



ASX & Media Release

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ASX Symbol

ARL

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Company Secretary

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Issued Capital

Fully Paid Ordinary Shares
199,682,915

Performance Rights
3,513,400

Options
3,000,000

ABN 30 614 289 342

Kalgoorlie Nickel Project – Goongarrie Hub DFS Progress Update

Highlights

- Four drill rigs on site completing resource definition, geotechnical and hydrogeology drilling
- DFS Owners Team Recruitment nearly complete
- Multiple contracts and work packages continue to be approved and awarded as DFS activities progress

Ardea Resources Limited (**Ardea** or the **Company**) is pleased to provide an update on the progress being made on the Kalgoorlie Nickel Project (**KNP**) – Goongarrie Hub Definitive Feasibility Study (**DFS**).

The DFS is being managed by Ardea subsidiary, Kalgoorlie Nickel Pty Ltd (**KNPL**) and funded by Sumitomo Metal Mining Co., Ltd (**SMM**) and Mitsubishi Corporation (**MC**) (the Consortium) with a budget of \$98.5M¹.

Ardea, and the Consortium are working collaboratively with the KNPL team to complete the DFS to support development of the KNP - Goongarrie Hub, as a multi decade, low operating cost, nickel-cobalt producer².

Recruitment of key roles within the KNPL team is nearly complete with 40 personnel now contributing to the DFS, along with multiple specialist service providers. Teams from Ardea, SMM and MC are also contributing to the study.

Up to five drill rigs have been operating on site. One Reverse Circulation (**RC**) rig completing resource definition drilling. Two core rigs completing resource definition and geotechnical drilling. Two hydrogeology drill rigs undertaking a combination of drilling for ground water assessment and production bores. Currently four rigs are operating with a fifth returning to site in February 2025.

Multiple contracts and work packages continue to be approved and awarded, including several Metallurgical Testwork packages; Water Assessment works and pipeline layout; Mining/Tailings Package Contracts; Hydrogeology Technical Supervision, Data Analysis and Reporting; Production Bore Drilling; Early Contractor Involvement (**ECI**) – Autoclave Agitator; and ECI – Autoclave and Flash Vessels.

Managing Director and CEO Andrew Penkethman noted:

“Ardea are pleased to see the strong progress being made on the DFS to advance the KNP – Goongarrie Hub toward production, as Australia’s next major nickel-cobalt producer² that meets the high ESG standards expected from modern society.

With the KNPL Owners Team now in place, working collaboratively with Ardea, Sumitomo Metal Mining and Mitsubishi Corporation, DFS deliverables are set to accelerate and we look forward to keeping stakeholders informed on progress.”

¹ Ardea ASX announcement 30 August 2024.

² Ardea Pre-feasibility Study ASX announcement 5 July 2023.



Drilling Progress

RC drilling is being completed on a 40m x 40m drill hole spacing to define Measured Mineral Resource that will be available for conversion to Proven Ore Reserve, as part of the DFS.

Some diamond drilling is also being undertaken, including twinning RC holes (Figure 1), as part of the Quality Assurance and Quality Control assessment, completed as part of the Mineral Resource Estimate update that will be a DFS deliverable in H2, 2025.

Drilling has been progressing to align with the DFS completion schedule of H2, 2025. To date, 622 resource definition drill holes have been completed, totalling 37,842 meters. The majority of assay results are yet to be received with dedicated drilling updates to be provided over the coming months.



Figure 1: Diamond drill rig completing an RC twin hole for Quality Assurance and Quality Control assessment, as part of the Mineral Resource Estimate update that will be a key DFS deliverable.



DFS Deliverables and Upcoming Updates

The DFS is on schedule to be completed in late H2, 2025.

Additional DFS updates will be provided as activities continue to progress and various workstreams are completed.

Upcoming updates are expected to include the following:

- Process Plant and Process Plant Utilities:
 - Potential viability of increasing the HPAL annual throughput from 3.0 million to 3.5 million tonnes per annum, based on reducing the autoclave residence time from 70 minutes to 60 minutes.
 - Atmospheric Leach circuit treating 0.5 million tonnes per annum.
 - Flowsheet update from Mixed Hydroxide Precipitate to Mixed Sulphide Precipitate as the final product.
- Non-Process Infrastructure.
- Approvals.
- Geology:
 - Drilling results.
 - Mineral Resource Estimate.
- Mining.
- Hydrogeology.

This announcement is authorised for release by the Board of Ardea Resources Limited.

For further information regarding Ardea, please visit <https://ardearesources.com.au/> or contact:

Andrew Penkethman

Managing Director and Chief Executive Officer

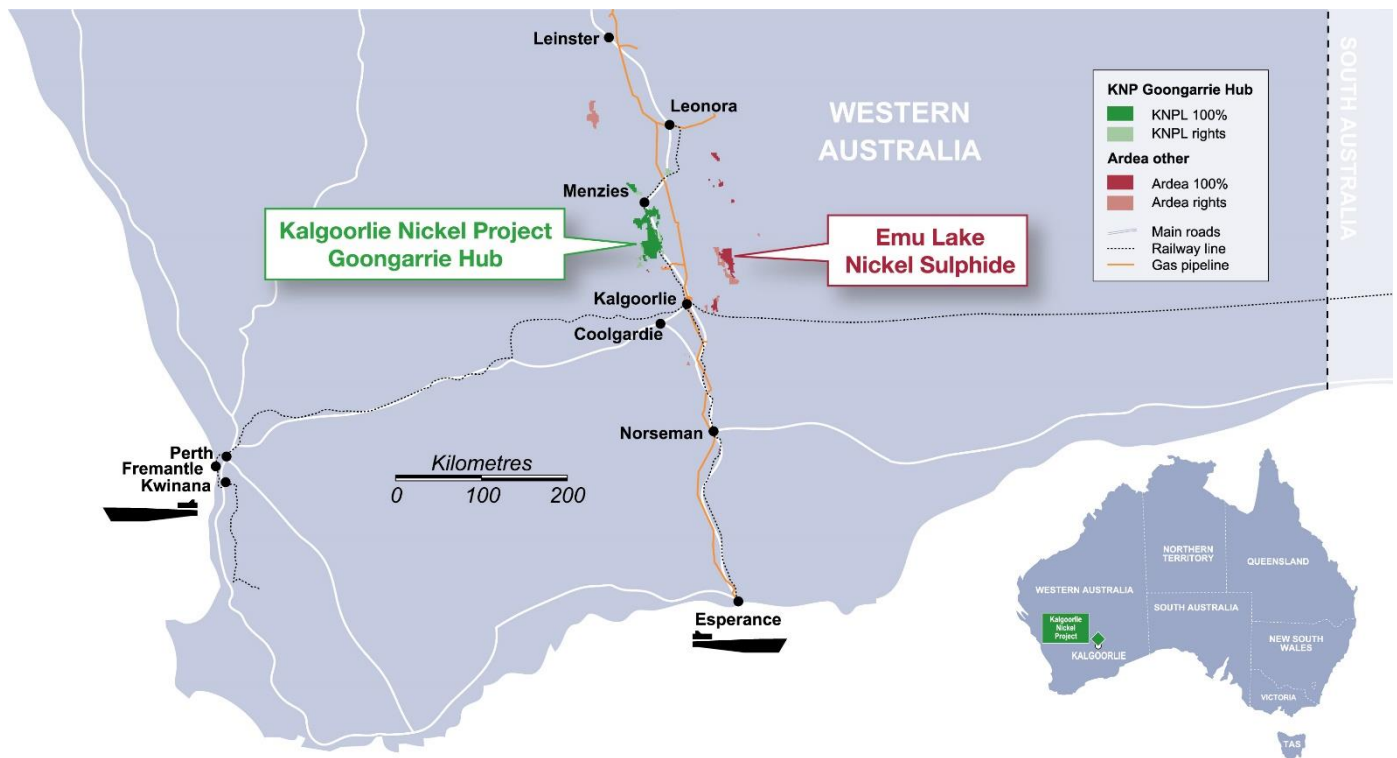
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About Ardea Resources

Ardea Resources (ASX:ARL) is an ASX-listed nickel development company in joint venture with Sumitomo Metal Mining and Mitsubishi Corporation to build, commission and operate a plus 30,000tpa multi-decade nickel operation¹:

- Development of the Kalgoorlie Nickel Project (**KNP**) and its sub-set the Goongarrie Hub, a globally significant series of nickel-cobalt and Critical Mineral deposits which host the largest nickel-cobalt resource in Australia and one of the largest in the developed World at **854Mt at 0.71% nickel and 0.045% cobalt for 6.1Mt of contained nickel and 386kt of contained cobalt**. The Goongarrie Hub has 584Mt for 4.0Mt of contained nickel (Consortium right to earn 50%) and Kalpini Hub has 270Mt for 2.1Mt of contained nickel (Ardea 100% unencumbered interest) (Ardea ASX release 30 June 2023), located in a jurisdiction with exemplary Environmental Social and Governance (**ESG**) credentials.
- Scoping Study initial programs being planned for the Kalpini Hub nickel-cobalt resources.
- Advanced-stage exploration at compelling nickel sulphide targets, such as Kalpini, and Critical Minerals targets including scandium and Rare Earth Elements throughout the KNP Eastern Goldfields world-class nickel-gold province, with all exploration targets complementing the KNP nickel development strategy.



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CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This news release contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of this news release.

This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing and amount of funding required to execute the Company's exploration, development and business plans, capital and exploration expenditures, the effect on the Company of any changes to existing legislation or policy, government regulation of mining operations, the length of time required to obtain permits, certifications and approvals, the success of exploration, development and mining activities, the geology of the Company's properties, environmental risks, the availability of labour, the focus of the Company in the future, demand and market outlook for precious metals and the prices thereof, progress in development of mineral properties, the Company's ability to raise funding privately or on a public market in the future, the Company's future growth, results of operations, performance, and business prospects and opportunities. Wherever possible, words such as "anticipate", "believe", "expect", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time.

Forward-looking information involves significant risks, uncertainties, assumptions, and other factors that could cause actual results, performance, or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, the ability to create and spin-out a gold focussed Company, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, diminishing quantities and grades of mineral reserves, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully. Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information.

Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

Competent Persons statement

The Resource Estimation, exploration and industry benchmarking summaries are based on information reviewed or compiled by Mr. Ian Buchhorn, and Mr Andrew Penkethman. Mr Buchhorn is a Member of the Australasian Institute of Mining and Metallurgy and Mr Penkethman is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Both Mr Buchhorn and Mr Penkethman are full-time employees of Ardea Resources Limited and have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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'. Mr Buchhorn and Mr Penkethman have reviewed this press release and consent to the inclusion in this report of the information in the form and context in which it appears. Mr Buchhorn and Mr Penkethman own Ardea shares.

Ardea wishes to clarify that its current Kalgoorlie Nickel Project (KNP) Mineral Resource Estimate (MRE) following JORC Code (2012) guidelines is:

Camp	Prospect	Resource	Size	Ni	Co	Contained Metal	
		Category	(Mt)	(%)	(%)	Ni (kt)	Co (kt)
KNP TOTAL		Measured	22	0.94	0.079	207	17
		Indicated	361	0.73	0.047	2,622	169
		Inferred	471	0.70	0.043	3,272	200
GRAND TOTAL		Combined	854	0.71	0.045	6,101	386

Note: 0.5% nickel cutoff grade used to report resources. Minor discrepancies may occur due to rounding of appropriate significant figures.

The Mineral Resource Estimate information shown in this ASX announcement has been previously released on the ASX platform by Ardea in ASX release 30 June 2023, in accordance with Listing Rule 5.8.

The Ore Reserve information shown in this ASX announcement has been previously released on the ASX platform by Ardea in ASX release 5 July 2023, in accordance with Listing Rule 5.9.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements noted above and that all material assumptions and technical parameters underpinning the Mineral Resource Estimate and Ore Reserve in the previous market announcements 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 market announcements.



Updated KNP nickel and cobalt Mineral Resource Estimate based on a greater than 0.5% Ni cut-off grade, as at 30 June 2023.

Camp	Prospect	Resource Category	Size (Mt)	Ni (%)	Co (%)	Contained Metal		Estimation Details			
						Ni (kt)	Co (kt)	Method	Source	Year	
Goongarrie	Goongarrie South	Measured	18	0.94	0.085	171	15	LUC	Ardea	2021	
		Indicated	82	0.71	0.049	584	40	LUC	Ardea	2021	
		Inferred	10	0.64	0.033	61	3	LUC	Ardea	2021	
	Highway	Indicated	71	0.69	0.038	487	27	LUC	Ardea	2023	
		Inferred	21	0.67	0.040	141	8	LUC	Ardea	2023	
	Ghost Rocks	Inferred	47	0.66	0.042	312	20	OK	Snowden	2004	
	Goongarrie Hill	Indicated	40	0.65	0.037	259	15	LUC	Ardea	2021	
		Inferred	29	0.60	0.025	176	7	LUC	Ardea	2021	
	Big Four	Indicated	49	0.71	0.047	346	23	LUC	Ardea	2021	
		Inferred	14	0.68	0.043	96	6	LUC	Ardea	2021	
	Scotia Dam	Indicated	12	0.71	0.065	82	7	LUC	Ardea	2021	
		Inferred	5	0.72	0.043	37	2	LUC	Ardea	2021	
	Goongarrie Subtotal		Measured	18	0.94	0.085	171	15			
			Indicated	253	0.69	0.044	1,758	112			
		Inferred	127	0.65	0.037	823	47				
		Combined	398	0.69	0.044	2,753	175				
Siberia	Siberia South	Inferred	81	0.65	0.033	525	27	OK	Snowden	2004	
	Siberia North	Indicated	14	0.72	0.042	102	6	Ni(UC) Co(OK)	Snowden	2009	
		Inferred	72	0.74	0.034	534	25	Ni(UC) Co(OK)	Snowden	2009	
	Black Range	Indicated	9	0.67	0.090	62	8	OK	HGMC	2017	
		Inferred	10	0.69	0.100	68	10	OK	HGMC	2017	
	Siberia Subtotal		Indicated	24	0.70	0.061	165	14			
			Inferred	163	0.69	0.038	1,127	61			
		Combined	186	0.69	0.040	1,292	75				
KNP Goongarrie Hub	TOTAL	Measured	18	0.94	0.085	171	15				
		Indicated	277	0.70	0.046	1,923	127				
		Inferred	289	0.67	0.037	1,951	108				
		Combined	584	0.69	0.043	4,044	250				
Bulong	Taurus	Inferred	14	0.84	0.051	119	7	OK	Snowden	2007	
	Bulong East	Indicated	16	1.06	0.055	169	9	OK	Snowden	2004	
		Inferred	24	0.79	0.053	190	13	OK	Snowden	2004	
	Bulong Subtotal		Indicated	16	1.06	0.055	169	9			
			Inferred	38	0.81	0.052	309	20			
		Combined	54	0.88	0.053	477	29				
Hampton	Kalpini	Inferred	75	0.73	0.044	550	33	OK	Snowden	2004	
	Hampton Subtotal	Inferred	75	0.73	0.044	550	33				
KNP Kalpini Hub	TOTAL	Indicated	16	1.06	0.055	169	9				
		Inferred	114	0.76	0.047	859	53				
		Combined	130	0.79	0.048	1,028	62				
Kalpini Yerilla	Jump Up Dam	Measured	4	0.94	0.048	36	2	OK	Snowden	2008	
		Indicated	42	0.78	0.043	324	18	OK	Snowden	2008	
		Inferred	18	0.63	0.034	116	6	OK	Snowden	2008	
	Boyce Creek	Indicated	27	0.77	0.058	206	16	OK	Snowden	2009	
	Aubils	Inferred	49	0.70	0.066	346	33	OK	Heron	2008	
	Kalpini Yerilla HubTOTAL		Measured	4	0.94	0.048	36	2			
KNP		Indicated	68	0.78	0.049	531	33				
		Inferred	68	0.68	0.057	462	39				
		Combined	140	0.73	0.053	1,028	74				
KNP TOTAL		Measured	22	0.94	0.079	207	17				
		Indicated	361	0.73	0.047	2,622	169				
		Inferred	471	0.70	0.043	3,272	200				
	GRAND TOTAL		Combined	854	0.71	0.045	6,101	386			

Legend: LUC – Local Uniform Conditioning; UC – Uniform Conditioning; OK – Ordinary Kriging.