16th September 2024

Drilling programme to commence on exciting Ashburton Uranium Project

HIGHLIGHTS

- **Following completion of all relevant approvals, a reverse circulation drill rig has been mobilised to commence work on the Angelo prospect within Piche's Ashburton project.**
- **Diamond drill rig will also be mobilised to site later in the month.**
- **Drilling to target Proterozoic unconformity style uranium mineralisation similar to that seen in the Pine Creek Geosyncline in Australia and the Athabasca Basin in Canada.**
- **The drilling programme is designed to confirm previous high grade uranium results at the Angelo A & B prospects, to test a revised model for the controls on mineralisation and** extensions to the mineralisation**.**
- **Significant historical intersections[1] include:**
  - **AR1004 10.5m @ 4,380 ppm U_3O_8 from 105.0 meters**
  - **AR1009 9.0m @ 3,490 ppm U_3O_8 from 75.5 meters**
  - **AR1028B 5.9m @ 3,300 ppm U_3O_8 from 119.0 meters**
  - **AR1032 7.9m @ 2,530 ppm U_3O_8 from 95.0 meters**
- **Rare earth and critical metals have also been identified in the target area.**
- **Completion of a recent Native Title Heritage survey has enabled Piche to commence its first significant exploration programme in Australia since ASX listing on 15 July 2024.**

Piche Resources Limited (ASX: PR2) ("**Piche**" or the "**Company**"), is pleased to announce the commencement of a reverse circulation drilling programme on its Ashburton project in Western Australia. The project area is located approximately 140km to the west-southwest of Newman in the Ashburton region of Western Australia (Figure 1).

This programme will be followed by a diamond drilling programme scheduled for later this month. The drilling programme is planned to confirm the results from previous exploration by drilling several twin holes, to test a revised model for the control of the uranium mineralisation and explore for extensions to the mineralisation identified between 1973 and 1984.

The drilling is planned at, and along strike of the Angelo A and Angelo B prospects. No exploration activities have been carried out on these prospects in the last 40 years. Piche holds three tenements totalling about 122km^2 in its Ashburton Project (Figure 2).

Geology of Ashburton Project

Previous explorers focused their efforts on the unconformity between the mid Proterozoic sandstones and the early Proterozoic basement complexes.

Unconformity-related deposits constitute approximately 20% of Australia's total uranium resources and about one-third of the western world's uranium resources and include some of the largest and richest uranium deposits[2]. Minerals are uraninite and pitchblende. The main deposits occur in Canada (the Athabasca Basin, Saskatchewan and Thelon Basin, Northwest Territories); and Australia (the Alligator Rivers region in the Pine Creek Geosyncline, NT and Rudall Rivers area, WA[2]). In both Canada and Australia mineralisation is often found at the unconformity and in the basement complex well below the unconformity.

Uranium Mineralisation at Angelo River Prospect

Uranium mineralisation at Angelo River occurs along the Wyloo Group/Bresnahan Group contact. Two main zones of mineralisation have previously been identified: the A and B zones (Figure 3). The Lower Proterozoic Wyloo Group is represented by the Mt McGrath Formation (greywacke, shale, carbonaceous shale, sandstone, dolomite, dolomitic shale, sedimentary breccia), the Duck Creek Dolomite (dolomite, chert breccia, minor carbonaceous shale) and the Ashburton Formation (interbedded shale, mudstone, siltstone and greywacke). The Mid Proterozoic Bresnahan Group consists of medium to coarse sandstone, feldspathic sandstone and arkose.

Figure 3 shows the geology of the Angelo River Prospect. Angelo A zone mineralisation is hosted by a sequence of hematitic and/or carbonaceous shale and their brecciated equivalents, or mixed breccias containing chert, shale, sandstone and silicified dolomite fragments in a silty matrix. Most of the mineralisation at the Angelo B zone is hosted by a clay zone and is associated with iron oxide veining, although there is minor breccia-hosted mineralisation.

Piche's Managing Director, Stephen Mann, commented:

"*This project area is one of the most exciting unconformity uranium targets outside the Pine Creek Geosyncline in the Northern Territory and the Athabasca Basin in Saskatchewan Basin in Canada, two of the truly great uranium provinces in the world. Previous exploration has demonstrated that this area has all the most favourable attributes of both provinces. Additionally, historical results have highlighted the presence of high-grade uranium mineralisation in several areas within the project.*

A regional review of the uranium mineralisation previously identified in the area, including geophysics (radiometrics, magnetics, electromagnetics), mapping and geochemistry suggest that the controls of the mineralisation may have been misinterpreted by previous explorers, and there remains considerable potential for the area to host very large, high-grade zones of uranium mineralisation. Piche's focus on this upcoming drill programme will be to confirm historical drill results, and to test the revised structural model for the controls of uranium mineralisation. We currently have a programme of 2000m of reverse circulation and 1500m of diamond drilling planned, and follow-up drill programmes are already envisioned.

[2] https://world-nuclear.org/information-library/nuclear-fuel-cycle/uranium-resources/geology-of-uranium-deposits#

As each drill hole is completed it will be surveyed using a downhole gamma probe which will calculate an equivalent U3O8 concentration (eU3O8) based on the downhole gamma response. This technique is commonly used in uranium exploration and allows an early news flow of drill hole results. Drill core and drill chips with be assayed as checks, but the downhole gamma logging generally provides accurate eU3O8 grades and thicknesses. Consequently, Piche expects the first drill hole results will be available approximately two weeks after the drilling commences.

We are also pleased to have successfully recently completed a Heritage Survey with the registered Native Title party".

Although there are many high-grade uranium historical drill intersections recorded from Angelo, Table 1 summarises the most significant, whilst Table 2 documents the drill hole location details. All holes in these tables were drilled between 1980 and 1984. Further historical results can be reviewed in the Piche Resources Limited Prospectus.

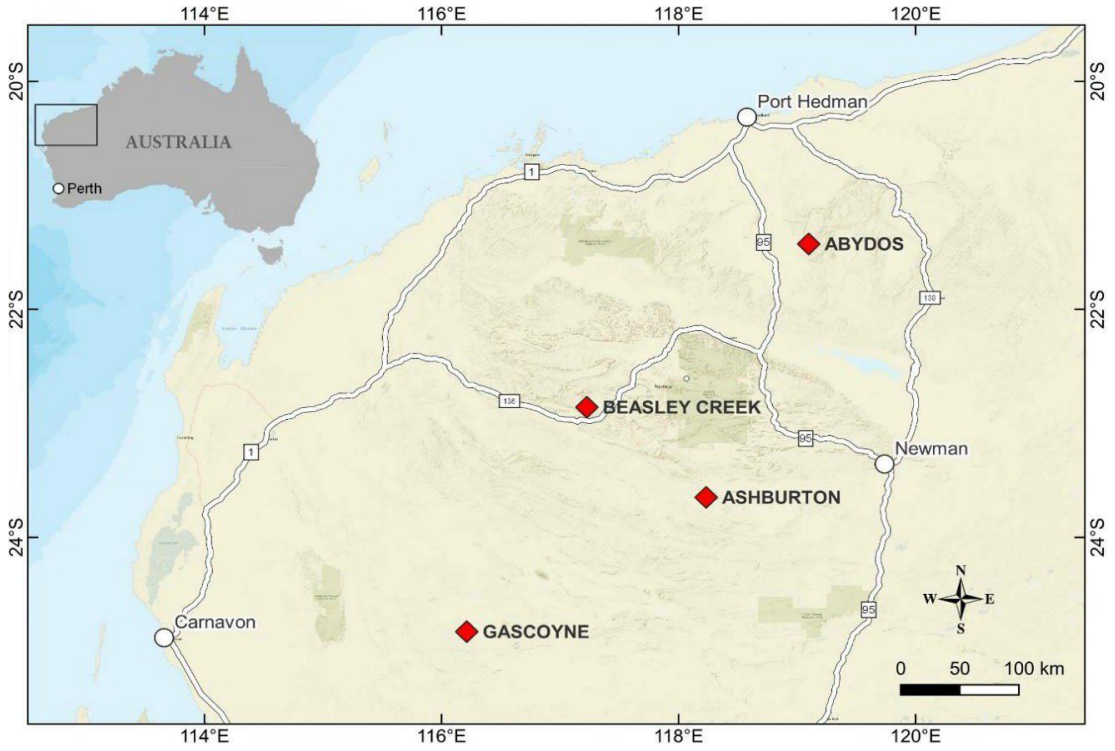
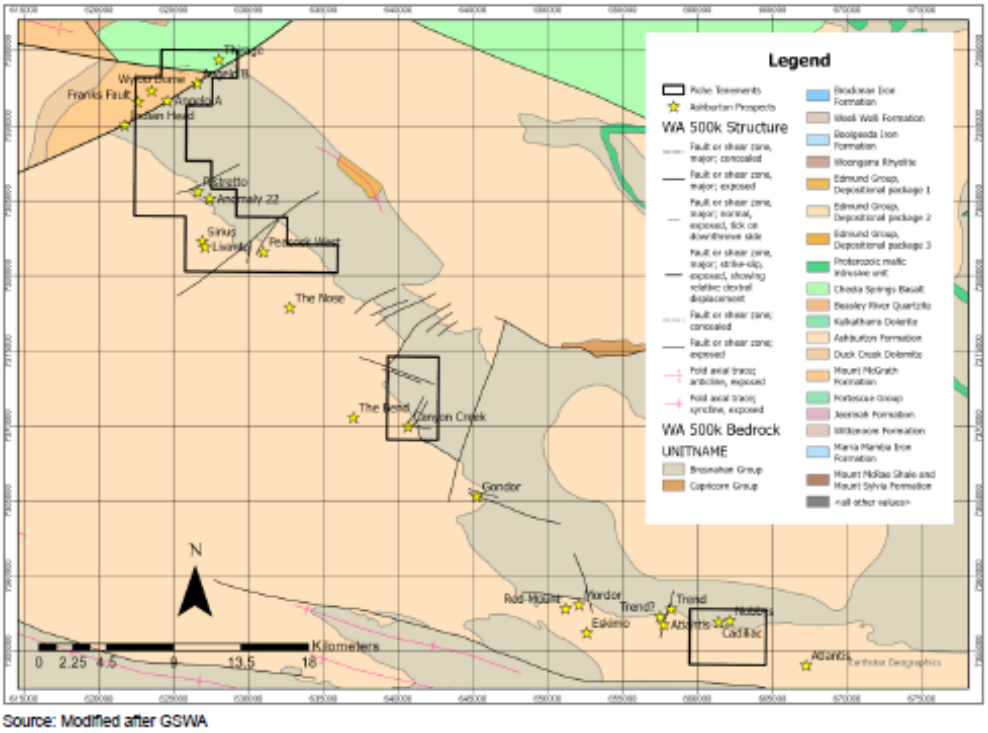


Figure 1: Location of Piche's Ashburton Project



Source: Modified after GSWA

Figure 2: Piche's Tenement holding in its Ashburton Project

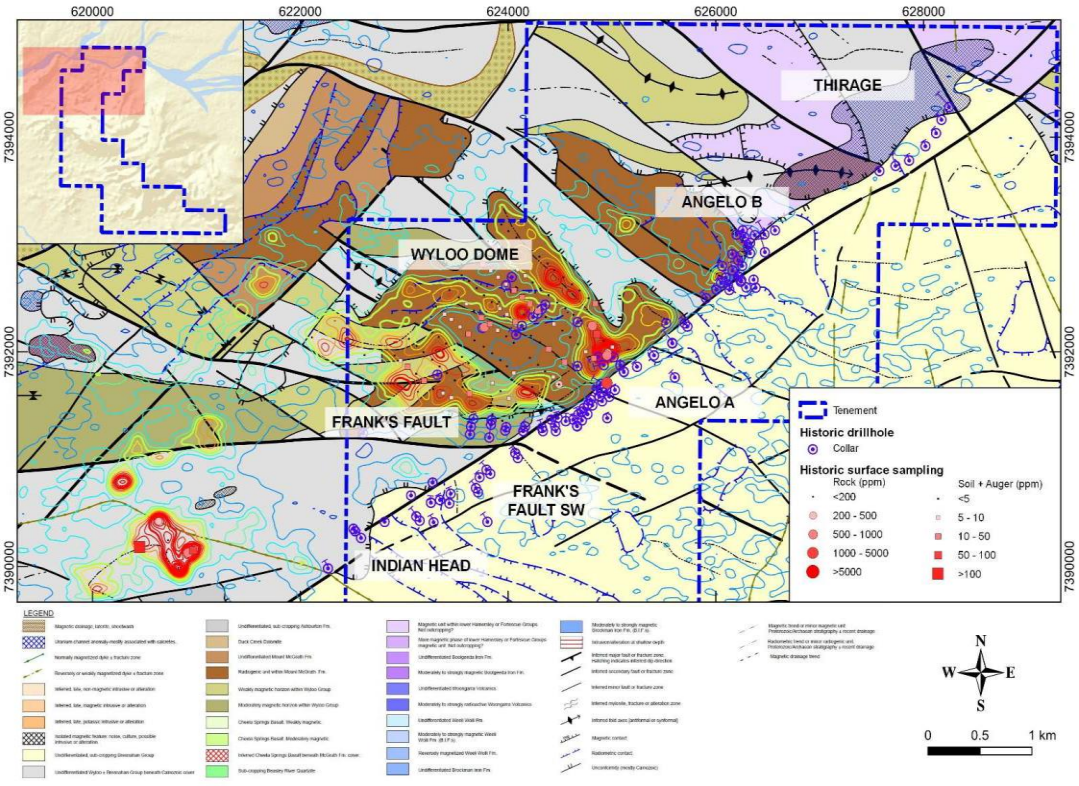


Figure 3: Location of Planned Drilling on the Ashburton Project's Angelo A & B Prospect

Table 1: Most significant historical intersections from Ashburton Angelo Prospect[1]

Hole ID	From (m)	To (m)	Interval (m)	Grade eU_3O_8 (ppm)
AR1004	105.0	115.5	10.5	4,380
incl	109.0	113.5	4.5	10,500
AR1009	75.5	84.5	9.0	3,490
AR1028B	119.0	124.9	5.9	3,300
AR1032	95.0	102.9	7.9	2,530
AR1033	95.1	102.7	7.6	2,530
AR1040	147.8	152.6	4.8	2,700
AR2010	97.2	104.6	7.4	1,430
AR2013	49.9	54.6	4.7	820
and	90.0	93.7	3.7	1,170
AR2045	153.3	162.5	9.2	1,340

Table 2: Drill hole details of holes referenced in the report above (drilled between 1980 and 1984)

Hole No.	Coordinates E	Coordinates N	azimuth	dip	depth
AR1004	626095	7392700	243.5	60	151
AR1009	626117	7392634	345	60	250.7
AR1028B	624880	7391591	330	80	137
AR1032	626309	7392985	340	70	157
AR1033	624707	7391449	330	80	155
AR1040	626213	7392710	310	60	175.8
AR2010	624677	7391426	335	70	151
AR2013	624730	7391484	330	80	137
AR2045	626240	7392662	315	70	207

This announcement has been approved by the Board of Directors.

For further information, please contact:

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1. Refer to page 24 of Independent Geologists' Report in the Company's prospectus lodged on 11 July 2024.

All figures in this announcement are referenced from the Company's Prospectus lodged with ASX on 11 July 2024, in particular appendix D.

(https://www.asx.com.au/asx/statistics/displayAnnouncement.do?display=pdf&idsId=02827846).

Competent Persons Statement

The information in this announcement that relates to exploration results, interpretations and conclusions, is based on and fairly represents information and supporting documentation reviewed by Mr Stephen Mann, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Mann, who is an employee of the Company, has sufficient experience that is 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 JORC 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Mann consents to the inclusion of this information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

The exploration results referenced in this report are of a historical nature. These data were compiled from open file historical data and WAMEX reports (mineral exploration reports – Western Australia) reports.

Table I: Source of exploration data reported

Project	Data Source	Year
Ashburton	WAMEX reports	1970s-2013

It is the opinion of the Competent Person that Piche has performed proper due diligence and sufficiently verified the data to provide enough confidence that sampling was performed to adequate industry standards and is fit for the purpose of planning exploration programmes and generating targets for further investigation. The Competent Person has completed checks of the original reports and found this compilation to be a reasonable and accurate capture of the available information.

The comments in Sections 1 and 2 of the JORC (2012) Table 1 provide a general summary of the project. Readers are encouraged to check the freely available source documents for any specific details they may require. It is considered impractical and unnecessary to attempt a detailed Table 1 disclosure for every past exploration result. Table 1 provides a high-level response that covers all the exploration results discussed.

PICHE

Ashburton Project

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	■ 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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. ■ Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used. ■ Aspects of the determination of mineralisation that are Material to the Public Report. ■ 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.	■ Historical work included stream, surface soil and rock sampling. Percussion, RC and diamond drillholes were conducted with downhole gamma probe completed to obtain U3O8 values, except for the collapsing drillholes. ■ Historical results have been obtained from open file WAMEX reports. These have been reviewed by Piche and the CP. ■ The samplings conducted between 1973 and 1984 targeted radiometric anomalies, commonly only assayed for uranium value. Assay methods were not usually recorded.
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.).	■ A total of 226 historical percussion, RC and diamond holes were drilled in the 1970-1980s by CRA Exploration and various JV of Pancontinental Mining. The drilling mainly focused on the Bresnahan Boundary Fault (BBF) area close to Angelo River, but also included a number of holes in the wider tenement portfolio held by the various companies in the area over time. A number of these holes are not included in the current Piche tenement portfolio. ■ There is no detailed information regarding the drill hole size and other aspects recorded in the WAMEX reports. However, the data is sufficiently reliable for planning purposes, such as generating targets for further investigation.
Drill sample recovery	■ Method of recording and assessing core and chip sample recoveries and results assessed.	■ Intervals with sample loss or poor recoveries were mentioned, but detailed drill recoveries were not recorded in the historical records.

Criteria	JORC Code explanation	Commentary
	■ Measures taken to maximise sample recovery and ensure representative nature of the samples. ■ 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.	■ Loss of materials was common in the clay zones which could be related to the BBF and/or uranium mineralisation.
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. ■ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. ■ The total length and percentage of the relevant intersections logged.	■ Historical drillholes were logged lithologically and historical rock samples were logged with descriptive lithologies. ■ The historical logging information is considered sufficient for follow-up exploration programs. ■ Some of the historical drill core is still available on site. These have been reviewed where hole numbers and depths are recognisable.
Sub-sampling techniques and sample preparation	■ If core, whether cut or sawn and whether quarter, half or all core taken. ■ If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. ■ For all sample types, the nature, quality and appropriateness of the sample preparation technique. ■ Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples. ■ 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. ■ Whether sample sizes are appropriate to the grain size of the material being sampled.	■ Downhole radiometric surveys were conducted to determine the uranium grades. ■ A small amount of geochemical drillhole samples were collected by Pancontinental Mining. ■ Sampling methods for soil and rock samples, and diamond drilling were not recorded. RC samples were commonly composited in either 2 m or 4 m intervals. ■ Quality control procedures adopted for sub-sampling were not recorded. ■ The historical sampling results will require further verification.
Quality of assay data and laboratory tests	■ The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. ■ 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. ■ 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.	■ Assaying methods and QA/QC were not recorded in the WAMEX reports for assays conducted between 1970-80s. ■ Overall, the historical assay methods and sampling protocols used are appropriate and of sufficient quality to be used for planning further exploration programs.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	■ The verification of significant intersections by either independent or alternative company personnel. ■ The use of twinned holes. ■ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. ■ Discuss any adjustment to assay data.	■ No verification, including the use of twinned holes has been undertaken by Piche to date. ■ No known or documented adjustments have been made to the assay data. ■ Piche is commencing this diamond drilling and reverse circulation drilling programme during which it intends to twin a number of historical drill holes to confirm the downhole gamma results and multielement geochemical analyses. A mapping programme was conducted in 2024 where samples were collected from historically anomalous targets.
Location of data points	■ 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. ■ Specification of the grid system used. ■ Quality and adequacy of topographic control.	■ The collars of CRA Exploration drillholes were georeferenced from maps included in the WAMEX reports. Coordinates of other drill hole collars were recorded, as well as their down-hole surveys. ■ Various Australian grid systems were used, such as AMG66/Zone 50 and MGA94/Zone 50, depending on the years when exploration activities were carried out. Piche has located many of the historical drill holes at Angelo A & B and converted the coordinates to current grids.
Data spacing and distribution	■ Data spacing for reporting of Exploration Results. ■ 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. ■ Whether sample compositing has been applied.	■ Drill holes in Angelo A and Angelo B prospects were closely spaced, at 50 to 100m intervals. ■ Historical quantum of mineralisation was estimated for Angelo A and Angelo B prospects by Pancontinental Mining in 1980s. The historical estimate does not comply with the JORC Code and is not being reported. No comments about the grade continuity established within those historical estimates are made.
Orientation of data in relation to geological structure	■ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. ■ 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.	■ Most of the historic drilling in Angelo River area were targeting the NE-trending BBF, where the deposits were unconformity-hosted.
Sample security	■ The measures taken to ensure sample security.	■ Previous explorers had a secure sample storage area on site (core yard and core racks), as recorded in the WAMEX reports as well as commented by the landowner.
Audits or reviews	■ The results of any audits or reviews of sampling techniques and data.	■ Historical drilling results had been reviewed by Piche and SRK. Piche is planning for a

Criteria	JORC Code explanation	Commentary
		verification programme, of particular focusing on the historical estimates identified in Angelo A and B.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	■ 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. ■ 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.	■ Ashburton Project consists of three licences, E52/3653, E52/3654 and E52/3655. The planned drilling reported here is located on E52/3653. The licences are held by South Coast Minerals Pty Ltd, a wholly owned subsidiary of Piche.
Exploration done by other parties	■ Acknowledgment and appraisal of exploration by other parties.	■ All notable exploration results over the planned drilling area were conducted by Pancontinental Mining Limited.
Geology	■ Deposit type, geological setting and style of mineralisation.	■ The Ashburton project area is situated in the southwest Pilbara region. The basement rocks consist of the Sylvania Inlier, an Archean granite-greenstone terrane. Overlying the Inlier is the Hamersley Basin, a Late Archean to Early Proterozoic depositional basin. In the project area, only the volcaniclastics Fortescue Group and the BIF ironstone hosted Hamersley Group are present. The Ashburton Basin, an arcuate belt of sedimentary and volcanic rocks, unconformably overlies the Hamersley Basin. The Ashburton Basin is unconformably overlaid by the Bresnahan Basin, consisting of the Cherrybooka Conglomerate and the Kunderong Sandstone. ■ The Ashburton Basin was both deposited and deformed during the Capricorn Orogeny, with deformation consisting of open to isoclinal folding with normal, reverse, and wrench faulting. The Hamersley Basin and Ashburton Basin sequences have undergone very low-grade metamorphism (mostly lower greenschist facies), whereas the Bresnahan Group was unaffected by the Capricorn Orogeny and is unmetamorphosed. ■ Exploration in the Ashburton project area has identified significant mineralisation at or near the unconformity between the Lower Proterozoic Wyloo Group and overlying Middle Proterozoic Bresnahan Basin. The unconformity

Criteria	JORC Code explanation	Commentary
		contact is commonly named as the Bresnahan Boundary Fault (BBF).
Drill hole Information	■ A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: – easting and northing of the drillhole collar – elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar – dip and azimuth of the hole. – downhole length and interception depth – hole length. ■ 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.	■ Piche has not conducted any drilling in the tenement area. However, historical drilling was conducted by CRA Exploration and Pancontinental Mining. A selected list of historical drillholes is presented in Appendix A of this Report. ■ A summary of significant drillhole intercepts determined by gamma logs and geochemical assays and are referenced in this Report. ■ For the drillholes recorded in WAMEX reports, only intervals considered as mineralised were recorded. Values in 'non-mineralised intervals', typically below 200 or 300 ppm U_3O_8, were not recorded.
Data aggregation methods	■ 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. ■ 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. ■ The assumptions used for any reporting of metal equivalent values should be clearly stated.	■ For the drillholes recorded in WAMEX reports, only intervals considered as mineralised were recorded. Values in 'non-mineralised intervals', usually below 200 or 300 ppm U_3O_8, were not recorded. ■ Several significant results from the Angelo A & B prospects have been tabulated in this News Release.
Relationship between mineralisation widths and intercept lengths	■ These relationships are particularly important in the reporting of Exploration Results. ■ If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. ■ If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	■ All drill hole sample results are reported as downhole length. The true width of the mineralisation is not known. ■ Once mineralisation is validated, any historical results will be re-interpreted to determine the orientation of mineralisation and true widths. ■
Diagrams	■ 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 drillhole collar locations and appropriate sectional views.	■ Maps presenting the regional and local geology are included in this report.

Criteria	JORC Code explanation	Commentary
Balanced reporting	▪ 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.	▪ For the drillholes recorded in WAMEX reports, only intervals considered as mineralised were recorded. Values in 'non-mineralised intervals', usually below 200 or 300 ppm U_3O_8, were not recorded.
Other substantive exploration data	▪ 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.	▪ Numerous geophysical surveys have been conducted historically. While only scanned maps were preserved for exploration in the 1970-80s, a comprehensive geophysics database was kept by U3O8 Limited for the period of 2007-13. These surveys included airborne magnetics and radiometrics, TEMPEST airborne electromagnetics and HyVista hyperspectral scanning. The U3O8 Limited survey covered areas outside the planned drilling area by Piche.
Further work	▪ The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). ▪ Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	▪ Piche is planning a diamond drilling and reverse circulation drilling programme, during which it intends to twin a number of historical drill holes to confirm the historical downhole gamma results. A mapping programme was undertaken in 2024 where samples were collected from historically anomalous targets.