



## 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:	L9208-2019-1	Licence file number:	DER2019/000338
Licence holder name:	Piper Preston Pty Ltd		
Trading as:	SO4		
ACN:	142 862 409		
Registered business address:	Ground Floor, 239 Adelaide Terrace Perth WA 6000		
Reporting period:	1/9/23 to 31/8/24		

### 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)

- ☐ Yes – please complete:
- section C;
  - section D (if required); and
  - sign the declaration in Section F.
- ☒ No – please complete:
- section C;
  - section D (if required);
  - section E; and
  - sign the declaration in Section F.

### 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
14. Solar salt manufacturing	87 tonnes of sulphate of potash
85. Sewage facility premises	21.50m <sup>3</sup> per day of treated wastewater

### 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
Bitterns	0 tonnes

**Section E – 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:	10	Date(s) of non-compliance:	September 2023 – June 2024
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**Details of non-compliance:**

Condition 10 of L9208/2019/1 requires SO4 to ensure that treated wastewater discharged to the spray field is within the emission limits specified in Table 6 of the licence.

As part of the AACR, an audit was completed to assess compliance with the licence conditions, which included reviewing the water quality of the treated sewage effluent from the Wastewater Treatment Plant (WWTP). Quarterly monitoring is required to ensure that the discharge quality from the WWTP remains within the specified licence limits.

Throughout the reporting period, multiple exceedances of the discharge water quality criteria were observed. The treated water quality results are shown in the table below, with red shading highlighting the instances where licence limits were not met.

Monthly monitoring was conducted instead of quarterly to assess the success of modifications to the WWTP operating parameters. The WWTP licenced discharge criteria were met in August 2024.

Sample Date	BOD (mg/L) Limit (<20)	Total N (mg/L) Limit (<30)	Total P (mg/L) Limit (<12)	TSS (mg/L) Limit (<30)	Chlorine residual (mg/L) Limit (0.2 – 2.0)	pH Limit (6.5-8.5)	E.coli (cfu/100 ml) Limit (<10)
21/9/23	16	26	1.7	33	>5	7.8	<10
18/10/23	5.4	7.6	1.9	<5	1.5	8.2	<1
20/11/23	13	13	2.2	7	>5	7	<10
20/12/23	7.2	8.2	2.4	12	0.1	7.6	61,000
24/1/24	110	88	12	60	>5	8.4	<10
29/2/24	17	23	12	12	2.6	7.3	<10
27/3/24	5	33	0.83	23	0.18	7.6	3,800
25/4/24	210	110	13	130	5	8.3	<10
6/5/24	5	53	10	120	>5	8.5	<10
25/6/24	6.7	5.7	0.51	10	>5	8.4	<10
22/7/14	5	6.6	0.57	5	0.53	8.36	160
14/8/24	6	10.4	1.19	5	0.74	8.31	<1

What was the actual (or suspected) environmental impact of the non-compliance?

**NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

During the reporting period, wastewater was discharged to the fenced spray field at an average rate of 21.50 m<sup>3</sup> per day, which is well below the licence limit of 90 kL per day. Several exceedances of wastewater quality criteria were recorded, but given the wastewater is being disposed to land (and not directly to water) over a short time, these exceedances are not likely to have any short-term environmental consequences on groundwater quality or soil contamination status.

A review of the water quality results against the ANZECC guidelines was completed as part of this assessment and summarized below;

1. The average total N (34.43 mg/L) and total P (4.85mg/L) concentrations do not exceed ANZECC short term irrigation (up to 20 years) trigger guideline values.

Section E – Details of non-compliance with licence condition	
<p>2. The suspended solids values are indicative of a plant that is not working correctly. Given that treated wastewater is being disposed to land (and not directly to water), these exceedances are not likely to have any short-term environmental consequences.</p> <p>3. Nine exceedances of residual chlorine trigger values were recorded, resulting from incorrect chlorine dosing due to inadequate chemical dosing processes, as well as damaged chlorine sensors and dosing pumps.</p> <p>4. Three exceedances of coliform numbers were reported (December 2023, March 2024, and July 2024). The December 2023 exceedance was caused by a broken SCR chemical dosing line and low chlorine levels. The March 2024 exceedance was likely due to insufficient chlorine. The third exceedance in July 2024 is believed to be a sampling error, as no other water quality parameters were exceeded. According to the 2024 ANZECC draft irrigation water quality guidelines (Table 2), the default guideline value for E. coli in water used for non-food crops (such as trees and woodlots) is 10,000 CFU/100 mL. This guideline value was exceeded once during the reporting period. The spray field is fenced and not readily accessible to humans or animals.</p>	
Cause (or suspected cause) of non-compliance:	
<p>1. The chlorine exceedances were caused by incorrect dosing, stemming from inadequate chemical dosing processes and damaged chlorine sensors and dosing pumps.</p> <p>2. The coliform exceedances were due to a broken SCR chemical dosing line and low chlorine levels in the plant.</p>	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance.	
<p>Historically, high exceedances were primarily linked to sub-optimal plant operation and chlorine dosing issues, leading to treated effluent exceeding licence limits for TSS, E. coli, and residual chlorine. The refurbishment and re-calibration of the chlorine dosing pump and sensors were completed as part of the major maintenance work done in July 2024. Since this refurbishment, along with improved plant operation, water quality parameters improved. By August, the plant had no recorded non-compliances in water quality monitoring, and this trend has persisted. It is important to note that a non-compliance for E. coli was recorded in the July 2024 sample; however, this has been deemed a sampling error, as no other parameters showed non-compliances. Historically, there has been a direct correlation between E. coli exceedances and either low residual chlorine levels or high TSS/BOD, neither of which were observed during the July sample.</p> <p>Incident investigations are completed to determine the cause of the wastewater quality exceedances.</p> <p>Wastewater quality monitoring frequency is undertaken monthly. All samples are sent to a NATA accredited laboratory for testing. The WWTP licensed discharge criteria were met in August 2024.</p>	
Was this non-compliance previously reported to DWER? <b>Yes.</b>	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date:    /    /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date:    Reported as part of the AACR 30/09/21, 30/09/23, 28/09/23

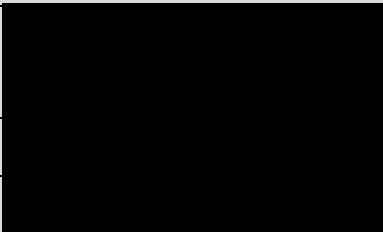
Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 6, Table 3	Date(s) of non-compliance:	2 <sup>nd</sup> of December 2024-8 <sup>th</sup> February 2024
Details of non-compliance:			
During the reporting period, one of the totalisers used to measure volume of sewage input into the plant was damaged and stopped recording. This issue occurred from December 2, 2024, to February 8, 2024. The totalizer was replaced and is now functioning properly.			
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.			
No environmental impact is anticipated. It is estimated that the plant would have received a maximum of 26.75 m <sup>3</sup> of sewage per day, based on approximately 107 people on site and an average of 250 litres per person per day.			
Cause (or suspected cause) of non-compliance:			
Broken totaliser			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance.			
Totaliser has been replaced and is now recording the volume of sewage input to the treatment plant.			
Was this non-compliance previously reported to DWER? <b>No.</b>			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date:	
<input type="checkbox"/> Reported to DWER in writing		Date:	

Section E – 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:	Condition 7, Table 4	Date(s) of non-compliance:	29/01/2024				
Details of non-compliance:							
<p>From January 24 to January 27, 2024, a significant rainfall event took place in the Wiluna/Lake Way catchment area, resulting in surface water flowing into Ponds P3 and K7. The floodwater inundation caused the ponds' minimum freeboard of 200 mm to be breached. The surface water was largely retained within the ponds with some overflow from wave action.</p> <p>Before the rainfall event, the ponds were operated below operational levels, and freeboard levels were maintained with minimal brine in the affected pond/cells.</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>Before the floodwaters filled the ponds, there was only a small amount of brine present. Daily water testing indicated that the water in the ponds after the flood event were similar to the surrounding floodwaters.</p> <p>Cause (or suspected cause) of non-compliance:</p> <p>Lake flooding has occurred. The surface water controls on the Trench 2 access road were initially inadequate for the large volume of water inflow. It is estimated that 100GL of surface water entered the Lake Way system over an 11 day period.</p> <p>Furthermore, the heights of the P3 pond walls were not of sufficient height to prevent flood waters entering the pond.</p> <p>Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance.</p> <p>Additional spillways on the trench 2 access road were installed.</p> <p>P3 Pond wall lifts and K7 wall upgrade works are proposed for Q3 2025.</p> <p>Was this non-compliance previously reported to DWER? <b>Yes.</b></p> <p><input checked="" type="checkbox"/> Yes, and</p> <table border="1"> <tr> <td><input type="checkbox"/> Reported to DWER verbally</td> <td>Date:    /    /</td> </tr> <tr> <td><input checked="" type="checkbox"/> Reported to DWER in writing</td> <td>Date:    02/02/2024</td> </tr> </table>				<input type="checkbox"/> Reported to DWER verbally	Date:    /    /	<input checked="" type="checkbox"/> Reported to DWER in writing	Date:    02/02/2024
<input type="checkbox"/> Reported to DWER verbally	Date:    /    /						
<input checked="" type="checkbox"/> Reported to DWER in writing	Date:    02/02/2024						

## 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:		Position:	
Date:		30/09/24	Date:
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.