



Jervois Base Metal Project

Authorisation Number: 1061-01

Environmental Mining Report 2022

(For MMP 2021 to 2022)




21 December 2022

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	Author	Reviewed By	Approved By
Date	21/12/2022	21/12/2022	21/12/2022
Name	Megan Sharp	Russell Dwyer	Steven Rooney
Signature			

I Denis Wood, Executive Chairman, declare that to the best of my knowledge the information contained in this Environmental Mining Report is true and correct and commit to undertake the works detailed in this plan in accordance with all the relevant Local, Northern Territory and Commonwealth Government legislation.



SIGNATURE:

DATE: 21 December 2022

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1 Introduction

This Environmental Mining Report (EMR) details Jervois Operations' environmental performance in relation to the commitments made, and the conditions and recommendations imposed during the environmental impact assessment and Project approval process for the Jervois Base Metal Project.

As advised by the Department of Industry, Tourism and Trade (DITT), the structure of this EMR is based on the Structure Guide for an Operational Performance Report – Mining Management Plan.

This Report has been prepared and will be made available to the public via the KGL website in accordance with Section 37 of the *Mining Management Act* and Clause 32 of Authorisation 1061-01.

1.1 Operator Details

The Jervois Base Metal Project is operated by Jervois Operations Pty Ltd. Jervois Operations Pty Ltd is an Australian mineral exploration company, wholly owned by KGL Resources Ltd who are listed on the Australian stock exchange.

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Table 1 – Key Contacts

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Russell Dwyer	Project Manager	rdwyer@kglresources.com.au
Megan Sharp	Environment & Community Consultant	msharp@kglresources.com.au

1.2 Project Description

The Jervois Base Metal Project is located within the Jervois Pastoral Lease approximately 383 kilometres by road (270 kilometres linearly) north-east of Alice Springs in the Northern Territory.

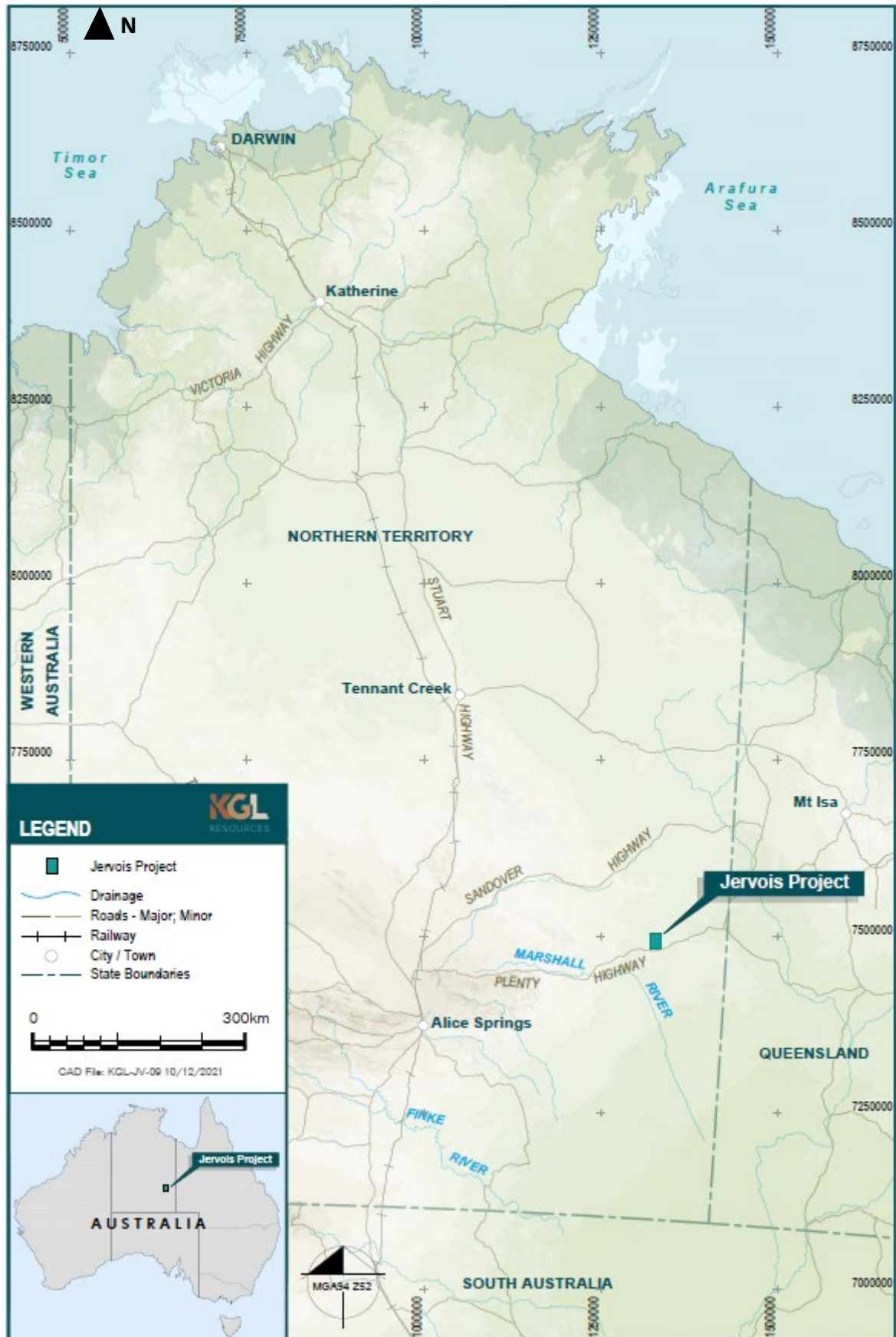


Figure 1 – Location of the Project

The Project is located within Exploration Licence (EL) 25429 and several Mineral Leases held by Jinka Minerals Limited, a 100% owned subsidiary of KGL Resources as detailed in Table 2 and Figure 2.

Table 2 – Mining interests

Tenure No.	Status	Grant Date	Expiry Date	Holder	Area (Ha)
ML 30180	Granted	28/01/2014	27/01/2034	Jinka Minerals Limited	33.21
ML 30182	Granted	26/03/2014	25/03/2034	Jinka Minerals Limited	481.7
ML 30829	Granted	18/08/2017	17/08/2032	Jinka Minerals Limited	1,438
EL 25429	Granted	02/02/2007	01/02/2023	Jinka Minerals Limited	Approximately 3,800
ML 32277 (Lucy Creek Borefield)	Granted	27/07/2020	17/08/2032	Jinka Minerals Limited	124.1

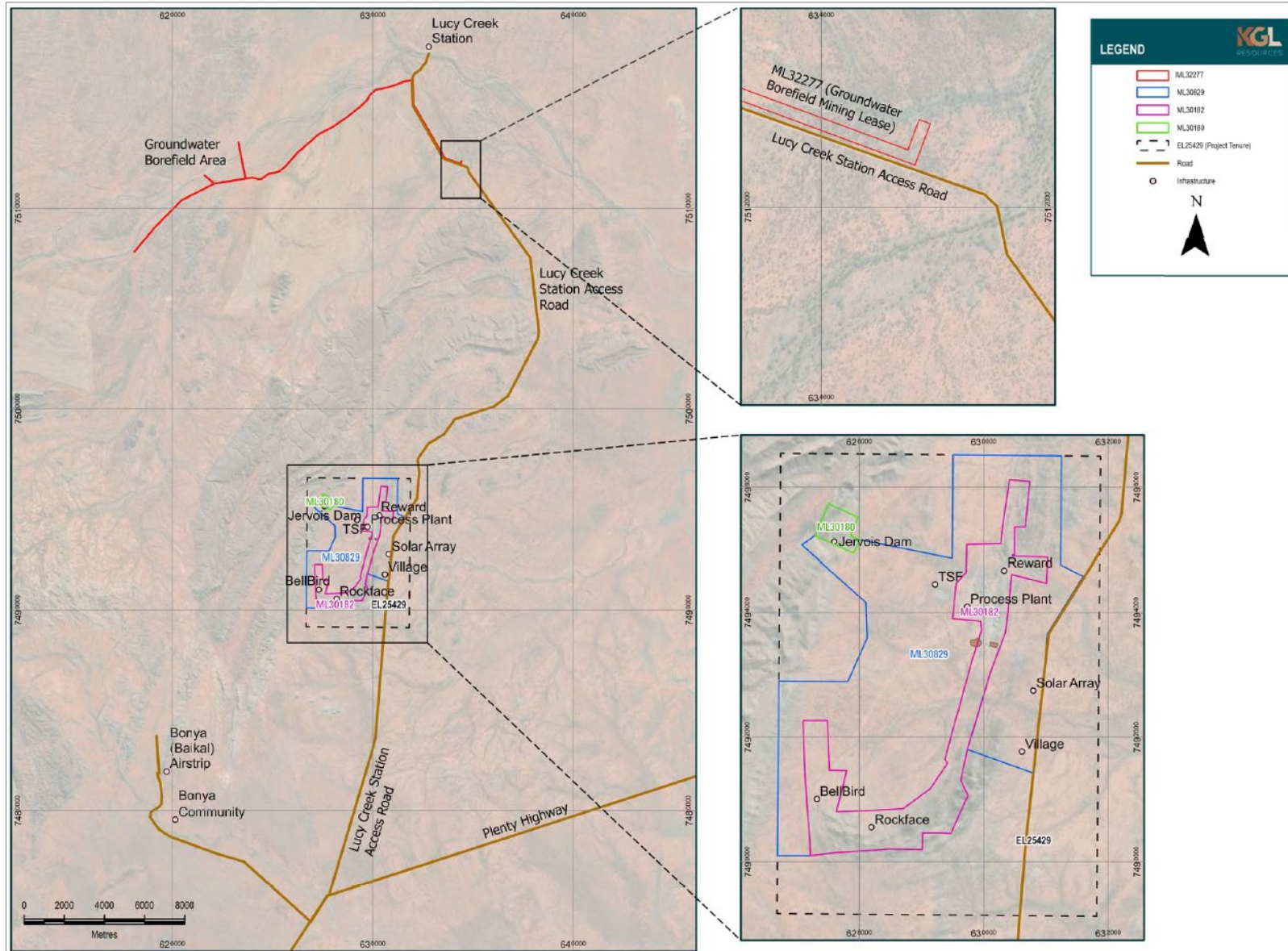


Figure 2 – Project Tenures

The Jervois Project has a rich history of exploration and mining activities over the past 90 years. Base metals were first discovered in the Jervois Range area in 1929. Since then, numerous companies have owned the Project and conducted exploration and mining activities across the site. As a result of this historic activity, the Project area is littered with a substantial amount of disturbance including abandoned tailings storage facilities, waste rock dumps, abandoned processing plants and equipment, power generation equipment, pits, prospecting trenches, ROMs, water storages and evaporation ponds, an exploration camp, exploration disturbances, roads and tracks.

Since acquiring the Project in 2011 Kentor Minerals, and now Jervois Operations, has been conducting exploration activities to improve on the knowledge of the mineral resource. The development of the Project will include the mining of open pits in the Reward and Bellbird areas, mining of underground resources below these open pits and underground mining at the Rockface area. Associated infrastructure will include topsoil stockpiles, waste rock stockpiles, access and mining haul roads, an explosives magazine, a tailings storage facility, process plant infrastructure, a solar array, the diversion of Unca Creek around the Reward open pit, and village accommodation. A detailed Project description can be found in Section 1.3 of the current MMP.

The water supply borefield of up to six (6) production bores is located south of the Lucy Creek homestead within ML 32277. A water pipeline will connect the borefield to the Project area.

1.3 Approved MMPs and Amendments

Authorisation 1061-01 was granted and the first Mining Management Plan (MMP) for the Project was approved in December 2020. An updated MMP ¹ was submitted in December 2021 to reflect changes to the Project and the Project Operator with a Variation of Authorisation 1061-01 granted in February 2022.

2 Operational Activities

Construction and mining operations have been delayed from the planning provided in the current MMP as the company has focussed on the completion of the Feasibility Study which will inform the Final Investment Decision (FID) for the Project. The current estimate for the construction and mining schedule is provided in Table 3.

Table 3 – Estimated Project Schedule

Phase	Current MMP Timelines	Updated Timelines
Construction	2022-2023	2023-2024
Commissioning	2023	2024-2025
Mining	2023-2032	2024-2036
Decommissioning and Closure	2028-2032	2032-2036
Final Rehabilitation	2028-2033	2036-2041

¹ A copy of this MMP, which includes a list of the amendments made, can be found on the KGL website <https://www.kglresources.com.au/environmental-approvals>

Based on the changes to these timelines, any changes or amendments to the construction, mining or processing activities in the current MMP will undergo a review prior to the commencement of works and if changes are significant, an amendment to the MMP will be submitted.

2.1 Performance Against the MMP

Performance of operational activities against the approved MMP for the reporting period are not applicable due to the delay in the commencement of construction and operations.

3 Environmental Performance

As the Project construction timelines have been deferred to 2023, management strategies for the potential impacts described in the Environmental Management Plan (EM Plan) have not yet been fully implemented. The performance results provided in Section 5.3 of the current MMP remain unchanged.

4 Water Management

4.1 Current Conditions

The water balance and Project water demand provided in the current MMP remain valid with no additional data collected to warrant any changes.

The water balance model will be updated prior to mining commencement.

4.2 Information/Knowledge Gaps

4.2.1 *Identification of Information/knowledge gaps*

Information gaps associated with the surface water and groundwater investigations remain unchanged to those identified in the MMP.

4.2.2 *Filling Information/Knowledge Gaps*

The actions proposed to respond to information and knowledge gaps once operations commence are described in Section 6.2.2 of the current MMP. Filling of the knowledge gaps will begin once the activities relevant to these gaps commence (Unca Creek diversion, waste rock dump construction)

4.3 Risk Management

4.3.1 *Identify Hazards and Rank Risks*

Potential hazards and risks to surface and groundwater resources, and the strategies designed in response to these risks remain unchanged from those listed in Section 6.3 of the current MMP.

Regular risk assessments will be undertaken throughout the life of the operation and prior to the commencement of key construction and operational stages as part of the health and safety management process.

4.3.2 *Actions and Strategies in Response to Identified Risks*

Strategies and actions to be undertaken to manage Project risks are detailed in the Environmental Management Plan.

4.4 Monitoring

4.4.1 *Monitoring Program*

The surface and ground water monitoring programs to be implemented once operations commence are described in Section 6.4 of the MMP. These monitoring programs have been designed to identify impacts and determine that the management strategies to be put in place achieve the required outcomes.

Over the past year rainfall and surface water storage volume data has been collected as part of the quarterly reporting required under the water extraction licence for the Jervois Dam. Groundwater levels on site have also been regularly checked and volumes pumped from the site supply bore is reported monthly to Water Resources.

4.5 Management

4.5.1 *Remedial or Corrective Management Actions*

No remedial or corrective actions were required during the reporting period. Corrective actions to be taken should adverse trends be detected are provided in Section 6.5 of the MMP.

4.6 **Actions Proposed Over the Reporting Period and Potential to Impact on Water Quality**

Actions proposed over the forward reporting period remain unchanged from those described in Section 6.6 of the current MMP.

5 Incident Reporting

No environmental incidents occurred during the reporting period.

Appendices

A1 Abbreviations

Abbreviation	Description
DITT	Department of Industry, Tourism and Trade
EL	Exploration Licence
EM Plan	Environmental Management Plan
EMR	Environmental Mining Report
FID	Final Investment Decision
Ha	Hectares
ML	Mineral Lease
MMP	Mining Management Plan
ROM	Run of Mine

A2 References

KGL Resources, Jervois Base Metal Project Mining Management Plan, December 2021

KGL Resources, Jervois Base Metal Project Environmental Management Plan, 2020/2021

Northern Territory of Australia, Mining Management Act Authorisation 1061-01, December 2020

Northern Territory of Australia, Mining Management Act Variation of Authorisation 1061-01, February 2022

Northern Territory of Australia, Licence to take Surface Water Number 0071012, July 2021

Northern Territory of Australia, Licence to take Groundwater Number GEOR10338, April 2021