Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence Number	L8578/2011/1
Licence Holder	Regis Resources Limited
ACN	009 174 761
Registered business address	Level 2, 516 Hay Street SUBIACO WA 6008
DWER File Number	2011/003002-1
Duration	17/02/2012 to 16/02/2041
Date of amendment	23 April 2024
Premises details	Duketon Gold Project Legal description - Mining tenements M38/114, M38/237, M38/250, M38/283, M38/292, M38/302, M38/303 M38/341, M38/343, M38/352, M38/354, M38/407, M38/498, M38/499, M38/500, M38/589, M38/630, M38/802, M38/943, M38/1091, M38/1249, M38/1250, M38/1251, M38/1257, M38/1258, M38/1259, M38/1260, M38/1261, M38/1262, M38/1263, M38/1277, L38/201, L38/202, L38/203, L38/204 and L38/216. As depicted in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 5: Processing and beneficiation of metallic or non-metallic ore	12,000,000 tonnes per annual period (4,000,000 tonnes at Moolart Well processing plant, 5,500,000 tonnes at Garden Well processing plant and 2,500,000 tonnes at Rosemount processing plant)
Category 6: Mine dewatering	5,206,800 tonnes per annual period
Category 52: Power generation	32.4 MW per annual period
Category 54: Sewage facility	218 m^3 per day

Category 85: Sewage facility	90 m^3 per day
Category 64: Putrescible landfill	15,000 tonnes per annual period
Category 73: Bulk storage of chemicals	3,465 m^3

This amended Licence is granted to the Licence Holder, subject to the following conditions, on 23 April 2024, by:

Mariana Almeida de Moraes

Digitally signed by Mariana Almeida de Moraes
Date: 2024.04.23 12:19:29 +08'00'

Mariana Almeida de Moraes
SENIOR ENVIRONMENTAL OFFICER, RESOURCE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Introduction

This Introduction is not part of the Licence conditions.

DWER's industry licensing role

The Department of Water and Environmental Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/ licence holder the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.

- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.

- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and licence summary

Regis Resources Limited (Regis) is an Australian mineral exploration and mining company with significant gold and nickel exploration properties in the eastern Goldfields including the Duketon Gold Project.

Operations on site occur across three processing areas which include the Moolart Well processing plant, Garden Well processing plant and the Rosemont processing plant. The Rosemont plant is used as a crushing and milling facility only, with no chemical gold extraction process. Ore slurry is pumped to the Garden Well processing plant where it undergoes gold cyanidation in the Garden Well CIL system. The combined processing capacity of the three plants is 12 million tonnes per annum.

Other infrastructure at the Moolart Well processing area include an 8 MW power station (not on the licence as it doesn't trigger prescribed premises Category 52), two tailings storage facilities (TSF's); MLW TSF1 which is a paddock style TSF, the Stirling in-pit TSF (MLW TSF2) and Eindhoven in-pit TSF (MLW TSF4) and putrescible landfills located within the waste rock dump. A wastewater treatment plant (WWTP) also exists onsite which includes an Enviro-flow containerised aerated system, two oxidation ponds and a 1 ha irrigation area.

Other infrastructure at the Garden Well processing area include three tailings storage facilities – GDW TSF1, GDW TSF2 and GDW TSF3, a power station with a total design capacity of 32.4 MW, putrescible landfills located within the waste rock dump and a WWTP consisting of a series of 6 treatment ponds and an irrigation field.

The Moolart Well processing plant and Garden Well processing plant are linked by a pipeline that has been approved to transfer mine dewater or process water between the two plants. Mine dewatering is permitted to be discharged to Rosemont and Erlistoun Pits (in the Garden Well operational area); and Blenheim, Wallace and Lancaster Pits (in the Moolart Well operational area) subject to water quality requirements. Additional mine dewatering discharge points of Russell's Find, Reichelt's Find and Cooper's Pit are also permitted for use, subject to water quality requirements.

Licence history

Instrument log		
Instrument	**Issued**	**Description**
W4926/2011/1	4 July 2011	Issued works approval for categories 5, 52, 64, 73 and 85
W5113/2011/1	3 February 2012	Issued works approval for category 6
L8578/2011/1	17 February 2012	Issued licence for category 6
L8578/2011/1	17 August 2012	Amended licence for categories 5, 52, 64, 73 and 85

W5307/2012/1	11 January 2013	Issued works approval for categories 5, 52, 54, 64 and 73
L8578/2011/1	19 December 2013	Amended licence for categories 5, 52, 64 and 73
L8578/2011/1	22 May 2014	Licence amendment to increase processing plant throughput and conversion to current format.
L8578/2011/1	6 November 2014	Licence amendment to remove conditions 1.3.10 to 1.3.14
L8578/2011/1	4 February 2016	Licence amendment to include Type 2 inert waste.
L8578/2011/1	11 November 2016	Amendment Notice 1 for construction of TSF2
L8578/2011/1	10 February 2017	Amendment Notice 2 for three lifts to TSF1
L8578/2011/1	28 March 2019	Amendment Notice 3 for: • construction of TSF3 • increase in diesel powered generators; • upgrade to the waste water treatment plant from 400 to 600 people; • add tenement M38/1277 and remove L38/212 and L38/219; • remove 7 monitoring bore locations around TSF1; and • add 5 monitoring bore locations around TSF3
L8578/2011/1	7 February 2020	Amendment to extend the expiry date by 24 months and to amalgamate the Amendment Notices into one document.
L8578/2011/1	17 December 2021	Amalgamation of Moolart Well operations (L8412/2010/2 including amendment notices AN1 and AN2) into Garden Well licence; extending the premises boundary and changing premises name to Duketon Gold Project (MW landfill changed from Category 89 to 64) • Increase in electricity generation from 16MW to 32.4MW by replacing 1MW generators with new 2.2MW generators. • Increase in throughputs to category 5, 6, 64 • Changes to dewatering location The CEO has also: • updated the format and appearance of the licence. • revised licence condition numbers, removed any redundant conditions and realigned condition numbers for numerical consistency; and • corrected clerical mistakes and unintentional errors.
L8578/2011/1	7 February 2023	Amended licence for category 6, corrected clerical mistakes and changed formatting and wording to improve clarity.
L8578/2011/1	17 April 2024	Licence amendment to expand the existing Stirling in-pit TSF (TSF2) in the north of the operation to include the adjoining 4 open pits to create an enlarged in-pit MLW TSF4

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a

part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'AACR' means Annual Audit Compliance Report, a report in a format approved by the CEO for use, which is available from the DWER website;

'ACN' means Australian Company Number;

'Act' means the *Environmental Protection Act 1986;*

'Annual Period' means the inclusive period from 1 January until 31 December in the same 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 5667.4' means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made;*

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters;*

'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;

'CEO' means Chief Executive Officer of the Department of Water and Environmental Regulation;

'CEO' for the purpose of correspondence means either;

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 10
JOONDALUP DC WA 6027

Or: info@dwer.wa.gov.au

'clean fill' has the meaning defined in Landfill definitions

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'DWER' means Department of Water and Environmental Regulation;

'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;

'ISO-5667.3' means the International Organisation for Standardization *Water quality – sampling – Part 3: Preservation and handling of water samples*;

'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' means this Licence numbered L8578/2011/1 and issued under the Act;

'licence holder' means the person or organisation named as licence holder on page 1 of the Licence;

'mbgl' means meters below ground level

'**Minimum Construction Requirements for Water Bores in Australia'** means the document *Minimum Construction Requirements for Water Bores in Australia* developed by the National Uniform Drillers Licensing Committee, as amended from time to time.

'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' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'putrescible' has the meaning defined in Landfill Definitions;

'quarterly' means the 4 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;

'six monthly' means the 2 inclusive periods from 1 April to 30 September and 1 October to 31 March in the following year;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'suitably qualified geotechnical engineer' means a person who holds a Bachelor of Engineering recognised by the Institute of Engineers; and has a minimum of five years of experience working in the field of geotechnical engineering or is otherwise approved by the CEO to act in this capacity.

'suitably qualified hydrogeologist' means a person who holds a tertiary qualification specialising in environmental science or equivalent and has a minimum of five years of experience working in area of hydrogeology, including investigation and assessment of groundwater resources, or who is otherwise approved by the CEO to act in this capacity.

'SWL' means standing water level

'TSF' means tailings storage facility; and

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

'WAD cyanide' means weak acid dissociable cyanide

'WWTP' means waste water treatment plant.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:
(a) pollution;
(b) unreasonable emission;
(c) discharge of waste in circumstances likely to cause pollution; or
(d) being contrary to any written law.

1.2 Premises operation

1.2.1 The licence holder must ensure that only waste generated on the premises is disposed of within the premises landfills.

1.2.2 The licence holder must only dispose of the waste types and volumes specified in Table 1.2.1 in accordance with the specifications listed in Table 1.2.1

Table 1.2.1: Waste processing

Waste type	Quantity limit	Specifications
Clean fill	15,000 tonnes /annual period	<u>All waste types</u> Disposal of waste by landfilling shall only take place within the landfill areas outlined within Figures 4, 5 & 6 in Schedule 1. The separation distance between the base of the landfill and the highest groundwater level shall be not less than 3 metres.
Type 1 inert waste		
Type 2 inert waste		
Putrescible waste		
Contaminated solid waste meeting waste acceptance criteria specified for Class II landfills[1,3]		
Type 2 inert waste - Tyres[2]	Storage and burial	Not more than 1 000 tyres shall be stored at the premises at any one time. Used tyre stacks shall not exceed 100 m^2 in area and 4 metres in height. Used tyres must be stacked on their side walls or if stored on their treads, area baled with a securing device made from a non-combustible material.

Note 1: as defined in the *Landfill waste classification and waste definitions 1996 (as amended 2018)*
Note 2: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987.*
Note 3: 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.*

1.2.3 The licence holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.2.2 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.2.2: Cover requirements	
Waste type	**Cover requirements**
Putrescible wastes	To be covered by the end of the working day 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.
Inert waste type 1	No cover required
Inert waste type 2	Minimum depth of 500 mm of clean fill is maintained over the buried tyres following disposal. to prevent the spread of fire and harbouring of disease vector.

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

1.2.4 The licence holder shall ensure that wind-blown waste is contained within the boundary of the Premises and that wind-blown waste is returned to the tipping area of a landfill on at least a weekly basis.

1.2.5 The licence holder shall manage all wastewater treatment, ponds such that:

(a) overtopping of the ponds does not occur;

(b) a freeboard equal to, or greater than, 300 mm is maintained;

(c) the integrity of the containment infrastructure is maintained; and

(d) trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter; and

(e) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.

1.2.6 The licence holder shall manage the irrigation of treated wastewater such that:

(a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area;

(b) treated wastewater is evenly distributed over the irrigation area;

(c) no soil erosion occurs;

(d) irrigation does not occur on land that is waterlogged; and

(e) vegetation cover is maintained over the irrigation area.

1.2.7 The licence holder shall ensure that tailings, decant water, effluent, saline water and mine dewater are only discharged into containment infrastructure, with the relevant infrastructure requirements and at the locations specified in Table 1.2.3

Table 1.2.3 Containment infrastructure		
Containment point reference	**Material**	**Infrastructure requirements**
Garden Well TSF 1 (GDW TSF 1, as depicted in Figure 3, Schedule 1)	Tailings	Constructed in accordance with W4926/2011/1 to achieve a permeability of at least $<10^{-9}$ m/s
Garden Well TSF 2 (GDW TSF 2, as	Tailings	Maintain a 300 mm freeboard when operating.

depicted in Figure 3, Schedule 1)		
Garden Well TSF 3 (GDW TSF 3, as depicted in Figure 3, Schedule 1)	Tailings	Maintain a 300 mm freeboard when operating.
Return water dams	Return water from TSFs	None specified
Raw water dams	Raw water	
Process water pond	Raw water, Moolart Well process water	a minimum top of embankment freeboard of 300 mm or a 1 in 100 year/72 hour storm event (whichever is greater) is maintained
Wastewater treatment ponds	Effluent from WWTP	HDPE lined to achieve a permeability of $<10^{-9}$ m/s
Moolart Well TSF1 (MLW TSF1 as depicted in Schedule 1, Figure 2)	Tailings	Clay lined to achieve a permeability of at least $<10^{-9}$ m/s
Stirling in-pit TSF2 (MLW TSF2 as depicted in Schedule 1, Figure 2)	Tailings	An operational freeboard (vertical height between the tailings beach and the lowest part of the embankment crest) of at least 300 mm must be maintained at all times.
Eindhoven in-pit TSF4 (MLW TSF4 as depicted in Schedule 1, Figure 17)	Tailings	An operational freeboard (vertical height between the tailings beach and the lowest part of the embankment crest) of at least 300 mm must be maintained at all times.
Process water pond	Decant Water, raw water and Garden Well process water	HDPE lined to achieve a permeability of $<10^{-9}$ m/s
WWTP Primary oxidation pond	Effluent from WWTP	HDPE lined to achieve a permeability of $<10^{-9}$ m/s
WWTP Secondary oxidation pond	Effluent from WWTP	HDPE lined to achieve a permeability of $<10^{-9}$ m/s

1.2.8 The licence holder shall manage containment infrastructure in Table 1.2.3 such that a minimum top of embankment freeboard of 300 mm or a 1 in 100 year/72 hour storm event (whichever is greater) is maintained, unless a different freeboard is specified in Table 1.2.3.

1.2.9 The Licence Holder shall operate the TSFs onsite:

(a) in accordance with the current version of the TSF operating manual at all times,

(b) such that for the above ground TSFs, a seepage collection and recovery system is provided and used to capture seepage from the TSF; and

(c) seepage is returned to the TSF for re-used in process.

1.2.10 The licence holder shall:

(a) undertake inspections as detailed in Table 1.2.4;

(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 1.2.4: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Dewatering pipelines	Visual integrity	Daily
Tailings pipelines	Visual integrity	
Return water lines	Visual integrity	
TSFs freeboard	Visual to confirm required freeboard capacity is available	
WWTP ponds	Visual to confirm required freeboard capacity is available	
Moolart Well - Garden Well longpipe	Visual integrity	
Dewatering discharge pits freeboard	Visual to confirm required freeboard capacity is available	

1.2.11 The licence holder shall ensure that all pipelines containing tailings, decant water, saline water and mine dewater are either:

(a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures; and/or

(b) equipped with automatic cut-outs in the event of a pipe failure; and

(c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

1.2.12 The licence holder shall undertake an annual water balance for any active TSF. The water balance shall as a minimum consider the following:

(a) site rainfall;

(b) include monthly measurement of pan evaporation;

(c) decant water recovery volumes;

(d) seepage recovery volumes; and

(e) volumes of tailings deposition

1.2.13 The licence holder must construct the infrastructure listed in Table 1.2.5, in

accordance with;

(a) the corresponding design and construction requirement; and

(b) at the corresponding infrastructure location

as set out in Table 1.2.5

Table 1.2.5: Infrastructure approved for construction

item	Infrastructure	Design and construction requirement	Infrastructure location
1	Garden Well Tailing Storage Facility 2 Stage 2 embankment lift	▪ The embankment crest level of Stage 2 to be RL532 m. ▪ The maximum embankment height of Stage 2 to be 24 m. ▪ The perimeter embankment will be constructed using traffic compacted mine waste with a total crest width of 20 m.	TSF2 as depicted on Figure 3, Schedule 1
2	Garden Well Tailing Storage Facility 1 stage 4 embankment lift	▪ The embankment crest level of stage 4 to be RL521 m. ▪ The perimeter embankment will be constructed using compacted tailings borrowed from within the facility with mine waste capping and a total crest width of 6 m	TSF 1 as depicted on Figure 3, Schedule 1.
3	Garden Well Tailing Storage Facility 1 stage 5 embankment lift	▪ The embankment crest level of stage 5 to be RL524 m. ▪ The perimeter embankment will be constructed using compacted tailings borrowed from within the facility with mine waste capping and a total crest width of 6 m	TSF 1 as depicted on Figure 3, Schedule 1.
4	Garden Well Power station upgrade	▪ Removal of 12 existing 1 MW diesel generators ▪ Installation of 12 new 2.2 MW Cummins QSK78 diesel generators within the existing power shed at Garden Well power station. ▪ Total maximum power generation design capacity of Garden Well power station to not exceed 32.4 MW.	GDW Power station as depicted on Figure 3, Schedule 1.
5	MLW TSF4 Stage 1 – Lancaster / Eindhoven pit	▪ Embankment crest level built to RL500 m ▪ Decant pump/s installed on a floating pontoon (or similar) with a pumping capacity of no less than 450 t/h	TSF4 as depicted on Figure 17, Schedule 1
6	MLW TSF4 Stage 2 – Lancaster / Eindhoven pit	▪ Embankment crest level built to RL515 m ▪ Embankment (if required) between Eindhoven and Beaufort pits will be traffic compacted clayey mine waste with a roller compacted core of clayey mine waste.	TSF4 as depicted on Figure 17, Schedule 1

		▪ Internal bund with design slope of 1(V):1.5(H) upstream and 1(V):2(H) minimum downstream, with a total crest of 30 m. ▪ Decant pump/s installed on a floating pontoon (or similar) with a pumping capacity of no less than 450 t/h	
7	MLW TSF4 Stage 3 - Greater Eindhoven (Beaufort / Eindhoven / Lancaster / Lancaster South) pit	▪ Embankment crest level built to RL535 m ▪ Decant pump/s installed on a floating pontoon (or similar) with a pumping capacity of no less than 450 t/	TSF4 as depicted on Figure 17, Schedule 1
8	MLW TSF4 Stage 4 - Greater Eindhoven / Stirling pit	▪ Embankment crest level built to RL537 m ▪ Decant pump/s installed on a floating pontoon (or similar) with a pumping capacity of no less than 450 t/h	TSF4 as depicted on Figure 17, Schedule 1
9	Tailings pipeline extension from Moolart Well process plant and MLW TSF2 to MLW TSF4	▪ The pipeline extension is to be situated within the catchment of MLW TSF4 to drain into the TSF if a leak occurs ▪ Fitted with pressure sensors linked to telemetry for leak detection	'Proposed slurry line' depicted on Figure 17, Schedule 1
10	MLW TSF4 groundwater monitoring bore(s): • RRLMWPB004 • RRLMWPB008 • RRLMWPB015	<u>Bore location and number:</u> Bores to be constructed surrounding MLW TSF2 / TSF4. Three bores to be constructed with appropriate location to be assessed and identified by suitably qualified hydrogeologist, supported by geological and geophysical assessments, including ground-based investigations.	Located as depicted on Figure 17, Schedule 1
		<u>Bore design and construction:</u> Designed and constructed in accordance with ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores where applicable. Bore screens must target the part, or parts, of the aquifer most likely to be affected by contamination. Where temporary/seasonal perched features are present, bores must be nested, and the perched features individually screened.	
		<u>Logging of borehole:</u> Soil samples must be collected and logged during the installation of the monitoring bores. A record of the geology encountered during drilling must be described and classified in accordance with the Minimum Construction Requirements for Water Bores in Australia, ensuring that sufficient information is recorded to provide a thorough understanding of the geological profile. Any observations of staining / odours or other indications of contamination must be included in the bore log	
		<u>Bore construction log:</u>	

		Bore construction details must be documented within a bore construction log to demonstrate compliance with ASTM D5092/D5092M-16 where applicable for bore design and construction. The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurements, and the elevations of the ground surface protective installations.	
		Bore development: All installed monitoring bores must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the bore screen to ensure the hydraulic functioning of the bore. A detailed record should be kept of bore development activities and included in the bore construction log.	
		Installation survey: The vertical (top of casing) and horizontal position of each monitoring bore must be surveyed and subsequently mapped by a suitably qualified surveyor.	
		Bore network map: A bore location map (using aerial image overlay) must be prepared and include the location of all monitoring bores in the monitoring network and their respective identification numbers.	

1.2.14 The licence holder must within 60 days of each item of infrastructure required by condition 1.2.13 being constructed:

(a) undertake an audit of their compliance with the requirements of condition 1.2.13; and

(b) prepare and submit to the CEO an audit report on that compliance.

1.2.15 The report required by condition 1.2.14(b), must:

(a) be certified by a suitably qualified professional engineer that the item of infrastructure listed in Table 1.2.5 meets the corresponding specifications and at the location set out in Table 1.2.5 and has been constructed with no material defects;

(b) contain as constructed plans for each item of infrastructure; and

(c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person within the company.

1.2.16 The Licence Holder may use the treated water from the Moorlart Well oily/water separator for dust suppression purposes within the areas shown on the map in Schedule 1.

2 Emissions

2.1 General

2.1.1 The licence holder shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this Licence.

2.2 Emissions to land

2.2.1 The Licence holder must ensure that the emissions specified in Table 2.2.1, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 2.2.1: Authorised emissions to land

Emission	Emission point reference	Emission point location
Treated effluent from the Garden Well WWTP ponds	L1 – Garden Well WWTP irrigation Area	As depicted in Figure 7, Schedule 1.
Treated effluent from the Moolart Well WWTP secondary oxidation ponds	L2 – Moolart Well WWTP irrigation area	As depicted in Figure 8, Schedule 1.

2.2.2 The licence holder shall not cause or allow emissions to land greater than the limits listed in Table 2.2.2.

Table 2.2.2: Emission limits to land

Emission point reference	Parameter	Limit (including units)	Averaging period
L1 (Garden Well WWTP irrigation Area)	Volume of treated wastewater from WWTP ponds discharged to land.	123m^3/day	Daily
	Total nitrogen	480kg/ha	Annual
	Total phosphorous	120kg/ha	
L2 (Moolart Well WWTP Irrigation Area)	Volume of treated wastewater from WWTP ponds to land.	75m^3/day	Daily
	Total nitrogen	480kg/ha	Annual
	Total phosphorous	120kg/ha	

2.3 Point source emissions to groundwater

2.3.1 The licence holder must ensure that the emissions specified in Table 2.3.1, are discharged only from the corresponding discharge point and only at the corresponding discharge location.

Table 2.3.1: Point source emissions to groundwater

Emission	Discharge points	Discharge point location
Mine dewatering	Erlistoun pit	Erlistoun pit lake (As depicted in

		Figure12, Schedule 1)
	Rosemont pit	Rosemont pit lake (As depicted in Figure 10, Schedule 1)
	Lancaster pit Wallace pit Blenheim pit	Lancaster, Wallace and Blenheim pit lakes (As depicted in Figure 11, Schedule 1)
	Russell's Find Reichelt's Find	Russell's Find and Reichelt's Find pit lakes (As depicted in Figure 13, Schedule 1)
	Cooper's pit	Cooper's pit lake (As depicted in Figure 14, Schedule 1)

2.3.2 The licence holder must ensure that emissions from the discharge points specified in Table 2.3.2, for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 3.6.1.

Table 2.3.2: Discharge limits for emissions to groundwater

Discharge point / location	Parameters	Limit
Discharge locations: • Rosemont pit, • Erlistoun pit, • Russell's Find, • Reichelt's Find, • Cooper's pit	Standing Water Level (SWL) of pit lake	Maintain a minimum vertical freeboard of 4 metres below crest level
Discharge locations: • Lancaster pit • Wallace pit, • Bleinheim pits	Standing Water Level (SWL) of pit lake	Maintain a minimum vertical freeboard of 15 metres below crest level
Discharge points (end of pipe) at: • Lancaster pit • Wallace pit • Blenheim pit	pH	6.0 – 9.0
	Total dissolved solids (TDS)	15,000 mg/L
	Arsenic (As)	0.5 mg/L
Discharge points (end of pipe) at: • Russell's Find • Reichelt's Find.	pH	6.0 – 9.0
	Total dissolved solids (TDS)	4,000 mg/L
	Arsenic (As)	0.5 mg/L
Discharge point (end of pipe) at Cooper's pit.	pH	6.0 – 9.0
	Total dissolved solids (TDS)	4,000 mg/L
	Arsenic (As)	0.5 mg/L
	Total cyanide	Below detection limit (mg/L)

3 Monitoring

3.1 General monitoring

3.1.1 The licence holder shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 3 of this Licence.

3.1.2 The licence holder shall 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 surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
(e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

3.1.3 The licence holder shall ensure that :
(a) monthly monitoring is undertaken at least 15 days apart;
(b) quarterly monitoring is undertaken at least 45 days apart; and
(c) Six monthly monitoring is undertaken at least 5 months apart.

3.2 Monitoring of emissions to land

3.2.1 The licence holder shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of WWTP effluent water quality prior to discharge to irrigation areas

Monitoring point reference	Parameter	Units	Frequency
Garden Well WWTP sampling points prior to discharge to irrigation Area as depicted in Figure 7, Schedule 1 Moolart Well WWTP sampling point prior to discharge to irrigation area as depicted in Figure 8, Schedule 1.	Biological oxygen demand	mg/L	Quarterly
	Total suspended solids		
	pH[1]		
	Total nitrogen		
	Total phosphorus		
	E. coli	cfu/100 mL	

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

3.3 Process monitoring

3.3.1 The licence holder shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Process monitoring

Monitoring point reference	Process description	Units	Limit	Frequency
Mine dewater discharging to Rosemont pit	Cumulative volumes (discharging from Garden Well pit to Rosemont pit)	m^3	-	Monthly (if discharging)
Mine dewater discharging to Erlistoun Pit	Cumulative volumes	m^3	-	Monthly (if discharging)
Mine dewater discharging to Lancaster, Wallace and Blenheim pits at Moolart Well	Cumulative volumes	m^3	-	Monthly (if discharging)
Garden Well WWTP ponds	Cumulative volumes of treated waste water discharged to Irrigation Area	m^3	-	Quarterly
Moolart Well WWTP ponds	Cumulative volumes of treated wastewater discharged to Irrigation Area.	m^3	-	Quarterly
Moolart Well Oily Water Separator	Total Recoverable Hydrocarbons in oily water separator treated water used for dust suppression	mg/L	30	Six monthly
Tailings deposition	Volumes of tailings deposited into each TSF	kL	-	Continuous
	Volumes of water recovered from each TSF			
	Volumes of seepage recovered and reused at Process Plant			

3.4 Ambient environmental quality monitoring

3.4.1 The licence holder shall undertake the monitoring in Table 3.4.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.

Table 3.4.1: Monitoring of ambient groundwater quality					
Monitoring point reference and location as depicted in Schedule 1: Maps of groundwater monitoring bores (Figures 13 – 15).	**Parameter**	**Limit**	**Units**	**Averaging period**	**Frequency**

Garden Well TSF1 monitoring bores RRLGDTSFMB1D, RRLGDTSFMB1S, RRLGDTSFMB3D, RRLGDTSFMB3S, RRLGDTSFMB4D, RRLGDTSFMB4S, RRLGDTSFMB7D, RRLGDTSFMB7S, **Garden Well TSF2 monitoring bores** RRLGDTSFMB20S/D, RRLGDTSFMB23S/D, RRLGDTSFMB24S/D, **Garden Well TSF3 monitoring bores** RRLGDTSFMB22S/D, RRLTWPB006, RRLTWPB007, RRLTWP008, RRLTWPB009, RRLTWPB010 **Moolart Well TSF1 monitoring bores** MB01, MB02, MB03, MB04, MB05, **Moolart Well Stirling In-pit TSF (TSF2 / TSF4) monitoring bores** RRLMWPB004, RRLMWPB008, RRLMWPB015, RRLMWMB045, RRLMWMB046, RRLMWMB048, RRLMWMB049, RRLMWMB050.	Total cyanide	-	mg/L	Spot sample	Quarterly
	WAD cyanide	0.5	mg/L		
	pH[1]	-	-		
	Electrical conductivity	-	mS/m		
	Total dissolved solids, Al, As, Be, B, Cd, F^-, Mo, Se, V, Sb, Hg, Ni, Fe, Pb, Na, K, Ca, Mg, Zn, Cu, Cr, Co, Mn, U, NO_3, SO_4, HCO_3, CO_3, Cl	-	mg/L		
Moolart Well TSF1 monitoring bores MB01, MB02, MB03, MB04, MB05, **Moolart Well Stirling In-pit TSF (TSF2 / TSF4) monitoring bores** RRLMWPB004, RRLMWPB008, RRLMWPB015, RRLMWMB045, RRLMWMB046, RRLMWMB048, RRLMWMB049, RRLMWMB050.	Standing water level	4	mbgl		

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

3.5 Monitoring bores

3.5.1 The licence holder must ensure that the bores are maintained in serviceable condition and are fit for purpose of taking samples of groundwater for monitoring purposes.

3.6 Dewatering monitoring

3.6.1 The licence holder must undertake the monitoring in Table 3.6.1 according to the specifications in that table.

Table 3.6.1: Monitoring of dewatering discharge			
Monitoring point / location	**Parameter**	**Units**	**Frequency**
Discharge location: • Lancaster pit lake, • Wallace pit lake, • Blenheim pit lake, • Rosemont pit lake, • Erlistoun pit lake, • Russell's Find pit lake, • Reichelt's Find pit lake • Cooper's pit lake. Measured in the pit.	Standing water level (SWL) within pit	Meters below crest level	Monthly (if discharging)
Mine dewatering discharge at: • Lancaster pit, • Wallace pit, • Blenheim pit, • Russell's Find, • Reichelt's Find • Cooper's pit. Taken from the pipeline prior to discharge.	pH[1]	-	Monthly (if discharging)
	Total dissolved solids (TDS)	mg/L	
	Arsenic (As)		
Mine dewatering discharge at: • Lancaster pit, • Wallace pit, • Blenheim pit, • Russell's Find, • Reichelt's Find • Cooper's pit. Taken from the pipeline, prior to discharge.	Antimony (Sb)	mg/L	Six monthly (if discharging)
	Bicarbonate (HCO_3)		
	Calcium (Ca)		
	Carbonate (CO_3)		
	Cadmium (Cd)		
	Chloride (Cl)		
	Chromium (Cr)		
	Cobalt (Co)		
	Copper (Cu)		
	Iron (Fe)		
	Lead (Pb)		
	Magnesium (Mg)		
	Mercury (Hg)		
	Molybdenum (Mo)		
	Nickel (Ni)		
	Nitrate (NO_3)		
	Potassium (K)		
	Selenium (Se)		
	Sodium (Na)		
	Sulphate (SO_4)		
	Thallium (Tl)		
	Zinc (Zn)		

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

4 Information

4.1 Records

4.1.1 All information and records required by the Licence shall:
- (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 4.1.1(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.

4.1.2 The licence holder shall 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.

4.1.3 The licence holder shall 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.

4.2 Reporting

4.2.1 The licence holder shall submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: 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
1.2.12	Annual TSF water balance, including monthly evaporation rates from active TSFs.	
3.2.1	Monitoring of emissions to land	
3.3.1	Process monitoring	
3.4.1	Monitoring of ambient groundwater quality	
3.6.1	Monitoring of dewatering discharge	
2.2.2, 2.3.2, 3.3.1, 3.4.1	Limit exceedances	
4.1.2	Compliance	Annual Audit Compliance Report (AACR)

4.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

4.2.2 The licence holder shall ensure that the Annual Environmental Report also contains:
(a) any relevant process, production or operational data recorded; and
(b) an assessment of the information contained within the report against previous monitoring results and Licence limits; and
(c) 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.

4.3 Notification

4.3.1 The licence holder shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[2]
2.1.1	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	N1
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution		

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act
Note 2: Forms are in Schedule 2

Schedule 1: Maps

Premises map

The Premises boundary is shown in red the map below.

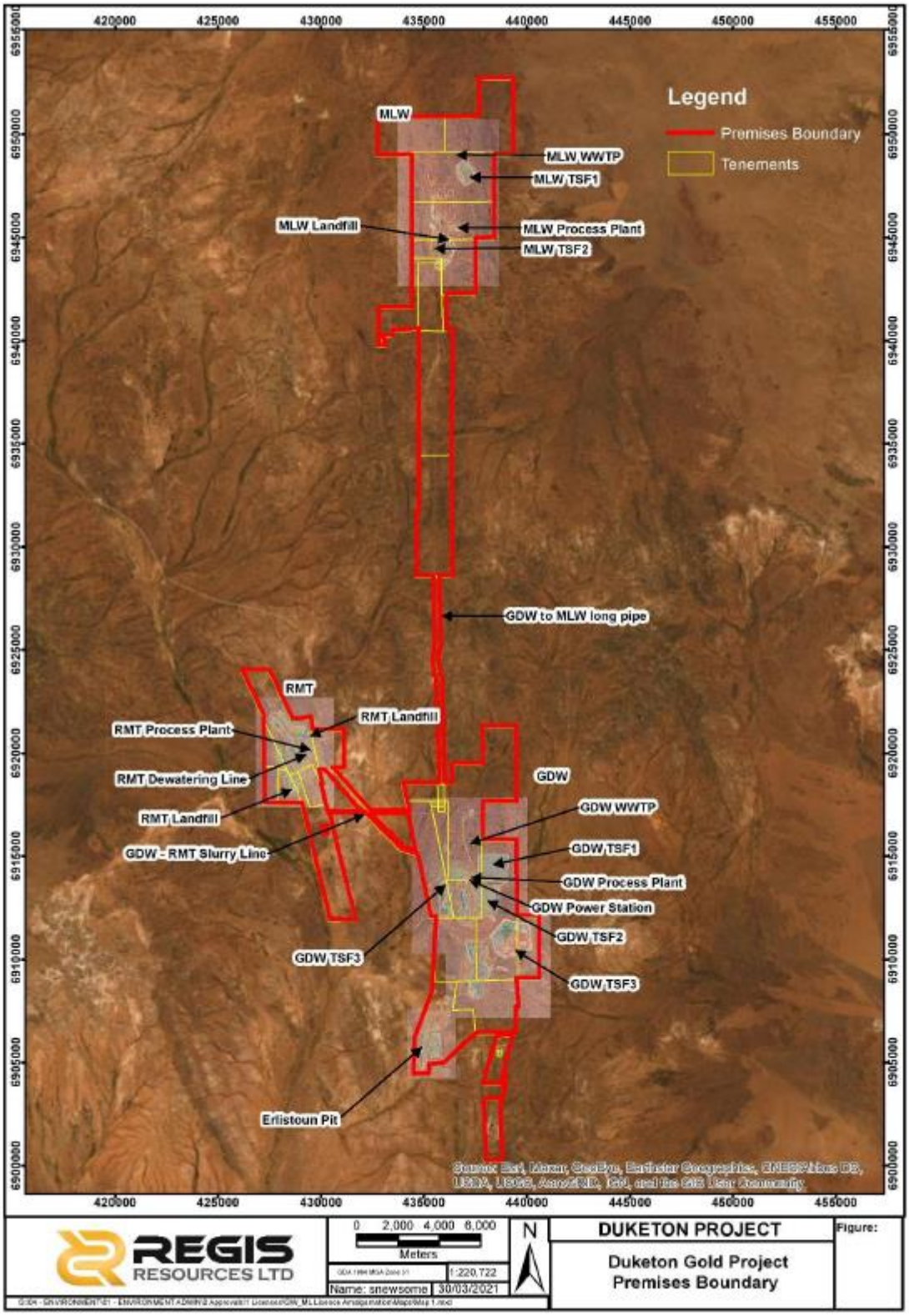

Figure 1: Premises map showing prescribed premises boundary for the Duketon Gold Project

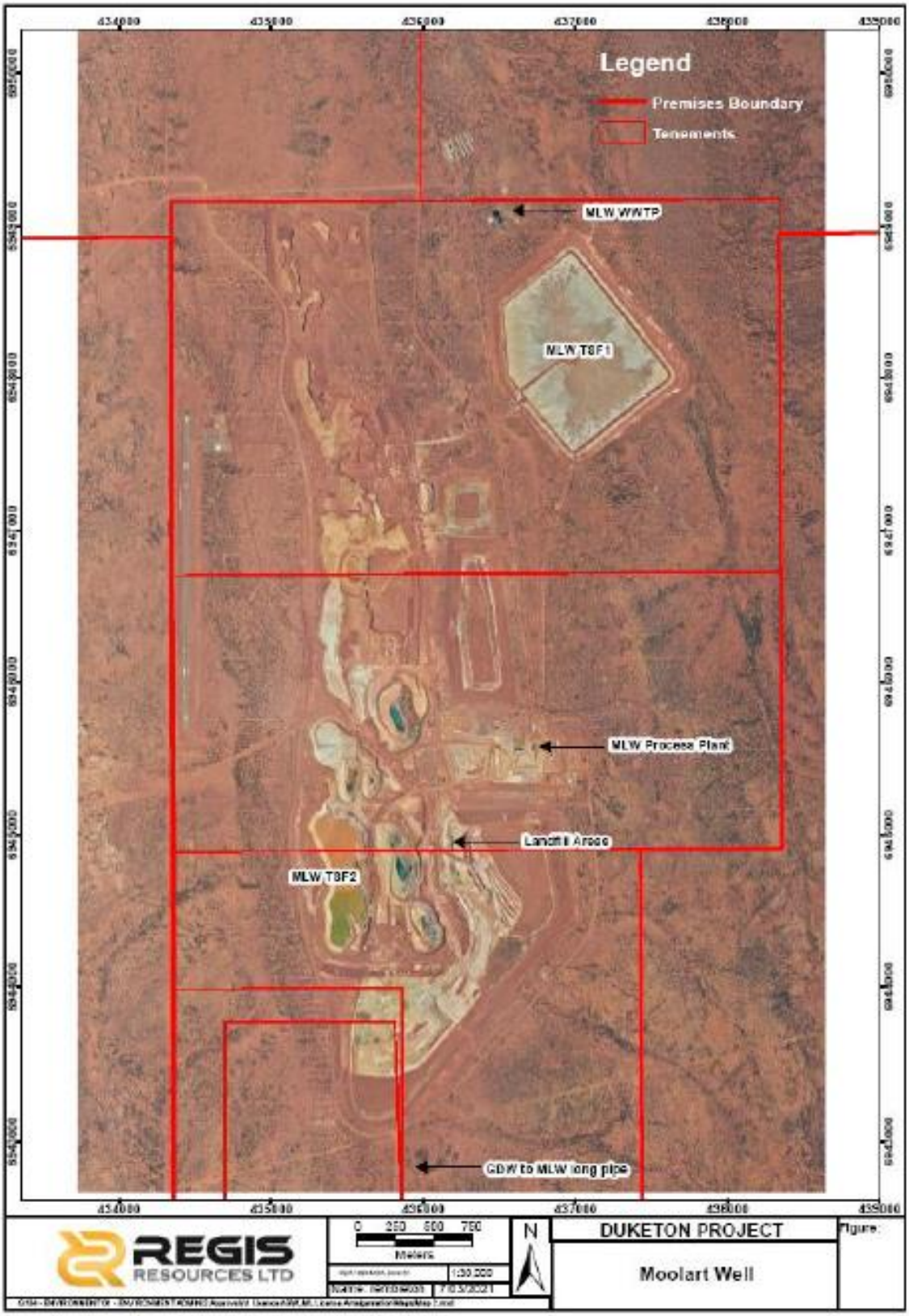

Figure 2: Moolart Well site layout

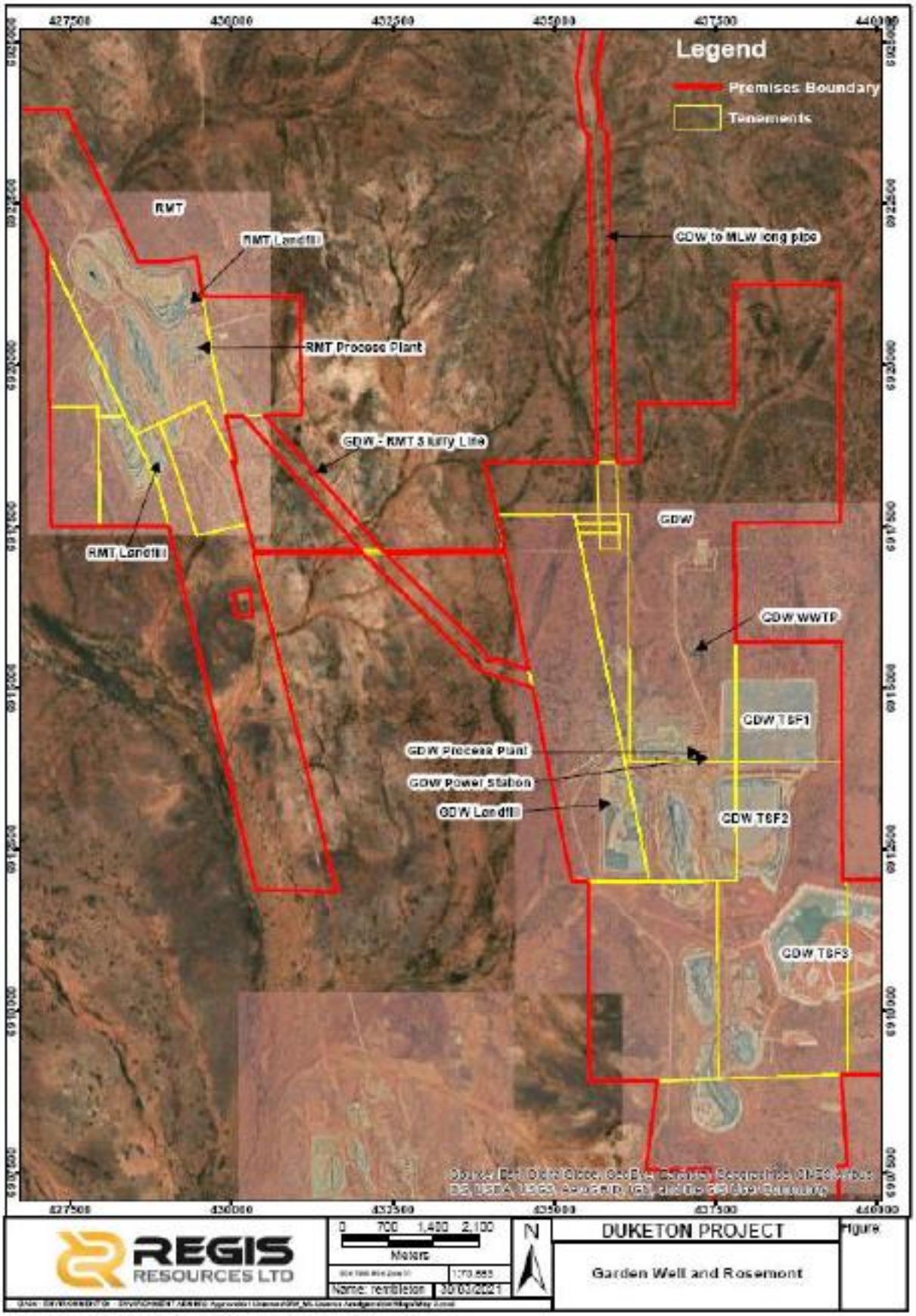

Figure 3: Garden Well and Rosemont site layouts

Maps of approved landfill locations

Figure 4: Map of approved landfill locations within West waste dump at Garden Well.

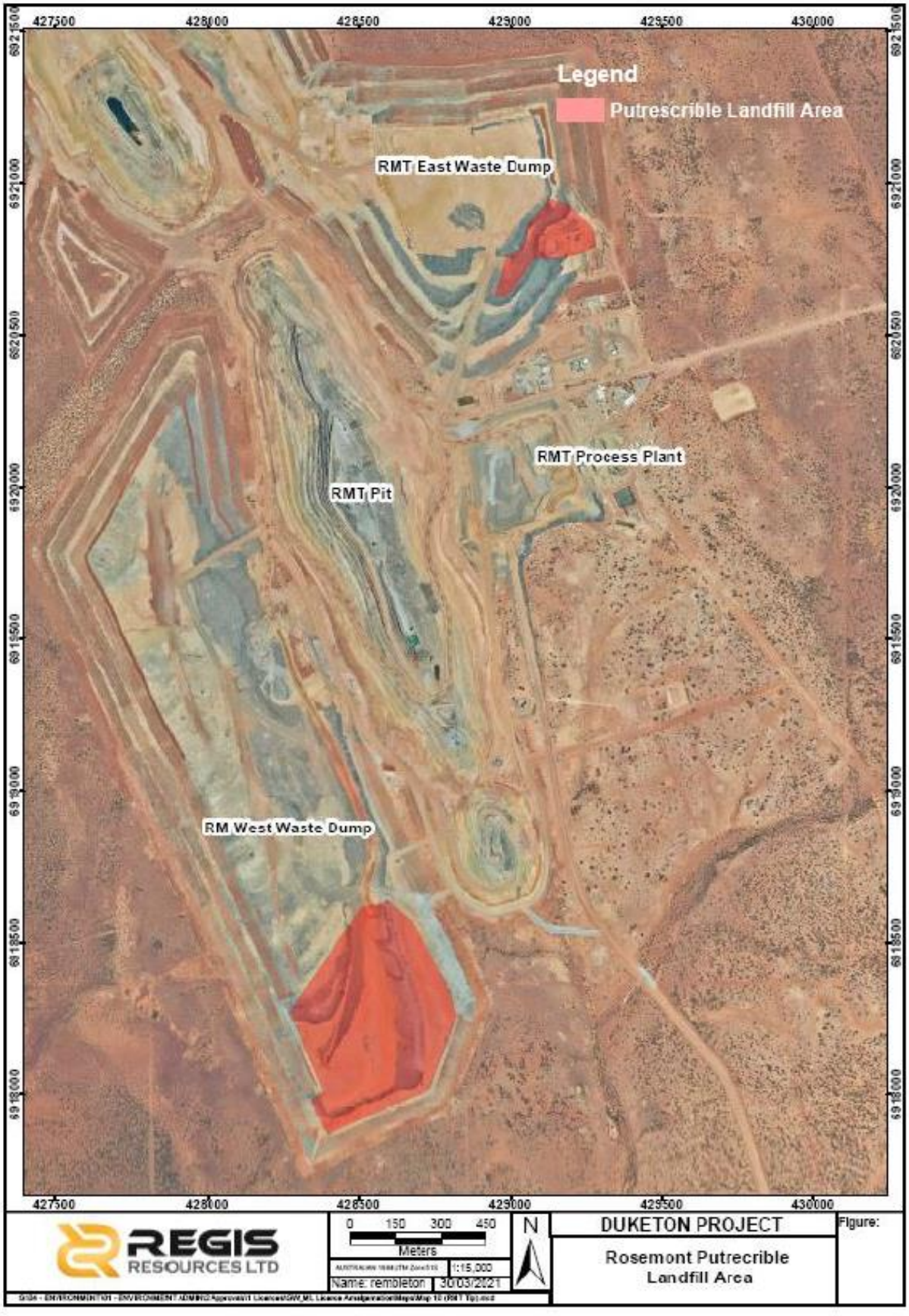

Figure 5: Map of approved landfill locations within West waste dump at Rosemont

Figure 6: Map of approved landfill locations at South Waste Dump at Moolart Well.

Map of WWTP effluent emission points to land and monitoring locations

As referred to in conditions 2.2.1, 2.2.2 and 3.2.1

Figure 7: Map of the Garden Well WWTP irrigation field (L1 Emission point) and discharge sampling locations.

Figure 8: Map of the Moolart Well WWTP irrigation field (L2 Emission point) and discharge sample location.

Dust suppression areas at Moolart Well

Figure 9: Map of approved area's where treated water from Moolart Well oily/water separator can be used for dust suppression as referenced in condition 1.2.16

Maps of dewater discharge points

As referenced in condition 3.6.1**.**

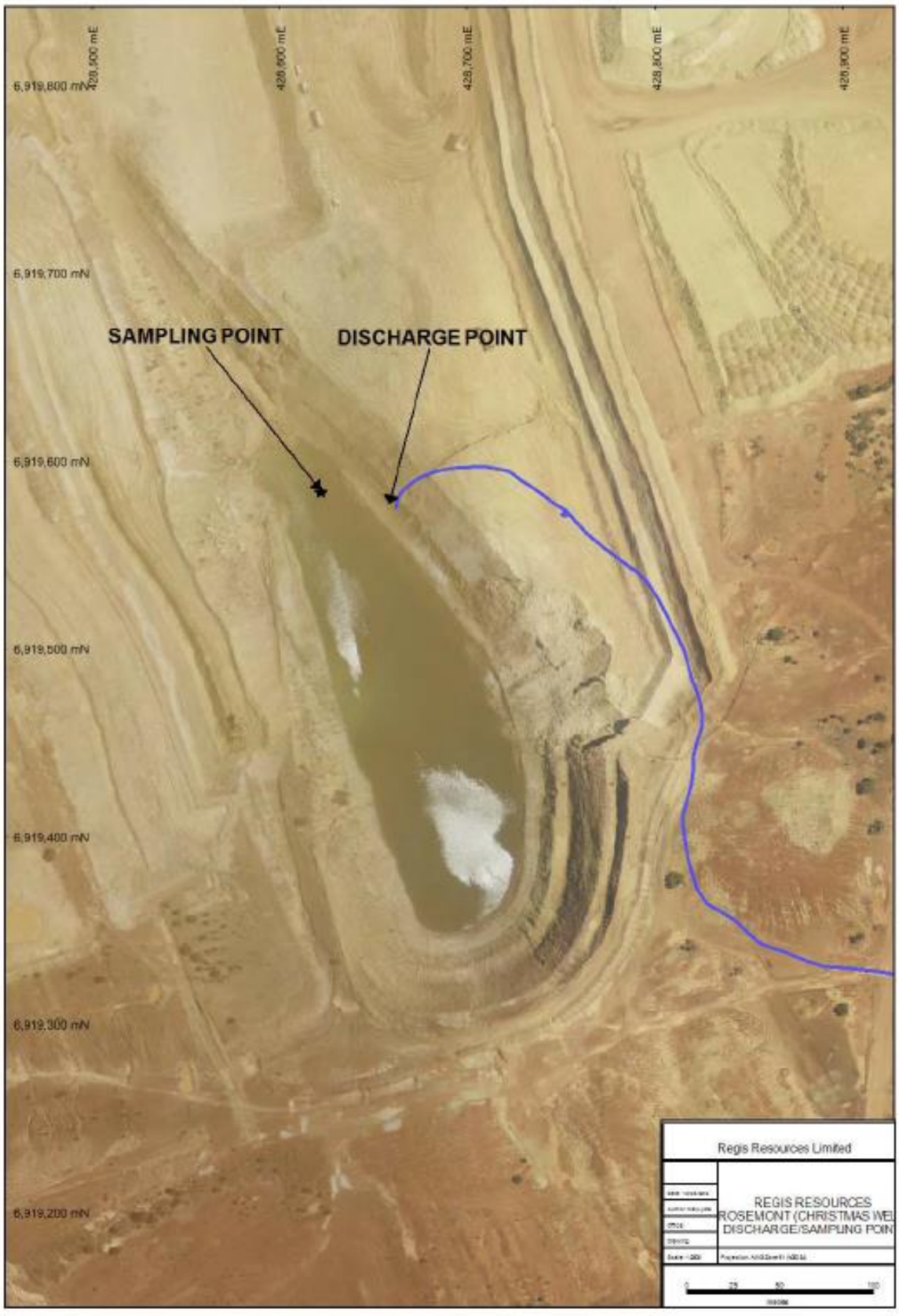

Figure 10: Map of Rosemont Pit dewater discharge point.

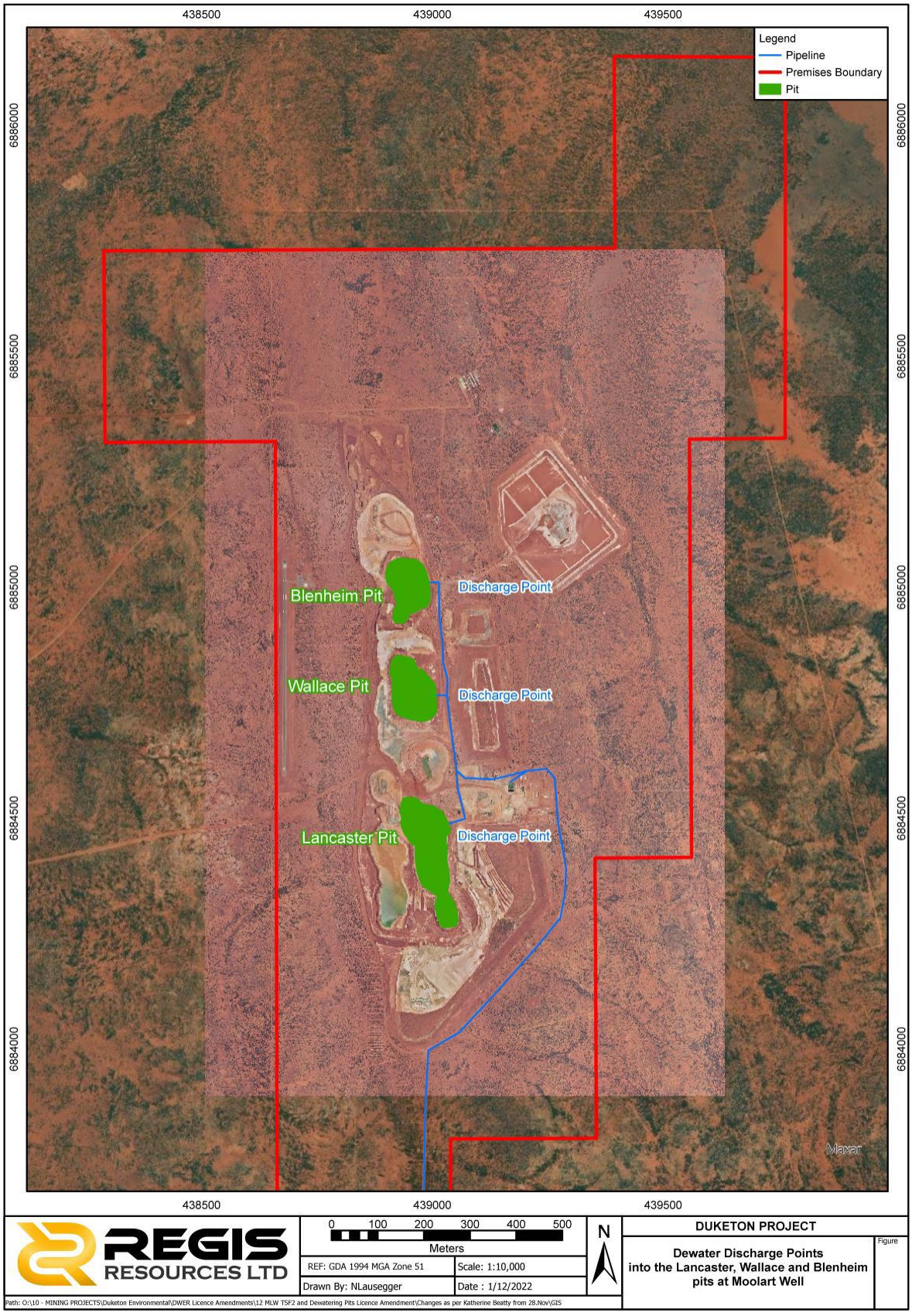

Figure 11: Map of dewater discharge points into the Lancaster, Wallace and Blenheim pits at Moolart Well.

Figure 12: Map of dewater discharge points into Erlistoun Pit.

Figure 13: Map of dewater discharge points into Reichelt's Find and Russell's Find

Figure 14: Map of dewater discharge point into Cooper's Pit.

Maps of groundwater monitoring bores

As referenced in condition 3.4.1

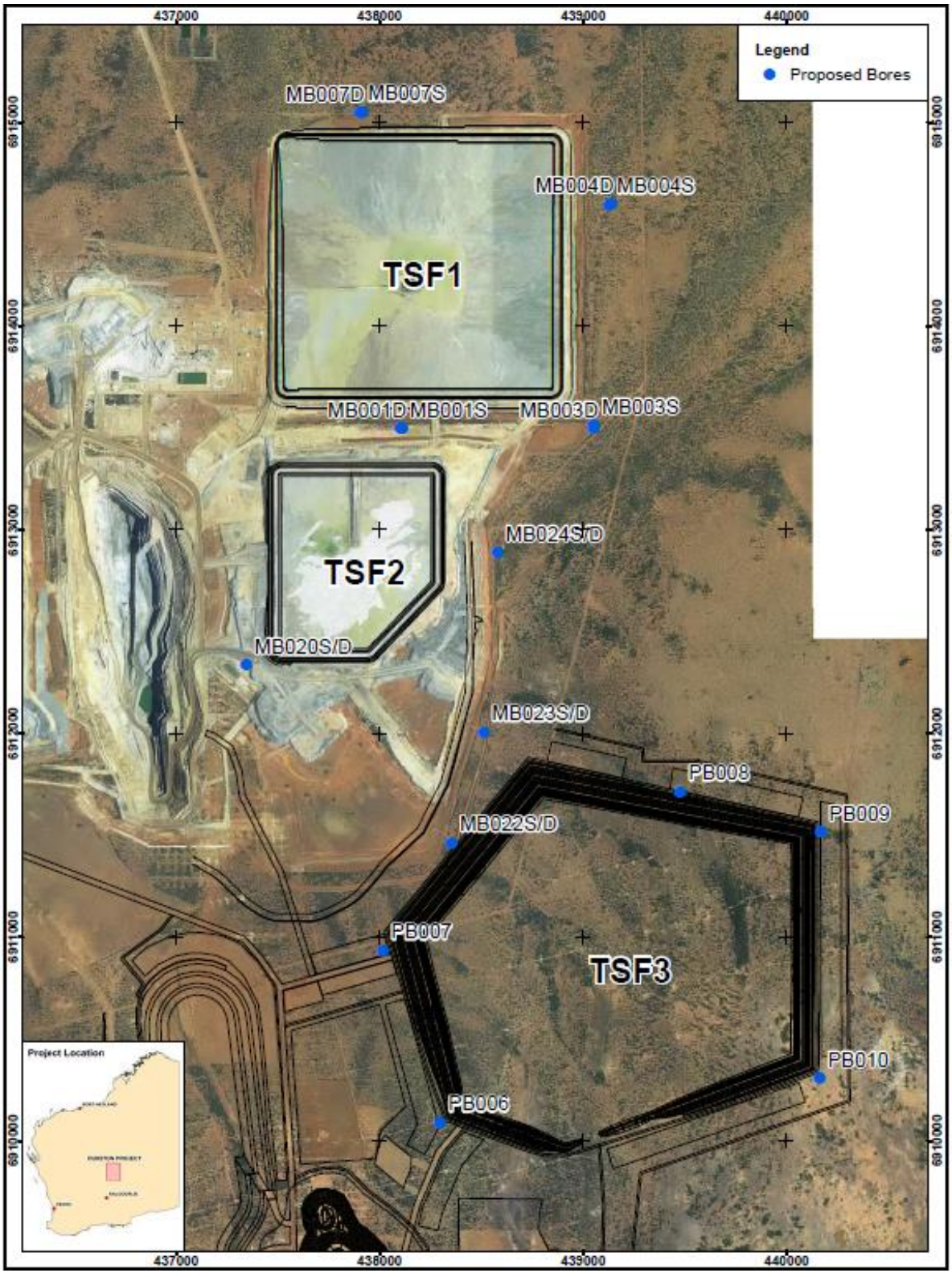

Figure 15: Map of monitoring bores surrounding Garden Well TSF1, TSF2 and TSF3

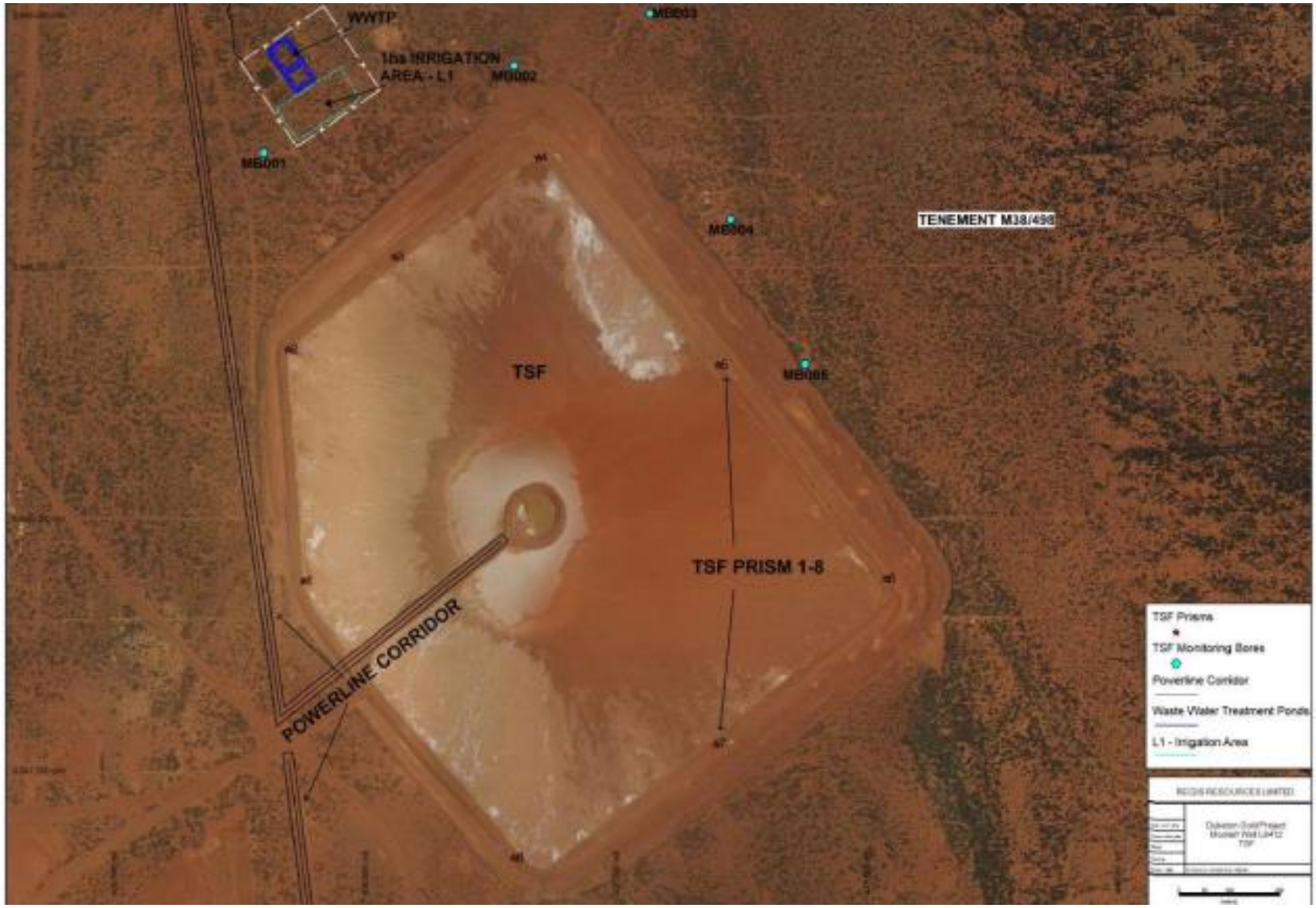

Figure 16: Map of monitoring bores surrounding Moolart Well TSF 1

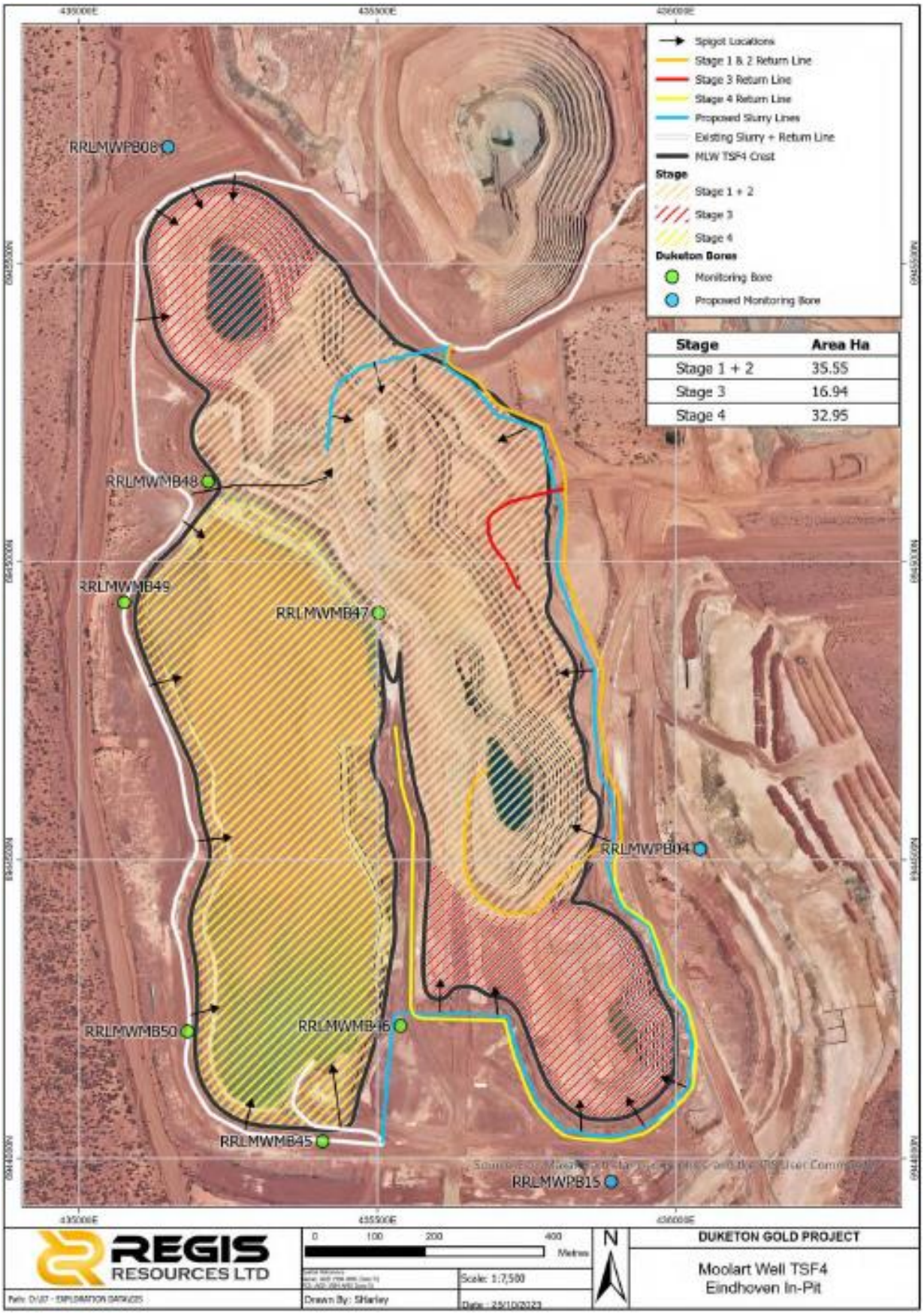

Figure 17: Map of monitoring bores around Stirling in-pit TSF (Moolart Well TSF2 / MLW TSF4)

Schedule 2: Notification & Forms

Licence: L8578/2011/1 Licence holder: Regis Resources Limited

Form: N1 Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Regis Resources Limited	
Date	