



## 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:	
Licence holder name:	Piper Preston Pty Ltd		
Trading as:	Salt Lake Potash Ltd		
ACN:	142 862 409		
Registered business address:	Ground Floor, 239 Adelaide Terrace Perth WA 6000		
Reporting period:	01 / 05/ 2020 to 30 / 04 / 21		

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
14. Solar salt manufacturing	0 tonnes of sulphate of potash
85. Sewage facility premises	52m <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
N/A	N/A

**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:	August 2020 – April 2021
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**Details of non-compliance:**

As part of the AACR an audit was completed against the licence conditions which included the review of the Wastewater Treatment Plant (WWTP) treated water quality. It was identified from this review that the treated water was not of class “A” quality as per the design and licenced discharge limits. Treated water quality results are provided in the below table. Blue shading indicates exceedance of the target limits. Potential causes of the treated water not being within the target limits are detailed below. Chlorine was not measured as part of the quarterly sampling but is continuously monitored within the plant.

Date	Biochemical Oxygen Demand (mg/L) Limit (<20)	Total Nitrogen (mg/L) Limit (<30)	Total Phosphorus (mg/L) Limit (<12)	Total Suspended Solids (mg/L) Limit (<10)	pH Limit (6.5-8.5)	<i>E. coli</i> (cfu/100 mL) Limit (<10)
26/08/2020	60	43	8.6	68	8.5	10
1/09/2020		16	9	55	8.1	10
8/09/2020	53	8	9	22	8.3	10
15/09/2020	18	4	11	11	8.8	1
22/09/2020	5	4.8	10	10	8.4	11
6/10/2020	5	14	11	5	8.9	120
13/10/2020	48	41	12	22	8.6	10
27/10/2020	20	25	9.8	16	8.5	10
3/11/2020	20	21	11	24	8.2	40
10/11/2020	5	13	9.4	5	8.2	230
17/11/2020	31	14	8.4	54	7.5	>150,000
25/11/2020	16	12	7	10	8.4	1
1/12/2020	16	24	10	56	8.2	2,300
10/12/2020	110	57	13	96	7.8	>150,000
11/12/2020		57	13	96	7.8	>150,000
15/12/2020	56	13	7.1	65	8.3	300,000
29/12/2020	270	9.2	3.1	76	12	10
12/01/2021	40	27	8.4	23	8	180
19/01/2021	220	65	26	1,000	7.9	>150,000
28/01/2021	380	110	18	130	9.1	12,000,000
9/02/2021	19	17	7.2	80	7.8	5,000,000
3/03/2021	16	28	8.6	93	7.8	10
9/03/2021	10	21	9.8	26	7.9	10
24/03/2021	36	39	12	140	8	10
7/04/2021	28	23	21	120	7.9	10
29/04/2021	34	6.8	6.6	17	8.2	200

## Section E – Details of non-compliance with licence condition

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 sprayfield at an average of 36kL per day which is well below the licence limit of 60 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;

- The average total N and total P average concentrations do not exceed ANZECC short term irrigation (up to 20 years) trigger guideline values.
- If we compare coliform numbers with the values recommended in the ANZECC water quality guidelines for water used for irrigation, we meet the <1000 cfu/100 mL median value. The spray field is fenced and not readily accessible to humans or animals. It is noted that high coliform concentrations are a potential health risk and need to be rectified.
- The BOD5 and suspended solids values are indicative of a plant that is not working correctly. Given that wastewater is being disposed to land (and not directly to water), these exceedances are not likely to have any short-term environmental consequences.

The non-compliance has resulted from several instrumentation and pump failures which are discussed further below. SO4 have since sourced replacement instruments and pumps and are reviewing monitoring data more frequently to ensure treated water meets the licenced discharge criteria. SO4 are in the process of incorporating wastewater exceedances into the existing incident reporting procedure to ensure that they are captured, investigated, and managed appropriately.

Cause (or suspected cause) of non-compliance:

There have been several issues that have contributed to the non-compliance of the treated water quality. These are detailed further below.

1. WWTP Balance Tanks
  - a. flow meter calibration discrepancies causing the feed circulation system to trip due to the feed tanks being drawn down too low. All circulation would stop, and the solids would settle causing multiple pump blockages and sludge settling in the reactor. This affects the health of the reactor.
    - i. SO4 has rectified and recalibrated the 2 flow meters on the bioreactor feed and MLR flows to read true and correct so the control system sees the true flows. Further improvement of flow meter accuracy and adjustment of setpoints to ensure true recirculation at low levels without any tripping and maintained health of the reactor
2. RAS Pump
  - a. Multiple RAS pump motor failures. If this pump is down the whole system cannot run. Several pump assemblies ordered from a supplier leaked on installation and some failed within a day of operation.
    - i. SO4 now source these pumps and motors from a new supplier to avoid quality issues.
3. Instrumentation
  - a. Several instruments in the plant have failed resulting in the plant being switched to manual mode. Running the plant in manual mode makes it difficult to monitor and make the necessary adjustments to maintain the system health and treated water quality.

Section E – Details of non-compliance with licence condition	
<p>i. SO4 have sourced all replacement instruments directly from original equipment manufacturers and in some cases upgraded the instruments to better quality and more reliable instruments. We now have all instruments reading true which will improve the system health and quality of the treated water.</p> <p>4. System inflows</p> <p>a. Due to the construction process, there has been changes to the number of personnel on site which has resulted in a variability of inflow into the treatment system. As the project progresses from construction to operations and the manning levels stabilize it is anticipated that the treatment plant will function more consistently. The wastewater is expected to meet the licenced discharge limits.</p>	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance.	
<p>In addition to the actions detailed above to rectify the issues with the plant. SO4 has actioned the below;</p> <ol style="list-style-type: none"> <li>1. The review of wastewater treatment quality has now been included within the position description and responsibilities of the onsite environmental advisor.</li> <li>2. Wastewater exceedances will be incorporated into the existing incident reporting procedure to ensure that they are captured, investigated, and managed appropriately.</li> <li>3. Review the daily inspection’s checklists and internal reporting process to ensure plant failures are detected and reported to improve plant performance.</li> <li>4. As part of the ongoing contract with an accredited WWTP maintenance provider, ensure suitable equipment and spares are maintained onsite.</li> </ol>	
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 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:		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.