



Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L8562/2011/1
Licence Holder	Pilbara Iron Company (Services) Pty Ltd
ACN	107 210 248
File Number	DER2014/000869-1
Premises	<p>Gudai-Darri Iron Ore Mine</p> <p>L47/00701, AL70/00007 (L7SA), AML70/00252 (ML252SA), L47/00648, L47/00682, L47/00849, L47/00912 and L47/00768</p> <p>NEWMAN WA 6753</p> <p>As defined by the coordinates in Schedule 1 of the Revised Licence</p>
Date of Report	18 October 2024 (FINAL)
Decision	Revised licence granted

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1. Decision summary

Licence L8562/2011/1 is held by Pilbara Iron Company (Services) Pty Ltd (Licence Holder) for the Gudai-Darri Iron Ore Mine (the Premises), located approximately 110 km north-west of Newman.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L8562/2011/1 has been granted.

The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Amendment summary

On 12 August 2024, the Licence Holder submitted an application (Rio Tinto 2024) to the department to amend Licence L8562/2011/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act).

The amendment is sought to increase the design capacity of the main processing facilities from 43 million tonnes per annum (mtpa) to 53 mtpa. The Licence Holder has stated that the following modifications will be made to the main processing facilities resulting in the increased throughput:

- Increase in the length of the discharge chute to the existing coarse apron feeder discharge chute; and
- Improvements to the belt strength of the coarse ore stockpile feed conveyor.

The existing approved design capacity of Category 5 under Licence L8562/2011/1 is 53 mtpa of which 43 mtpa was associated with the main processing facilities; and 10 mtpa from the Build Own Operate (BOO) plant.

The Licence Holder is not proposing to increase the existing approved Category 5 design capacity as it has been stated that “*use of the BOO plant (approved to 10 mtpa) will decrease as the use of the Main Processing infrastructure increases. The total tonnes per year will not exceed 53 mtpa from the site*” (Rio Tinto 2024).

This amendment is limited only to changes to the design capacity of the main processing facilities (Condition 8, Table 2 of the amended licence).

2.3 Part IV of the EP Act

The Gudai-Darri Iron Ore Mine (previously known as the Koodaideri Iron Ore Mine and Infrastructure Project) was assessed by the Environmental Protection Authority (EPA) and approved under Ministerial Statement (MS) 999 in March 2015.

MS 999 has conditions relating to:

- Terrestrial Fauna (Pilbara Leaf-nosed Bat) and Subterranean Fauna (Troglifauna) Exclusion Zones
- Terrestrial Fauna - Pilbara Leaf-nosed Bat
- Terrestrial Fauna – Northern Quoll Management Plan

- Flora – Hamersley Lepidium (*Lepidium catapycnon*)
- Flora – Priority 1 *Sauropus* sp. Koodaideri detritals Regional Survey and Conservation and Research Plan
- Flora and Hydrological Processes – Koodaideri Spring Adaptive Management Plan
- Human Health – Western Rail Corridor Asbestos Management Plan
- Rehabilitation and Closure
- Offsets

Requirements of MS 999 are not re-assessed in this Amendment Report and are not duplicated as conditions in the licence.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 1 below. Table 1 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Increased processing capacity at the main processing facilities i.e. loading, unloading, crushing, screening and stockpiling	Air / windborne pathway	No controls proposed.
Noise		Air / ground pathway	No controls proposed.
Hydrocarbon contaminated and / or sediment laden stormwater		Overland runoff Discharges to land	Controls outlined within <i>L8562/2011/1 Amendment Report</i> granted 05 May 2023 include: <ul style="list-style-type: none"> • operate and maintain stormwater drain system and sedimentation ponds. • operate and maintain stormwater diversion levees and drains. • concrete sumps are to be maintained to collect wash down water from conveyors. • drive in sumps and silt traps are to be maintained.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 2 and Figure 1 below provides a summary of potential environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
<p>Threatened / Priority fauna</p> <ol style="list-style-type: none"> 1. Northern Quoll (<i>Dasyurus hallucatus</i>) Endangered 2. Grey Falcon (<i>Falco hypoleucos</i>) Vulnerable 3. Ghost Bat (<i>Macroderma gigas</i>) Vulnerable 4. Pilbara Leaf-nosed Bat (<i>Rhinonictis aurantia</i> (Pilbara form)) Vulnerable 5. Pilbara Olive Python (<i>Liasis olivaceus barroni</i>) Vulnerable 6. Western Pebble-mound Mouse (<i>Pseudomys chapmani</i>) Priority 4 7. Peregrine Falcon (<i>Falco peregrinus</i>) Other Specially Protected 	<p>All species have been recorded within the prescribed premises boundary.</p> <p>MS 999 conditions apply for the Pilbara Leaf-nosed Bat and Northern Quoll.</p>
<p>Other fauna</p>	<p>Troglofauna exclusion zone has been imposed under MS 999.</p>
<p>Threatened / Priority flora</p> <ol style="list-style-type: none"> 1. <i>Synostemon hamersleyensis</i> Priority 1 2. <i>Rostelluria adscendens</i> var. <i>latifolia</i> Priority 3 3. <i>Sida</i> sp. Barlee Range (S. van Leeuwen 1642) Priority 3 4. <i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431) Priority 3 5. <i>Eremophila magnifica</i> subsp. <i>magnifica</i> Priority 4 6. <i>Lepidium catapycnon</i> Priority 4 7. <i>Rhynchosia bungarensis</i> Priority 4 	<p>Recorded within the prescribed premises boundary.</p> <p>MS 999 conditions apply for <i>Lepidium catapycnon</i> and <i>Synostemon hamersleyensis</i>.</p>
<p><i>Rights in Water and Irrigation Act 1914</i> Proclaimed Pilbara Groundwater and Surface Water Areas</p>	<p>Located within the Prescribed premises boundary</p>

<p>Underlying groundwater</p>	<p>Variable in depth, but typically 70 m below ground level.</p> <p>Groundwater expected to generally flow northwards.</p> <p>No pastoral bores in use are located within 5 km of operational infrastructure.</p>
<p>Hydrology <i>Koodaideri Spring</i></p>	<p>Approximately 4 km from the main processing facilities.</p> <p>MS 999 conditions apply that includes an exclusion zone around the Spring and an adaptive management plan to ensure no adverse changes to hydrology.</p> <p>Unnamed ephemeral creeks within the prescribed premises boundary.</p>
<p>Cultural receptors</p>	<p>Distance from prescribed activity</p>
<p>Registered aboriginal heritage sites</p>	<p>22 registered sites and 17 lodged heritage sites within the prescribed premises boundary.</p> <p>None of these should be impacted by the main processing facilities.</p>

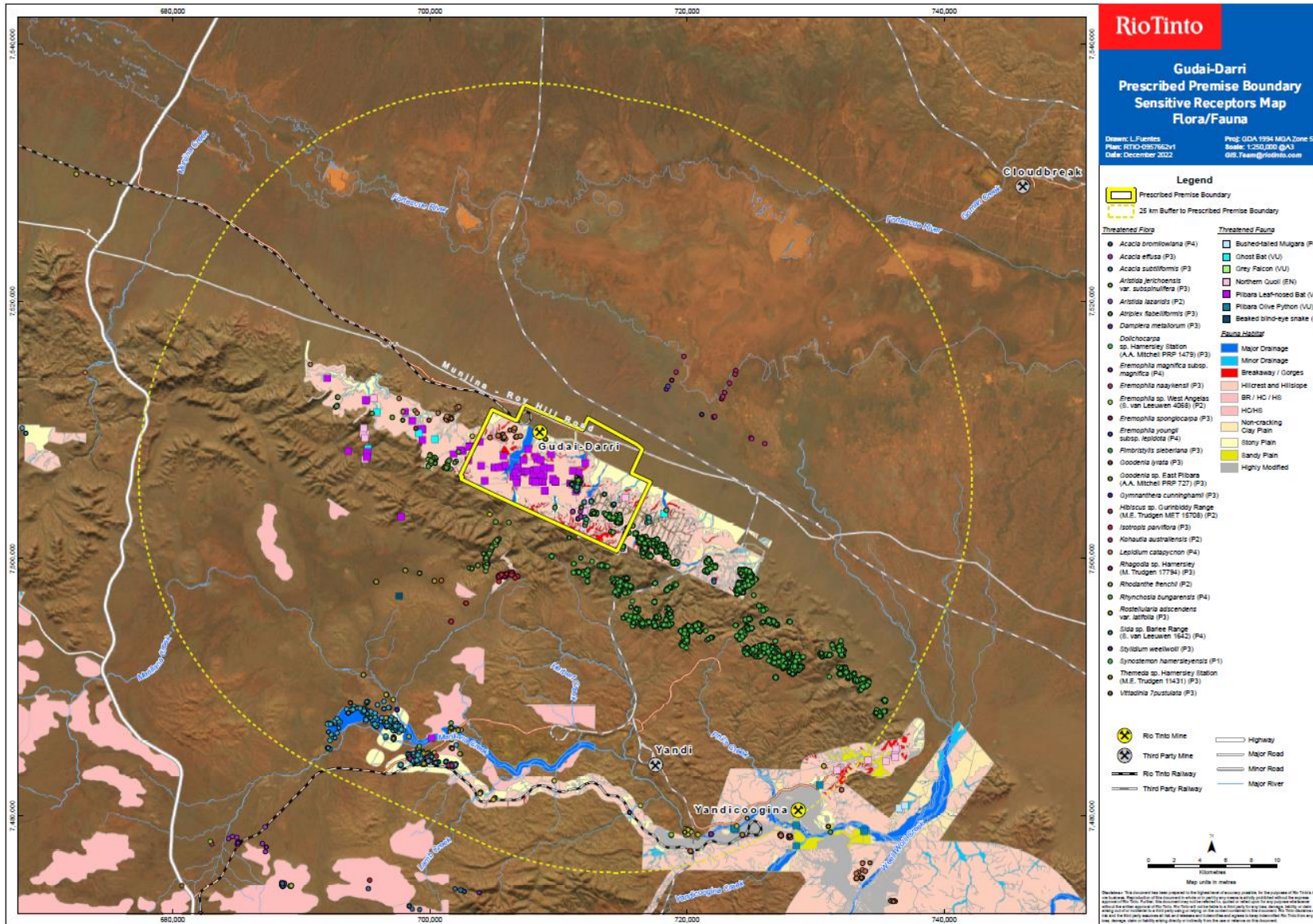


Figure 1: Distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The Revised Licence L8562/2011/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 3: Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Increased processing capacity to the main processing facilities i.e. crushing, screening, loading and unloading	Dust	Air / windborne pathway causing impacts to health and amenity	Priority Flora Vegetation	Refer to Section 3.1	C = Minor L = Possible Medium Risk	N/A	No additional conditions imposed. Existing conditions on L8562/2011/1 relating to: <ul style="list-style-type: none"> Condition 10 (previously condition 15) - dust management. Condition 8 (previously condition 19) – operational requirements for the main processing facilities including maintaining and operating high-pressure water fogging and water spray curtain system; spray booths at the conveyor transfer points; and automatic water cannons in the stockyard. The general provisions of the EP Act with respect to the causing of pollution and environmental harm also applies. MS 999 conditions also apply for <i>Lepidium catapycnon</i> and <i>Synostemon hamerselyensis</i> – refer to section 2.3.	N/A
	Noise	Air / ground pathway Noise and vibration causing impacts to amenity	Threatened / Priority fauna	Refer to Section 3.1	C = Slight L = Possible Low Risk	N/A	No conditions imposed. Managed under Part IV of the EP Act through MS 999 for the Pilbara Leaf-nosed Bat and Northern Quoll – refer to section 2.3. The <i>Environmental Protection (Noise) Regulations 1997</i> also apply for the Premises.	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
	Hydrocarbon contaminated and / or sediment laden stormwater	Overland runoff and discharges to land potentially causing contamination of soils and / or increased sedimentation of surface water drainage	Surface water drainage Surrounding vegetation	Refer to Section 3.1	C = Minor L = Possible Medium Risk	Y	No additional conditions imposed. Existing conditions on L8562/2011/1 relating to: <ul style="list-style-type: none"> • Conditions 1 and 2 (previously conditions 13 and 14) - stormwater management. • Conditions 3, 4 and 5 (previously conditions 16, 17 and 18) - waste management from ancillary operations. • Condition 8 (previously condition 19) – operational requirements for the main processing facilities including maintaining the processing plant stormwater drain system. 	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on 26 September 2024	The Licence Holder responded on 14 October 2024 requesting the following changes to Condition 10 – The licence holder must monitor the weather forecasts to ensure availability of adequate water carts and manage dust within the prescribed premises boundary."	The department has made the requested change. The intent of this condition is still met.

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 5 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 5: Summary of licence amendments

Condition no.	Proposed amendments
Date of issue	Included.
Premises details	Updated to include suburb. Administrative updates.
Prescribed premises category description	Administrative updates.
Condition 1	Previous condition 13. Administrative updates.
Condition 2	Previous condition 14. Administrative updates.
Condition 3	Previous condition 16. Administrative updates.
Condition 4	Previous condition 17. Administrative updates.
Condition 5	Previous condition 18.

Condition no.	Proposed amendments
	Administrative updates.
Condition 6	Previous condition 1. Administrative updates.
Condition 7	New condition to allow operation of the landfills constructed under condition 6, following submission of compliance documentation.
Condition 8	Previous condition 19. Increase in capacity for the main processing facilities from 43,000,000 tonnes per year to 53,000,000 tonnes per year. Administrative updates.
Condition 9	New condition which also incorporates previous conditions 4 and 5. Administrative updates.
Condition 10	Previous condition 15. Administrative updates. Refer also to Table 4.
Previous condition 10	Removed as now covered under condition 13, Table 4; and condition 14.
Condition 11	Administrative updates.
Condition 12	Previous condition 6. Administrative updates.
Previous condition 7	Removed, as this requirement is covered under condition 21, Table 5 for Environmental reporting.
Condition 13	Previous condition 8. Inclusion of requirement to monitor monthly volume. Previous condition 10(a) and (b) requirements now covered under this condition.
Condition 14	Previous condition 10(c). Administrative updates.
Condition 15	Previous condition 9. Administrative updates.
Previous condition 12	Removed, as this requirement is covered under condition 21, Table 5 for Environmental reporting.
Condition 16	Previous condition 22. Administrative updates.
Previous condition 2	Removed and is now covered by new conditions 17 and 18.
Conditions 17 and 18	As above for previous condition 2.

Condition no.	Proposed amendments
Condition 19	Previous condition 3. Administrative updates.
Condition 20	Previous condition 21. Updates in line with new licence format.
Condition 21	Previously condition 20. Updates in line with new licence format. Administrative updates.
Condition 22	Previous condition 23. Administrative updates.
Condition 23	Previous condition 24. Administrative updates.
Definitions	Updated as required.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. L8562/2011/1 Amendment Report, granted 05 May 2023 available at [Licences and works approvals search - Department of Water and Environmental Regulation \(der.wa.gov.au\)](https://www.der.wa.gov.au/licences-and-works-approvals-search).
5. Rio Tinto 2024, *Application for a Licence Amendment (L8562/2011/1) – Gudai-Darri Iron Ore Mine*, dated 12 August 2024.