following excellent results from its first four drill-holes at Manyingee South:

**24YRAC048** intersected several discrete zones of uranium mineralisation, including:

- 0.78 m @ 400 ppm eU<sub>3</sub>O<sub>8</sub> from 51.06 - 51.84 m,
- 0.94 m @ 228 ppm eU<sub>3</sub>O<sub>8</sub> from 59.30 - 60.24 m,
- 0.64 m @ 236 ppm eU<sub>3</sub>O<sub>8</sub> from 60.54 - 61.18 m,
- 5.90 m @ 374 ppm eU<sub>3</sub>O<sub>8</sub> from 73.76 - 79.66 m.**

**24YRAC049** intersected:

- 0.50 m @ 356 ppm eU<sub>3</sub>O<sub>8</sub> from 51.52 – 52.02 m,
- 0.58 m @ 268 ppm eU<sub>3</sub>O<sub>8</sub> from 56.04 – 56.62 m

**24YRAC050** intersected:

- 1.10 m @ 328 ppm eU<sub>3</sub>O<sub>8</sub> from 69.76 – 70.86 m,**

**24YRAC051** intersected:

- 4.12 m @ 622 ppm eU<sub>3</sub>O<sub>8</sub> from 61.48 - 65.60 m.**

The results and drill hole logging indicate that the stratigraphy at Manyingee South is analogous to that presented in Paladin's published section at Manyingee and of particular importance is the observation that the mineralisation developed at prominent stacked redox boundaries is interpreted as equivalent to the "roll-front-type" uranium mineralisation developed at Manyingee (see Figure 3).

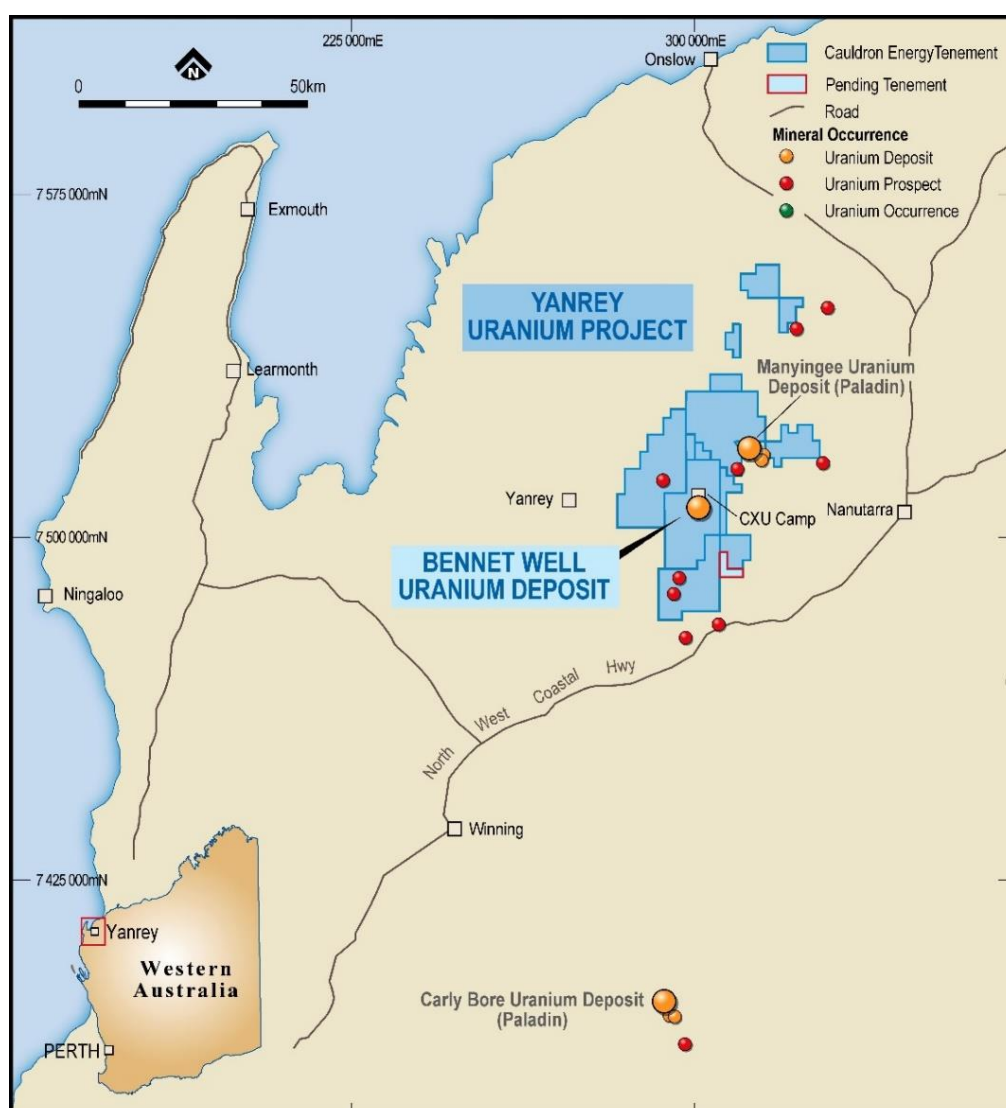
Cauldron CEO Jonathan Fisher commented:

*“This first set of holes into the Manyingee South target area have returned exactly the type of results we were looking for – broad intercepts, high grade, and when taking into account the historical holes drilled in the area, demonstrate a new discovery at Manyingee South; so far continuous over 1.5km along strike.*

*The rig is continuing to move along strike and we will be releasing further drilling results as they are received.*

*This represents the most exciting results to date from our current drill campaign and provides the opportunity for a significant increase in the uranium resource at Yanrey.”*

*This is a great example of our regional exploration strategy at work – with a significant source of uranium to the East, and the ancient shoreline to the West, numerous palaeochannels represent conduits for uranium transport downstream to suitable trap sites within deltaic settings along the ancient coastline. Our hypothesis is that there are a number of other palaeochannels on Cauldron’s tenements with their catchments located inland over areas of outcropping uraniferous granites; and these will be systematically tested through drilling with the aim of defining multiple new deposits which would turn the Yanrey project into a truly world scale project.”*



**Figure 1: Yanrey Uranium Project Location (Western Australia)**

## MANYINGEE SOUTH

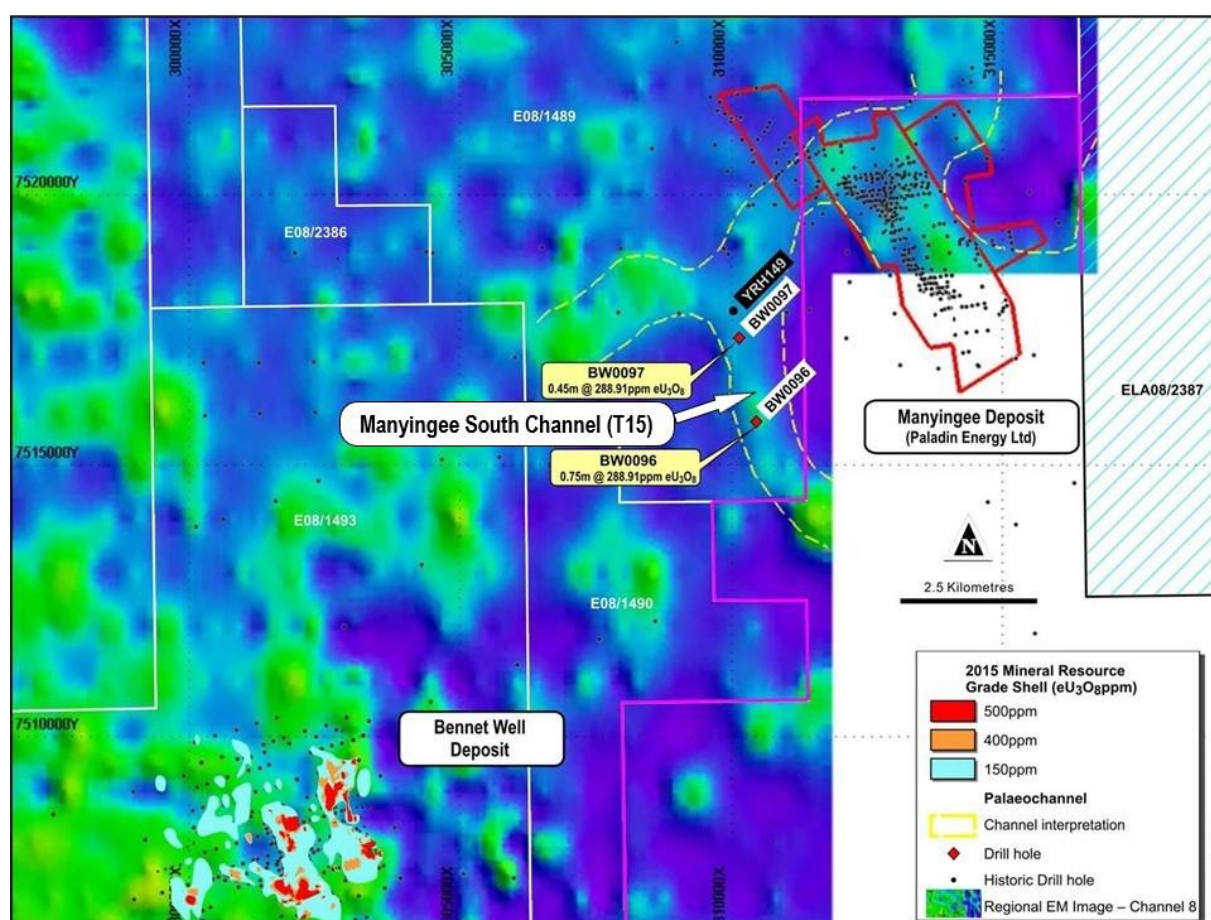
The Manyingee South palaeochannel (Target 15) is located approximately 17kms to the north-east of Bennet Well and 4.5 kilometres south-southwest of Paladin's Manyingee Deposit.

The prospective northeast-southwest trending Cretaceous-age coastal plain developed along the western margin of the Pilbara block extends for at least 140kms, of which Cauldron holds 80 kilometres of strike length under tenement.

Because of the extensive historical drilling associated with the delineation of the Manyingee, Bennet Well & Carley Bore deposits, the region is erroneously considered to be a mature terrain with only modest exploration prospectivity. However the stratigraphy of the palaeochannel systems is poorly understood, and away from the known deposits drilling is very sparse, with kilometres of untested ground frequently between drillholes.

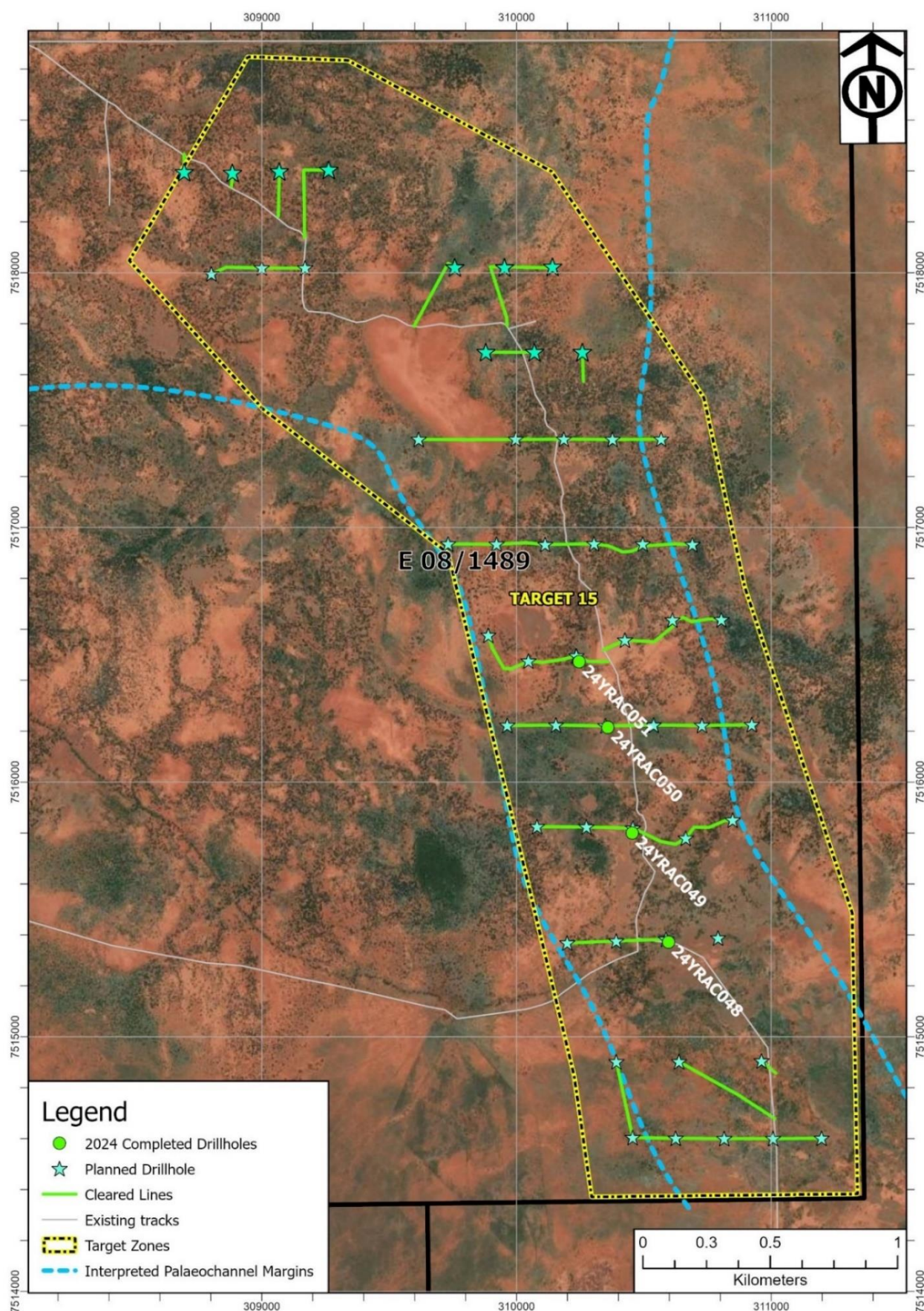
At the Manyingee South palaeochannel, wide spaced previous drilling within the downstream end of the observed palaeochannel returned tantalising uranium intercepts at relatively shallow depths over a strike length of 2.0km (Figures 2 & 4), including historic holes (refer ASX:CXU, 2 November 2015):

BW0096	0.75m @ 289 ppm $eU_3O_8$ from 53.00m, and 0.85m @ 350 ppm $eU_3O_8$ from 58.45m
BW0097	0.45m @ 236 ppm $eU_3O_8$ from 53.40m, and 0.40m @ 201 ppm $eU_3O_8$ from 54.50m
YRH149	0.40m @ 860 ppm $eU_3O_8$ from 56.80m



**Figure 2: Manyingee South Channel – plan view showing summary of mineralisation from historical drilling on EM image with interpreted channel boundaries.**

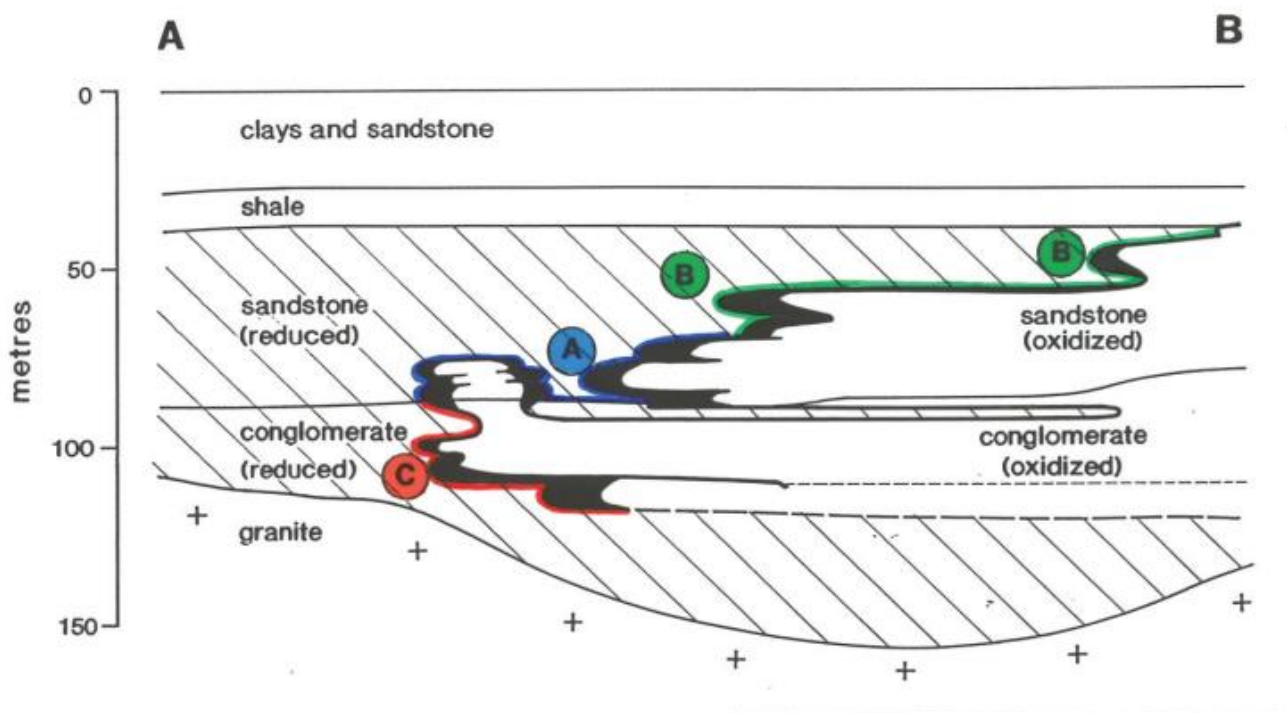




**Figure 3: Manyingee South drilling map showing current drilling.**

Cauldron considered this to be evidence of a working uranium mineralising system and targeted the area for exploration drilling. However, the Manyingee South paleochannel is poorly defined and the Company sought to de-risk its exploration in this area by drilling a longitudinal section down the interpreted axis of the palaeochannel in order to confirm the presence of prospective reduced sediments.

To date Cauldron has completed four (4) drillholes (24YRAC048 to 24YRAC051) for a total of 349m at Manyingee South. All 4 holes have successfully intersected mineralisation developed at longitudinally consistent prominent stacked redox boundaries, that are (interpreted as) stratigraphically equivalent to uranium mineralisation observed at Paladin's nearby Manyingee deposit (Figure 4).



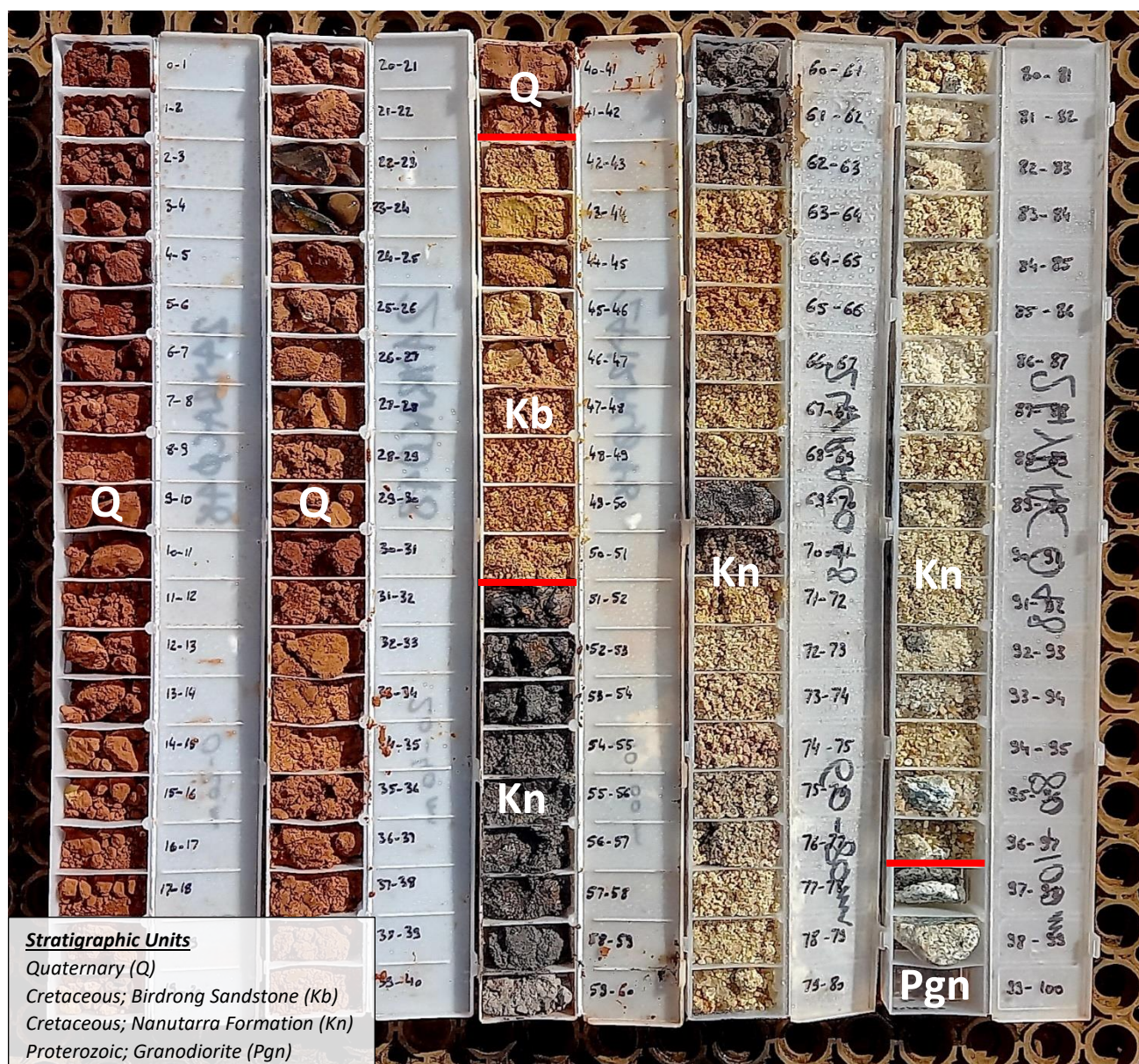
**Figure 4: Published long-section from Paladin's Manyingee deposit.**

Drilling indicates the stratigraphic succession is considerably thinner than intersected at Bennet Well with the Muderong Shale (up to 70m thick at Bennet Well) entirely absent at Manyingee South and only preserved as a thin veneer at Manyingee.

Instead, the stratigraphy at Manyingee South appears similar to Paladin's published section at Manyingee (Figure 4) whereby, clean, well-sorted sands interpreted as a shoreface (beach) facies of the Birdrong Sandstone disconformably overlie interbedded carbonaceous mudstones and sands of the Nanutarra Formation. Basal fluvial facies of the Nanutarra Formation (below 71m in Figure 5) comprise well-developed, clean coarse sands (rather than conglomerate) that overlie fresh granodiorite.

Cauldron's initial drillhole (24YRAC048) intersected well-developed oxidation and mineralisation in several separate down-hole intervals (Figure 5). Mineralisation in the subsequent holes (24YRAC049-24YRAC051) has broadly followed this pattern although the top of the Cretaceous succession has been eroded.





**Figure 5: 24YRAC048 Chip Trays**

Thickly developed mineralisation within the basal channel sands facies in 24YRAC048 is equated to Manyingee's 'C Roll' whilst mineralisation developed above the intersection of carbonaceous clays (60-62m) is interpreted as equivalent to the 'A Roll' (See Table 2).

Strong limonitic alteration (24YRAC048; 47-51m) within clean shoreface sands (Birdrong Sandstone) overlying reduced carbonaceous sediments of the Nanutarra Formation is interpreted as equivalent to Manyingee's 'B-Roll'. Notably, the B Roll has been intersected in 24YRAC048 and 24YRAC049 but has been eroded by Quaternary channels in the subsequent holes.





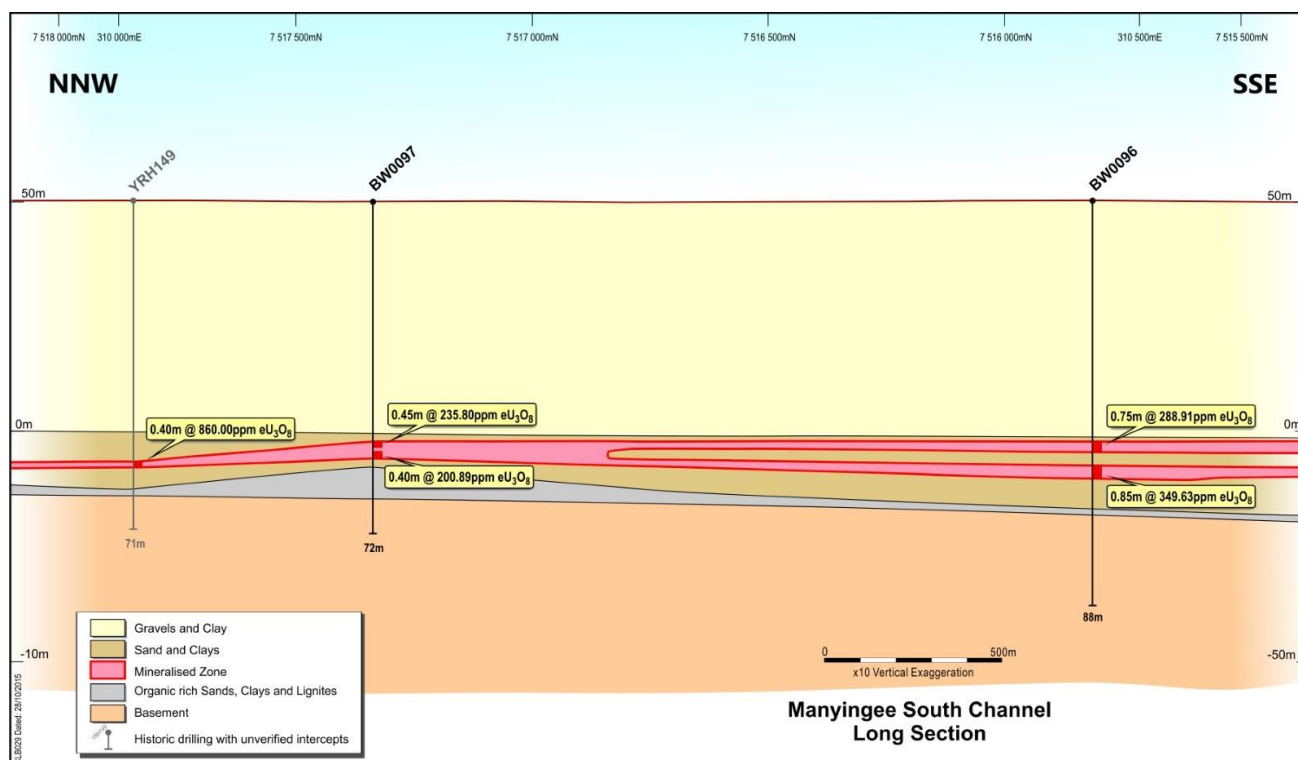
**Figure 6: 24YRAC048 Detail of redox boundary over 60-66m interval showing reduced carbonaceous clays (LHS) grading downwards into strongly oxidised gravelly sands (RHS). Mineralisation occurring above reduced carbonaceous sediments is interpreted as equivalent to Maningee's 'A Roll' with the clay horizon serving as an aquiclude that compartmentalises the palaeochannel aquifer.**



**Figure 7. Detail of redox boundary; 62-64m interpreted as representing the upper limb of Maningee's 'C-Roll'.**

Cauldron now intends to complete its long-section drilling along the axis of the palaeochannel before selecting the best area to commence drilling cross sections across the palaeochannel.





**Figure 8: Manyingee South Channel long section showing mineralisation continuity over about 2.0km of strike length**

**Table 1. Manyingee South Drill Hole Locations**

HoleID	GDA2020 Easting	GDA2020 Northing	Zone	DIP	AZI	EOH
24YRAC048	310,596	7,515,370	50	-90	0	98
24YRAC049	310,453	7,515,798	50	-90	0	93
24YRAC050	310,358	7,516,213	50	-90	0	81
24YRAC051	310,245	7,516,471	50	-90	0	77

**Table 2. Manyingee South Significant Intercepts**

Drillhole	Depth From	Depth To	Thickness	eU <sub>3</sub> O <sub>8</sub> Av. Grade	Grade Thickness	eU <sub>3</sub> O <sub>8</sub> Max. Grade	Manyingee Stratigraphic Zone
	(m)	(m)	(m)	(ppm)	(ppm.m)	(ppm)	
24YRAC048	51.06	51.84	0.78	400	312	834	B Roll
	59.30	60.24	0.94	228	214	429	A Roll
	60.54	61.18	0.64	236	151	307	A Roll
	<b>73.76</b>	<b>79.66</b>	<b>5.90</b>	<b>374</b>	<b>2,207</b>	<b>1,043</b>	<b>C Roll</b>
24YRAC049	51.52	52.02	0.50	356	178	548	A Roll
	56.04	56.62	0.58	268	155	371	A Roll
24YRAC050	<b>69.76</b>	<b>70.86</b>	<b>1.10</b>	<b>328</b>	<b>360</b>	<b>568</b>	<b>C Roll</b>
24YRAC051	<b>61.48</b>	<b>65.60</b>	<b>4.12</b>	<b>622</b>	<b>2,563</b>	<b>1,885</b>	<b>C Roll</b>

Note; Minimum cut-off 150ppm eU<sub>3</sub>O<sub>8</sub> and 0.5m minimum thickness.

Stratigraphic interpretation relates to stratigraphic position as shown in Figure 4.

This announcement has been authorised for release to market by Ian Mulholland, Non-Executive Chairman of Cauldron Energy Limited.

## ENDS

For further information, visit [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) or contact:

### Jonathan Fisher

Chief Executive Officer  
Cauldron Energy Limited  
M: +61 407 981 867

[jonathan.fisher@cauldronenergy.com.au](mailto:jonathan.fisher@cauldronenergy.com.au)

### Michael Fry

Director and Company Secretary  
Cauldron Energy Limited  
M: +61 417 996 454

[michael.fry@cauldronenergy.com.au](mailto:michael.fry@cauldronenergy.com.au)

## Competent Person Statements

### Exploration Results – Yanrey Uranium Project

The information in this report that relates to deconvolved  $eU_3O_8$  results for the Yanrey Uranium Project, is based on information compiled by Mr David Wilson BSc., MSc., who is a member of the Australasian Institute of Geoscientists. Mr Wilson is a consultant to Cauldron Energy Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr. Wilson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results for the Yanrey Uranium Project, is based on information compiled by Mr. John Higgins, B.Sc (Hons), GCPG&G, who is a member of the Australian Institute of Geoscientists. Mr. Higgins is a consultant to Cauldron Energy Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr. Higgins consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

This report also contains information that relates to exploration results extracted from company announcements released to the Australian Securities Exchange (ASX) listed in the table below and which are available to view at [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) and for which the Competent Persons' consents were obtained. Unless otherwise stated, where reference is made to previous releases of exploration results in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

### Mineral Resource Estimate – Bennet Well Deposit

The information in this report that relates to Mineral Resources for the Bennet Well Deposit is extracted from a report released to the Australian Securities Exchange (ASX) on 17 December 2015 titled "Substantial Increase in Tonnes and Grade Confirms Bennet Well as Globally Significant ISR Project" and available to view at [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 17 December 2015 and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original ASX announcement.

**Table 2: Historical Exploration Results Announcements**

Date of Release	Title
02-11-2015	CXU Cauldron Identifies Mineralisation South of Manygee
17-12-2015	Substantial Increase in Mineral Resource at Bennet Well
24-01-2024	Yanrey Uranium Project Exploration Target
08-08-2024	First Drill Results Confirm and Extend Known Uranium Mineralisation at Bennet Well Deposit
27-08-2024	Further Drilling Adds to Uranium Mineralisation at Bennet Well Deposit



## Disclaimer

*This market update has been prepared by Cauldron Energy Limited ("Company"). The material contained in this market update is for information purposes only. This market update is not an offer or invitation for subscription or purchase of, or a recommendation in relation to, securities in the Company and neither this market update nor anything contained in it shall form the basis of any contract or commitment.*

*This market update may contain forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Cauldron Energy Limited's business plans, intentions, opportunities, expectations, capabilities, and other statements that are not historical facts. Forward-looking statements include those containing such words as could-plan-target-estimate-forecast-anticipate-indicate-expect-intend-may-potential-should or similar expressions. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, and which could cause actual results to differ from those expressed in this market update. Because actual results might differ materially to the information in this market update, the Company does not make, and this report should not be relied upon as, any representation or warranty as to the accuracy, or reasonableness, of the underlying assumptions and uncertainties. Investors are cautioned to view all forward-looking statements with caution and to not place undue reliance on such statements.*

## Appendix A: Bennet Well Mineral Resource Estimate

A Mineral Resource Estimate (JORC 2012) for the mineralisation at Bennet Well was completed by Ravensgate Mining Industry Consultants (Ravensgate) in 2015 and is based on information compiled by Mr Jess Oram, Executive Director of Cauldron Energy at that time and Mr Stephen Hyland, who was a Principal Consultant of Ravensgate. Mr Oram is a Member of the Australasian Institute of Geoscientists and Mr Hyland is a Fellow of the Australasian Institute of Mining and Metallurgy.

The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands close to surface (less than 100 m downhole depth) in Cretaceous sedimentary units of the Ashburton Embayment.

The Bennet Well deposit is comprised of four spatially separate deposits; namely Bennet Well East, Bennet Well Central, Bennet Well South and Bennet Well Channel.

The Mineral Resource (JORC 2012) estimate is:

- Inferred Resource: 16.9 Mt at 335 ppm eU<sub>3</sub>O<sub>8</sub> for total contained uranium-oxide of 12.5 Mlb (5,670 t) at 150 ppm cut-off;
- Indicated Resource: 21.9 Mt at 375 ppm eU<sub>3</sub>O<sub>8</sub> for total contained uranium-oxide of 18.1 Mlb (8,230 t) at 150 ppm cut-off;
- total combined Mineral Resource: 38.9 Mt at 360 ppm eU<sub>3</sub>O<sub>8</sub>, for total contained uranium-oxide of 30.9 Mlb (13,990 t) at 150 ppm cut-off.

**Table: Mineral Resource (JORC 2012) at various cut-off**

Deposit	Cutoff (ppm eU <sub>3</sub> O <sub>8</sub> )	Deposit Mass (t)	Deposit Grade (ppm eU <sub>3</sub> O <sub>8</sub> )	Mass U <sub>3</sub> O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
Bennet Well_Total	125	39,207,000	355	13,920,000	30,700,000
<b>Bennet Well_Total</b>	<b>150</b>	<b>38,871,000</b>	<b>360</b>	<b>13,990,000</b>	<b>30,900,000</b>
Bennet Well_Total	175	36,205,000	375	13,580,000	29,900,000
Bennet Well_Total	200	34,205,000	385	13,170,000	29,000,000
Bennet Well_Total	250	26,484,000	430	11,390,000	25,100,000
Bennet Well_Total	300	19,310,000	490	9,460,000	20,900,000
Bennet Well_Total	400	10,157,000	620	6,300,000	13,900,000
Bennet Well_Total	500	6,494,000	715	4,640,000	10,200,000
Bennet Well_Total	800	1,206,000	1175	1,420,000	3,100,000

Deposit	Cutoff (ppm U <sub>3</sub> O <sub>8</sub> )	Deposit Mass (t)	Deposit Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Mass U <sub>3</sub> O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
BenWell_Indicated	125	22,028,000	375	8,260,000	18,200,000
<b>BenWell_Indicated</b>	<b>150</b>	<b>21,939,000</b>	<b>375</b>	<b>8,230,000</b>	<b>18,100,000</b>
BenWell_Indicated	175	21,732,000	380	8,260,000	18,200,000
BenWell_Indicated	200	20,916,000	385	8,050,000	17,800,000
BenWell_Indicated	250	17,404,000	415	7,220,000	15,900,000
BenWell_Indicated	300	13,044,000	465	6,070,000	13,400,000
BenWell_Indicated	400	7,421,000	560	4,160,000	9,200,000
BenWell_Indicated	500	4,496,000	635	2,850,000	6,300,000
BenWell_Indicated	800	353,000	910	320,000	700,000

Deposit	Cutoff (ppm U <sub>3</sub> O <sub>8</sub> )	Deposit Mass (t)	Deposit Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Mass U <sub>3</sub> O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
BenWell_Inferred	125	17,179,000	335	5,750,000	12,700,000
<b>BenWell_Inferred</b>	<b>150</b>	<b>16,932,000</b>	<b>335</b>	<b>5,670,000</b>	<b>12,500,000</b>
BenWell_Inferred	175	14,474,000	365	5,280,000	11,600,000
BenWell_Inferred	200	13,288,000	380	5,050,000	11,100,000
BenWell_Inferred	250	9,080,000	455	4,130,000	9,100,000
BenWell_Inferred	300	6,266,000	535	3,350,000	7,400,000
BenWell_Inferred	400	2,736,000	780	2,130,000	4,700,000
BenWell_Inferred	500	1,998,000	900	1,800,000	4,000,000
BenWell_Inferred	800	853,000	1285	1,100,000	2,400,000

**Note 1:** table shows rounded numbers therefore units may not convert nor sum exactly **Note 2:** preferred 150 ppm cut-off shown in bold.



## Appendix B:

### Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>The principal sampling method for all drilling conducted at the Manyingee South prospect and larger Yanrey project area has been by downhole geophysical gamma logging to determine uranium assay and <i>in-situ</i> formation density data. Data collected at 2 cm sample rate comprised gamma ray (Triple Gamma / Geiger Probe), single point resistivity and dual density. Downhole geophysical log data was collected by contractors, Wireline Services Group of Perth WA using Mount Sopris and GeoVista made downhole slim-line tools.</p> <p>All uranium grades are determined from the gamma (counts per second) logs using the (non dead-time corrected) calibrated gamma probe, the application of a smoothing filter on the raw data, HQ drill casing correction, hole-size correction, moisture correction, and a correction for secular disequilibrium. Drill hole formation density was estimated from the calibrated dual density probe (short spaced and long spaced measurements). These data were corrected for the high background gamma environment of the mineralised zone (by running the probe without the source in grades above 800 ppm eU<sub>3</sub>O<sub>8</sub>) and for variations in hole-size by applying a hole-size correction model derived from the AMDEL calibration facility.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Downhole gamma logging was performed by Wireline Services Group using a Geovista 4322 total count gamma probe. Calibration of gamma probe was completed using non-dead-time corrected grade and hole-size correction models, and for the density sonde using a density model and a hole-size correction model. The probes were calibrated in Adelaide at the Department of Water facility in Regency Park.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	<p>Data was collected at 2cm (0.02m) sample intervals down the length of the drillhole. Uranium assay grades were determined from gamma logs using a non dead-time corrected calibrated gamma probe, a smoothing filter on the raw data, hole-size correction, moisture correction, and a correction for secular disequilibrium. Downhole geophysical logging was undertaken by contractors, Wireline Services Group of Perth WA, using GeoVista made downhole slim-line tools.</p> <p>Secular disequilibrium was established for the uranium mineralisation at Yanrey during the previous exploration, by Cauldron Energy Ltd, in 2014. The equilibrium samples were from various mineralized intercepts at Yanrey and analysed by ANSTO in Sydney.</p>
	<i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	Not applicable.

Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<p>Air-core drilling completed during over the period from July to September 2024.</p> <p>Historical drilling within the Bennet Well – Yanrey project consists of various phases of rotary mud, aircore and diamond core drilling conducted between 1979 (historical) and 2014 (CXU). All holes were drilled vertically. The breakdown of programs is as follows:</p> <ul style="list-style-type: none"> <li>– pre-2013: historical drilling consisting mostly of aircore, comprising 285 holes for a total of 29,065 m and rotary mud, consisting of 95 holes for 8,993 m .</li> <li>– 2013: diamond core drilling comprising a total of 8 holes, consisting of 356 m rotary mud pre-collars and 257 m of HQ diamond core tails. The rotary mud pre-collars were drilled at a diameter of 5 ¼” while the diamond core tails were drilled with triple-tube PQ (diameter 83mm) in areas of hard drilling, and subsequently HQ (61mm) when the target zone of mineralisation was intersected.</li> <li>– 2014: approximately 90 % of the drill program was comprised of rotary mud (diameter for a total of 67 holes (5,785 m), while 10% consisted of triple tube diamond-drilled PQ core for a total of 6 holes (534m). The bore wall was stabilised by bentonite muds and chemical polymers.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Cauldron geologists logged the drill holes and assessed the sample recovery during the process.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Cauldron logged the drill holes and samples and used quality controls such as blanks, standards, and duplicates.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Cauldron has not identified any relationship between sample recovery and the determination of uranium assay from gamma ray data. Variations in uranium grade caused by changing drillhole size is minimised through an accurate measurement of hole diameter using a calliper tool and application of a hole-size correction factor. Hole-size correction models have been determined by Wireline Services Group, using data collected at the Department of Water calibration facility at Regency Park in Adelaide; with a hole-size correction factor derived as a function of drillhole diameter.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	All air-core samples are collected in chip trays and geologically logged to assist in the interpretation of the resistivity and density profiles derived from the downhole geophysical probes. Uranium assay for a potential in-situ leach project requires mineralisation to be hosted in a porous sedimentary sequence that is readily leachable. Porosity is estimated from the dual density data. No geotechnical data was collected due to the generally flat-lying geology and mostly unconsolidated sediments.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	The geological logging completed was both qualitative (sediment/rock type, colour, degree of oxidation, etc.) and quantitative (recording of specific depths and various geophysical data). The samples were sieved and photographed wet (lightly sprayed with water) and dry. The logged intervals were sampled in calico bags at 1m and samples from intervals > 100ppm eU <sub>3</sub> O <sub>8</sub> will be sent for laboratory analysis of U and V.



	<i>The total length and percentage of the relevant intersections logged.</i>	The gamma ray results were logged to the database and were used together with the geology and mineralogy information to establish U interceptions with are being reported in this announcement.
<i>Sub-sampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Cauldron collected a sample material directly from the cyclone splitter into industry standard calico bags to obtain up to 3 kg of material representing every 1 metre drilled. The remaining (approx. 90%) of sample material was collected from the cyclone splitter and put on the ground. Each bag contained sample material equivalent to a 1 metre interval. Notes were registered in the logging when there was a wet sample.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Air-core drilling allows the passage of geophysical probes which can derive assay for uranium mineralisation. A check against assay and density derived from gamma and density probes, respectively, will be completed using physical sampling derived from core drilled during the 2014 program. Cauldron collected a sample material directly from the cyclone splitter into industry standard calico bags to obtain up to 3 kg of material representing every 1 metre drilled and samples from intervals > 100ppm eU <sub>3</sub> O <sub>8</sub> will be sent for laboratory analysis of U and V.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	A reference drill hole, containing uranium mineralisation, was established to provide a regular check on the repeatability of the gamma probe. This cross-check is also used to check if the correct calibration models are applied to the data, and to ascertain potential spurious results from a damaged probe or a probe that drifts out of calibration range.
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Quality controls such as blanks, standards, and duplicates were also utilised.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample size is believed to be appropriate and will include further crushing and pulverising at the laboratory
<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	No assay results are being reported.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Not applicable.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	No assay results are being reported.

Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No assay results are being reported.
	<i>The use of twinned holes.</i>	<p>24YRCAC001 twinned a historical high-grade zone (YNMR077/YNDD018) within the Bennet Well palaeochannel as a 'test' run to ensure all equipment was working correctly before commencing exploration drilling. For comparison, at a 150ppm eU<sub>3</sub>O<sub>8</sub> cut-off, the three holes had intercepts of:</p> <p>YNMR077            87.4 – 88.4m, 1.00m @ 338ppm eU<sub>3</sub>O<sub>8</sub>  88.9 – 91.3m, 2.40m @ 1,205ppm eU<sub>3</sub>O<sub>8</sub>  95.9 – 97.5m, 1.15m @ 222ppm eU<sub>3</sub>O<sub>8</sub></p> <p>YNDD018            86.8 – 87.7m, 0.90m @ 425ppm eU<sub>3</sub>O<sub>8</sub>  88.6 – 95.1m, 6.52m @ 650ppm eU<sub>3</sub>O<sub>8</sub>  95.2 – 95.9m, 0.80m @ 214ppm eU<sub>3</sub>O<sub>8</sub></p> <p>24YRAC001            89.9 – 96.9m, 7.00m @ 543ppm eU<sub>3</sub>O<sub>8</sub></p> <p>Drilling at Manyingee South prospect is a new exploration area</p>
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	No assay results are being reported.
	<i>Discuss any adjustment to assay data.</i>	No assay results are being reported.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Cauldron has surveyed the collar positions of the drill holes with handheld GPS, and the survey provided good precision and accuracy. Upon completion of the drilling program the holes will be surveyed by differential RTK GPS for very high precision. The quality of survey data is fit for the purpose of planning exploration programs, generating targets for investigation, and further resource definition. No Mineral Resource or Ore Reserve has been estimated.
	<i>Specification of the grid system used.</i>	Cauldron utilised GDA2020 zone 50.
	<i>Quality and adequacy of topographic control.</i>	The primary topographic control is from SRTM. This technique is adequate given the generally flat-lying nature of the sediments. The highly accurate RTK pickups of collars from the 2013-2015 drilling is for only a small portion of the total drilling of the deposit. Lidar DTM was used for topographic control over the 2015 drilling at Bennet Well resource. Outside the Bennet Well resource, the SRTM derived data provide the best means to mitigate against level-busts that would occur with RL derived from two different methods. Cauldron has surveyed the collar positions of the drill holes reported in this announcement with handheld GPS, and the survey provided good precision and accuracy. The holes will soon be surveyed by differential RTK GPS for very high precision.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	For the present drilling program, most air-core drill holes are spaced along lines at between 150m and 250m W-E. The drill lines were 400-500m apart, as shown in various Figures in this report.

		<p>Spacing of holes drilled historically is variable between 30 and 200m on individual fence lines, and 50m to 1,100m between fence lines along the strike.</p> <p>Spacing of the core holes from the 2013 drilling program varied between 350m and 800m within individual prospects.</p> <p>The spacing of the drill holes from the 2014 program varied between 10 m and 800 m within individual prospects.</p> <p>The spacing of the drill holes from the 2015 program varied between 50m and 250m within individual prospect.</p>
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The area occupied by the deposit is very large and therefore drill spacing has always been variable. No Mineral Resources or Ore Reserves have been estimated based on the reported drill holes, drilled between July and September 2024.
	<i>Whether sample compositing has been applied.</i>	For the present AC drilling program, downhole geophysical data was collected at 2 cm sample intervals. All downhole geophysical data was later composited to 0.01 m increments for reporting the AC drilling results.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	All drill holes were drilled vertically since the sediments are mostly unconsolidated and generally flat-lying. All holes therefore, sample the true width of mineralisation.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No sampling bias is observed by the orientation of the drill holes.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	<p>Chips collected from each aircore drill hole are stored securely in a locked sea-container at the Bennet Well Exploration Camp. Diamond drill core from the 2008 and 2013 drill programs is also stored at a secure location on the project site, in lockable sea containers. When sample bags (calico) transported to Perth for lab assaying, the following procedure is followed:</p> <ul style="list-style-type: none"> <li>• A Ludlum Alpha/Gamma Surface meter is then used to measure the concentration of alpha/gamma particles (if any) being emitted from each of the pallets.</li> <li>• Pending the results of these surveys, and in accordance with the Safe Transport of Radioactive Material guidelines issued by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), the appropriate transport documentation was inserted into the top layer of plastic pallet wrap in such a way as to be visible to the transporter, if required.</li> <li>• Upon arrival at the desired destination in Perth, the samples are finally inspected by senior Cauldron personnel to check that sample integrity has been maintained.</li> </ul>
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Cauldron's Competent Person has verified all sampling techniques and data collection is of high standard and no reviews are required at this stage.



## Section 2: Report of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The Yanrey Uranium Project comprises 12 granted exploration tenements and one exploration licence under application (E08/1489, E08/1490, E08/1493, E08/1501, E08/2017, E08/2081, E08/2205, E08/2385, E08/2386, E08/2387, E08/3088, E08/2774 and E08/3611) in northwest Western Australia. covering a total area of 1,270 km <sup>2</sup> .
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	All tenements are in good standing and Cauldron is unaware of any impediments to exploration of these licences.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	An 80 km long regional redox front and several palaeochannels were identified by open hole drilling by CRA Exploration Pty Ltd (CRAE) during the 1970s and early 1980s. CRAE drilled over 200 holes in the greater Yanrey Project area, resulting in the discovery of the Manyingee Deposit and the identification of uranium mineralisation in the Bennet Well channel and the Spinifex Well Channel. Uranium mineralisation was also identified in the Ballards and Barradale Prospects.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	At least 15 major palaeochannels have been identified in the greater Yanrey project area at the contact between the Cretaceous aged marine sediments of the Carnarvon Basin and the Proterozoic Yilgarn Block which lies along the granitic and metamorphic ancient coastline. These palaeochannels have incised the underlying Proterozoic-aged granite and metamorphic rocks, which are subsequently filled and submerged by up to 150m of mostly unconsolidated sand and clay of Mesozoic, Tertiary and Quaternary age. The channels sourced from the east enter into a deep north-south trending depression that was probably caused by regional faulting and may be a depression formed at the former Mesozoic-aged coastline.
<i>Drill hole Information</i>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>o easting and northing of the drill hole collar</li> <li>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth hole length.</li> </ul>	Refer to the tables above.
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	Not applicable.
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Average reporting intervals are derived from applying a cut-off grade of 150 ppm U <sub>3</sub> O <sub>8</sub> for a minimum thickness of 0.50m and maximum internal dilution of 0.20m. A maximum internal dilution of 0.20m was used to aggregate a less mineralised zone within bounding higher-grade material for thick intervals, as long as the grade-thickness of the interval was above cutoff (= 150 x 0.20m).

	<p><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p>	<p>The length of assay sample intervals varies for all results, therefore a weighted average on a 0.20m composite has been applied when calculating assay grades to take account of the size of each interval.</p> <p>The higher-grade intervals quoted in Table 1 are derived by length averaging intervals greater than 0.20m width that have assays above 500ppm eU<sub>3</sub>O<sub>8</sub>; sometimes these higher grade intervals appear inside a lower grade zone defined by the lower 150 ppm cutoff. A maximum internal dilution of 0.20m was used to aggregate a thin barren zone within bounding higher-grade material as long as the grade-thickness of the interval was above cutoff (= 500 x 0.20m).</p>
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>No metal equivalents are used.</p>
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p>	<p>All drilling at Manyingee South is vertical.</p> <p>The overall dip of the mineralisation at the Manyingee South prospect is presumed to be near-horizontal therefore, all mineralisation values could be considered the true width.</p>
	<p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p>	<p>All drilling at Manyingee South is vertical.</p> <p>The overall dip of the mineralisation at the Manyingee South prospect is presumed to be near-horizontal therefore, all mineralisation values could be considered the true width.</p>
	<p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></p>	<p>All drilling at Manyingee South is vertical.</p> <p>The overall dip of the mineralisation at the Manyingee South prospect is presumed to be near-horizontal therefore, all mineralisation values could be considered the true width.</p>
<p><i>Diagrams</i></p>	<p><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></p>	<p>Included in the body of this report.</p>
<p><i>Balanced reporting</i></p>	<p><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></p>	<p>All drill locations are shown in Table 1; intercepts that are greater than 150 ppm for at least 0.50m in thickness, are shown in Table 2.</p>

<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	Metallurgical sighter testing was completed by the Australian Nuclear Science and Technology Organisation (ANSTO) for the diamond core drilled in 2013, with further testing drilled in 2014 and 2015. Geochemical assaying was also completed for the diamond core from both 2013, 2014 and 2015.
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Further AC and Diamond Core drilling to increase the Mineral Resource of the Bennet Well deposit. Further passive seismicity surveys to further map palaeochannel(s) and exploration drilling is required to identify extensions to mineralisation.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Plans and sections have been included in this report as appropriate.