Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6342/2020/1
Works approval holder	Mt Magnet Gold Pty Ltd
ACN	008 669 556
Registered business address	130 Royal Street EAST PERTH WA 6638
DWER file number	INS-0002349
Duration	17/07/2020 to 16/07/2030
Date of issue	17/07/2020
Date of Amendment	04/07/2025
Premises details	Mt Magnet Gold Mining tenements M58/121, M58/193 and M58/205 MOUNT MAGNET WA 6638

Prescribed premises category description (Schedule 1, ***Environmental Protection Regulations 1987***)	**Assessed production / design capacity**
Category 5 Processing or beneficiation of metallic or non-metallic ore	2,400,000 tonnes per annual period

This amended works approval is granted to the works approval holder, subject to the attached conditions, on 04 July 2025, by:

Fiona Westcott

Digitally signed by Fiona Westcott
Date: 2025.07.04 15:51:55 +08'00'

MANAGER, RESOURCE INDUSTRIES

STATE-WIDE DELIVERY (ENVIRONMENTAL REGULATION)

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

Works approval history since 2010

Reference number	Date	Summary of changes
W4589/2009/1	07/01/2010	Lifts of embankments of CTSF3 to designed height of 485 m. Works approval expired before completion of lifts
W5385/2013/1	08/08/2013	Lifts of embankments of CTSF3 to designed height of 485 m
L5529/1988/12	30/06/2017	Amendment Notice 1: Include the discharge of mine dewatering to Ruby Queen and Saturn Pits.
L5529/1988/12	18/09/2017	Amendment Notice 2: Include the dewatering of Stellar, Stellar West, Milky Way and Shannon Pits, discharging via Frank Tower Pit and Ruby Queen Pit to Checker salt water dam. Premise boundary extended. AER submission dates aligned with the AACR.
L5529/1988/12	19/08/2019	Amendment Notice 3: Include the dewatering of Lone Pine pit lake and Eridanus underground into O'Meara pit, of St George/Water Tank Hill & Hill 60 underground into Blackcat South pit, of Shannon underground into header tank and Franks Tower pit, and of Morning Star pit into Ruby Queen pit.
W6342/2020/1	04/07/2025	Works Approval amended to extend the expiry date to 16/07/2030

Interpretation

In this works approval:

(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 works approval:

  (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 works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

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

Construction phase

Infrastructure and equipment

1. The works approval holder must:

   (a) construct and/or install the infrastructure;

   (b) in accordance with the corresponding design and construction / installation requirements; and

   (c) at the corresponding infrastructure location; and

   (d) within the corresponding timeframe,

   as set out in Table 1

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location	Timeframe
1.	Infrastructure to recover current seepage from CTSF3	• Installation and construction of adequate recovery measures to manage seepage	To recover seepage from the southern side of CTSF1	Completion within 6 months of the issue date of this works approval
2.	Infrastructure to recover seepage resulting from CTSF1 and CTSF2	• Installation and construction of adequate recovery measures to manage seepage	To recover expected seepage from CTSF1 and CTSF2	

2. The works approval holder is authorised to construct embankment raises for CTSF1, CTSF2 and CTSF3 to the construction height as specified in Table 2.

Table 2: Staged construction heights for CTSF1, CTSF2 and CTSF3

TSF		Construction height (m)
CTSF2		RL 485 (+ 3.0)
		RL 488 (+ 3.0)
Stage 11	CTSF3	RL 490.0 (+ 2.5)

3. The works approval holder must design, construct, and install groundwater monitoring wells in accordance with the requirements specified in Table 3.

Table 3: Infrastructure requirements – groundwater monitoring wells

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)	Timeframe
Monitoring well network for CTSF1, CTSF2 and CTSF3	<u>Well design and construction:</u> Designed and constructed in accordance with *ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores*. Well screens must target the part, or parts, of the aquifer most likely to be affected by contamination[1]. Where temporary/seasonal perched features are present, wells must be nested, and the perched features individually screened.	Suggested locations (Figure 2) as minimum and western side of Galaxy pits to identify seepage not contained by pits	Must be constructed, developed (purged), and determined to be operational within 1 month of the issue date of this works approval
	<u>Logging of borehole:</u> Soil samples must be collected and logged during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726. Any observations of staining / odours or other indications of contamination must be included in the bore log.		
	<u>Well construction log:</u> Well construction details must be documented within a well construction log to demonstrate compliance with *ASTM D5092/D5092M-16*. 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.		
	<u>Well development:</u> All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.		
	<u>Installation survey:</u> the vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.		
	<u>Well network map:</u> a well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.		

Note1: refer to Section 8 of Schedule B2 of the *Assessment of Site Contamination NEPM* for guidance on well screen depth and length.

Compliance reporting

4. The works approval holder must within 30 days of an item of infrastructure required by conditions 1, 2 and 0 being constructed and/or installed:

   (a) undertake an audit of their compliance with the requirements of conditions 1, 2 and 0, and

   (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

5. The Environmental Compliance Report required by condition 4, must include as a minimum the following:

   (a) certification by a suitably qualified hydrogeologist, with a minimum of three years relevant experience, that the infrastructure or component(s) thereof, as specified in conditions 1 and 0, have been constructed in accordance with the relevant requirements specified in conditions 1 and 0;

   (b) certification by a Suitably Qualified Geotechnical Engineer that the infrastructure or component(s) thereof, as specified in condition 2, have been constructed in accordance with the relevant requirements specified in condition 2;

   (c) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in conditions 1, 2 and 0; and

   (d) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

   (e) In regard to infrastructure set out in condition 1, the following additional information is required:

      (i) findings of further investigations and extent of occurring seepage
      (ii) justification of seepage management infrastructure chosen
      (iii) location and GPS coordinates of infrastructure installed

6. The works approval holder must submit a Seepage Management Report after recovery measures have been operational for a period of 90 days, which includes as minimum the following:

   (a) findings of further investigations and extent of already occurring seepage before and after commencement of seepage recovery measures;

   (b) actual efficiency of seepage recovery;

   (c) updated Seepage Management Plan, including new findings;

   (d) ambient groundwater monitoring as required in condition 8, and brief interpretation of data, including reference to relevant drinking water guidelines and historical groundwater monitoring data.

7. The works approval holder must submit to the CEO on a quarterly basis, a groundwater monitoring report demonstrating compliance with condition 8 for the preceding monitoring rounds, and must include:

   (a) a clear statement of the scope of work carried out;

   (b) a description of the field methodologies employed;

   (c) a summary of the field and laboratory quality assurance / quality control (QA/QC) program;

   (d) copies of the field monitoring records and field QA/QC documentation;

(e) an assessment of reliability of field procedures and laboratory results;

(f) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis;

(g) a diagram with aerial image overlay showing all monitoring locations and depicting groundwater level contours, flow direction and hydraulic gradient (relevant site features including discharge points and other potential sources of contamination must also be shown);

(h) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the Guideline Assessment and management of contaminated sites;

(i) an interpretive summary and assessment of results against previous monitoring results;

(j) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the Guideline Assessment and management of contaminated sites;

(k) trend graphs to provide a graphical representation of historical results and to support the interpretive summary; and

(l) actual efficiency of seepage recovery.

Note 1: General guidance on report presentation can be found in the Department's *Guideline: Assessment and management of contaminated sites*.

Monitoring

8. The works approval holder must monitor the groundwater

(a) prior to and immediately following construction of the item(s) of infrastructure specified in conditions 1 and 2

(b) during operation of CTSF3

for concentrations of the identified parameters in accordance with Table 4

Table 4 Groundwater monitoring of ambient concentrations

Parameter[1]	**Monitoring location**	**Limit [mg/L]**	**Frequency**	**Averaging period**	**Method**
Aluminium	Groundwater bores as per condition 0	5	Condition 8(a) At least one campaign Condition 8(b) Monthly for the first 12 months and then quarterly for ongoing monitoring rounds.	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
Arsenic		0.5			
Cadmium		0.08			
Chromium^{+6}		1			
Cobalt		1.4			
Copper		0.5			
Lead		0.4			
Mercury		0.11			
Molybdenum		0.05			

Parameter[1]	Monitoring location	Limit [mg/L]	Frequency	Averaging period	Method
Nickel	Groundwater bores as per condition 0	1	Condition 8(a) At least one campaign Condition 8(b) Monthly for the first 12 months and then quarterly for ongoing monitoring rounds.	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
Selenium		0.08			
Zinc		20			
Electrical conductivity [µS/cm]		-			
Standing water level [mbgl]					
Total dissolved solids					
Total cyanide					
Weak acid dissociable cyanide (WAD cyanide)		0.5			
pH		6.0 to 9.0			

9. The works approval holder must record the results of all monitoring activity required by condition 8.

Records and reporting (general)

10. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

    (a) the name and contact details of the complainant, (if provided);

    (b) the time and date of the complaint;

    (c) the complete details of the complaint and any other concerns or other issues raised; and

    (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.

11. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

    (a) the works conducted in accordance with conditions 1, 2 and 0;

    (b) any maintenance of infrastructure that is performed;

    (c) monitoring programmes undertaken in accordance with condition 8; and

    (d) complaints received under condition 10.

12. The books specified under condition 11 must:

    (a) be legible;

    (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 5 have the meanings defined.

Table 5: Definitions

Term	Definition
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
Assessment of Site Contamination NEPM	means the *National Environment Protection (Assessment of Site Contamination) Measure 1999*, as amended from time to time
AS1726	means the Australian Standard AS1762 Geotechnical site investigations, as amended from time to time;
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water quality - sampling – Guidance on 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 groundwater
ASTM D5092/D5092M-16	means the ASTM international standard for Standard practice for design and installation of groundwater monitoring wells (Designation: ASTM D5092/D5092M-16), as amended from time to time.
books	has the same meaning given to that term under the EP Act.
calendar days	means any day of the week from Monday to Sunday inclusive
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Condition	a condition to which this works approval is subject under section 62 of the EP Act
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.

Term	Definition
emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
Guideline: Assessment and management of contaminated sites	means the document titled Assessment and management of contaminated sites (Contaminated sites guidelines) (Department of Environment Regulation, December 2014)
monthly period	means a one-month period commencing from the first day of a month until the last day of the same month
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
QA/QC	means quality assurance/quality control
quarterly	means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March, 1 April to 30 June.
RL	means reduced level
Suitably qualified geotechnical engineer	means a person who: 1. holds a Bachelor of Engineering recognised by the Australian Institute of Engineers; and 2. has a minimum of five years of experience working in geotechnical engineering including experience in the design of tailings storage facilities.
TSF	means tailings storage facility
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

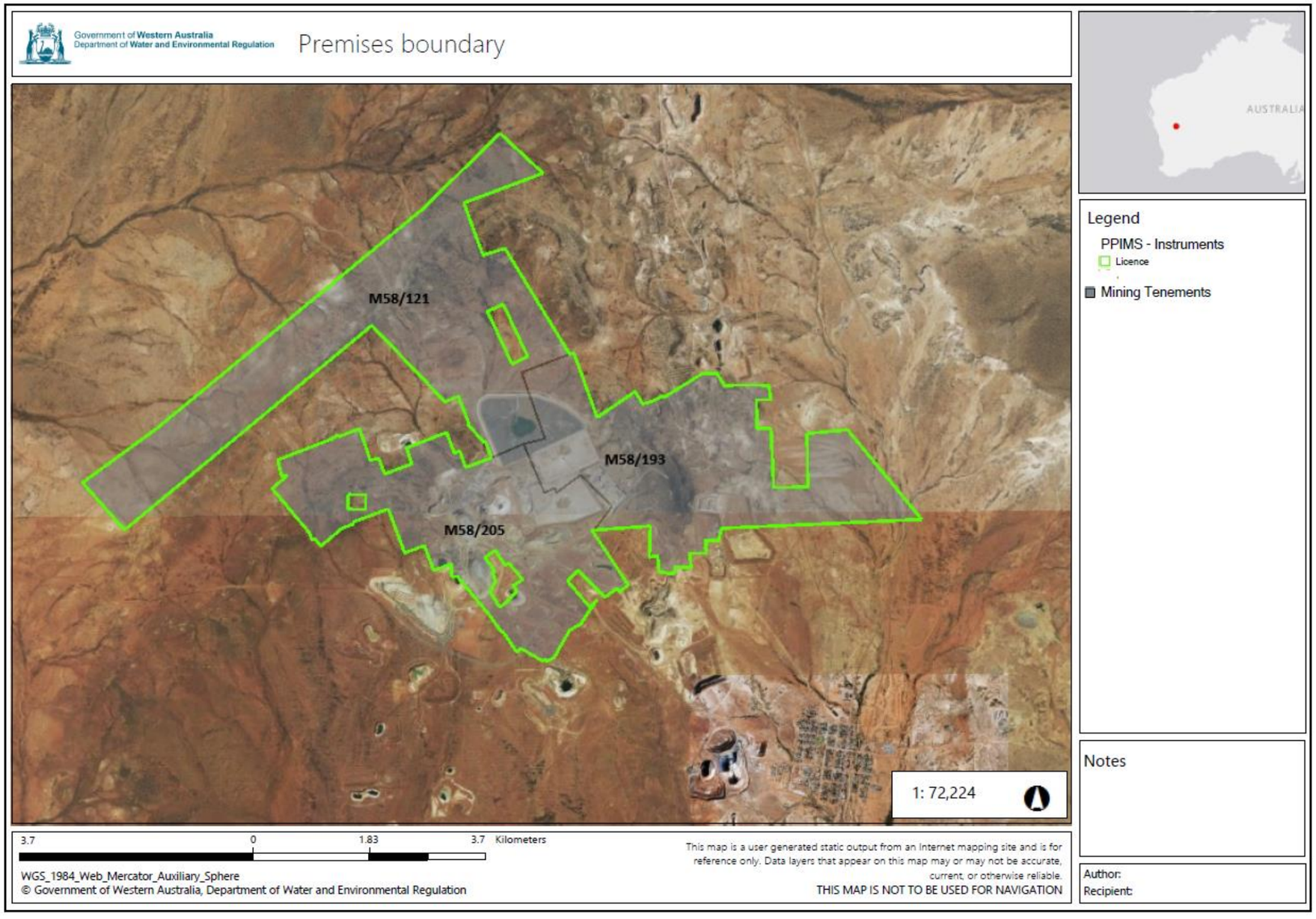

Figure 1: Map of the boundary of the prescribed premises

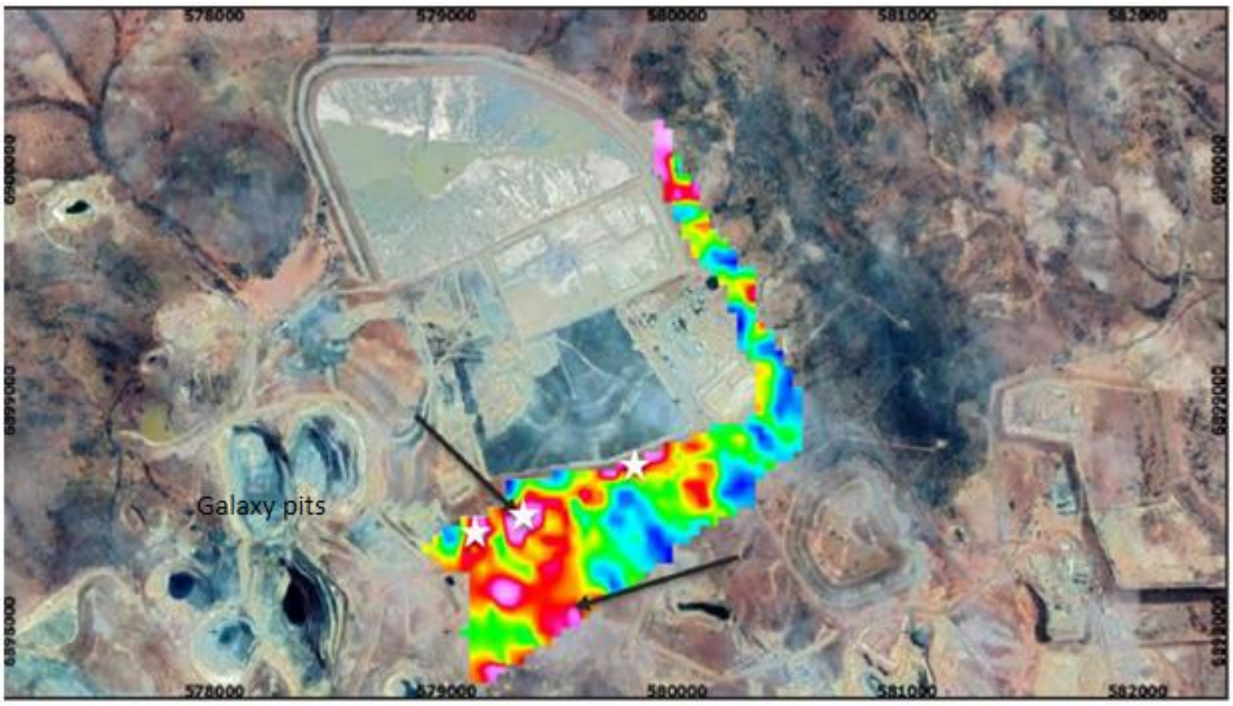

Figure 2 Suggested minimum locations for additional groundwater monitoring bores