



Works approval number	W5835/2015/1
Works approval holder	Iluka Resources Limited
ACN	008 675 018
Registered business address	Level 17 240 St Georges Terrace PERTH WA 6000
DWER file number	DER2015/000690-1
Duration	20/08/2015 to 23/08/2026
Date of amendment	19/12/2022
Premises details	North Capel Operations Mining tenements M70/257, M70/962, M70/970, M70/978, M70/990, M70/1082 and M70/1083 and part of mining tenements M70/279 and M70/386

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category Chemical manufacturing: premises (other than premises within category 32) on which chemical products are manufactured by a chemical process	380,000 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 19 December 2022, by:

Manager, Process Industries

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

Works approval history

Date	Reference number	Summary of changes
20/08/2015	W5835/2015/1	Works Approval issued for the construction of Synthetic Rutile 1 (SR1) stack.
14/03/2018	W5835/2015/1	Applicant initiated amendment to extend the expiry date of the works approval from 23/08/2018 to 23/08/2021.
14/01/2020	W5835/2015/1	Applicant initiated amendment to change SR1 stack location and diameter of the stack exit gases
16/12/2022	W5835/2015/1	Applicant initiated amendment to extend the expiry date of the works approval from 23/08/2021 to 23/08/2026.
19/12/2022	W5835/2015/1	Applicant initiated amendment to include time limited operation conditions.

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

Construction requirements

1. Subject to condition 2, the works approval holder shall construct the works in accordance with the documentation detailed in Table 1:

Table 1: Construction Requirements¹

Document	Parts	Date of Document
Works Approval Application Form <i>Iluka Resources Limited North Capel Operations</i> <i>Synthetic Rutile Plant 1 (SR1) New Stack Works Approval</i> Application Supporting Information April 2015, Rev 0	All	21 April 2015

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

2. The works approval holder shall construct the SR1 stack in accordance with the following requirements:
 - (a) located at coordinates 368794 mE and 6290960 mN MGA Zone 50 GDA 1994 as depicted in Figure 2 and Figure 3 of Schedule 1; and
 - (b) the internal stack tip diameter is 1.9 m.
3. The works approval holder shall commission the Synthetic Rutile Plant 1 (SR1) new stack for a period not exceeding 3 months.

Emissions

Point source emissions to air

4. The works approval holder shall ensure that where waste is emitted to air from the emission point in Table 2 and identified on the map in Schedule 1 it is done so in accordance with the conditions of this works approval.

Table 2: Emission points to air

Emission point reference	Emission Point	Emission point height (m)	Source, including any abatement
A14	New Stack	110	SR1 dryer exhaust gases, particulate wet scrubber SR1 kiln exhaust gases, thermo-oxidiser and particulate wet scrubber

Improvements

5. The works approval holder shall complete the improvements in Table 3 by the date of completion in Table 3.

Table 3: Improvement program

Improvement reference	Improvement	Date of completion
IR1	<p>The works approval holder shall, prior to commencing commissioning of the Synthetic Rutile Plant 1 (SR1) new stack submit a commissioning plan to the CEO. The commissioning plan shall include details relating to:</p> <ul style="list-style-type: none"> a) the expected timescales for commissioning; b) the volume of material to be processed during commissioning; c) expected emissions and discharges during commissioning and the environmental implications of the emissions; d) how emissions and discharges will be managed during commissioning; e) the monitoring that will be undertaken during the commissioning period; f) how accidents or malfunctions will be managed; g) start up and shut down procedures; and h) reporting proposals including accidents, malfunctions and reporting against the commissioning plan. <p>Commissioning shall be carried out in accordance with the commissioning plan.</p>	3 months prior to commissioning

Information

Compliance reporting

6. 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.
7. The compliance document shall:
 - (a) certify that the works were constructed in accordance with the conditions of the works approval; and
 - (b) be signed by a person authorised to represent the works approval holder and contain the printed name and position of that person within the company.
8. The works approval holder shall submit a commissioning report for the Synthetic Rutile Plant 1 (SR1) new stack to the CEO within 3 months of the completion of commissioning.
9. The works approval holder shall ensure the report includes:
 - (a) a list of any original monitoring reports submitted to the works approval holder from third parties for the commissioning period;
 - (b) a summary of the environmental performance of the North Capel Operations SR1 new stack as installed, against the design specification set out in the works approval application;
 - (c) a review of performance against the works approval conditions; and
 - (d) where they have not been met, measures proposed to meet the design specification and/or works approval conditions, together with timescales for implementing the proposed measures.

Notification

10. The works approval holder shall ensure that the parameters listed in Table 4 are notified to the CEO and are in accordance with the notification requirements of the table.

Table 4: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement	Format or form
3	Commencement of commissioning	7 days prior to start	None specified
	Completion of commissioning	7 days after completion	

Time limited operations phase

Commencement and duration

11. The works approval holder may only commence time limited operations of infrastructure identified in condition 1, where the Environmental Commissioning Report as required by condition 8 has been submitted by the works approval holder.
12. The works approval holder may conduct time limited operations of the infrastructure specified in condition 1:
- (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 8; 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 12(a)

Time limited operations infrastructure requirements

13. Any time limited operations activities undertaken for an item of infrastructure specified in Table 5 may only be carried out:
- (a) in accordance with the corresponding time limited operational requirements; and
 - (b) for the corresponding authorised time limited operations duration.

Table 5: Time limited operational requirements

	Site infrastructure and equipment	Requirements	Authorised duration	Infrastructure location
1	SR1 110 m stack	All SR1 dryer exhaust gases treated through particulate wet scrubber are directed to the SR1 stack SR1 kiln exhaust gases treated with thermo-oxidiser and particulate wet scrubber are directed to the SR1 stack	<u>Time limited operations</u> : For a period not exceeding 180 calendar days in aggregate.	As shown in Schedule 1, Figure 2, labeled as new SR1 stack

Time limited operations – authorised emission points

- 14.** During time limited operations, the works approval holder must ensure that the emissions specified in Table 6 are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 6: Authorised discharge points during time limited operation

	Emission	Discharge point	Discharge point height (magl)	Discharge point location	Location coordinates
1	CO ₂ , VOCs, particulate matter, SO ₂ ,	A14 SR1 Stack	110.00	As shown in Schedule 1: Figure 2 as New SR1 stack	368794 mE and 6290960 mN MGA Zone 50 GDA 1994

Time limited operations compliance reporting

- 15.** 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.
- 16.** The works approval holder must ensure the report required by condition 15 includes the following:
- (a) a summary of the time limited operations, including a review of the performance and compliance against the conditions of the works approval;
 - (b) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Definitions

In this works approval, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
annual period	means the inclusive period from 1 January and ending on 31 December in the same year
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
Commissioning	means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specification set out in the works approval application
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.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
premises	the premises to which this works approval applies, as specified at the front of this works approval and as shown on the premises map (Error! Reference source not found. 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.

END OF CONDITIONS

Stack Location map

SR1 Stack and Coordinates - 368794mE and 6290960mN MGA Zone 50 GDA 1994.

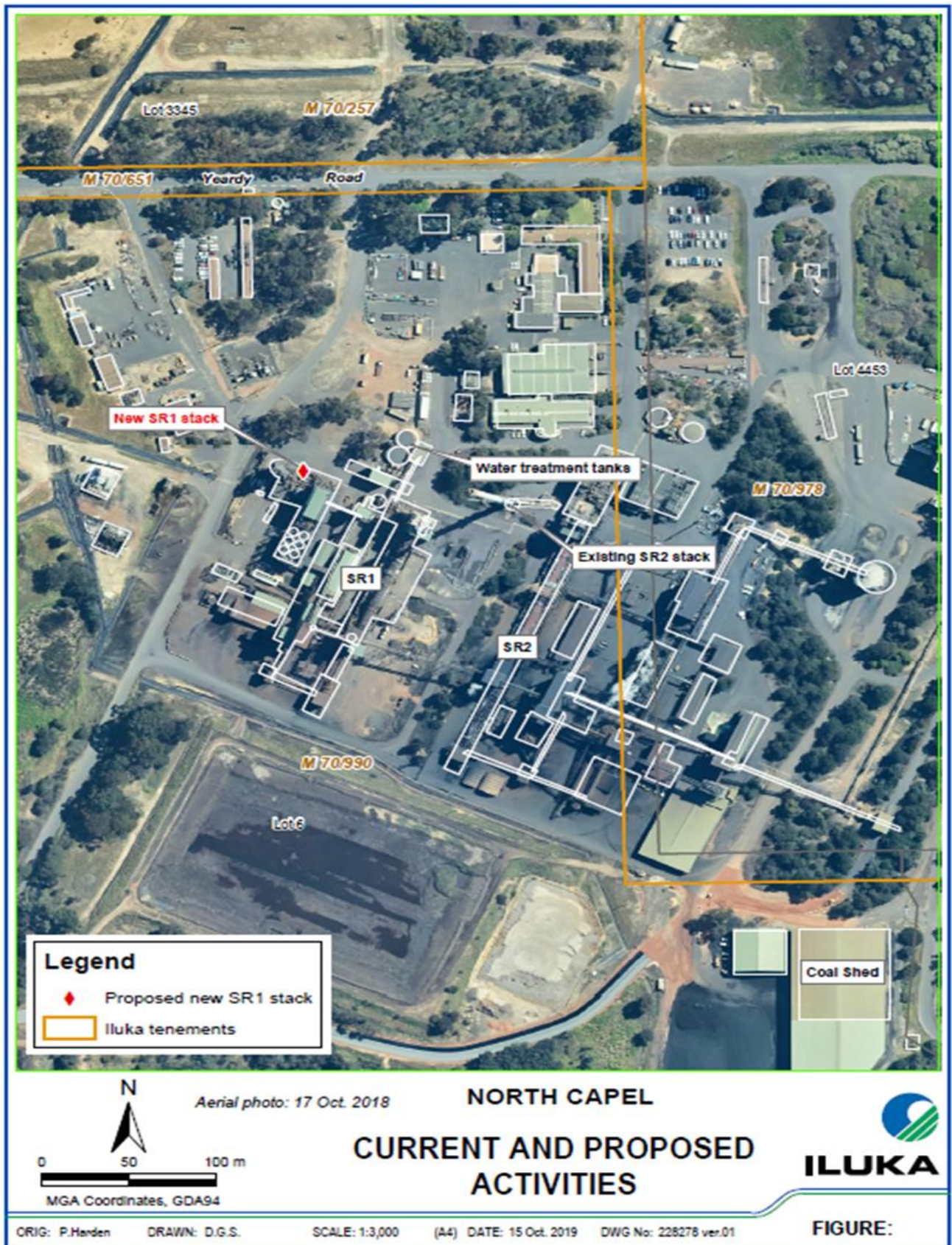


Figure 2: SR1 stack location

SR1 stack

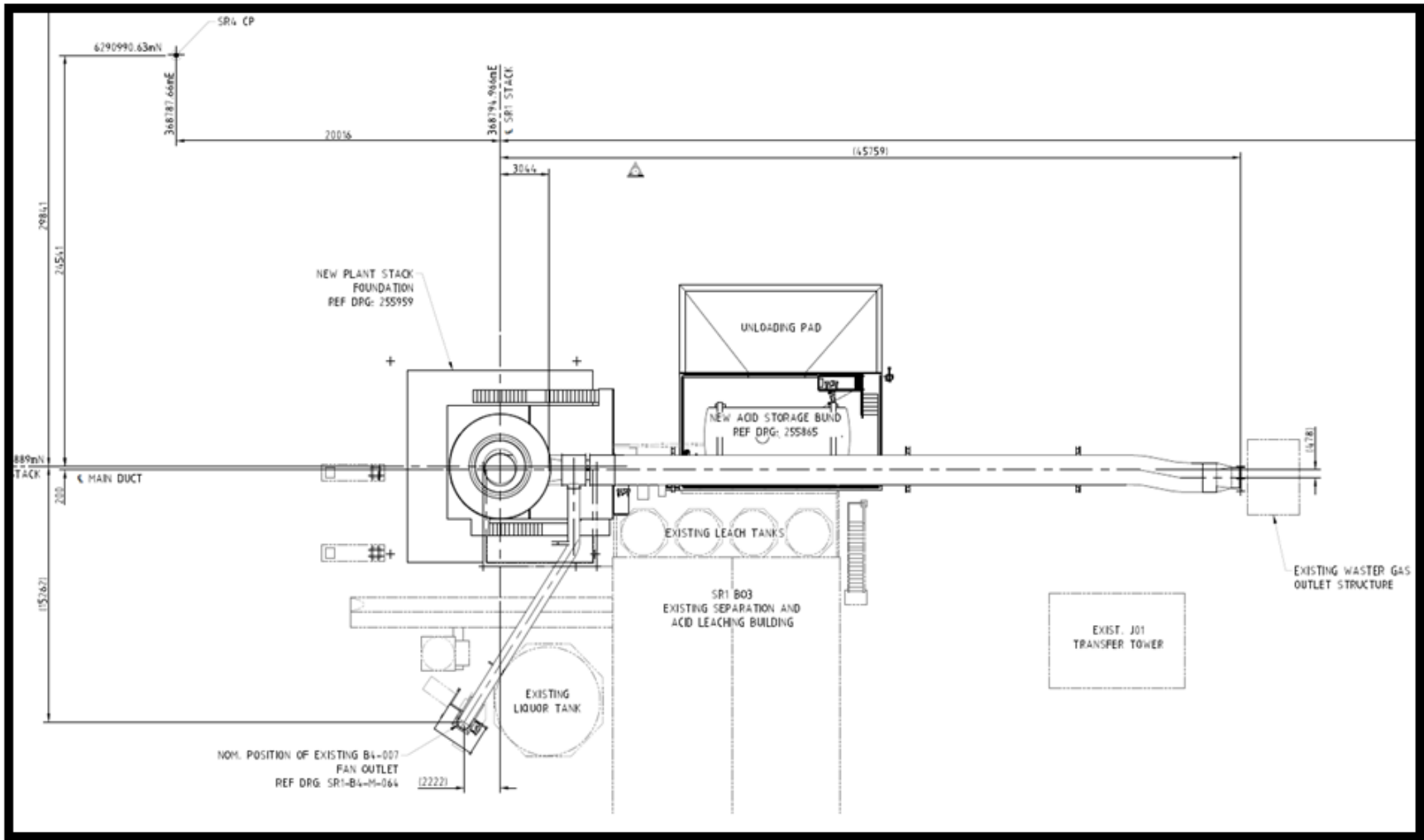


Figure 3: Technical drawing of SR1 stack

W5835/2015/1 (19/12/2022)