



Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: Kimba Resources Pty Ltd

Works Approval Number: W5968/2016/1

Registered office: Level 2
38 Richardson Street
WEST PERTH WA 6005

ACN: 166 954 525

Premises address: Williamson Gold Mine
Mining tenements M53/797 and M53/798
WILUNA WA 6646
as depicted in Schedule 1.

Issue date: Friday, 24 June 2016

Commencement date: Monday, 27 June 2016

Expiry date: Sunday, 20 November 2022

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
6	Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	50 000 tonnes or more per year	1,115,000 tonnes per annual period

Conditions

This Works Approval is subject to the conditions set out in the attached pages.

Date signed: 24 June 2016

.....
Tim Gentle

Officer delegated under section 20
of the *Environmental Protection Act 1986*



Works Approval Conditions

1 General

1.1 Interpretation

1.1.1 In the Works Approval, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 In the Works Approval, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 6850
Telephone: (08) 9333 7510
Facsimile: (08) 9333 7550
Email: info@der.wa.gov.au;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Works Approval;

'Schedule 1' means Schedule 1 of this Works Approval unless otherwise stated;

'Works Approval' means this Works Approval numbered W5968/2016/1 and issued under the *Act*;

'Works Approval Holder' means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval;

1.1.3 Any reference to an Australian or other standard in the Works Approval means the relevant parts of the standard in force from time to time during the term of this Works Approval.

1.1.4 Any reference to a guideline or code of practice in the Works Approval means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice made during the term of this Works Approval.

1.2 General conditions

1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:



Table 1.2.1: Construction Requirements¹

Document	Parts	Date of Document
Works Approval Application Form	All	April 2016
Kimba Resources Pty Ltd, M53/797 and M53/798, Matilda Gold Project, Williamson Pit, Category 6 – Mine Dewatering, Supporting Documentation – Works Approval/Licence Application, authored by Luke Sibon of Ecospine Environmental.	All, including Drawings and Appendices	4 April 2016

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

2 Information

2.1 Reporting

2.1.1 The Works Approval Holder shall submit a compliance document to the CEO, following the construction of the works and prior to commissioning of the same.

2.1.2 The compliance document shall:

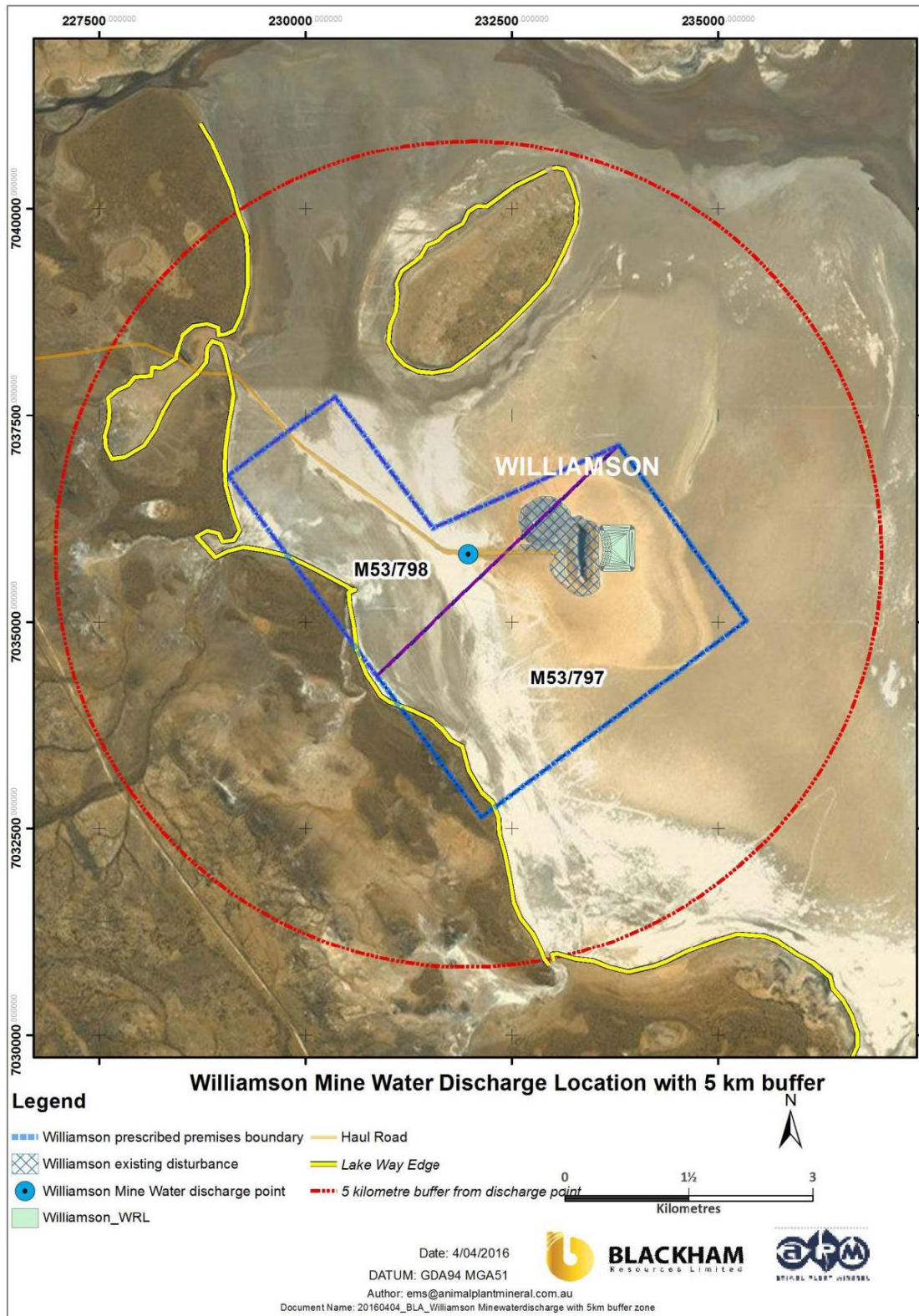
- (a) certify that the works were constructed in accordance with the conditions of the works approval;
- (b) be signed by person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The blue line depicts the Premises boundary.





Decision Document

Environmental Protection Act 1986, Part V

Proponent: Kimba Resources Pty Ltd

Works Approval: W5968/2016/1

Registered office: Level 2
38 Richardson Street
WEST PERTH WA 6005

ACN: 166 954 525

Premises address: Williamson Gold Mine
Mining tenements M53/797 and M53/798
WILUNA WA 6646

Issue date: Friday, 24 June 2016

Commencement date: Monday, 27 June 2016

Expiry date: Sunday, 20 November 2022

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a works approval. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Works Approval and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Fiona Sharpe/Louise Lavery
Licensing Officer

Decision Document authorised by: Tim Gentle
Delegated Officer



Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	2
3 Executive summary of proposal and assessment	3
4 Decision table	4
5 Advertisement and consultation table	8
6 Risk Assessment	9
Appendix A	10

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval <input checked="" type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	6	1,115,000 kL per year
Application verified	Date: 18 April 2016	
Application fee paid	Date: 18 May 2016	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/>



		Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		

3 Executive summary of proposal and assessment

The Williamson Gold Mine is owned by Kimba Resources Pty Ltd (Kimba), a wholly owned subsidiary of Blackham Resources Ltd. Williamson Pit is located approximately 22 kilometres south of the town of Wiluna and 18 km from the Wiluna Gold Mine. It lies within the Lake Way playa on mining tenements M53/797 and M53/798. The Williamson Pit was previously mined from June 2005 to October 2006 by Agincourt Resources Ltd. Ore was transported from the pit via a dedicated causeway and haul road across the lake bed and north to the Wiluna Gold Mine for processing.

Dewatering was undertaken to access the ore, with the mine water discharged to Lake Way. The discharge was authorised under Licence L5206/1987/8 (and 9). The site has remained in care and maintenance since 2006. Mining is currently scheduled to re-commence in the first quarter 2018 and continue for approximately two years, based on current resource estimates.

Kimba are planning to re-commence dewatering of the Williamson Pit and discharge the mine water to Lake Way. An annual dewatering and discharge rate of 1,115,000 kL is proposed.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	W1.2.1 L1.1.3 – 1.1.5	General conditions apply to the Works Approval to ensure the Works Approval Holder constructs the works in accordance with the application supporting documentation. Standard general conditions will be imposed on the Licence.	Application supporting documentation
Premises operation	W – No conditions L1.2.1 – 1.2.3	<u>Abnormal Operation</u> Emission Description <i>Emission:</i> Potential hypersaline water spills from the dewatering pipeline. <i>Impact:</i> Potential damage to surrounding soils and vegetation. As the pipeline is laid across the causeway on Lake Way, any hypersaline spills will be released to disturbed ground. <i>Controls:</i> Kimba Resources has committed to monitoring as per licence conditions. <u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low <u>Regulatory Controls</u> As the risk is low, no further regulatory control is required.	Application supporting documentation General provisions of the <i>Environmental Protection Act 1986</i>
Emissions	L2.1.1	Numerical limits will be set through condition 2.2.2 of the Licence and therefore	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
general		condition regarding recording and investigation of exceedances of limits has been included.	
Point source emissions to air including monitoring	No conditions	No point source emissions to air are expected from the construction or operation of the dewatering pipelines. No conditions for the Works Approval or Licence are required.	General provisions of the <i>Environmental Protection Act 1986</i>
Point source emissions to surface water including monitoring	W – no conditions L2.2 and L3.2	DER's assessment and decision making are detailed in Appendix A.	Application supporting documentation General provisions of the <i>Environmental Protection Act 1986</i> Appendix A
Point source emissions to groundwater including monitoring	No conditions	<u>Construction and Operation</u> No point source emissions to groundwater are expected from the construction or operation of the dewatering pipelines. No conditions for the Works Approval or Licence are required.	General provisions of the <i>Environmental Protection Act 1986</i>
Emissions to land including monitoring	No conditions	<u>Construction and Operation</u> No point source emissions to land are expected from the construction or operation of the dewatering pipelines. No conditions for the Works Approval or Licence are required.	General provisions of the <i>Environmental Protection Act 1986</i>
Fugitive	No conditions	<u>Construction and Operation</u>	General



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
emissions		Fugitive dust emissions are not expected to occur during the construction or operation of the dewatering pipeline. No conditions are required for the Works Approval or Licence. The substantive offenses of the <i>Environmental Protection Act 1986</i> provide enforceable prohibitions for dust emissions that result in pollution or environmental harm.	provisions of the <i>Environmental Protection Act 1986</i>
Odour	No conditions	<u>Construction and Operation</u> No odour emissions are expected from the construction or operation of the dewatering pipelines. No conditions for the Works Approval or Licence are required.	General provisions of the <i>Environmental Protection Act 1986</i>
Noise	No conditions	<u>Construction and Operation</u> No noise emissions are expected from the construction or operation of the dewatering pipelines. The nearest noise sensitive receptor to the site is the town of Wiluna, approximately 22 km away. No conditions for the Works Approval or Licence are required.	General provisions of the <i>Environmental Protection Act 1986</i>
Monitoring general	W – no conditions L3.1.1 – 3.1.2	General monitoring conditions will be included in the Licence to support monitoring relating to point source surface water emissions and ambient sediment monitoring.	Australian Standard AS/NZS 5667.1 – Water Quality – Sampling – Guidance on the Design of sampling programs, sampling techniques and the preservation and handling of samples



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring of inputs and outputs	No conditions	No monitoring of inputs and outputs is required for the Works Approval or Licence.	N/A
Process monitoring	No conditions	No process monitoring is required for the Works Approval or Licence.	N/A
Ambient quality monitoring	W – no conditions L3.2.2	Ambient quality monitoring of sediment will be required during operation to monitor the impact of the discharge to Lake Way. DER's assessment and decision making are detailed in Appendix A.	Appendix A General provisions of the <i>Environmental Protection Act 1986</i>
Meteorological monitoring	No conditions	No meteorological monitoring is required for the Works Approval or Licence.	N/A
Improvements	W – no conditions L4.1.1	Improvement condition L4.1.1 will be placed on the Licence to amend the proposed dewatering impact monitoring program to include an assessment of the potential biological impacts from the dewater discharge and to also review the selection of monitoring sites for assessing impact at control and impacted sites. Refer also to Appendix A for DER's assessment and decision making.	Appendix A
Information	W2.1.1 – 2.1.1	Standard Works Approval conditions relating to the submission of a compliance document once construction is complete are included.	N/A
	L5.1.1 – 5.1.3 L5.2.1 – 5.2.3 L5.3.1	Conditions relating to the management of records and complaints, notification requirements and the submission of an Annual Audit Compliance Report and Annual Environmental Report are included in the Licence.	
Licence Duration	No conditions	Based on the Guidance Statement on Licence Duration, the Works Approval will be valid for a period of three years.	DER's Guidance Statement on Licence Duration



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
30/05/2016	Application advertised in West Australian (or other relevant newspaper)	None	N/A
30/05/2016	Application referred to interested parties listed - Shire of Wiluna; - Department of Mines and Petroleum	- Shire: no comment - Department of Mines and Petroleum (DMP) advised that the project had been assessed by DMP and a Mining Proposal approved for Williamson Mine.	Noted.
24/05/2016	Proponent sent a copy of draft instrument	No comments received.	N/A



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High



Appendix A

Point source emission to surface water

Normal Operation

Emission Description

Emission: Williamson Pit currently has a calculated volume of 1,114,120 kL of water, the majority of which requires removing to re-commence mining. It is proposed to dewater the pit over an eighteen month period, with an annual rate of 735,000 kL. However, to account for the 380,000 kL/annum of inflow, an annual dewatering discharge rate of 1,115,000 kL is proposed by Kimba Resources. The water will be discharged to Lake Way. The water quality of the pit lake is hypersaline with salinity ranging from 280 000 mg/L TDS to 290 000 mg/L TDS.

Impacts: A total of 318 000 tonnes per annum of salt will be discharged to Lake Way salt lake. Lake Way is an extensive salt lake system, covering an area of approximately 270 km². The salt lake system joins a regionally extensive salt lake chain draining south east during flood periods linking Lake Maitland and Lake Carey.

The dewatering effluent is hypersaline and of a similar quality to that of the lake, therefore there is very low risk of surface water contamination. The greatest impacts may occur as a result of additional salt deposition on the lake's surface, decreasing the opportunity for the halite salt crust to be dispersed in heavy rainfall events and extending the periods at which stygofauna remain dormant.

Controls: Kimba Resources is anticipating that impacts associated with discharging mine dewater to Lake Way to be low. Water will be pumped from the pit to a settling pond adjacent to the pit, before being pumped to a drainage channel and recovery channel along the causeway. The settling pond and drainage channel allow sediment settling and a small amount of evaporation. After settling, water will be pumped directly onto the lake surface from the causeway.

Discharged water will rapidly either penetrate to the water level or will form a broad, shallow pool where it is expected to evaporate and have minimal impact on lake bed hydrology or hydrochemistry. The discharge footprint is expected to be 12.25 ha in summer and 30.25 ha in winter.

Previous studies have been conducted as conditions of the previous licence which have determined the impacts of the dewatering discharge to be low. The discharge footprint is not expected to impact into more productive areas of Lake Way (basins where water eventually collects). Following large, episodic rainfall events, the salt concentrations in Lake Way are expected to be sufficiently diluted to enable normal hatching and breeding cycles to occur.

Kimba Resources has also committed to monitoring as per licence conditions at the monitoring locations which were the same as from the previous operation. The locations will be depicted on a map within the Licence.

Risk Assessment

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate

Regulatory Controls

At this time, there are no current standards or guidelines DER applies to discharging dewatering water into a hypersaline lake. However, the following regulatory controls apply:



- A condition will be placed on the Licence depicting the approved discharge point and abatement which include measures to reduce sediment loading in the effluent, ensure erosions and scouring impacts are minimised and to sure the likelihood of damage to fringing vegetation is minimised. Kimba should ensure that sufficient settling is achieved in the dams prior to discharge to Lake Way.
- Condition 2.2.2 ensures that point source emissions to surface water are limited to 1,115,000 kL per annual period and a limit of 80 mg/L total suspended solids (TSS).
- Monitoring conditions 3.2.1 and 3.2.2 will be included which requires quarterly monitoring of the dewatering discharge and six monthly monitoring of ambient sediment. Monitoring of these key water parameters is required to ensure any impacts to Lake Way can be assessed.
- Condition 3.2.3 will require an annual assessment of the impacts on Lake Way from the dewatering in the form of a dewatering discharge report. This is to be submitted in conjunction with the Annual Environmental Report.
- IR1 of improvement condition 4.1.1 will require biological monitoring of the potential impact of the discharge to be conducted. IR2 requires the Licensee to review the monitoring sites for adequacy and effectiveness and report back to the CEO if these monitoring sites need amendment, within 3 months of issue of the Licence. The sites currently proposed are those from a previous monitoring program conducted approximately 10 years ago.

Residual Risk

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate