



Works approval number	W6726/2022/1
Works approval holder	Kumina Iron Pty Ltd
ACN	169 725 973
Registered business address	20 Walters Drive Osborne Park WA 6017
DWER file number	DER2022/000391
Duration	09/12/2022 to 08/12/2025
Date of issue	08/12/2022
Premises details	Onslow Camp Dunes Shire of Ashburton Legal description - M08/488, G08/80, L08/127 and Pastoral Lease 3114/905

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 12: Screening, etc. of material	2,000,000 tonnes per annual period
Category 54: Sewage facility	150 m ³ per day of effluent, plus 72 m ³ /day of brine from the reverse osmosis plant
Category 57: Used tyre storage (general)	2,800 used tyres
Category 73: Bulk storage of chemicals etc	2,210 m ³ in aggregate
Category 77: Mobile concrete batching plant	265,000 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 08 December 2022, by:

A/MANAGER, RESOURCE INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Interpretation

In this works approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:
 - (i) if dated, refers to that particular version;
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Infrastructure and equipment

1. The works approval holder must:
 - (a) construct and/or install the infrastructure and/or equipment;
 - (b) in accordance with the corresponding design and construction / installation requirements; and
 - (c) at the corresponding infrastructure location;
 as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Mobile crushing and screening plant	<ul style="list-style-type: none"> • Mobile crushing and screening plant to consist of: <ul style="list-style-type: none"> – Jaw crusher – Cone crusher – Horizontal screener – Mounted mobile conveyor • Conveyors from screen to stockpiles to have dust covers installed • Dust suppression sprinklers to be installed on main conveyor of jaw crusher and secondary cone crusher 	As shown in Figure 1 of Schedule 1
2.	Wastewater treatment plant (WWTP)	<ul style="list-style-type: none"> • WWTP to be constructed in 3 stages, with each stage to meet the following specifications: <ul style="list-style-type: none"> – Treat 50 m³/day of raw sewage; – Treat up to 24 m³/day of brine from the reverse osmosis plant; and – Treat sewage to the following output emission standards: <ul style="list-style-type: none"> ▪ pH – 6.5 to 8.5; ▪ E.Coli <1,000 cfu/100ml ▪ Total Nitrogen – 30 mg/L ▪ Total Phosphorus – 12 mg/L ▪ Total Suspended Solids – 30 mg/L ▪ Biochemical Oxygen Demand – 20 mg/L • WWTP to be constructed in 3 stages. Each stage to consist of the following infrastructure: <ul style="list-style-type: none"> – Balance Tank A (30 kL) 	As shown in Figure 1 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		<ul style="list-style-type: none"> - Balance Tank B (30 kL) - Aerobic Tank (30 kL) - Clarifier (12 kL) - Treated Effluent Tank (22.5 kL) - Sludge Tank (13.5 kL) - Influent Screen - Various Pumps x 4 - Submersible Aerator - Supernatant Transfer Tank (250 L) - SK40 Skimmer - Mixing Ejector - Coagulant Bunding Dosing Tank & Pump - Chlorinating Agent Bunded Dosing Tank & Pump - Control Panel - Solids Waste Bin • Chemical storage to be bunded in accordance with Australian Standard 1940 <i>The Storage and Handling of Flammable and Combustible Liquids</i> • Tanks holding untreated and treated wastewater to have alarms fitted (audible and visual) to detect high volume levels. 	
3.	Treated wastewater spray field	<ul style="list-style-type: none"> • Spray field to be constructed with the following features: <ul style="list-style-type: none"> - 3.5 hectare irrigation area - Above-ground hammer-type sprinklers - Individual branch line flush valves - 1,200 mm high perimeter fencing - Information signage on perimeter fencing - 5 m buffer to reduce spray drift 	As shown in Figure 1 of Schedule 1
4.	Used tyre storage area	<ul style="list-style-type: none"> • Tyre storage facility to be constructed and operated according to the Department of Fire and Emergency Services (DFES) Guidance Note GN02 <i>Bulk Storage of Rubber Tyres Including Shredding and Crumbed Tyres</i> • Tyre storage facility will be constructed with: <ul style="list-style-type: none"> - compacted earthen base; and - not more than 60m² of area per stack of tyres. 	As shown in Figure 1 of Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
5.	Diesel and oil storage facilities	<ul style="list-style-type: none"> • Hydrocarbon storage tanks shall be constructed to the following design: <ul style="list-style-type: none"> - 6 x 200 kL double-skinned tanks - 1 x 110 kL double skinned tank - 12 x 71 kL tanks • Hydrocarbon tanks to be bunded according to Australian Standard 1940 <i>The Storage and Handling of Flammable and Combustible Liquids</i> 	As shown in Figure 1 of Schedule 1
6.	Stormwater management	<ul style="list-style-type: none"> • Surface water infrastructure to be constructed to contain a 10 year Annual Exceedance Probability (AEP) • Inlet and outlets to culverts to be rock-pitched to minimise erosion 	Not shown
7.	Mobile concrete batching plant	<ul style="list-style-type: none"> • <i>Transcrete</i> mobile silo system including the following infrastructure: <ul style="list-style-type: none"> - Augers - Feed Hoppers - Concrete Storage Silos - Silo Filters and Overflow Protection - Concrete Transfer Valves - Slump stand - Water tanks 	As shown in Figure 1 of Schedule 1

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment (including for each of the three stages of WWTP construction) required by condition 1 being constructed and/or installed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:
 - (a) certification by a suitably qualified person that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;
 - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
 - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Environmental commissioning phase

Environmental commissioning requirements and emission limits

4. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 5 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 2 of this works approval.
5. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 2 may only be carried out:
 - (a) in accordance with the corresponding commissioning requirements; and
 - (b) for the corresponding authorised commissioning duration.

Table 2: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
WWTP Stage 1	<ul style="list-style-type: none">• Volumetric flow meters are maintained on the WWTP outlet to the irrigation field;• Sludge is contained within sealed sludge tanks prior to removal by a licensed waste carrier for disposal to a licensed disposal facility; and• Spills of wastewater and chemicals are outside of a vessel/container are cleaned up immediately.	For a period not exceeding 90 calendar days in aggregate.
WWTP Stage 2		
WWTP Stage 3		

6. During environmental commissioning, the works approval holder must ensure that the emission(s) specified in Table 3, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 3: Authorised discharge points during environmental commissioning

Emission	Discharge point	Discharge point location
Treated wastewater and brine from the reverse osmosis plant	Sprinklers within the irrigation field	As shown in Figure 1 of Schedule 1

Monitoring during environmental commissioning

7. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 4.

Table 4: Emissions and discharge monitoring during environmental commissioning

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
Irrigation field	Flow Meter	Volume	Continuous	Cumulative daily	kL/day	N/A
	WWTP outlet	<i>E. Coli</i>	Weekly	Spot sample	cfu/100mL	AS/NZS 5667.1 AS/NZS 5667.10
		Biochemical Oxygen Demand			mg/L	
		Total Suspended Solids				
		Total Nitrogen				
		Total Phosphorus				
	Free Chlorine ¹	Continuous	N/A			
pH ¹		N/A	pH units			

Note 1 – non-NATA *in situ* testing permitted

8. All sample analysis must be undertaken by laboratories with current accreditation from the National Association of Testing Authorities (NATA) for relevant parameters, unless otherwise specified in Table 4.
9. The works approval holder must record the results of all monitoring activity required by condition 7.

Environmental commissioning report

10. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for each stage of WWTP construction specified in Table 2.
11. The works approval holder must ensure the Environmental Commissioning Report required by condition 10 of this works approval includes the following:
 - (a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of wastewater processed;
 - (b) a summary of the treated effluent monitoring results recorded in accordance with condition 7;
 - (c) copies of laboratory reports for treated effluent monitoring results recorded in accordance with condition 7;
 - (d) a review of the works approval holder’s performance and compliance against the conditions of this works approval; and

- (e) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration

12. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1:
 - (a) where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure; or
 - (b) where the item of infrastructure is authorised to undertake environmental commissioning under condition 4, the Environmental Commissioning Report for that item of infrastructure as required by condition 10 has been submitted by the works approval holder.
13. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 14 (as applicable):
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 12 for that item of infrastructure; or
 - (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 13(a).

Time limited operations requirements and emission limits

14. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 5 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 5.

Table 5: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	Mobile crushing and screening plant	To be maintained as per the design and construction/installation requirements in condition 1.	As shown in Figure 1 of Schedule 1
2.	WWTP	To be maintained as per the design and construction/installation requirements in condition 1.	
3.	Treated wastewater spray field	Wastewater discharged to the spray field from the WWTP must be treated to the wastewater quality criteria as specified in Table 1 item 2.	
4.	Used tyre storage area	To be maintained as per the design and construction/installation requirements in condition 1.	
5.	Diesel and oil storage facilities	To be maintained as per the design and construction/installation requirements in	

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		condition 1.	
6.	Mobile concrete batching plant	To be maintained as per the design and construction/installation requirements in condition 1.	

Monitoring during time limited operations

15. The works approval holder must monitor emissions during time limited operations in accordance with Table 6.

Table 6: Emissions and discharge monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
Irrigation field	Flow Meter	Volume	Continuous	Cumulative daily	kL/day	N/A
	WWTP outlet	<i>E. Coli</i>	Monthly	Spot sample	cfu/100mL	AS/NZS 5667.1 AS/NZS 5667.10
		Biochemical Oxygen Demand			mg/L	
		Total Suspended Solids				
		Total Nitrogen				
		Total Phosphorous				
		Free Chlorine ¹	Continuous	N/A	pH units	
	pH ¹	N/A				

Note 1 – non-NATA *in situ* testing permitted

16. All sample analysis must be undertaken by laboratories with current accreditation from the National Association of Testing Authorities (NATA) for relevant parameters, unless otherwise specified in Table 6.
17. The works approval holder must record the results of all monitoring activity required by condition 15.

Compliance reporting

18. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is

the sooner.

- 19.** The works approval holder must ensure the report required by condition 18 includes the following:
- (a) a summary of the time limited operations, including timeframes and amount of wastewater processed;
 - (b) a summary of monitoring parameter results obtained during time limited operations under condition 15;
 - (c) copies of laboratory reports for treated effluent monitoring results recorded in accordance with condition 15;
 - (d) a summary of the environmental performance of each item of infrastructure or equipment as installed and compared to the output emission standards as specified in Table 1 (item 2);
 - (e) a review of the works approval holder's performance and compliance against the conditions of this works approval; and
 - (f) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Records and reporting (general)

- 20.** The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
- (a) the name and contact details of the complainant, (if provided);
 - (b) the time and date of the complaint;
 - (c) the complete details of the complaint and any other concerns or other issues raised; and
 - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- 21.** The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:
- (a) the works conducted in accordance with condition 1;
 - (b) any maintenance of infrastructure that is performed in the course of complying with condition 5;
 - (c) monitoring programmes undertaken in accordance with conditions 7 and 15; and
 - (d) complaints received under condition 20.
- 22.** The books specified under condition 21 must:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the works approval holder for the duration of the works approval; and
 - (d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.</i>
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.1 <i>Water quality - Sampling Guidance on sampling of waste waters (Reconfirmed 2016)</i>
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.

Term	Definition
EP Act	<i>Environmental Protection Act 1986 (WA).</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA).</i>
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.
WWTP	means Wastewater Treatment Plant.

END OF CONDITIONS

Schedule 1: Maps

Premises map

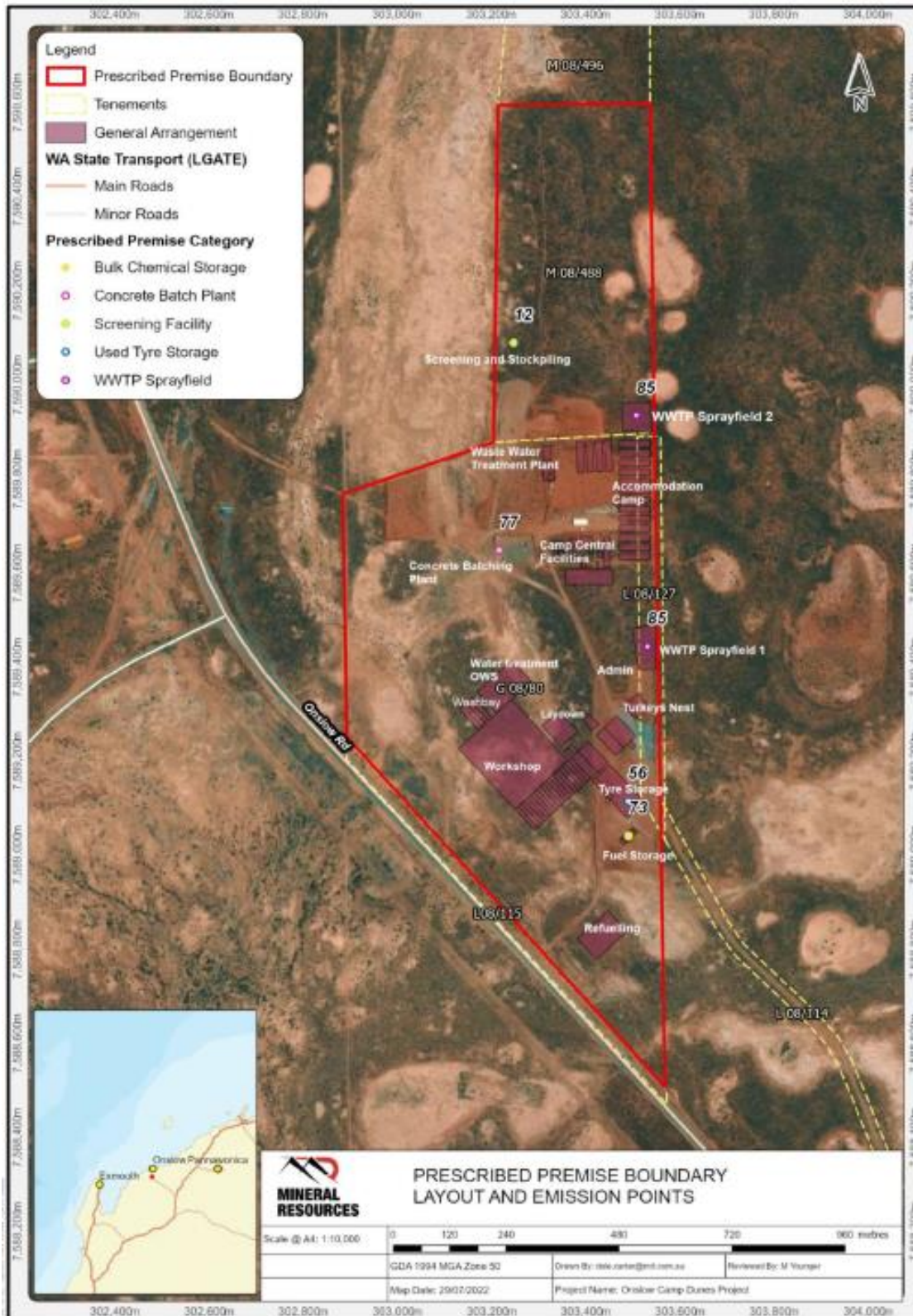


Figure 1: Map of the boundary of the prescribed premises and infrastructure location

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IR-T05 Works approval template (v5.0) (February 2020)