Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W2948/2025/1
Works approval holder	Cygnet Gold Pty Ltd
ACN	660 841 252
Registered business address	Level 26, 140 St Georges Terrace, Perth WA, 6000
DWER file number	INS-0002948
Duration	18/12/2025 to 17/12/2028
Date of issue	18/12/2025
Premises details	Copperhead Underground Mining Project Street address Within mining tenements M77/1026, M77/480, M77/46, M77/572, M77/299 and G77/36 Shire of Yilgarn 6426

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed design capacity**
Category 6: Mine dewatering	300,000 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 18 December 2025, by:

Fiona Westcott
Digitally signed by Fiona Westcott
Date: 2025.12.18 15:21:00 +08'00'

MANAGER, RESOURCE INDUSTRIES
STATEWIDE DELIVERY (ENVIRONMENTAL REGULATION)
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary
18/12/2025	W2948/2025/1	Application for the construction and time-limited operations of an evaporation pond and associate dewatering pipeline infrastructure at the Copperhead Project.

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 the infrastructure;

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

(c) at the corresponding infrastructure location.

as set out in Table 1: Design and construction requirements.

Table 1: Design and construction requirements

	Infrastructure	Design and construction requirements	Infrastructure location
1.	Evaporation pond (EVP)	Evaporation pond components (Schedule 1, Figure 2) a) The pond embankment is to be constructed with: ○ low permeability tailings materials borrowed from within the TSF basin area. ○ a crest width of 10 m and design slopes of 1:10 (V:H) for downstream and 1:2 (V:H) for upstream, with 2% cross fall on embankments following capping to a nominal 0.5 m (tailings material). (Schedule 1, Figure 3) ○ An emergency spillway (50 m wide x 0.5 m deep) is to be constructed on the eastern side of the evaporation pond. (Schedule 1, Figure 3) ○ A riprap rock layer (0.5 m thick; utilising 100 - 250 mm rock) is to be constructed, overlying a separate geotextile layer on the entire upstream embankment and spillway. (Schedule 1, Figure 3) ○ A cut-off trench with a 3 m wide base is to be constructed beneath the perimeter embankments of the EVP and backfilled with suitable tailings materials b) The in-situ tailings material within the basin area of the EVP is to be reworked by ripping, moisture conditioning and compaction to a nominal depth of 0.3 m. c) The discharge point is to be constructed with sufficient energy dissipation structures and/or positioned such that the discharge of dewater will not erode the lining of the EVP. d) Toe drains and sumps are to be constructed or upgraded: ○ The toe drains to be completed to a nominal depth of 1.0 m, a minimum base width of 1.5 m	Within the premises boundary as shown in Schedule 1, Figure 1. Toe drains as per Schedule 1 Figures 5 -8

	Infrastructure	Design and construction requirements	Infrastructure location
		and side cut batters of 1:1 (V:H). ○ The sumps to be lined with concrete well liners and fitted with pumps capable of pumping 1000kL/day. (Schedule 1, Figure 9) e) A secondary drain and sump is to be constructed or upgraded. The sump shall be 40 m x 7.5 m and 1 m deep to contain up to 300kL and fitted with a pump or pumps capable of extracting 2,000kL/day. (Schedule 1, Figure 10) Dust controls Dust suppression activities including water carts do be used during construction.	
2.	Dewater pipeline	a) Approximately 700 m of dewater pipeline is to be constructed from the Copperhead Mine to the EVP discharge location as per Schedule 1, Figure 2. b) The pipeline is to be constructed of 160 PN10 Coex Pipeline and is to be polywelded and designed to take the head pressure of the water leaving the pit. c) Secondary containment adequate to contain any spill for a period between routine inspections and leak detection to be installed on all pipelines and pumping infrastructure; and d) The pipeline is to be fitted with isolation valves, flow metres and telemetry.	Within the premises boundary as shown in Schedule 1, Figure 1.

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure required by condition 1 being constructed:

(a) undertake an audit of their compliance with the requirements of condition 1; and

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

3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:

(a) certification by a suitably qualified civil or structural engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

(b) Demonstrated confirmation that toe the drains are in working condition prior to the operation of the evaporation pond;

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

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

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 6 where the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure.

5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1:

(a) for a period not exceeding 180 days from the day the works approval holder meets the requirements of condition 2 for that item of infrastructure; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the Environmental Protection Act 1986, if one is granted before the end of the period specified in condition 5(a).

Time limited operations requirements and emission limits

6. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements during time limited operations

	Infrastructure	Operational requirement	Infrastructure location
1.	Evaporation pond	a) A minimum freeboard of 1.0 m is to be maintained at all times; and b) Visual inspections every 12 hours to check freeboard capacity.	Evaporation pond and pipeline infrastructure located within the Prescribed Premises boundary as illustrated in Schedule 1, Figure 1.
2.	Dewatering pipeline	a) All pipelines containing mine dewater to be maintained with secondary containment (bunding) sufficient to contain any spill for a period equal to the time between routine inspections. b) Pipeline operation will be monitored by telemetry (where installed) and inspected regularly and as required. c) Flow meters to be used on dewatering pipelines. d) Scheduled inspections of infrastructure is to occur on a regular basis during active pumping.	

7. During time limited operations, the works approval holder must ensure that the emissions specified in Table 3 are discharged only from the corresponding discharge points and only at the corresponding discharge point locations.

Table 3: Authorised discharge points

	Emission	Discharge point	Discharge point location
1.	Mine dewater from Copperhead Mine	Evaporation pond interface with dewater pipeline.	Schedule 1, Figure 11.

Monitoring during time limited operations

8. The works approval holder must monitor discharges during time limited operations in accordance with Table 4 and record the results of all monitoring activity.

Table 4: Discharge and emissions monitoring

Monitoring location	Parameter	Frequency
Water draw point from Copperhead Mine as per Schedule 1, Figure 1.	Metals (Al, As, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Se, Zn)	Quarterly
	Major ions (Ca, Cl, K, Mg, Na, CaCO3 (bicarbonate alkalinity, carbonate, hydroxide alkalinity), SO4, SiO2)	
	Nutrients (Nitrate and Nitrite)	
	pH, Electrical conductivity, Total Dissolved Solids, Total Suspended Solids	
	Silica	
	Cyanide	
	Flow meter readings	Monthly

9. The works approval holder must monitor groundwater during time limited operations in accordance with Table 5 and record the results of all monitoring activity.

Table 5: Groundwater monitoring

Monitoring location	Parameter	Frequency
Monitoring bores as per Schedule 1, Figure 11.	Metals (Al, As, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Se, Zn)	Quarterly
	Major ions and cations (Ca, Cl, K, Mg, Na, CaCO3 (bicarbonate alkalinity, carbonate, hydroxide alkalinity), SO4, SiO2)	
	Silica	

Monitoring location	Parameter	Frequency
	Cyanide	
	pH, EC, TDS, TSS	
	Nutrients (Nitrate and Nitrite)	

Compliance reporting

10. The works approval holder must submit to the CEO an Environmental Compliance Report on the time limited operations within 60 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the sooner.

11. The works approval holder must ensure the report required by condition 10 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of mine dewatering water discharged.
(b) a summary of discharge monitoring obtained during time limited operations under condition 8.
(c) a summary of groundwater monitoring obtained during time limited operations under condition 9.
(d) a summary of the environmental performance of all infrastructure as constructed or installed (as applicable).
(e) an internal audit against vegetation health monitoring procedures.
(f) a review of performance and compliance against the conditions of the works approval; and
(g) where conditions have not been met, measures proposed to address compliance, together with timeframes for implementing the proposed measures.

Records and reporting (general)

12. 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.

13. 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 condition 1;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 6;

(c) monitoring programmes undertaken in accordance with conditions 8 and 9; and

(d) complaints received under condition 12.

14. The books specified under condition 13 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 6 have the meanings defined.

Table 6: Definitions

Term	Definition
books	has the same meaning given to that term under the EP Act.
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
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.
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 has been constructed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.

Term	Definition
suitably qualified civil or structural engineer	means a person who: (a) holds a Bachelor of Engineering degree recognised by Engineers Australia; and (b) has a minimum of five years of experience working in a supervisory role in civil or structural engineering; and (c) is employed by an independent third party external to the Works Approval Holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
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).

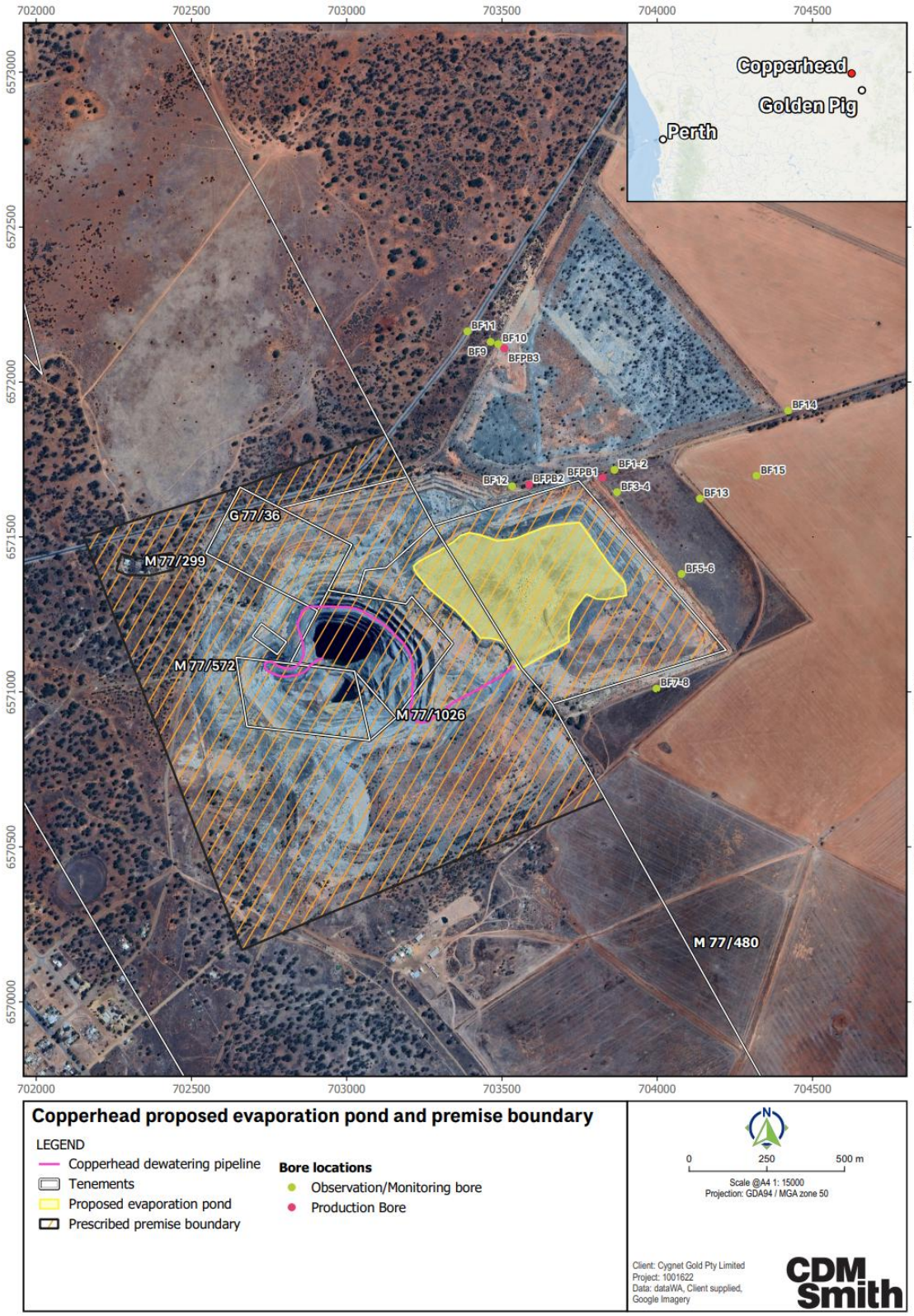


Figure 1: Map of the boundary of the prescribed premises

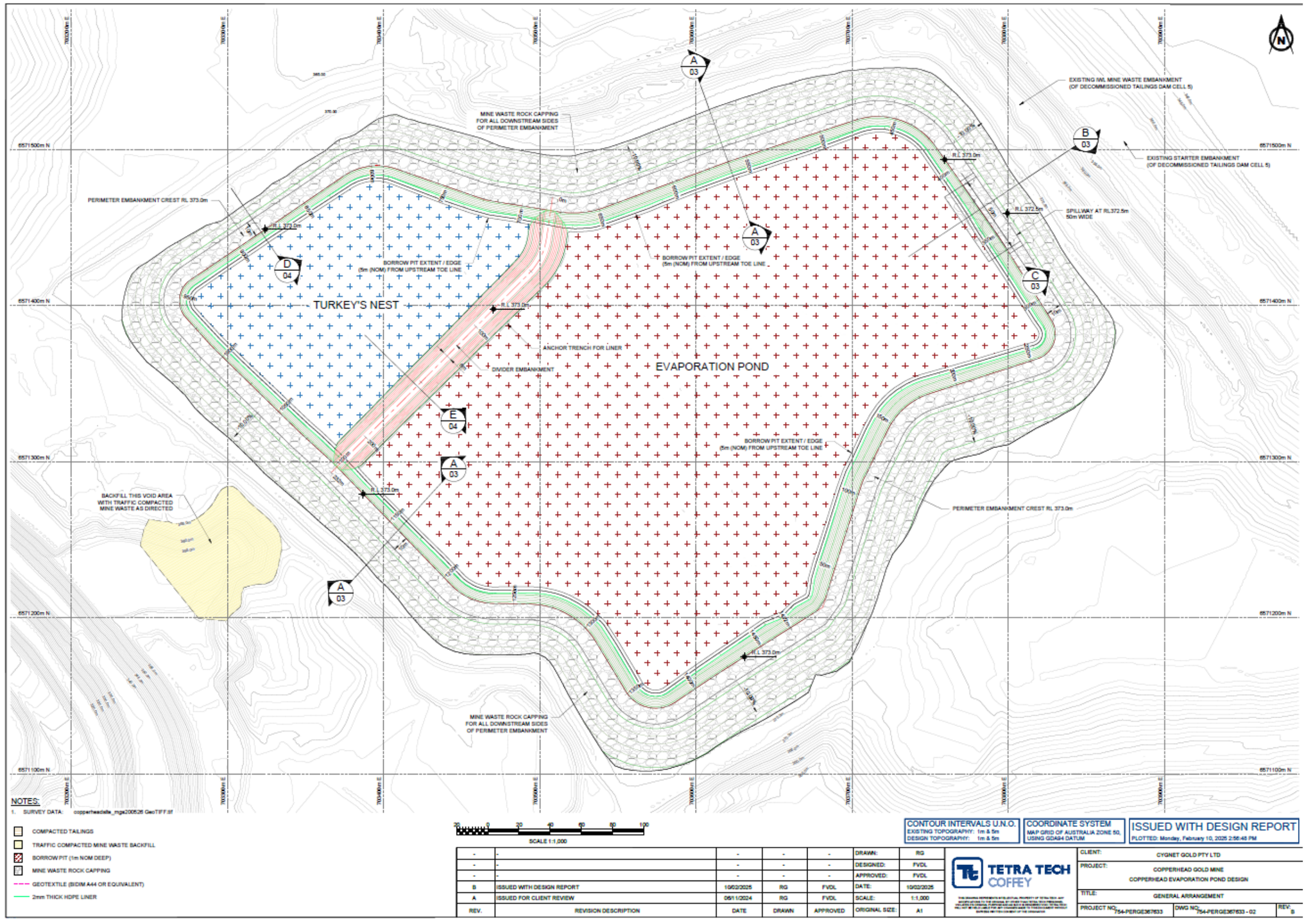


Figure 2: Evaporation pond general arrangement

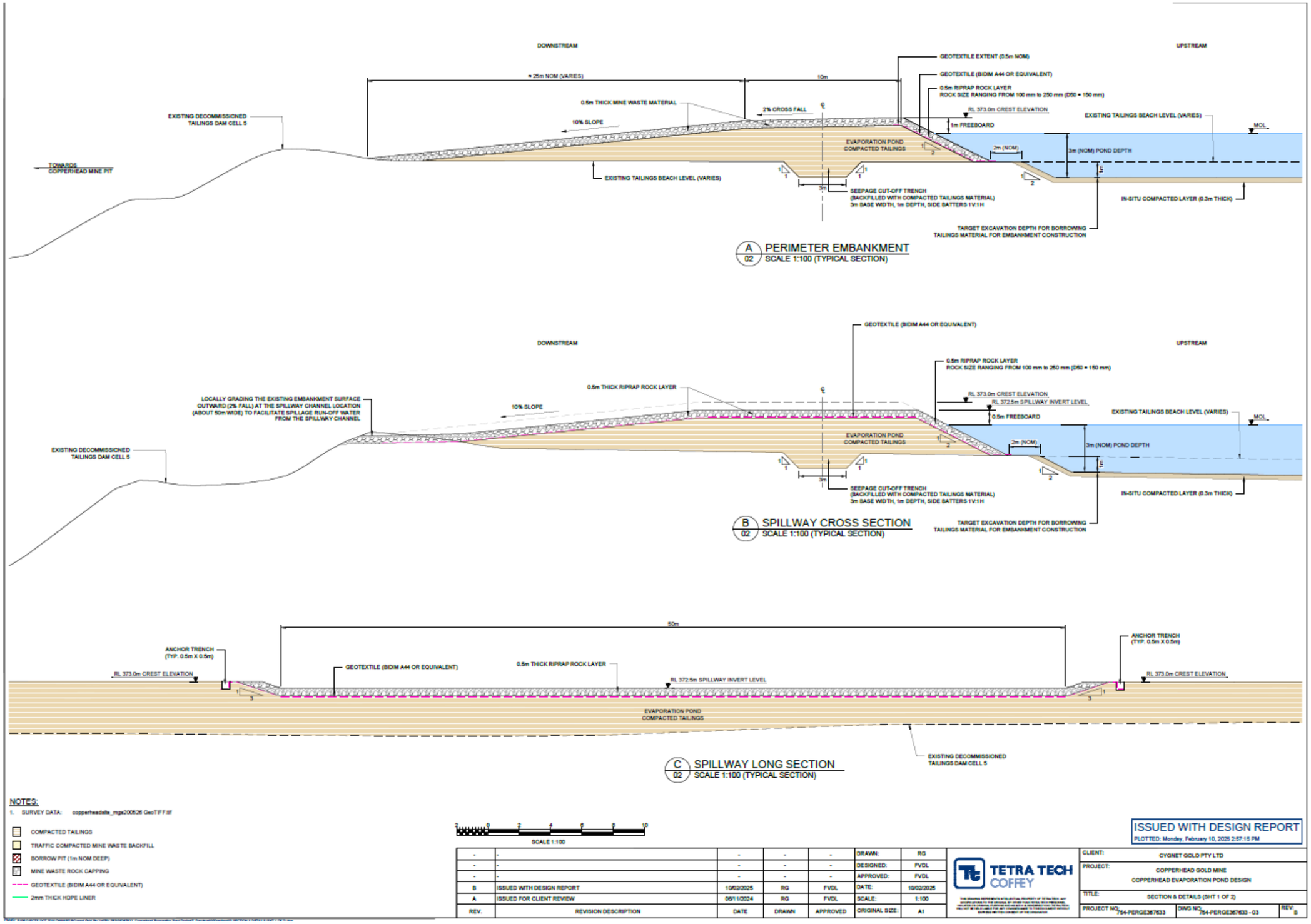
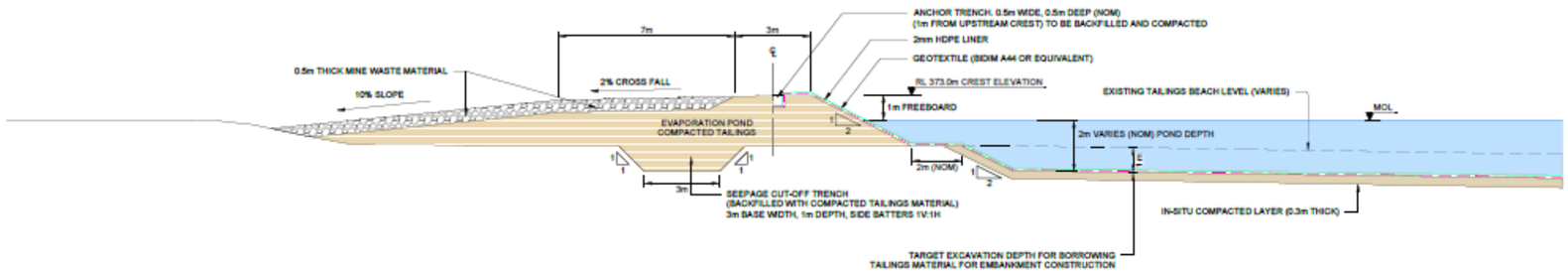
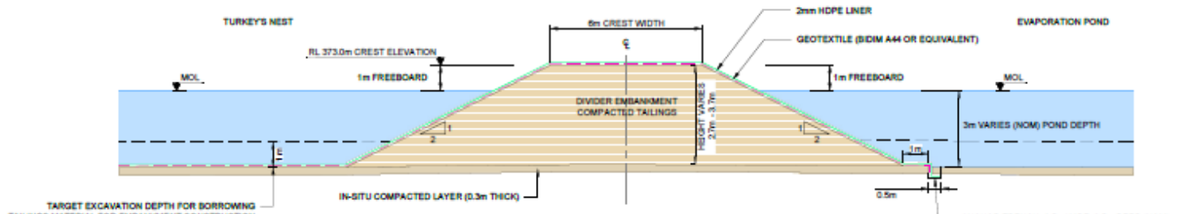


Figure 3: Embankment and spillway details



D 02 PERIMETER EMBANKMENT (TURKEYS NEST ONLY)
SCALE 1:100 (TYPICAL SECTION)



E 02 DIVIDER EMBANKMENT (TURKEYS NEST)
SCALE 1:100 (TYPICAL SECTION)

NOTES:
1. SURVEY DATA: copperheadalla_mga200526 GeoTIFF.tif

- COMPACTED TAILINGS
- TRAFFIC COMPACTED MINE WASTE BACKFILL
- BORROW PIT (1m NOM DEEP)
- MINE WASTE ROCK CAPPING
- GEOTEXTILE (BIDIM A44 OR EQUIVALENT)
- 2mm THICK HDPE LINER

2 0 2 4 6 8 10
SCALE 1:100

ISSUED WITH DESIGN REPORT
PLOTTED: Monday, February 10, 2025 3:00:33 PM

REV.	REVISION DESCRIPTION	DATE	DRAWN	APPROVED	ORIGINAL SIZE:	A1
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-	-	-	-	-	DESIGNED:	FVDL
-	-	-	-	-	APPROVED:	FVDL
-	-	-	-	-	DATE:	10/02/2025
B	ISSUED WITH DESIGN REPORT	10/02/2025	RG	FVDL	SCALE:	1:100

TETRA TECH COFFEY

CLIENT: CYGNET GOLD PTY LTD
PROJECT: COPPERHEAD GOLD MINE
COPPERHEAD EVAPORATION POND DESIGN
TITLE: SECTION & DETAILS (SHT 2 OF 2)
PROJECT NO: 754-PERGE367633 DWG NO: 754-PERGE367633 - 04 REV: B

Figure 4: Turkeys nest embankments

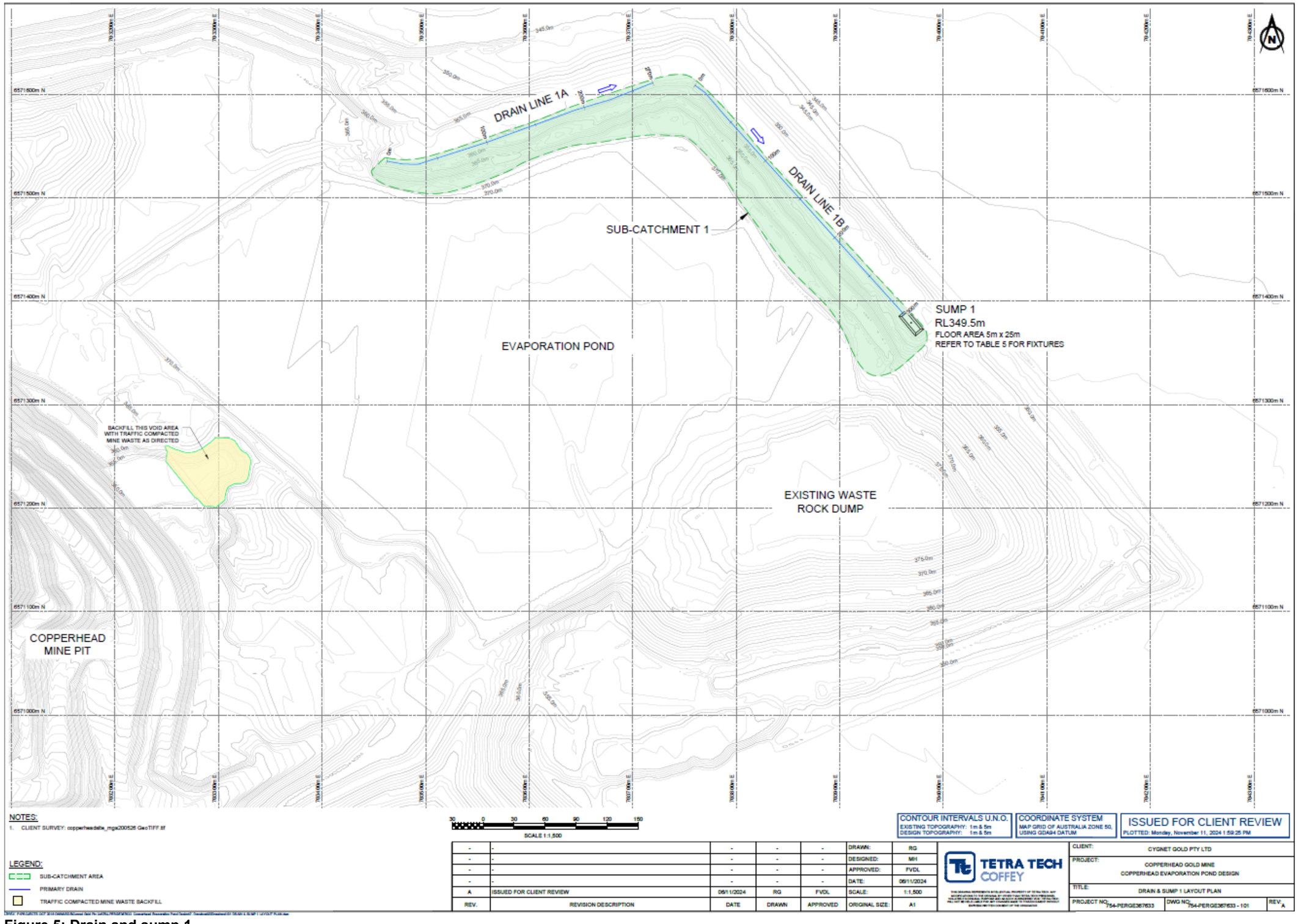


Figure 5: Drain and sump 1

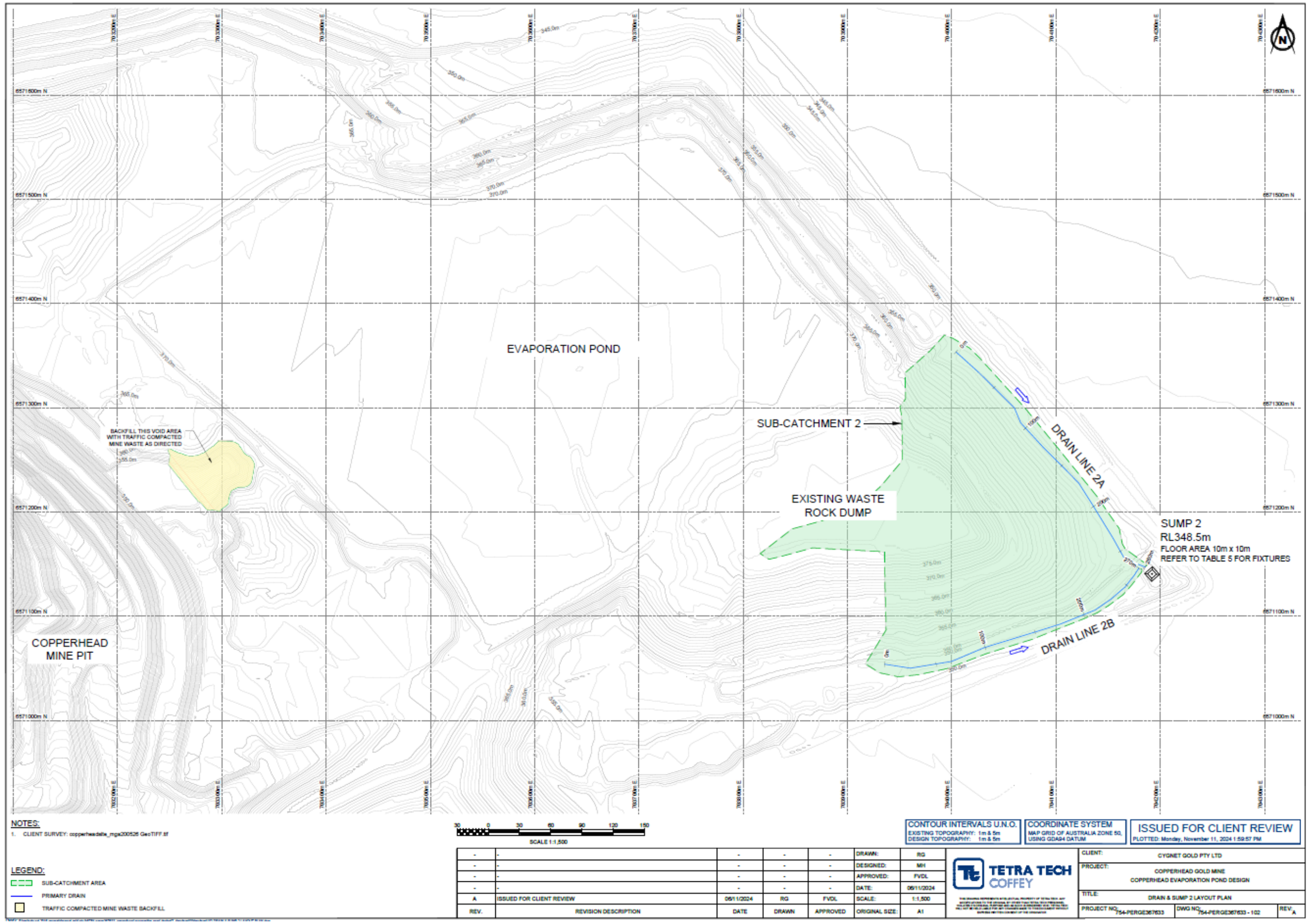


Figure 6: Drain and sump 2

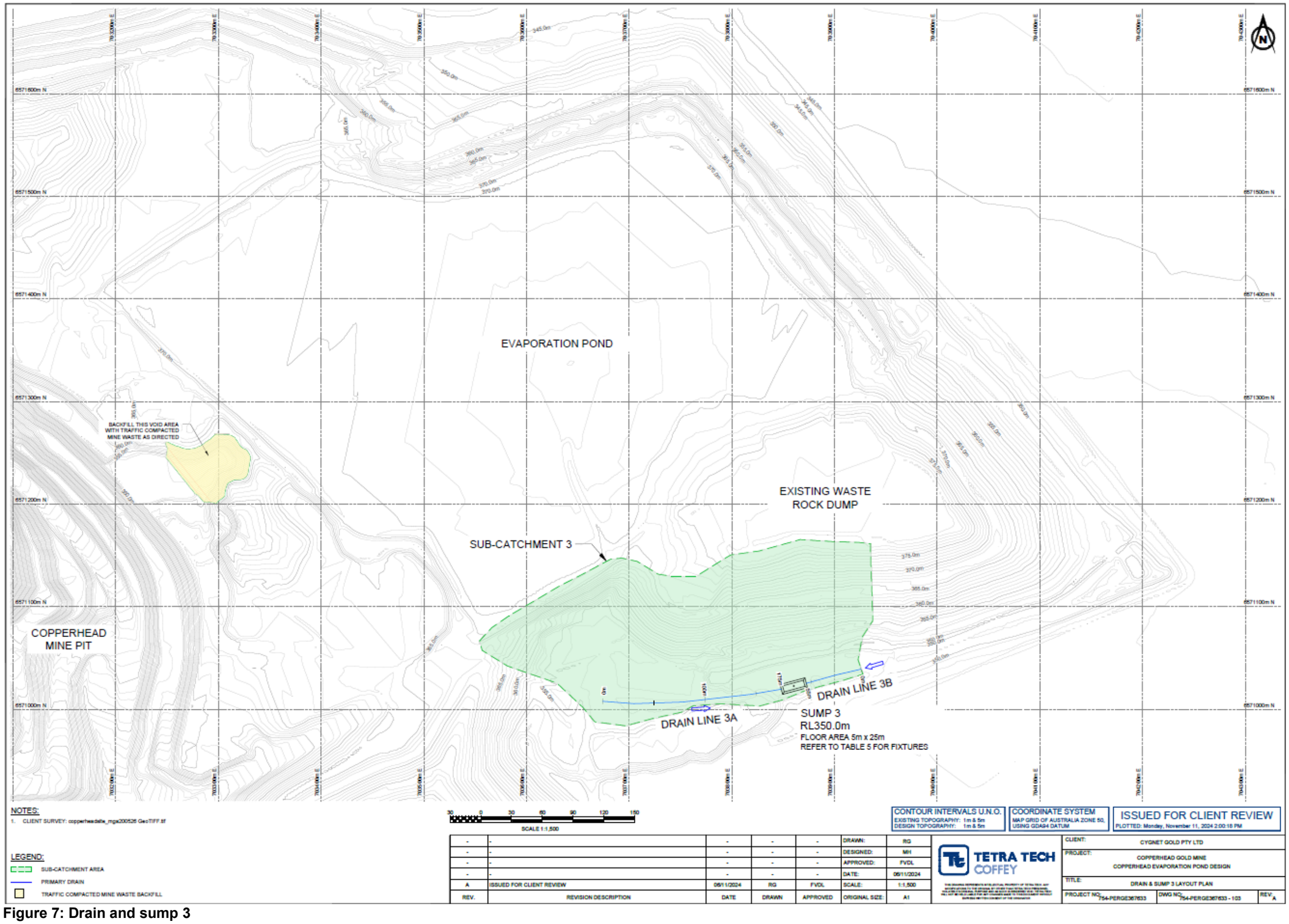


Figure 7: Drain and sump 3

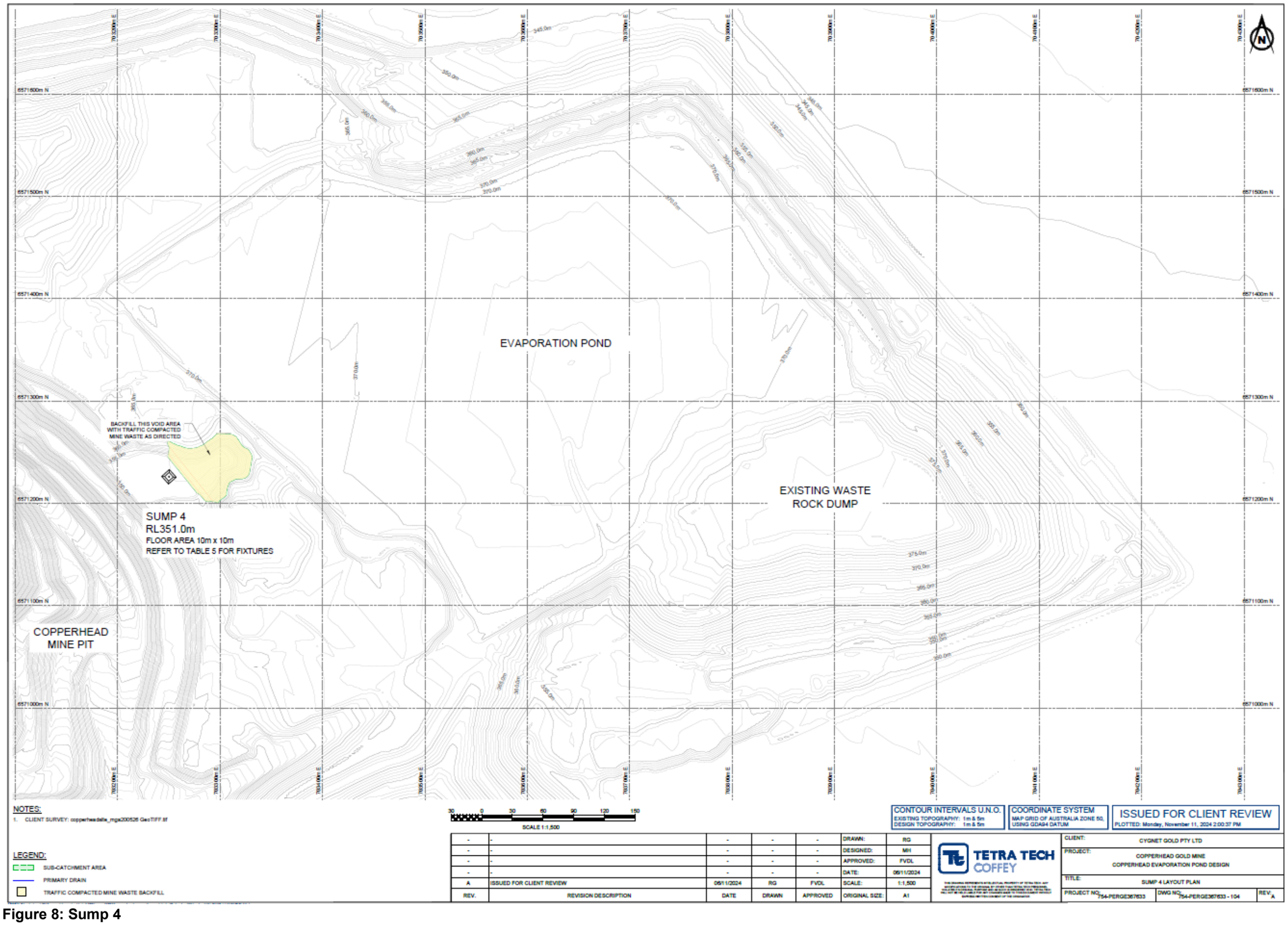
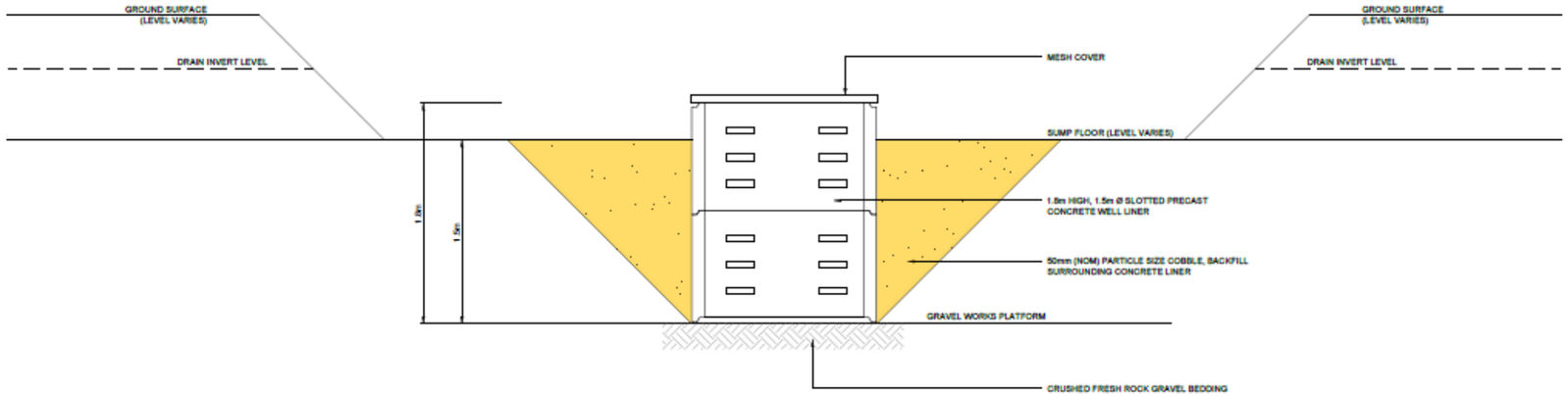


Figure 8: Sump 4



NOTE:

CATCHMENTS & SUMPS			
	FLOOR LEVEL (RL m AHD)	FLOOR AREA (m²)	CATCHMENT (ha)
SUMP 1	349.5	5m x 25m	3.0
SUMP 2	348.5	10m x 10m	5.2
SUMP 3	350.0	5m x 25m	4.7
SUMP 4	351.0	10m x 10m	N/A

CATCHMENTS & SUMPS			
	UPSTREAM	DOWNSTREAM	FLOW DIRECTION
DRAIN 1A	355.5	351.5	WEST TO EAST
DRAIN 1B	351.5	351	NORTH TO SOUTH
DRAIN 2A	351.5	349	NORTH TO SOUTH
DRAIN 2B	351.0	349	WEST TO EAST
DRAIN 3A	352.0	351	WEST TO EAST
DRAIN 3B	351.0	350.5	EAST TO WEST

0.4 0 0.4 0.8 1.2 1.6 2.0
SCALE 1:20

ISSUED FOR CLIENT REVIEW
PLOTTED: Monday, November 11, 2024 2:24:03 PM

REV.	REVISION DESCRIPTION	DATE	DRAWN	APPROVED
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-	-	-	-	-
-	-	-	-	-
A	ISSUED FOR CLIENT REVIEW	06/11/2024	RG	FVDL

DRAWN:	RG
DESIGNED:	MH
APPROVED:	FVDL
DATE:	06/11/2024
SCALE:	1:20
ORIGINAL SIZE:	A1

TETRA TECH COFFEY

CLIENT: CYGNET GOLD PTY LTD
PROJECT: COPPERHEAD GOLD MINE
COPPERHEAD EVAPORATION POND DESIGN
TITLE: PRIMARY DRAIN SUMP DETAIL
PROJECT NO: 754-PERGE367633
DWG NO: 754-PERGE367633 - 105
REV: A

Figure 9: Sump construction

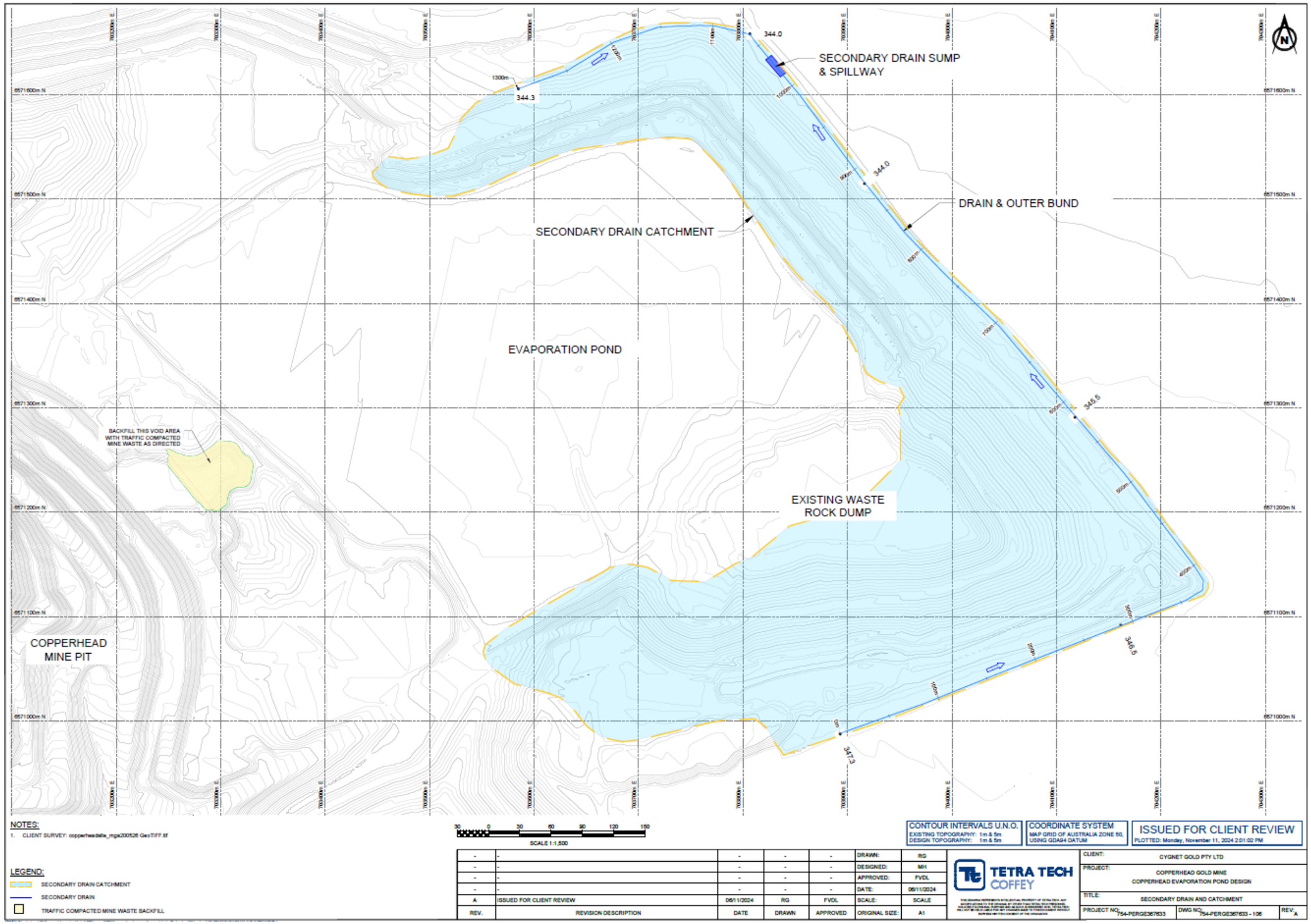

Figure 10: Secondary drain and catchment

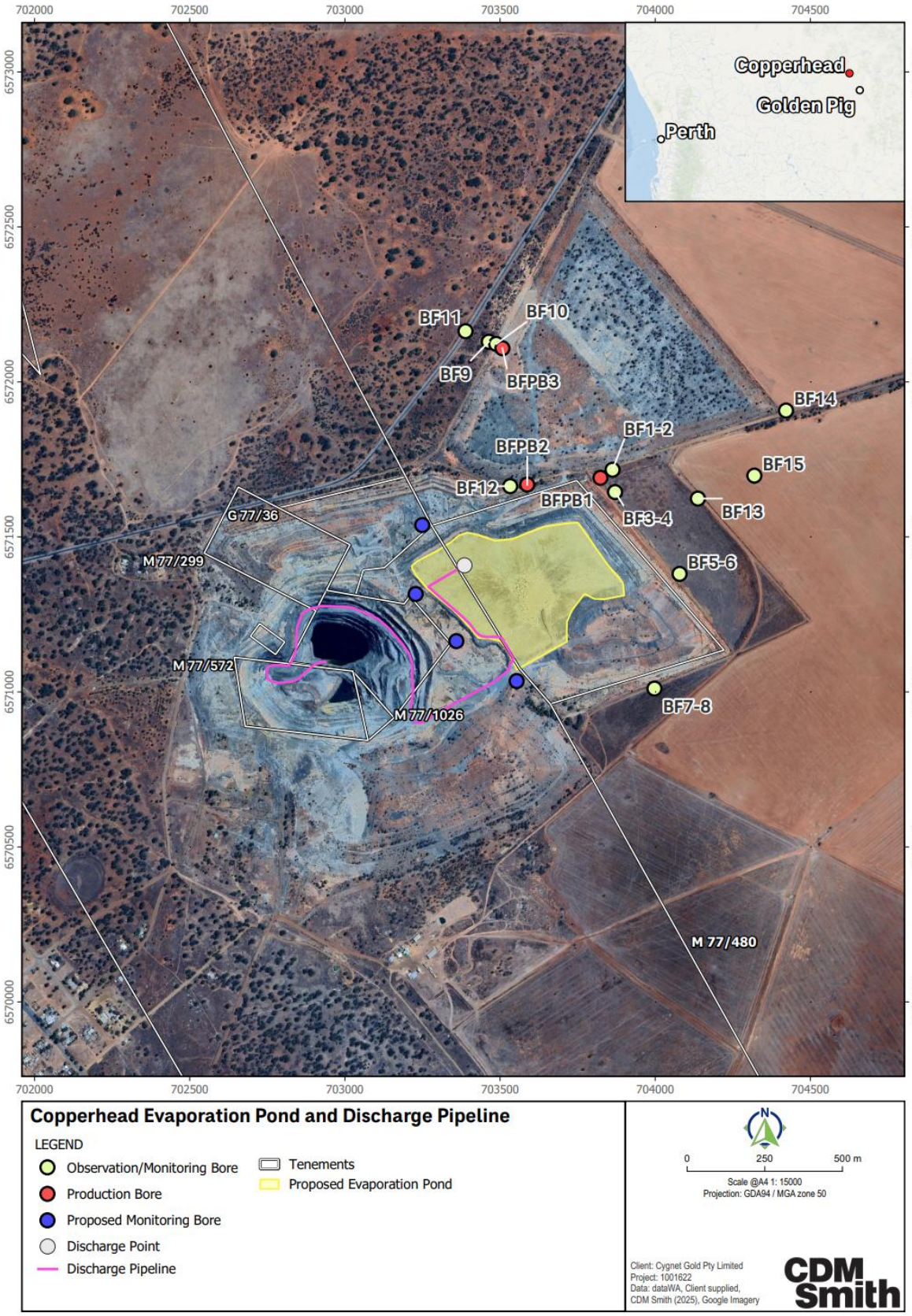

Figure 11: Evaporation pond and discharge pipeline and discharge location with monitoring bore locations