



Licence number	L4611/1987/11
Licence holder	Agnew Gold Mining Company Pty Ltd
ACN	098 385 883
Registered business address	Level 4, 235 St Georges Terrace PERTH WA 6000
DWER file number	2012/006836-1
Duration	17/10/2013 to 17/10/2031
Date of amendment	17/10/2023
Premises details	Agnew Gold Mine Mining tenements M36/27, M36/32, M36/53, M36/55, M36/65, M36/150, M36/174, M36/248, M36/314 and M36/450 LEINSTER WA 6437 As depicted in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	1,500,000 tonnes per annual period
Category 6: Mine dewatering	2,000,000 tonnes per annual period
Category 85: Sewage facility	80 cubic meters per day
Category 89: Putrescible landfill site	4,000 tonnes per annual period

This amended licence is granted to the licence holder, subject to the attached conditions, on 17 October 2023, by:

**A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES**

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

Licence history

Date	Reference number	Summary of changes
23/08/2004	L4611/1987/9	Licence reissue for 5 years tenure.
13/09/2004	W4029/2014/1	Works approval for construction of Acid Plant completed and closed.
15/10/2009	L4611/1987/10	Licence reissue for 4 years tenure.
1/11/2012	W5236/2012/1	Works Approval for construction of Waroonga Landfill completed and closed.
17/10/2013	L4611/1987/11	Licence transfer and reissue with 5 year tenure.
19/02/2015	W5768/2014/1	Works Approval for construction of replacement landfill for Waroonga and New Holland still current.
29/04/2016	L4611/1987	Department initiated amendment in accordance with section 59(1)(k) of the Environmental Protection Act 1986 to amend the duration of the licence date month year.
26/05/2016	L4611/1987/11	Licence amendment – Addition of mining tenements from L5110 and prescribed activity category 6. Abandoned monitoring bores and redundant licence conditions were removed plus alignment to most recent licence format.
8/09/2017	L4611/1987/11	Amendment Notice 1: to construct and operate an In-pit TSF at the Songvang open pit site and increase dewatering throughput.
23/12/2019	L4611/1987/11	Amendment to reduce required freeboard on TSF3, add Waroonga North landfill facility and remove satisfied conditions. A consolidated licence was issued incorporating Amendment Notice 1 and updating to the current licence format.
07/07/2020	L4611/1987/11	This Amendment - to extend the area of the New Holland landfill
05/07/2021	L4611/1987/11	Amendment to construct dewatering pipeline to Crusader complex and construct new tertiary crusher at CIP plant.
26/07/2022	L4611/1987/11	Amendment to extend the expiry date.
07/09/2022	L4611/1987/11	Amendment to authorise operation of Waroonga Biomax Wastewater Treatment Plant, constructed under works approval W6572/2021/1.
17/10/2023	L4611/1987/11	Amendment to: <ul style="list-style-type: none"> • Increase Category 5 production capacity to 1,500,000 tonnes per annual period via tertiary crusher; • Store mine dewater at the Barren Lands turkeys nest; • Increase operating height of Songvang TSF4 to RL 422.0m and include measures to minimise impacts to wildlife; • Authorise construction and operation of Tristar Wastewater Treatment Plant to replace the Waroonga Biomax Wastewater Treatment Plant.

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

The licence holder must ensure that the following conditions are complied with:

Infrastructure

- The Licence Holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Tristar Sequential Batch Reactor WWTP, comprising: <ul style="list-style-type: none"> 1x 50kL equilisation tank; 1x 80 kL aeration reactor tank; 1x 50 kL poly sludge storage tank; 1x 50 kL irrigation tank 	<ul style="list-style-type: none"> Treatment capacity of up to 80 m³/day; All sewage and storage treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks or defects; Flow meter must be maintained on the WWTP inlet and outlet to the irrigation spray field; WWTP must be able to treat sewage to the minimum effluent quality performance criteria: <ul style="list-style-type: none"> Total suspended solids <30 mg/L; Biochemical oxygen demand <30 mg/L; <i>Escherichia coli</i> (E. coli) <1,000 CFU/100mL; Residual free chlorine, between 0.5 mg/L to 2.0 mg/L; and pH, between 6.5 pH unit and 8.5 pH unit; Alarm system to detect pump faults, high tanks levels and tank overflows must be maintained; Contingency storage capacity of up to two days of normal flow must be maintained, in the event that discharge is suspended; Sludge must be dewatered and disposed at an appropriately authorised facility; Spills of wastewater or chemicals outside of a vessel or container must be cleaned up immediately; and Maintained as per manufacturer's specifications 	Specified as 'Waroonga WWTP Facility' in Schedule 1: Maps, Figure 6.
Waroonga Biomax WWTP, comprising: <ul style="list-style-type: none"> 1x disinfection and pump tank; 1x settlement tank; 4x aerobic tanks; and 4x septic tanks 	<ul style="list-style-type: none"> Treatment capacity of up to 80 m³/day; All sewage and storage treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks or defects; Flow meter must be maintained on the WWTP inlet and outlet to the irrigation spray field; WWTP must be able to treat sewage to the minimum effluent quality performance criteria: <ul style="list-style-type: none"> Total suspended solids <30 mg/L; Biochemical oxygen demand <20 mg/L; <i>Escherichia coli</i> (E. coli) <1,000 CFU/100mL; 	Specified as 'Waroonga WWTP Facility' in Schedule 1: Maps, Figure 6.

Site infrastructure and equipment	Operational requirement	Infrastructure location
	<ul style="list-style-type: none"> Residual free chlorine, between 0.5 mg/L to 2.0 mg/L; and pH, between 6.5 pH unit and 8.5 pH unit; Alarm system to detect pump faults, high tanks levels and tank overflows must be maintained; Contingency storage capacity of up to two days of normal flow must be maintained, in the event that discharge is suspended; Sludge is contained within sealed sludge tanks prior to removal by a licensed waste contractor for disposal to an appropriately authorised facility; Spills of wastewater or chemicals outside of a vessel or container must be cleaned up immediately; and Maintained as per manufacturer's specifications 	
Waroonga irrigation sprayfield	<ul style="list-style-type: none"> Irrigation area of at least four hectares must be maintained; Irrigation area must be managed to prevent ponding and pooling of treated effluent on the ground surface of the irrigation discharge area; Irrigation area must be inspected weekly to ensure no surface runoff; and Fence with visible safety signage must be maintained. 	Specified as 'Waroonga Irrigation Sprayfield' in Schedule 1: Maps, Figure 6.

2. The Licence Holder must ensure that tailings, decant water, dewater effluent and hydrocarbon contaminated soil are only discharged into containment cells and/or a turkey's nest with the relevant infrastructure requirements and at the locations specified in Table 2 and identified in Schedule 1: Maps.

Table 2: Containment infrastructure requirements

Vessel or compound	Material	Requirements
Redeemer In-Pit TSF3	Tailings	<ul style="list-style-type: none"> In-pit facility with monitoring bore network to identify any environmental impacts. Minimum freeboard of 500mm maintained at all times. Normal operating pond level to be at least 1m below pit crest.
Songvang In-pit TSF	Tailings	<ul style="list-style-type: none"> In-pit TSF with monitoring bore network. Operate to final height of RL 422.0 m. Freeboard maintained to ensure water level does not exceed RL 422.0 m. Bird deterrent must be utilised daily between December and March, if birds are present at the in-pit TSF.
TSF2 ¹	Tailings	<ul style="list-style-type: none"> Lined with 200mm of compacted clay. Minimum freeboard of 300mm maintained or containment for a 1 in 100 year/72 hour storm event (whichever is greater) is maintained at all times

Vessel or compound	Material	Requirements
Waroonga Turkeys Nest	Mine dewater from Waroonga underground operations	<ul style="list-style-type: none"> Lined with 200mm of compacted clay, or 150mm of compacted clay and 1.5mm HDPE liner to achieve a permeability of $<10^{-9}$m/s or equivalent. Minimum freeboard of 300mm maintained or containment for a 1 in 100 year/72 hour storm event (whichever is greater) is maintained at all times.
New Holland Turkeys Nest	Mine dewater from New Holland underground operations	
Barren Lands Turkeys Nest	Mine dewater from Barren Lands open pit and underground operations	
TSF2 Process Water Pond	Redeemer In-Pit TSF return water and Song Vang pit water	
Redeemer TSF Return Pond	Redeemer In-Pit TSF Return water	
Songvang TSF Process Pond	Songvang In-pit TSF Return water	<ul style="list-style-type: none"> Lined with 150 to 200 mm of compacted clay with primary and secondary HDPE liners to achieve a permeability of $<10^{-9}$m/s or equivalent. Spillway plus under wall return drain shall direct all overflow back to the Songvang In-pit TSF. Minimum freeboard of 300mm maintained or containment for a 1 in 100 year/72 hour storm event (whichever is greater) is maintained at all times.
Hidden Secret Pit	Mine dewater from Waroonga, Genesis, and New Holland and Vivien underground operations.	<ul style="list-style-type: none"> In-pit facility with water discharge monitoring to identify any environmental impacts. Minimum freeboard of 300mm maintained or containment for a 1 in 100 year/72 hour storm event (whichever is greater) is maintained at all times
New Holland Bioremediation pad	Hydrocarbon contaminated soil	<ul style="list-style-type: none"> Hydrocarbon contaminated material are either put in bioremediation area or taken off site by a licenced contractor. Any contaminated runoff from the treatment cell is contained.
Waroonga Bioremediation pad	Hydrocarbon contaminated soil	<ul style="list-style-type: none"> Hydrocarbon contaminated material are either put in bioremediation area or taken off site by a licenced contractor. Any contaminated runoff from the treatment cell is contained.
Cox, Pilgrim and Deliverer pits	Mine dewater from Waroonga, Genesis, and New Holland and Vivien mining operations	<ul style="list-style-type: none"> In-pit facility with water discharge monitoring to identify any environmental impacts. Top of embankment freeboard of 3m is maintained for each pit. Flow meter installed to calculate volumes of mine dewater discharged.

Note 1: TSF2 currently decommissioned and not operational.

3. The Licence Holder must:
- (a) undertake inspections as detailed in Table 3;
 - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences; and
 - (c) maintain a record of all inspections undertaken.

Table 3: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Mine dewater pipelines	Visual integrity	Daily when operating or weekly when not operating.
Tailings delivery pipelines	Visual integrity	
Tailings return water lines	Visual integrity	
Tailings deposition	Visual assessment of beaching and record bird / other wildlife presence	
Decant Pond	Visual assessment of pond, size and location and record bird / other wildlife presence.	
Internal embankment freeboard of the TSF and decant ponds	Visual to confirm required freeboard capacity is available	
Cox, Pilgrim and Deliverer pits	Visual assessment to confirm required freeboard capacity is available	Twice daily when operating or between December and March. Weekly when not operating and between March and December.
Bird or wildlife mortality within the TSF infrastructure, decant pond and return water ponds	Record any mortality of birds or other wildlife. If safe to do so, retrieve any specimens of dead birds or other wildlife and preserve (freeze) to allow for identification / further study.	

4. The Licence Holder must ensure that all pipelines containing environmentally hazardous materials are either:
- (a) equipped with automatic cut-outs in the event of a pipe failure; and/or
 - (b) provided with a secondary containment sufficient to contain any spill for a period equal to the time between routine inspections; and/or
 - (c) equipped with telemetry systems and pressure sensors along pipelines allowing the detection of leaks and failures.
5. The Licence Holder must ensure that where wastes produced on the Premises are not taken to third party premises for lawful use or disposal, they are managed in accordance with the requirements in Table 4. Additional trenches may be constructed and operated as required, providing they are done so in accordance with Table 4.

Table 4: Management of Waste

Waste type	Waste Code	Management strategy	Requirements ^{1,2}
Clean fill	N/A	Storage, handling and disposal of	<u>All waste types except sewage</u>
Contaminated Solid Waste			

Inert Waste Type 1		waste by landfilling	<ul style="list-style-type: none"> No more than 4 000 tonnes per year of all waste types cumulatively shall be disposed of by landfilling; Disposal of waste by landfilling shall only take place within the landfill areas shown on the map of emission points in Schedule 1; Waste shall be placed in a defined trench, with the active tipping area restricted to a maximum linear length of 70 m and a width of 30 m; The separation distance between the base of the landfill and the highest groundwater level shall not be less than 3m; and Must meet the acceptance criteria for Class II landfills. <p>Asbestos Waste</p> <ul style="list-style-type: none"> Only to be disposed of into a designated asbestos disposal area within the landfill; Not to be deposited within 2 m of the final tipping surface of the landfill; and No works shall be carried out on that landfill that could lead to a release of asbestos fibres.
Inert Waste Type 2			
Putrescible waste			
Special Waste Type 1			
Special Waste Type 2			

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*.

6. The Licence Holder must ensure that cover is applied to waste in the tipping area in accordance with Table 5 and that sufficient stockpiles of cover are maintained on site at all times for the tipping area of the site to be covered, in accordance with this condition, at least twice.

Table 5: Cover requirements

Waste Type	Material	Depth	Timescales
Clean Fill	No cover required	N/A	None.
Inert Waste Type 1	No cover required	N/A	None.
Inert Waste Type 2	Inert Waste Type 1, soil or clay	100mm	By the end of the fortnight in which the waste was deposited. Plastic waste with the potential to become windblown shall be covered as soon as practicable after deposit.
Putrescible waste	Inert Waste Type 1, soil or clay	150mm	To be covered by the end of the week in which the waste was deposited with sufficient quantities of Type 1 inert waste, clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors.
Special Waste Type 1	Inert Waste Type 1 or clean fill	Progressive cover 300mm	Following deposition and prior to compaction.
	Solid waste or soil	Final Cover 1000mm	By the end of the working day in which the waste was deposited.

7. The Licence Holder must ensure that wind-blown waste is contained within the boundary of the landfill and that wind-blown waste is returned to the tipping area on at least a monthly basis.
8. The Licence Holder must operate the cyanide detoxification unit to ensure that the weak acid dissociable (WAD) cyanide concentration in the tailings decant pond is less than 50 parts per million at all times.

Emissions

9. The Licence Holder must record and investigate the exceedance of any descriptive or numerical limit specified in this Licence.
10. The Licence Holder must ensure that the emissions specified in Table 6 and Table 7 are discharged only from the corresponding discharge points and only at the corresponding discharge point location.

Table 6: Authorised point source discharge to groundwater

Discharge point reference	Description	Source including abatement	Authorised discharge volume
Hidden Secret, Cox, Deliverer and Pilgrim Pits	Receiving environment – previously mined pit	Water from dewatering operations of Waroonga, Genesis, New Holland and Vivien mine operations	2,000,000 tpa

Table 7: Authorised point source discharge to land

Discharge point reference	Description	Source including abatement	Authorised discharge volume
Waroonga irrigation sprayfield	Fenced area on Waroonga East waste rock dump	Treated wastewater from Waroonga Biomax WWTP and Tristar Sequential Batch Reactor WWTP	80 m ³ /day

11. The Licence Holder must ensure that emissions from the discharge point listed in Table 8 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 13.

Table 8: Emission and discharge limits

Discharge point	Parameter	Limit
Waroonga irrigation sprayfield	Total Phosphorus (mg/L)	120 kg/ha/year
	Total Nitrogen (mg/L)	480 kg/ha/year

Monitoring

12. The Licence Holder must ensure that:
 - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;

- (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured (unless indicated otherwise in the relevant table).

13. The Licence Holder must undertake the monitoring in Table 9 according to the specifications in that Table.

Table 9: Monitoring of point source discharge

Discharge point reference	Parameter	Units	Frequency
Mine dewater discharged from Waroonga, Genesis, New Holland and Vivien mine operations to the discharge outlets at: <ul style="list-style-type: none"> Hidden Secret Pit; Cox Pit; Deliverer Pit; and Pilgrim Pit 	pH ¹	-	Six monthly ²
	Electrical conductivity at 25 °C ¹	µS/cm	
	Total dissolved solids	mg/L	
	Arsenic		
	Cadmium		
WWTP outlet at: <ul style="list-style-type: none"> Waroonga irrigation sprayfield 	Copper		Quarterly ³
	Mercury		
	Selenium		
	<i>E. coli</i>	cfu/100 mL	
	Total coliforms		
	pH ¹	pH unit	
	Residual chlorine ¹	mg/L	
	Biological oxygen demand ¹		
	Total suspended solids		
	Total nitrogen		
	Total phosphorus		

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

Note 2: Six monthly monitoring to be undertaken at least 5 months apart.

Note 3: Quarterly monitoring to be undertaken at least 45 days apart.

14. The Licence Holder must undertake the monitoring in Table 10 according to the specifications in Table 10.

Table 10: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Frequency
Mine dewater discharged from Waroonga, Genesis, New Holland and Vivien mine operations to: <ul style="list-style-type: none"> Hidden Secret Pit; Cox Pit; Deliverer Pit; and Pilgrim Pit 	Cumulative volume	kL	Quarterly ¹
WWTP outlet at: <ul style="list-style-type: none"> Waroonga irrigation sprayfield 	Cumulative volume	m ³	Continuous

Note 1: Quarterly monitoring is undertaken at least 45 days apart.

15. 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.

Table 11: Monitoring of ambient groundwater quality and WAD cyanide concentrations

Monitoring point reference and location	Parameter	Limits	Units	Averaging period	Frequency
EC473, EC476, EC477, EWB61, EWB62, EWB66, EWB67, EWB68	pH ¹	6.0 to 9.0	-	Spot sample	Quarterly ³
	Electrical Conductivity (EC)	-	µg/cm		
	Standing water level (SWL) ²	-	mbgl		
	Total dissolved solids ¹ (TDS)	-	mg/L	Spot sample	Six monthly ⁴
	Major Ions ⁵	-			
	Total cyanide	-			
	Weak acid dissociable cyanide	0.5			
	Selenium	-			
	Thallium	-			
REDIPMW1, REDIPMW2, REDIPMW3, REDIPMW5, REDIPMW6, REDIPMW7, REDIPMW8, REDIPMW9, REDIPMW10. SV1-1, SV2-1, SV2-2, SV4-1, SV5-1, SV6-1.	pH ¹	6.0 to 9.0	-	Spot sample	Quarterly ³
	Electrical Conductivity (EC)	-	µg/cm		
	Standing water level (SWL) ²	-	mbgl		
	Total dissolved solids ¹ (TDS)	10 000	mg/L	Spot sample	Six monthly ⁴
	Major Ions ⁷	-			
	Total cyanide	-			
	Weak acid dissociable cyanide	0.5			
	Selenium	-			
	Thallium	-			
Decant (supernatant) pond of each operating tailings storage facility	Weak acid dissociable cyanide	50	mg/L	Spot sample	Monthly ⁵
Decant (supernatant) pond at Songvang in-pit TSF	Dissolved As	-	mg/L		Weekly ⁶

Note 1: Field sample results are to be reported as per condition 4.2.1. An exemption from NATA laboratory analysis is allowed given geographical remoteness of the sample site and the short holding time of the parameter.

Note 2: Standing water level shall be determined prior to collection of water samples.

Note 3: Quarterly monitoring to be undertaken at least 45 days apart.

Note 4: Six monthly monitoring to be undertaken at least 165 days apart.

Note 5: Monthly monitoring to be undertaken at least 14 days apart.

Note 6: Weekly monitoring to be undertaken at least four days apart.

Note 7: Major Ions include Ca, Na, Mg, K, SO₄, Cl, SiO₂, NO₃, HCO₃ and dissolved Al, Sb, As, B, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Ni, Mo, Se, Ag, Sn and Zn.

Groundwater Recovery plan

16. The Licence Holder must, upon becoming aware that groundwater quality exceeds the limits in Table 11, design and implement a groundwater recovery plan.
17. The Licence Holder must ensure that the groundwater recovery plan required by condition 16 of this licence includes:
 - (a) notification to the CEO in writing of when and in how many bores the limit could not be met;

- (b) any significant environmental impacts observed;
 - (c) strategies to achieve the groundwater quality limit, including predicted increases in groundwater recovery and any additional recovery bores or trenches required;
 - (d) predicted timeframes to achieve the groundwater quality limit; and,
 - (e) strategies to ensure the limit will be met in the future.
- 18.** The groundwater recovery plan outlined in condition 17 must be submitted to the CEO for review prior to implementation.

Records and reporting

- 19.** 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 19(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) or 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.
- 20.** The Licence Holder must complete an Annual Audit Compliance Report indicating the extent to which the Licence Holder 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.
- 21.** 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
- 22.** The Licence Holder must submit to the CEO an Annual Environmental Report within 59 calendar days after the end of the annual period. The report shall contain the information listed in Table 12 in the format or form specified in that table.

Table 12: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form ¹
-	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	None specified
Condition 20	Compliance	Annual Audit Compliance Report (AACR)
Condition 21	Complaints summary	None specified
Table 2	Summary of bird deterrent utilised	None specified
Table 9	Monitoring of point source discharge	None specified
Table 10	Monitoring of inputs and outputs	None specified

Table 11	Monitoring of ambient groundwater quality	None specified
Table 8 and Table 11	Limit exceedances	N1

Note 1: N1 Forms are available at www.dwer.wa.gov.au

- 23.** The Licence Holder must ensure that the Annual Environmental Report also contains:
- an assessment of the information contained within the report against previous monitoring results and licence limits; and
 - a list of any original monitoring reports submitted to the Licence Holder from third parties for the annual period and make these reports available on request.

Notification

- 24.** The Licence Holder must ensure that the parameters listed in Table 13 are notified to the CEO in accordance with the notification requirements of the table.

Table 13: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
Condition 9, 11 and 15	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable but no later than 5pm of the next usual working day.	N1

Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

Note 2: N1 Forms are available at www.dwer.wa.gov.au

Construction phase

- 25.** The Licence Holder must construct or install each infrastructure in Table 14 in accordance with the corresponding requirements and at the corresponding locations specified in Table 14 prior to commencement of their operation, as authorised by conditions 1 and/or 2 of this licence.

Table 14: Infrastructure construction requirements

Infrastructure	Design, construction, and installation requirements	Infrastructure location(s)
Stage 2 – Dewater discharge pipeline	Construct and install the following: <ul style="list-style-type: none"> 1 x dewater discharge pipeline approximately 11.66km long connecting the Waroonga, Genesis, New Holland and Vivien mining pits to the discharge outlets located at Cox, Pilgrim and Deliverer pits. Pipeline to be constructed with white poly with a diameter of 200mm. Pipeline route located within containment bunding to contain any spill for a period equal to the time between routine inspections. Sumps installed along the pipeline route where the pipeline intersects surface creek lines. Pipeline route to be fixed with telemetry systems to allow the detection of leaks and failures. Pipeline fixed with automatic cut-outs in the event of pipe 	As depicted in Schedule 2: Construction plans, Figure 7.

Infrastructure	Design, construction, and installation requirements	Infrastructure location(s)
	<p>failure.</p> <ul style="list-style-type: none"> Evidence of the pipeline installation is required as part of compliance to condition 27. 	
Mine pit dewatering discharge points	<ul style="list-style-type: none"> Installed at Cox, Pilgrim and Deliverer pits Flow meter must be installed at the discharge points at Cox, Pilgrim and Deliverer pits to calculate volumes of mine dewater discharged. Top of embankment freeboard of 3m to be installed and maintained for Cox, Pilgrim and Deliverer pits. 	
Tristar Sequential Batch Reactor WWTP	<ul style="list-style-type: none"> Infrastructure components must include: <ul style="list-style-type: none"> 1x 50 kL balance (equalisation) tank; 1x 80 m3 reactor (aeration) tank; 1x 50 kL sludge storage tank; and 1x 50 kL treated effluent irrigation tank. Inlet must be equipped with a 2.5 mm bar screen; Volumetric flow meter must be installed on the WWTP discharge pipe outlet; WWTP must be fitted with alarms to notify of the following incidents: <ul style="list-style-type: none"> Pump faults and failure; Tank overflow; and High tank water level. WWTP must be installed on compacted and stabilised earthen pad; WWTP must be constructed as per the specifications of Figure 8; WWTP must be capable of treating sewage to the minimum effluent equality performance criteria: <ul style="list-style-type: none"> pH between 6.5 to 8.5 pH units; Total suspended solids <30 mg/L; Total nitrogen <30 mg/L; Total phosphorus <8 mg/L; Residual chlorine between 0.2 to 2.0 mg/L; Biochemical oxygen demand <30 mg/L; and <i>E. coli</i> <1,000 cfu/100mL. WWTP must have contingency storage capacity of up to two days of normal flow in the event the discharge is suspended. WWTP must be hydro-tested prior to operation. 	Labelled as 'Waoonga WWTP Facility', as depicted in Schedule 2: Construction plans, Figure 6.

Construction compliance document

26. The licence Holder must, within 30 calendar days of each infrastructure being installed or construction completed:

- undertake an audit of their compliance with the requirements of condition 25; and
- submit to the CEO an Environmental Compliance Report on that compliance.

- 27.** The Environmental Compliance Report required by condition 26 must include, as a minimum, the following:
- (a) certification by a suitably qualified professional that the items of infrastructure, as specified in condition 25, have been constructed in accordance with the relevant requirements specified in condition 25;
 - (b) as-constructed plans and a detailed site plan for each item of infrastructure specified in condition 25;
 - (c) be signed by a person authorised to represent the Licence Holder and contain the printed name and position of that person within the company.

Specified actions

- 28.** The licence holder must provide a report to the CEO on each item of Table 15 and its corresponding requirements within the timeframe specified in Table 15.

Table 15: Specified actions

Item	Specified action requirements	Timeframe
1	<p>Undertake and complete pilot plant trial for the addition of ferrous sulfate to the tailings stream at the EMU processing plant.</p> <p>The report to the CEO must include:</p> <ul style="list-style-type: none"> Laboratory analysis of samples taken during the trial (provided in raw data files in Excel, CSV or equivalent editable format); An assessment of the sample data, including data presented in either graphical or tabulated form for interpretation; Outcomes and recommended actions following the completion of the trial, including whether this will be implemented at scale; If implemented, the proposed implementation methodology and timeframe, any proposed monitoring programme for assessing efficacy and proposed ferrous sulfate dosage rates; If not implemented, the proposed actions for managing high arsenic concentrations in the tailings stream. 	Prior to 1 December 2023
2	<p>Upgrade Songvang TSF4 return water pumping infrastructure to increase return water pumping rate to approximately 280 m³/hour.</p> <p>The report to the CEO must include:</p> <ul style="list-style-type: none"> Confirmation that the upgraded return water pumping infrastructure had been installed, including completion date of installation; An assessment of the Songvang TSF4 decant pond size/footprint over a six-month period since the installation of the upgraded return water pumping infrastructure; Survey of the decant pond size, undertaken at least quarterly; An updated operational strategy, specifying how an optimal decant pond size/footprint of no greater than 20% of the Songvang TSF4 footprint will be achieved and maintained. 	<p>Return water pumping infrastructure upgraded prior to 1 December 2023.</p> <p>Report to the CEO within eight months of completing relevant installation works.</p>
3	<p>Undertake and complete aquatic macroinvertebrate sampling program at Redeemer TSF3 and Songvang TSF4 decant ponds.</p> <p>A report to the CEO must include:</p> <ul style="list-style-type: none"> An assessment of the sample data; and Outcomes and recommended actions following completion of the sampling program, including whether the sampled decant ponds are biotic and implications. 	Prior to 1 April 2024

Item	Specified action requirements	Timeframe
4	<p>Report to the CEO on wildlife monitoring undertaken at the Songvang TSF4 from 1 December 2023 until 1 March 2024.</p> <p>The report must include:</p> <ul style="list-style-type: none"> • A log of wildlife sightings, including wildlife type, species (if identified), date and time and behaviour/activity at the time of sighting; • A log of any wildlife-related incidents and actions taken; and • A log of any wildlife carcasses recovered, and actions taken, between 1 December 2023 and 1 March 2024. 	Prior to 1 May 2024
5	<p>Report to the CEO on a review of controls implemented to minimise or prevent wildlife deaths at the Songvang TSF4.</p> <p>The report must include:</p> <ul style="list-style-type: none"> • Dissolved arsenic monitoring results of the Songvang TSF4 decant pond from 1 December 2023 to 1 March 2024, at a monitoring frequency of no longer than weekly (provided in raw data files in Excel, CSV or equivalent editable format); • Details on the controls implemented between 1 December 2023 and 1 March 2024, including, as a minimum, bird deterrents utilised, increased wildlife monitoring, upgraded return water pumping, addition of ferrous sulfate to tailings stream at EMU processing plant (if implemented); • A review of the overall effectiveness of the implemented program of controls and improvement strategies, using parameters such as number of wildlife mortality recorded (if any), accuracy of wildlife monitoring, decant pond footprint and arsenic concentrations in decant water after ferrous sulfate dosage (if implemented); • How existing controls could be improved, or additional controls proposed, to further minimise the risk of future wildlife deaths; and • A revised strategy for how these controls will continue to be implemented in the following summer period. 	Prior to 1 May 2024

Definitions

In this licence, the terms in Table 16 have the meanings defined.

Table 16: Definitions

Term	Definition
ACN	Australian Company Number
AHD	means the Australian height datum
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 same year.
Assessment of Site Contamination NEPM	means the <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i> , as amended from time to time
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i> ;
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
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.
<i>E. coli</i>	Means <i>Escherichia coli</i> .
emission	has the same meaning given to that term under the EP Act.
environmentally hazardous material	means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;
IWL	means Integrated Waste Landform

Term	Definition
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.
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
PM	means total particulate matter including both solid fragments of material and miniscule droplets of liquid
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 1 in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
quarterly	means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September, and 1 October to 31 December in the same year.
Schedule 1 to 2	means Schedule of this Licence unless otherwise stated
spot sample	means a discrete sample representative at the time and place at which the sample is taken
TSF	means Tailings Storage Facility
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 boundary of the prescribed premises is shown in the map below

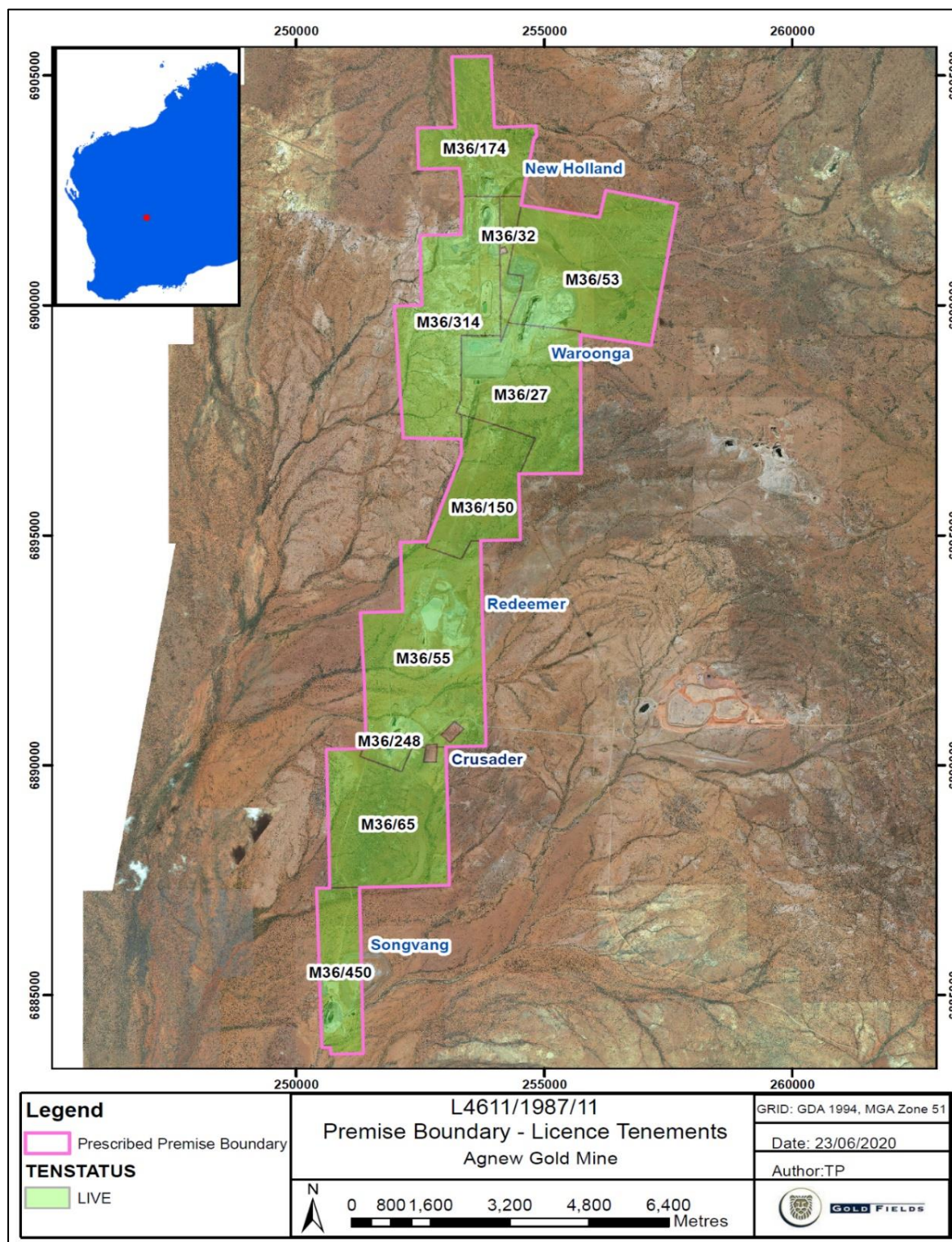


Figure 1: Map of the boundary of the prescribed premises

L4611/1987/11 (Amendment date: 17 October 2023)

IR-T06 Licence template (v7.0) (February 2020)

Map of monitoring bore locations

Monitoring bore locations as defined in Table 11 (Figure 2, Figure 3 and Figure 4).

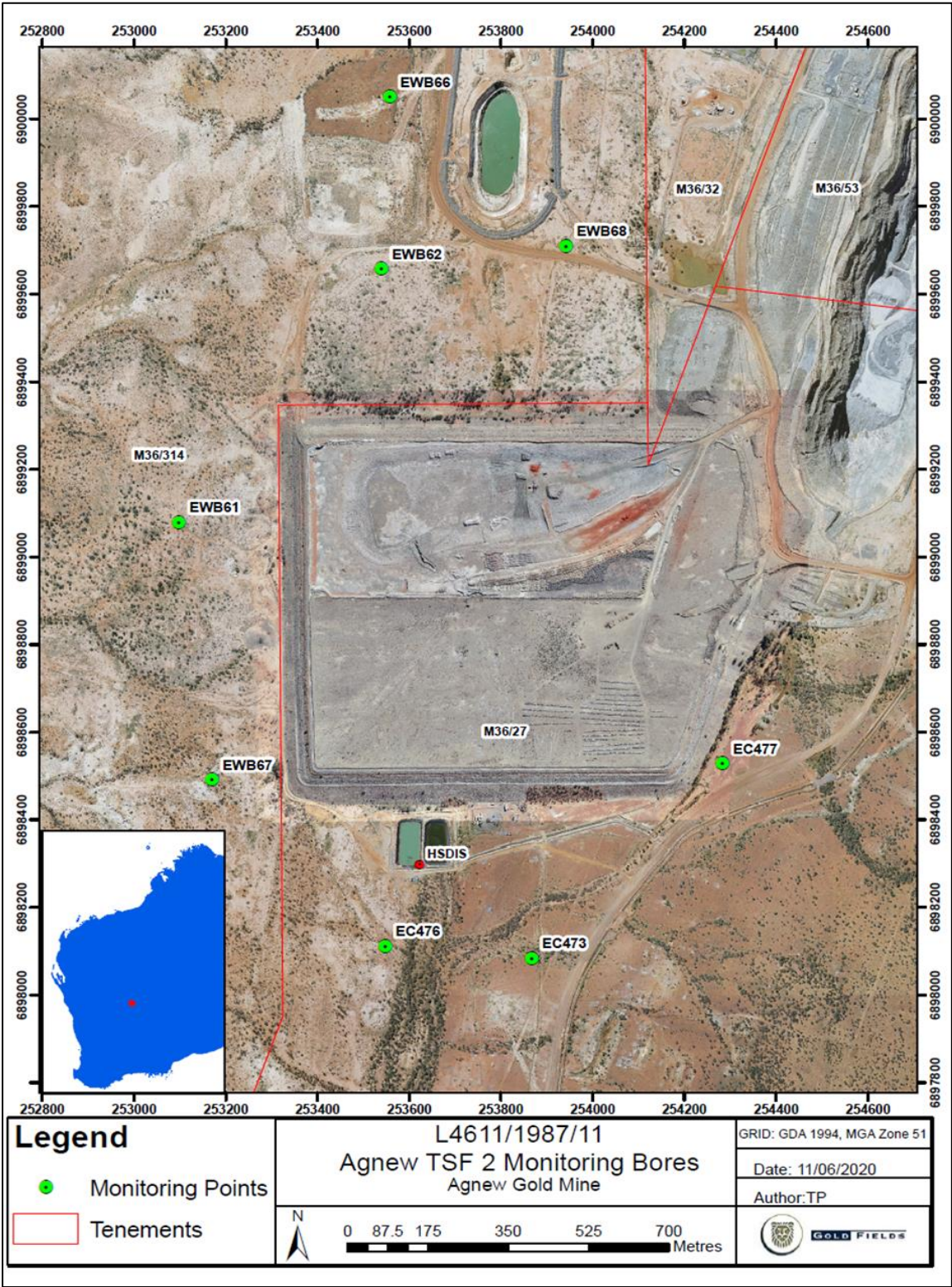


Figure 2: Agnew TSF2 monitoring bore locations

L4611/1987/11 (Amendment date: 17 October 2023)

IR-T06 Licence template (v7.0) (February 2020)



Figure 3: Redeemer TSF3 monitoring bore locations

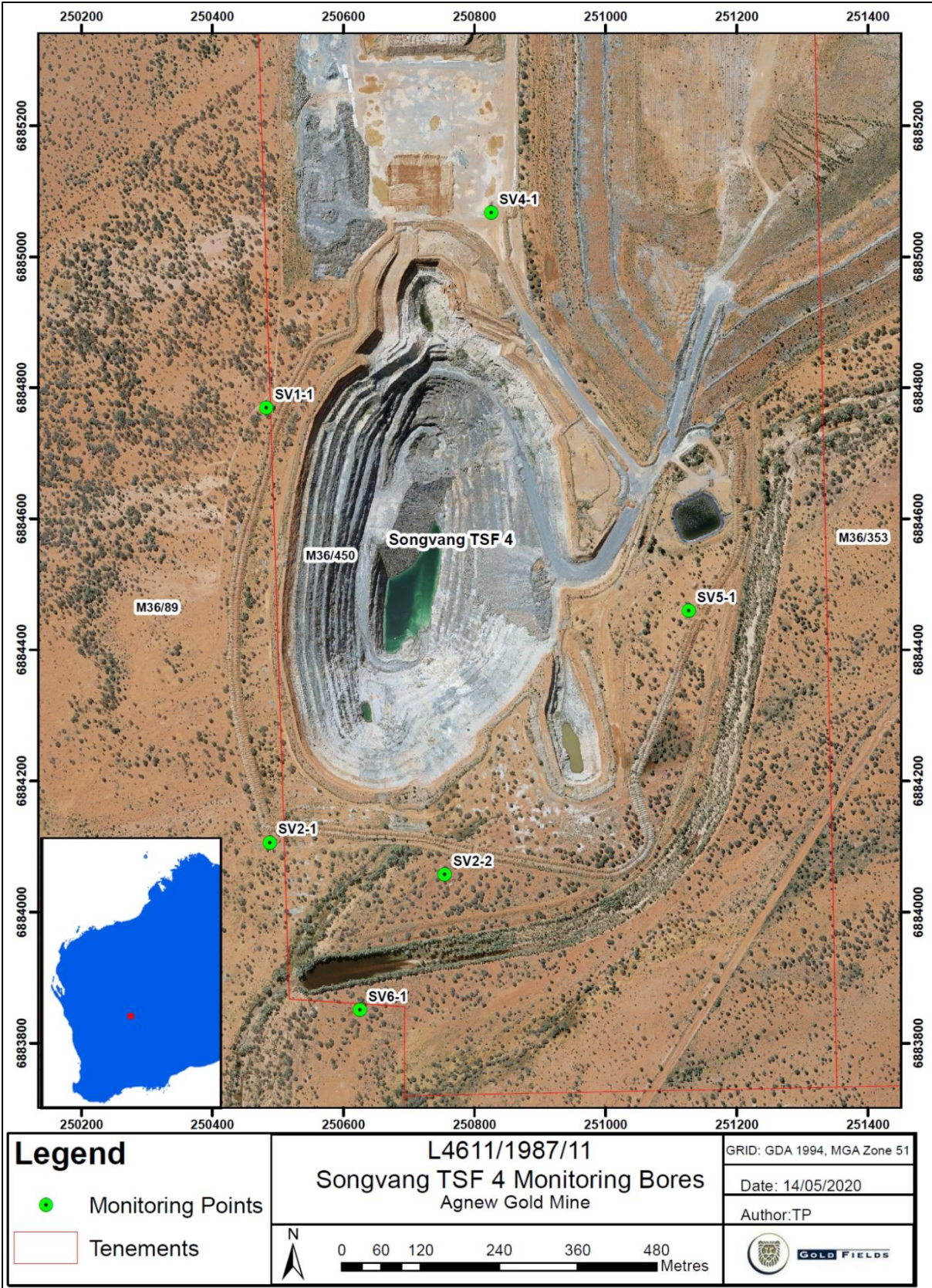


Figure 4: Songvang TSF4 monitoring bore locations

Map of landfill locations

Site of New Holland, Redeemer and Waroonga and North Waroonga landfills.

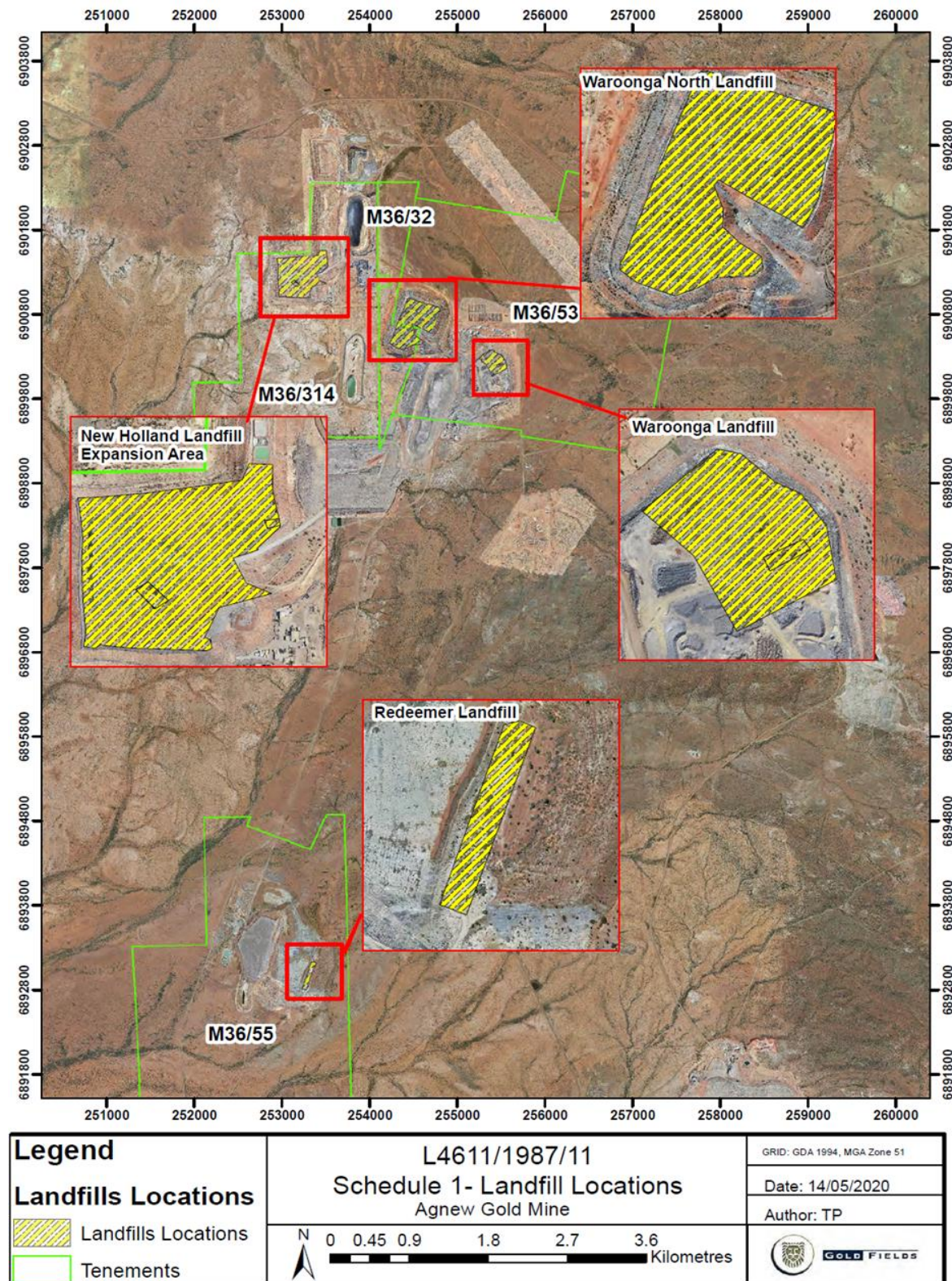


Figure 5: Map of landfill cells

L4611/1987/11 (Amendment date: 17 October 2023)

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Map of wastewater treatment plant location



Figure 6: Location of the Waroonga wastewater treatment plant and irrigation sprayfield

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Schedule 2: Construction plans

Construction of dewater discharge pipeline

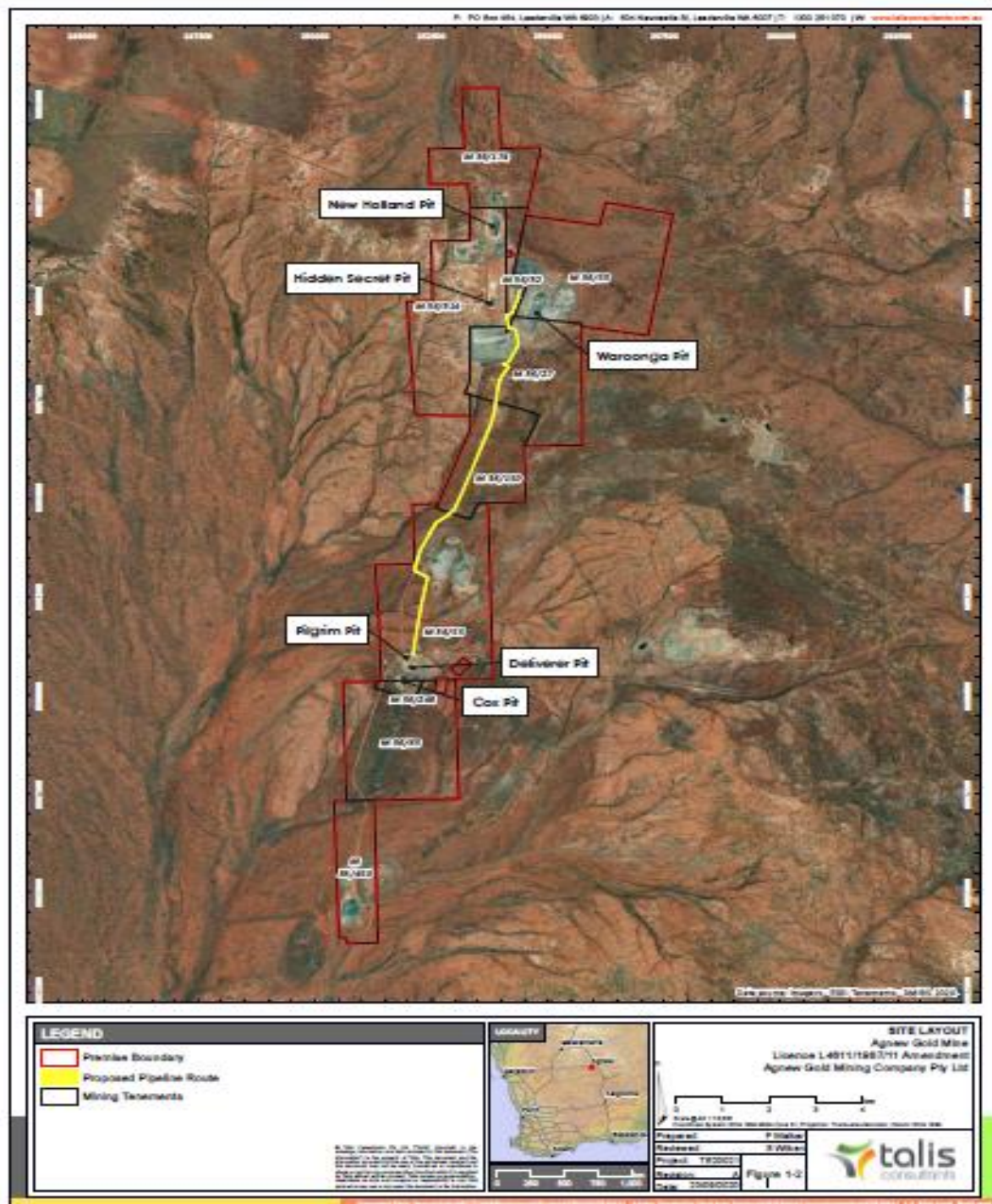


Figure 7: Location of dewater discharge pipeline infrastructure

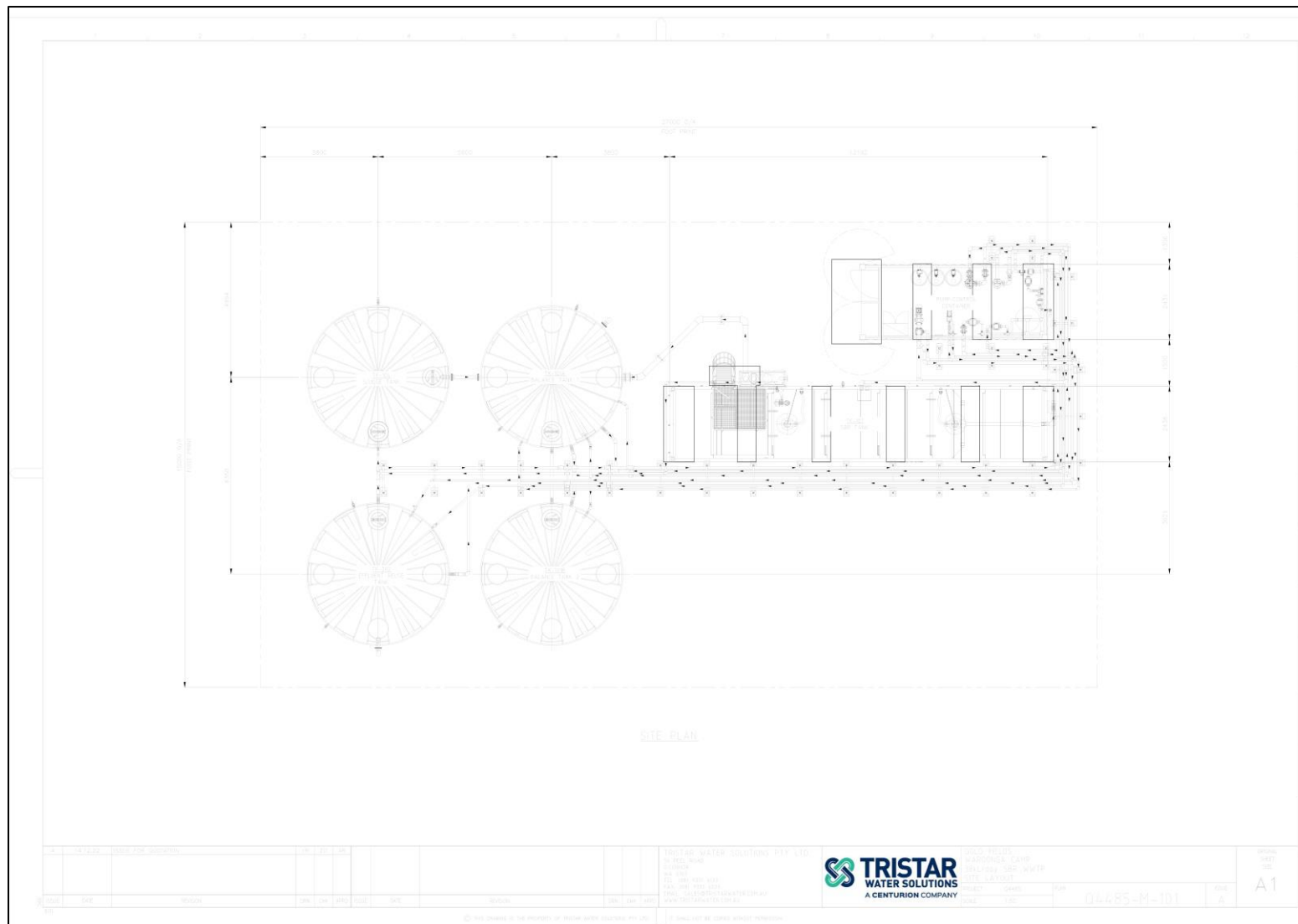


Figure 8: Design layout of Tristar Sequential Batch Reactor WWTP

L4611/1987/11 (Amendment date: 17 October 2023)

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