



Works approval number W6604/2021/1

Works approval holder Robe River Mining Co. Pty. Ltd.

ACN 008 694 246

Registered business address Central Park,
Level 18, 152-158 St Georges Terrace,
PERTH WA 6000

DWER file number DER2021/000560

Duration 22/01/2022 to 21/01/2030

Date of issue 22/01/2022

Premises details Angelo River Exploration Mobile Camp
SHIRE OF EAST PILBARA
Exploration Licence E47/754
ANGELO RIVER
As defined by the coordinates in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Production design	Assessed capacity
Category 85: Sewage facility: premises - (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	30 cubic metres per day	More than 20 but less than 100 cubic metres per day

This works approval is granted to the works approval holder, subject to the attached conditions, on 22 January 2022, by:

Stephen Checker
**MANAGER, WASTE INDUSTRIES
REGULATORY SERVICES**

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

Works approval history

Date	Reference number	Summary of changes
22/01/2022	W6604/2021/1	Works approval granted.

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; and
 - (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) install the infrastructure and equipment;
 - (b) in accordance with the corresponding installation requirements; and
 - (c) at the corresponding infrastructure locationas set out in Table 1.

Table 1: Design and installation requirements

Infrastructure	Design and installation requirements	Infrastructure location
Balance tank, sedimentation tank, Mixed Liquor recycle tank, RBC tank, Break tank, clarifier and treated effluent tank.	<ol style="list-style-type: none">(a) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks and defects;(b) Stormwater to be prevented from entering the sewage treatment system and storage infrastructure;(c) WWTP able to treat up to 30 m³ of sewage per day;(d) WWTP able to treat sewage to the following discharge targets;<ul style="list-style-type: none">• 5-day Biochemical Oxygen Demand (BOD) <20 mg/L• Total suspended solids (TSS) <30 mg/L• Total nitrogen <40 mg/L• Total phosphorus <8 mg/L• Thermotolerant coliforms <10 colony forming units (CFU)/100ml(e) Flow meter installed to discharge outlet pipe to monitor volumes discharged to spray-field; and(f) Alarm system to warn of failure of air compressor and discharge pump.	Figure 1 of Schedule 1
Spray-field	<ol style="list-style-type: none">(a) Sprinklers installed to distribute treated effluent evenly over a minimum 1.36 ha area;(b) minimum of 2 m vertical separation distance maintained between the irrigated ground surface and groundwater levels; and	Sprinklers in spray-field in Figure 2 of Schedule 1

Infrastructure	Design and installation requirements	Infrastructure location
	(c) Fence with safety signage installed to deter access.	
Pipeline	(a) Constructed of impermeable material and free of leaks or defects.	Figure 2 of Schedule 1

Environmental Compliance Report

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being 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 qualified and experienced engineer 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

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 and pipeline	(a) Volumetric flow meter is maintained on the WWTP outlet to the irrigation spray-field; and (b) Spills of wastewater or chemicals outside of a vessel/container/pipeline are cleaned up immediately.	90 days in aggregate
Irrigation spray-field	(a) No more than 30 m ³ of effluent is discharged to the irrigation spray-field per day; and (b) Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the irrigation spray-field.	

6. During environmental commissioning, the works approval holder must ensure that the emissions specified in Table 3, are discharged only from the corresponding discharge points and only at the corresponding discharge point location, as set out in Table 3.

Table 3: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location
Treated effluent from WWTP	sprinkler within the irrigation spray-field	Figure 2 of Schedule 1 as irrigation sprinklers in spray-field

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

Table 4: Emissions monitoring during environmental commissioning

Discharge point	Monitoring location	Parameter	Unit	Frequency	Averaging period
Irrigation sprinkler in spray-field	WWTP outlet pipe	Thermotolerant coliforms	CFU/100 ml	Monthly	Spot sample
		pH ¹	pH units		
		BOD ₅	mg/L		
		TSS			
		Residual chlorine ¹			
		Total nitrogen			
		Total phosphorus			

Discharge point	Monitoring location	Parameter	Unit	Frequency	Averaging period
		Cumulative flow volume discharge to spray-field ¹	m ³	Continuous	N/A

Note 1: in-field non-NATA accredited analysis permitted.

- 8.** The works approval holder must;
- record the results for the monitoring activity required by condition 7;
 - handle and preserve all water samples collected during the monitoring of the WWTP in accordance with *Australian Standard 5667:1:1998 Water Quality – Sampling*; and
 - have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified.

Environmental commissioning report

- 9.** 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 item of infrastructure specified in Table 2.
- 10.** The works approval holder must ensure the Environmental Commissioning Report required by condition 9 of this works approval includes the following:
- a summary of the environmental commissioning activities undertaken, including timeframes and amount of wastewater processed;
 - a summary of treated effluent monitoring results recorded in accordance with condition 8(a);
 - copies of laboratory reports for treated effluent monitoring results obtained in accordance with condition 8(c);
 - a summary of the environmental performance of each item of infrastructure or equipment as installed, which at a minimum includes:
 - a comparison of the treated effluent monitoring results against discharge targets specified in condition 1;
 - assessment of the irrigation spray-field performance against commissioning requirements outlined in condition 5;
 - a review of the works approval holder's performance and compliance against the conditions of this works approval; and
 - where they have not been met, measures proposed to meet the manufacture's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Time limited operations phase requirements

- 11.** The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Commissioning

Report for that item of infrastructure as required by condition 9 has been submitted by the works approval holder.

- 12.** The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 13:
- (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 11 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* and only where this occurs prior to 180 calendar days from the day the works approval holder meets the requirements of condition 11 for that item of infrastructure.
- 13.** 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

Infrastructure	Operational requirements	Infrastructure location
WWTP and pipeline	<ul style="list-style-type: none"> (a) Volumetric flow meter is maintained on the WWTP outlet to the irrigation spray-field. (b) Treated effluent discharged from the WWTP complies with the following discharge limits: <ul style="list-style-type: none"> • 5-day Biochemical Oxygen Demand (BOD) <20 mg/L • Total suspended solids (TSS) <30 mg/L • Total nitrogen <40 mg/L • Total phosphorus <8 mg/L • Thermotolerant coliforms <10 colony forming units (CFU)/100ml (c) Spills of wastewater or chemicals outside of a vessel/container/pipeline are cleaned up immediately. 	Figure 2 of Schedule 1
Irrigation sprinkler in spray-field	<ul style="list-style-type: none"> (d) No more than 30 m³ of effluent is discharged to the irrigation spray-field per day; (e) Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the irrigation spray-field. 	Irrigation sprinkler in Figure 2 of Schedule 1

- 14.** During time limited operations, the works approval holder must ensure that the emission specified in Table 6, is discharged only from the corresponding discharge points and only at the corresponding discharge point location.

Table 6: Authorised discharge points during time limited operations

Emission	Discharge point	Discharge point location
Treated effluent from the WWTP	Sprinklers within the irrigation spray-field	Sprinkler location as shown in Figure 2 of Schedule 1 as sprinkler setout schedule

Monitoring during time limited operations

- 15.** The works approval holder must monitor emissions during time limited operations in accordance with Table 7.

Table 7: Emissions and discharge monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Unit	Frequency	Averaging period
Irrigation spray-field	WWTP outlet pipe	Thermotolerant coliforms	CFU/100 ml	Quarterly	Spot sample
		pH ¹	pH units		
		BOD ₅	mg/L		
		TSS			
		Residual chlorine ¹			
		Total nitrogen			
		Total phosphorus			
	Cumulative flow volume discharge to spray-field ¹	m ³	Continuous	N/A	

Note 1: in field non-NATA accredited analysis permitted.

- 16.** The works approval holder must;
- (a) record the results for the monitoring activity required by condition 15;
 - (b) handle and preserve all water samples collected during the monitoring of the WWTP in accordance with *Australian Standard 5667:1:1998 Water Quality – Sampling*; and
 - (c) have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified.

Compliance reporting

- 17.** 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.

- 18.** The works approval holder must ensure the report required by condition 17 includes the following:
- (a) a summary of treated effluent monitoring results recorded in accordance with condition 16(a);
 - (b) copies of laboratory reports for treated effluent monitoring results obtained in accordance with condition 16(c);
 - (c) a summary of the environmental performance of each item of infrastructure or equipment as installed, which at a minimum includes:
 - (i) a comparison of the treated effluent monitoring results against discharge limits specified in condition 13; and
 - (ii) assessment of the irrigation spray-field performance against operational requirements outlined in condition 13.

Records and reporting (general)

- 19.** 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.
- 20.** 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) monitoring programmes undertaken in accordance with conditions 7 and 15; and
 - (c) complaints received.
- 21.** The books specified under condition 20 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 have the meanings defined.

Table 8: Definitions

Term	Definition
AS5667.1:1998	means Australian Standard 5667.1:1998 Water Quality – Sampling
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
CFU	means colony forming units.
Condition	means a condition to which this works approval is subject under s.62 of the EP Act
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.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
ha	means hectare.

Term	Definition
m ³	means cubic meters.
mg/L	means milligrams per litre
Monthly period	means a one-month period from the first day of a month until the last day of that same month.
NATA	means National Association of Testing Authorities.
NATA Accreditation	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
Premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure X) in Schedule 1 to this works approval.
Prescribed premises	has the same meaning given to that term under the EP Act.
Qualified and Experienced Engineer	means a person who: <ul style="list-style-type: none"> a) holds a Bachelor of Engineering recognised by the Institute of Engineers; b) has a minimum of five years of experience working in a supervisory area of structural or mechanical engineering; and c) Is employed by an independent third party external to the Works Approval Holder's business. or is otherwise approved in writing by the CEO to act in this capacity.
Quarterly	means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March.
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.
TSS	means total suspended solids
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.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

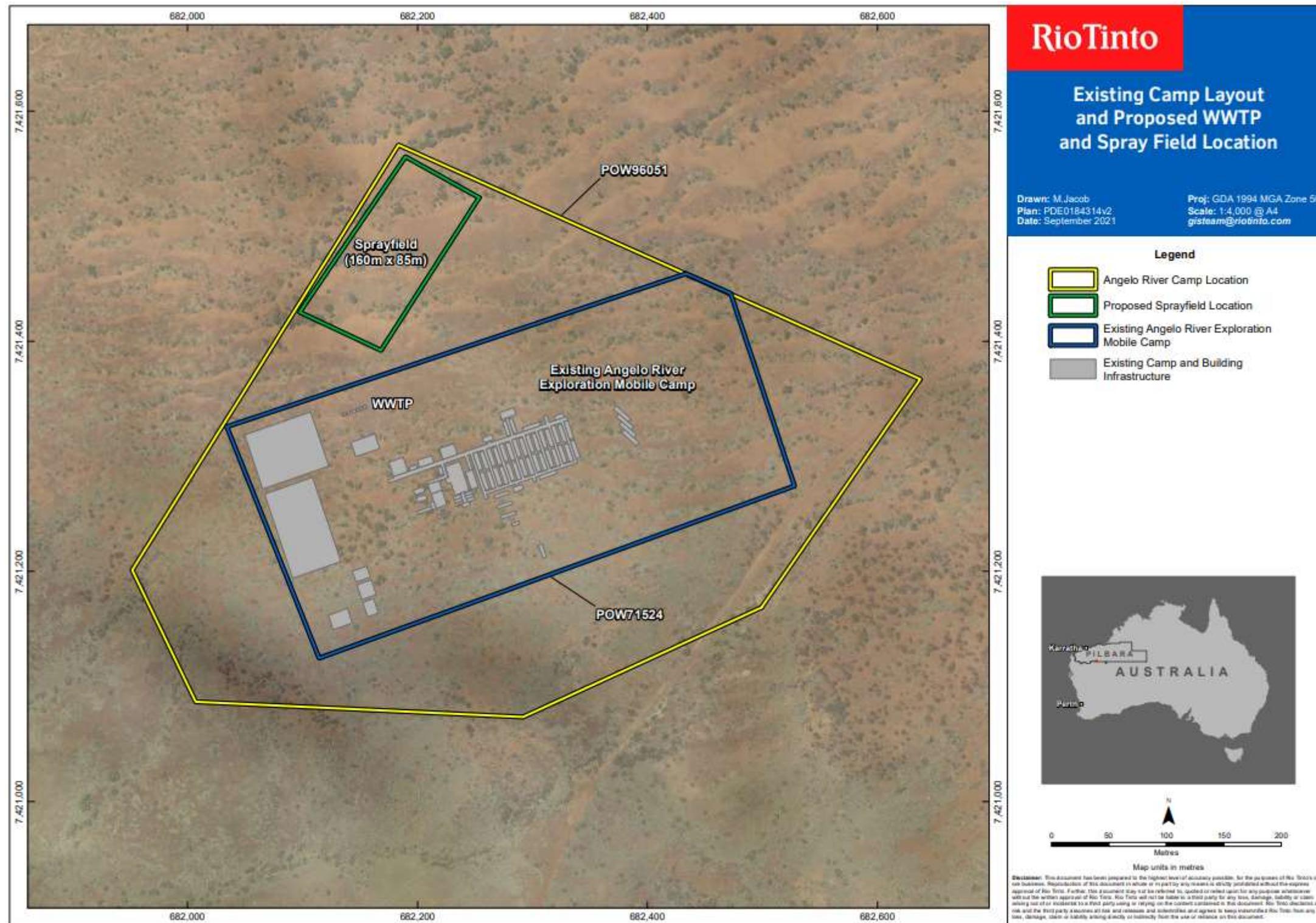


Figure 1: Map of the boundary of the prescribed premises

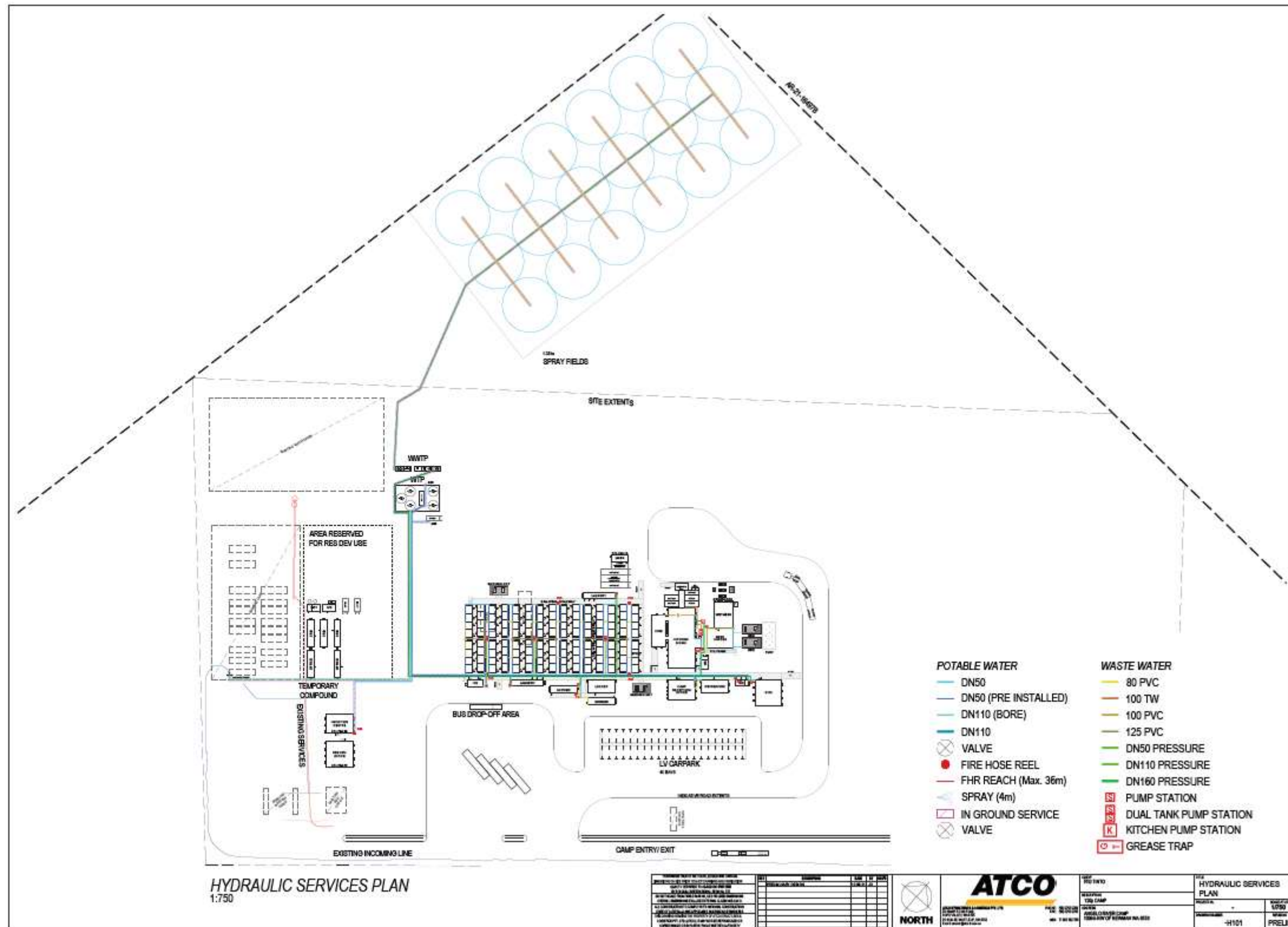


Figure 2: Map of detailed arrangement wastewater Treatment Plant

