

ESG Report

Based on submission dated 1st March 2024

Ardea Resources Ltd

and associated mining project(s)

Disclosures in this submission

Type	Name	ESG framework type
Corporate	Ardea Resources Ltd	Development stage corporate framework
Project	Kalgoorlie Nickel	Development stage project framework



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Introduction

Digbee ESG is the industry standard ESG disclosure framework for the mining sector. It provides mining companies with a right-sized, futurelooking set of frameworks against which they can credibly disclose, track, compare and improve their ESG performance.

Digbee ESG has been developed in consultation with mining companies, ESG specialists and capital providers and is endorsed by leading financial institutions, producing mining companies and other industry stakeholders.

This Digbee ESG Report is the resulting output from your recent ESG submission and comprises an executive summary, your score, score breakdown, positives and negatives as well as a summary of your ESG submission responses.

How are scores calculated?

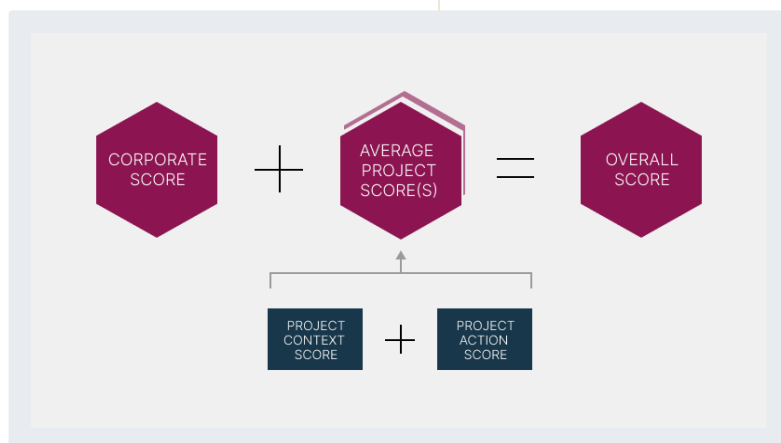
All ESG submissions are manually reviewed and scored against a set of rigorous and standardised scoring criteria.

An ESG submission comprises two types of questionnaire:

1. A single corporate-level questionnaire.
2. One or more project-level questionnaires (one for each disclosable project you own).

The questionnaires are tailored to the stage of the mining company and its projects (i.e., exploration, development and/or producing).

The project questionnaires comprise a number of 'Context' questions (relating to the situation of the project) and 'Action' questions (what is being done by the management both in the boardroom and on the ground to mitigate ESG risks).



▲ Visualisation of how Digbee ESG scores are calculated

There is little one can do to influence context scores, however action scores can vary depending on the action being taken by management. Each question is scored in accordance with our scoring criteria and averaged to provide an overall output score along with a confidence banding. A confidence banding illustrates the potential range with which the awarded score can move should any of the risks be realised or mitigated.

Who scores the submission?

Scoring is undertaken by a team of accredited ESG experts who have deep experience in mining projects similar to those being scored. Each scoring team consists of two scorers and a team lead. This team of three ensures consistent scoring through robust peer review and quality control.

Executive summary



Your next ESG submission is due on 1st March 2025. We will notify you 2 months prior to the expiry of your current Digbee ESG score.

ARDEA RESOURCES LTD (ARDEA), listed on the Australian Stock Exchange (ASX) in 2017, is an Australian-based multi-commodity explorer and developer. The Company has large strategic land holdings and a portfolio of 100% controlled projects focused on nickel laterite and sulphide deposits in the Eastern Goldfields region of Western Australia. ARDEA is led by an experienced Board of Directors and executive team that is guided by an overarching code of conduct and considers ESG to be at the forefront of the way in which the Company does business and assesses its societal impact.

The flagship Kalgoorlie Nickel Project (KNP) located 80 km north of Kalgoorlie, Western Australia, was submitted for review. The KNP is currently regarded as one of the largest nickel cobalt resources outside of Africa, and has been awarded Major Project Status by the Australia Federal government in recognition of national and strategic significance to the Australian economy and the Eastern Goldfields of Western Australia.

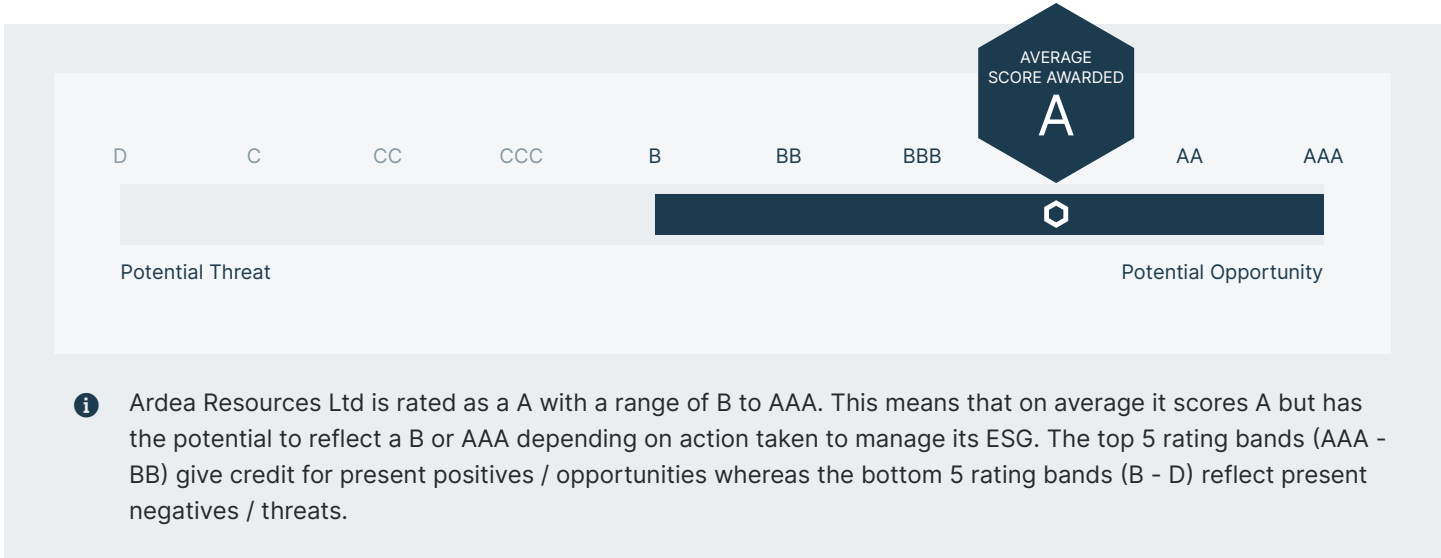
A Pre-Feasibility Study (PFS) was completed in 2023. A Definitive Feasibility Study (DFS) for the KNP will commence in the second quarter of 2024 concurrently with permitting, and inclusive of an Environmental and Social Impact Assessment (ESIA) which is required for the construction and operation of the KNP. The Project's designs and work practices are predicated on ensuring the Company minimises greenhouse gas emissions per tonne of nickel equivalent produced. This ensures responsible sourcing of critical mineral supply through sustainable and ethical production, and contributes towards achieving Western Australia's aspiration of net zero emissions by 2050.

Based on the information provided, ARDEA RESOURCES LTD has achieved an overarching score of A with a range of B to AAA as of March 2024. A corporate score of A with a range of B to AAA was obtained, with the KNP achieving a score of A with a range of B to AAA. It should be noted that the context score for KNP was A with a range of B to AAA, and action score of BB with a range of B to AAA.

Your submission team

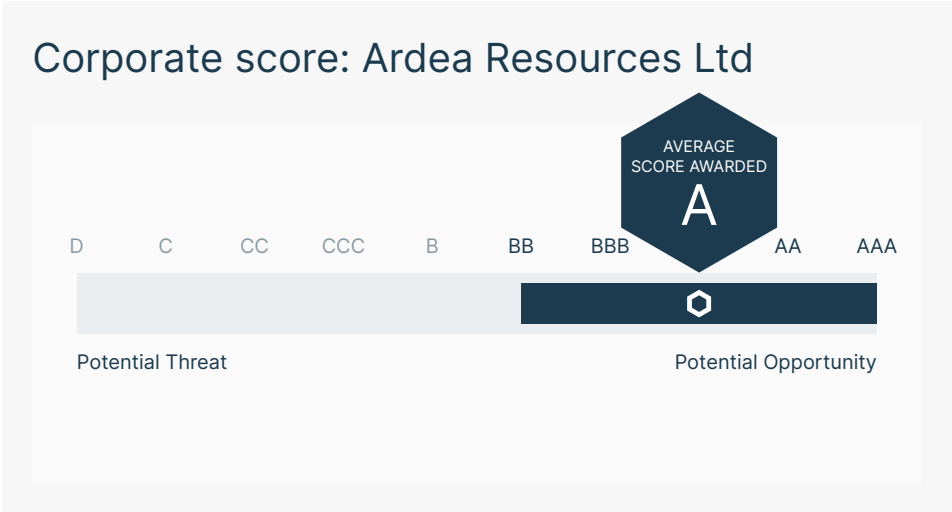
- Alex Mukherji - APPROVER

Overall score for this submission



The score breakdown

i *Corporate Score: This is the score awarded for the responses to the 'Corporate-level' questionnaire.*



The score breakdown continued...

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Project Score:
 These are the scores awarded to any 'Project-level' questionnaires that have been submitted.

Action:
 Within each project, action questions try to understand what action is being taken by the mining companies to mitigate ESG risks.

Risk Context:
 Within each project, context questions try to understand the inherent risks of where the mining companies are operating.



Overarching positives and negatives

Positives	Negatives
<ul style="list-style-type: none"> • Exploration and development projects based in Western Australia are rated as a tier 1 mining and investment destination that benefit from a long-term, stable geopolitical environment, effective governance of fiscal and resources permitting, and strong support for the resources sector from both the National and State Governments, and the community. • Incorporation of ESG principles and sustainability priorities as part of the Company's vision and values with explicit acknowledgment that social responsibility, good corporate governance and environmental leadership are essential aspects of generating economic value for shareholders, social benefit for stakeholders and Ardea's long-term sustainability. • Strong leadership, processes, and resources are in place to manage compliance risk, with a female member recently added to the Board, bringing new relevant experience to the team. 	<ul style="list-style-type: none"> • Remuneration for the executive leadership is not yet linked to ESG performance. • Currently, there are no formal mechanisms in place to incentivise enhanced ESG outcomes and performance. • There is currently no formal testing in place to assess the resilience of the Company to social, environmental, safety, or security risk.

Corporate positives and negatives

Corporate positives

1. Ardea Resources is a multi-commodity explorer and developer listed on the Australian Stock Exchange (ASX) focused on the tier 1 mining region of Western Australia.
2. Ardea Resources comprises a large portfolio of 100% controlled West Australian based projects focused on nickel laterite and sulphide deposits. Consequently, the company maintains full control over strategy and management decisions.
3. The company holds large strategic land holdings in the Eastern Goldfields region of Western Australia.
4. The submission included detailed evidence of actions taken to integrate ESG (Environmental, Social, and Governance) principles and prioritise sustainability within the Company's overarching business strategy, aimed at mitigating ESG risks.
5. Several governance policies have been developed by the Company and approved by the Board, including Code of Business Conduct and Ethics, Diversity Policy, ESG Policy, HSEC Policy, Risk Management Policy,

Whistleblower Protection Policy, and Anti-bribery and Corruption Policy.

6. Ardea's website offers details about the company and its diverse projects, along with social media updates concerning exploration and development endeavours, featuring images and videos showcasing Ardea's various activities.
7. The current Board has the skills and capability to manage present and future risks for the company, however these are routinely reviewed to align the Board makeup and skills with the different phases of the strategy. A female Board member has been added to the team bringing robust skills, experience and perspectives.
8. The data submission included evidence of formalised, comprehensive management and reporting of compliance measures.
9. The Company actively engages with a range of industry stakeholders through membership of the Future Battery Industry Cooperative Research Centre (FBICRC). FBICRC is an independent centre where industry, government, and researchers collaborate to develop the tools, technologies and skills to expand the role of battery storage in Australia's electricity grids and enhance Australia's market share in global battery value chains. Part of the research being undertaken is focused on ensuring the ability of Kalgoorlie Nickel Project (KNP) minerals to be traced from mining sources, through to offtake and eventual inclusion in battery metals production in an ethical and sustainable manner.
10. Engagement with investor interest representative bodies also occurs through forums facilitated by both the State and Federal Government, acknowledging the KNP designation as a Major Project.
11. Evidence was provided of strong advocacy for gender equality and fair representation of all community groups.
12. Cultural Awareness Training has been provided for employees.
13. Ardea has established an Education Fund to provide support to students in the communities where the company operates.
14. Currently there are no formal processes in place regarding recruitment, however a recruitment policy has been submitted to the Board for approval.
15. Ardea has conducted bi-annual independent audits of their financial aspects.
16. The company has completed a Carbon footprint via a Life Cycle Assessment (LCA) completed by a LCA consultancy and technology company, as well as an Enterprise Risk Register.

Corporate negatives

1. Remuneration for senior leaders is not yet linked to ESG performance.

Project positives and negatives

Project positives - Kalgoorlie Nickel

1. The KALGOORLIE NICKEL PROJECT (KNP) is located in Western Australia, a region known for its geopolitical stability and well-defined regulatory frameworks concerning mining, fiscal matters, environmental regulations, and occupational health and safety standards. The area boasts an extended history of mining activities.
2. The KNP resource profile includes nickel and cobalt, with the potential for scandium, rare earths, vanadium, chromium, aluminium, and gold.
3. The KNP is 100% owned by Ardea Resources Ltd (Ardea).
4. The KNP is in alignment with the development strategy of the West Australian Government and has been granted Major Project Status by the Australian Federal Government. This recognition underscores the national and strategic importance of the KNP to both the Australian economy and the Eastern Goldfields region of Western Australia.
5. Ardea have retained 100% of the offtake from KNP and are evaluating expressions of interest from potential strategic partner(s).
6. The KNP is located in a relatively benign temperate environmental setting, with low rainfall and no immediate sources of upstream threats or areas of environmental sensitivity that could be impacted upon by the operation downstream.
7. The KNP is located 80 km north of the city of Kalgoorlie in an area with low population levels.
8. KNP's Project Management Office (PMO) is located in Kalgoorlie and staffed by Company representatives.
9. The Project enjoys strong stakeholder support, with no conflicting land uses or resettlement required.
10. The mining location provides access to existing infrastructure (road and rail) and a skilled local workforce.
11. The proposed mining sequence entails backfilling of open pit voids with tailings and progressive rehabilitation.
12. Although the flow sheet relies on well-established high pressure acid leaching (HPAL) and atmospheric leaching (AL) processes, Ardea is collaborating with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to develop processing methodologies that are both more efficient and sustainable.
13. The proposed operations flow sheet indicates relatively low CO₂ emissions, with the Project's development predicated to minimise carbon emissions and actively contribute to the Western Australian aspiration of net zero emissions by

2050. A carbon footprint Life Cycle Assessment (LCA) has been completed.
14. Steam generated by the acid plant is planned to be harnessed, allowing for enough energy to be generated to ensure self-sufficiency. Excess energy is planned to be fed into the grid to support energy supply to local towns and settlements. This will be supplemented by natural gas with a link to an existing gas pipeline (30km).
 15. Whilst two groundwater extraction licences have been issued, there is limited understanding of the potential cumulative impacts of groundwater extraction, however hydrogeological studies are currently ongoing to address this.
 16. Regional rehabilitation methodologies are well understood from decades of experience within the gold mining sector.
 17. There is no legal requirement for local hire, however the company is striving to source a diverse construction and operational workforce from the local region. One impediment to local hiring is the high demand from the large number of existing mine projects and operations in the region.
 18. A Pre-Feasibility Study was completed in 2023.
 19. Ardea employed a Senior Safety Advisor in 2023 to manage the transition to a Mines Safety Management System (MSMS) legally required by the Work Health & Safety Regulations.
 20. As a result of historic mining having taken place in the project area, there is potentially an opportunity to address legacies whilst mining takes place.
 21. Ardea's website is very informative and allows for a wide communication of project related information.
 22. As the KNP has been granted Major Project Status, the project has been part of governmental roadshows. A government inspection of the project area has also been completed, with Ardea representatives involved in international trade delegations and conferences.
 23. A large number of products and services are currently sourced locally or regionally.
 24. Ardea has drafted a Mallee Fowl Management Plan, an Australian Commonwealth level threatened species.

Project negatives - Kalgoorlie Nickel

1. The absence of baseline environmental monitoring throughout the exploration phase was a missed opportunity to gain a detailed understanding of the environmental context and variations over time to provide insight into the environmental sensitivities that need to be managed, and detail the functioning

ecosystems which inform the rehabilitation and closure planning. That said, all seasonal flora and fauna baseline surveys were finished in 2023, encompassing the greater development footprint from the 2018 PFS, and current monitoring of stygofauna within historical drill holes is ongoing. Non-seasonal baseline surveys and monitoring such as Air Quality and stack emissions will only commence at the end of DFS when optimal location of process plant will be known. Further surveys around the current unknown locations of potential borefields will be required during the DFS.

2. A number of plans have been put in place to manage biodiversity impacts associated with the Project, however the Company plans to develop these based on the findings from the completed Environmental Impact Assessment (EIA). Once the DFS is completed, Ardea will then be aware of all environmental variables and will be in a position to initiate environmental monitoring, including atmospheric monitoring.
3. A comprehensive rehabilitation and closure plan will only be detailed after the DFS is completed when the mine footprint and processes are finalised, which is in accordance with local jurisdiction requirements.
4. Discussions to conclude a comprehensive Native Title Agreement are ongoing as in mid 2023, the Maduwongga native title claim was dismissed by the Federal Court. Ardea has commenced meetings and negotiations with the new claimant group Marlinyu Ghoorlie.
5. According to the previous submission, permitting processes should have already been initiated during 2023 as part of the DFS activities, but have been deferred.



Corporate Score Distributions: Ardea Resources Ltd

Development Framework: Scores valid for 12 months as of 1st Mar 2024.

The following visual is an overview of the corporate-level questionnaire scores.



C-03.01	Government Engagement Processes		AA
C-03.02	Accessibility of ESG Information		AA
C-03.03	Government Engagement Monitoring	NOT APPLICABLE	
C-03.04	Shareholder Oversight		BBB
C-03.05	Management of Shareholders		AA
C-03.06	Participation in Industry Bodies		AAA
C-04.01	Verification of Financing	NOT APPLICABLE	
C-04.02	Permitting Compliance Processes		AAA
C-05.01	Feedback Management	B	A
C-05.02	Tax Transparency		BBB
C-05.03	Anti-corruption/bribery Governance		AA
C-06.01	Promotion of Risk Management		BBB
C-06.02	Emergency Preparedness		A
C-06.03	Governance Structures		A
C-06.04	Prioritisation of ESG	NOT APPLICABLE	



Project Score Distributions: Kalgoorlie Nickel

Development Framework: Scores valid for 12 months as of 1st Mar 2024.

i This is an overview of the project-level questionnaire scores. In some instances a question may elicit multiple responses (e.g., context and action). In these cases, we provide multiple scores for that question ID. The individual scores noted on each bar are the scores that have been awarded for that question. If an individual bar comprises 2 scores, it's because the scores covered a range across multiple bandings and are represented as a range.

Question IDs & theme		Potential Threat					Potential Opportunity				
		D	C	CC	CCC	B	BB	BBB	A	AA	AAA
P-01.01	Project Location										AA
P-01.02	Natural Hazard Risk				CCC						
P-01.03	Impact of Upstream Activities					B					
P-01.04	Impact on Downstream Activities						BB				
P-01.05	Instability									AA	
P-02.01	Planned Activities			CC							
P-02.02	Planned Mine Products										AAA
P-03.01	Project Team Size							BBB			
P-03.02	Management Changes								A		
P-03.03	State Shareholding & Rep. on Board							BBB			
P-03.04	Local Representation in Team							BBB			
P-03.04	Local Representation in Team								A		
P-03.05	Employee and Contractor Employment										AAA

P-03.06	Local Employment Requirements			AA
P-03.07	Local Representation Requirements	B		
P-03.08	Health and Safety Record		BBB	
P-03.09	Health and Safety Activities		A	
P-03.10	Security and Firearms			AAA
P-03.11	Team and Equipment Security			AAA
P-03.12	Contractor Due Diligence	B	BB	
P-04.01	Acquisition History		A	
P-04.02	Existing Land Use	CCC		AAA
P-04.03	Adjacent Land Use	B		AAA
P-04.04	Competing Land Use		A	
P-04.05	Changes to Adjacent Land Use		A	
P-04.06	Presence of Local Communities			AAA
P-04.07	Resettlement and Compensation	NOT APPLICABLE		
P-04.08	Presence of Informal Mining			AAA
P-04.09	Regulation of Informal Mining			AAA
P-04.10	Biodiversity Management		BB	
P-05.01	Ownership		A	
P-05.02	Property Access			AA
P-05.02	Property Access			AA

P-05.03	Product Distribution									AA
P-05.04	Integration to State Development Plan									A
P-05.05	Energy Sources								B	
P-05.05	Energy Sources									AA
P-05.06	Energy Sharing									A
P-05.07	Water Stress								B	
P-05.08	Water Use								B	
P-05.08	Water Use								B	BB
P-05.09	Water Impact Minimisation									CC
P-05.10	Water Discharge								B	BB
P-05.11	Waste Management								B	
P-05.11	Waste Management								B	BB
P-05.12	Toxic Waste								B	
P-05.13	Tailings Facility Requirement									AAA
P-05.14	Incorp. of New Info on Future Plans								B	BB
P-05.15	Noise Reduction									BB
P-05.16	Emission Reduction								CC	BB
P-05.17	Vibration Reduction									BB
P-05.18	Major Facility Rehabilitation								B	
P-05.19	Approved Rehabilitation Plan									NOT APPLICABLE

P-05.20	Financing Rehabilitation	NOT APPLICABLE
P-05.21	Property Transfer Post-Closure	NOT APPLICABLE
P-05.22	Current Remediation Activity	B BB
P-06.01	Social Media Plan	A
P-06.02	Stakeholder Engagement Appointee	BBB
P-06.03	Local Language Engagement	A
P-06.04	Cultural Preservation	AA
P-06.05	Past and Current Mining	B AAA
P-06.06	Local Mining Support	AA
P-06.07	External Feedback on Activities	BBB
P-06.08	Government Inspections	BBB
P-07.01	Community-Government Relationship	A
P-07.02	Local Procurement Requirements	B BB
P-07.03	Local Procurement Practices	BBB
P-07.04	Definition of Regulatory Framework	AAA
P-07.05	Regional Governmental Bodies	AAA
P-07.06	State Development Plan	AAA
P-07.07	Alignment w/ State Developmental Plan	AAA
P-07.08	Community Development Requirements	B BBB

P-07.09	Project-Specific Commitments																					AA	
P-08.01	Project Management in Place																						AAA
P-08.02	Risk Management Approach																						A
P-08.03	Commencement of Baseline Monitoring																						CC
P-08.04	Environmental Impact Assessment/ Socio-Economic Impact Assessment (EIA/SEIA) Approval																						B
P-08.05	Required Permitting																						B BB
P-08.06	Stakeholder Inclusion in Decision Making																						BB
P-08.07	Construction/Operating Team Handover																						BB
P-08.08	Temp. Contractor Accom. Management																						B BB
P-08.09	Project Plan Delays																						NOT APPLICABLE
P-08.10	Social Opportunity																						A