Kalgoorlie Nickel Project – Goongarrie Hub DFS Update

Resource updates underway as infill drilling program concludes at Goongarrie Hub

Highlights

- **Zero lost time or recordable injuries in the 12 months to 31 May 2025, reflecting the strong safety culture at KNPL**
- **Major study milestone achieved with the completion of the infill RC drilling program, designed to increase the density of drilling and categorisation of Resources in the early mine plan**
- **Key management and technical appointments made during the month, including a Head of Approvals and Compliance, continue to strengthen the Project team**
- **Active stakeholder engagement has continued, with activities undertaken by both KNPL and Ardea**
- **As at 31 May 2025, the Consortium has contributed A$46.1M (unaudited) towards the DFS, representing approximately 47% of the total DFS budgeted expenditure (exc. GST)[1].**

Ardea Resources Limited (**Ardea** or the **Company**) provides an update on the key activities underway at the Kalgoorlie Nickel Project (**KNP**) – Goongarrie Hub (the **Project**) as part of the ongoing Definitive Feasibility Study (**DFS**).

The DFS, with a budget of $98.5M[1], is being managed by Ardea subsidiary Kalgoorlie Nickel Pty Ltd (**KNPL**) and funded by Sumitomo Metal Mining Co., Ltd (**SMM**) and Mitsubishi Corporation (**MC**) (together the **Consortium**).

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 producer[2].

Managing Director and CEO Andrew Penkethman noted:

"Ardea is pleased to provide an update on the DFS activities currently underway to advance the KNP – Goongarrie Hub toward production, as Australia's next major nickel-cobalt producer[2].

The KNPL team consistently demonstrates a strong commitment to technical excellence, with multiple workstreams underway across key areas including geology, mining, metallurgy, process design, permitting and community engagement.

We look forward to continuing to update the market as we advance Australia's largest nickel-cobalt resource[3] toward development as a new source of production that meets the high ESG standards expected from Australia and Japan."

[1] Ardea ASX announcement 30 August 2024
[2] Ardea ASX announcement 5 July 2023
[3] *Ardea ASX announcement, 21 March 2022*

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1. Geology Update

During May 2025, the infill Reverse Circulation (**RC**) drilling programme was completed. The full program comprised a total of 727 holes for 45,735 metres across five deposits. During the month, 28 RC holes were drilled for 1,938 metres focused on Goongarrie South to support resource classification and increase confidence in the mineral inventory. Additionally, four RC holes were drilled at Goongarrie Hill to serve as Quality Assurance / Quality Control (**QA/QC**) twins for diamond drilling (**DD**) holes. With these activities completed, no further resource definition RC drilling is planned, as part of the DFS.

Mineralised neutraliser samples for metallurgical testwork were selected from the remaining half core of the DD holes after assaying, utilising a combination of twin-hole RC assays, geological logging, and core photography to ensure a representative selection of lithologies and geochemical characteristics. One diamond drill rig remained on site at the end of May 2025, drilling large diameter drillholes for tripling of metallurgy DD and RC sample holes across Goongarrie South, Big Four / Scotia Dam, and Highway.

Figure 1: Large Diameter Drillhole underway at Goongarrie Hub. This drilling is being undertaken to source bulk samples for metallurgical testwork and no assay results are available.

Resource estimation updates continued with the commencement of wireframing at the Big Four / Scotia Dam deposit, where first-pass string interpretation was completed and is currently under review. Similar wireframing activities have commenced at Goongarrie South and Highway. These initial wireframes will facilitate geostatistical analysis and preliminary resource estimation.

A joint site visit was conducted by Consortium and KNPL geologists in May 2025 to review drilling operations, examine key geological exposures, and inspect the Siberia North test pumping sites. QA/QC and core processing procedures were also reviewed and discussed to ensure alignment between all parties.

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2. Process Plant & Testwork Update

Continued progress was made on the Process Plant, with Ausenco advancing several key design and engineering activities. Key vendor equipment and Early Contractor Involvement updates were incorporated into the project 3D model along with major building, civil and structural designs, while piping modelling was also advanced.

Equipment selection for power generation was finalised, and the tender process for the Power Options Study was initiated. For the H_2S and Acid Plants, critical safety reviews (HAZOP, HAZID) were completed, design documents were updated and issued for client review, and 3D piping modelling commenced.

Process test work and engineering also progressed well. Uniaxial compressive strength results confirmed that the ore is generally soft to medium-hard, with no hard ores identified. Ore preparation and hydrometallurgical test work continued, including crushing, milling, settling and rheology tests, all of which showed positive results. Zinc removal tests continued, and coupon corrosion testing was finalised. In process design, further studies and scenario modelling using SysCAD were undertaken. Discussions are ongoing to refine process design and material handling strategies.

For Non-Process Infrastructure (**NPI**), the NPI Services Contract was awarded to Primero. Production bore test pumping at Siberia North was completed, demonstrating positive flow rates, which may support a reduction in the number of bores required. Aquifer modelling has commenced, with completion expected in July 2025, and further water volume investigations were continued. Progress was also made on the village and NPI buildings contract, with most architectural and structural deliverables approved. Additional market enquiries were issued for laboratory layout, communications, bussing, and catering services.

3. Permitting and Approvals

Permitting and approvals activities progressed across several key areas. The Economic Impact Assessment, a critical input for the Department of Jobs, Tourism, Science and Innovation (**JTSI)** Lead Agency Status application, has commenced and is expected to be completed by July 2025, with the application on track for submission shortly thereafter. Major Project Status renewal at the Commonwealth level is pending.

The overall approvals strategy was refined to align with the DFS schedule and recent guidance from the Environmental Protection Authority, with project referrals deferred until sufficient technical details are available. A new position, Head of Approvals and Compliance, was filled in May 2025, further strengthening KNPL's capability in this critical area.

Environmental, Social, and Governance (**ESG**) initiatives remained a focus, with continued progress on baseline environmental studies, including detailed assessments of flora, fauna, and endemic species. Implementation of a new stakeholder management system commenced, and new tools are being deployed to enhance environmental and stakeholder information management. Positive engagement continued on Native Title activities, with negotiations on protocols and heritage agreements advanced.

The project team participated in multiple stakeholder forums, including industry conferences and meetings with regulatory agencies, to support approvals and maintain strong relationships with the community and government. Land management activities included progressing mineral rights agreements, reviewing access and infrastructure arrangements, and preparing necessary documentation for ongoing and future land access requirements

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:

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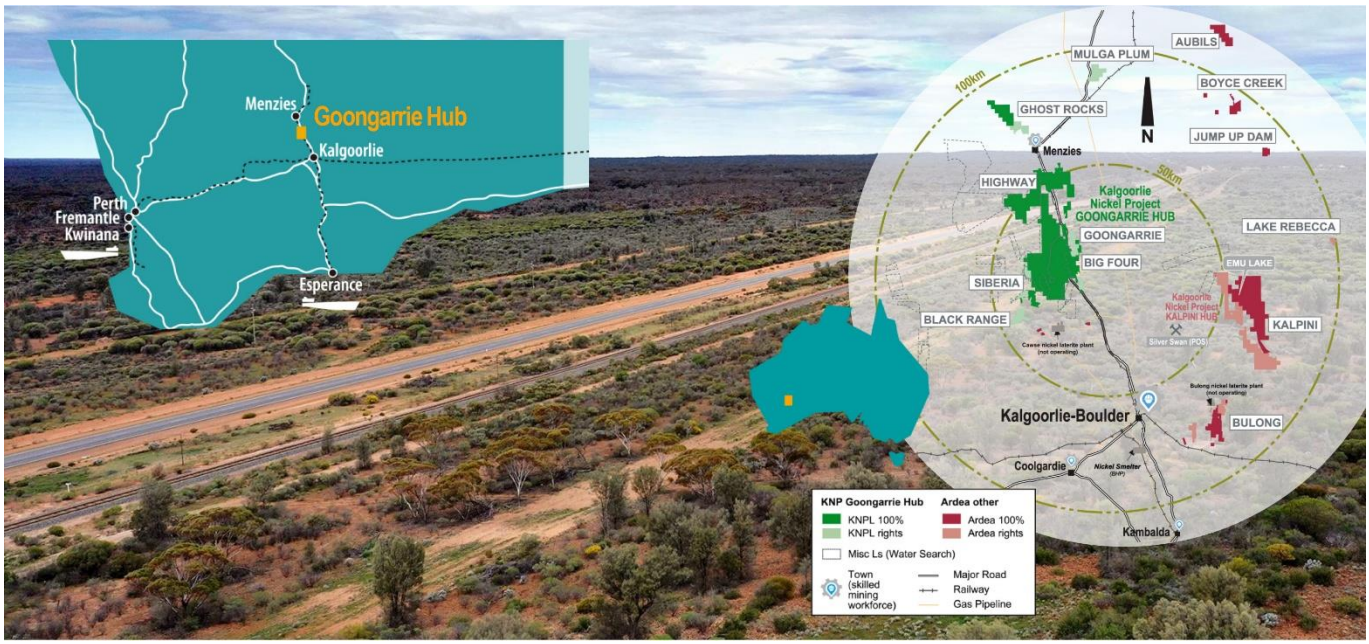
About Ardea Resources

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 operation[2]:

- 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**. Within the KNP, the Goongarrie Hub has 584Mt for 4.0Mt of contained nickel (Consortium right to earn 50%) and the 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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Australian Federal Government - Major Project Status

KALGOORLIE NICKEL

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.

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Competent Persons statement

The information in this report that relates to Exploration Results and industry benchmarking is based on information reviewed or compiled by Mr Andrew Penkethman, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Penkethman is a full-time employee of Ardea Resource Limited and has sufficient experience, which 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 as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Penkethman has reviewed this press release and consents to the inclusion in this report of the information in the form and context in which it appears. Mr Penkethman owns Ardea shares.

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

KINP Hub	Resource Category	Size (Mt)	Ni (%)	Co (%)	Cont. Ni (kt)	Cont. Co (kt)
Goongarrie Hub[1]	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
Sub Total	Combined	**584**	**0.69**	**0.043**	**4,044**	**250**
Kalpini Hub including Yerilla Hub[2]	Measured	4	0.94	0.048	36	2
	Indicated	84	0.83	0.050	699	42
	Inferred	182	0.73	0.051	1,321	92
Sub Total	Combined	**270**	**0.76**	**0.050**	**2,056**	**136**
Kalgoorlie Nickel Project 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	**854**	**0.71**	**0.045**	**6,101**	**386**

1. The Goongarrie Hub is part of KNPL Incorporated Joint Venture. See 30 August 2024 ASX release, KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium.
2. The KNP Kalpini and Yerilla Hubs are known collectively as the Kalpini Hub and remain a 100% owned Ardea asset.

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.

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 Ni (kt)	Contained Metal Co (kt)	Estimation Details Method	Estimation Details Source	Estimation Details 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 Hub	**TOTAL**	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.

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