



## Application for Works Approval

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

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**Works Approval Number** W6520/2021/1

**Applicant** Pilbara Iron Company (Services) Pty Ltd

**ACN** 107 210 248

**File Number** DER2021/000129

**Premises** Gudai-Darri Iron Ore Mine  
AML70/252 (Mineral Lease S.A. 70/252), L47/701 and  
Miscellaneous Licence 7SA (Special Rail Licence),  
Miscellaneous Licence L47/849  
TOM PRICE WA 6751

**Date of Report** 14 May 2021

**Decision** Works approval granted

**ALANA KIDD**  
**MANAGER, RESOURCE INDUSTRIES**

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

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## 1. Decision summary

This Decision Report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Works Approval W6520/2021/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Decision 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 Application summary and overview of Premises

On 04 March 2021, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to:

- a Category 5 Build Own Operate (BOO) Crushing Plant;
- a Category 64 Class II Putrescible Landfill for use during operations; and
- Subsequent Category 64 Class II Putrescible Landfill cells for use throughout the duration of the operations at the Premises.

The Premises is approximately 33 km west of the Marillana Station Homestead.

The Premises relates to these categories and assessed production/design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in Works Approval W6520/2021/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guidance Statement: Risk Assessments* (DER 2017) are outlined in Works Approval W6520/2021/1.

The locations of the proposed infrastructure are shown in Figure 1.

#### 2.2.1 BOO Plant

The BOO Plant is to be located adjacent to the proposed Processing Plant (authorised to be constructed under Works Approval W6221/2019/1) to provide temporary dry crushing and screening of up to 10 Mtpa. It will assist with the accelerated ramp up of the Premises, providing a crushing facility whilst the Processing Plant is under construction and undergoing commissioning. Refer to Figure 2.

The BOO Plant will be made up of the following infrastructure:

- Primary crusher/s;
- Surge Bin;
- Screening;
- Secondary crushing module/s;
- Product conveyors (to stockpile or into GD1 System);
- Reclaim Hopper and transfer conveyors;
- Diesel generators;

- Mobile plant and maintenance facilities; and
- Internal access and haul roads connecting to existing road networks.

It is estimated to operate 24 hours per day, 7 days a week, for 18 months.

The BOO Plant is to be located in laydown area 1, between the rail loop and the Crushing and Screening facility that is under construction (authorised under Works Approval W6221/2019/1). Product from the BOO Plant will be fed into the stockyard material handling system via transfer conveyors, stockpiled and loaded into trains via the train load out facilities.

### 2.2.2 Operational Landfill

The Operational Landfill is designed to operate for a period of approximately five years, with a capacity of 5,000 tonnes per annual period. The Operational Landfill will operate in conjunction with the already approved Construction Landfill (authorised under Licence L8562/2011/1).

The Operational Landfill will be located south of the Village WWTP spray field. Refer to Figure 3.

The Operational Landfill will consist of the following:

- Two trenches (four cells in each trench);
- Perimeter windrows (400mm around each trench, and 500mm around site); and
- Secure perimeter cyclone mesh fence.

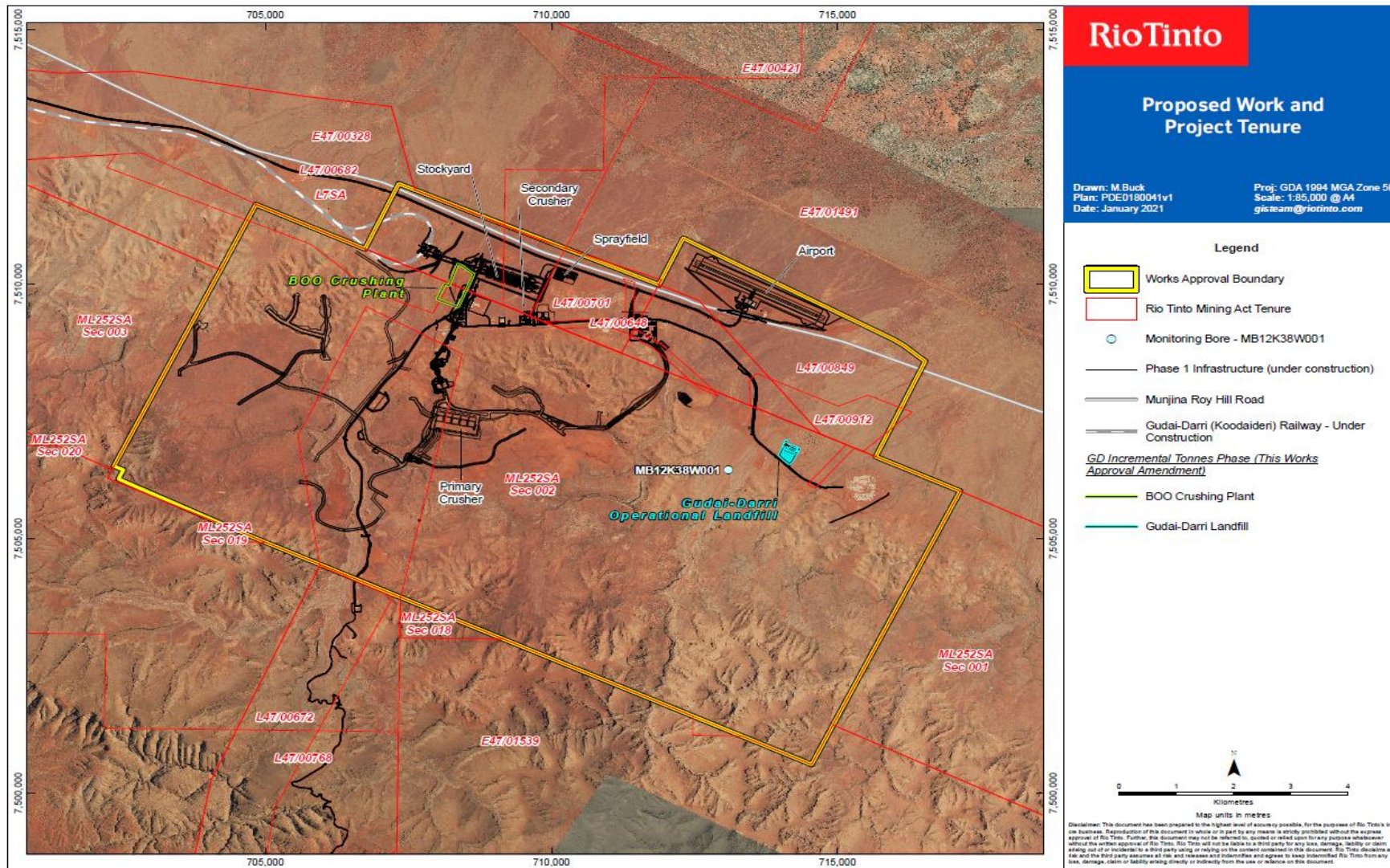
The following types of wastes are to be disposed of at the landfills:

- Clean Fill;
- Uncontaminated Fill;
- Inert Waste Type 1;
- Inert Waste Type 2;
- Special Waste Type 1;
- Special Waste Type 2; and
- Putrescible Waste.

### 2.2.3 Subsequent Landfill Cells

The Applicant is requesting that the Works Approval allows the ongoing construction of operational landfill cells up to 5,000 tonnes per annual period. Refer to Figure 3.



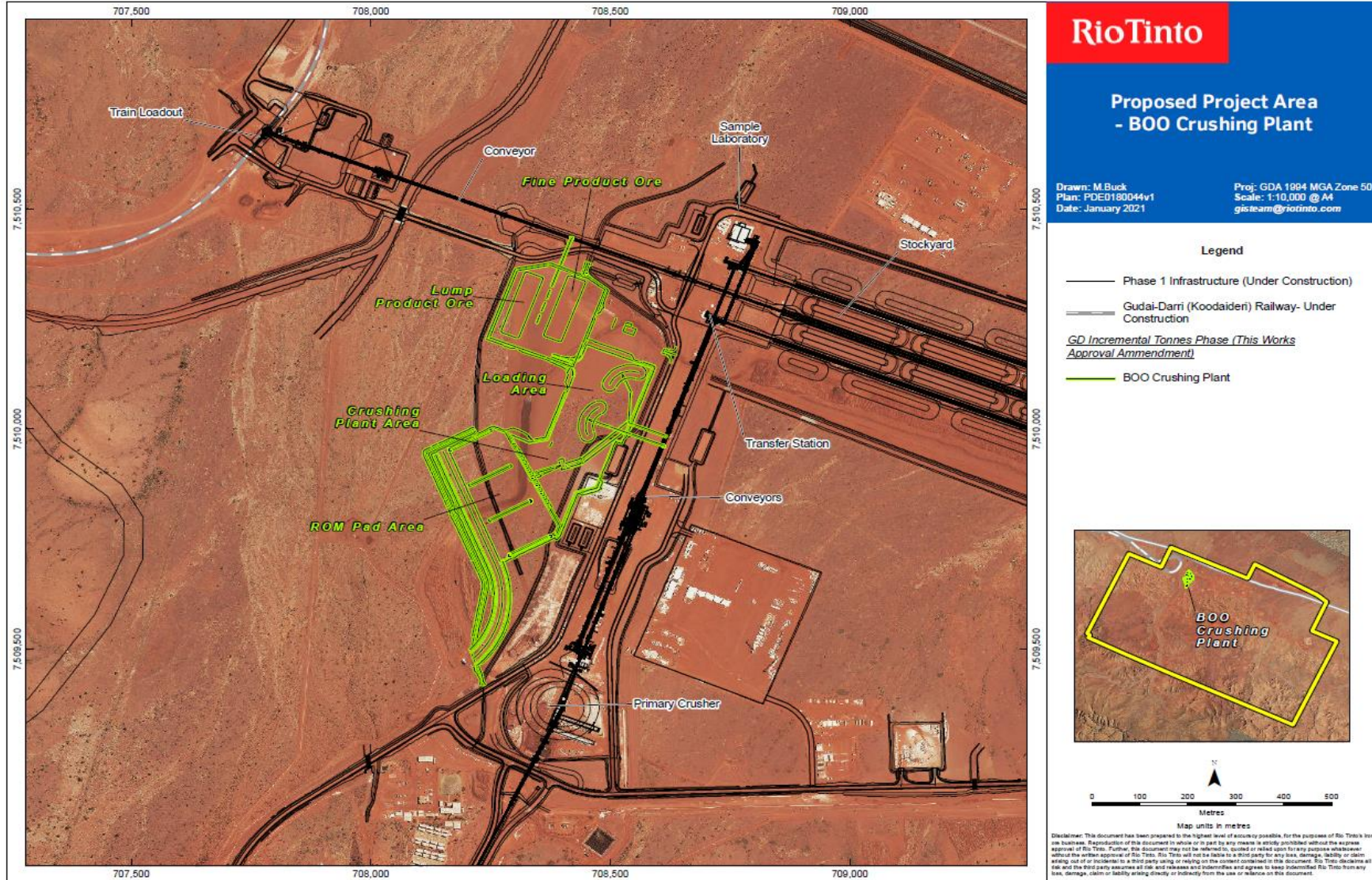


**Figure 1: Proposed locations of the BOO Plant and Operations Landfill**

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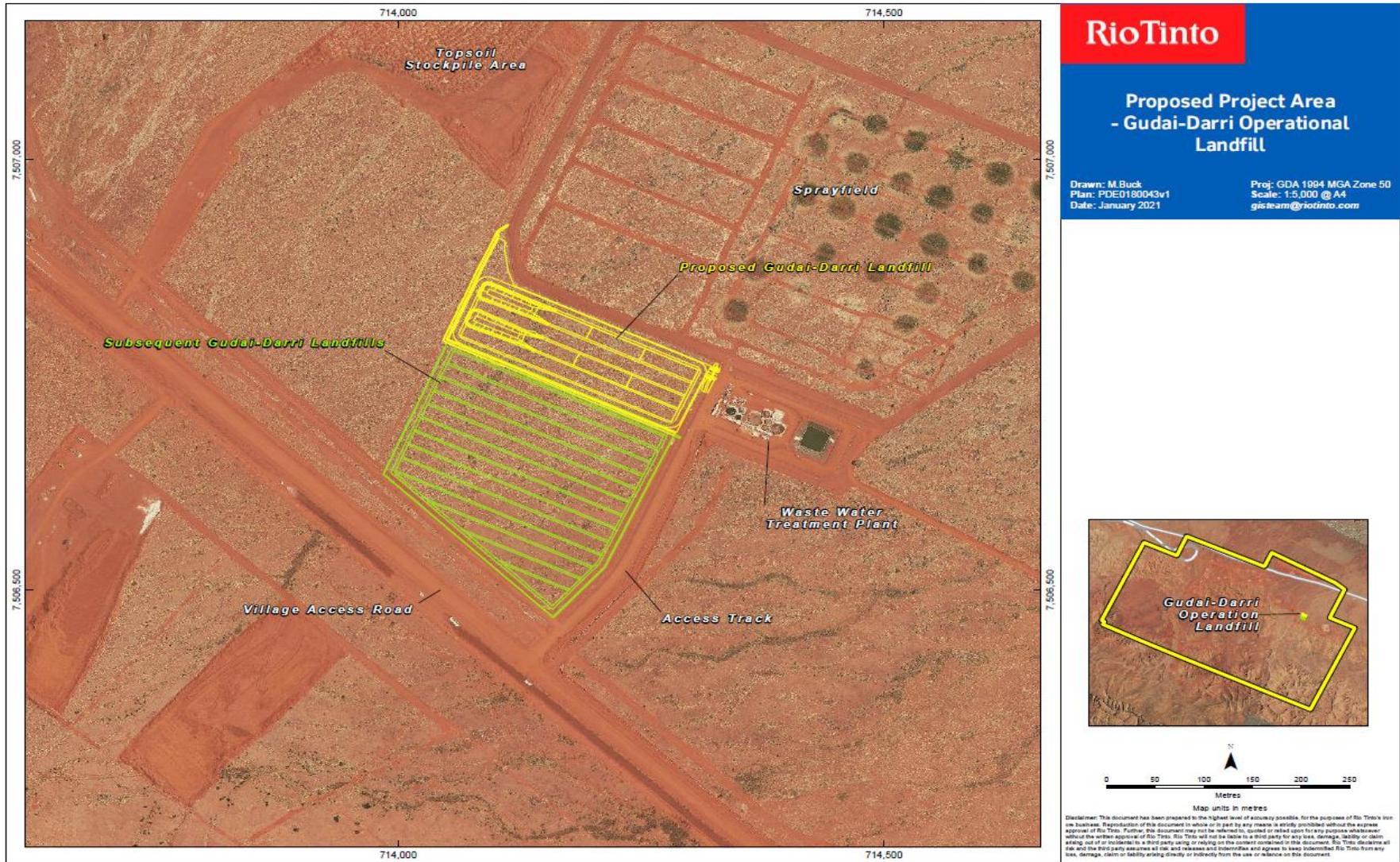


**Figure 2: BOO Plant infrastructure**

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**Figure 3: Operations Landfill and subsequent landfill cells**

## 2.3 Part IV of the EP Act

### 2.3.1 Background

In May 2012 Hamersley Iron Pty Limited (subsidiary of the Rio Tinto Iron Ore Group) referred the proposal to construct and operate the Koodaideri open cut iron ore mine to the Environmental Protection Authority. The proposal included development and operation of associated infrastructure for the extraction, processing and transport of iron ore.

The Environmental Protection Authority (EPA) assessed the Public Environmental Review for the proposal, resulting in the EPA's report 1533, dated November 2014.

On 10 March 2015, the WA Minister for Environment approved the implementation of the proposal subject to implementation conditions and procedures as detailed in the Statement No: 999.

### 2.3.2 Ministerial Statement 999 and EPA report 1533

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for Environment on the outcome of its assessment of a proposal.

The EPA's report (no. 1533) identified the following key environmental factors relevant to the proposal required detailed evaluation in the report:

- a) Terrestrial fauna;
- b) Subterranean Fauna;
- c) Flora and vegetation;
- d) Hydrological processes and Inland Waters Environmental Quality;
- e) Human Health;
- f) Rehabilitation and Closure, and
- g) Offsets.

The EPA concluded that the proposal can be managed to meet the EPA's objectives provided there is satisfactory implementation by the proponent of the recommended conditions.

Ministerial Statement 999 details the implementation conditions and procedures. The EPA's report (no. 1533) details that matters addressed in the conditions include the following:

- a) Ensuring that the proposal is implemented in a manner that maintains the Pilbara Leaf-nosed Bat colony which resides within the K75W adit/cave system (conditions 6 and 7);
- b) Ensuring that troglofauna are protected by excluding mining and infrastructure placement within a portion of troglofauna habitat (condition 6);
- c) Ensuring that mine construction and operational activities are carried out in a manner that minimises impacts to the Northern Quoll (condition 8);
- d) Ensuring that mining and infrastructure is sited in a manner that avoids the Declared Rare Flora, *Hamersley Lepidium* (condition 9);
- e) Ensuring that the proposal is implemented so that it does not affect the viability of the Priority 1, *Sauropus sp.* Koodaideri detritals (condition 10);
- f) Ensuring that mining activities do not impact the hydrological regime or water quality of the Koodaideri Spring Gorge (condition 11);
- g) Ensuring the proposal does not increase the spread of asbestos in the environment, resulting in adverse effects on public health (condition 12). *Note – this matter is outside the scope of this works approval assessment as it does not relate to activities within the premises boundary;*



- h) Requiring the proponent close, decommission and rehabilitate the mine in an ecologically sustainable manner through the development and implementation of a Mine Closure Plan (condition 13); and
- i) Requiring the proponent to contribute funds to a government established conservation offset fund to mitigate for significant residual impacts on vegetation in 'good to excellent' condition which contains habitat for the Northern Quoll and foraging habitat for the Pilbara Leaf-nosed Bat (condition 14).

### 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 *Guidance Statement: Risk Assessments* (DER 2017).

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 construction and operation which have been considered in this Decision Report are detailed in Table 1 below. Table 1 also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls**

Emission	Sources	Potential pathways	Proposed controls
<b>BOO Plant</b>			
<b>Construction</b>			
Dust	Earthworks, setup of infrastructure, vehicle movements	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Water carts used during clearing and construction activities and in areas with frequent vehicle movement on unsealed roads;</li> <li>• Dust suppressant additives applied through water carts to assist with dust control; and</li> <li>• Weather forecasts monitored to ensure availability of adequate water carts if risk of windy conditions.</li> </ul>
Noise	Earthworks, setup of infrastructure, vehicle movements	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Managed in accordance with the <i>Environmental Protection (Noise) Regulations 1987</i>; and</li> <li>• Relevant standards and guidelines.</li> </ul>
<b>Operations</b>			
Dust	Ore loading/unloading, crushing and screening,	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Dust suppression systems installed at high risk areas to control overall</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
	conveyors, stockpiles, vehicle movement		<p>moisture content and minimise dust generation n downstream processing. Dust nozzles installed at the:</p> <ul style="list-style-type: none"> <li>➤ ROM Bin;</li> <li>➤ Each conveyor loading section and discharge chute; and</li> <li>➤ Stacker discharge chute;</li> </ul> <ul style="list-style-type: none"> <li>• Enclosure of all discharge chutes;</li> <li>• Regular housekeeping to collect and remove material that may present a potential dust risk from around conveyors and loading/unloading areas;</li> <li>• Water carts mobilised when required to control dust; and</li> <li>• Weather forecasts monitored to ensure availability of adequate water carts if there is a risk of windy conditions.</li> </ul>
Noise	Ore loading/unloading, crushing and screening, conveyors, stockpiles, vehicle movement	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Managed in accordance with the <i>Environmental Protection (Noise) Regulations 1987</i>; and</li> <li>• Relevant standards and guidelines.</li> </ul>
Contaminated / sediment laden stormwater	Rainwater from storm events ingress with iron ore, hydrocarbons and chemicals within the processing area	Direct discharges	<ul style="list-style-type: none"> <li>• Diversion of clean surface water around the processing area;</li> <li>• Australian Standard AS 1940:2017 The Storage and Handling of Flammable and Combustible Liquids;</li> <li>• Secondary containment of hydrocarbon/chemical storage across the site;</li> <li>• Approval process prior to mobilising chemicals to site;</li> <li>• Drainage sumps to settle out sediments prior to discharge from the processing areas;</li> <li>• Oily water separators (centrifugal type) to separate out hydrocarbons from surface water;</li> <li>• No permitted release of any potentially contaminated site water that has not been checked for hydrocarbon contaminants; and</li> <li>• Provision of spill kits.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
<b>Operational Landfill</b>			
<b>Construction</b>			
Dust	Clearing, construction of landfill trenches, vehicle movements	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Water carts used during clearing and construction activities and in areas with frequent vehicle movement on unsealed roads;</li> <li>• Dust suppressant additives applied through water carts to assist with dust control; and</li> <li>• Weather forecasts monitored to ensure availability of adequate water carts if risk of windy conditions.</li> </ul>
Noise	Clearing, construction of landfill trenches, vehicle movements	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Managed in accordance with the <i>Environmental Protection (Noise) Regulations 1987</i>; and</li> <li>• Relevant standards and guidelines.</li> </ul>
Contaminated stormwater	Rainwater from storm events ingress to the landfill cells, becoming contaminated	Direct discharges	<ul style="list-style-type: none"> <li>• Windrows will be established approximately 400 mm high around the perimeter of each trench to divert stormwater away from the active landfill area, prevent storm water from coming into contact with waste and provide a safety barrier;</li> <li>• A sump or bunding will be constructed to collect any surface water that has come into contact with waste;</li> <li>• Ramping to the open trench features a 200 mm high roll over bund to prevent stormwater entering the trench;</li> <li>• A 500 mm windrow will be constructed along the fence line to ensure waste is not washed or blown beyond the premises boundary and to ensure all stormwater is retained onsite; and</li> <li>• Provision of spill kits.</li> </ul>
Leachate	Rainwater percolating through the landfill cells to groundwater	Infiltration	<ul style="list-style-type: none"> <li>• Landfill cells to be located so that vertical distance between the waste and the highest seasonal and expected post mining ground water level is no less than 3 m; and</li> <li>• Groundwater monitoring bore MB12K38W001 is located 900m from the landfill. Groundwater levels at this bore have been recorded at 73.5mbgl.</li> </ul>



Emission	Sources	Potential pathways	Proposed controls
<b>Operations</b>			
Windblown waste / odour	Wastes from within the landfill cells	Air/windborne pathway	<ul style="list-style-type: none"> <li>• Tipping area not greater than 30 m in length and at least 2 m above ground level height;</li> <li>• Waste is to be covered at least monthly with a minimum of 200 mm of cover material so that no waste is left exposed. Covering is to be with soil or another inert approved material;</li> <li>• Signage at the entrance of the facility informing users of the management practises, accepted waste types, and landfill manager contact details.</li> <li>• The facility will be surrounded by a 1.8 m high cyclone mesh fence with the bottom portion of the fence line buried to deter fauna ingress to the facility;</li> <li>• Facility will have lockable gates which are secured when the premises is unattended; and</li> <li>• A 500 mm windrow will be constructed along the fence line to ensure waste is not washed or blown beyond the premises boundary and to ensure all stormwater is retained onsite.</li> </ul>
Contaminated stormwater	Rainwater from storm events ingress to the landfill cells, becoming contaminated	Direct discharges	<ul style="list-style-type: none"> <li>• Windrows will be established approximately 400 mm high around the perimeter of each trench to divert stormwater away from the active landfill area, prevent storm water from coming into contact with waste and provide a safety barrier;</li> <li>• A sump or bunding will be constructed to collect any surface water that has come into contact with waste;</li> <li>• Ramping to the open trench features a 200 mm high roll over bund to prevent stormwater entering the trench;</li> <li>• A 500 mm windrow will be constructed along the fence line to ensure waste is not washed or blown beyond the premises boundary and to ensure all stormwater is retained onsite; and</li> <li>• Provision of spill kits.</li> </ul>
Leachate	Rainwater percolating through the landfill cells to groundwater	Infiltration	<ul style="list-style-type: none"> <li>• Landfill cells to be located so that vertical distance between the waste and the highest seasonal and expected post mining ground water</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			level is no less than 3 m; <ul style="list-style-type: none"> <li>• Only particular waste types accepted;</li> <li>• Waste disposed of to the landfill facilities to be recorded; and</li> <li>• Groundwater monitoring bore MB12K38W001 is located 900m from the landfill. Groundwater levels at this bore have been recorded at 73.5mbgl.</li> </ul>

### 3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant'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 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

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

Human receptors	Distance from prescribed activity
Marillana Station Homestead	33km east (not considered a receptor due to distance).
Newman	110km west northwest (not considered a receptor due to distance).
Tom Price	130km northeast (not considered a receptor due to distance).
Environmental receptors	Distance from prescribed activity
<u>Threatened Ecological Communities (TEC)</u> The premises boundary intersects with the buffer zone of the Priority 1 Fortescue Marsh Priority Ecological Community.	8km
<u>Threatened and/or priority flora</u> There are two flora species of elevated conservation value within the overall development area: <i>Lepidium catapycnon</i> and <i>Synostemon hamersleyensis</i> . Neither species will be impacted by the construction or operation of the BOO Plant and Landfill and all recorded populations are protected by development exclusion areas.  The vegetation of the Gudai-Darri Spring Gorge is of conservation significance as it provides key habitat for a number of fauna species including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll.	Species have been recorded in the project area but are not located within the area of proposed works. The closest is the <i>Lepidium catapycnon</i> located approximately 1 km from the crushing plant.

<p><u>Threatened and/or priority fauna</u></p> <p>Several species of conservation significance are found within the overall project development footprint:</p> <ul style="list-style-type: none"> <li>• Nocturnal native fauna, including the Pilbara Leaf-nosed Bat (<i>Rhinonictoris aurantius</i>);</li> <li>• Pilbara Olive Python (<i>Liasis olivaceus barroni</i>); and</li> <li>• Northern Quoll (<i>Dasyurus hallucatus</i>)</li> </ul> <p>In terms of Short Range Endemics species, large exclusion zones have been implemented to protect <i>troglofauna</i> (i.e. <i>Monommata phoxa</i> and <i>Notommata sp</i>) in the Project area in accordance with MS999.</p>	<p>Species have been recorded in the project area but are not located within the area of proposed works. A Pilbara Leaf-nosed Bat colonised adit/cave system is located approximately 4 km.</p>
<p><u>Groundwater Dependent Ecosystems (GDEs)</u></p> <p>There are no GDEs within the proposed work areas however Gudai-Darri Spring and Fortescue Marsh are maintained by subsurface flows and are considered to be groundwater dependant.</p>	<p>4 – 8 km away.</p>
<p><u>Aboriginal and other heritage sites</u></p> <p>Aboriginal cultural heritage surveys have been conducted in and around the site during the Gudai-Darri Environmental Impact Assessment and Engineering Study. Specific details of these surveys are presented in the PER. There are nil Aboriginal heritage sites impacted upon by the proposed works.</p>	<p>N/A</p>
<p><u>Public Drinking Water Source Area (PDWSA)</u></p> <p>There are no PDWSAs located within 30 km of the premises.</p>	<p>N/A</p>
<p><u>Rivers, lakes, oceans and other bodies of surface water, etc.</u></p> <ul style="list-style-type: none"> <li>• Gudai-Darri Spring Gorge; and</li> <li>• Fortescue Marsh is a nationally and internationally important wetland. It is an extensive ephemeral wetland in the floor of a broad valley separating the Hamersley and Chichester Ranges.</li> </ul>	<ul style="list-style-type: none"> <li>• Gudai-Darri Spring Gorge 4km; and</li> <li>• Fortescue Marsh 8km.</li> </ul>
<p>Groundwater</p>	<p>Groundwater monitoring bore MB12K38W001 is located 900m from the landfill. Groundwater levels at this bore have been recorded at 73.5mbgl.</p>



## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant 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 applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

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

Works Approval W6520/2021/1 that accompanies this Decision Report authorises construction and time-limited operations. The conditions in the issued Works Approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e. Categories 5 and 64 activities. A risk assessment for the operational phase has been included in this Decision Report, however licence conditions will not be finalised until the department assesses the licence application.

**Table 3: Risk assessment of potential emissions and discharges from the Premises during construction and operations**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>BOO Plant</b>								
<b>Construction</b>								
Earthworks, infrastructure, movements, setup of vehicle	Dust	Air/windborne pathway causing dust impacts on surrounding vegetation, including reduced ability for photosynthesis due to smothering	Flora species of elevated conservation value Vegetation of conservation significance that provides habitat for a number of fauna species including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll	Refer to Section 3.1.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	N/A
	Noise	Air/windborne pathway causing noise impacts to species of conservation significance fauna and bats	Species of conservation significance including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll Short Range Endemics species troglofauna	Refer to Section 3.1.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	N/A managed via the Ministerial Statement 999, EPA report 1533 and the <i>Environmental Protection (Noise) Regulations 1997</i>	N/A

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Operations</b> (including time-limited-operations operations)								
Screening, unloading, crushing, loading and storage of material, vehicle movements	Dust	Air/windborne pathway causing dust impacts on surrounding vegetation, including reduced ability for photosynthesis due to smothering	Flora species of elevated conservation value Vegetation of conservation significant that provides habitat for a number of fauna species including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll	Refer to Section 3.1.1	C = Slight L = Possible <b>Low Risk</b>	Y	Condition 10, Table 3 Operational requirements for dust controls	These dust controls minimise the potential for dust emissions from the Processing Plant.
	Noise	Air/windborne pathway causing noise impacts to species of conservation significance fauna and bats	Species of conservation significance including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll Short Range Endemics species troglofauna	Refer to Section 3.1.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	N/A managed via the Ministerial Statement 999, EPA report 1533 and the <i>Environmental Protection (Noise) Regulations 1997</i>	N/A
	Contaminated / sediment laden stormwater	Rainwater from storm events ingress with iron ore, hydrocarbons and chemicals within the processing area	TECs 8km GDEs 4-8kms Gudai-Darri Spring Gorge 4km Fortescue Marsh 8km	Refer to Section 3.1.1	C = Minor L = Possible <b>Medium Risk</b>	Y	Condition 1, Table 1 Design and construction / installation requirements for stormwater controls Condition 10, Table 3 Operational requirements for stormwater controls	These stormwater controls minimise the potential for rainwater to enter processing areas and become contaminated. Rainwater that falls within processing areas is directed to drainage sumps to settle out sediments and check/treat hydrocarbons/chemicals



Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								prior to discharge.
<b>Operational Landfill and subsequent landfill cells</b>								
<b>Construction</b>								
Clearing, construction of landfill trenches, vehicle movements	Dust	Air/windborne pathway causing dust impacts on surrounding vegetation, including reduced ability for photosynthesis due to smothering	Flora species of elevated conservation value  Vegetation of conservation significance that provides habitat for a number of fauna species including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll	Refer to Section 3.1.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	N/A
	Noise	Air/windborne pathway causing noise impacts to species of conservation significance fauna and bats	Species of conservation significance including the Pilbara Leaf-nosed Bat, Pilbara Olive Python and Northern Quoll Short Range Endemics species troglofauna	Refer to Section 3.1.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	N/A managed via the Ministerial Statement 999, EPA report 1533 and the <i>Environmental Protection (Noise) Regulations 1997</i>	N/A
<b>Operations (including time-limited-operations operations)</b>								
Disposal of wastes to the landfill cells	Contaminated / sediment laden stormwater	Rainwater from storm events ingress to the landfill cells, becoming contaminated	TECs 8km GDEs 4-8kms Gudai-Darri Spring Gorge 4km Fortescue Marsh 8km.	Refer to Section 3.1.1	C = Minor L = Possible <b>Medium Risk</b>	Y	Condition 1, Table 1 Design and construction / installation requirements for stormwater controls.  Condition 10, Table 3 Operational requirements for stormwater controls.	These stormwater controls minimise the potential for rainwater to enter landfilling areas and become contaminated. Rainwater that falls within landfilling areas is directed to drainage

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								sumps or bunding.
	Leachate	Rainwater percolating through the landfill cells to groundwater	Groundwater approximately 70mbgl	Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 1, Table 1 Design and construction / installation requirements for leachate controls Condition 10, Table 3 Operational requirements for leachate controls	These leachate controls minimise the potential for leachate to enter groundwater.
	Windblown waste / odour	Wastes from within the landfill cells becoming odourous	Encouraging fauna ingress to the landfill	Refer to Section 3.1.1	C = Slight L = Rare <b>Low Risk</b>	Y	Condition 1, Table 1 Design and construction / installation requirements for windblown waste / odour controls Condition 10, Table 3 Operational requirements for windblown waste / odour controls	These windblown waste / odour controls minimise the potential for windblown waste / odour to cause issues
		Exposed wastes attracting fauna and becoming windblown outside of the landfill area where fauna can easily access	Terrestrial fauna and livestock	Refer to Section 3.1.1	C = Slight L = Possible <b>Low Risk</b>	Y	Condition 1, Table 1 Design and construction / installation requirements for windblown waste / odour controls Condition 10, Table 3 Operational requirements for windblown waste / odour controls	These windblown waste / odour controls minimise the potential for windblown waste / odour to cause issues

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

Note 2: Proposed applicant 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
Application advertised on the department's website (22 March 2021)	None received	N/A
Applicant was provided with draft documents on 19 April 2021	Comments received on 05 May 2021 Refer to Appendix 1	Comments received on 05 May 2021 Refer to Appendix 1

## 5. Conclusion

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

## Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
1, Table 1	<p>Removal of "Oily water separators (centrifugal type) to separate out hydrocarbons from surface water" from Table 1.</p> <p>The Works Approval Holder requests removal of "Oily water separators" from Table 1 due to stormwater and hydrocarbons being sufficiently managed via other controls, including:</p> <ul style="list-style-type: none"> <li>• Diversion of clean surface water around the processing area;</li> <li>• Adherence to Australian Standard AS 1940:2017 The Storage and Handling of Flammable and Combustible Liquids;</li> <li>• Secondary containment of hydrocarbon/chemical storage across the site;</li> <li>• Approval process prior to mobilising chemicals to site;</li> <li>• Drainage sumps to settle out sediments prior to discharge from the processing areas;</li> <li>• No permitted release of any potentially contaminated site water that has not been checked for hydrocarbon contaminants; and</li> <li>• Provision of spill kits.</li> </ul>	Reviewed and risk determined to allow updates as requested.
4 - 7	<p>Removal of conditions 4-7 associated with Environmental Commissioning.</p> <p>The Works Approval Holder requests removal of the conditions associated with "Environmental Commissioning" for the BOO plant and Landfill, including conditions 4-7.</p> <p>The BOO Plant is essentially a "plug and play" kit which is set up and ready to go in Perth, installation on site will take approximately 90 days (installation of the concrete footings, plant erection, conveyors, radial stackers, transfer chutes etc) with simple</p>	Updated as requested, however, it should be noted that these commissioning periods were initially requested by the Works Approval Holder in the amendment application supporting documentation.



Condition	Summary of applicant's comment	Department's response
	<p>commissioning activities taking approximately 15 days. The conditions relating to "regular maintenance of dust suppression systems" etc are therefore void due to the minimal commissioning timeframe required. All conditions are also duplicated within the Time Limited Operations (TLO) Table 3, which will be adhered to from installation and throughout operations.</p> <p>The Operational Landfill conditions are also duplicated within Table 3 and post construction, time limited operation immediately commences given there are no commissioning requirements for a landfill.</p>	

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval	<input checked="" type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input type="checkbox"/>	Current licence number:		
		Relevant works approval number:	N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	04/03/2021			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Pilbara Iron Company (Services) Pty Ltd			
Premises name	Gudai-Darri Iron Ore Mine			
Premises location	AML70/252 (Mineral Lease S.A. 70/252), L47/701 and Miscellaneous Licence 7SA (Special Rail Licence), Miscellaneous Licence L47/849 TOM PRICE WA 6751			
Local Government Authority	Shire of East Pilbara			
Application documents				
HPCM file reference number:	DER2021/000129			
Key application documents (additional to application form):	Gudai-Darri (Koodaideri) Iron Ore Mine – Operational Land Fill and Build Own Operate Crushing Plant Works Approval Groundwater level data			
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.	Works approval Construction and operation of Build Own Operate Crushing Plant, Operational Landfill and subsequent landfill cells			

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 5: Processing or beneficiation of metallic or non-metallic ore	10Mtpa	N/A
Category 64: Class II or III putrescible landfill site	5,000tpa	N/A

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 999 EPA Report No: 1533
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: Original proposal subject to Koodaideri Iron Ore Mine and Infrastructure Project, WA (EPBC 2012/6422)
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: Clearing is approved through the existing Ministerial Statement 999. 8 ha clearing required for the footprint of the Processing Plant.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A Licence / permit not required for

		these activities.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: N/A Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Regional office: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <a href="#">WQPN 25</a> )? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> There are no PDWSAs located within 30 km of the premises.
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Iron Ore (Mt Bruce Agreement) Act 1972</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Classification: N/A Date of classification: N/A