Ardea Resources Limited

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ASX Symbol
ARL

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Issued Capital

Fully Paid Ordinary Shares
199,682,915

Performance Rights
3,316,400

Options
3,000,000

ABN 30 614 289 342

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QUARTERLY OPERATIONS REPORT

For the Quarter ended 30 September 2024

Ardea Resources Limited (ASX:ARL) (**Ardea** or the **Company**) is pleased to provide the following report on its activities during the September 2024 Quarter.

SEPTEMBER 2024 QUARTER HIGHLIGHTS

- As of 30 September 2024, the Company is in a strong financial position with $16M cash on hand and no debt.
- A binding Shareholders' Agreement with Sumitomo Metal Mining, and Mitsubishi Corporation (the **Consortium**), secured funding for the Kalgoorlie Nickel Project (**KNP**) – Goongarrie Hub Definitive Feasibility Study (**DFS**), with a budget of approximately A$98.5M (ASX release 30 August 2024).
- With $89.9M remaining in DFS funding, the Company is well positioned to complete all planned work programs and advance towards completing nickel-cobalt approvals, development and production.

Kalgoorlie Nickel Project

Ardea's sole priority continues to be progressing the development of the world-significant KNP, commencing with the Goongarrie Hub. The current focus is updating the 2023 Pre-feasibility Study (**PFS**) outcomes to optimise the DFS.

During the September 2024 Quarter, significant progress has been made in advancing the KNP – Goongarrie Hub DFS (Figure 3), including:

- Ausenco awarded the engineering contract for the Process Plant and undertaking various option studies to update the PFS process flow sheet from mixed hydroxide precipitate (**MHP**) to mixed sulphide precipitate (**MSP**).
- The main MSP benefits are higher nickel content per tonne and in Ardea's opinion due to the higher nickel content than in MHP, higher payability.
- The geology team have significantly progressed the infill resource definition reverse circulation (**RC**) drilling program completing 376 holes for 21,660 metres. Assay results are awaited, and results will be reported once they are available and have been interpreted. Preliminary data from the Big Four pit area validates previous resource models.
- Resource model updates continued with wireframe interpretation of domains at Goongarrie South and Big Four progressed, using geochemistry supported by logged geology to refine the wire frames.
- Hydrogeology focused on securing long-term water resources proximal to Goongarrie with the team also completing a review of regional air-core drilling results, historical hydrogeological data and water quality analyses.
- Several potential water sources have been defined, and a workshop held in July 2024 helped consultants and engineers finalise plans for the required borefields.
- High-level design work and cost estimates for the borefield configurations has commenced. Additional exploration and production bore drilling is scheduled to commence at Goongarrie in the December 2024 Quarter.
- Non-process infrastructure preliminary work commenced on water supply systems, and quotations were received for production test bore drilling.
- Architects awarded the contract for the design of non-process buildings and accommodation villages, aligning with the expanding scope of the project.
- Environmental surveys were extended to meet updated standards, and baseline data from flora, fauna and habitat studies were reviewed.

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Strategic Partner Process

On 14 August 2024, Ardea announced that the Consortium had obtained Australian Foreign Investment Board (**FIRB**) approval for the KNP – Goongarrie Hub incorporated joint venture, along with merger control clearance from the Korea Fair Trade Commission (ASX release 14 August 2024).

Ardea executed a binding Shareholders' Agreement with GH Nickel Pty Ltd on 30 August 2024, representing a significant milestone to developing the globally significant KNP – Goongarrie Hub nickel-cobalt development project.

With the signing of the Shareholders' Agreement, all Conditions Precedent to the Transaction have now been satisfied.

GH Nickel Pty Ltd is the vehicle through which Sumitomo Metal Mining, and Mitsubishi Corporation through its fully owned subsidiary Mitsubishi Development Pty Ltd, will subscribe to shares in Kalgoorlie Nickel Pty Ltd (**KNPL**). KNPL is currently a wholly owned Ardea subsidiary company that holds the Goongarrie Hub tenements.

Under the Transaction, KNPL will manage the DFS process, with the Consortium providing 100% of the funding for the DFS up to a budget of approximately A$98.5 million via staged equity contributions over approximately 18 months. Ardea and the Consortium will provide technical and commercial input into the DFS. At the conclusion of the DFS spend, the Consortium will have subscribed to a 35% ownership in KNPL and retain the right to increase its ownership in KNPL to 50% upon a positive FID by the Consortium.

Ardea's collaboration with the Consortium is focused on the KNP – Goongarrie Hub being developed to realise its full potential as a long life (>40 years), low-cost source of nickel-cobalt that meets the high ESG standards expected by society, from the premier resources operating jurisdiction, the Eastern Goldfields of Western Australia (**WA**) (ASX releases 26 April 2024, 14 August 2024 and 30 August 2024).

During the Quarter, Ardea Managing Director and CEO, Andrew Penkethman and KNPL Project Director, Matthew Read and their teams continued to welcome the Consortium to their West Perth offices for DFS technical meetings and to further the collaboration between Ardea, KNPL, Sumitomo Metal Mining, and Mitsubishi Corporation.

Figure 1: During the Quarter, the Ardea Team hosted the Consortium for meetings and also on-site visits to the KNP – Goongarrie Hub. Pictured above is the Slug Hill site, 60 km north of Kalgoorlie, which is an important stop on the Goongarrie site visit itinerary. Looking north from Slug Hill is a view of the Goongarrie project area and the substantial Goldfields Highway and railway infrastructure passing through the Project. The Goongarrie Hub nickel-cobalt deposits are characterised by generally flat terrain which is favourable for project construction and infrastructure.

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Nickel and Cobalt Sector Commentary

Nickel was added to the Australian Critical Minerals list on 16 February 2024, highlighting its key role in the global energy transition. Australia's nickel production is essential for renewable energy technologies and electric vehicle (**EV**) manufacturing, positioning the country as a key supplier of nickel which meets high ESG standards.

Nickel demand continues to grow, driven by the expanding EV market and battery energy storage systems (**ESS**) (Figure 2). High-nickel cathode batteries, critical for lithium-ion technology, offer nearly double the energy density of other chemistries with the majority of lithium-ion battery producers Ardea has engaged with opting for nickel cathode chemistries containing ≥90% nickel.

However, the nickel market is currently oversupplied, primarily due to increased production from Indonesia. London Metal Exchange (**LME**) three-month nickel price fell to US$15,600 per tonne on 25 July 2024, down from a May 2024 peak of US$21,750, marking the lowest level since November 2020. Cobalt metal prices in the seaborne market decreased during the Quarter, trading around US$25,500 per tonne.

In response to low nickel prices, several Australian nickel producers, such as BHP, placed their Western Australian nickel operations into care and maintenance. Despite these cutbacks, LME nickel stocks have continued to rise, reaching 105,000 tonnes by late July 2024.

While short-term oversupply is depressing prices, the long-term outlook indicates that higher prices will be needed to meet future demand as EV production scales up. Western Australia, with its stable geopolitical climate and strong ESG credentials, is well-positioned to attract future nickel investment.

Geopolitical factors, including NATO policies, are also expected to impact global nickel flows. Disruptions involving major producers like Russia may drive prices higher, underscoring Australia's importance as a reliable supplier.

Major economies, such as the United Kingdom and United States, have started to reduce interest rates and other jurisdictions, such as China have commenced stimulus measures. These factors are expected to be supportive of improved sentiment towards the Critical Minerals sector, including nickel.

With Ardea's KNP hosting one of the largest nickel-cobalt resources in the developed World, 854Mt at 0.71% Ni and 0.045% Co for **6.1Mt of contained nickel and 386kt of contained cobalt** (ASX release 30 June 2023), Ardea is in a prime position to provide essential supplies of ESG-compliant nickel and cobalt, potentially along with other Critical Minerals such as scandium.

The current downturn in the Australian nickel sector is considered by Ardea as an opportune time to be completing the DFS and ultimately develop the Goongarrie Hub, as the Company is experiencing increased access to appropriately skilled and experienced personnel and service providers. In this environment there is increased opportunity to contain costs and maximise project value engineering.

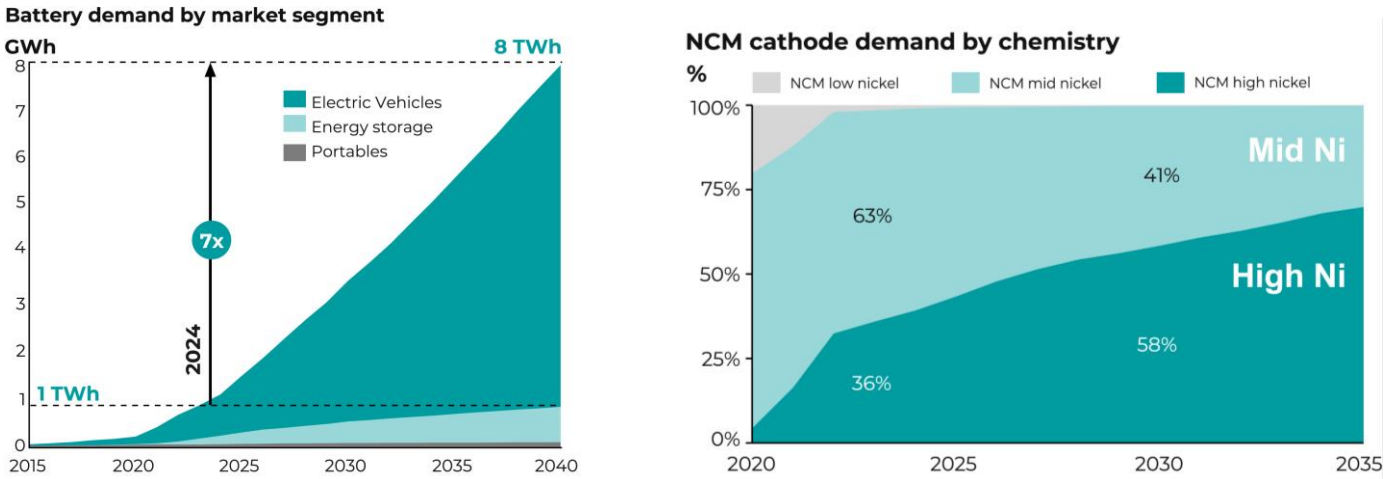

Figure 2: Battery demand to grow 7-fold by 2040, while high-nickel cathodes to push up nickel demand over the long term. Graphs after: © Benchmark Mineral Intelligence, October 2024; Used with permission.

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Health and Safety

This Quarter's focus was site activities and in particular the infill resource definition drilling program, ensuring that all contractors have the appropriate Work Health Safety (**WHS**) systems in place to comply with the contract and their responsibilities. The KNPL contract template specifically requires that the contractor's WHS systems meet the KNPL system.

Two main drilling contractors were mobilised: a local earthworks contractor; and geology consultancy to manage the sampling and reporting. A labour supply agency was also engaged to supply geology personnel to perform sampling duties for the RC drilling program. An additional drilling contractor is programmed to commence mid-October 2024, as well as another earthworks contractor and other smaller contractors to commence on the project in the coming month.

KNPL's Work Health and Safety suite of documents were developed, reviewed and entered into the Document Control System as Issued for Use. This includes:

- Four Plans (Mine Safety Management, Emergency, Principal Mine Hazard Management and Radiation Plans).
- Twenty eight Procedures.
- Seventy seven registers.
- Checklist and forms.
- Fifteen Safe Works Method Statements (**SWMS**).

There are still approximately 30 documents being reviewed or in the process of development for works not programmed at present, or until construction commences.

The KNPL induction and orientation processes were revised and amended to include the drilling, environmental and personal health hazards. These systems will continually be reviewed and updated as potential areas of concern are identified.

There was a strong focus in the operations team on personal health and safety with a review of the safe work method statement and an emphasis on Personal Risk Assessments (**Take 5** safety checklist) resulting in a pocket size form now in use with positive results.

There was a continuing focus on working in remote conditions. This was raised as a major concern at the KNPL Monthly Safety Meeting and continues to be a regular agenda item as the Summer months approach.

The newly appointed Field and Operations Manager is seeking options for implementing an updated vehicle and personnel real time tracking system to ensure the operational team safety of its personnel in remote locations.

An audit of the KNPL Operation Camp and risk assessment identified a need for defibrillator access onsite at remote locations and leases. Expected response times of the closest emergency services are lengthy due to distance from remote areas, and this was pivotal in the decision to purchase defibrillators. A contractor has since purchased several defibrillators, with one placed on their rig, and KNPL is in the process of purchasing a defibrillator for the onsite camp facilities.

Environmental, Social and (Corporate) Governance

Environmental, Social and (Corporate) Governance (**ESG**) considerations are at the forefront for Ardea and KNPL. Project designs and work practices are based on the Company minimising the project development footprint and CO_2 green-house gas emissions when in production. The proposed flowsheet has been enhanced for CO_2 mitigation in the neutralisation circuit through introducing an Atmospheric Leach (**AL**) circuit to assist in neutralising the High-Pressure Acid Leach (**HPAL**) discharge. The AL circuit facilitates upgrade of the site acid plant utilisation and allows Ardea to generate its own site power requirements off-grid through burning elemental sulphur, without relying on fossil fuel for power generation.

Responsible sourcing of materials, through mechanisms such as mandatory reporting of CO_2 footprints for all batteries sold is essential. Traceability is also being implemented with raw materials used in batteries that must be procured according to OECD guidelines for sustainable sourcing (part of Ardea's FBICRC R&D, see following).

Ardea enjoys strong support from the communities in which it operates, primarily the City of Kalgoorlie-Boulder and the Shire of Menzies. The environmental setting, being the Great Western Woodlands, allows excellent post-mining rehabilitation and reafforestation.

Ardea's planned in-pit tailings disposal strategy, incorporating waste rock back fill, stockpiled topsoil, and finally progressive revegetation, minimises land disturbance and accelerates rehabilitation, concurrently with operations (Figure 7).

Critically, at the Goongarrie Hub, mining and processing has no land-use conflict with agricultural activity which occurs in peer nickel laterite centres in eastern Australia.

Vehicle wrecks abandoned on Ardea tenure located near the Goldfields Highway by members of the public and other third-party rubbish was removed in conjunction with the Shire of Menzies and support from our long-term drilling contractor, Kennedy Drilling. All historic and legacy Goongarrie South drill sites within the Goongarrie Hub scheduled key production area have been rehabilitated. A similar campaign is current for the remaining Goongarrie Hub tenements.

During the Quarter, Ardea continued to engage with stakeholders, who are supportive of the Goongarrie Hub development and are looking forward to the contributions the operation can make to the local community through increased skilled job opportunities, training and enhancing community contributions.

Stakeholder engagement also continued with the Western Australian Government, the Shire of Menzies, City of Kalgoorlie-Boulder and Traditional Owner groups.

The Commonwealth, via agencies, such as Austrade, the Critical Minerals Office (**CMO**) and Major Projects Facilitation Agency (**MPFA**) continues to be updated with Ardea's progress on its DFS. The MPFA will also work with Ardea in re-applying for Major Project Status for the Kalgoorlie Nickel Project, including the Goongarrie Hub, which is due to expire after three years in March 2025. With Ardea already having Major Project Status, it will support future Commonwealth assistance and liaison with Federal and State approvals agencies.

In having a West Kalgoorlie Operations Office, Ardea and KNPL maintains a permanent presence and regular community engagement.

ESG Compliance

In March 2024, the Company completed its updated ESG assessment and reporting submission by internationally accredited Digbee ESG™ with the result of a markedly improved final score of A in both Corporate and the Kalgoorlie Nickel Project. As Ardea grows from exploration through to development and mining, it will continue to strive to achieve the highest possible, AAA rating (ASX release 9 May 2024).

As Ardea continues its multiple DFS workstreams into 2025, the results will enable more detailed and on-going reporting of ESG and updates to its Life Cycle Assessment.

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1. KALGOORLIE NICKEL PROJECT - GOONGARRIE HUB

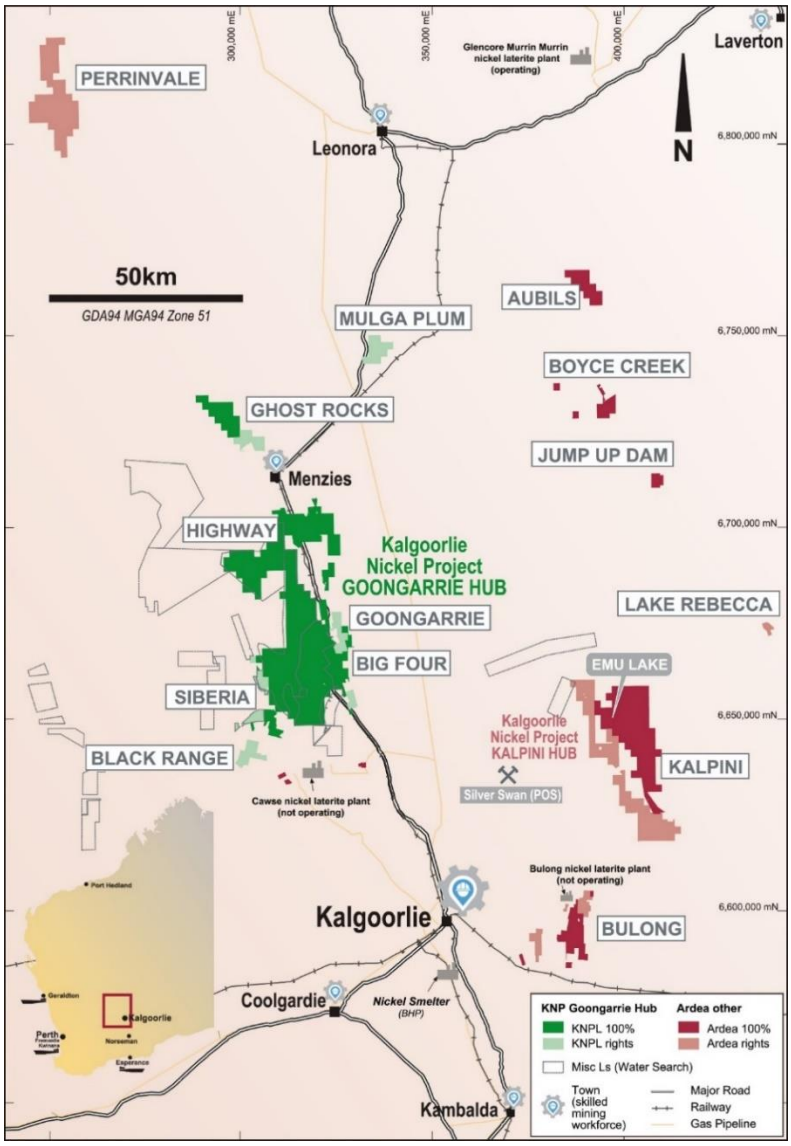
The Goongarrie Hub is located 70km northwest of the mining centre the City of Kalgoorlie-Boulder and is the premium ore feed within the broader KNP (Figure 3). Resources from the Goongarrie, Big Four, Highway and Siberia North nickel-cobalt laterite deposits are planned to be the base load feed for a processing operation located at Goongarrie South.

The mineral resources at Goongarrie are dominantly the premium goethite style and extend continuously over 25km of strike and at Highway, 30km north, over a further strike length of 10km (Figure 3). All key Goongarrie Hub mineral resources are located on granted mining leases with tenure 100%-controlled by Ardea.

The project also has ready access to high-quality infrastructure with the Goldfields Highway, rail line, fibre optic cable and power infrastructure passing through the project area (Figure 3 and 4). The Goldfields gas pipeline is located some 30km to the east and there are two port options, these being Esperance and Kwinana, that are well serviced by the KNP road and rail network.

Significantly, the KNP is located on the rail connection to the developing battery hub at the Port of Kwinana industrial area immediately south of Perth, as well as east to Port Augusta and developing low-carbon energy hubs on the eastern Australia seaboard.

Ardea is actively engaged with Federal and State agencies and statutory authorities who are coordinating the push for a downstream battery industry within Australia through “Team Australia” and the State of Western Australia through “Team WA”.



All the Lithium-Ion-Battery (**LIB**) feedstocks, including nickel and cobalt, are available in Australia, and Western Australia in particular, at the scales required for World-significant green energy centres of excellence.

Figure 3: (left) KNP location plan. Projection GDA94 Zone 51

Figure 4: (below) Aerial image at Ardea’s Goongarrie Hub, at Goongarrie South, looking south towards Kalgoorlie-Boulder showing road and rail infrastructure within the granted mining leases upon which the resources are located.

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Highlights

Ardea's focus remains development of the KNP – Goongarrie Hub, which is managed by Ardea wholly-owned subsidiary KNPL who will complete the Goongarrie Hub DFS.

During the September 2024 Quarter the focus has been team recruitment and awarding of key Contracts to enable KNPL to deliver the DFS, including:

- The hiring of new KNPL team members, which is now substantially complete.
- Awarding the major work packages.
- Process plant and utilities DFS engineering contract was awarded to Ausenco (Ardea ASX release 8 July 2024).
- Ausenco substantially completed work on trade-off studies, design criteria and process flow diagrams.
- The hydrogeological and geotechnical field work and design tenders were awarded.
- Further reviews on the pre-DFS mining schedule with the primary consultant.
- The water supply options trade-off study commenced.
- Infill resource definition RC drilling work progressed with 23,482m drilled of the planned total of 44,662m.
- Design of non-process buildings and village commenced.

Processing Research and Development

The Ardea FY2025 Research & Development (**R&D**) is based upon geo-metallurgical research to optimise plant feed to a multi-option plant. The requisite metallurgical experiments are in train, to then optimise plant performance, product range and hence revenue streams from the KNP and its Goongarrie Hub. This is fundamental to delivering the KNP as a world-competitive Critical Minerals project.

Global Patent Application – Mineralised Neutraliser

Ardea lodged patent applications in Australia (AU2022903389) on 11 November 2022, and with the World Intellectual Property Office (WIPO) on 13 June 2023: PCT/AU2023/050520 relating to the use of Mineralised Neutraliser (**Min Neut**) in the unique Ardea process.

Current R&D using litho-geochemistry has identified a significant Mineralised Neutraliser contribution from high in the regolith profile in what is now termed Relic Saprock (usually within 20m of surface). This new concept is being tested in current RC drilling and to date results from Big Four are encouraging.

Scandium and Rare Earth Elements

CSIRO-Ardea continued conceptual nickel sulphide and hydrothermal alteration target concepts at the Highway Nickel Prospect pursuant to an Exploration Incentive Scheme (**EIS**) jointly State government/Ardea funded diamond core hole ("Nickel Sulphide Prospectivity Confirmed and the Lithium-Caesium-Rubidium bearing intrusives in the Highway EIS drillhole." ASX release 15 December 2023). Based on the EIS research, it is planned that DFS drilling at Highway will include a multi-element assay suite to quantify the potential Sc-REE-Lithium-Caesium-Tantalum (**LCT**) potential, as well as better define the Mineralised Neutraliser role in the plant.

Future Battery Industries – Cooperative Research Centre (FBICRC)

Ardea continues to support the FBICRC developments and have monitored progress over the Quarter. No specific requests for material or intellectual support were received during the period.

Australian Research Council

Ardea continues to support the Australian Research Council's (**ARC**) Industrial Transformation Training Centre in Critical Minerals.

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Bench-scale Metallurgy

Bench scale metallurgical testing for the DFS commenced in July 2024. Initial testing is focused on leaching tests for the goethite (and magnesian ore as part of neutralisation). This work includes assessing ore autoclave residence time of 60 minutes to validate the increased annual throughput from 3.5Mtpa (PFS) to 4Mtpa (DFS).

Test work for the ore preparation has been scoped and is to be conducted by an accredited Perth-based laboratory. The test work is mainly intended to generate the leach feed samples for the downstream testing.

The leaching test work commenced, downstream rheology and waste characterisation test work is being scoped and prepared for quotation.

Flowsheet Research and Development

Historic beneficiation bench scale test work from the Vale Inco PFS in 2008 continues to be modelled to identify additional opportunities.

This knowledge is being used to ratify the “beneficiation rules” (especially cut-off grades and criteria for selecting processing options for a given ore block within the Ore Reserve block model). This will improve the accuracy of the mine model and improve the overall resource utility.

An ore preparation circuit of three trains has been modelled. Two are for goethite grind or beneficiable HPAL ore feeds. The third train will process magnesian AL ore feed and Mineralised Neutraliser on a campaign basis.

Geology

The work focus is RC infill resource drilling (Figures 5 and 6).

The RC drill program has been designed to upgrade nickel-cobalt laterite resources to the Measured category for the first 5-year open pits (888 holes for 44,662m on a 40x40m spacing). This work stream was significantly advanced during the Quarter, with 376 holes drilled for 21,660 metres completed. All holes at Big Four and Scotia Dam have been completed and drilling has commenced at Highway (249 holes for 5,800 metres planned).

The infill RC drilling has intersected expected widths of nickel laterite mineralisation (termed Clay Upper and Clay Lower). Initial geochemical assay results are being compiled.

Geotechnical drilling for pit design slope parameters will commence in the December 2024 Quarter.

Resource Workflows

Resource workstreams during the September Quarter 2024 consisted of preparation work for updating Mineral Resource Estimates for the Goongarrie Hub deposits.

Interpretation of the DFS mineral resource wireframes continued at Goongarrie South and Big Four, using a combination of geochemistry and logged geology.

The KNP global Mineral Resource Estimate (**MRE**) (using a 0.5% Ni cut-off grade) stands at **854Mt at 0.71% Ni and 0.045% Co** for **6.1Mt of contained nickel and 386kt of contained cobalt** (Table 1 – ASX release 30 June 2023). All the resources are constrained within optimised pit shells using appropriate nickel and cobalt prices, mining and processing costs and pit slope parameters to determine the material that could potentially be economically mined in the future. The Mineral Resource has been estimated and reported in accordance with the guidelines of the 2012 edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code (2012). The Mineral Resource Estimate for Goongarrie Hub in Table 1 is inclusive of the Ore Reserve shown in Table 2.

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Figure 5: Infill resource definition drilling underway at the Goongarrie Hub.

Figure 6: Site camp at the Goongarrie Hub.

The crews are housed on site to minimise early and late day highway travel between Kalgoorlie-Boulder and Goongarrie.

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Table 1 - KNP nickel and cobalt MRE based on a greater than 0.5% Ni cut-off grade. Minor discrepancies may occur due to rounding of appropriate significant figures. Legend: LUC – Local Uniform Conditioning; UC – Uniform Conditioning; OK – Ordinary Kriging.

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***			
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
KNP Yerilla Hub	**TOTAL**	Measured	4	0.94	0.048	36	2			
		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***			

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Ore Reserve

The 2023 PFS (ASX release 5 July 2023) defined an Ore Reserve of **194.1Mt at 0.70% Ni and 0.05% Co** for 1.36Mt contained nickel and 99kt contained cobalt (Table 2). Other Goongarrie Hub deposits (Ghost Rocks, Siberia South and Black Range) have not been included in the current Ore Reserve and provide potential to significantly extend the mine life.

Table 2 - KNP - Goongarrie Hub Ore Reserve Summary consisting of ore above 0.5% Ni as the feed stock for the processing facility, and ore as Mineralised Neutraliser above 0.5% Ni equivalent (Nieq) and Loss on Ignition (LOI) above 25%.

	Ore >= 0.5% Ni					Ore > 0.5% NiEq and LOI > 25%					Total Ore				
Deposit	Mt	Ni %	Co %	Ni kt	Co kt	Mt	Ni %	Co %	Ni kt	Co kt	Mt	Ni %	Co %	Ni kt	Co kt
Proven															
Goongarrie South	16.7	0.96	0.09	160	15	0.05	0.43	0.03	0.20	0.01	16.7	0.96	0.09	160	15
Sub-total	**16.7**	**0.96**	**0.09**	**160**	**15**	**0.05**	**0.43**	**0.03**	**0.20**	**0.01**	**16.7**	**0.96**	**0.09**	**160**	**15**
Probable															
Big Four/Scotia Dam	34.9	0.76	0.07	265	23	0.8	0.38	0.04	3	0	35.7	0.75	0.06	268	23
Goongarrie South	33.6	0.79	0.07	265	23	1.8	0.40	0.03	7	1	35.4	0.77	0.07	272	24
Goongarrie Hill	15.8	0.70	0.04	110	7	0.1	0.44	0.02	0	0	15.9	0.70	0.04	111	7
Highway	54.0	0.70	0.04	380	22	27.2	0.39	0.01	106	4	81.2	0.60	0.03	486	26
Siberia North	9.2	0.74	0.05	68	4	-	-	-	-	-	9.2	0.74	0.05	68	4
Sub-total	**147.4**	**0.74**	**0.05**	**1,087**	**79**	**29.9**	**0.39**	**0.02**	**117**	**5**	**177.4**	**0.68**	**0.05**	**1,204**	**84**
PROVEN AND PROBABLE TOTAL															
Big Four/Scotia Dam	34.9	0.76	0.07	265	23	0.8	0.38	0.04	3	0	35.7	0.75	0.06	268	23
Goongarrie South	50.2	0.85	0.08	425	38	1.9	0.40	0.03	7	1	52.1	0.83	0.07	432	39
Goongarrie Hill	15.8	0.70	0.04	110	7	0.1	0.44	0.02	0	0	15.9	0.70	0.04	111	7
Highway	54.0	0.70	0.04	380	22	27.2	0.39	0.01	106	4	81.2	0.60	0.03	486	26
Siberia North	9.2	0.74	0.05	68	4	-	-	-	-	-	9.2	0.74	0.05	68	4
TOTAL	**164.1**	**0.76**	**0.06**	**1,247**	**94**	**30.0**	**0.39**	**0.02**	**117**	**5**	**194.1**	**0.70**	**0.05**	**1,365**	**99**

Notes:

1. *The Ore Reserve is reported in accordance with JORC Code (2012). The Ore Reserve information shown in this ASX release has been previously released on the ASX platform by Ardea in ASX release 5 July 2023, in accordance with Listing Rule 5.9.*
2. *The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement noted above and that all material assumptions and technical parameters underpinning the Ore Reserve in the previous market 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 market announcement.*
3. *Ore reserves are reported at a cut-off of 0.5% Ni for primary feed stock to the processing facility, plus Mineralised Neutraliser as ore at a cut-off of 0.5% NiEq and LOI above 25%.*
4. *NiEq defined using Ni + 2.32 x Co.*
5. *The Ore Reserve was evaluated using a base price of US$22,000/t for Ni and US$51,000/t for Co at 85% payable for a Mixed Hydroxide Precipitate (MHP) product, and an exchange rate 0.69 USD/AUD. In view of forward metal price projections averaging US$25,000/t Ni.*
6. *Ore Reserves account for mining dilution and mining ore loss.*
7. *Ore Reserves are reported on a Dry Tonnage Basis.*
8. *Proven Ore Reserves are based on Measured Mineral Resources only and Probable Ore Reserves are based on Indicated Mineral Resources only.*
9. *The sum of individual amounts may not equal due to rounding.*
10. *This Ore Reserve estimate is for a subset of the KNP - Goongarrie Hub deposits being Goongarrie South, Big Four / Scotia Dam, Goongarrie Hill, Highway and Siberia North.*

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Hydrogeology

At Goongarrie all nickel-cobalt-scandium mineral resources are located on granted mining leases. As such, Ardea/KNPL has first rights to any ground water underlying these areas. Past work by Ardea has defined multiple water sources outside the mine area, with water for project development to be sourced from multiple dedicated borefields.

To finalise the early DFS phase of water sourcing, a specialist hydrogeological consultancy completed a detailed data compilation and presentation, which included:

- Results from the recent aircore drill program and all historical hydrogeological work, to identify several future water source alternatives for the Goongarrie Hub.
- Review of the water quality analyses.
- Prepared water supply options and opportunities within 100km of Goongarrie.
- Planning exploration on less advanced opportunities including aircore drilling and passive seismic surveys.

A workshop was held in early July 2024 to discuss results and review all options/opportunities to meet the Goongarrie Hub water demand sourced from several borefields. Consultant engineers have reviewed the results and commenced work to provide high-level engineering design/cost estimates of the borefield configurations. Planned locations for DFS production bore drilling, testing and detailed modelling were completed during the Quarter and are planned to commence during the December 2024 Quarter.

Process Plant

Progress during the Quarter included:

- The Mass Balance was completed and issued to engineering consultant Ausenco to commence design work.
- Updated Process Flow Diagrams were completed.
- Equipment specifications have commenced.
- Equipment sizing for the ore preparation circuits commenced.
- Gas connection and materials of construction options reports submitted for review.

Non-Process Infrastructure

Progress during the Quarter included:

- Work commenced on the preliminary water supply infrastructure following review of the site hydrogeology investigation outcomes.
- Quotations were issued for the bore fields production test bore drilling
- Award of the design of the non-process buildings and accommodation village.

Environment and Rehabilitation

All project development within the KNP is aimed at including systematic and rapid rehabilitation concurrent with operations.

Due to the expanded development footprint of the Goongarrie Hub, as defined in the 2023 PFS (ASX release 5 July 2023), baseline surveys completed in 2018 have been extended and include further surveys to incorporate the latest environmental standards and guidelines.

During the September 2024 Quarter, Ardea received drafts of consultant reports and data from the following expanded baseline surveys: Flora and Vegetation; Terrestrial Fauna; Short Range Endemic Fauna; Targeted Conservation Significant Butterfly and Subterranean Fauna. Review and assessment of the completed surveys will be managed by KNPL's environmental consultant. The contract for the DFS environmental studies and approvals management was awarded during this Quarter.

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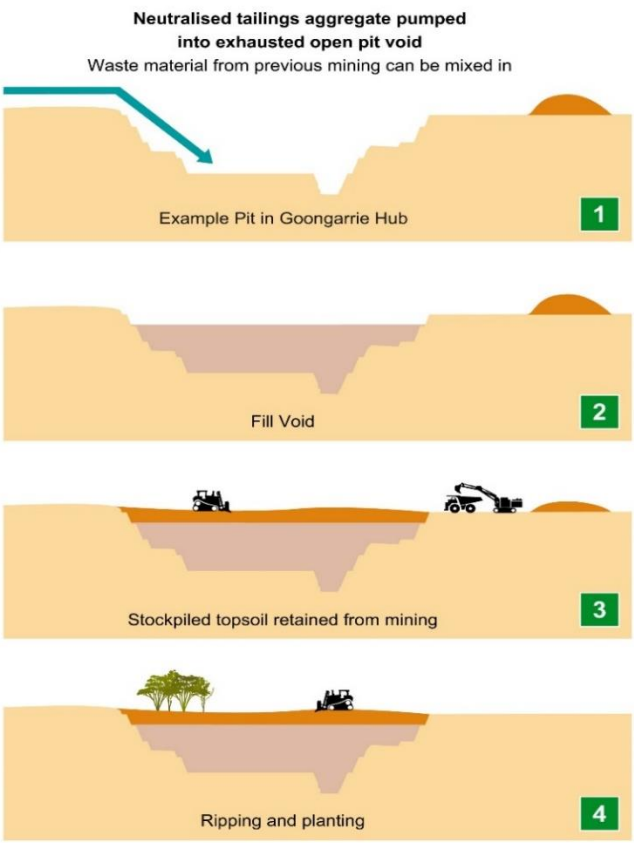
Completion of remaining non-seasonal dependent baseline studies will allow further assessment of the need for the Project to be formally assessed under the State Environmental Protection Act (**EP Act**) and the Commonwealth Environment Protection and Biodiversity Conservation Act (**EPBC Act**). If it can be shown that environmental impacts are low and/or can be adequately managed by other regulatory agencies using other mechanisms, the Environmental Protection Authority (**EPA**) may make an assessment on the referral that the Project is not to be formally assessed.

Similarly, if the EPA believes impacts on some factors are not significant and can be adequately managed by other regulatory agencies using other mechanisms, the number of Key Factors to be assessed by the EPA under the Part IV process would be reduced.



Mine rehabilitation methodology is facilitated through four decades of WA open pit gold mine operations, and the KNP footprint is minimised using mining voids for tailings and mullock disposal. Mining voids will be progressively rehabilitated during operations and returned to their pre mining state, by dressing the back filled open pit voids with topsoil (Figure 7) and then revegetating. Such sites, if unaffected by operations mine dust, would be suited as future solar array locations.

In terms of ESG compliance for hydrometallurgical metal processing, the KNP's benign and manageable environmental footprint contrasts strongly with "wet tropical laterite" projects. The tropical laterites require submarine tailings disposal or valley tailings storage with consequent substantial environmental risk. Tailings disposal in these environments tends to be further complicated by high rainfall and the fact that most tropical laterite deposits are in seismically active regions. Additionally, wet tropical laterite production areas commonly involve non-restorable rain forest habitat destruction.

It is doubtful whether wet tropical laterite hydrometallurgical battery metal sources can comply with the ESG standards required by the Japanese, South Korean, European and north American EV sectors.

Similarly, with more than 3,000mm of annual rainfall in the wet tropical nickel laterites, it is an immense challenge for long-term tailings stabilisation. The KNP semi-arid climate with robust environmental setting is likely just as important as the premium goethite, high nickel grade and excellent ore rheology for its economic attractiveness.

Figure 7: Top left: Planned Goongarrie Hub in-pit tails disposal and rehabilitation strategy.

Bottom left: Showing scarification of disturbed areas, during rehabilitation of Goongarrie South drill sites.

Approvals

Programs of Work (**PoW**) for the Infill Drilling program have been granted at Big Four, Siberia North, Highway and Goongarrie Hill. Program of Work approvals are expected soon for Goongarrie South.

2. KALGOORLIE NICKEL PROJECT – KALPINI HUB

With the Goongarrie Hub now sole-funded by the Consortium to DFS completion at a budget of $98.5 million, Ardea is undertaking initial Nickel Laterite scoping level feasibility reviews and Nickel Sulphide target generation for the Yerilla Hub (Aubils, Boyce Creek and Jump Up Dam Nickel Projects) and Kalpini Hub (Kalpini and Bulong Nickel Projects, Emu Lake nickel sulphide) shown in Figure 9. These "non-Goongarrie Hub" projects are collectively termed the "Kalpini Hub".

Kalpini Nickel Project

Ardea's Kalpini Nickel Project is located 70km northeast of the City of Kalgoorlie-Boulder and covers 121km^2 of contiguous unencumbered granted tenure 100%-owned by Ardea (Figure 8 and 9). Regionally there are two distinct Kalpini ultramafic units each with 20-25km strike within Ardea tenure (Figure 8):

- The Kalpini Eastern Komatiite Belt hosts the Wellington East and Acra North nickel laterite deposits containing 75Mt at 0.73% nickel and 0.04% cobalt, for 549.7kt nickel and 32.6kt cobalt (Ardea ASX release 30 June 2023). The ultramafics are typical of the Walter Williams Formation style consisting of a thick 200-600m sheet with olivine orthocumulate upper and lower contacts and core olivine meso-adcumulate (Dunitic Sheet Flows-Layered Lava Lakes) which weathers to nickel laterite.
- The Kalpini Western Komatiite Belt hosts the Emu Lake Binti Binti nickel sulphide mineralisation. There are at least two fertile nickel sulphide ultramafic flows at Emu Lake. The volcanics are characterised by a bi-modal co-magmatic suite, with each cycle having a footwall dacite volcanic overlain by ultramafic volcanic flows. The ultramafics are orthocumulate flows typically 10-40m thick, with massive, matrix, blebby and disseminated nickel sulphides identified in the Western Ultramafic (**WU**) and Central Ultramafic (**CU**).

Nickel Laterite Studies

The Kalpini Nickel Project includes Nickel Laterite mineralisation associated with significant Rare Earth Element (**REE**) and Scandium credits (Figure 8).

At the Wellington East Prospect, re-sampling historic drill pulps by Ardea during 2020 to 2022 identified significant Rare Earth Element and Rare Metal (**RM**) grades within the historic nickel-cobalt laterite mineralisation (ASX Release 14 March 2022), including:

- WERC0371: 12m at 1.70% nickel, 0.151% cobalt, 28g/t scandium from 20m with;
  - **0.244%** Total Rare Earth Oxide (**TREO**) includes neodymium (Nd), praseodymium (Pr), lanthanum (La), cerium (Ce).
  - **1.320%** Total Rare Metal Oxide (**TRMO**) includes titanium (Ti), yttrium (Y), zircon (Zr), niobium (Nb), hafnium (Hf), tantalum (Ta) and tungsten (W).
- VKPRC0112: 4m at 1.66% nickel, 0.102% cobalt, 40g/t scandium from 29m with;
  - **0.1297% TREO.**
  - **0.7193% TRMO.**

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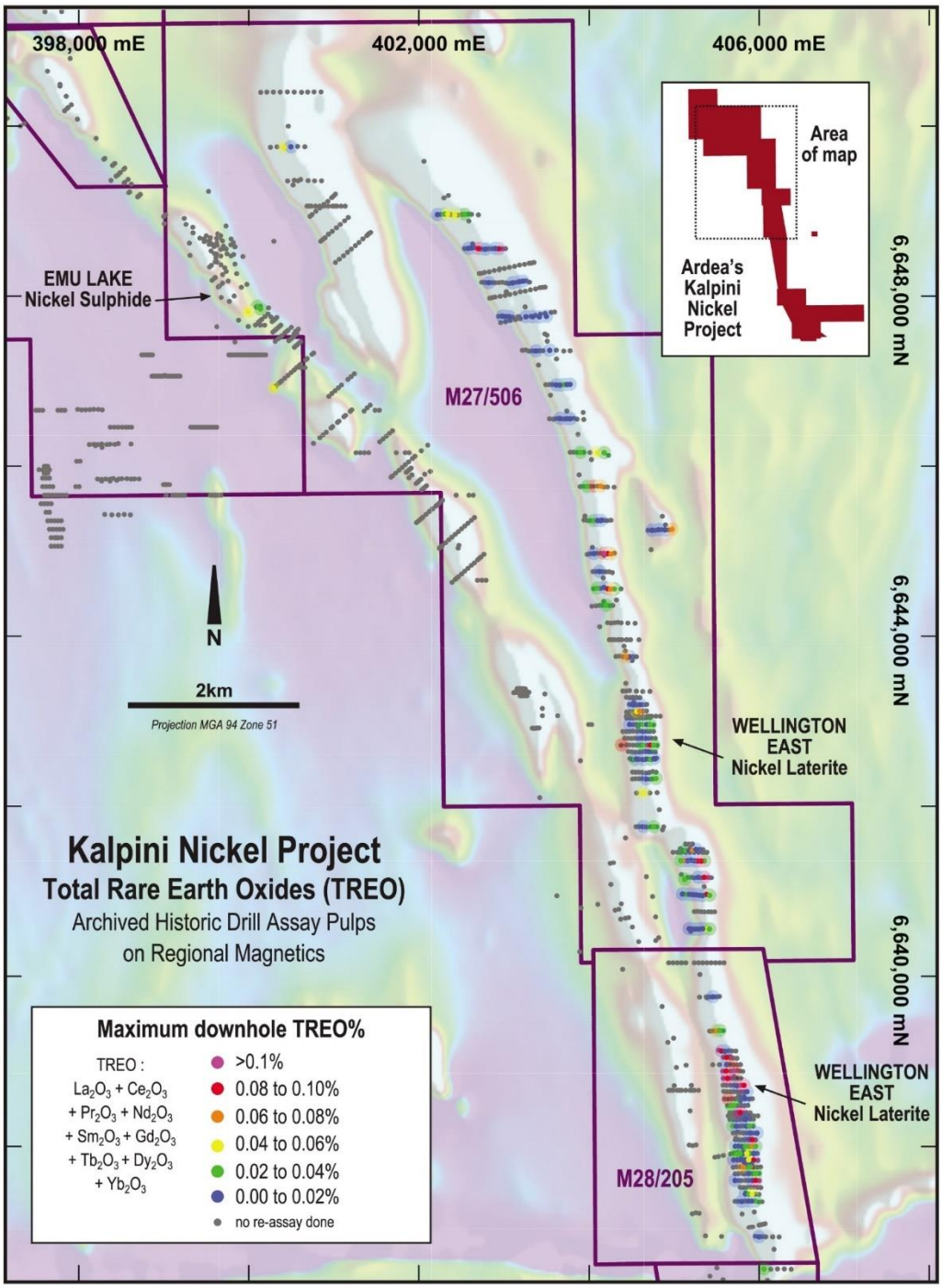

Figure 8: Northern Kalpini Nickel Project, aeromagnetic image showing historic drillholes as black dots, and if available % Total Rare Earth Oxide (TREO) assays, color-coded as per the map legend.

Studies completed last Quarter confirmed the Kalpini REE occurs within the Regolith Cycle 1 Enrichment Zone of the main Nickel Laterite. In contrast, scandium is more enriched within younger Regolith Cycle 2 Laterite Duricrust overlying the Nickel Laterite.

Ardea scandium intercepts (ASX Release 22 June 2017) include:

- AKR0015, **20m at 102g/t scandium** from 38m; and AKR0017, **6m at 463g/t scandium** from 28m.

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Nickel Sulphide Exploration

Ardea's extensive and strategic land holding in the Eastern Goldfields of WA comprises >3,480km^2 of tenements and in addition to the globally significant nickel-cobalt-scandium KNP resources, is highly prospective for nickel sulphides and other Critical Minerals notably REE (Figure 9).

Nickel sulphide also has potential value for a nickel laterite operation, in that it is a potential addition to any goethite autoclave feed for exothermic heating (optimise steam use), Eh reduction to control hexavalent chromium and adding nickel and sulphur units to the autoclave reaction vessel, and typically improving overall nickel recoveries.

An additional benefit is that metal concentrations considered deleterious to conventional nickel sulphide flotation concentrator processing do not affect the HPAL process, opening the possibility of mineral extraction from nickel sulphide deposits that may otherwise be overlooked.

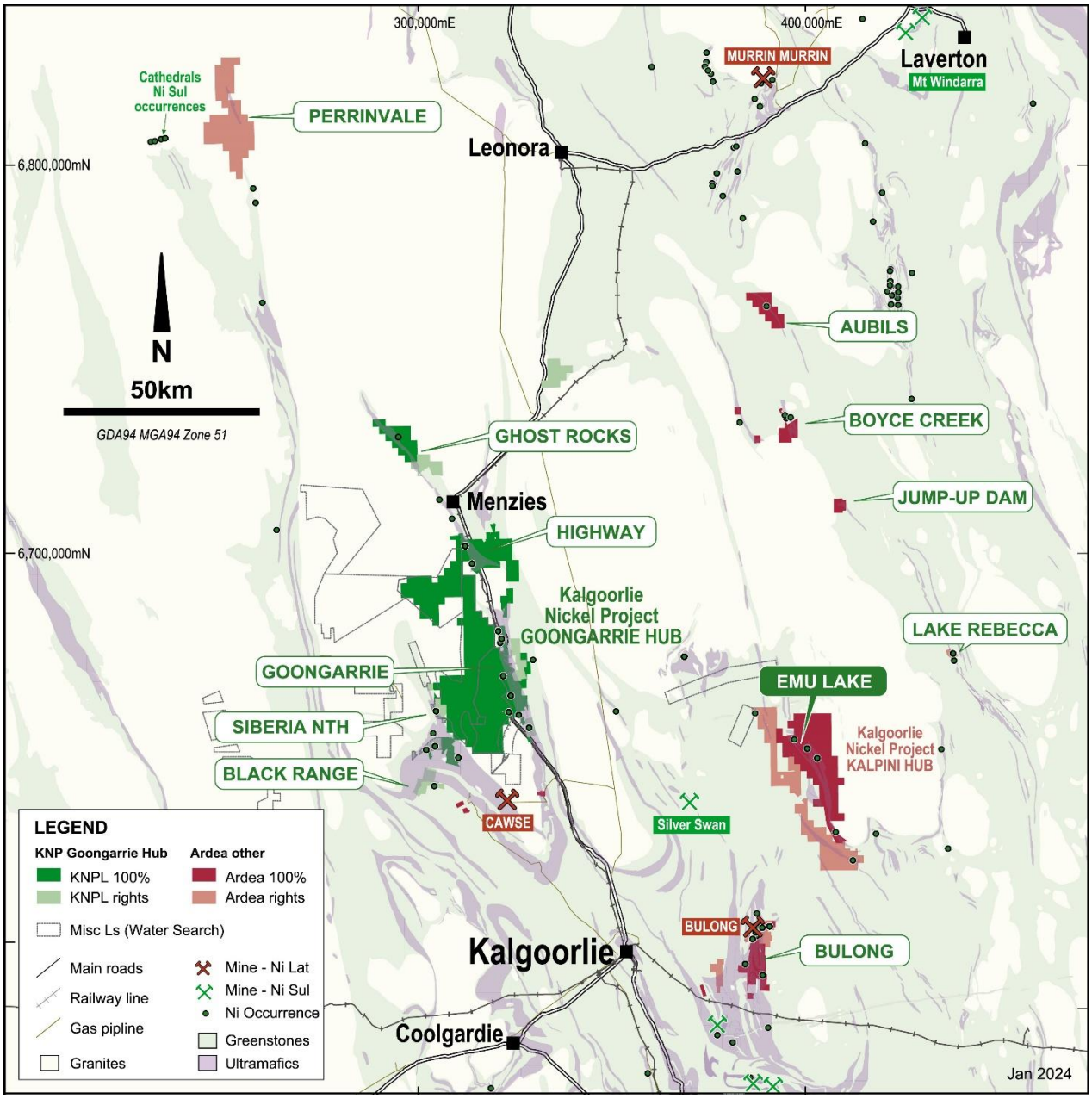

Figure 9: Ardea tenement plan highlighting the location of the Kalpini Hub, Emu Lake Nickel Sulphide Camp and nickel mines and deposits in the region. Projection MGA 94 Zone 51.

The massive nickel-copper-PGE sulphides discovered at the Binti Prospect in the Kalpini Project (e.g. AELD0003: 2.72m at 5.42% Ni and 0.85% Cu from 391.04m – ASX release 14 January 2022) occur in the Kurnalpi Terrane. Ardea holds over 20km strike of the prospective Western Ultramafic sequence that is largely unexplored and highly prospective for primary magmatic nickel sulphide mineralisation (Figure 10).

The plan for the Kalpini Hub is to postpone proposed nickel sulphide drill exploration activities until after KNPL priority DFS workstreams have settled in. Low cost/low impact work such as field mapping and geo-metallurgical interpretation have continued during the Quarter. An executive search for a project manager for designed Scoping Studies has been completed with commencement expected in 2025.

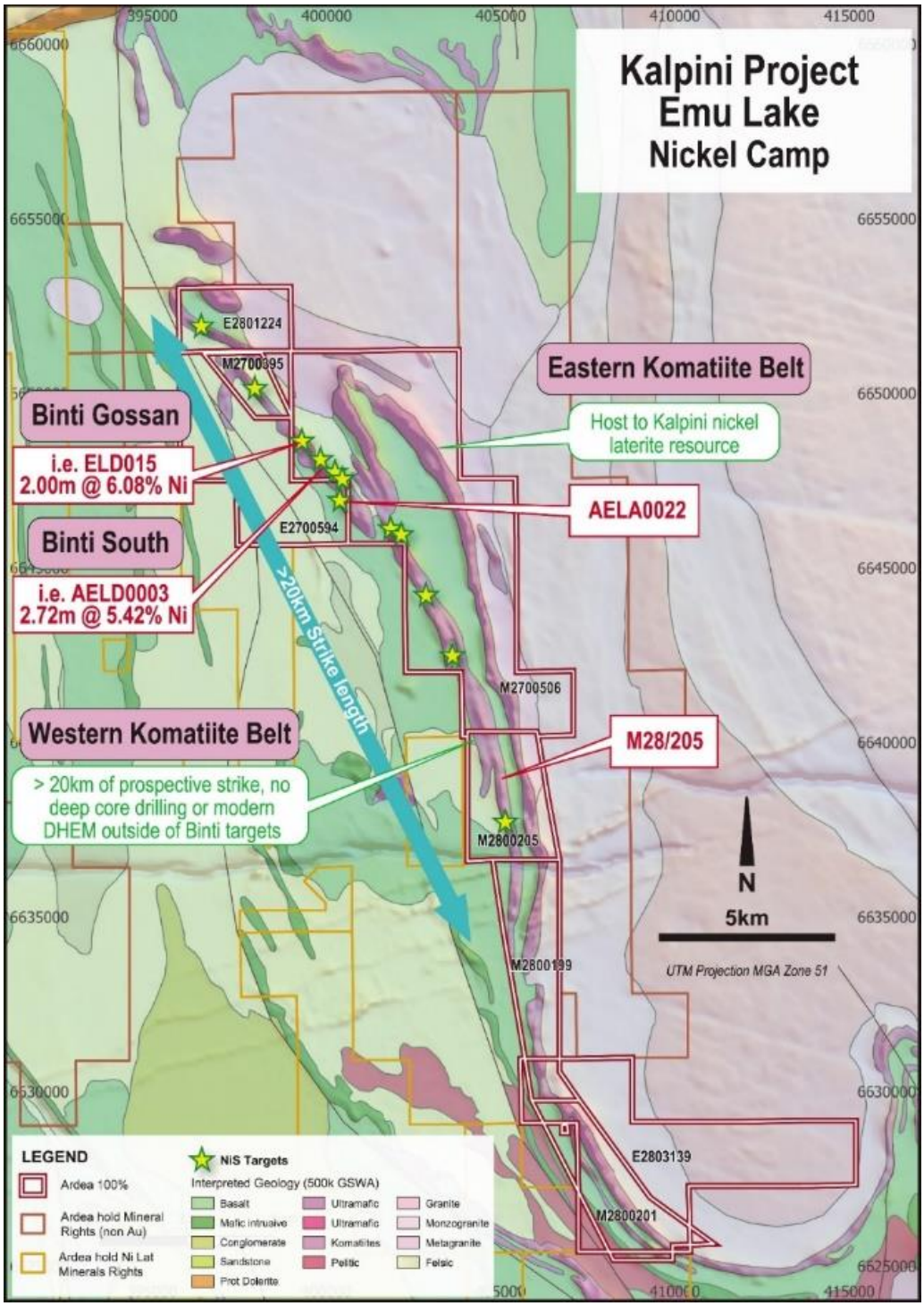

Figure 10: The Kalpini Project showing interpreted geology and Komatiite Belts. The historic nickel laterite resources are located on the Eastern Komatiite Belt, with the Western Belt highly prospective for nickel sulphide (NiS) mineralisation (Ardea ASX release 14 January 2022). Tenements are shown, with NiS targets (stars) (Ardea ASX release 2 May 2023). Projection MGA 94 Zone 51.

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Critical Mineral Exploration

Highway Nickel Project

An application for EIS Round 29 was submitted for three diamond holes on Highway tenement M29/214, following up from the Round 26 EIS drillhole which defined fertile horizons of an LCT intrusive system (ASX release 15 December 2023). The Round 29 Submission was successful with an offer up to a maximum of $180,000 for the three drillholes testing the Highway LCT system and Walter Williams Formation komatiite basal contact nickel sulphide potential.

Detailed drillhole planning has been completed and assay results from the current Goongarrie Hub infill RC drilling are awaited for final drill collar confirmation.

Mt Magnetic Nickel Project

Tenure as P25/2837 to 2839 was applied for along strike at the southern boundary of the Ardea Mt Magnetic project area targeting Layered Mafic Complex nickel-copper-PGM sulphide mineralisation and Nickel Laterite within the overlying regolith (Ardea Bulong East Mineral Resource Estimate 40Mt at 0.90% Ni and 0.054% Co, contained 359kt nickel and 22kt cobalt, ASX Release 30 June 2023).

Taurus Nickel Project

Tenure as E25/657 was applied for along strike at the northern boundary of the Ardea Taurus project area targeting Nickel Laterite and regolith-hosted Rare Earth Elements (Mineral Resource Estimate 14Mt at 0.84% Ni and 0.051% Co, contained 119kt nickel and 7kt cobalt, ASX Release 30 June 2023).

3. CORPORATE

Strategy

Ardea's sole priority is KNP nickel-cobalt laterite project development, commencing with the KNP – Goongarrie Hub, to produce Critical Minerals for the LIB supply chain to further advance the transition to a low carbon future.

The starter KNP development project is the Goongarrie Hub to capitalise on the premium goethite ore type, infrastructure-rich location and collaboration with the Consortium. Opportunistic but complementary exploration plays for Critical Minerals (including nickel sulphide) will also be pursued, such as the Ardea nickel sulphide discoveries at Emu Lake, and LCT hydrothermal alteration and pegmatite discoveries at Highway and Ghost Rocks.

Finance

The Company's cash position was $16M at Quarter end. Additionally, with the execution of the binding Shareholders' Agreement which completed the transaction, the Consortium will fully fund the DFS costs up to the agreed budget of A$98.5M. With the balance of available funds, at the end of the Quarter, of $89.9M, the Company is well positioned.

Issued capital at 30 September 2024 was 199,682,915 Shares, with 3,316,400 Performance Rights and 3,000,000 Options.

Summary of Expenditures for the Quarter

During the Quarter, the Company incurred a total net expenditure from operating activities of $6.93M. This expenditure included $5.28M expended on exploration and evaluation activities, including feasibility studies, $1.1M on staff costs and $731k on administrative and corporate costs related primarily to Ardea's Strategic Partner process, with the balance on minor items.

Included in these costs were payments made to Directors of the entity and their associates. These payments were Directors Salaries, tax on prior period Bonuses, Superannuation payments, and Consulting fees of $258k and rental for the Company's West Kalgoorlie operations office of $25k for the Quarter. All payments were made on an arm's length basis.

During the Quarter, the Company received $131k in interest, $299k from the sale of investments, and $7.85M from the Consortium for DFS funding. As of 30 September 2024, the remaining balance for DFS funding stands at $89.9M.

Further details on Quarterly expenditures are included in the Appendix 5B – Quarterly Cashflow Report attached to this Quarterly Report.

Investor Relations and Stakeholder Engagement

During the Quarter, management continued discussions with multiple Federal and State stakeholders and attended several industry events, including:

- Noosa Mining Conference July 2024, with a presentation slot, pod and networking opportunities.
- Diggers and Dealers August 2024, with Managing Director and CEO Andrew Penkethman presenting at the event and the Company having a booth.
- Two site visits during the Diggers and Dealers Mining Forum, including a State MP, various local, state and federal department representatives, journalists, shareholders and interested stakeholders.
- AMEC led Working Group participation in response to the Commonwealth Treasury's Critical Minerals Production Tax Incentive Consultation Paper, which Ardea had previously contributed a submission.
- AMEC events, including a breakfast meeting with Libby Mettam WA Liberal Leader, Boardroom lunch with Hon Roger Cook MLA, Premier of Western Australia, and staff attendance at a JORC Code update Seminar.
- Ongoing Traditional Owner group engagement.
- Continued participation in Future Batteries Industries CRC meetings.
- Multiple investor update meetings.
- Meetings and events with various industry stakeholders, including CSIRO, Minviro and RPM.

4. LOOKING FORWARD

During the December 2024 Quarter, Ardea will focus upon the following programs.

Kalgoorlie Nickel Project – Goongarrie Hub DFS

Ardea will continue to work with all stakeholders, including industry groups and the Federal, State and Local Governments to ensure project development is predicated on the highest industry standards, notably ESG.

KNPL DFS

- Complete the engagement of the final tranche of personnel for the KNPL DFS Owner's Team.
- Progress the award of the second level contracts for the DFS.
- Progress DFS process test work and process design updates.
- Finalise options studies including operational logistics, gas pipeline connection, modularisation, grid connection.
- Undertake the next iteration of an integrated risk review.
- Progress the Measured Resource infill drilling program.
- Progress mine geotechnical and mine hydrogeological field investigations.
- Progress bore water supply pumping and piping design.
- Progress village and NPI buildings and other NPI design

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Strategic Partner Process

- Continue working collaboratively with the Consortium toward completion of the DFS.

Mineral Resource Updates

- Continue work on geology domain interpretations for DFS resource estimates, to be finalised after the Measured Infill drilling program is completed.
- As predicated by resource update, optimise the mine schedules.
- Continue DFS Diamond Drill program which will be used for bench-scale metallurgy experiments, adding density and moisture data to the DFS resource updates, and provide additional twin-hole datasets for QAQC review.

Stakeholder Engagement

- Community consultation with our First Nations groups, the City of Kalgoorlie Boulder, Shire of Menzies, Southern Ports Esperance and all other stakeholders.
- Continue engagement with groups such as the Australian Commonwealth Government, Austrade, DFAT, CMO, MPFA, WA State Government, and for R&D the FBICRC and CSIRO.

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Investor Relations

Regular engagement with Shareholders and investors will continue in person and through Ardea's website, LinkedIn, and Twitter (X) accounts.

Stakeholders are welcome to subscribe for Ardea updates: click here

Ardea was a major sponsor at the **Australian Nickel Conference Lunch** on Wednesday 9 October 2024, with Managing Director and CEO Andrew Penkethman presenting and also participating on the "Producers/Developers Panel – Australian Nickel Against the World!". A video of the presentation is available on Ardea's website. Ardea and KNPL executives attended alongside some of Ardea's local shareholders and stakeholders.

The Annual General Meeting will be held on Thursday 21 November 2024 at the Country Women's Association of WA, 116 Hay Street, West Perth, starting at 11.00am. Shareholders and visitors are welcome to attend.

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

For further information regarding Ardea, please visit the Company website or contact:

Andrew Penkethman
Managing Director and Chief Executive Officer
Tel +61 8 6244 5136

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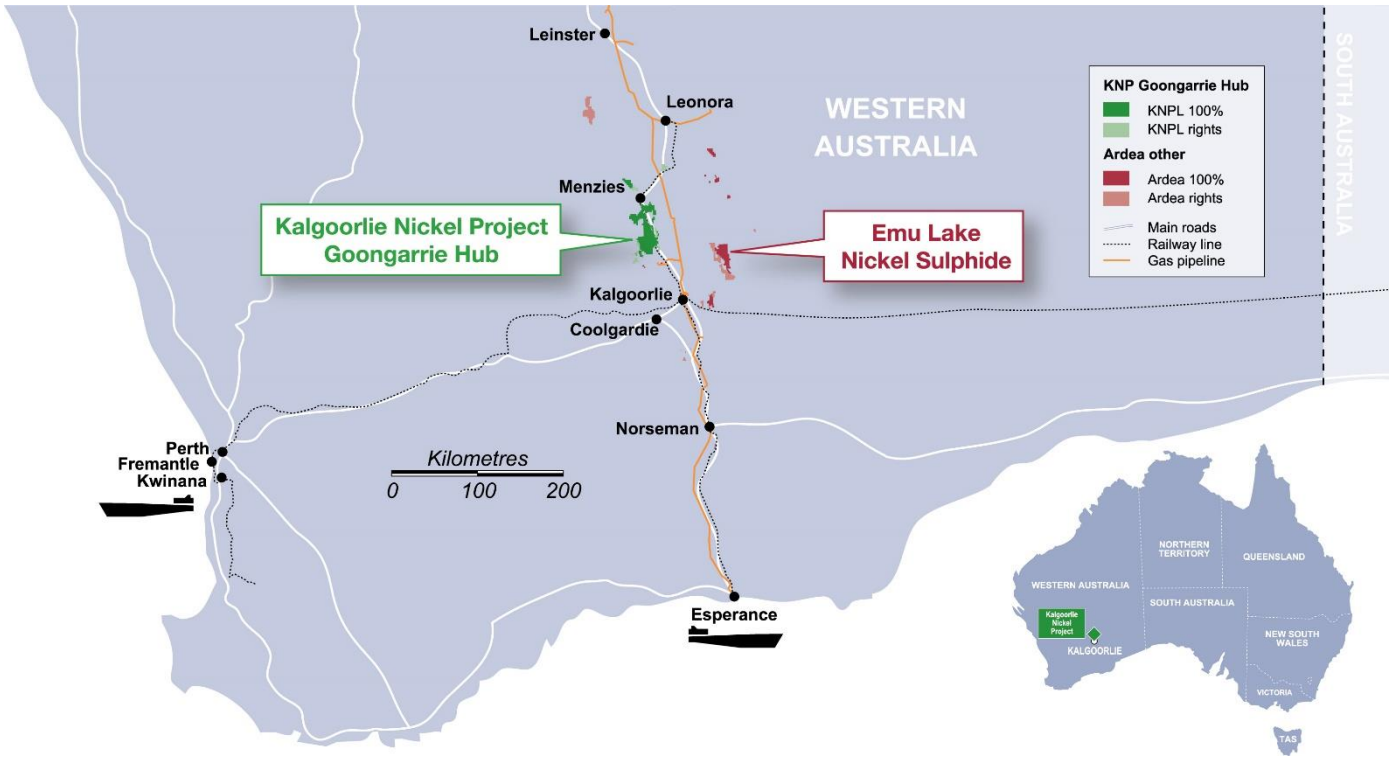
About Ardea Resources

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[1]:

- 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 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 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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Ardea

Australian Federal Government - Major Project Status

KNP KALGOORLIE NICKEL PROJECT
Battery Minerals to the World

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COMPLIANCE STATEMENT (JORC CODE (2012))

A competent person's statement for the purposes of Listing Rule 5.22 has previously been announced by the Company for:

1. *Kalpini drill results highlight cobalt-nickel mineralisation, and scandium discovery, 22 June 2017.*
2. *Emu Lake Nickel Sulphide Discovery confirmed with 2.72m at 5.42% Ni, 14 January 2022.*
3. *High-grade Nickel-Cobalt Confirmed at Kalpini with Scandium and Rare Earth Elements, 14 March 2022.*
4. *Kalgoorlie Nickel Project Recognition on All Tiers of Australian Government, 21 March 2022.*
5. *Nickel sulphide anomalism from aircore drilling at Kalpini Project, 2 May 2023.*
6. *Mineralised Neutraliser Global Patent Lodged, 15 June 2023.*
7. *Kalgoorlie Nickel Project Mineral Resource Estimate Exceeds 6 Million Tonne Contained Nickel, 30 June 2023.*
8. *KNP - Goongarrie Hub Ore Reserve and Feasibility Study Defines +40 Year Operation with Strong Financial Metrics, 5 July 2023.*
9. *Annual Report 2023, 27 September 2023.*
10. *Appendix 4G and Corporate Governance Statement 2023, 28 September 2023.*
11. *Nickel Sulphide Prospectivity Confirmed and Lithium-Caesium-Rubidium bearing intrusives in Highway EIS drillhole, 15 December 2023.*
12. *Half Year Accounts – December 2023, 12 March 2024.*
13. *Ardea, Sumitomo Metal Mining (SMM) and Mitsubishi Corporation (MC) to form a Joint Venture to develop the Kalgoorlie Nickel Project (KNP) – Goongarrie Hub, 26 April 2024.*
14. *Kalgoorlie Nickel Project - Goongarrie Hub DFS Drilling Underway, 4 July 2024.*
15. *Kalgoorlie Nickel Project – Goongarrie Hub DFS Underway, 8 July 2024.*
16. *KNP – Goongarrie Hub Joint Venture FIRB Approval Received, 14 August 2024.*
17. *KNP – Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium, 30 August 2024*
18. *Annual Report 2024, 13 September 2024.*
19. *Appendix 4G - Corporate Governance Statement, 13 September 2024.*

Competent Persons Statement

Resource Estimation, Exploration Results, and Industry Benchmarking

The Resource Estimation, Exploration Results 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 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.

The Company confirms that it is not aware of any new information or data that materially affects information included in previous announcements, and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Ardea wishes to clarify that its current KNP MRE following JORC Code (2012) guidelines is:

Camp	Resource Category	Size (Mt)	Ni (%)	Co (%)	Contained Metal Ni (kt)	Contained Metal 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 release has been previously released on the ASX platform by Ardea in ASX release 30 June 2023, in accordance with Listing Rule 5.8. The Mineral Resource Estimate in the above table is inclusive of the Ore Reserve shown in table two of this release.

The Ore Reserve information shown in this ASX release 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.

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ASX CHAPTER 5 COMPLIANCE AND PFS CAUTIONARY STATEMENT

The Company has concluded that it has a reasonable basis for providing the forward-looking statements and forecast financial information included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and all material assumptions, including the JORC modifying factors, upon which the forecast financial information is based are disclosed in this announcement. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules.

The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain material factors were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information.

The KNP - Goongarrie Hub Project is at the PFS phase and although reasonable care has been taken to make sure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments of projects and the scandium market development may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

A key conclusion of the PFS, which are based on forward looking statements, is that the Goongarrie Hub is considered to have positive economic potential.

The Mineral Resource used for the PFS was classified under JORC Code (2012) Guidelines and announced by the Company on 30 June 2023. The cut-off grades adapted for the PFS and reported in Table 2 are the basis of the production target assumed for the PFS.

The Company believes it has a reasonable basis to expect to be able to fund and further develop the KNP - Goongarrie Hub. However, there is no certainty that the Company can raise funding when required.

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 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 programs, 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, 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 release.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Ardea Resources Limited

ABN	Quarter ended ("current quarter")
30 614 289 342	30 September 2024

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(635)	(635)
	(b) feasibility Studies	(4,646)	(4,646)
	(c) production	-	-
	(d) staff costs	(1,145)	(1,145)
	(e) administration and corporate costs	(731)	(731)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	131	131
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid/received	92	92
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material) –	4	4
1.9	**Net cash from / (used in) operating activities**	**(6,930)**	**(6,930)**
2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(63)	(63)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

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Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	299	299
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**236**	**236**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (Consortium funding 100% of the Definitive Feasibility Study (DFS) costs)	7,852	7,852
3.10	**Net cash from / (used in) financing activities**	**7,852**	**7,852**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**	1,158	1,158
4.1	Cash and cash equivalents at beginning of period	14,849	14,849
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(6,930)	(6,930)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	236	236
4.4	Net cash from / (used in) financing activities (item 3.10 above)	7,852	7,852

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**16,007**	**16,007**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	7,732	3,575
5.2	Call deposits	8,275	11,275
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**16,007**	**14,850**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	284
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

Salaries, Directors fees and Consulting fees paid to Directors - $259k

Payments for Kalgoorlie Office to a Director related entity for the quarter - $25k

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7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (funding support arrangement)	98,500	8,584
7.4	**Total financing facilities**	98,500	8,584
7.5	**Unused financing facilities available at quarter end**		89,916

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

Ardea has entered into a Cooperation Agreement and Shareholders's Agreement with a Japanese consortium to form a joint venture to develop the Kalgoorlie Nickel Project - Goongarrie Hub (Ardea ASX announcements: 26 April 2024 and 2 September 2024).

The Consortium will fund 100% of the DFS costs up to the agreed budget of approximately A$98.5 million. At the conclusion of the DFS spend, the Consortium will have subscribed to a 35% ownership in KNPL and retain the right to increase its ownership in KNPL to 50% upon a positive Final Investment Decision (FID) decision by the Consortium to build, commission and operate a plus 30,000tpa multi-decade nickel operation.

On 26 April 2024, Ardea, Ardea's subsidiary Kalgoorlie Nickel Pty Ltd (KNPL) and Sumitomo Metal Mining Co. Ltd (SMM) agreed funding support arrangements to facilitate the progression of the early DFS works while the conditions precedent to the Cooperation Agreement are being satisfied. Under the funding support arrangements, the parties have agreed a contribution plan under which SMM will advance up to A$12,000,000 in funding to KNPL, as and when funds are required to facilitate agreed early DFS works. This funding support agreement has ceased upon the signing of the Shareholders's Agreement – with the Consortium funding 100% of the DFS costs up to the agreed budget of approximately A$98.5 million.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(6,930)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(6,930)
8.4	Cash and cash equivalents at quarter end (item 4.6)	16,007
8.5	Unused finance facilities available at quarter end (item 7.5)	89,916
8.6	Total available funding (item 8.4 + item 8.5)	105,923
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	15.29

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?
Answer: N/A	
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer: N/A	
Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.	

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Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 29 October 2024

Authorised by: Ardea Board of Directors

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

Tenement Schedule
Ardea Resources Limited Tenement Schedule (WA) as at 30 September 2024

Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
Goongarrie Hub									
E24/196	Goongarrie	100	Live	16	M24/731	Goongarrie	100	Live	3,16
E24/209	Goongarrie	100	Live	16	M24/732	Goongarrie	100	Live	3,16
E24/211	Goongarrie	100	Live	16	M24/744	Goongarrie	100	Live	16
E29/934	Goongarrie	100	Live	16	M24/778	Goongarrie	100	Live	3,16
E29/1028	Goongarrie	100	Live	16	M29/167	Goongarrie	100	Live	16
E29/1038	Goongarrie	100	Live	16	M29/202	Goongarrie	100	Live	16
E29/1039	Goongarrie	100	Live	16	M29/272	Goongarrie	100	Live	16
E29/1045	Goongarrie	100	Live	16	M29/278	Goongarrie	100	Live	16
E29/1048	Goongarrie	100	Live	16	M29/423	Goongarrie	100	Live	16
G29/25	Goongarrie	100	Pending	16	M29/424	Goongarrie	100	Live	16
L24/239	Goongarrie	100	Live	16	M29/426	Goongarrie	100	Live	16
L29/134	Goongarrie	100	Live	16	P24/5260	Goongarrie	100	Live	16
L29/135	Goongarrie	100	Live	16	P24/5328	Goongarrie	100	Live	16
L30/67	Goongarrie	100	Live	16	P24/5329	Goongarrie	100	Live	16
L30/68	Goongarrie	100	Live	16	P24/5265	Goongarrie-Carr Boyd	100	Live	16
L16/141	Goongarrie	100	Live	16	P24/5169	Goongarrie-Windanya	100	Live	16
L30/85	Goongarrie	100	Live	16	P24/5480	Goongarrie-Windanya	100	Live	16
P29/2646	Highway North	100	Live	16	M24/919	Goongarrie-Scotia	100 Ni rights	Live	6
P29/2647	Highway North	100	Live	16	M24/959	Goongarrie-Scotia	100 Ni rights	Live	6
P29/2648	Highway North	100	Live	16	M24/541	Goongarrie	100	Live	16
P24/5528	Goongarrie	100	Live	16	P29/2559	Highway North	100	Live	16
E29/1082	Goongarrie	100	Live	16	P29/2560	Highway North	100	Live	16
E29/1089	Goongarrie	100	Live	16	P29/2501	Highway - Moriarty	100	Live	16
P29/2561	Highway North	100	Live	16	P29/2562	Highway North	100	Live	16
E29/941	Ghost Rocks	100	Live	16	E29/981	Ghost Rocks	100 non Li Au rights	Live	15,16
M29/214	Highway	100	Live	16	L16/143	Goongarrie – Credo West	100	Live	16
L16/144	Goongarrie – Credo West	100	Live	16	E29/1083	Goongarrie	100	Live	16
L16/145	Goongarrie – Credo West	100	Live	16	L16/147	Goongarrie – Credo West	100	Live	16
L16/146	Goongarrie – Credo West	100	Live	16	L16/148	Goongarrie – Credo West	100	Live	16
L24/252	Goongarrie	100	Live	16	L30/95	Goongarrie – Credo West	100	Live	16
E29/1235	Goongarrie	100	Pending	16	E29/984	Highway North	100	Live	15,16
P29/2530	Goongarrie	100	Live	15,16	M29/445	Highway North	100	Live	15,16
P29/2532	Goongarrie	100	Live	15,16	E29/1062	Goongarrie	100	Live	15,16
P29/2467	Goongarrie	100	Live	15,16	L24/253	Goongarrie	100	Live	16
P29/2468	Goongarrie	100	Live	15,16	L24/254	Goongarrie	100	Live	16
P29/2380	Goongarrie	100	Live	15,16	L24/255	Goongarrie	100	Live	16
P24/5799	Goongarrie	100	Pending						

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Goongarrie Hub Expansion Siberia

Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
E24/203	Siberia North	100 non Au-Ag rights	Live	4, 16	P24/5235	Siberia North	100	Live	16
E29/889	Siberia North	100	Live	16	P24/5236	Siberia North	100	Live	16
M24/634	Siberia North	100 non Au-Ag rights	Live	1,4,16	P29/2484	Siberia North	100	Live	16
M24/660	Siberia North	100 non Au-Ag rights	Live	4,16	P29/2485	Siberia North	100	Live	16
M24/663	Siberia North	100 non Au-Ag rights	Live	4,16	P24/5416	Siberia North	100	Live	16
M24/664	Siberia North	100 non Au-Ag rights	Live	4,16	P24/5417	Siberia North	100	Live	16
M24/665	Siberia North	90 non Au-Ag rights	Live	2,4,16	P24/5418	Siberia North	100	Live	16
M24/683	Siberia North	100 non Au-Ag rights	Live	4,16	P24/5566	Siberia North	100	Live	16
M24/686	Siberia North	100 non Au-Ag rights	Live	4,16	P24/5567	Siberia North	100	Live	16
M24/772	Siberia North	100 non Au-Ag rights	Live	4,16	L24/248	Siberia North	100	Live	16
M24/797	Siberia North	100 non Au-Ag rights	Live	4,16	L24/249	Siberia North	100	Live	16
M24/915	Siberia North	100 non Au-Ag rights	Live	4,16	L24/250	Siberia North	100	Live	16
M24/916	Siberia North	100 non Au-Ag rights	Live	4,16	L24/251	Siberia North	100	Live	16
M24/1002	Siberia North	100 non Au-Ag rights	Pending	4,16	P24/5599	Siberia North	100	Live	16
P24/5618	Siberia South	100	Live	16	P24/5623	Siberia South	100	Live	16
P24/5619	Siberia South	100	Live	16	P24/5624	Siberia South	100	Live	16
P24/5620	Siberia South	100	Live	16	P24/5625	Siberia South	100	Live	16
P24/5621	Siberia South	100	Live	16	L29/181	Siberia North	100	Live	16
P24/5622	Siberia South	100	Live	16	L29/183	Siberia North	100	Pending	16

Goongarrie Hub Expansion Black Range

M24/757	Black Range	100 non Au-Ag rights	Live	4,16	M24/973	Black Range	100 non Au-Ag rights	Pending	4,16
P24/4395	Black Range	100 non Au-Ag rights	Live	4,16	P24/4396	Black Range	100 non Au-Ag rights	Live	4,16
P24/4400	Black Range	100 non Au-Ag rights	Live	4,16	P24/4401	Black Range	100 non Au-Ag rights	Live	4,16
P24/4402	Black Range	100 non Au-Ag rights	Live	4,16	P24/4403	Black Range	100 non Au-Ag rights	Live	4,16
P24/5593	Black Range	100% non Au rights	Live	14,16	P24/5594	Black Range	100% non Au rights	Live	14,16
P24/5595	Black Range	100% non Au rights	Live	14,16	P24/5596	Black Range	100% non Au rights	Live	14,16

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Kalpini Hub

Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
E27/524	Kalpini	100 non Au rights	Live	9	P25/2454	Kalpini-Bulong	100	Live	
E27/606	Kalpini	100	Live		P25/2455	Kalpini-Bulong	100	Live	
E27/607	Kalpini	100	Live		P25/2456	Kalpini-Bulong	100	Live	
E28/1224	Kalpini	100	Live		P25/2457	Kalpini-Bulong	100	Live	
E28/2978	Kalpini	100	Live		P25/2458	Kalpini-Bulong	100	Live	
M27/395	Kalpini	100	Live		P25/2459	Kalpini-Bulong	100	Live	
M27/506	Kalpini	100	Live		P25/2460	Kalpini-Bulong	100	Live	
M27/512	Kalpini	100	Pending		P25/2461	Kalpini-Bulong	100	Live	
M28/199	Kalpini	100	Live		P25/2482	Kalpini-Bulong	100	Live	
M28/201	Kalpini	100	Live		P25/2483	Kalpini-Bulong	100 non Au rights	Live	14
M28/205	Kalpini	100	Live		P25/2484	Kalpini-Bulong	100 non Au rights	Live	14
E27/278	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2559	Kalpini-Bulong	100 non Au rights	Live	14
E27/438	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2560	Kalpini-Bulong	100 non Au rights	Live	14
E27/520	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2561	Kalpini-Bulong	100 non Au rights	Live	14
E27/579	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2609	Kalpini-Bulong	100	Live	
E28/2483	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2613	Kalpini-Bulong	100	Live	
E25/578	Kalpini-Bulong	100 non Au rights	Live	14	P25/2614	Kalpini-Bulong	100	Live	
M25/59	Kalpini-Bulong	100 non Au rights	Live	14	P25/2615	Kalpini-Bulong	100	Live	
M25/134	Kalpini-Bulong	100	Live		P25/2650	Kalpini-Bulong	100 non Au rights	Live	14
M25/145	Kalpini-Bulong	100	Live		P25/2305	Kalpini-Bulong	100 non Au rights	Live	13,14
M25/151	Kalpini-Bulong	100 non Au rights	Live	14	M31/488	Kalpini-Lake Rebecca	100 non Au rights	Pending	14
M25/161	Kalpini-Bulong	100	Live		P31/2038	Kalpini-Lake Rebecca	100 non Au rights	Live	14
M25/171	Kalpini-Bulong	100 non Au rights	Live	14	P31/2039	Kalpini-Lake Rebecca	100 non Au rights	Live	14
M25/187	Kalpini-Bulong	100	Live		P31/2040	Kalpini-Lake Rebecca	100 non Au rights	Live	14
					E27/647	Kalpini	100	Live	
M25/209	Kalpini-Bulong	100	Live		P25/2306	Kalpini-Bulong	100 non Au rights	Live	13,14
E27/646	Kalpini	100	Live		M25/19	Kalpini-Bulong	100 non Au rights	Live	13,14
P25/2295	Kalpini-Bulong	100 non Au rights	Live	14	P25/2307	Kalpini-Bulong	100 non Au rights	Live	13,14
P25/2296	Kalpini-Bulong	100 non Au rights	Live	13,14	P25/2408	Kalpini-Bulong	100 non Au rights	Live	13,14
P25/2743	Kalpini-Bulong	100	Pending		P25/2409	Kalpini-Bulong	100 non Au rights	Live	13,14
E25/657	Kalpini-Bulong	100	Pending		L27/102	Kalpini	100	Live	
P25/2837	Kalpini-Bulong	100	Pending		L31/88	Kalpini	100	Live	
M25/377	Kalpini-Bulong	100 non Au rights	Pending	14	E28/3308	Kalpini	100	Pending	
P25/2768	Kalpini-Bulong	100	Pending		E28/3309	Kalpini	100	Live	
P25/2769	Kalpini-Bulong	100	Live		P25/2770	Kalpini-Bulong	100	Pending	
P25/2778	Kalpini-Bulong	100	Live		P25/2771	Kalpini-Bulong	100	Pending	
P25/2779	Kalpini-Bulong	100	Live		P25/2773	Kalpini-Bulong	100	Pending	
P25/2838	Kalpini-Bulong	100	Pending		P25/2839	Kalpini-Bulong	100	Pending	
P25/2765	Kalpini-Bulong	100	Live		P25/2766	Kalpini-Bulong	100	Live	
P25/2764	Kalpini-Bulong	100	Pedning		P25/2767	Kalpini-Bulong	100	Pending	

Kalpini Hub - Yerilla

E39/1954	Kalpini-Yerilla-Aubils	100	Live	M39/1147	Kalpini-Yerilla-Aubils	100	Pending
E31/1092	Kalpini-Yerilla-Boyce Creek	100	Live	E31/1169	Kalpini-Yerilla-Boyce Creek	100	Live
E31/1208	Kalpini-Yerilla-Boyce Creek	100	Live	E31/1213	Kalpini-Yerilla-Boyce Creek	100	Live
M31/483	Kalpini-Yerilla-Boyce Creek	100	Live	M31/493	Kalpini-Yerilla-Boyce Creek	100	Pending
M31/475	Kalpini-Yerilla-Jump Up	100	Live	M31/477	Kalpini-Yerilla-Jump Up Dam	100	Live
M31/479	Kalpini-Yerilla-Jump Up	100	Live				

Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
WA Regional									
M15/1101	WA Regional	Pre-emp Ni-Co Lat	Live	7	M15/1263	WA Regional	Pre-emp Ni-Co Lat	Live	7
M15/1264	WA Regional	Pre-emp Ni-Co Lat	Live	7	M15/1323	WA Regional	Pre-emp Ni-Co Lat	Live	7
M15/1338	WA Regional	Pre-emp Ni-Co Lat	Live	7	M27/510	WA Regional	100 Ni Lat Ore	Live	8
M27/272	Kanowna East	Non-Au Rights	Live	10					
E40/350	Kookynie	Non-Au Rights	Live	11	E40/357	Kookynie	Non-Au Rights	Live	11
E29/1006	Perrinvale	100 non Au rights	Live	14	E29/1078	Perrinvale	100 non Au rights	Live	14
E37/1271	Mt Zephyr	80	Live	12	E39/1706	Mt Zephyr	80	Live	12
E39/1854	Mt Zephyr	80	Live	12	E39/1985	Mt Zephyr	80	Live	12
E37/1274	Mt Zephyr	80	Live	12	E39/2519	Mt Zephyr	100	Pending	
E39/2520	Mt Zephyr	100	Live						

Notes:

1. Britannia Gold Ltd retains precious metal rights.
2. Impress Ventures Ltd has a 10% equity free-carried interest to a decision to mine.
3. Norton Gold Fields Limited retains certain Au claw-back rights and royalty receivable.
4. Ora Banda Mining Ltd holds Au-Ag rights while Ardea retains all non Au-Ag rights.
5. Acra JV – Northern Star Resources Ltd earn-in with Essential Metals Limited. Former holds gold rights while latter retains nickel sulphide rights. Ardea retains rights to Ni laterite ore.
6. Black Mountain Gold Limited all rights with exception of Ardea retaining Ni rights.
7. Ramelius Resources Limited assignee (Maximus Resources Ltd) all rights, Ardea pre-emptive right to Ni-Co laterite.
8. Paddington Gold Pty Ltd all mineral rights (except nickel sulphide) while Ardea retains rights to nickel laterite ore.
9. By Sale Agreement between Northern Star (Carosue Dam) Pty Ltd and Kalnorth Gold Mines Ltd, Northern Star (Carosue Dam) Pty Ltd now owns Au rights while Ardea retains non-Au rights.
10. Northern Star (Kanowna) Limited holds Au rights. Ardea retains non-Au rights.
11. The Option to purchase the tenements was transferred to Metalicity Limited on 21 November 2020. Ardea retains non Au rights.
12. The Mt Zephyr/Darlot East tenements were farmed out to Red 5 Limited on 18 November 2020 whereby Red 5 Limited may earn 80% equity interest. Ardea is free carried to Decision to Mine.
13. Purchase of tenements by Binding Terms Sheet and Alluvial Rights Agreements dated 4 June 2021 between the Seller Steven Lionel Kean and Ardea Resources Limited.
14. By way of the Demerger Implementation Deed executed between Ardea Resources Limited, Kalgoorlie Gold Mining Limited, Yerilla Nickel Pty Ltd, Kalgoorlie Nickel Pty Ltd and Ardea Exploration Pty Ltd dated 9 September 2021, certain tenements are to be transferred to newly listed Kalgoorlie Gold Mining Limited. For certain other tenements, Ardea Resources Limited or its subsidiaries will continue to hold and retain non-gold rights while Kalgoorlie Gold Mining Limited retain gold rights only.
15. Tenement Swap Agreement between Brightstar Resources Limited subsidiaries, Goongarrie Operational and Mining Pty Ltd and Menzies Operational and Mining Pty Ltd, and Ardea Resources Limited subsidiary, Kalgoorlie Nickel Pty Ltd dated 15 July 2023. E29/1062 Infrastructure Rights only. E29/981, Brightstar has lithium and gold rights.
16. The Japanese Consortium may acquire 50% equity of KNPL from the tenement holder by completing the Goongarrie Hub DFS and making a positive FID.

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