



Licence number	L7465/1999/9
Licence holder ACN	Northern Star (Carosue Dam) Pty Ltd 116 649 122
Registered business address	Level 1, 388 Hay Street SUBIACO WA 6008
DWER file number	DER2020/000690
Duration Date of amendment	1/11/2021 to 31/10/2041 12 November 2021
Premises details	Carosue Dam Operations MENZIES WA 6436
	Mining tenements M28/166-168, M28/245, M28/269, M31/208-210, M31/219-220, M31/295, L28/23, L28/24, L28/25, L28/26, L28/28, L28/29, L28/30, L28/31, L28/41, L31/37 and L31/40

As defined by the Premises map in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production capacity
Category 5: Processing and beneficiation of metallic or non- metallic ore	4,000,000 tonnes per annual period
Category 6: Mine dewatering	1,000,000 tonnes per annual period
Category 52: Electric power generation	28 MW
Category 54: Sewage facility	150 m <sup>3</sup> /day
Category 63: Class I inert Landfill	3,500 tonnes per annual period
Category 64: Class II putrescible landfill	6,000 tonnes per annual period
Category 73: bulk storage of chemicals, etc.	1,400 m <sup>3</sup>

This amended licence is granted to the licence holder, subject to the attached conditions, on 12 November 2021, by:

### A/MANAGER, RESOURCE INDUSTRIES REGULATORY SERVICES

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

# Licence history

Date	Reference number	Summary of changes
23/10/2001	L7456/1999/3	Licence re-issue
26/06/2002	W3637/1999/1	Works approval for construction of dewater pipelines between pits, storage dams and processing plant.
08/08/2002	W3673/1999/1	Works approval for construction of a water retention facility
09/10/2002	L7456/1999/4	Licence re-issue
27/10/2003	L7456/1999/5	Licence re-issue
01/11/2004	L7456/1999/6	Licence re-issue
23/10/2008	L7456/1999/7	Licence re-issue
16/02/2009	W4539/2009/1	Works approval for TSF lift on cells A and B
23/12/2010	W4780/2010/1	Works approval for the Luvironza in-pit TSF
15/09/2011	W4984/2011/1	Works approval to upgrade the sewage facility from Class C effluent to Class A effluent.
09/09/2011	W4983/2011/1	Works approval to dewatering discharge from Monty's to Twin Peaks open pit
12/05/2011	W4901/2011/1	Works approval for stage 6 lift of the TSF
24/03/2011	W4869/2011/1	Works approval to discharge dewatering water into Monty's open pit and expand the sewage system
19/01/2012	W5086/2011/1	Works approval to discharge dewatering water into Whirling Dervish open pit
29/11/2012	W5274/2012/1	Works approval to assess mine dewater discharge into Lake Rebecca
14/02/2013	W5319/2012/1	Works approval for a new processing plant
16/05/2013	W5421/2013/1	Works approval for construction of TSF Cell 3
24/10/2013	L7465/1999/8	Licence re-issue
18/12/2014	L7465/1999/8	Licence amendment to REFIRE format and to include new tailings storage facility
26/11/2015	L7465/1999/8	Licence amendment to remove condition 1.3.7 and update into version 2.9
29/04/2016	L7565/1999/8	Department initiated amendment in accordance with section 59(1)(k) of the <i>Environmental Protection Act 1986</i> to amend the duration of the licence date month year.
2/06/2016	L7465/1999/8	Licence amendment to include tenements L28/24, L28/29,

#### Department of Water and Environmental Regulation

		L28/30, M28/269 and M31/295 within the premises boundary and to remove the Karari pit monitoring bores KRMB03 and KRHY4.
8/12/2016	L7465/1999/8	<ul> <li>Amendment Notice 1: The following changes were authorised:</li> <li>To construct an upstream embankment raise to Cell 3 of the existing Tailings Storage Facility (TSF) from RL 371.5m to the Stage 2 design height of RL 375.5 (4 total); and</li> <li>Construct a new turkey's nest within the Process Plant footprint to contain raw reverse osmosis (RQ) feed water.</li> </ul>
4/10/2017	L7465/1999/8	<ul> <li>Amendment Notice 2: Following changes were authorised:</li> <li>to construct and operate an additional evaporation pond (Cell 3) to store primary treated wastewater on site and to add six additional 1MW generating sets to its existing power station (12MW).</li> <li>to increase the approved production or design capacity</li> </ul>
		for category 85 Sewage Facility authorised by licence L7465 from existing 80m <sup>3</sup> per day to 95m <sup>3</sup> per day.
17/09/2018	L7465/1999/8	Amendment Notice 3: Application to install up to 750m of sewage leach drains to accommodate an increase in personnel at the accommodation camp. The second amendment authorised the discharge of excess hypersaline water from exploration drilling sumps into the Luvironza turkey's nest, Monty's Pit and Twin Peaks Pit.
29/03/2019	L7465/1999/8	Amendment Notice 4: Authorise an increase wastewater treatment plant throughput capacity from 95m <sup>3</sup> /day to 99m <sup>3</sup> /day.
17/06/2019	W6236/2019/1	Works Approval to authorise stage 7 embankment raise to Cells 1 and 2 of the TSF to RL 378 m and combining of Cell 1 and 2 into one cell.
3/12/2019	L7465/1999/8	Amendment to authorise operation of TSF Cell 1/2 to Stage 7 height following completion of works authorised by Works Approval W6236/2019/1.
		Includes licence amalgamation of previously separately issued Amendment Notices $(1 - 4)$ in the licence.
16/12/2019	L7465/1999/8	Amendment to allow the construction and operation of an upgraded powerhouse (total of 28 MW per annum) and to allow for the increase in approved throughput to the site's sewage treatment facilities up to 150 m <sup>3</sup> /day.
18/05/2020	L7465/1999/8	Amendment to increase throughput of the Carosue Processing Plant to 4Mtpa (category 5 activities). This included upgrading the milling circuit by adding a new ball mill, 2 carbon in-leach tanks and upgrading the gravity and elution circuit. Saracen also requested that the paste plant and thickener plant be added to the descriptive overview of the licence.
26/05/2020	L7465/1999/8	Administrative amendment to correct errors in documents.
02/08/2021	L7465/1999/8	Transfer of Licence to Northern Star Resources Limited.

		Update to the format and appearance of the Licence.
14/10/2021	L7465/1999/9	Administrative licence renewed for twenty years – new expiry date 31/10/2041.
12/11/2021	L7465/1999/9	Authorise operation of TSF cell 3 stage 3, after construction and time limited operations under W6509/2021/1.

## Interpretation

In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

# **Licence conditions**

#### **Premises operation**

- 1. The Licence Holder must ensure that all pipelines containing tailings, process water, mine dewater, tailings decant water and effluent are either:
  - (a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
  - (b) equipped with automatic cut-outs in the event of a pipe failure; or
  - (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
- 2. The Licence Holder must ensure that any saline dewatering effluent must only be managed in the following manner:
  - (a) used for dust suppression; or
  - (b) discharged to previously mined pits Whirling Dervish, Karari, Monty's or Twin Peaks.
- **3.** The Licence Holder must ensure that tailings, decant water and effluent are only discharged into containment cells, dams, ponds and turkey's nests with the relevant infrastructure requirements and at the locations specified in Table 1 and identified in Schedule 1.

Containment point reference	Material	Infrastructure requirements
TSF Cell 1/2	Tailings	Lined with compacted oxidised waste with a design permeability of at least <10 <sup>-8</sup> m/s
		Constructed with an upstream low permeability zone (zone A) with a hydraulic conductivity of not more than 1 x 10 <sup>-8</sup> m/s
		Constructed with a single combined Cell 1/2 underdrainage system and a single underdrainage tower
		Toe drain installed on the upstream side of the western wall of Cell 1/2
TSF Cell 3		Lined with compacted oxidised mine waste to achieve a permeability of at least <10 <sup>-8</sup> m/s or equivalent
Luvironza in-pit TSF		Constructed and operated in accordance with document titled: 'Works Approval Application for Luvironza In-Pit Tailings Storage Facility, Saracen Gold Mines Pty Ltd, 30 September 2010'.
Process water pond	Process water pond	Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent

#### Table 1: Containment infrastructure

Containment point reference	Material	Infrastructure requirements
Evaporation pond Cell 1 and 2	Treated wastewater	Lined with compacted clay. The Licence Holder must manage all wastewater treatment evaporation ponds such that overtopping of the ponds does not occur.
Evaporation Pond Cell 3	Treated wastewater	Lined with 1 mm thick HDPE liner to achieve permeability of at least 10 <sup>-9</sup> m/s or equivalent
Evaporation Ponds: Cell 1, Cell 2, Cell- 3	Treated wastewater	<ul> <li>The Licence Holder must manage all wastewater treatment evaporation ponds such that:</li> <li>(a) overtopping of the ponds does not occur;</li> <li>(b) the integrity of the containment infrastructure is maintained; and</li> <li>(c) trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter.</li> </ul>
Karari turkey's nest	Mine dewater	Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent
Monty's turkey's nest		Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent
Twin peaks turkey's nest		Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent
Luvironza turkey's nest		Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent
Access road turkey's nest	Mine dewater	Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent
Rebecca's turkey's nest		Lined with 1mm HDPE to achieve a permeability of at least <10 <sup>-9</sup> m/s or equivalent
Turkey's Nest	Raw water (feed to RO plant)	30m by 30m lined with 0.75 mm, UV resistant, HDPE
Bioremediation pad	Hydrocarbon contaminated waste	<ul> <li>Ensure soil is bioremediated by:</li> <li>maintaining a suitable soil thickness</li> <li>maintaining an appropriate moisture content and nutrient level within the soil which sustains biological activity; and</li> <li>at least quarterly soil aeration.</li> </ul>

**4.** The Licence Holder must manage containment cells, dams, ponds and turkey's nests in Table 1 such that a minimum total freeboard (operational and beach) of 500mm and a minimum 300mm operational freeboard is maintained at all times.

- 5. The Licence Holder must manage TSFs such that:
  - (a) a seepage collection and recovery system is provided and used to capture seepage from the TSF; and
  - (b) seepage is returned to the TSF or re-used in process.
- 6. The Licence Holder must:
  - (a) undertake inspections as detailed in Table 2;
  - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
  - (c) maintain a record of all inspections undertaken.

#### Table 2: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Tailings pipelines	Visual integrity	
Return water lines	Visual integrity	
TSF Embankment	Visual to confirm required	Every 12 hours when in
freeboard	freeboard capacity is available	operation
WWTP Evaporation ponds	Visual to confirm required	
freeboard	freeboard capacity is available	
Leach drain pipeline	Visual integrity	Weekly
Exploration drilling water	Visual integrity	Every hour when in
discharge pipelines	vioual integrity	operation

- 7. The Licence Holder must undertake a monthly water balance for each of the active cells of the TSF. The water balance must record the following:
  - (a) site rainfall;
  - (b) evaporation;
  - (c) decant water recovery volumes;
  - (d) seepage recovery volumes; and
  - (e) volumes of tailings deposited;
  - to derive an estimate of seepage losses.
- 8. The Licence Holder must, upon becoming aware that depth to groundwater levels in monitoring bores around the TSF are less than 6.0 mbgl, within six months, design and implement a Groundwater Recovery Plan.
- **9.** The Licence Holder must ensure that the Groundwater Recovery Plan includes but is not limited to:
  - (a) Notification to the CEO of when and in how many bores the groundwater level could not be met;
  - (b) Any environmental impacts observed;
  - (c) Strategies to achieve the groundwater level, including:
  - (d) Any additional recovery bores or trenches required;
  - (e) Maximising performance of existing recovery bores;
  - (f) Frequency of groundwater level monitoring;
  - (g) Minimising the normal operating supernatant pool area on the TSF;
  - (h) Frequency and scope of groundwater quality monitoring;
  - (i) Predicted increases in groundwater recovery;
  - (j) Predicted timeframes to achieve the groundwater level;
  - (k) Strategies to ensure the level will be met in the future; and
  - (I) Establishing and implementing appropriate vegetation monitoring.

**10.** The Licence Holder must ensure that where wastes produced on the Premises are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements in Table 3.

Table	3:	Waste	management
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Waste type	Process(es)	Process limits <sup>1, 2</sup>
Inert Waste		All waste types
Туре 1		Disposal of waste by landfilling must only take place
Inert Waste		within the landfill area shown on the Landfill Area Map
Type 2	Disposal of waste by landfilling	in Schedule 1.
Putrescible		Tyres may be buried within the waste rock dumps and
waste		Schodulo 1
Clean Fill		No waste must be temporarily stored or landfilled within 35 metres from the boundary of the premises. The separation distance between the base of the landfill and the highest groundwater level must not be less than 2m.
Sewage	Biological and physical treatment	150m <sup>3</sup> per day to evaporation ponds and leach drains.

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*. Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

**11.** The Licence Holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 4 and that sufficient stockpiles of cover are maintained on site at all times.

#### Table 4: Cover requirements<sup>1</sup>

Waste Type	Cover requirements
Putrescible wastes	To be covered fortnightly with sufficient quantities of Inert Waste Type 1, clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors.
Inert Waste Type 1	No cover required
Inert Waste Type 2	A minimum depth of 500 mm of clean fill is maintained over the buried tyres following disposal.

Note 1: Additional requirements for final cover of tyres are set out in Part 6 of the *Environmental Protection Regulations* 1987.

- **12.** The Licence Holder must ensure that wind-blown waste is collected on at least a weekly basis and returned to the tipping area.
- **13.** The Licence Holder must operate the TSF in accordance with the conditions of this Licence and Table 5 below;

#### Table 5: Carosue Dam TSF Operating Heights

Stages	Operating Height
Stage 3 raise of Cell 3	RL 377.5m Australian Height Datum (AHD)
Stage 7 raise of Cell 1/2	RL 378 m Australian Height Datum (AHD)

**14.** The Licence Holder must ensure that the site infrastructure and equipment listed in Table 6 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 6.

Site infrastructure and equipment	Operational requirement	Infrastructure location
Thickener plant perimeter bunding	<ul> <li>minimum depth of 1m;</li> <li>minimum capacity of 3.3ML; and</li> <li>excess liquid pumped out before reaching containment capacity.</li> </ul>	Plant locations indicated in
Paste plant sediment trap	<ul> <li>minimum depth of 1m;</li> <li>minimum capacity of 200kL; and</li> <li>sediment build up is removed prior to the periods of increased rainfall.</li> </ul>	Figure 7 of Schedule 1

#### Table 6: Infrastructure and equipment requirements

**15.** The licence holder must manage dust generation at the premises by wetting down unsealed roads and exposed areas with a water truck.

#### Emissions

- **16.** The Licence Holder must record and investigate the exceedance of any descriptive or numerical limit specified in any part of this Licence.
- **17.** The Licence Holder must ensure that where waste is emitted to air from the emission points in Table 7 (and as identified on Figure 2 of Schedule 1) it is done so in accordance with the conditions of this Licence.

#### Table 7: Point source emissions to air

Emission point reference and location on Map of emission points	Emission point and Source	Minimum emission point height (m)	Source, including any abatement
A1	Carbon regeneration kiln stack	16.5	LPG
A2 – 1	Power Station Generator 1		
A2 – 2	Power Station Generator 2		
A2 – 3	Power Station Generator 3		
A2 – 4	Power Station Generator 4		
A2 – 5	Power Station Generator 5		
A2 – 6	Power Station Generator 6		
A2 – 7	Power Station Generator 7		Generator
A2 – 8	Power Station Generator 8	0	engine
A2 – 9	Power Station Generator 9	0	exhaust
A2 – 10	Power Station Generator 10		stacks
A2 – 11	Power Station Generator 11		
A2 – 12	Power Station Generator 12		
A2 – 13	Power Station Generator 13	]	
A2 – 14	Power Station Generator 14	]	
A2 – 15	Power Station Generator 15		
A2 – 16	Power Station Generator 16	]	

Emission point reference and location on Map of emission points	Emission point and Source	Minimum emission point height (m)	Source, including any abatement
A2 – 17	Power Station Generator 17		
A2 – 18	Power Station Generator 18		
A2 – 19	Power Station Generator 19		
A2 – 20	Power Station Generator 20		
A2 – 21	Power Station Generator 21		
A2 – 22	Power Station Generator 22		
A2 – 23	Power Station Generator 23		
A2 – 24	Power Station Generator 24		
A2 – 25	Power Station Generator 25		
A2 – 26	Power Station Generator 26		
A2 – 27	Power Station Generator 27		
A2 – 28	Power Station Generator 28		

**18.** The Licence Holder is permitted, subject to conditions in the Licence, to emit waste to groundwater through the emissions points listed in Table 8 and identified in Figure 3 of Schedule 1.

Emission point reference	Description	Source including abatement
Whirling Dervish pit	Receiving environment – previously mined pit	Water from dewatering of mine
Karari pit	Receiving environment – previously mined pit	Water from dewatering of mine
Monty's pit	Receiving environment – previously mined pit	Water from dewatering of mine
Twin Peaks pit	Receiving environment – previously mined pit	Water from dewatering of mine

#### Table 8: Point source emissions to groundwater

### Monitoring

- **19.** The Licence Holder must ensure that:
  - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
  - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
  - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
- 20. The Licence Holder must ensure that:
  - (a) monthly monitoring is undertaken at least 15 days apart; and
  - (b) quarterly monitoring is undertaken at least 45 days apart.

**21.** The Licence Holder must undertake the monitoring in Table 9 according to the specifications in that table.

Table 9: Monitoring of point source	emissions to groundwater
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Emission point reference	Parameter	Units	Frequency
Monty's pit monitoring bores: MDMB4S,	Standing water level	mbgl	Monthly
MDMB4D, MDMB5S, MDMB5D,	pH <sup>1</sup>	-	Quarterly
MDMB7S and MDMB7D	Total dissolved solids	mg/L	
Karari pit sump			
Twin Peaks monitoring bores:			
IPMB3S,			
TPPB6			

Note 1: In-field non-NATA accredited analysis permitted.

**22.** The Licence Holder must undertake the monitoring in Table 10 according to the specifications in that table.

#### Table 10: Process monitoring

Process	Parameter	Units	Frequency	Method
Tailings deposition	Volumes of tailings deposited into each TSF Volume of water recovered from each TSF	tonnes	Continuous	None specified
	Volume of seepage recovered			
Mine	Cumulative volumes of	tonnes	Monthly	None
dewatering	dewatering water discharged into approved pits			specified

**23.** The Licence Holder must undertake the monitoring in Table 11 according to the specifications in that table and record and investigate results that do not meet any limit specified.

Monitoring point reference and location	Parameter	Limit	Units	Averaging period	Frequency
TSF monitoring bores	Standing water level	>4.0	mbgl	Spot	Monthly
(mustow and deep):	рН		-	sample	Quarterly
MB1S, MB1D, MB3S, MB3D, MB5S, MB5D	Electrical conductivity	-	µS/cm		
	Total dissolved solids	-	mg/L		
MB6S, MB6D, MB7S, MB7D, MB8S, MB8D	Weak acid dissociable cyanide	<0.5			
MB9S, MB9D, MB10S, MB10D, MB11S and MB11D	arsenic, cadmium, chromium, lead, nickel, zinc	-			
Luvironza in-pit TSF:	Standing water level	>4.0	mbgl	Spot	Monthly
LVHY3, LVHY8A,	рН		-	sample	Quarterly
LVMB01, LVMB02, LVMB03, LVMB04	Electrical conductivity	-	µS/cm		
	Total dissolved solids	-	mg/L		
	Weak acid dissociable cyanide	<0.5			
	arsenic, cadmium, chromium, lead, nickel, zinc	-			

#### Table 11: Monitoring of ambient groundwater quality

24. In the event that the concentration of weak acid dissociable cyanide is greater than 0.5 mg/L in monitoring bores as per condition 27, within six months the Licence Holder must design and implement a Groundwater Recovery Plan as per condition 9.

### Records

- **25.** All information and records required by the Licence must:
  - (a) be legible;
  - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) except for records listed in condition (a)(f)25(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
  - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
    - (i) off-site environmental effects; or
    - (ii) matters which affect the condition of the land or waters.
- 26. The Licence Holder must complete an Annual Audit Compliance Report indicating the extent to which the Licence Holder Licensee has complied with the conditions of the Licence and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- **27.** The Licence Holder must implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

### Reporting

**28.** The Licence Holder must submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report must contain the information listed in Table 12: Annual Environmental Report in the format or form specified in that table.

Condition or table (if	Parameter	Format or form
relevant)		
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	
Table 9	Monitoring of point source emissions to groundwater	None specified
	Process monitoring	
Table 10		
Table 11	Monitoring of ambient groundwater quality	
30	Compliance	Annual Audit
		Compliance Report (AACR)
31	Complaints summary	None specified

 Table 12: Annual Environmental Report

29. The Licence Holder must ensure that the Annual Environmental Report also contains:

(a) any relevant process, production or operational data; and

(b) an assessment of the information contained within the report against previous monitoring results and Licence limits.

**30.** The Licence Holder must submit the information in Table14 to the CEO according to the specifications in that table.

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form
-	Copies of original monitoring reports submitted to the Licence Holder by third parties	Not applicable	Within 14 days of the CEO's request	As received by the Licence Holder from third parties
Table 7	Maintenance records for power generating equipment used on the Premises outlining conformance with manufacturer's environmental emission specifications and/or any internal management systems			None specified
Conditions 8 – 9	Groundwater Recovery Plan	Monthly	28 calendar days	None specified

#### Table 13: Non-annual reporting requirements

- **31.** The licence holder must, within 7 days of becoming aware of any non-compliance with condition 20 of this licence, notify the CEO in writing of that non-compliance and include in that notification the following information:
  - (a) which condition was not complied with;
  - (b) the time and date when the non-compliance occurred;
  - (c) if any environmental impact occurred as a result of the non-compliance and if so what that impact is and where the impact occurred;
  - (d) the details and result of any investigation undertaken into the cause of the noncompliance;
  - (e) what action has been taken and the date on which it was taken to prevent the non-compliance occurring again; and
  - (f) what action will be taken and the date by which it will be taken to prevent the non-compliance occurring again.

## **Definitions**

In this licence, the terms in Table have the meanings defined.

#### Table 15: Definitions

Term	Definition
CAN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 January until 31 December of the immediately following year.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters
averaging period	means the time over which a limit is measured or a monitoring result is obtained
Books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department.
	"submit to / notify the CEO" (or similar), means either:
	Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919
	or:
	info@dwer.wa.gov.au
Clean Fill	has the meaning defined in Landfill Definitions
controlled waste	has the definition in <i>Environmental Protection (Controlled Waste)</i> Regulations 2004
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
Discharge	has the same meaning given to that term under the EP Act.
DMIRS	means Department of Mines, Industry Regulation and Safety
Emission	has the same meaning given to that term under the EP Act.

Term	Definition
EP Act	Environmental Protection Act 1986 (WA)
EP Regulations	Environmental Protection Regulations 1987 (WA)
Freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
Inert Waste Type 1	has the meaning defined in Landfill Definitions
Landfill Definitions	means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time
Licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
m <sup>3</sup>	means cubic meters
Mtpa	means million tonnes per annum
NATA	means the National Association of Testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
Premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
Quarterly	means the four inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March
Schedule 1	means Schedule 1 of this Licence unless otherwise stated
Schedule 2	means Schedule 2 of this Licence unless otherwise stated
spot sample	means a discrete sample representative at the time and place at which the sample is taken
usual working day	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia

Term	Definition
Waste	has the same meaning given to that term under the EP Act.
WWTP	means wastewater treatment plant

#### **END OF CONDITIONS**

# Schedule 1: Maps

### **Premises map**

The Premises is shown in the map below with the prescribed premises boundary marked in red.



Figure 1: Premises map

### Map of point source emissions to air

The locations of the emission points to air (defined in Table 7: Point source emissions to air) are shown below.



Figure 2: Point source emissions to air

### Map of point source emissions to groundwater

The locations of the emission points to groundwater (listed in Table 8: Point source emissions to groundwater) and containment infrastructure (defined in Table 1: Containment infrastructure) are shown below.



Figure 3: Emission points to groundwater

### Map of wastewater treatment plant

The location of evaporation (wastewater treatment) ponds defined in Table 1: Containment infrastructure) is shown below.



Figure 4: Wastewater treatment plant and associated infrastructure

### **Map of Landfill locations**

The locations of the landfills defined in Table 1: Containment infrastructure) are shown below.



Figure 5: Landfill locations

### Map of Tyre Burial Area

The locations of the tyre burial areas defined in Table 3: Waste management are shown below.



Figure 6: Tyre burial locations

### Map of Site Infrastructure

The location of the thickener and paste plant as described in Table 6: Infrastructure and equipment requirements) are shown below.



Figure 7: Location of thickener plant and paste plant

### Maps of monitoring locations

The locations of the monitoring points for TSF cells 1, 2 and 3, defined in Table 11: Monitoring of ambient groundwater quality) are shown below.



Figure 8: TSF cells 1, 2 and 3 monitoring locations

The locations of the monitoring points for Luvironza In-pit TSF defined in Table 11: Monitoring of ambient groundwater quality) are shown below.



Figure 9: Luvironza in-pit TSF monitoring locations

435000 434400 434800 434600 MDMB5(d) MD MB5(s MB7(d MDMB7 4(d) MD AB4 6672500 ION01 672200 Legend Monitoring Points May 14 671900 Exploration Hole Monitoring Bore 0 Pastoral bore or well Piezometer Monty's Monitoring Production Bore Point Locations Rehab Transect Photomonitoring point 434200 434400 434600 434800 435000

The locations of the monitoring points for Monty's defined in Table 9: Monitoring of point source emissions to groundwater) are shown below.

Figure 10: Monty's monitoring locations

The locations of the monitoring points for Karari defined in Table 9: Monitoring of point source emissions to groundwater) are shown below.



Figure 11: Karari monitoring locations



The locations of the monitoring points for Twin Peaks defined in Table 9: Monitoring of point source emissions to groundwater) are shown below.

Figure 12: Twin Peaks monitoring locations