



Quarterly Report

For the quarter ending 31 December 2022

acap.com.au

A-Cap Energy (ASX: ACB) is a minerals exploration and development company focused on the development of “new energy” projects including the company’s flagship Letlhakane Uranium Project in Botswana, host to one of the world’s top 10 uranium deposits.

Highlights

- New Country Manager arrives to drive development plan at Letlhakane Uranium Project, Botswana.
- Preliminary beneficiation, mineralogy, and hyperspectral mineral classifier studies commence.
- New drilling confirms grade and continuity of nickel – cobalt at Wilconi Project, Western Australia.

Lethakane Uranium Project

Botswana, Africa

Located in Botswana, the Lethakane Uranium Project, is host to one of the world's largest undeveloped uranium deposits. The project has a total JORC resource of 365.7 million pounds (822.1Mt @ 202ppm U₃O₈ using a 100ppm cut-off grade).¹

Development program starts at Lethakane Project

A significant rise in the uranium price and nuclear energy's increasing role in decarbonising the world's power systems underpins a new development plan to revitalise Lethakane.

During the quarter, A-Cap began a comprehensive program of development activities to advance Lethakane, led by country manager, Mr Peter Sheehan, who was appointed in October.

Mr Sheehan's 25-year plus career in mining and resources has been highlighted by roles around the world including Managing Director, Chief Geologist, Geologic Consultant, Exploration Manager, and Senior Mine Geologist. Notably, he has vast experience in managing mining work programs in Africa including the management of large exploration teams and feasibility studies.

Mr Sheehan is based in A-Cap's new Gaborone office in Botswana.

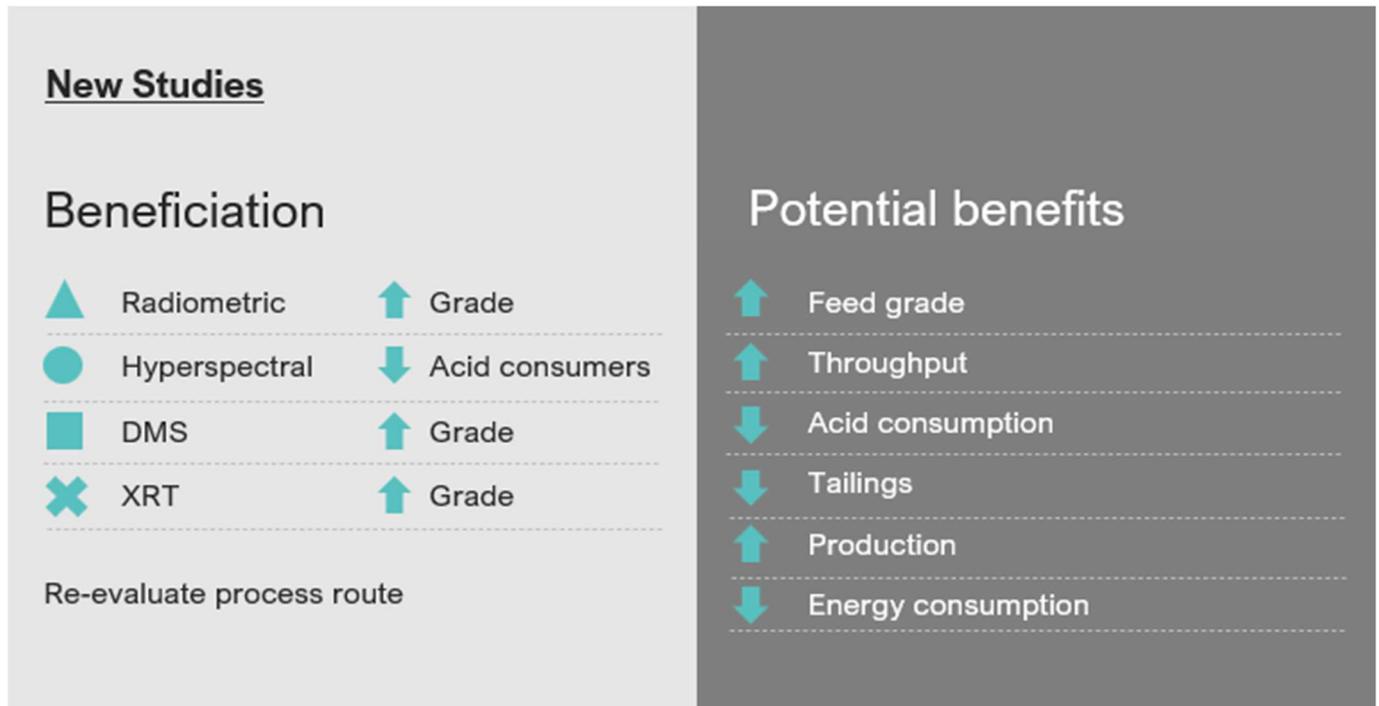
Drilling to start in January 2023 as part of new beneficiation study underway

A 3000m diamond drilling program (PQ) was awarded to Mitchell Drilling Services and will start in January to collect sufficient metallurgical samples for a new, detailed beneficiation study. The new study follows a 2010 beneficiation study that reported significant upgrades of uranium grade of around 1.5 times (ASX:ACB 18/08/2010).

The new work will be supervised by Nagrom (Perth) who will prepare the drill samples before passing them onto Steinert Global, who specialise in magnetic and sensor sorting solutions. Steinert have been highly successful upgrading uranium ore with sorting programs for other clients in recent years (see Lotus ASX:LOT – ASX Release of 05 July 2021). Steinert endeavour to use radiometric information to pre-classify the ore into product and waste for their program development. Once they have a "pre-classified" ore and waste fraction, they process these fractions through a sensor sorter multiple and record all the information from the sensors available on this sorter (colour, laser, induction and XRT). Subsequently they use proprietary software to detect variations in sensor data between the ore and waste fractions either in: density, colour or any of the other sensors in combination.

This work will begin in Q2 2023 once drilling is completed and samples are shipped.

¹ Refer to Resource Statement and disclaimer on page 10.



In conjunction with drill planning work has progressed on three (3) additional studies in Australia:-

- **Preliminary Beneficiation testwork:** based on historic composite ore samples recovered from storage at ANSTO (NSW), 90 kg of composite ore material from: Gorgon South, Kracken and Serule West was supplied to Nagrom in Perth (WA) for sample preparation before being sent to Steinert for sorting/beneficiation testwork utilising the methods described above. These results will be used to optimise design of the sorting/beneficiation testwork for the PQ core samples.
- **Mineralogy:** Acid consumption is a major operating cost in the proposed process route set out in the 2015 Feasibility Study. Existing head and residue samples from: Gorgon South, Kracken and Serule West were sent for mineralogical classification by Quantitative XRD analysis in the hope they will provide the following insights:
 - Identify the acid consuming minerals in ASU head samples;
 - Determine the mineral dissolution rate of each acid consuming mineral by analysis of head and residue samples, to provide estimates of acid consumption by mineral (this extends on total acid consumption value from ASU test); and
 - Infer mineralogy and acid consumption for the entire body using machine learning by linking geochemistry, lithologies, and location to mineralogy characterisation.

This information can then be used to better inform the geological block model with acid consumption parameters and drive down costs. 48 samples were sent to Bureau Veritas (ADE).

- **Mineral Classifier calibration for Hyperspectral Scanning (PlotLogic):**
The digital assay system which PlotLogic (QLD) supplies endeavours to characterise ore using hyperspectral scanning so that more informed decisions can be made regarding the future beneficiation processing, allowing design of the optimum sized plant and processing flow.

In order to assist calibrating the PlotLogic hyperspectral scanner and assist with the machine learning aspect the Company despatched three (3) Letlhakane ore composites (crushed to -19mm) to PlotLogic office in Adelaide. Results from these three (3) studies are expected late in Q1 2023.

Wilconi-Nickel Cobalt Project

Western Australia, Australia

The Wilconi Project hosts a JORC total mineral resource of 660,000 tonnes of nickel and 46,400t of cobalt and is being developed to serve the escalating global electric vehicle (EV) market.

Wilconi Begins Reverse Circulation (RC) Drilling

During quarter, A-Cap completed a drill campaign comprised of 187 reverse circulation (RC) holes over 8,208m and 30 diamond drill holes over 1,315m at its Wilconi Nickel Cobalt Project in Western Australia.

As the company advances a Pre-Feasibility Study (PFS) at Wilconi, the program was designed to close up the drill holes spacing to enable the conversion of current indicated resources to measured resources.

The location of the recently completed drill holes in relation to earlier drilling is shown in Figures 4 and 5 overleaf. Most holes were drilled at a 60° angle towards the west in order to detect any steep structures that focus deeper weathering, producing thicker mineralisation in the lateritic profile. A typical profile that shows the near surface, flat-lying zone of nickel mineralisation with intercepts of recent drilling is illustrated in Figure 5. Significant intercepts from the RC drilling are listed below. Assay results for the recently completed diamond drilling are still pending.

WCN22RC425: 28m of 1.23% nickel and 0.07% cobalt from 14m

WCN22RC435: 27m of 1.04% nickel and 0.06% cobalt from 14m

WCN22RC382: 21m of 1.20% nickel and 0.08% cobalt from 21m

WCN22RC274: 19m of 1.18% nickel and 0.10% cobalt from 33m

WCN22RC305: 17m of 1.23% nickel and 0.07% cobalt from 34m

WCN22RC276: 20m of 1.04% nickel and 0.09% cobalt from 34m

WCN22RC405: 17m of 1.22% nickel and 0.22% cobalt from 9m

WCN22RC426: 18m of 1.14% nickel and 0.10% cobalt from 7m

WCN22RC321: 14m of 1.46% nickel and 0.06% cobalt from 25m

WCN22RC343: 18m of 1.13% nickel and 0.17% cobalt from 34m

WCN22RC302: 12m of 1.51% nickel and 0.36% cobalt from 40m

** Intercepts calculated using a 0.7% nickel cut-off, minimum 2m intercept and maximum 1m internal dilution*

*** The zone of mineralisation is generally flat-lying and all drill holes intersect the mineralisation at approximately 60° to the mineralisation orientation.*

****For a full set of drilling results please refer to ASX release dated 23rd November 2022.*

These excellent assay results continue to build confidence in the grade and continuity of the Wilconi nickel deposit.

In addition, large diameter diamond cores (90mm) were drilled to ensure good recoveries were obtained in the soft lateritic ores to permit bulk density determinations and to provide sufficient sample for further metallurgical testwork and engineering studies. Our earlier metallurgical studies demonstrated that the project can deliver high recoveries of both nickel and cobalt.

Other PFS work that has been completed includes:

- Animal Plant Mineral Pty Ltd (APM) completed a fauna and flora study over the entire resource area in December 2021.
- Peter O'Bryan & Associates supervised engineering and geotechnical testwork on selected core samples.
- Establishment of water monitoring wells across the Wilconi resource area.
- Preliminary metallurgical studies completed by Simulus Laboratories (Perth) March 2020.

On-going PFS work and additional studies include:

- Update of the mineral resource estimate once all drill assays from the drill program completed in October have been received.
- Ongoing metallurgical testwork by Simulus laboratories.
- Hydrogeological studies including baseline surface and ground water modelling.
- Subterranean fauna studies.
- Cultural heritage surveys.
- Soil and waste rock characterisation studies.
- Design and geotechnical assessment of constructed landforms including waste dumps, open cuts and tailings storage facilities.

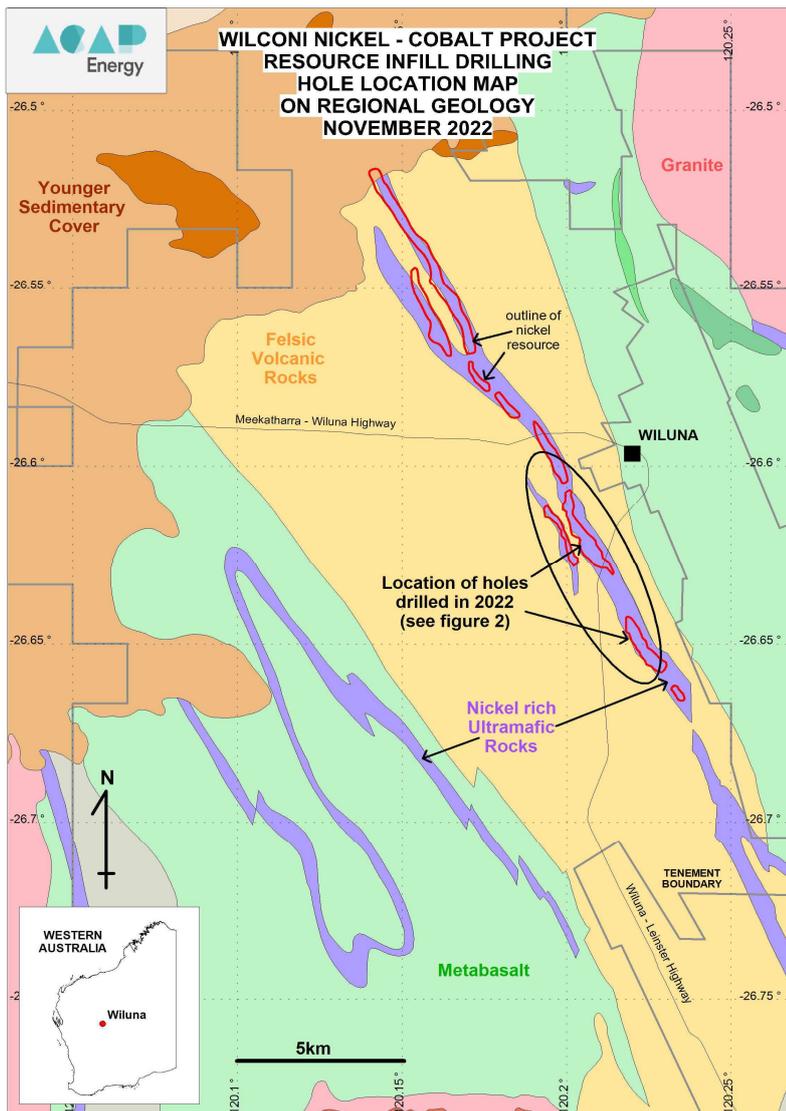


Figure 1: Regional geological setting of the Wilconi Nickel-Cobalt Project showing extent of nickel bearing ultramafic rocks, outline of the Wilconi nickel resource and location of recent diamond drilling.

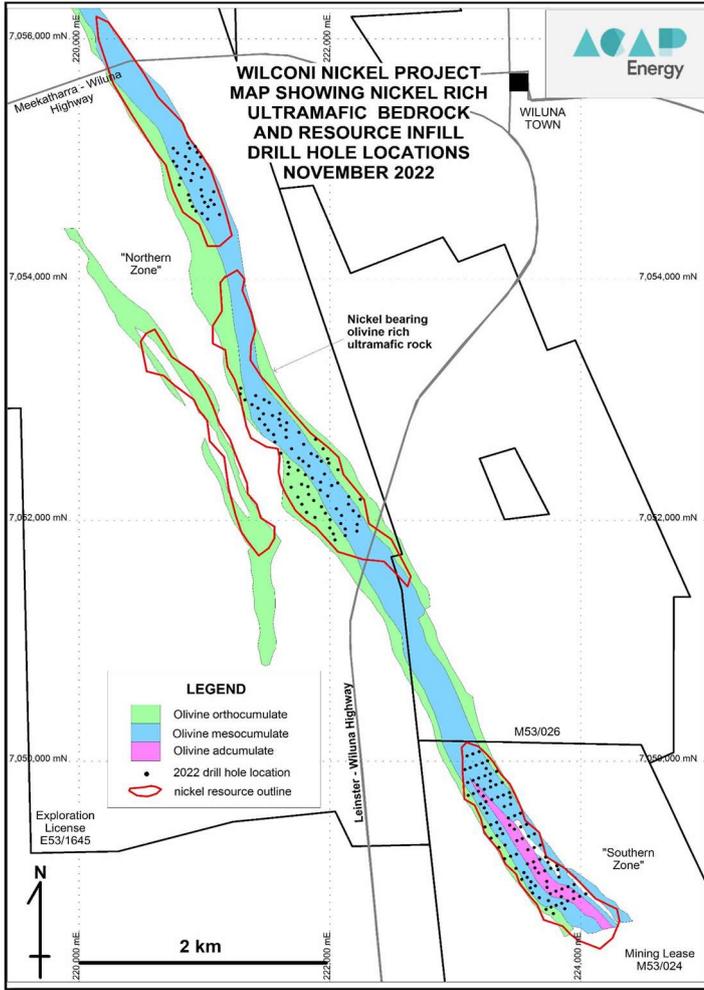
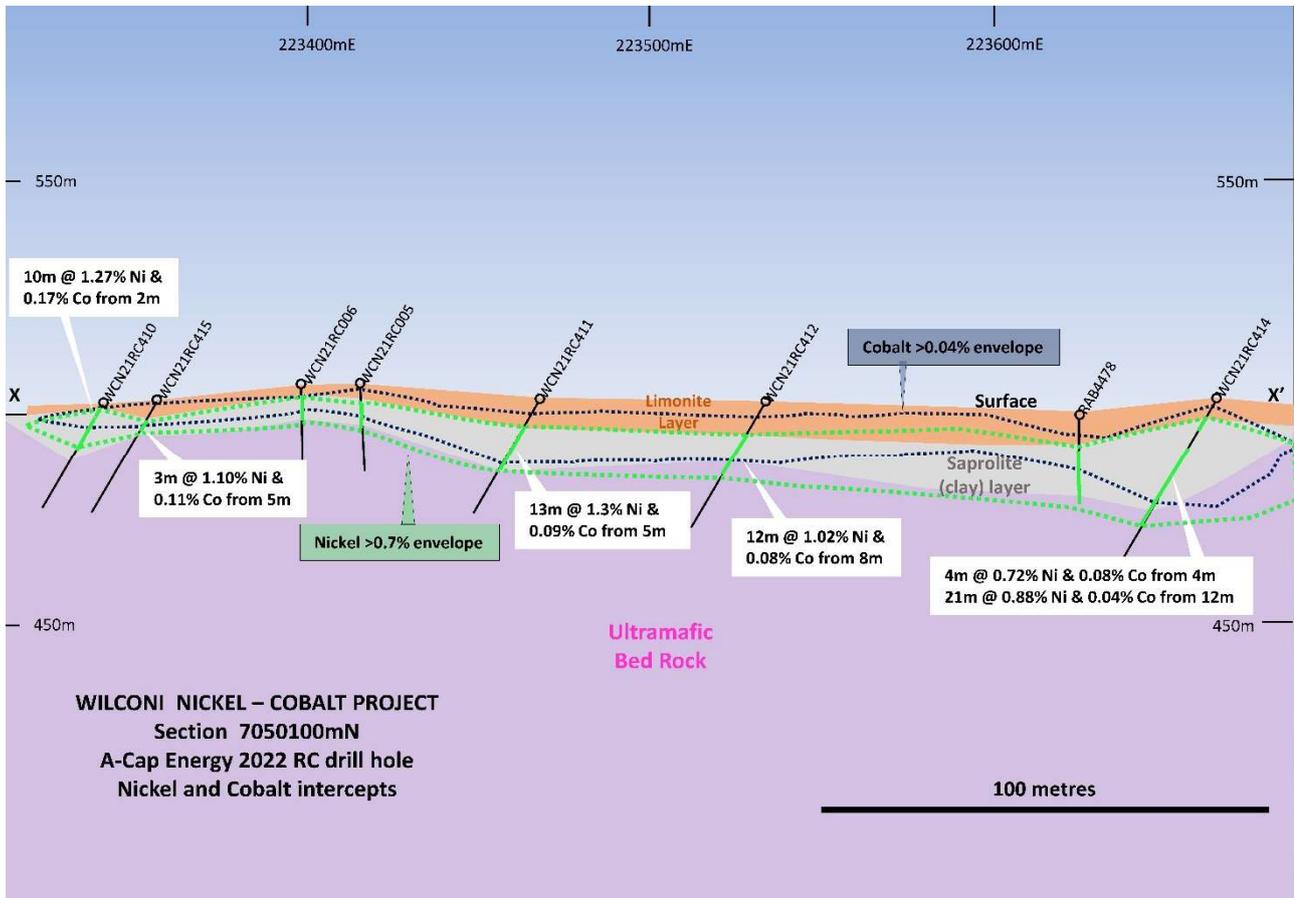


Figure 2: Detail of the diamond drill holes referred to in this release showing location of RC drill holes and underlying nickel rich ultramafic bedrock.

Figure 5: Below

Cross section X – X' showing the nickel and cobalt intercepts from the recently completed reverse circulation infill drill hole programme. The nickel – cobalt mineralisation forms a flat-lying zone, close to surface, concentrated where weathering of the ultramafic bedrock is most intense.



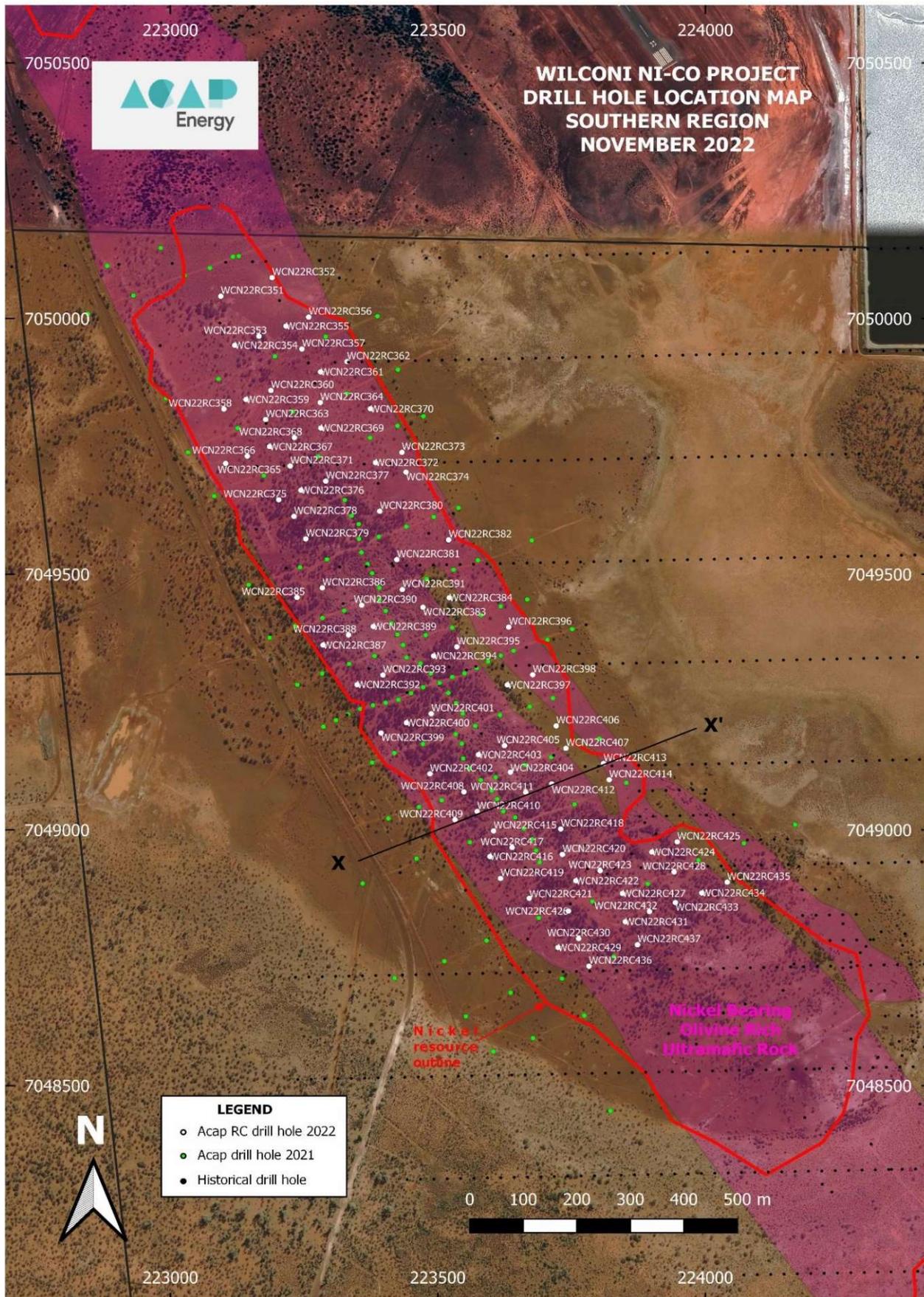


Figure 3: Wilconi Southern Resource Area drilling showing underlying nickel bearing host rock, outline of the nickel resource, drill hole points and location of cross section X – X’ shown in Figure 5.

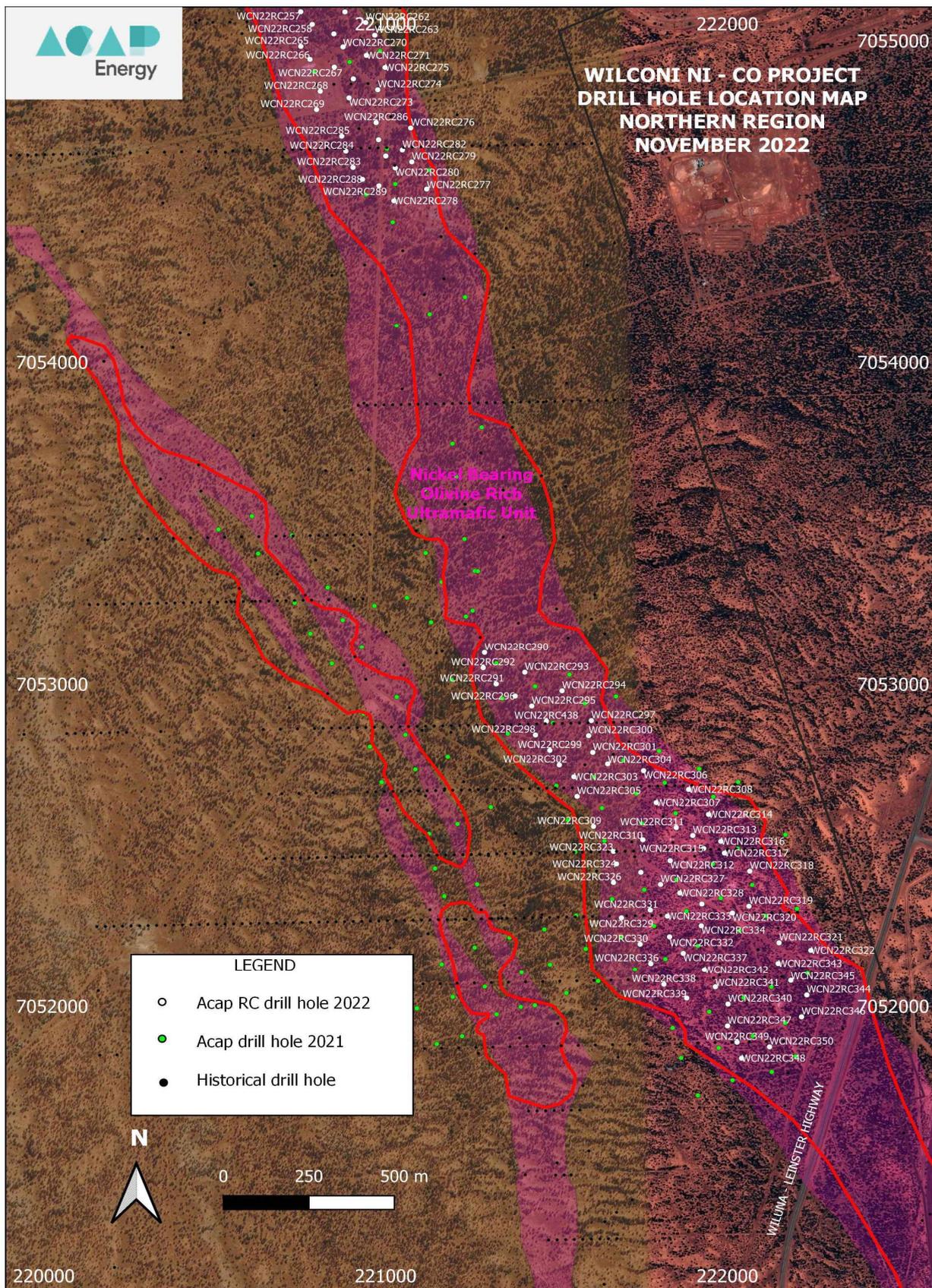


Figure 4: Wilconi Northern Resource Area showing underlying nickel bearing host rock, outline of the nickel resource, historical and recent drillhole locations.

Corporate

Directors:

Jiandong He

Andrew Tunks

Zhenwei Li

Michael Liu

Paul Ingram

Jijing Niu

Mark Syropoulo

New Country Manager appointed

During the quarter, A-Cap announced it had appointed experienced mining executive, Mr Peter Sheehan, as the company's new Country Manager in Botswana to drive the development program at its flagship Letlhakane Uranium Project, Mr Sheehan's 25-year plus career in mining and resources has been highlighted by roles around the world including Managing Director, Chief Geologist, Geologic Consultant, Exploration Manager, and Senior Mine Geologist. Notably, he has vast experience in managing mining work programs in Africa including the management of large exploration teams and feasibility studies. Mr Sheehan will be based in A-Cap's Francistown office until November when the company's Botswana headquarters are relocated to the capital Gaborone.

Capital Structure as at 26 April 2022.

ACB - 1,232,435,060 – Fully Paid Ordinary Shares

ACBAC – 8,000,000 Options Expiring 31 Oct 24 10 cents

ACBAB – 14,500,000 Options Expiring 31 Oct 21 11 cents

ACBAQ – 1,250,000 Options Expiring 30 Jun 22 11.5 cents

ACBAS – 24,000,000 Options expiring 31 Oct 24 101cents

ACBAT - 30,000,000 Performance Rights

Market Capitalisation at 22 January 2023 – 99.8 million (last quarter \$86.2 million)

Shareholder Information

2,607 shareholders with Top 20 holding 82.91% (Last quarter end 84.23%)

Payment of fees, salary and superannuation to directors for December 2022 Quarter:

Director fees of \$245k and Consulting fees of \$85k. (As per App 5B Para 6.1.)
(Refer to note at end of App5b)

Details of Expenditure incurred during Quarter

Details of expenditure during the quarter are shown below and in the Appendix 5B released this day.

This update has been authorised on behalf of A-Cap Energy Limited by the Board.

Disclaimers

Competent Person Statement

Information in this report relating to Wilconi Mineral Resources is based on information compiled by Dr Andrew Richmond, a full-time employee of Martlet Consultants Pty Ltd. Dr Richmond is a Member of the AusIMM (#111459) and a Fellow of the AIG (#4840). Dr Richmond has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Richmond consents to the inclusion of the data related to Mineral Resources in the form and context in which it appears.

Information in this report relating to Exploration drill results, is based on information compiled by Mr Harry Mustard, a full-time employee of A-Cap Energy Limited and a member of AusIMM. Mr Mustard has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results Mineral Resources and Ore Reserves. Mr Mustard consents to the inclusion of the data in the form and context in which it appears.

Information in this report relating to cobalt, nickel and associated metals of the Wiluna Cobalt Nickel Project (Wilconi Project), is based on information compiled by Mr Paul Ingram, a director of A-Cap Energy Limited and a Member of AusIMM. Mr Ingram has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting Exploration Results Mineral Resources and Ore Reserves. Mr Ingram consents to the inclusion of the data in the form and context in which it appears.

Information in this report relating to Uranium Exploration results, is based on information compiled by Mr Ashley Jones a consultant of A-Cap Energy Limited and a member of AusIMM. Mr Jones has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results Mineral Resources and Ore Reserves. Mr Jones consents to the inclusion of the data in the form and context in which it appears.

Cautionary Note Regarding Forward-Looking Statements

This quarterly report contains forward looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. The forward-looking statements are made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward looking statements, whether as the result of new information, future events or results or otherwise.

Tenement Information

Held as at the end of the December 2022 Quarter

Tenement Id	Location	Project	Status	Interest at Start of Quarter	Interest at End of Quarter
E53/2076	Wiluna	Wilconi	Granted	55%	55%
E53/1645	Wiluna	Wilconi	Granted	55%	55%
E53/1791	Wiluna	Wilconi	Granted	55%	55%
E53/1794	Wiluna	Wilconi	Granted	55%	55%
E53/1803	Wiluna	Wilconi	Application	55%	55%
E53/1852	Wiluna	Wilconi	Granted	55%	55%
E53/1853	Wiluna	Wilconi	Granted	55%	55%
E53/1864	Wiluna	Wilconi	Application	55%	55%
E53/1908	Wiluna	Wilconi	Granted	55%	55%
E53/1912	Wiluna	Wilconi	Granted	55%	55%
E53/2048	Wiluna	Wilconi	Application	55%	55%
E53/2050	Wiluna	Wilconi	Application	55%	55%
E53/2053	Wiluna	Wilconi	Application	55%	55%
E53/2054	Wiluna	Wilconi	Application	55%	55%
M53/0024	Wiluna	Wilconi	Granted	55%	55%
M53/0026	Wiluna	Wilconi	Granted	55%	55%
M53/0034	Wiluna	Wilconi	Granted	55%	55%
M53/0041	Wiluna	Wilconi	Granted	55%	55%
M53/0049	Wiluna	Wilconi	Granted	55%	55%
M53/0052	Wiluna	Wilconi	Granted	55%	55%
M53/0071	Wiluna	Wilconi	Granted	55%	55%
M53/0092	Wiluna	Wilconi	Granted	55%	55%
M53/0131	Wiluna	Wilconi	Granted	55%	55%
M53/0139	Wiluna	Wilconi	Granted	55%	55%
M53/0188	Wiluna	Wilconi	Granted	55%	55%
M53/1098	Wiluna	Wilconi	Granted	55%	55%

Resource Statement

Lethlakane Uranium Project JORC 2012 Resource Estimate

Cut-off	Total Indicated			Total Inferred			Global Total		
	Mt	Grade U ₃ O ₈ (ppm)	Contained U ₃ O ₈ (Mlbs)	Mt	Grade U ₃ O ₈ (ppm)	Contained U ₃ O ₈ (Mlbs)	Lbs U ₃ O ₈ (000)	Grade U ₃ O ₈ (ppm)	Contained U ₃ O ₈ (Mlbs)
100	197.1	197	85.5	625	203	280.1	822.1	202	365.7
200	59.2	323	42.2	209.7	321	148.1	268.9	321	190.4
300	22.2	463	22.7	81.6	446	80.3	103.8	450	103.1

The 2015 global resource estimate using LUC best reflects the mining methodology envisaged, taking into account the surface miners' selective mining capability, combined with the proposed grade control methodology.

A drill spacing study comparison completed by Perth-based resource specialists Optiro on the Kraken deposit confirmed that at a starting drill spacing of 200m by 200m, the change of contained metal is within +/-10% when drilled down to 100m by 50m drill spacing. The current criteria for inferred resources is nominally greater than 100m by 100m drill spacing. A-Cap has confidence that the deposit will retain its mineralisation continuity when it is further drilled out.

A-Cap continues to assess the LUC resource in terms of mining optimisations. Optimisations of the LUC resource model has been completed to assess the different mining techniques and also to determine the optimal areas for conversion from inferred to indicated resources. The mine scheduling and optimisation work going forward will be undertaken internally, which will allow for considerable savings in external resource modelling and optimisation costs going forward. Furthermore, in-house optimisation and scheduling capabilities will allow the complex nature of the Project to be examined in more detail and continuously.

Wilconi Nickel-Cobalt Project JORC 2012 Resource Estimate

Rounding may cause minor inconsistencies

Category	Cut-Off (Ni %)	Mt	Ni %	Co %	Ni Metal (t)	Co Metal (t)
Indicated	0.5	29	0.80	0.063	230,000	17,900
Inferred	0.5	62	0.70	0.046	430,000	28,500
Total	0.5	90	0.73	0.051	660,000	46,400

Cut-Off (Ni %)	Mt	Ni %	Co %	Ni Metal (t)	Co Metal (t)
0.5	90	0.73	0.051	660,000	46,400
0.6	70	0.78	0.055	540,000	38,200
0.7	44	0.86	0.061	380,000	27,100
0.8	25	0.94	0.069	240,000	17,400
0.9	13	1.02	0.078	130,000	10,300

Company Profile

A-Cap Energy is an Australian resources company focused on the development of critical minerals serving the world’s path to carbon net zero. Amid renewed global focus on nuclear energy, the company’s flagship Letlhakane Uranium Project in Botswana hosts one of the world’s top 10 undeveloped uranium resources – 365.7 million pounds of contained U_3O_8 (100ppm U_3O_8 cut-off).

A-Cap’s Wilconi Project, which represents the company’s first nickel-cobalt laterite project interest, is being advanced in response to the significant growth expectation in the supply of battery materials to the OEM automotive and battery industries. The company aims to establish key strategic and commercial relationships to take advantage of material processing and refinery technologies according to the highest Environmental, Social and Governance (ESG) standards.

