



## Annual Audit Compliance Report Form

*Environmental Protection Act 1986, Part V Division 3*

Once completed, please submit this form either via email to [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au), or to the below postal address:

Department of Water and Environmental Regulation  
Locked Bag 10  
Joondalup DC WA 6919

Section A – Licence details			
Licence number:	L6131/1990/13	Licence file number:	DER2013/001337-
Licence holder name:	Pilbara Manganese Pty Ltd		
Trading as:	ConsMin		
ACN:	074 106 577		
Registered business address:	L2/24 Outram Street, West Perth, WA 6005		
Reporting period:	1/10/2022 to 30/09/2023		

Section B – Statement of compliance with licence conditions
Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)
<input type="checkbox"/> Yes – please complete: <ul style="list-style-type: none"><li>section C;</li><li>section D (if required); and</li><li>sign the declaration in Section F.</li></ul>
<input checked="" type="checkbox"/> No – please complete: <ul style="list-style-type: none"><li>section C;</li><li>section D (if required);</li><li>section E; and</li><li>sign the declaration in Section F.</li></ul>

Section C – Statement of actual production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual production quantity
5 - Processing or beneficiation of metallic or non-metallic ore	1,257,135 tonnes (t) (primary and secondary ore). Approved premise production or design capacity of 5,000,000 t per annum (tpa).
6 - Mine dewatering	14,259,281 kL of mine dewatering. Approved premise production or design capacity of 55,1880,000 t per annum (tpa)
54 - Sewage Facility	77,282 m <sup>3</sup> (average 159.41 per day). Approved premise production or design capacity of 150 m <sup>3</sup> per day.
73 - Bulk Storage of Chemicals	2,106.59 kilolitre (kL) capacity. Approved premise production or design capacity of 2144

Section C – Statement of actual production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual production quantity
	m <sup>3</sup> in aggregate.
89 - Putrescible landfill site	570.5 t. Approved premise production or design capacity of 1,950 tpa

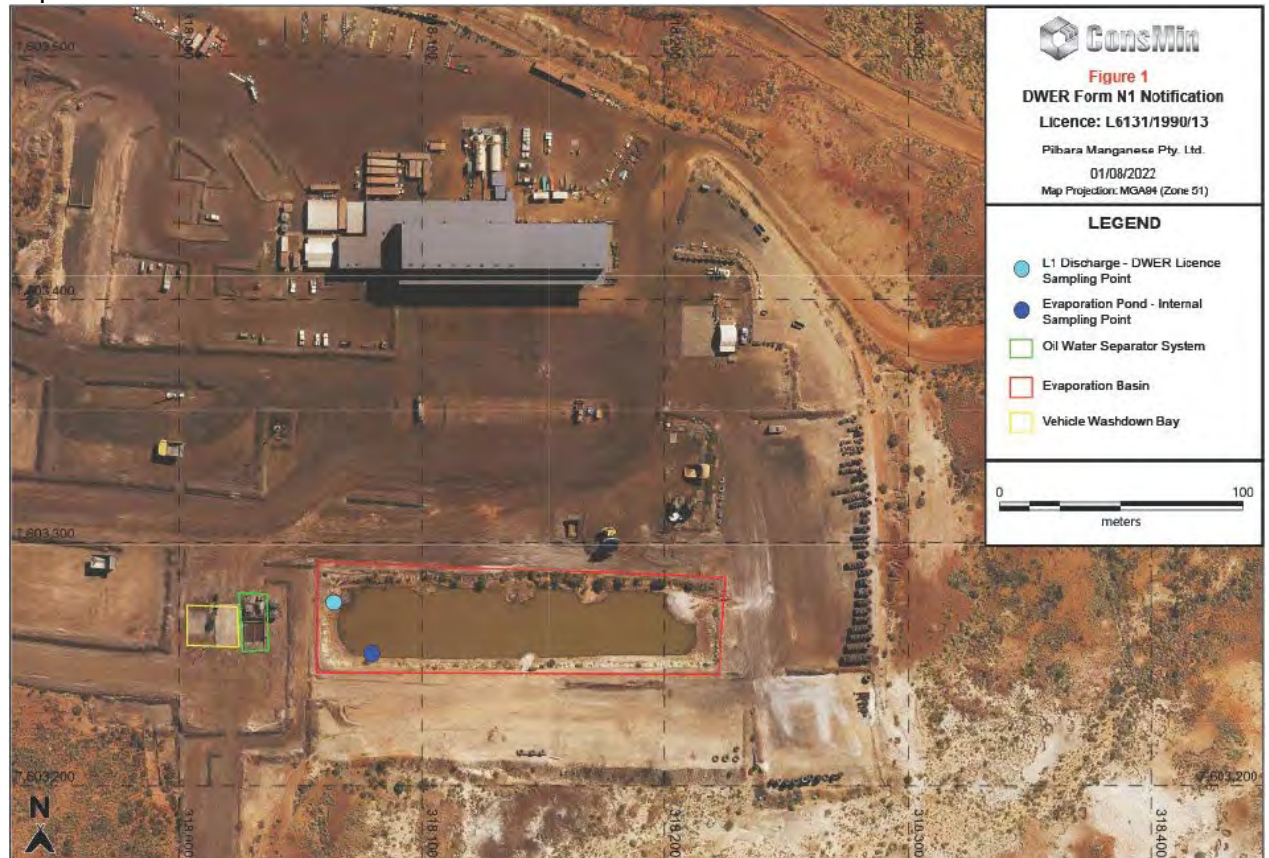
Section D – Statement of actual Part 2 waste discharge quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	Actual Part 2 waste discharge quantity
5 - Processing or beneficiation of metallic or non-metallic ore	593,133 dry tonnes (dT) of tailings discharge to Homestead in-pit TSF. Approved premise production or design capacity of 5,000,000 tpa.
6 – Mine Dewatering	10,753,477 kL of mine dewatering discharged to the environment. Approved premise production or design capacity of 55,188,000 tpa.

Section E.1 – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Section 2.3 Emission to Land, Table 2.3.1, 2.3.2 and 3.3.1	Date(s) of non-compliance:	5 Nov 2022
Details of non-compliance:			
<p>On 5 Nov 2022, during a routine inspection it was observed that a large amount of hydrocarbon liquid had been disposed of directly into the oily water separator inlet sump rather than the designated waste oil disposal Intermediate Bulk Container (IBC). A sample was taken that day from the L1 licensed discharge point to measure TRH levels. This subsequently returned a Total Recoverable Hydrocarbons (TRH) result of 16.2 (mg/L) – which is above the license limit of 15 mg/L.</p> <p>This event was recorded with ConsMins internal incident management system, InControl as INX18124.</p>			
<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
<p>Light Vehicles and Heavy Equipment are washed at the wash down bay. All water and sediment are directed into the adjacent sump which then passes through the oil water separator. Hydrocarbon contaminated material is discharged into a 1,000 L Intermediate Bulk Container (IBC) and treated wastewater discharged into the adjacent evaporation basin.</p>			

**Section E.1 – Details of non-compliance with licence condition**

At the time of sampling, the evaporation basin was also sampled, returning a TRH of 14.5 mg/L (below the 15mg/L threshold). The discharge of TRH concentrations above the licence limit at L1 may have been diluted within the larger evaporation basin.

The evaporation basin has been constructed from natural clay material. Clay at Woodie has been tested and found to be extremely non permeable ( $1.0 \times 10^{-9} - 6.1 \times 10^{-11}$  m/s). As the hydrocarbon contaminated water is localised to the evaporation basin, and groundwater level sits 80m below the pond, PMPL do not consider this exceedance to have resulted in environmental impact.



**Figure 2: Location of L1 discharge point for treated water from Oily Water Separator**

Cause (or suspected cause) of non-compliance:

1. Large amount of hydrocarbon liquid disposed of directly into the oily water separator inlet sump rather than the designated waste oil Intermediate Bulk Container (IBC).

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

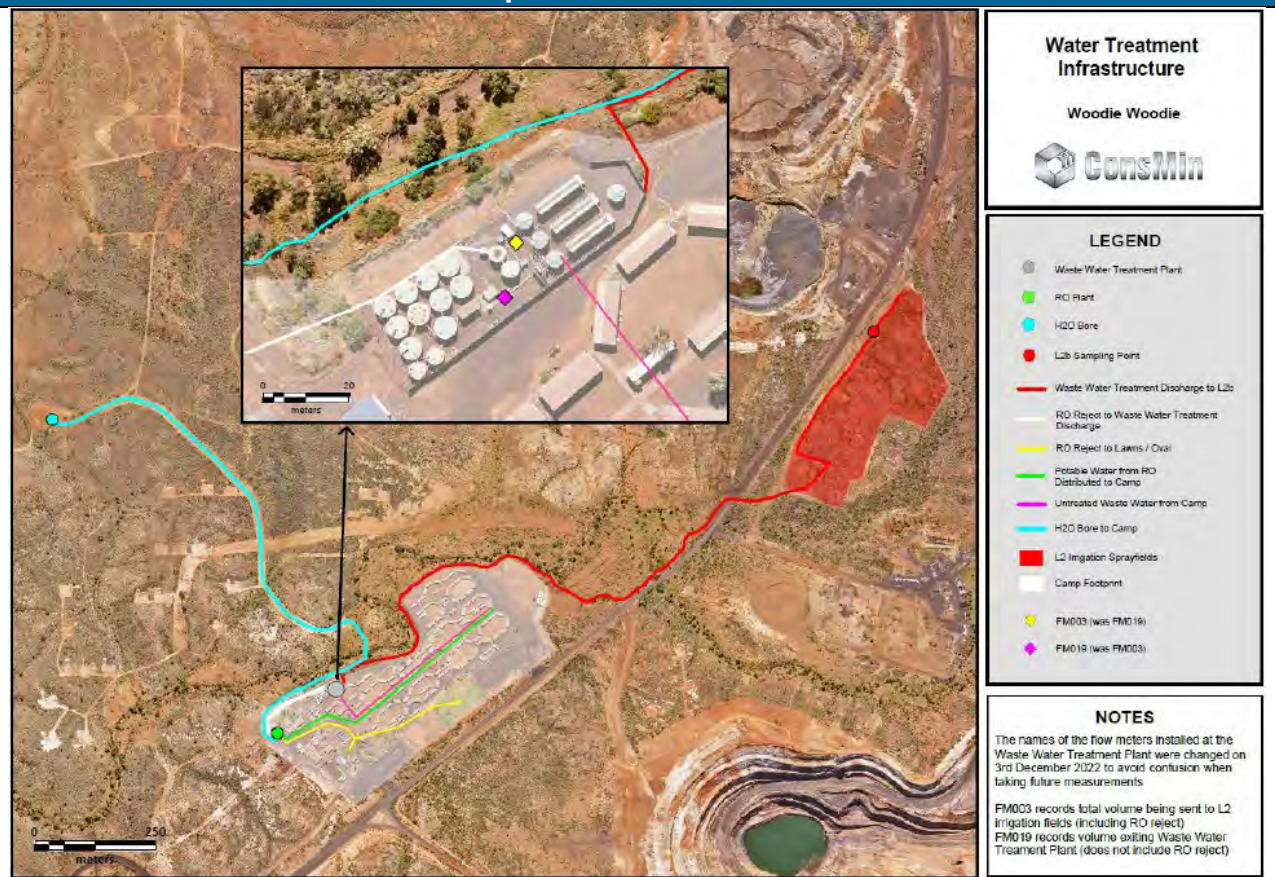
On 6 November 2022, a site wide notification was sent out to inform employees on the correct disposal method of hydrocarbons. Educational presentations were presented to all work areas to inform and raise awareness on correct methods for hydrocarbon disposal.

Further maintenance and management actions included:

Section E.1 – Details of non-compliance with licence condition	
<ul style="list-style-type: none"> <li>- Clean out of solids hopper on 13 and 16 November. Scheduled fortnightly cleaning commenced on 10 December 2022.</li> <li>- ConsMin received advice from Baldwin, OWS manufacture around replacing plate packs within OWS from 12mm to 6mm, increasing the surface area and increasing treatment capability of the tank.</li> <li>- Adjustment of skimmer tubes to manufacturer specs</li> <li>- Quarterly cleanout of outlet pipe and filter on 24 December 2022</li> </ul>	
L1 and Evaporation basin monitoring results:	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 15/11/2022

Section E.2 – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Section 1.3 Premises Operation, table 1.3.4 and License condition 1.3.7	Date(s) of non-compliance:	20/09/2022
Details of non-compliance:			
<p>During monthly data review on the 1 November 2022, it was identified that emission point L2B and/or L2A (treated effluent wastewater) exceeded the daily discharge limit of 150 m3 per day on the 20<sup>th</sup> September 2022 with average daily discharge being 265 m3 per day.</p> <p>This event was recorded with ConsMins internal incident management system, InControl as INX18003.</p>			
<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
<p>To discern any associated impact on the environment samples were taken from RO plant and L2B on the 2 November 2022. These returned negligible results.</p> <p>To discern any impacts on vegetation health a monitoring program was enacted on the 21 December 2021 (Appendix I). No discernible impacts were observed during the initial monitoring period. During the final round of vegetation health monitoring in June 2023 a slight improvement in vegetation condition was observed in the southwest and west areas monitored, and a deterioration of vegetation health was observed in the north and northeast areas monitored. This was likely a result of regulator application of hardwater to these areas. In response, the L2A spray field area was commissioned to spread the impact of the hardwater discharge.</p>			

**Section E.2 – Details of non-compliance with licence condition**



**Figure 3: Map showing Water Treatment Infrastructure**

Cause (or suspected cause) of non-compliance:

1. Intrusion of potable water from the outlet pipes of the Reverse Osmosis (RO) system into subsurface plumbing increasing the discharge through the outlet pipe of the WWTP. The unit was installed on the 20 September 2022.
2. Ruptures within effluent water pipeline allowing intrusion of potable water

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Remediation work commenced on the 21 October 2022 and involved identifying and fixing the leaks in the potable water pipeline and the effluent water pipeline to stop potable water from contributing volume to the effluent water treatment system. This involved:

1. Purchasing equipment to identify leaks below the ground surface.
2. Replacing and repairing the damaged pipeline.

Was this non-compliance previously reported to DWER?

Yes, and

Reported to DWER verbally

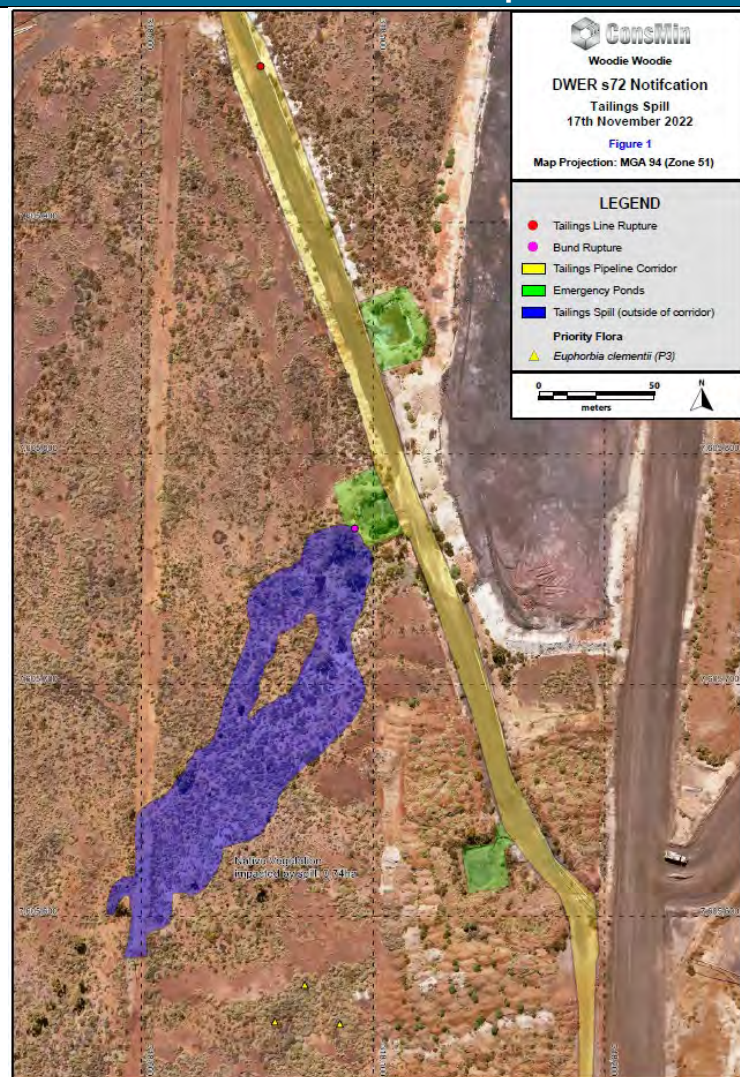
Date: / /

Reported to DWER in writing

Date: 1/11/2022

Section E.3 – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	N/A (S72 Reportable)	Date(s) of non-compliance:	16/11/2022
Details of non-compliance:			
<p>On 16 November 2023, an inspection of the tailing pipeline identified a failure of the pipeline resulting in pooling within the pipeline corridor, filling the emergency pond. On 17 November a follow up inspection revealed that the rear section of the tailing's sump wall had failed resulting in tailings escaping from the top half of the sump resulting in tailings and rainwater flowing into the adjacent vegetation.</p> <p>This event was recorded with ConsMins internal incident management system, InControl as INX18166.</p>			
<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
<p>Environmental impact is considered to be negligible. Given the method of malfunction, coarse grains sediment was primarily encapsulated to the tailing's corridor and sumps. Tailing effluent was noted misted or sprayed of adjacent vegetation. Manganese processing is chemically benign, consisting primarily of crushing and screening.</p>			
<b>Table 2: Total disturbance footprint within / outside tailings corridor.</b>			
<b>Disturbance Area</b>			
<b>Area of impact</b>	Southeast of sump		
Aerea within corridor (recovered)	0.33 ha		
Area outside of corridor	0.74 ha		
<b>Total area</b>	1.07 ha		
<p>From the start of the vegetation health monitoring program on the 17 November 2022 till the end of the program on the 17 February 2023 no significant decline in vegetation health was recorded in the area outside the tailings corridor (Appendix I)</p>			

**Section E.3 – Details of non-compliance with licence condition**



**Figure 4: Aerial Imagery on 17<sup>th</sup> November 2022 of tailings spill disturbance footprint, tailings corridor and emergency sumps.**

Cause (or suspected cause) of non-compliance:

1. Failure occurred at the base of the pipeline due to continued internal erosion by tailings sediment.
2. Approximately 20 hours of heavy rainfall were received between the 16 and 17 November pushed the emergency sump over its holding capacity.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Maintenance work commenced on 17 November 2022 and included:

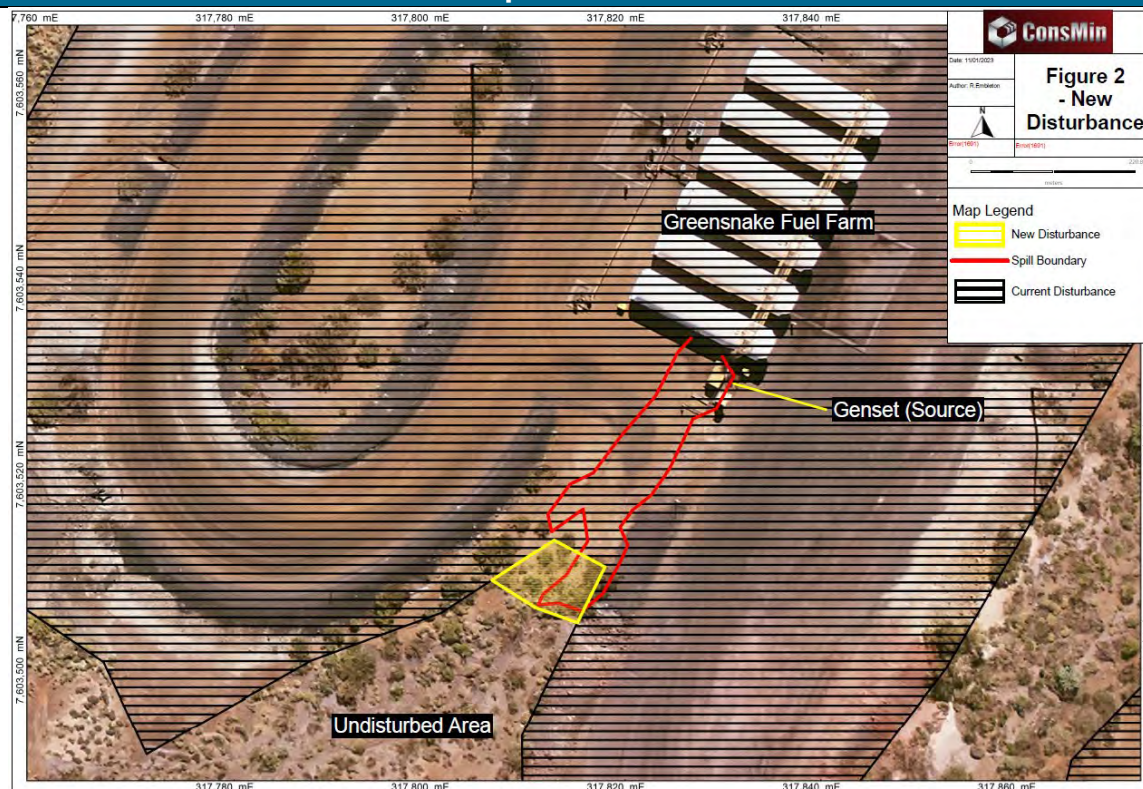
- Replacing malfunctioned section of pipeline.
- Pumping out tailing's effluent from the emergency sump to the unused, banded, Extension Cord ROM pad.
- Windrowed off sump to prevent further entry of rainfall/tailings into sump.
- Reinstatement of sump wall.
- Upgraded plant control system to include pressure change alarm between flow metres at either end of pipeline.

Section E.3 – Details of non-compliance with licence condition	
Additionally, effluent samples were taken for laboratory analysis and a weekly vegetation health monitoring program was enacted.	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 17/11/2022

Section E.4 – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	N/A (S72 Reportable)	Date(s) of non-compliance:	11/01/2023
Details of non-compliance:			
On 11 January 2023 the incorrect installation of a generator lead to a diesel spill of approximately 2000 L over an area of 0.017 ha.			
This event was recorded with ConsMins internal incident management system, InControl as INX18608.			
What was the actual (or suspected) environmental impact of the non-compliance?			
<b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
Environmental impact was characterised by the release of diesel onto surrounding land (including both disturbed areas and undisturbed native vegetation) and subsequent clearing of 0.005 ha. As groundwater is significantly below ground level in the vicinity of the spill (90.43mbgl at nearby licenced monitoring point WMMB14) there is no risk of contamination to groundwater.			



**Section E.4 – Details of non-compliance with licence condition**



**Figure 5: Diesel spill footprint and associated vegetation clearing required at the Greensnake Fuel Farm**

Cause (or suspected cause) of non-compliance:

1. Incorrectly fitted fuel hose on the generators. This had the main fuel supply incorrectly plumbed to the genset tank rather than the fuel pump, leading to fuel gravity feeding out of the tank through the breathers.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Remedial works included:

- The area was bunded off to stop the further spread of diesel.
- Soaker pads and organic absorbents laid out on the impacted area.
- Contaminated soil was dug out to a depth of 0.3 m by using heavy mobile equipment (HME) and taken to the designated bioremediation area.
- The area was bunded off to stop further risk of diesel run off.

Was this non-compliance previously reported to DWER?

Yes, and

Reported to DWER verbally

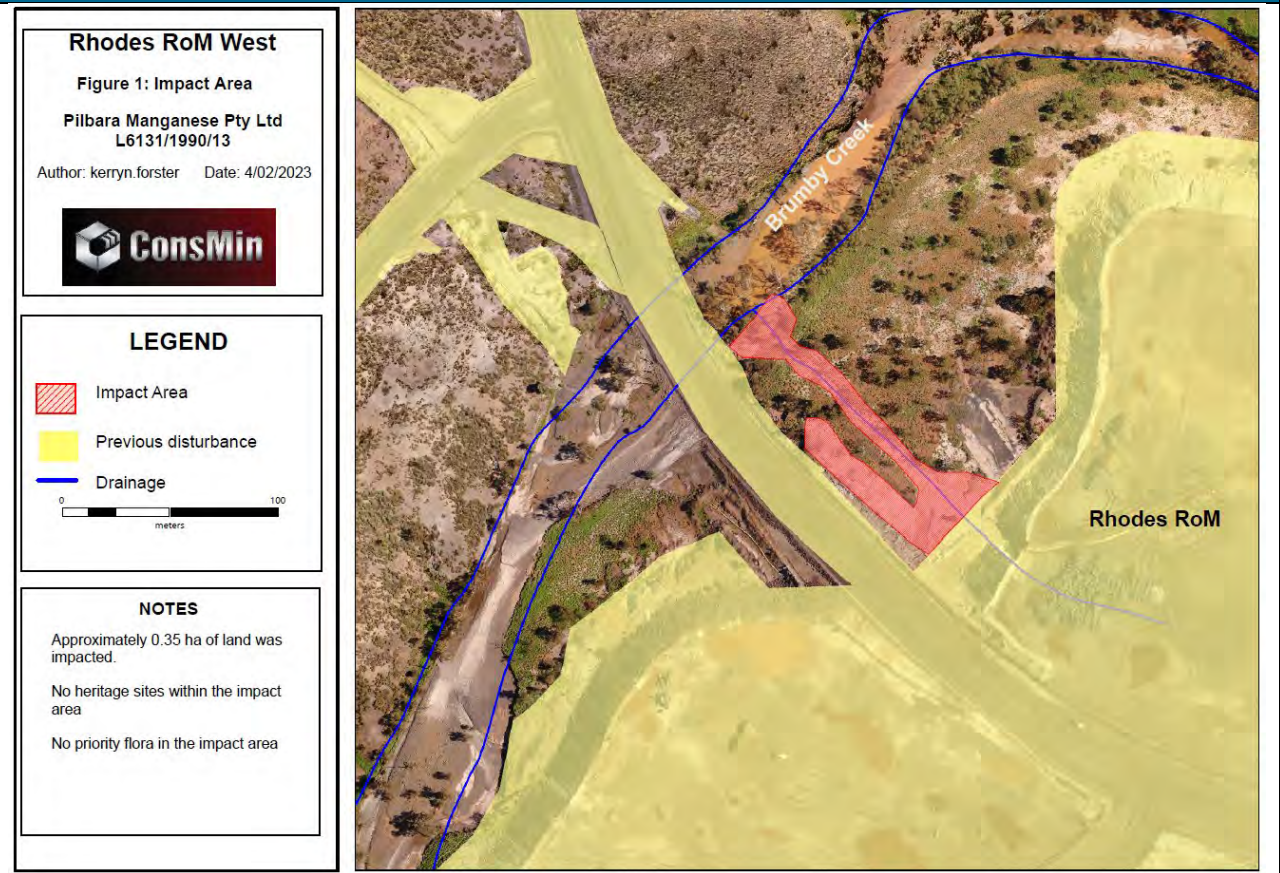
Date: / /

Reported to DWER in writing

Date: 11/01/2023

Section E.5– Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	N/A (S72 Reportable)	Date(s) of non-compliance:	1/02/2023
Details of non-compliance:			
<p>On Monday 1 February 2023 a blowout was observed on the western batter of Rhodes ROM. It was identified that run off that reach Brumby Creek which was visibly turbid.</p> <p>This event was recorded with ConsMins internal incident management system, InControl as INX18941.</p>			
<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
<p>Blow out from ROM into Brumby Creek resulting in approximately 0.35 ha of impacted vegetation through both smothering with associated visibly turbidity within Brumby Creek.</p> <p>Samples were taken from Brumby Creek at the source of the sediment discharge and downstream at the licenced monitoring location Brumby Creek Monitoring Site (BMS) on 2<sup>nd</sup> February 2023. Results were provided to the department on 13<sup>th</sup> February 2023 which found a sulphate level of 71 mg/L.</p> <p>A vegetation monitoring program was carried out to discern any downstream effects from the blowout. No significant changes were identified.</p>			

**Section E.5– Details of non-compliance with licence condition**



**Figure 6: Impacted area from Rhodes ROM blowout following significant rainfall event.**

Cause (or suspected cause) of non-compliance:

1. Blow out occurred due to significant rainfall across the region in the days prior.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Management actions included:

- Construction of a windrow to prevent further runoff from pooling within the ROM
- Compaction of batters and further rock armoring of all sides of ROM to reduce erodibility of landforms and availability of sediment for run off.
- Vegetation program was enacted to discern any downstream impacts of blowout (Appendix I).

Was this non-compliance previously reported to DWER?

Yes, and

Reported to DWER verbally

Date: / /

Reported to DWER in writing

Date: 2/02/2023

Section E.6 – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Section 3.2 Monitoring of point source emissions to surface water, table 3.2.1	Date(s) of non-compliance:	12 September 2023
Details of non-compliance:			
<p>On 12 September it was identified that a environmental compliance water quality monitoring round was missed due to an undelivered esky.</p> <p>This event was recorded with ConsMins internal incident management system, InControl as INX20843.</p>			
<p>What was the actual (or suspected) environmental impact of the non-compliance?</p> <p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
N/A			
Cause (or suspected cause) of non-compliance:			
Logistical issues with Courier delivering water samples to MPL Laboratories for testing, caused samples to be outside of holding time.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>Management actions to prevent reoccurrence:</p> <ul style="list-style-type: none"> <li>- Update environmental monitoring procedure to including saving of all documents associated with collection, courier, and receipt of samples.</li> <li>- Create group email address for receipt of all information relating to lab samples.</li> </ul>			
Was this non-compliance previously reported to DWER?			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

**Section F – Declaration**

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular<sup>1</sup>.

I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation’s (DWER) website.

Signature <sup>2</sup> :		Signature:	
Name: (printed)		Name: (printed)	
Position:	Senior Environmental Advisor	Position:	Principal Environment
Date:	20/11/2023	Date:	20/11/2023
Seal (if signing under seal):			

<sup>1</sup> It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

<sup>2</sup> AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.