



<b>Licence Number</b>	L4597/1988/14
<b>Licence holder</b>	Barto Gold Mining Pty Ltd
<b>ACN</b>	161 566 490
<b>Registered business address</b>	Level 3, 66 Kings Park Road WEST PERTH WA 6005
<b>DWER File Number</b>	APP-0032897
<b>Internal Number</b>	INS-0001160
<b>Duration</b>	20/09/2013 to 25/09/2030
<b>Date of issue</b>	20/09/2013
<b>Date of amendment</b>	09/04/2026
<b>Premises details</b>	Southern Cross Operations MARVEL LOCH WA 6426 Mining Leases M77/7, M77/8, M77/10, M77/26, M77/31, M77/66, M77/72, M77/86, part of M77/109, M77/112, M77/113, M77/114, M77/133, M77/137, M77/138, M77/159, M77/175, M77/193, M77/197, M77/198, M77/217, M77/221, M77/224, M77/225, M77/239, M77/251, M77/347, M77/352, M77/380, M77/408, M77/424, M77/431, M77/432, M77/525, M77/554, M77/555, M77/593, M77/631, M77/638, M77/640, M77/660, M77/655, M77/668, M77/702, M77/745, M77/721, M77/746, M77/747, M77/722, M77/765, M77/766, M77/768, M77/775, M77/790, M77/791, M77/792, M77/793, M77/794, M77/811, M77/969, M77/977, M77/1009, M77/1036, M77/1052 and M77/1275, Miscellaneous Licences L77/31, L77/42, L77/51, L77/87, L77/106, L77/112, L77/113, L77/114, L77/126, L77/128, L77/162, L77/167, L77/168, L77/173, L77/281, L77/290 and General Purpose Leases G77/1-3.

As defined in Figure 1 and Figure 2 in Schedule 1: Maps

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore.	2,600,000 tonnes per annual period.
Category 6: Mine dewatering.	6,000,000 tonnes per annual period.
Category 64: Class II or III putrescible landfill.	2,000 tonnes per annual period.
Category 57: Used tyre storage.	200 tyres.
Category 70: Screening etc. of material	50,000 tonnes per annual period

This amended Licence is granted to the licence holder, subject to the following conditions, on 9 April 2026 by:

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

## Licence History

Instrument log		
Instrument	Issued	Description
W4732/2010/1	24/6/2010	Works Approval for TSF lift
L4597/1988/13	16/05/2013	Transfer of licence to Hanking Gold Mining Pty Ltd
W4732/2010/2	05/09/2013	Works Approval amendment to extend period of instrument relating to TSF lift.
L4597/1988/14	19/09/2013	Licence reissue in REFIRE format
L4597/1988/14	26/03/2015	Licence amendment to remove requirement for settling ponds from the Licence, to include the construction of the Nevoria landfill and to remove monitoring related to the zone of influence.
W5818/2015/1	21/05/2015	Works Approval to construct dewatering infrastructure and 3 km pipeline from Axehandle pit deposit to Glendower pit.
L4597/1988/14	07/01/2016	Licence amendment to include the Axehandle dewatering operations, monitoring and reporting requirements plus discharge points within the premises boundary plus remove the improvement condition and Nevoria landfill compliance condition as these have been satisfactorily completed.
L4597/1988/14	28/04/2016	Licence amendment to include 5 km pipeline from Glendower to Triad.
L4597/1988/14	29/04/2016	Department initiated amendment in accordance with section 59(1)(k) of the <i>Environmental Protection Act 1986</i> to amend the duration of the licence date month year.
L4597/1988/14	8/02/2017	Amendment Notice 1: the licensee applied for an amendment to licence to include the Axehandle landfill as an approved location to undertake disposal under Category 64 - Class II or III putrescible landfill.
L4597/1988/14	8/12/2017	Amendment Notice 2 – an amendment to: <ul style="list-style-type: none"> <li>• Change licence holder’s legal entity from ‘Hanking Gold Mining Pty Ltd’ to ‘Tianye SXO Gold Mining Pty Ltd’;</li> <li>• Increasing the Category 6 Mine dewatering design capacity from 4.8 million tonnes to 6 million tonnes per annual period;</li> <li>• Inclusion of Category 57: Used tyre storage;</li> <li>• Inclusion of an additional location under Category 64: Class II or II putrescible landfill site at the Transvaal (Aquarius) pit; and</li> <li>• Inclusion of conditions for the construction of the Tailings Storage Facility 3 (TSF3).</li> </ul>
L4597/1988/14	18/04/2018	Amendment Notice 3: an amendment to: <ul style="list-style-type: none"> <li>▪ Relocate the Aquarius dewatering pipeline route that was previously approved under Amendment Notice 2; and</li> <li>▪ Addition of mining tenements M77/251, M77/593 and L77/87. To premises boundary description.</li> </ul>
L4597/1988/14	21/11/2019	Amendment to allow the discharge of mine dewater to Marvel Loch pit. Also, to amalgamate Amendment Notices 1 – 3 into the Licence document to produce a single instrument.
L4597/1988/14	19/03/2021	Amendment to allow the replacement of crushing infrastructure within the Marvel Loch processing plant area.
L4597/1988/14	30/07/2021	Amendment to include the Victoria pipeline, Victoria turkey’s nest and updates to tailings storage facility management.

Instrument log		
Instrument	Issued	Description
L4597/1988/14	13/05/2022	Amendment to: <ul style="list-style-type: none"> <li>• Addition of mining tenement M77/775;</li> <li>• Include Windmills pipeline, Windmills turkey's nest and Windmills landfill.</li> </ul>
L4597/1988/14	19/08/2022	Amendment to: <ul style="list-style-type: none"> <li>▪ Addition of mining tenements M77/197, M77/224, M77/1275, M77/408, M77/655, M77/66 and miscellaneous tenement L77/51 and L77/290 to premises boundary</li> <li>▪ Removal of tenements P77/3793, L77/91 and L77/145</li> <li>▪ Include Axehandle pipeline, Transvaal landfill, and Axehandle pit as a new authorised discharge points.</li> </ul>
L4597/1988/14	27/01/2023	Amendment to: <ul style="list-style-type: none"> <li>▪ Addition of secondary pipeline from Yilgarn Star to Nevoria complex; and</li> <li>▪ Addition of mining tenements M77/792 and M77/793 to the premises boundary.</li> </ul>
L4597/1988/14	04/07/2023	Amendment to: <ul style="list-style-type: none"> <li>▪ Allow the discharge of mine dewater from Frasers pit to the Transvaal complex (<i>comprised of Transvaal, Aquarius, Polaris and Sunbeam pits</i>).</li> <li>▪ Add mining tenements M77/72, M77/159, M77/198, M77/217, M77/432, M77/722, M77/765, M77/766, M77/768, M77/791, M77/794, M77/1009, M77/1052 and miscellaneous tenements L77/106 and L77/168 to the prescribed premises.</li> <li>▪ Removed items in Table 6 (Crushing circuit infrastructure and dust monitoring infrastructure) due to construction being completed.</li> </ul>
L4597/1988/14	04/07/2024	Amendment to: <ul style="list-style-type: none"> <li>▪ Construct new dewater pipelines: Rhapsody to Windmills/Redox Pipeline and Achilles to Axehandle;</li> <li>▪ Reinstate existing dewater pipelines: Nevoria to Southern Star Pipeline, Yilgarn Star to Harris Find Pipeline and Ruapehu to Maori Lass/Frasers Pipeline;</li> <li>▪ Addition of dewater discharge points: Cornishman Complex Pits, Achilles Complex Pits, Rhapsody Pit, Windmills Pit, Redox Pit, GVG Pit, Hercules Pit, Grand National Pit, Southern Star Pit, Harris Find Pit, Ruapehu Pit, Maori Lass Pit; and</li> <li>▪ Addition of mining tenement M77/133 to premises details.</li> </ul>
L4597/1988/14	17/02/2025	Amendment (APP-0026261) to: <ul style="list-style-type: none"> <li>▪ allow the construction and operation of stage 3-7 embankment raises for TSF3 cells 1 and 2;</li> <li>▪ allow the construction and operation of Fraser's landfill; and</li> <li>▪ to remove a section of mining tenement M77/109 from the prescribed premises boundary.</li> <li>▪ Expiry date extended to 25/09/2030</li> </ul>

Instrument log		
Instrument	Issued	Description
L4597/1988/14	4/08/2025	Amendment (APP-0028981) to: <ul style="list-style-type: none"> <li>▪ Add tenements L77/31 and L77/42 to the prescribed premises boundary.</li> <li>▪ Addition of dewater discharge points: Lenneberg, Mary Lena and Treasury pits.</li> <li>▪ Include the construction and operation of an additional dewater pipeline from Frasers underground mine to Polaris South Pit;</li> <li>▪ Upgrade section of pipelines from Polaris South Pit to Cornishman complex pits; and</li> <li>▪ Amended the required diameter of pipelines for Yilgarn Star / Nevoria dewatering pipelines.</li> </ul>
L4597/1988/14	09/04/2026	Amendment (APP-0032897) to Install and operation of a mobile crushing and screening plant to process material for construction

## Interpretation

In this licence:

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

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

## Licence Conditions

### Premises operation

1. The licence holder must ensure that all pipelines containing saline water, tails, or process water are either:
  - (a) equipped with telemetry systems and pressure sensors along pipeline routes to allow the detection of leaks and failures;
  - (b) equipped with automatic cut-outs in the event of a pipe failure; or
  - (c) provided with secondary containment, including bunding, sufficient to contain any spill for a period equal to the time between routine inspections.
  
2. The licence holder must ensure that tailings, decant water and dewatering effluent are only discharged into containment cells, dams or ponds, which are provided with the infrastructure detailed in Table 1.

**Table 1: Containment infrastructure**

Containment cell or dam number(s)	Material	Infrastructure requirements
TSF 1, 2 and 3	Tailings	Lined with in-situ clay to limit seepage to groundwater.
TSF1, 2 and 3 decant water ponds	Decant Water	Lined with 1 mm High-density Polyethylene (HDPE) to achieve a permeability of at least $<10^{-9}$ m/s or equivalent.
Dewater discharge pits: Marvel Loch Pit, Glendower Pit, Jaccoletti Pit, Nevoria Pit, Fraser's Pit, Triad Pit, Polaris South Pit, Yilgarn Star pit, Axehandle Pit, Transvaal complex (Transvaal Pit, Aquarius Pit, Polaris Pit and Sunbeam Pit), Achilles West/East Pit, Achilles South Pit, Achilles North Pit, R4E1hapsody Pit, Windmills Pit, Redox Pit, Cornishman Complex Pits, GVG Pit, Hercules Pit, Grand National Pit, Southern Star Pit, Harris Find Pit, Ruapehu Pit, Maori Lass Pit, Lenneberg Pit, Mary Lena Pit and Treasury Pit.	Mine dewater	Minimum 10-meter freeboard to be maintained.
Bioremediation pad	Hydrocarbon contaminated waste	Ensure soil is bioremediated by: <ul style="list-style-type: none"> <li>• maintaining a suitable soil thickness;</li> <li>• maintaining an appropriate moisture content and nutrient level within the soil which sustains biological activity; and</li> <li>• at least quarterly soil aeration.</li> </ul>
Turkeys nest dewater transfer dams (including Victoria's turkey's nest, Nevoria, Yilgarn Star, Cornishman, Windmills and Achilles)	Mine Dewater	<ul style="list-style-type: none"> <li>• Lined with HDPE to achieve a permeability of at least <math>&lt;10^{-9}</math> m/s or equivalent; and</li> <li>• Minimum 300 mm freeboard to be maintained.</li> </ul>

3. The licence holder must:
  - (a) undertake inspections as detailed in Table 2;
  - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
  - (c) maintain a record of all inspections undertaken.

**Table 2: Inspection of infrastructure**

Scope of inspection	Type of inspection	Frequency of inspection
Tailings pipelines	Visual condition and leak assessment	Daily during operations
Return water lines		
Fuel storage areas, ore treatment plant and workshop	Visual condition, leak assessment and spills	Daily during operations
Borefields and pump stations	Visual integrity	Daily during operations
Mine de-water pipelines	Visual condition and leak assessment	Twice daily during operations
Dewater discharge pits: Marvel Loch Pit, Glendower Pit, Jaccoletti Pit, Nevoria Pit, Fraser's Pit, Triad Pit, Polaris South Pit, Yilgarn Star pit, Axehandle Pit, Transvaal complex (Transvaal Pit, Aquarius Pit, Polaris Pit and Sunbeam Pit), Achilles West/East Pit, Achilles South Pit Achilles North Pit, Rhapsody Pit, Windmills Pit, Redox Pit, Cornishman Complex Pits, GVG Pit, Hercules Pit, Grand National Pit, Southern Star Pit, Harris Find Pit, Ruapehu Pit, Maori Lass Pit, Lenneberg Pit, Mary Lena Pit and Treasury Pit.	Visual to confirm required freeboard is available	Twice daily during operations
TSF Embankment freeboard	Visual to confirm required freeboard is available	Daily during operations and after a rain event
Native vegetation health around infrastructure	Visual health assessment	Weekly
TSF Embankment	Structural integrity assessment	Annual
Dewater transfer turkeys nests at Nevoria, Yilgarn Star, Axehandle, Victoria, Cornishman, Windmills and Achilles	Visual to confirm required freeboard is available	Daily during operations

4. The licence holder must maintain a minimum 300 mm embankment freeboard on the settling ponds or storage facilities, including tailings storage facilities and turkey's nests, and ensure that the facility is designed to hold any inflow received as a result of a 1:100 year, 72-hour duration storm event, for at least 72 hours.
5. The licence holder must maintain a minimum 10 m embankment freeboard on the dewater discharge pits and ensure that the facility is designed to hold any inflow

## Department of Water and Environmental Regulation

received as a result of a 1:100 year, 72-hour duration storm event, for at least 72 hours.

6. The licence holder must install and maintain protective bunding, skimmers, silt traps, neutralisation pits, fuel and oil traps, drains and /or sealed collection sumps around the process plant, maintenance workshops and laboratory to enable recovery of spillages and protection of surrounding soils and groundwater.
7. The licence holder must ensure that collected material from the sumps detailed in condition 6 are disposed off site in accordance with *the Environmental Protection (Controlled Waste) Regulations 2004*.
8. The licence holder must manage TSF's such that:
  - (a) a minimum top of embankment freeboard of 300 mm is maintained across the full surface of the TSF;
  - (b) a seepage collection and recovery system is provided and used to capture seepage from the TSF; and
  - (c) seepage is returned to the TSF or the process.
9. The licence holder must, upon becoming aware that depth to groundwater levels in monitoring bores around the TSF, listed in condition 38 (except for MB 94 F1 and MB 94 E1), are less than 6.0 mbgl, within six months, design and implement a Groundwater Recovery Plan.
10. The licence holder must ensure that the Groundwater Recovery Plan required by condition 9 includes but is not limited to:
  - (a) Notification to the CEO of when and in how many bores the groundwater level could not be met;
  - (b) Any environmental impacts observed;
  - (c) Strategies to achieve the groundwater level, including:
  - (d) Any additional recovery bores or trenches required;
  - (e) Maximising performance of existing recovery bores;
  - (f) Frequency of groundwater level monitoring;
  - (g) Minimising the normal operating supernatant pool area on the TSF;
  - (h) Frequency and scope of groundwater quality monitoring;
  - (i) Predicted increases in groundwater recovery;
  - (j) Predicted timeframes to achieve the groundwater level;
  - (k) Strategies to ensure the level will be met in the future; and
  - (l) Establishing and implementing appropriate vegetation monitoring.
11. The licence holder must undertake an annual water balance for the active TSF. The water balance shall as a minimum consider the following:
  - (a) site rainfall;
  - (b) evaporation;
  - (c) decant water recovery volumes;
  - (d) seepage recovery volumes; and
  - (e) volumes of tailings deposited.
12. The licence holder must collect waste lubricants, hydraulic fluids and spent radiator coolant/inhibitors in holding tanks in bunded areas for subsequent disposal off-site or recycling.

- 13. The licence holder must ensure that vehicle wash down areas are equipped with fuel/oil traps and provisions to ensure detergent, fuel and solvent containing waters are contained and disposed of via an oil separator and a licensed Controlled Waste Carrier.
- 14. The licence holder must only accept waste on to the Landfill for burial if:
  - (a) it is of a type listed in Table 3;
  - (b) the quantity accepted is below any quantity limit listed in Table 3; and
  - (c) it meets any specification listed in Table 3.

**Table 3: Waste acceptance**

Waste type	Quantity limit tonnes/ annual period	Specification <sup>1</sup>
Clean fill	2,000 tonnes for all waste types	None Specified
Putrescible Waste		None Specified
Inert Waste Type 1		None Specified
Inert Waste Type 2		Tyres and plastic only

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

- 15. The licence holder must ensure waste that does not comply with condition 14 is removed from the Premises to an appropriately authorised facility as soon as practicable.
- 16. The licence holder must ensure that wastes generated on the Premises are only subjected to the processes set out in Table 4 and in accordance with any process limits described in that Table 4.

**Table 4: Waste processing**

Waste type	Process(es)	Process limits <sup>1</sup>
All Waste	Handling and disposal of waste by land filling	<ul style="list-style-type: none"> <li>(i) Disposal of waste by landfilling shall only take place within the Nevoria landfill, Axehandle mine landfill, Windmills landfill, Transvaal landfill, Marvel Loch landfill or Frasers landfill shown in Figures 6 - 11 respectively.</li> <li>(ii) The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m;</li> <li>(iii) waste is disposed of in a defined trench or within an area enclosed by earthen bunds;</li> <li>(iv) the tipping area is restricted to a maximum linear length of 30 meters;</li> <li>(v) the tipping area is no greater than 2 meters in height;</li> <li>(vi) the active tipping area is wetted down as required to minimise fugitive dust emission; and</li> <li>(vii) there is a fire break of at least 3 meters around the boundary of the site.</li> </ul>
Inert Waste Type 1	Handling and disposal of waste by land filling	None specified

Waste type	Process(es)	Process limits <sup>1</sup>
Inert Waste Type 2	Handling and disposal of waste by land filling	To be stored in piles of up to 100 units with a 6m separation distance between piles. Tyres shall only be landfilled: <ul style="list-style-type: none"> <li>(i) in a designated disposal area in the landfill;</li> <li>(ii) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 40 cubic meters of tyres reduced to pieces; or</li> <li>(iii) in batches separated from each other by at least 100 mm of soil and each consisting of not more than 1000 whole tyres.</li> </ul>
Putrescible Waste		None specified
Clean Fill		None specified

Note 1: Requirements for land filling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

17. The licence holder must manage the land filling activities to ensure:
- (a) waste is levelled and compacted as soon as practicable after it is discharged;
  - (b) waste is placed and compacted to ensure all faces are stable and capable of retaining restoration material; and
  - (c) rehabilitation of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.
18. The licence holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 5 and that sufficient stockpiles of cover are maintained on site at all times.

**Table 5: Cover requirements**

Waste Type	Material	Depth	Timescales
Inert Waste Type 1	No cover required		N/A
Inert Waste Type 2	Type 1 Inert waste, clean fill or soil clean fill, subsoil	100 mm	By the end of the working week in which the waste was deposited.  Plastic waste with the potential to become windblown shall be covered as soon as practicable after deposit.
All other wastes		Final cover must be > 500 mm	
		150 mm	Continuous cover techniques, or a minimum of weekly

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

19. The licence holder must:
- (a) Implement security measures at the landfill sites to prevent unauthorised access to the site; and
  - (b) Undertake regular inspections of all security measures and repair damage;
20. The licence holder must ensure that windblown waste is collected at least on a weekly basis and returned to the active tipping area.

21. The licence holder must not burn or allow the burning of any waste on the landfill.
22. The licence holder must ensure that any unauthorised fire on site is extinguished as soon as possible.
23. The licence holder must ensure that there are adequate water supplies and procedures in place at the premises so than any unauthorised fire is promptly extinguished.
24. The licence holder must construct and/or install the infrastructure listed in Table 6 in accordance with;
  - (a) the corresponding design and construction requirement; and
  - (b) at the corresponding infrastructure location as set out in Table 6.

**Table 6: Design and construction requirements**

Item of Infrastructure	Design and construction requirement / installation requirement	Infrastructure location
Victoria's pipeline	<ul style="list-style-type: none"> <li>• 350 mm pipeline with 350 mm diameter Y piece to be laid within bunds; and</li> <li>• Fitted with valves and telemetry systems.</li> </ul> Required to meet the following standards: <ul style="list-style-type: none"> <li>• AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>• AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>• AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>• AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul>	As shown in Figure 15, Schedule 1.
Victoria's turkey's nest	<ul style="list-style-type: none"> <li>• Total storage volume 10,000 m<sup>3</sup>;</li> <li>• Constructed to a depth of 5m inclusive of 300 mm freeboard;</li> <li>• Constructed with 1.5 mm HDPE liner to achieve a permeability of at least &lt;math&gt;10^{-9}&lt;/math&gt; m/s or equivalent; and</li> <li>• Fitted with fauna egress batters on inside walls.</li> </ul>	As shown in Figure 15 Schedule 1 and Figure 29, Figure 30, Schedule 2.
Windmills dewatering pipeline	<ul style="list-style-type: none"> <li>• 350 mm pipeline with 350 mm diameter Y piece to be laid within bunds;</li> <li>• Fitted with valves and telemetry systems; and</li> <li>• Required to meet the following standards:               <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul>	As shown in Figure 27, Schedule 2.

Item of Infrastructure	Design and construction requirement / installation requirement	Infrastructure location
Windmills turkey's nest	<ul style="list-style-type: none"> <li>• Total storage volume no less than 45,120 m<sup>3</sup>;</li> <li>• Constructed to a depth of 5 m, inclusive of 300 mm freeboard;</li> <li>• Constructed with 1.5 mm HDPE liner to achieve a permeability of at least &lt;math&gt;10^{-9}&lt;/math&gt; m/s or equivalent;</li> <li>• Fitted with fauna egress batters on inside walls; and</li> <li>• Fugitive dust emissions controlled using water trucks for dust suppression during construction.</li> </ul>	As shown in Figure 28 and Figure 27, Schedule 2.
Windmills landfill	<ul style="list-style-type: none"> <li>• Placement of landfill has taken into consideration the predominant wind direction and topography to minimise odour impacts;</li> <li>• Constructed on Windmills Waste Rock Dump, with base of landfill cell being equal or no less than 2 m from the base of the Waste Rock Dump;</li> <li>• Constructed with 0.5 m safety bund around the edge of excavation;</li> <li>• Fugitive dust emissions controlled using water trucks for dust suppression; and</li> <li>• Depth to groundwater must be at least two meters from the base of each new cell.</li> </ul>	As shown in Figure 8, Schedule 1.
Transvaal-Sunbeam/Cornishman/Axehandle dewatering pipeline	<ul style="list-style-type: none"> <li>• Fitted with valves and telemetry system with 3 flow monitoring stations;</li> <li>• Leak detection to trigger automatic shut-off of transfer pumps;</li> <li>• Laid within a swale with bunding in section above ground;</li> <li>• Minimum cover of 600 mm when buried;</li> <li>• Minimum 1100 mm cover and minimum PN12.5 pressure rating when buried under heavy vehicle crossings;</li> <li>• Pipeline to be constructed from PE100 HDPE, and must be white above ground;</li> <li>• Scour valves to discharge into scour ponds sized to allow storage for both scour and pipe failure; and</li> <li>• 350 mm pipeline with 350 mm diameter Y piece;</li> <li>• Monitoring point installed along the pipeline to allow sampling for water quality monitoring; and</li> <li>• Required to meet the following standards: <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul>	As shown in Figure 17, Schedule 1.

Item of Infrastructure	Design and construction requirement / installation requirement	Infrastructure location
Yilgarn Star / Nevoria dewatering pipelines	<ul style="list-style-type: none"> <li>• Fitted with valves and telemetry system with 3 flow monitoring stations;</li> <li>• Leak detection to trigger automatic shut-off of transfer pumps;</li> <li>• Laid within a swale with bunding in section above ground;</li> <li>• Minimum cover of 600 mm when buried;</li> <li>• Minimum 1100 mm cover and minimum PN10 pressure rating when buried under heavy vehicle crossings;</li> <li>• Pipeline to be constructed from PE100 HDPE, and must be white above ground;</li> <li>• Scour valves to discharge into scour ponds sized to allow storage for both scour and pipe failure;</li> <li>• Decommission and remove existing 600 mm pipeline;</li> <li>• Pipeline/s constructed to either: <ul style="list-style-type: none"> <li>○ up to a maximum of two 450 mm diameter; or</li> <li>○ up to a maximum of one 710 mm diameter.</li> </ul> </li> <li>• Monitoring point installed along the pipeline to allow sampling for water quality monitoring; and</li> <li>• Required to meet the following standards: <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul>	As shown in Figure 16, Schedule 1
Achilles/Axehandle dewatering pipeline	<ul style="list-style-type: none"> <li>• Fitted with telemetry system;</li> <li>• Leak detection to trigger automatic shut-off of transfer pumps;</li> <li>• Laid within a bunded corridor with sumps;</li> <li>• Pipeline to be constructed from PE100 HDPE;</li> <li>• 200 mm (PN8) diameter pipeline;</li> <li>• Required to meet the following standards: <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul>	As shown in Figure 18, Schedule 1.
Achilles turkey's nest	<ul style="list-style-type: none"> <li>• Constructed with 1.5 mm HDPE liner to achieve a permeability of at least <math>&lt;10^{-9}</math> m/s</li> </ul>	As shown in Figure 18,

Item of Infrastructure	Design and construction requirement / installation requirement	Infrastructure location
	<ul style="list-style-type: none"> <li>or equivalent;</li> <li>• Fitted with fauna egress batters on inside walls; and</li> <li>• Fugitive dust emissions controlled using water trucks for dust suppression during construction.</li> </ul>	Schedule 1.
Rhapsody/ Windmills-Redox pipeline	<ul style="list-style-type: none"> <li>• Fitted with telemetry system;</li> <li>• Leak detection to trigger automatic shut-off of transfer pumps;</li> <li>• Laid within a bunded corridor with sumps;</li> <li>• Pipeline to be constructed from PE100 HDPE;</li> <li>• 200 mm (PN8) diameter pipeline;</li> <li>• Required to meet the following standards:               <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul>	As shown in Figure 19 Schedule 1.
<p>Reinstatement of Nevoria/Southern Star pipeline</p> <p>Reinstatement of Yilgarn Star to Harris Find pipeline</p> <p>Reinstatement of Ruapehu/Maori Lass pipeline</p>	<ul style="list-style-type: none"> <li>• Reinstatement pipeline to ensure it is:               <ul style="list-style-type: none"> <li>○ Fitted with telemetry system;</li> <li>○ Fitted with Leak detection to trigger automatic shut-off of transfer pumps;</li> <li>○ Laid within a bunded corridor with sumps; and</li> <li>○ Meets the following standards:                   <ul style="list-style-type: none"> <li>▪ AS/NZS 2033:3008: Installation of polyethylene pipe systems; AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>▪ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul> </li> </ul>	<p>Nevoria/Southern Star pipeline as shown in Figure 20 and Figure 21 Schedule 1</p> <p>Yilgarn Star to Harris Find pipeline and Ruapehu/Maori Lass shown in Figure 22 Schedule 1 and Figure 23 Schedule 1 respectively.</p>
TSF3 (Cell 1 and Cell 2) embankment lifts stages 3 to 7	<ul style="list-style-type: none"> <li>• Stages 3 to 7 embankment lifts for Cell 1 and Cell 2 are to be constructed to the embankment heights specified in condition 26</li> <li>• Embankments to be constructed using upstream construction methods.</li> <li>• Embankments to have design slopes of 1:2.75 (V:H) downstream and 1:1.5 (V:H) upstream.</li> <li>• The dividing embankment access way to have design slopes of 1:1.5 (V: H) downstream and 1:1.5 (V:H) upstream.</li> <li>• Embankment lifts to be constructed in accordance with design drawings shown in Figure 32 to Figure 37, Schedule 2.</li> </ul>	TSF3 as shown in Figure 4, Schedule 1

Item of Infrastructure	Design and construction requirement / installation requirement	Infrastructure location
	<ul style="list-style-type: none"> <li>• Dust suppression measures with water carts to be undertaken where necessary to manage dust emissions during construction</li> </ul>	
Frasers underground mine to Polaris South Pit dewatering pipeline	<ul style="list-style-type: none"> <li>• Maximum diameter pipeline of 450 mm;</li> <li>• Fitted with valves and telemetry system with flow monitoring stations;</li> <li>• Laid within a swale with bunding in any above ground sections;</li> <li>• Minimum cover of 600 mm in sections when buried;</li> <li>• Minimum 1100 mm cover and minimum PN10 pressure rating when buried under heavy vehicle crossings;</li> <li>• Pipeline to be constructed from HDPE;</li> <li>• Scour valves to discharge into scour ponds sized to allow storage for both scour and pipe failure;</li> <li>• Monitoring point installed along the pipeline to allow sampling for water quality monitoring; and</li> <li>• Pipeline to meet the following standards:               <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for polyethylene (PE) pipes for pressure applications;</li> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications - provided someone does the calcs showing the PN rating is compliant with this – PN rating shouldn't matter; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> </li> </ul>	As shown in Figure 24, Schedule 1.
Marvel Loch underground mine to Triad pit pipeline	<ul style="list-style-type: none"> <li>• Maximum diameter pipeline of 450 mm;</li> <li>• Fitted with valves and telemetry system with flow monitoring stations;</li> <li>• Laid within a swale with bunding in any above ground sections;</li> <li>• Minimum cover of 600 mm in sections when buried;</li> <li>• Minimum 1100 mm cover and minimum PN10 pressure rating when buried under heavy vehicle crossings;</li> <li>• Pipeline to be constructed from HDPE;</li> <li>• Scour valves to discharge into scour ponds sized to allow storage for both scour and pipe failure;</li> <li>• Monitoring point installed along the pipeline to allow sampling for water quality monitoring; and</li> <li>• Pipeline to meet the following standards:               <ul style="list-style-type: none"> <li>○ AS/NZS 2033:3008: Installation of polyethylene pipe systems;</li> <li>○ AS/NZS 4129:2008: Fittings for</li> </ul> </li> </ul>	As shown in Figure 25, Schedule 1.

Item of Infrastructure	Design and construction requirement / installation requirement	Infrastructure location
	<p>polyethylene (PE) pipes for pressure applications;</p> <ul style="list-style-type: none"> <li>○ AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications - provided someone does the calcs showing the PN rating is compliant with this – PN rating shouldn't matter; and</li> <li>○ AS/NZS 4131:2010: Polyethylene (PE) compounds for pressure pipes and fittings.</li> </ul> <ul style="list-style-type: none"> <li>● Discharge points leading to Lenneberg, Mary Lena and Treasury pits;</li> <li>● Maximum flow rate of up to 180 l/s.</li> </ul>	
Mobile crushing and screening plant	<ul style="list-style-type: none"> <li>● The plant is to consist of the following components: <ul style="list-style-type: none"> <li>○ Jaw crusher;</li> <li>○ Cone crusher;</li> <li>○ Screener;</li> <li>○ Stacker;</li> <li>○ Metal separator</li> </ul> </li> <li>● Noise encapsulation covers must be fitted to the jaw crusher and drive</li> <li>● Cone crushers to have rubber/composite liners, vibration-isolation pads or to be mounted on stable foundation</li> <li>● Dust suppression water sprays to be installed on feed and discharge points for screener and on crusher points.</li> <li>● Mobile plant only to be installed within the blue shaded area depicted in Figure 26, Schedule 1</li> </ul>	As shown in Figure 26 Schedule 1

**25.** When construction authorised under this licence is to occur between 1 September and January 31, the licence holder must:

- (a) Within two weeks prior to undertaking any construction activity, except for the TSF3 (Cell 1 and Cell 2) embankment lifts stages 3 to 7, engage an environmental specialist to conduct a survey of the area 100 m surrounding where construction activities to be undertaken, to identify and record active (in use) Malleefowl (*Leipoa ocellata*) mounds; and
- (b) Where and active (in use) Malleefowl mound is identified under condition 25(a) of this licence, the licence holder must:
  - (i) record the location;
  - (ii) initiate management action(s) to reduce the disturbance/impact to the Malleefowl mound as far as reasonably practical; and
  - (iii) record all management actions undertaken.

**26.** The licence holder is authorised to:

- (a) construct embankment raises for TSF3 to the construction height; and
- (b) operate TSF3 to the operating height, as specified in
- (c) Table 7.

**Table 7: Tailings storage facility operating heights**

Stage	Infrastructure	Embankment elevation (mRL)	Maximum operating height (mRL) – with freeboard
Starter embankment	TSF3 Cell 1	442	441.7
	TSF3 Cell 2	442	441.7
Stage 1 Lift	TSF3 Cell 1	444	443.7
	TSF3 Cell 2	443.5	443.2
Stage 2 Lift	TSF3 Cell 1	446	445.7
	TSF3 Cell 2	446	445.7
Stage 3 Lift	TSF3 Cell 1	448	447.7
	TSF3 Cell 2	448	447.7
Stage 4 Lift	TSF3 Cell 1	450	449.7
	TSF3 Cell 2	450	449.7
Stage 5 Lift	TSF3 Cell 1	452	451.7
	TSF3 Cell 2	452	451.7
Stage 6 Lift	TSF3 Cell 1	454	453.7
	TSF3 Cell 2	454	453.7
Stage 7 Lift	TSF3 Cell 1	456	455.7
	TSF3 Cell 2	456	455.7

- 27.** The licence holder must within 30 days of each item of infrastructure required by condition 24 and each staged lift of condition 26 being constructed:
- (a) undertake an audit of their compliance with the requirements of condition 24 and 25 (where required by condition 25); and
  - (b) prepare and submit to the CEO an environmental compliance report on that compliance.
- 28.** The environmental compliance report required by condition 27 must:
- (a) be certified by a suitably qualified and experienced engineer (eligible for membership in the Institute of Engineers, Australia) that the items of infrastructure or component(s) thereof, as specified in condition 24 and 26, have been constructed in accordance with the relevant requirements specified in condition 24 and 26; and
  - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 24 and 26; and
  - (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.
- 29.** The licence holder must ensure that the site infrastructure and equipment listed in Table 8 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 8.

**Table 8: Infrastructure and equipment requirements**

Site infrastructure and equipment	Operational requirement	Infrastructure location
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<p>Mobile crushing and screening plant</p>	<ul style="list-style-type: none"> <li>• Dust suppression sprays must be operated throughout the plant, at the head of the conveyor and material discharge points to minimise dust emissions;</li> <li>• Mobile crushing and screening plant only to be operated during daylight hours from 7am to 7pm;</li> <li>• Mobile crushing and screening plant must not be operated within 1000 meters of any residence in the Marvel Loch or Southern Cross townsites;</li> <li>• Mobile crushing and screening plant is only to be operated within the blue shaded area as depicted by Figure 26, Schedule 1</li> <li>• Water cart must be available at all times at the premises during operation to apply dust suppression;</li> <li>• Noise-encapsulation covers must be fitted to the jaw crusher and drive, and a balanced feed must be maintained to minimise noise emissions;</li> <li>• Cone crushers to have rubber/composite liners, vibration-isolation pads or mounting on stable foundation;</li> <li>• Contaminated stormwater runoff from around mobile plant operating and material stockpile areas to be captured and prevented from being released into the environment</li> </ul>	<p>As shown in Schedule 1, Figure 26</p>
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## Monitoring

### General monitoring

- 30.** 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 samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured unless indicated otherwise in relevant table.
- 31.** The Licence holder must ensure that
- (a) monthly monitoring is undertaken at least 15 days apart;
  - (b) quarterly monitoring is undertaken at least 45 days apart;
  - (c) six monthly monitoring is undertaken at least 5 months apart; and
  - (d) annual monitoring is undertaken at least 9 months apart.
- 32.** The licence holder must ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer’s specifications.

33. The licence holder must, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

**Monitoring of point source emissions to land**

34. The licence holder must undertake the monitoring in Table 9 according to the specifications in that table.

**Table 9: Monitoring of point source emissions to land**

Emission point reference	Parameter	Units	Frequency
Mine dewatering discharge points: Marvel Loch, Frasers, Glendower, Jaccoletti, Nevoria, Triad, Polaris South, Yilgarn Star, Axehandle, Transvaal, Aquarius, Polaris, Sunbeam, Achilles West/East, Achilles South, Rhapsody, Windmills, Redox, Cornishman North, Cornishman Central, Cornishman South, GVG, Hercules, Southern Star, Grand National, Harris Find, Ruapehu Maori Lass, Lenneberg Pit, Mary Lena Pit and Treasury Pit.	Volumetric flow rate	L/s	Monthly
	S; As; Cr; Co; Zn; Cu; Na; Cl; Al; Fe; Mg; Ca; K; Mn; Ni; Se; SO <sub>4</sub> <sup>2-</sup> ; HCO <sub>3</sub> <sup>-</sup> and Cd.	mg/L	Annually
	TSS (Total suspended solids) and TDS (Total dissolved solids)	mg/L	Six monthly
	pH	N/A	Six monthly  Monthly for discharge to Axehandle pit.  Monthly for pits receiving from Grand National.

**Sampling of pit water quality**

35. The licence holder must conduct a Pit water sampling program in accordance with the requirements specified in Table 10 and Table 11 and record the results of all activity conducted under the program.
36. The licence holder must adhere to the field quality assurance and quality control procedures specified in Table 10 and Table 11 for the monitoring required by condition 37.

**Table 10: Sampling of pit water**

Pit water source	Parameter	Units	Frequency
Yilgarn Star, Nevoria Pit.	S; As; Cr; Co; Zn; Cu; Na; Cl; Al; Fe; Mg; Ca; K; Mn; Ni; Se; SO <sub>4</sub> <sup>2-</sup> , HCO <sub>3</sub> <sup>-</sup> and Cd.	mg/L	Within 60 days of dewatering

	TSS and TDS	mg/L	commencing
	pH	N/A	

**Table 11: Sampling of pit water**

Pit water source	Parameter	Units	Frequency
Achilles West/East, Achilles South, Rhapsody, Windmills, Redox, Cornishman North, Cornishman Central, Cornishman South, GVG, Hercules, Southern Star, Grand National, Harris Find, Ruapehu Maori Lass.	S; As; Cr; Co; Zn; Cu; Na; Cl; Al; Fe; Mg; Ca; K; Mn; Ni; Se; SO <sub>4</sub> <sup>2-</sup> , HCO <sub>3</sub> <sup>-</sup> and Cd.	mg/L	Within the 90 days prior to dewatering discharge to the pit commencing
	TSS and TDS		
	pH	-	

37. The licence holder must, within 60 days of the pit water sampling specified in condition 36 being completed, submit to the CEO a report demonstrating compliance with conditions 36 - 38, and must include:

- (a) a clear statement of the scope of work carried out;
- (b) a description of the field methodologies;
- (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) trend graphs to provide a graphical representation of historical results and to support the interpretive summary.

**Process monitoring**

38. The licence holder must undertake the monitoring specified in Table 12 according to the specifications of the table.

**Table 12: Process monitoring**

Monitoring point reference	Process description	Parameter	Units	Frequency	Method
-	-	Volumes of tailings deposited into the TSF	m <sup>3</sup>	Continuous	None specified
-	-	Volumes of water recovered from the TSF	m <sup>3</sup>	Continuous	None specified
-	-	Phreatic surface levels within TSF	mAHD	Monthly	None specified

Monitoring point reference	Process description	Parameter	Units	Frequency	Method
		embankments			
-	-	Volumes of seepage recovered	m <sup>3</sup>	Continuous	None specified
-	-	Volumes of ore processed	m <sup>3</sup>	Annual period	None specified
Mine dewatering discharge points Marvel Loch, Frasers, Glendower, Jaccoletti, Nevorla, Triad, Polaris South, Yilgarn Star, Axehandle, Transvaal, Aquarius, Polaris and Sunbeam Achilles West/East, Achilles South, Rhapsody, Windmills, Redox, Cornishman North, Cornishman Central, Cornishman South, GVG, Hercules, Grand National, Southern Star, Harris Find, Ruapehu and Maori Lass-, Lenneberg Pit, Mary Lena Pit and Treasury Pit.	Mine dewatering	Cumulative volumes of mine dewater discharged to each pit (including the source of the dewater).	m <sup>3</sup>	Monthly	None specified
Nevorla landfill, Axehandle landfill, Marvel Loch landfill, Windmills landfill, Transvaal landfill and Frasers Landfill.	Putrescible landfill site	Volumes of waste disposed	tonnes	Monthly	None specified

**Ambient environmental quality monitoring**

39. The licence holder must undertake the monitoring in Table 13 according to the specifications in that table.

**Table 13: Monitoring of ambient groundwater quality**

Monitoring point reference	Parameter	Limit	Units	Averaging period	Frequency
MB 94 D1 MB 94 G1 21-A1 21-B1 21-A2 21-B2 21-A3 21-B3 21-A4 21-B4 21-A5	Standing water level <sup>1</sup>	Greater than 4 m	mbgl	Spot sample	Quarterly

Monitoring point reference	Parameter	Limit	Units	Averaging period	Frequency
21-B5 21-A6 21-B6					
MB 94 F1	Standing water level <sup>1</sup>	-			
MB 94 D1 MB 94 F1 MB 94 G1 21-A1 21-B1 21-A2 21-B2 21-A3 21-B3 21-A4 21-B4 21-A5 21-B5 21-A6 21-B6	pH*	-	N/A	Spot sample	Quarterly
	Total Dissolved Solids (TDS); and Weak Acid Dissociable Cyanide	-	mg/L		Quarterly
	TSS; Cu; Na; Cl; Al; Cd; Fe; Mg; Ca; K; Mn; Ni; Se; As; Zn; Cr; Co; SO <sub>4</sub> <sup>2-</sup> HCO <sub>3</sub> <sup>-</sup> and Cd.	-	mg/L		Six monthly
PZ 99 D1; PZ 99 E1; PZ 99 F1; PZ 99 G1; TSF 1; TSF 2; TSF 3; TSF 4; TSF 5; TSF 6; TSF 7; TSF 8; TSF9. AXEPB2 AXEPB3	Standing water level <sup>1</sup>	Greater than 4 m	mbgl	Spot sample	Monthly

\* These parameters should be measured and recorded in the field to ensure representativeness. An exemption from NATA laboratory analysis is allowed given geographical remoteness of the sample site and short holding time of the parameter.

Note 1: SWL shall be determined prior to collection of all other water samples.

40. The licence holder must undertake the monitoring in Table 14 according to the specifications in that table.

**Table 14: Monitoring of ambient air quality**

Monitoring point reference & location	Parameter	Unit <sup>1</sup>	Averaging period	Frequency
Dust monitor as shown on map in Figure 4, Schedule 1.	Particulates as PM <sub>10</sub>	µg/m <sup>3</sup>	24 hours	Continuous from day of installation.

Note 1: All units are referenced to STP dry.

## Information

### Records

- 41.** 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 41(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.
- 42.** The licence holder must ensure that:
- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
  - (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.
- 43.** The licence holder must complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- 44.** The licence holder must implement a complaints management system that as a minimum record the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

**Reporting**

- 45.** The licence holder must submit to the CEO an Annual Environmental Report within 28 calendar days after the end of the annual period. The report shall contain the information listed in Table 15 in the format or form specified in that table.

**Table 15: Annual Environmental Report**

Condition or table (if relevant)	Parameter	Format or form <sup>1</sup>
-	Summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the year and any action taken	None specified
Condition 43	Compliance	Annual Audit Compliance Report (AACR)
Condition 44	Complaints summary	None specified
Table 2	Embankment structural integrity assessment	None specified
Condition 11	TSF water balance	None specified
Table 9	Monitoring of point source emissions to land	None specified
Table 10 and Table 11	Any pit water sampling data conducted during the annual period.	None specified
Table 12	Process Monitoring	None specified
	Monitoring of ambient groundwater quality	A tabulated summary of

Table 13		<p>results, including:</p> <ul style="list-style-type: none"> <li>• any target or limit exceedances;</li> <li>• raw data provided in an accompanying Microsoft Excel spreadsheet file;</li> <li>• interpretation of results (SWL and quality data) and comparison against historical data; and</li> <li>• discussion of groundwater mounding (if present), its extent and measures proposed to address it.</li> </ul>
Table 14	Monitoring of ambient air quality	None specified

Note 1: Forms are available at [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au)

46. 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.

**Notification**

47. The licence holder must ensure that the parameters listed in Table 16 are notified to the CEO in accordance with the notification requirements of the table.

**Table 16: Notification requirements**

Condition or table	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>2</sup>
Condition 33	Calibration report	As soon as practicable.	None specified
Condition 10	Groundwater Recovery Plan	Within 30 calendar days of completion.	None specified
Condition 22	Unauthorised fire at landfill	Within 14 calendar days.	None specified
Table 3 & Table 13, Condition 4	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.	N1
-	Any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	Part B: As soon as practicable.	

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

Note 2: Forms are available at [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au)

**Specified Action**

48. The Licence holder must provide a report to the CEO on each item specified in Table 17, addressing the corresponding requirements within the timeframe specified.

**Table 17: Specified actions**

Item	Requirements	Timeframe
1.	<p><b>Groundwater monitoring bore investigation</b></p> <p>The Licence holder is to undertake an assessment of the existing groundwater monitoring bore network surrounding TSF3 to determine whether it is adequate to monitor groundwater mounding and seepage impacts within the zone of influence of TSF3. The assessment must include but not limited to:</p> <ul style="list-style-type: none"> <li>(a) An investigation identifying any zones of higher permeability and preferential flow pathways for seepage and the extend of any existing groundwater mounding;</li> <li>(b) An assessment of both the spatial and lateral (i.e. aquifer being screened) distribution of the groundwater monitoring bores; and</li> <li>(c) if the monitoring bore network is found to be inadequate, additional groundwater monitoring locations (with bore depths, screen interval details) with relevant justification and timeframe for installation.</li> </ul>	Report to be submitted to the CEO by 8 August 2025

## Definitions

In this licence, the terms in Table 18 have the meanings defined.

**Table 18: Definitions**

Term	Definition
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).
ACN	Australian Company Number
AER	Annual Environmental Report
AHD	Australian height datum
AMD	Acid Mine Drainage
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 5667.4	means the Australian Standard AS/NZS 5667.4 <i>Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made</i>
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i>
annual period	a 12 month period commencing from 1 October until 30 September of the immediately following year.
averaging period	means the time over which a limit is measured
books	has the same meaning given to that term under the EP Act.
CEO	Chief Executive Officer of the Department of Water and Environmental Regulation
Clean fill	as defined in the Landfill Definitions
controlled waste	has the definition in <i>Environmental Protection (Controlled Waste) Regulations 2004</i>
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.
DWER	means Department of Water and Environmental Regulation
emission	has the same meaning given to that term under the EP Act.

Term	Definition
Environmental specialist	Means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of two (2) years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
freeboard	means the distance between the maximum waste surface elevations and the top of retaining banks or structures at their lowest point
HDPE	means High-density Polyethylene
Inert waste type 1	as defined in the Landfill Definitions
Inert waste type 2	as defined in the Landfill Definitions
Landfill definitions	<i>Landfill Waste Classification and Waste Definitions 1996</i> , as amended from time to time
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
m <sup>3</sup>	means cubic metres
mbgl	means meters below ground level
mRL	means meters reduced level
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
PE	means polyethylene
PM <sub>10</sub>	means particulate matter with diameters that are 10 micrometers and smaller
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 and Figure 2 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 October to 31 December and in the following year, 1 January to 31 March, 1 April to 30 June and from 1 July to 30 September

<b>Term</b>	<b>Definition</b>
rehabilitation	means the completion of the engineering of a landfill cell and includes capping and/or final cover
ROM	means Run of Mine
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 October to 31 March in the following year and then from 1 April to 30 September
spot sample	means a discrete sample representative at the time and place at which the sample is taken
structural integrity assessment'	means conducting an inspection of the TSF, evaporation ponds and similar impoundments to ensure their structural integrity meets the requirements of the Western Australian Department of Mines and Petroleum and the ANCOLD 2003 Dam Safety Management Guidelines
SWL	means standing water level
Transvaal Complex	comprises of Transvaal Pit, Aquarius Pit, Polaris Pit and Sunbeam Pit
TSF	means Tailing Storage Facility - engineered containment pond or dam used to store tailings
usual working day'	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia
waste	has the same meaning given to that term under the EP Act.

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**END OF CONDITIONS**

# Schedule 1: Maps

## Premises map

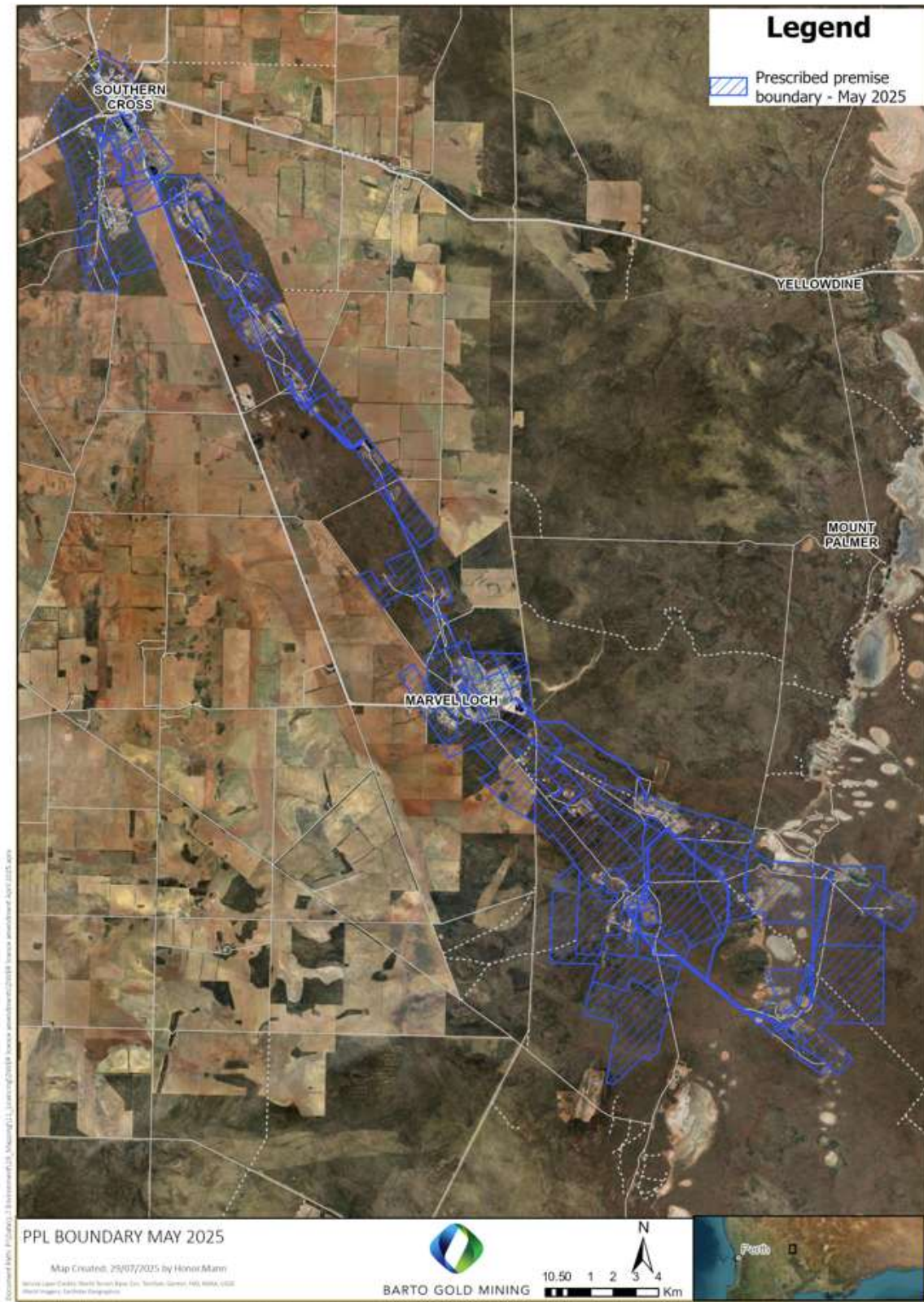


Figure 1: Map of Prescribed Premises. Blue line depicts Premises boundary

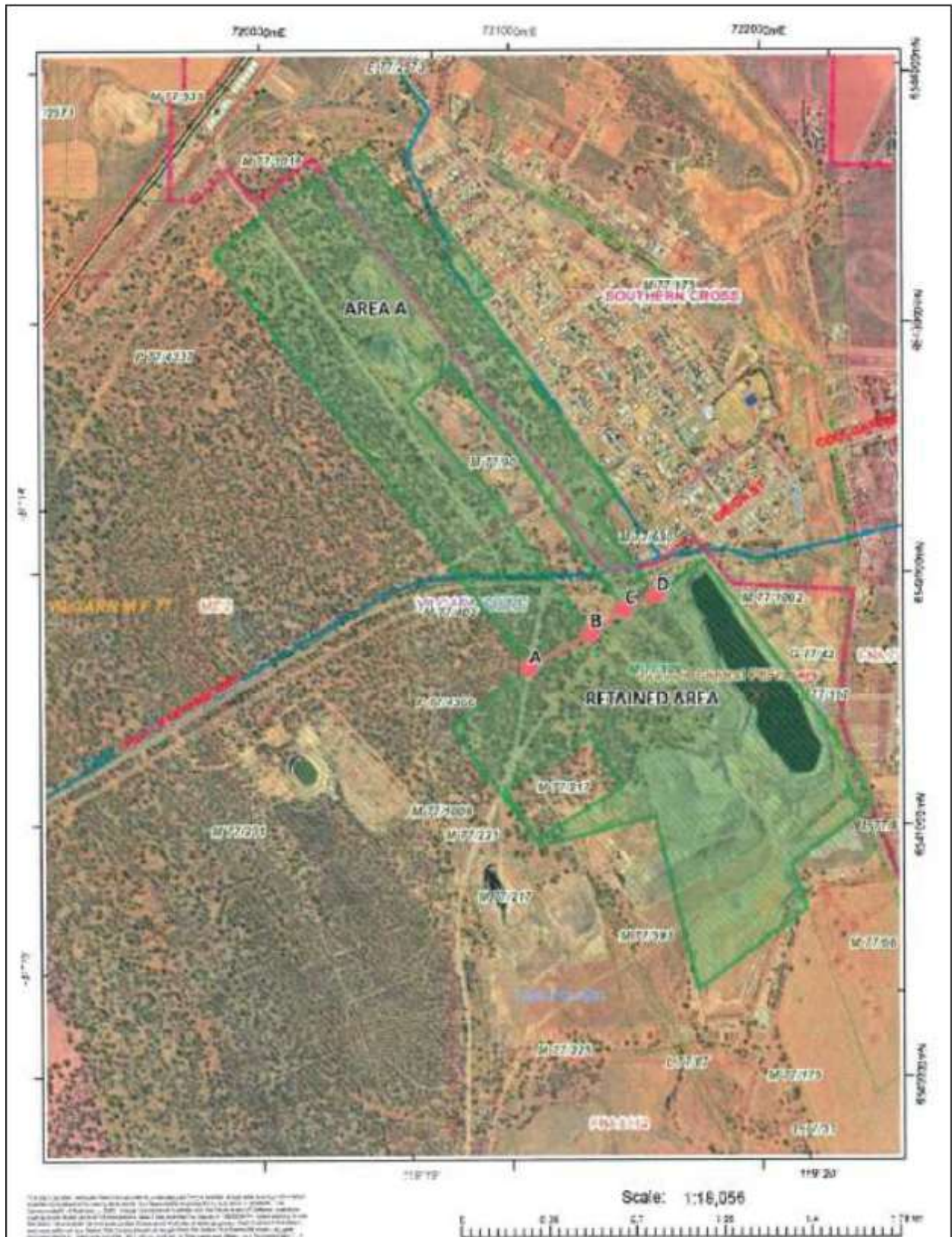


Figure 2: Map showing boundary of part M77/109 that has been removed from the prescribed premises boundary.

Map of emission points

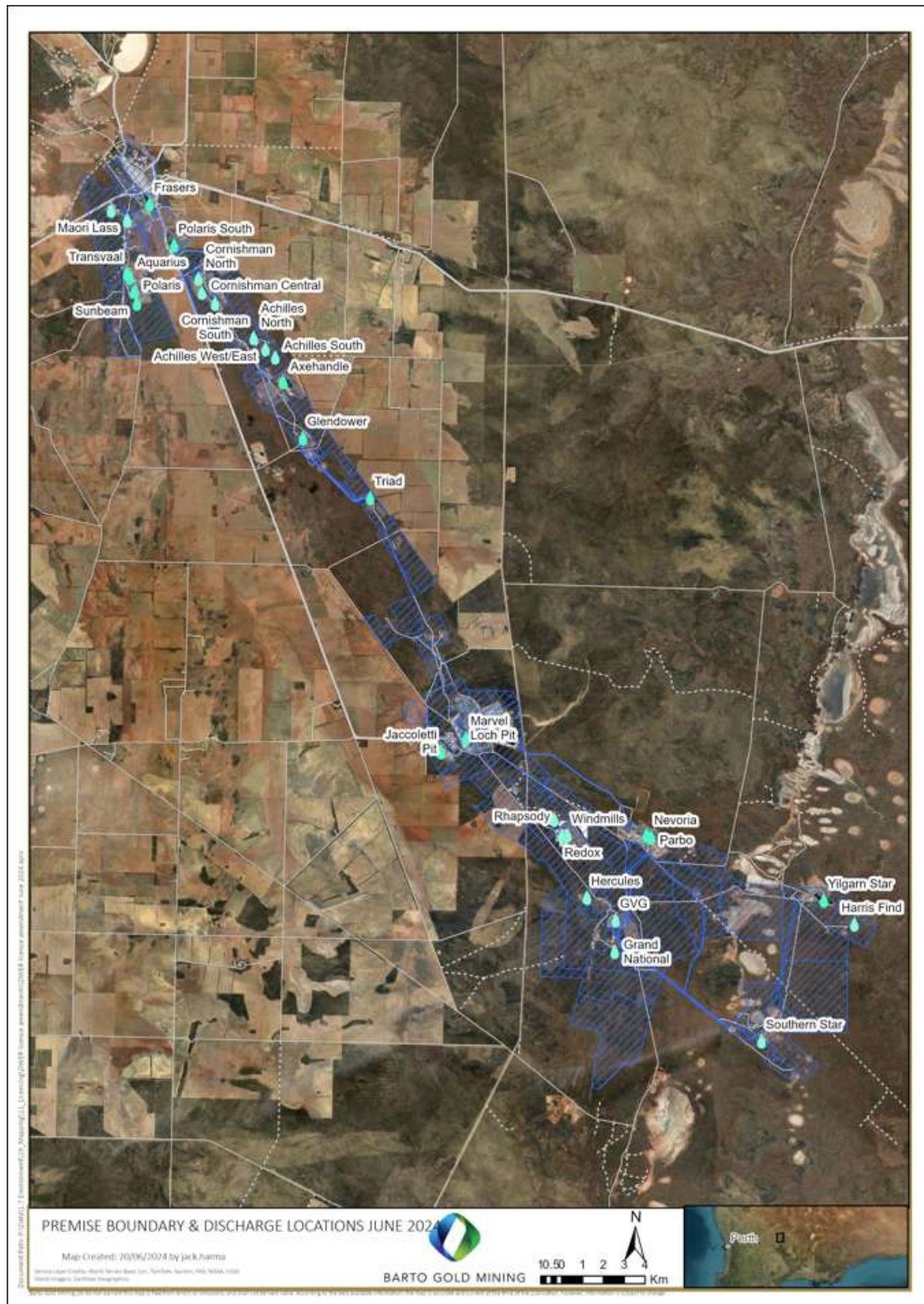


Figure 3: Location of emission points in Table 9, Condition 34 are shown above





Figure 5: Location of existing monitoring bores defined in Table 13, Condition 39 surrounding Axehandle Pit

Map of landfill locations



Figure 6: Location of the Nevoria landfill defined in Table 4, Condition 16

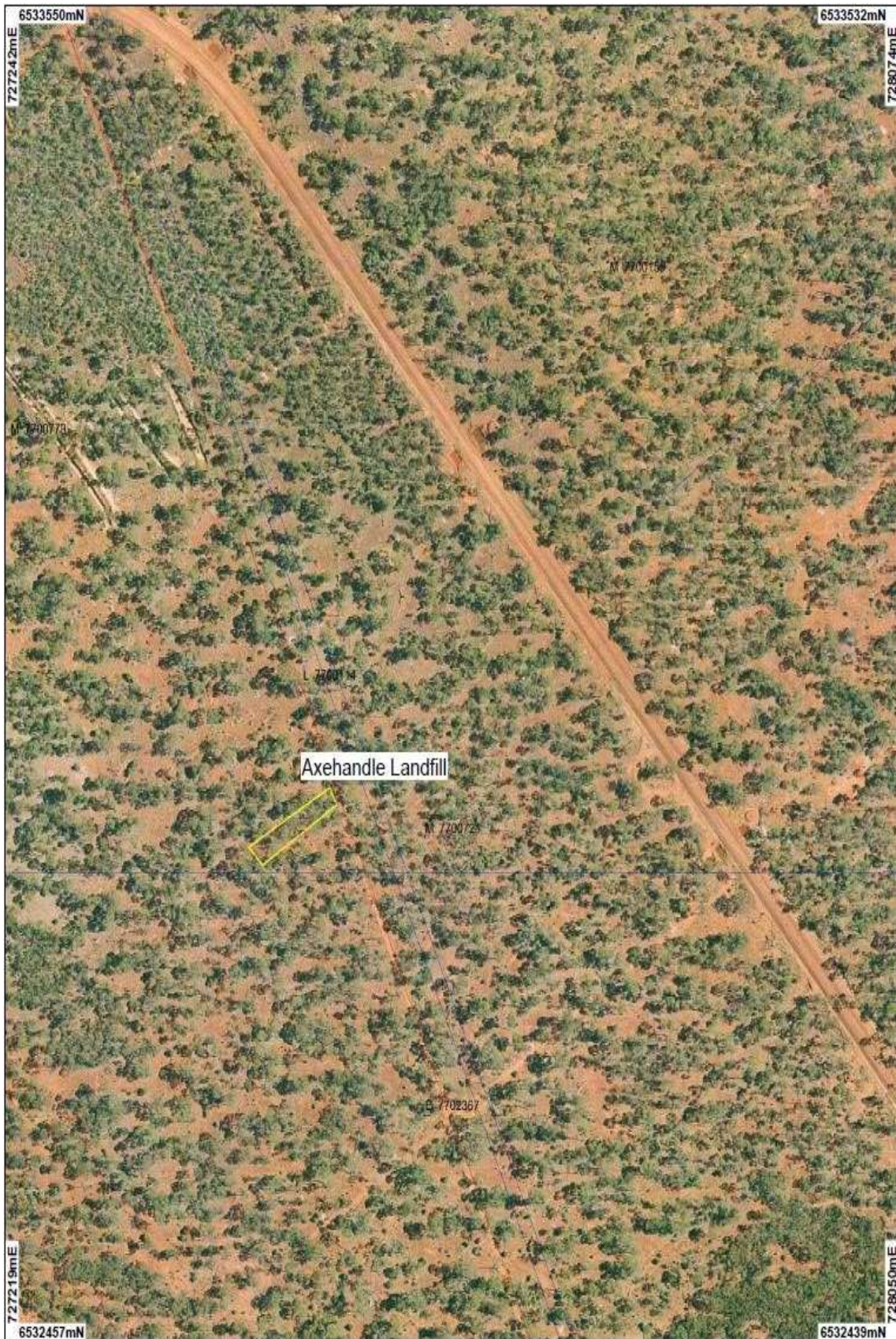


Figure 7: Location of the Axehandle landfill defined in Table 4, Condition 16

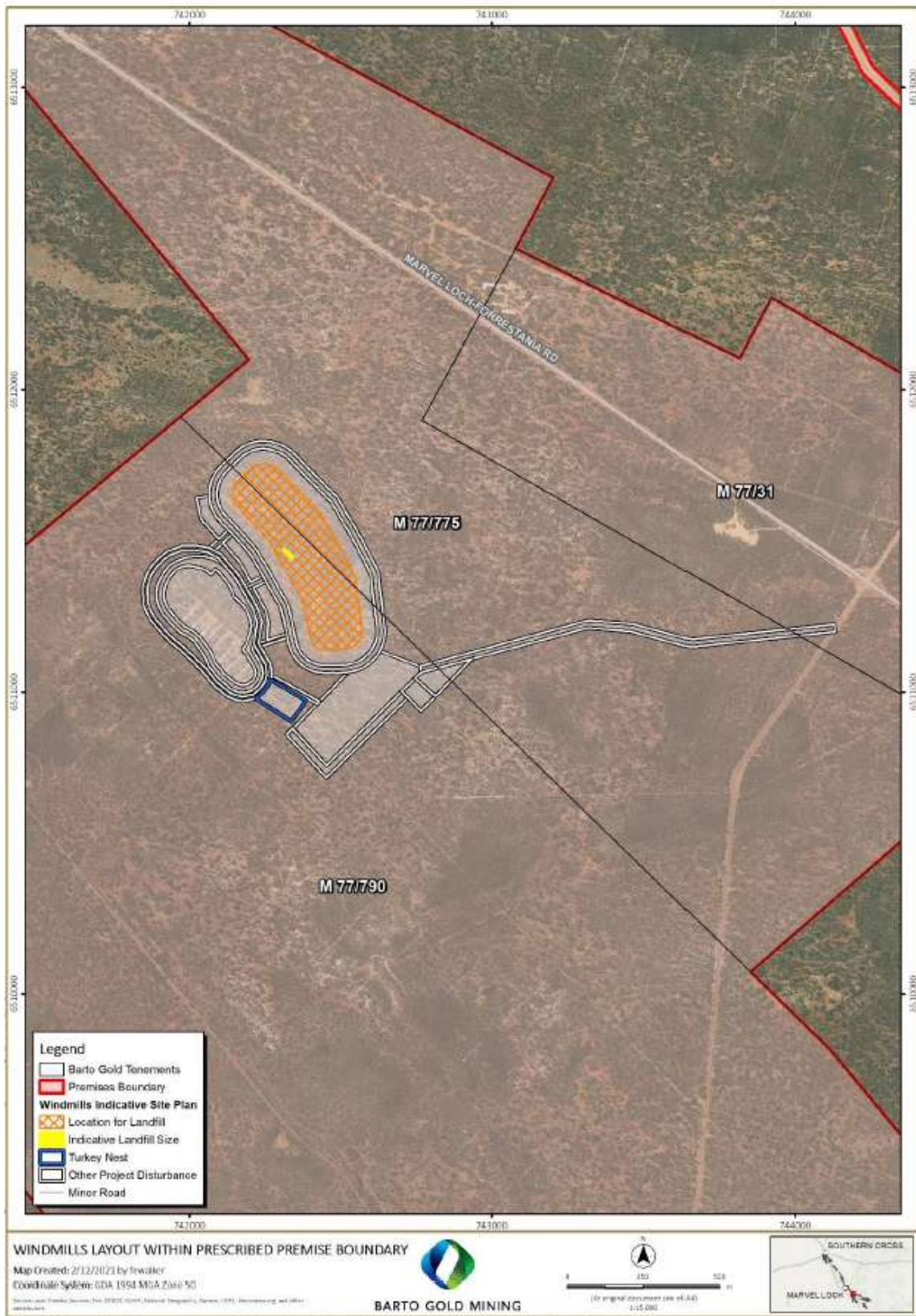


Figure 8: Location of the Windmills landfill defined in Table 4, Condition 16





Figure 10: Location of Marvel Loch landfill defined in Table 4, Condition 16



Figure 11: Location of the Fraser's landfill defined in Table 4, Condition 16

### Maps of Dewatering Pipelines

Detailed maps of some of the dewater pipeline locations required to be inspected by condition 3 is shown below.



Figure 12: Dewatering pipeline from Frasers to the Transvaal complex

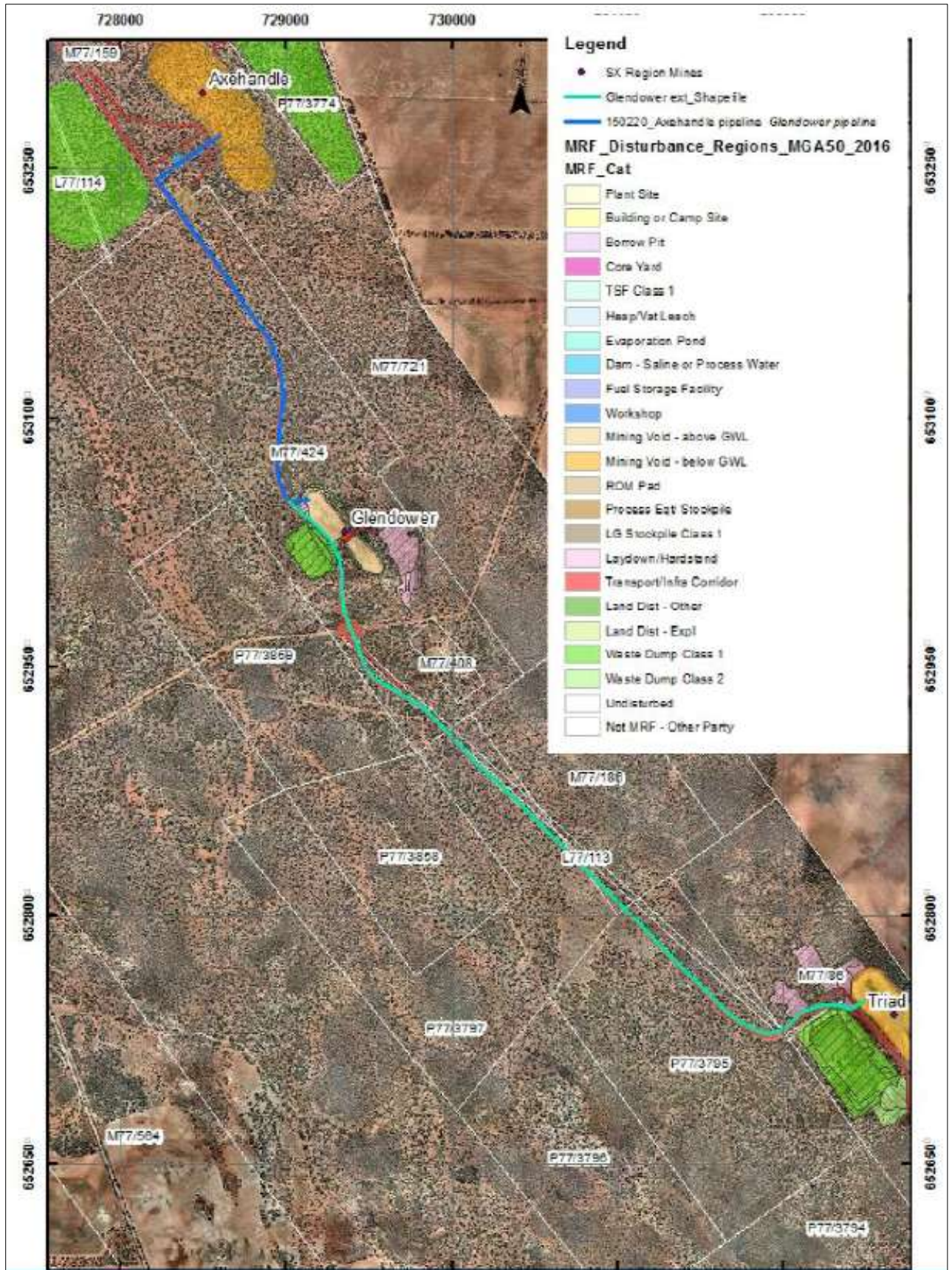


Figure 13: Dewatering pipeline from Axehandle to Glendower to Triad Pits

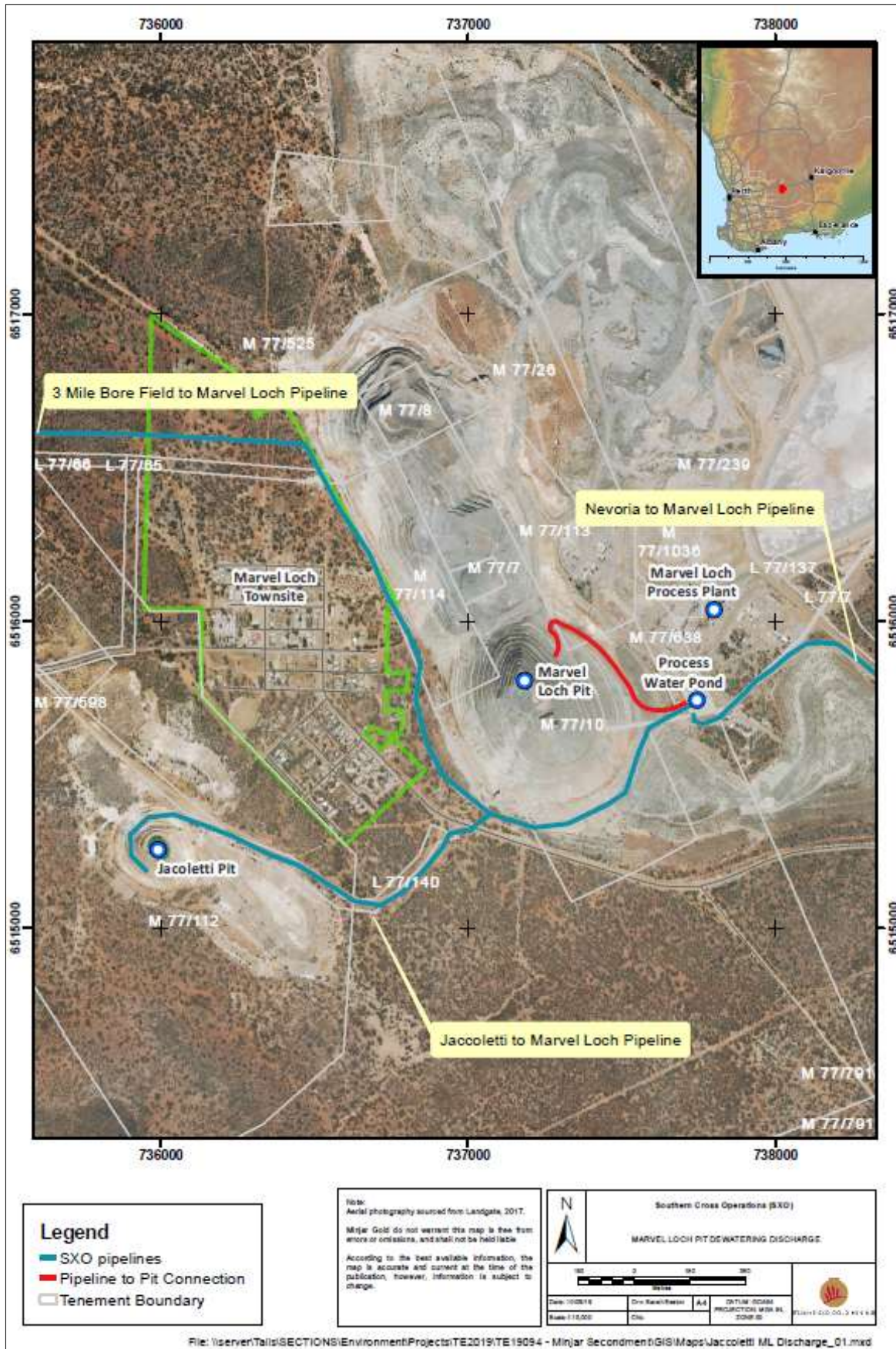


Figure 14: Location of pipelines constructed surrounding pits Jacoletti, Marvel Loch and Nevoria Pit



**Figure 15: Location of Victoria's pipeline and Victoria's Turkey's Nest**



Figure 16: Location of Yilgarn Star – Nevorla pipeline with sump locations

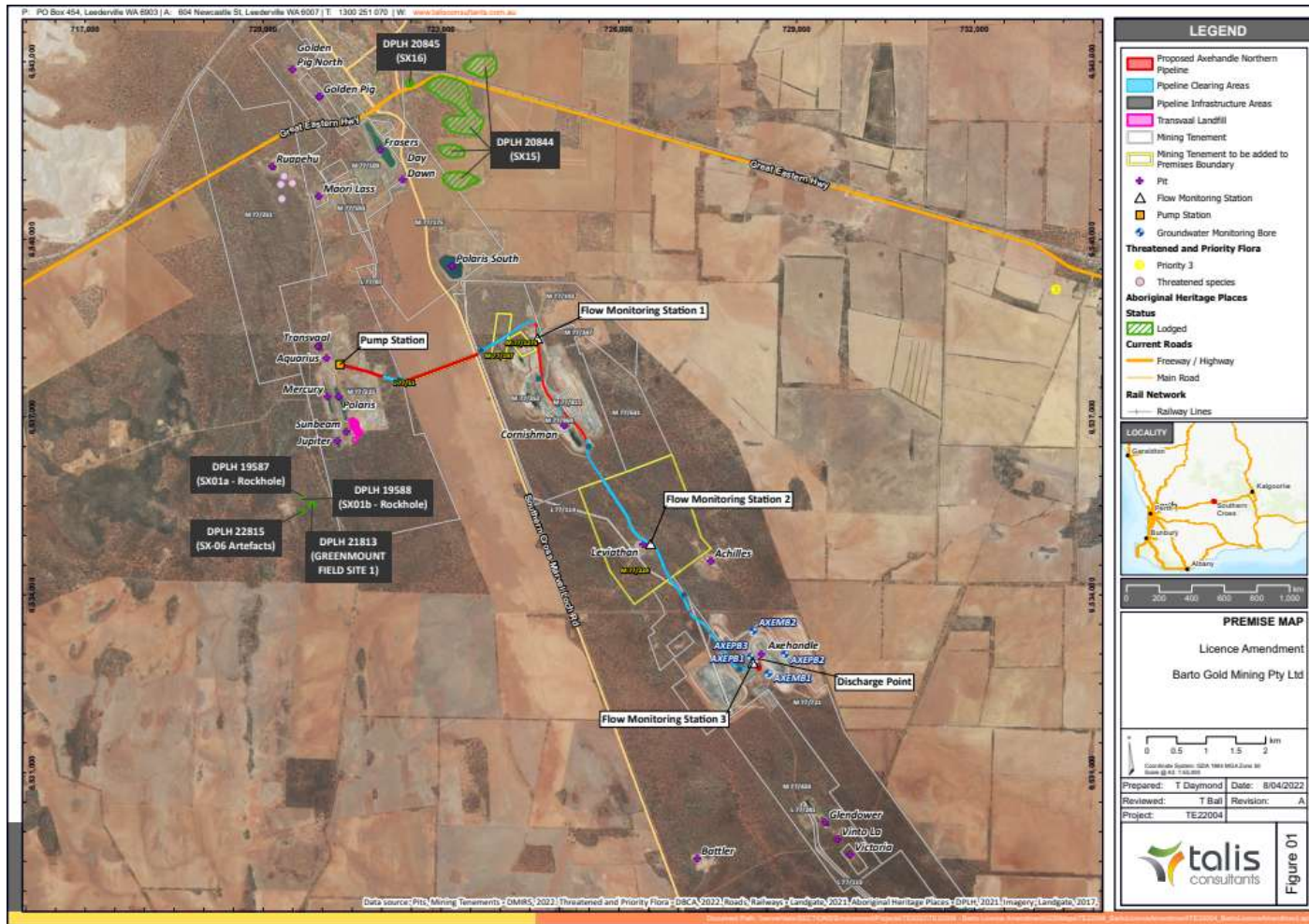


Figure 17: Location of Axehandle dewatering pipeline including the proposed location for the three flow monitoring stations and Cornishman complex discharge locations

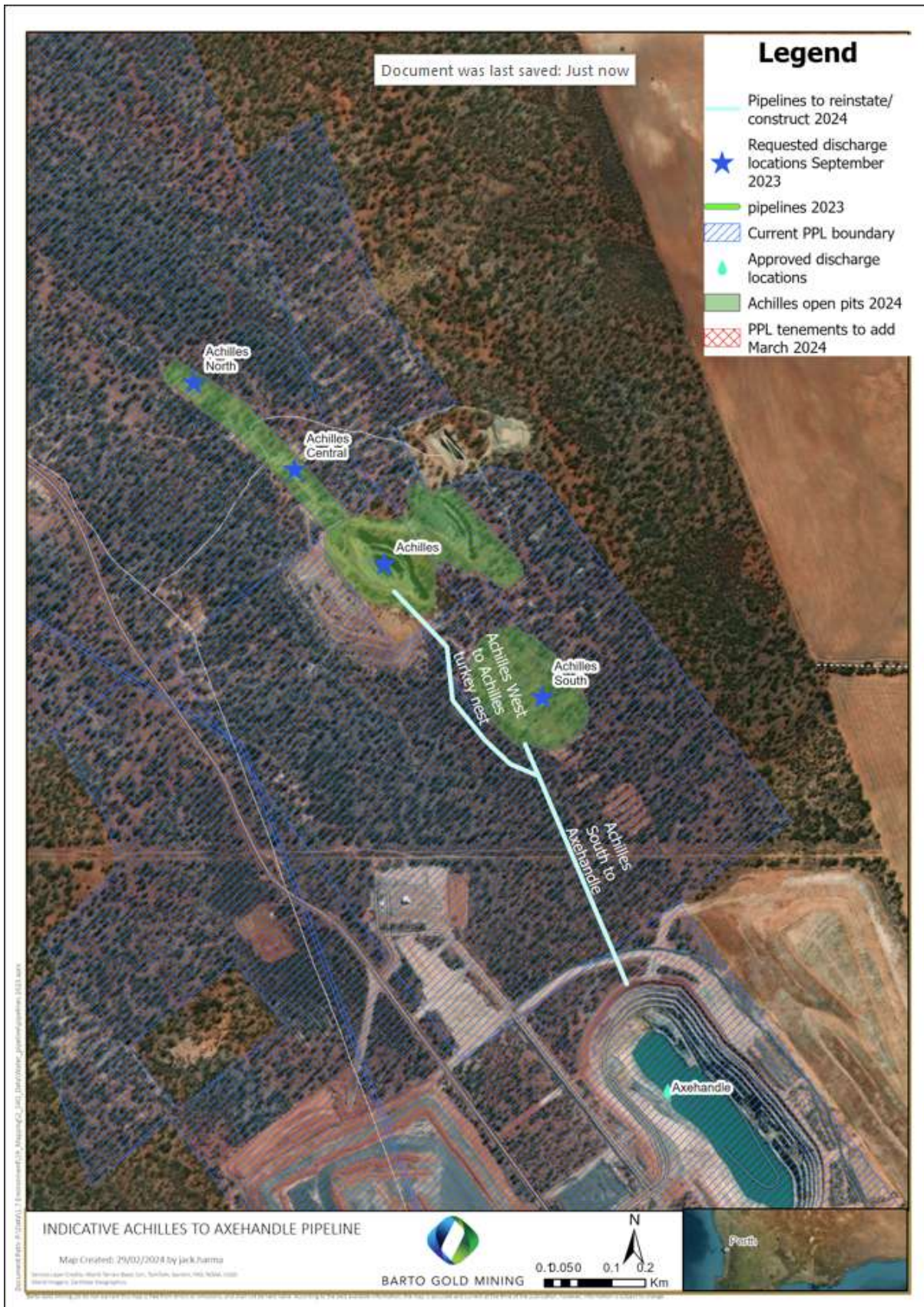


Figure 18: Location of pipeline from Achilles to Axehandle



Figure 19: Location of pipeline from Rhapsody Pit to Windmills Pit

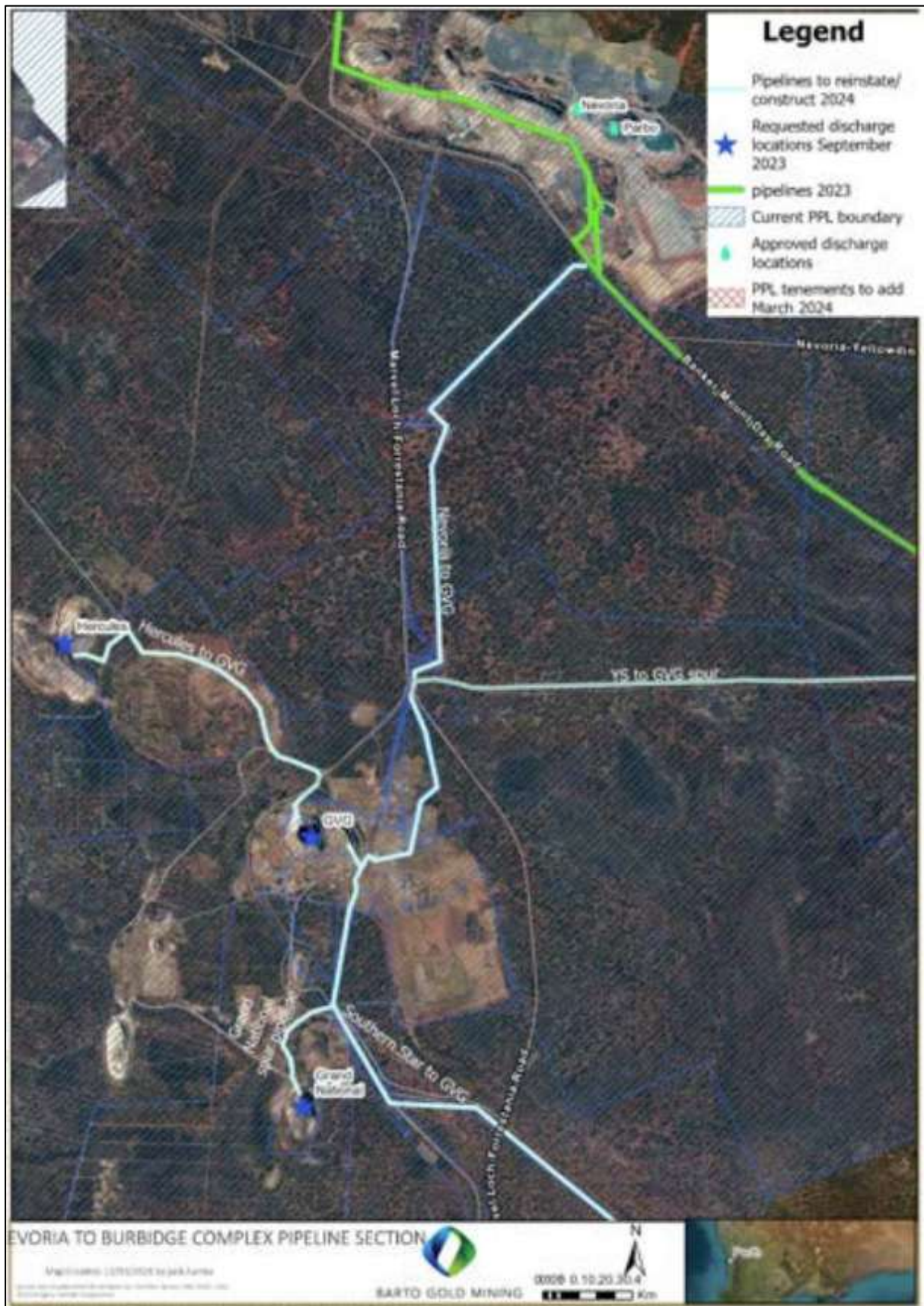


Figure 20: Nevoria to Southern Star Pipeline (Section 1)



Figure 21: Nevoria to Southern Star Pipeline (Section 2)



Figure 22: Yilgarn Star to Harris Find Pipeline



Figure 23: Ruapehu Pit to Maori Lass Pit to Frasers-Transvaal Pipeline

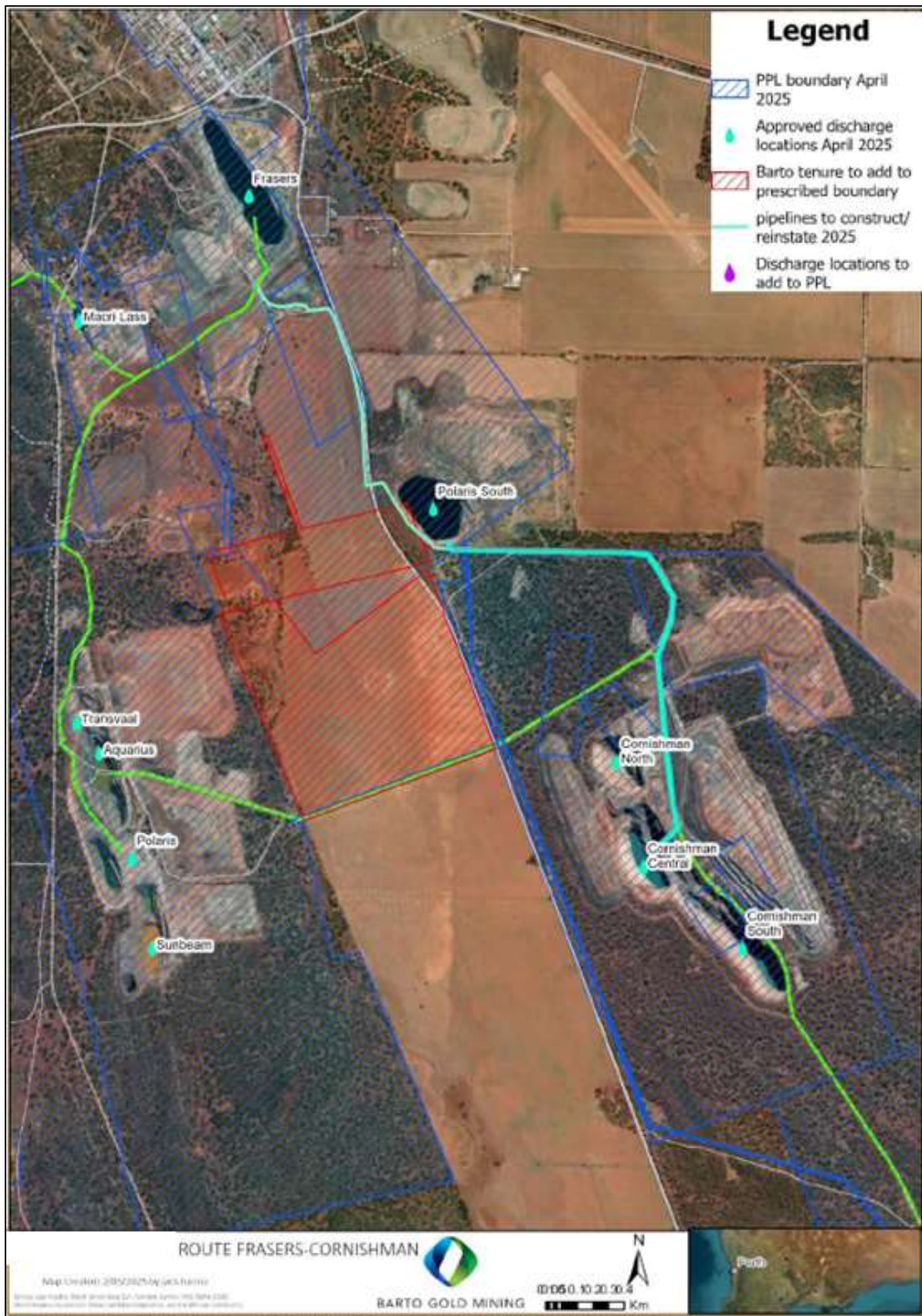


Figure 24: Frasers to Polaris South to Cornishman pipeline route

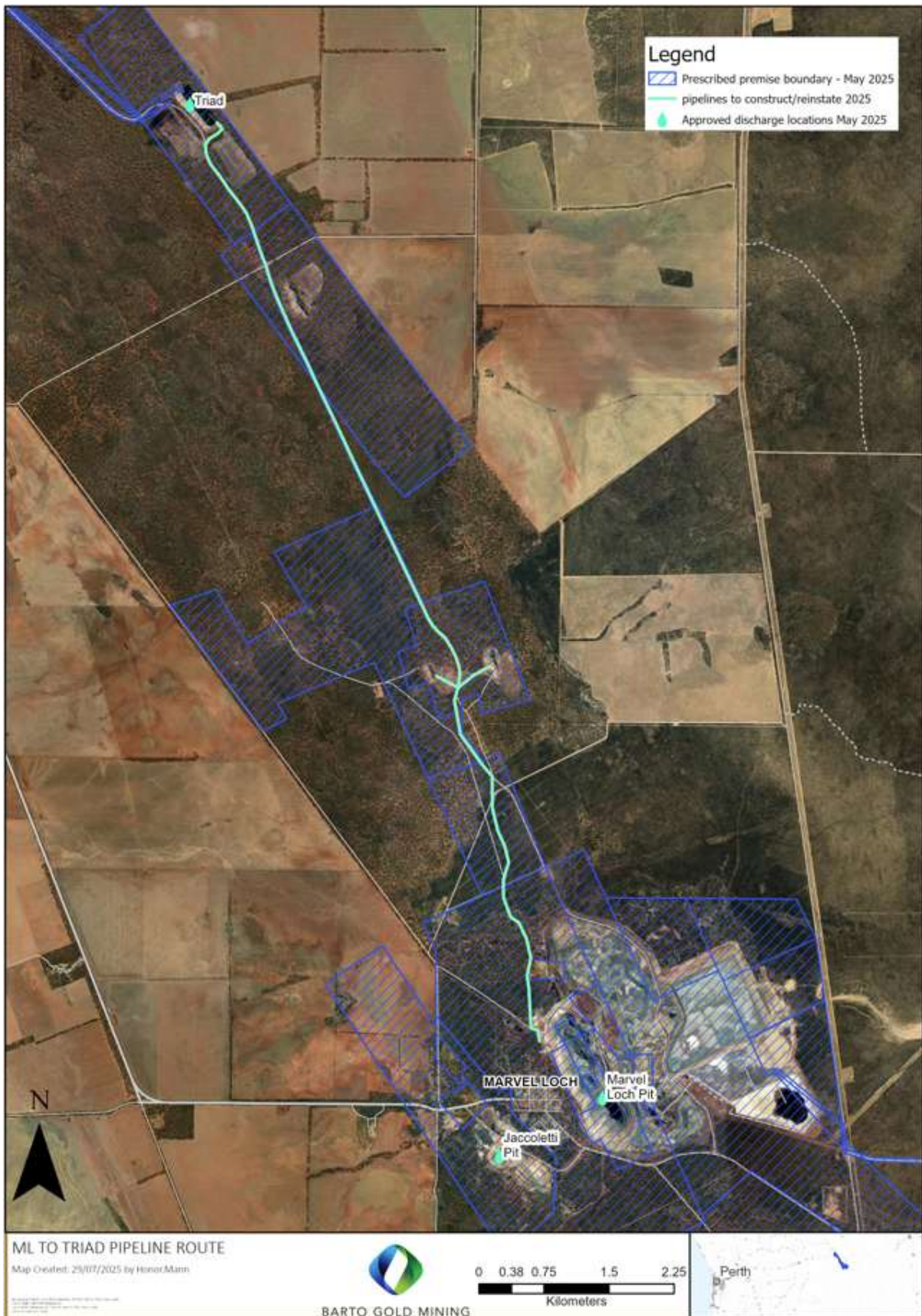


Figure 25: Marvel Loch to Triad pipeline route



Figure 26: Blue shaded area depicts area approved for operation of a mobile crushing and screening plant (Category 70).

Maps of infrastructure to be constructed

Schedule 2: design drawings

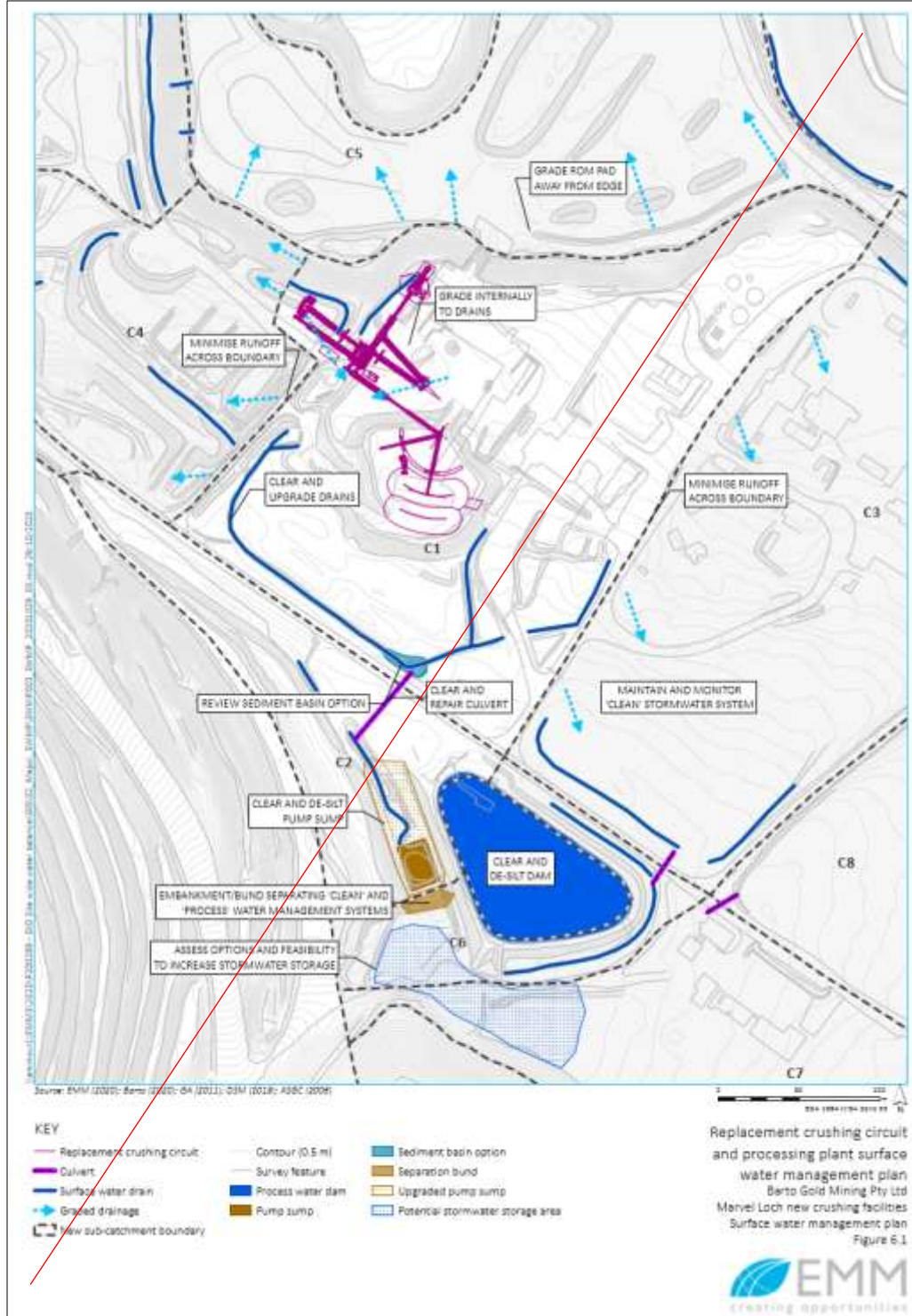
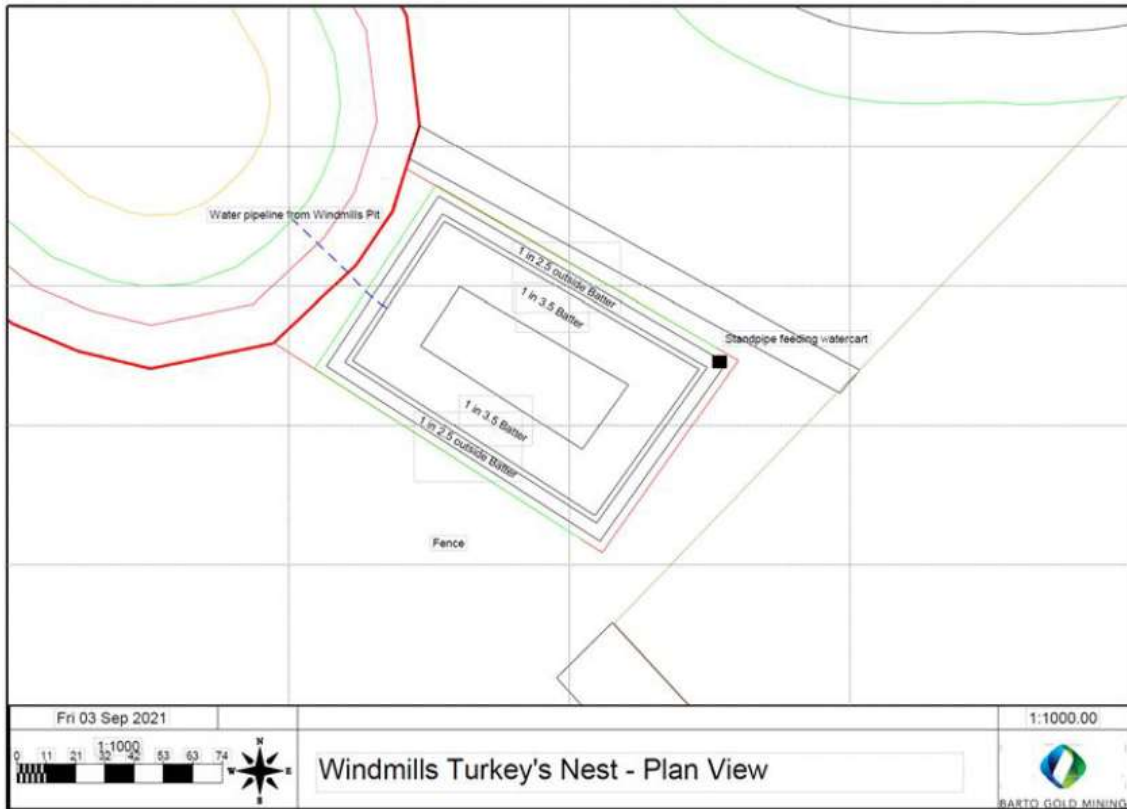


Figure 26: Map of stormwater infrastructure to be constructed in accordance with Condition 24, Table 6.



**Figure 27: Layout map of the Windmills Turkey's Nest and dewatering pipeline from Windmills Pit**

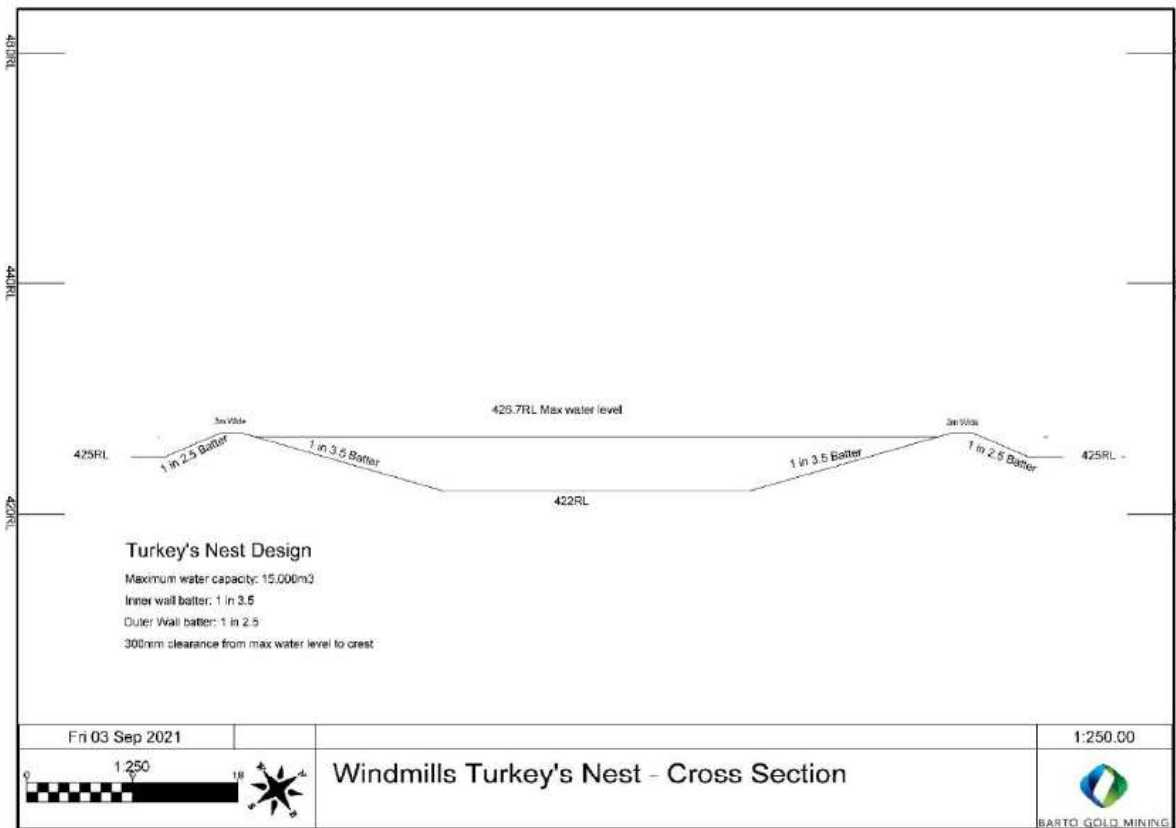


Figure 28: Cross section of Windmills Turkey's Nest

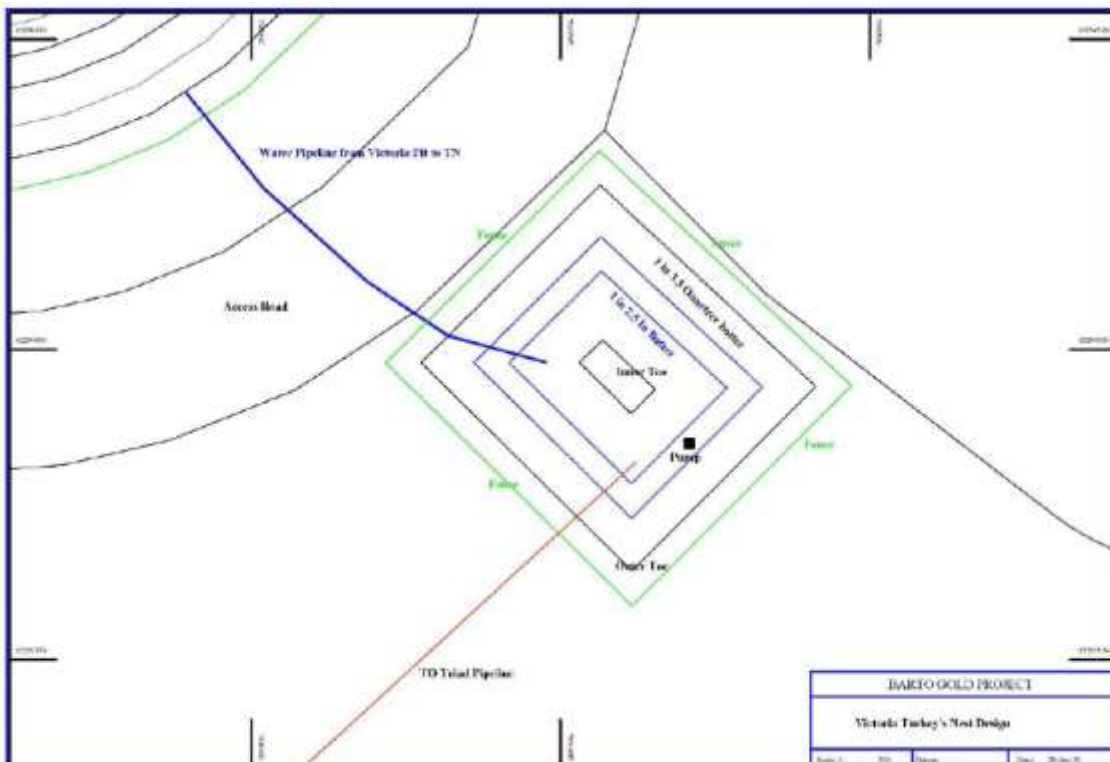


Figure 29: Layout map of the Victoria's Turkey's Nest and dewatering pipeline from Victoria's Pit

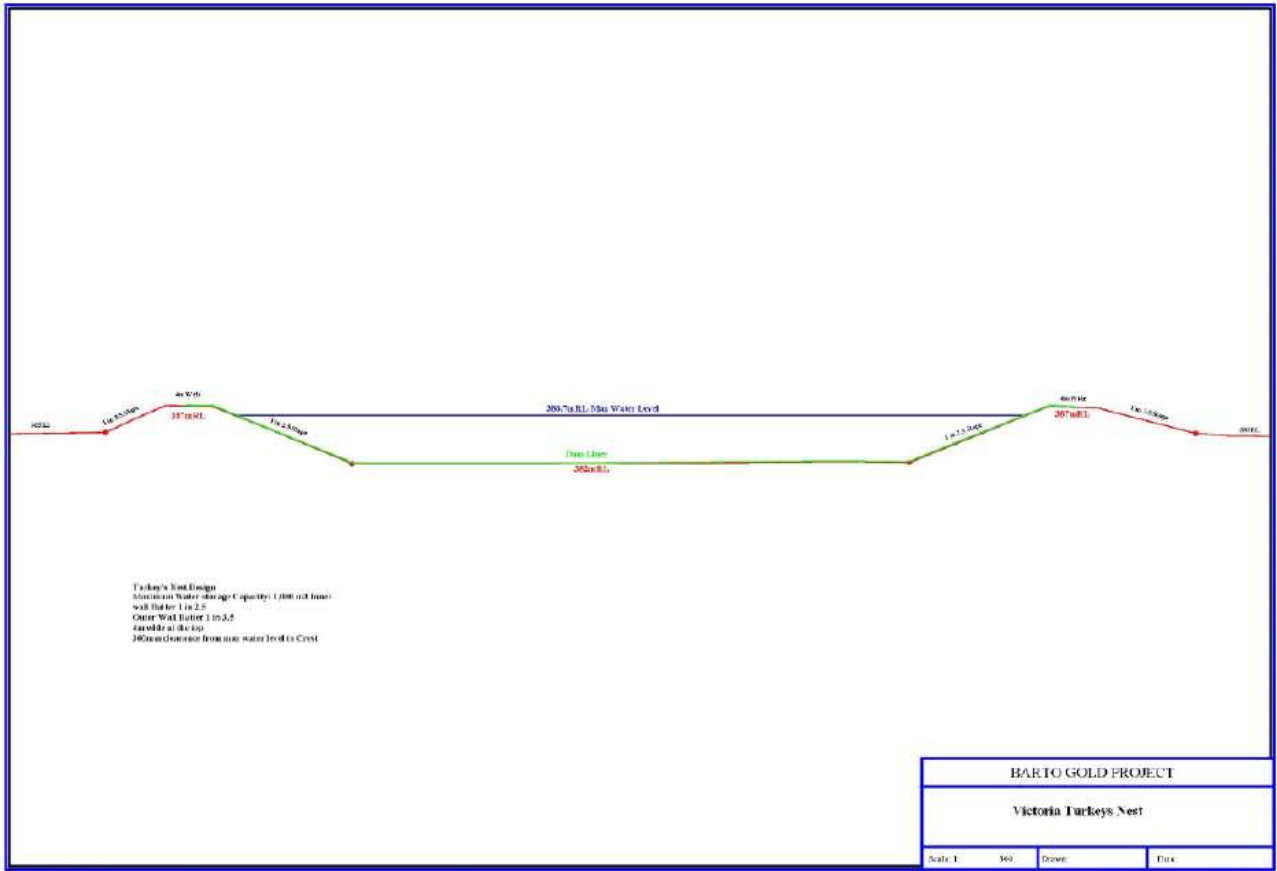


Figure 30: Cross section of Victoria's Turkey's Nest

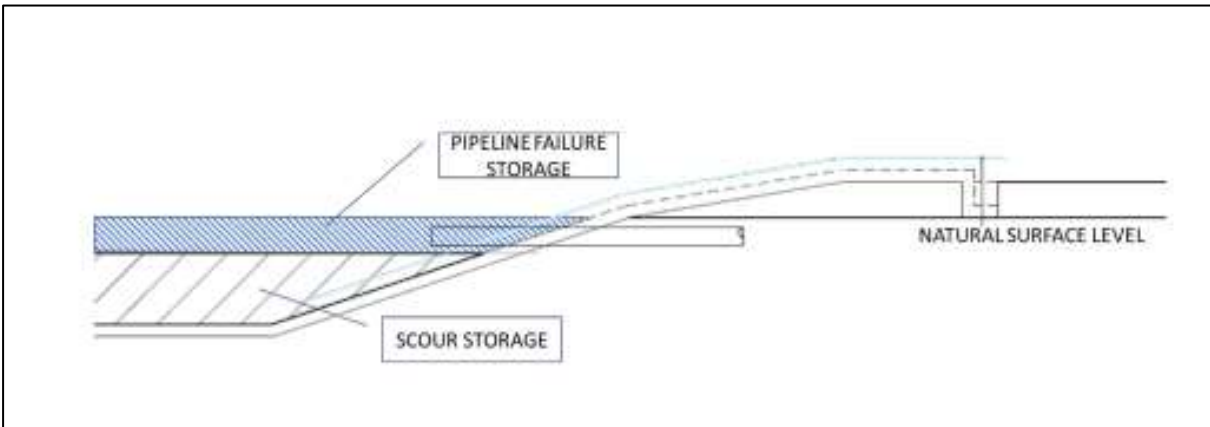


Figure 31: Diagrammatic representation of scour sump to be created for the section of the Axehandle Pipeline that will sit above the ground

Design drawings for TSF3 Embankment lifts (stage 3-7) (sourced from: Coffey, 2017)

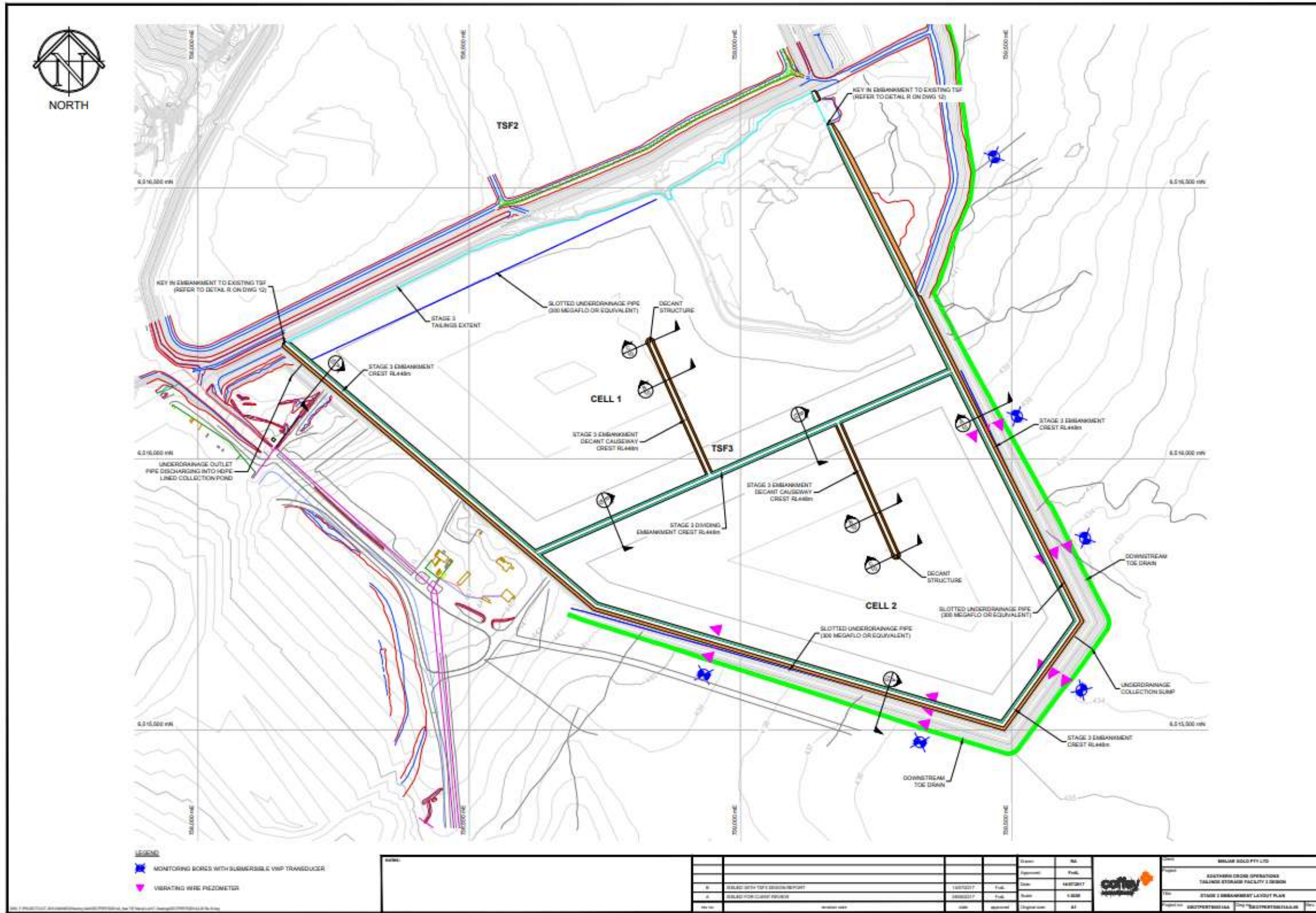


Figure 32:TSF 3 Stage 3 Embankment Layout plan

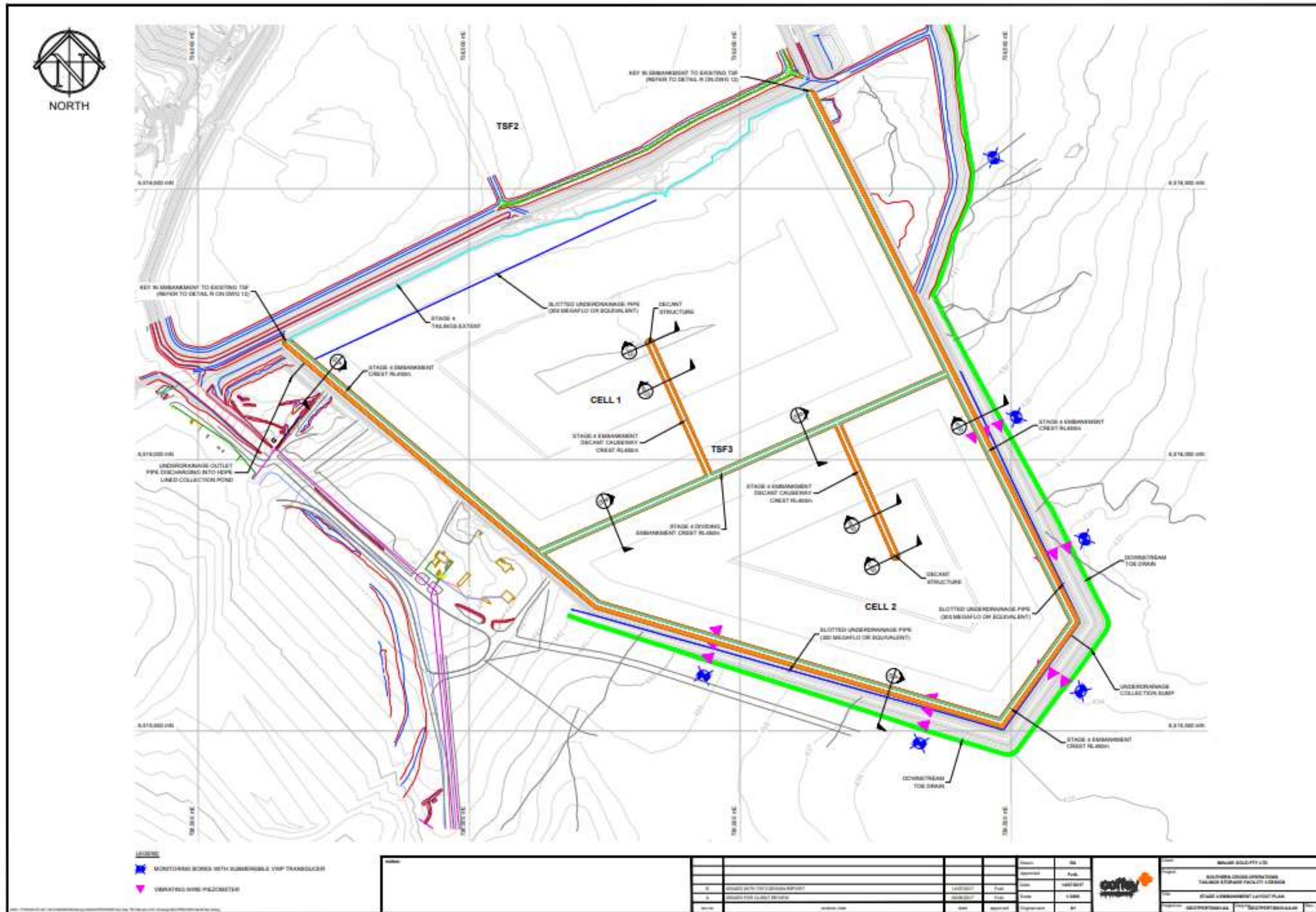


Figure 33: TSF3 Stage 4 Embankment Layout plan

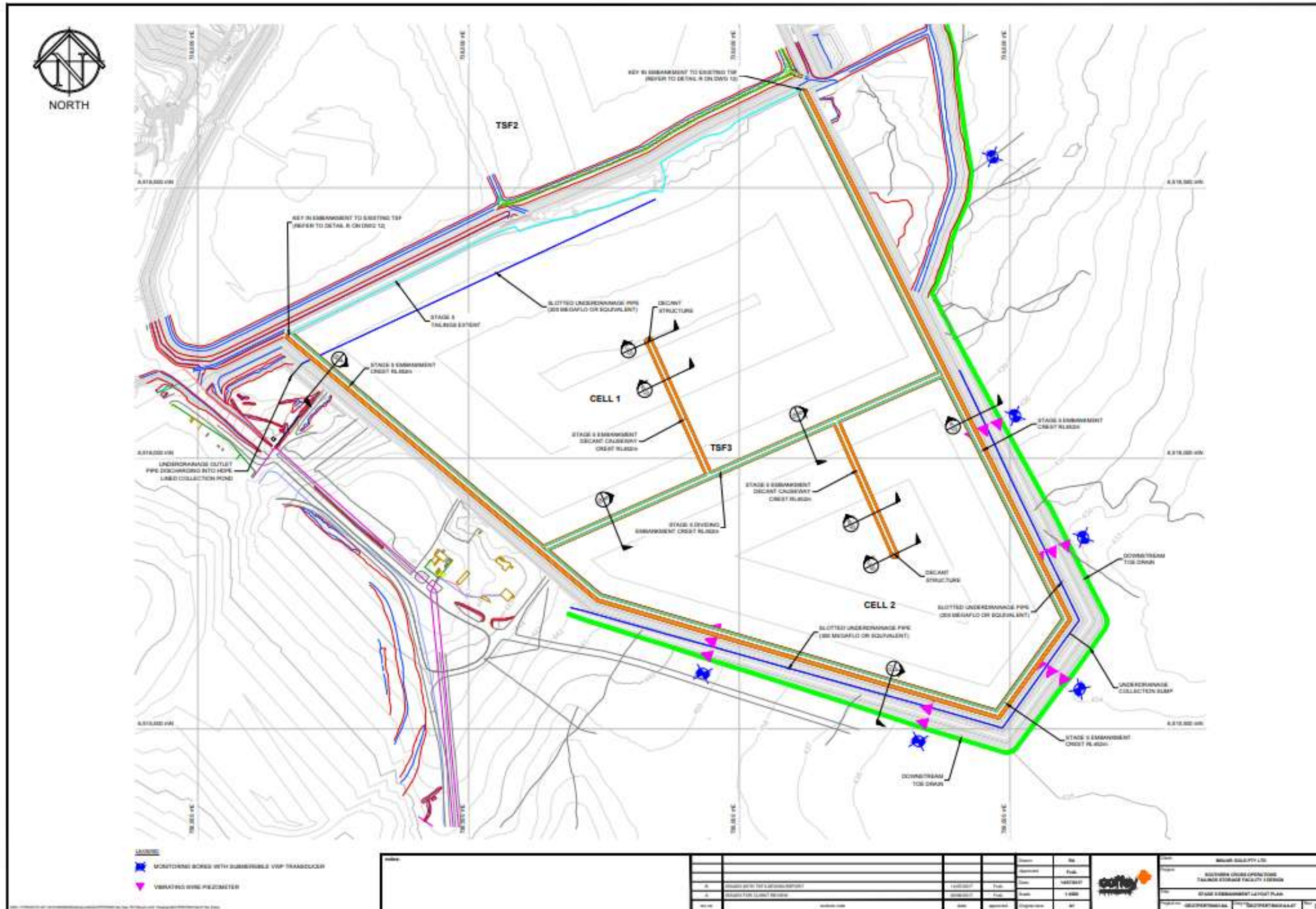


Figure 34: TSF3 Stage 5 Embankment Layout plan

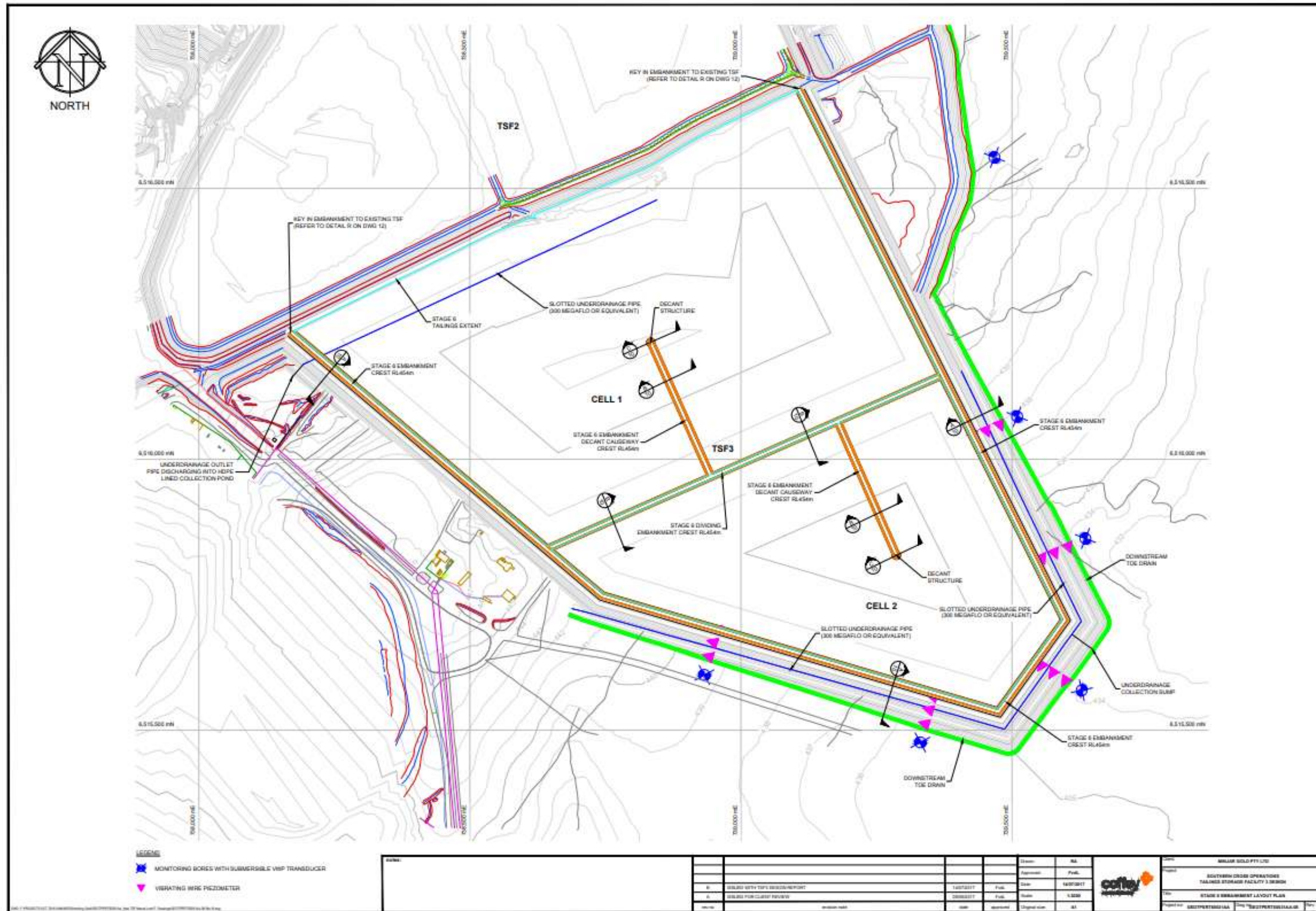


Figure 35: TSF3 Stage 6 Embankment Layout plan

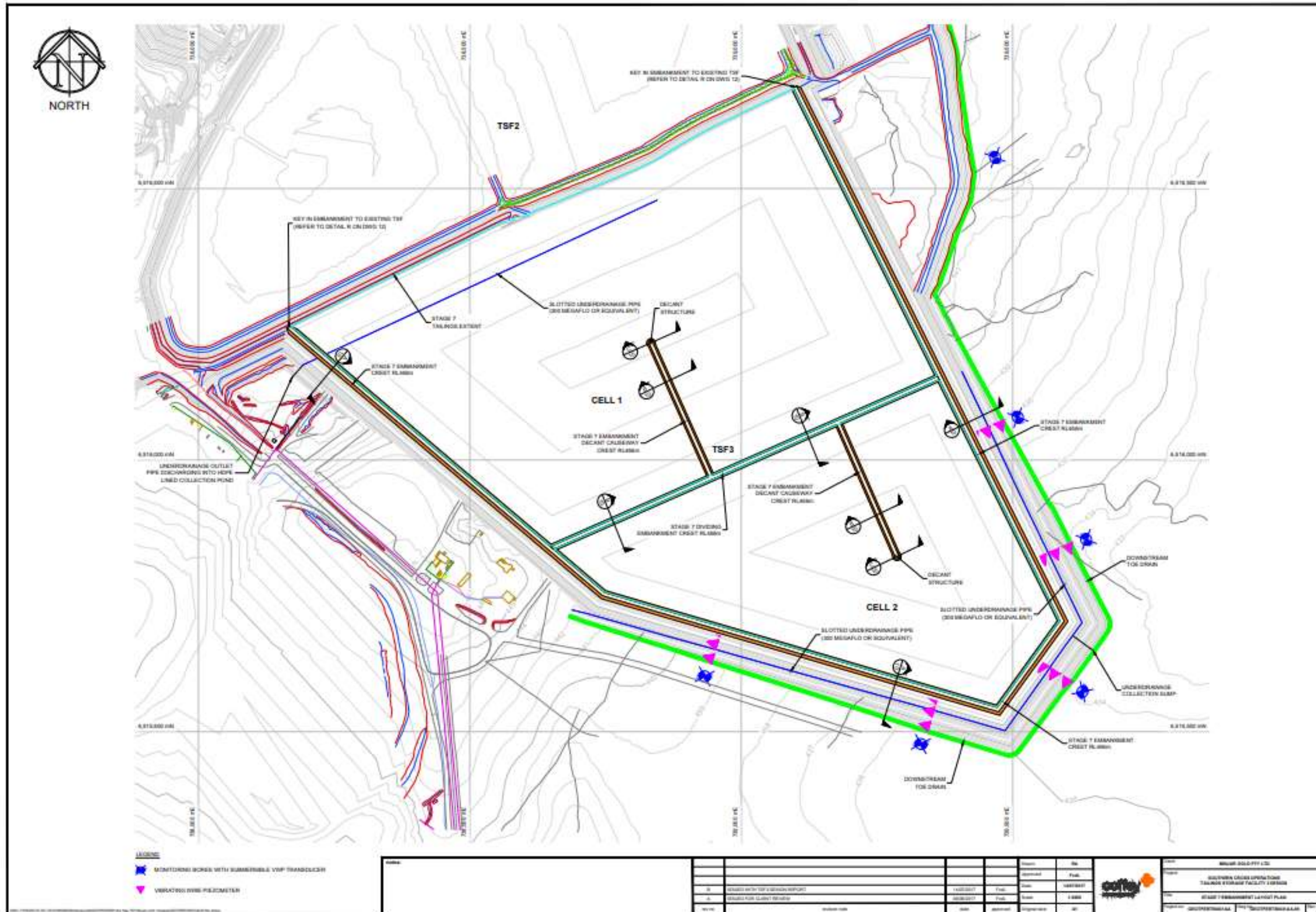


Figure 36: TSF3 Stage 7 Embankment Layout plan

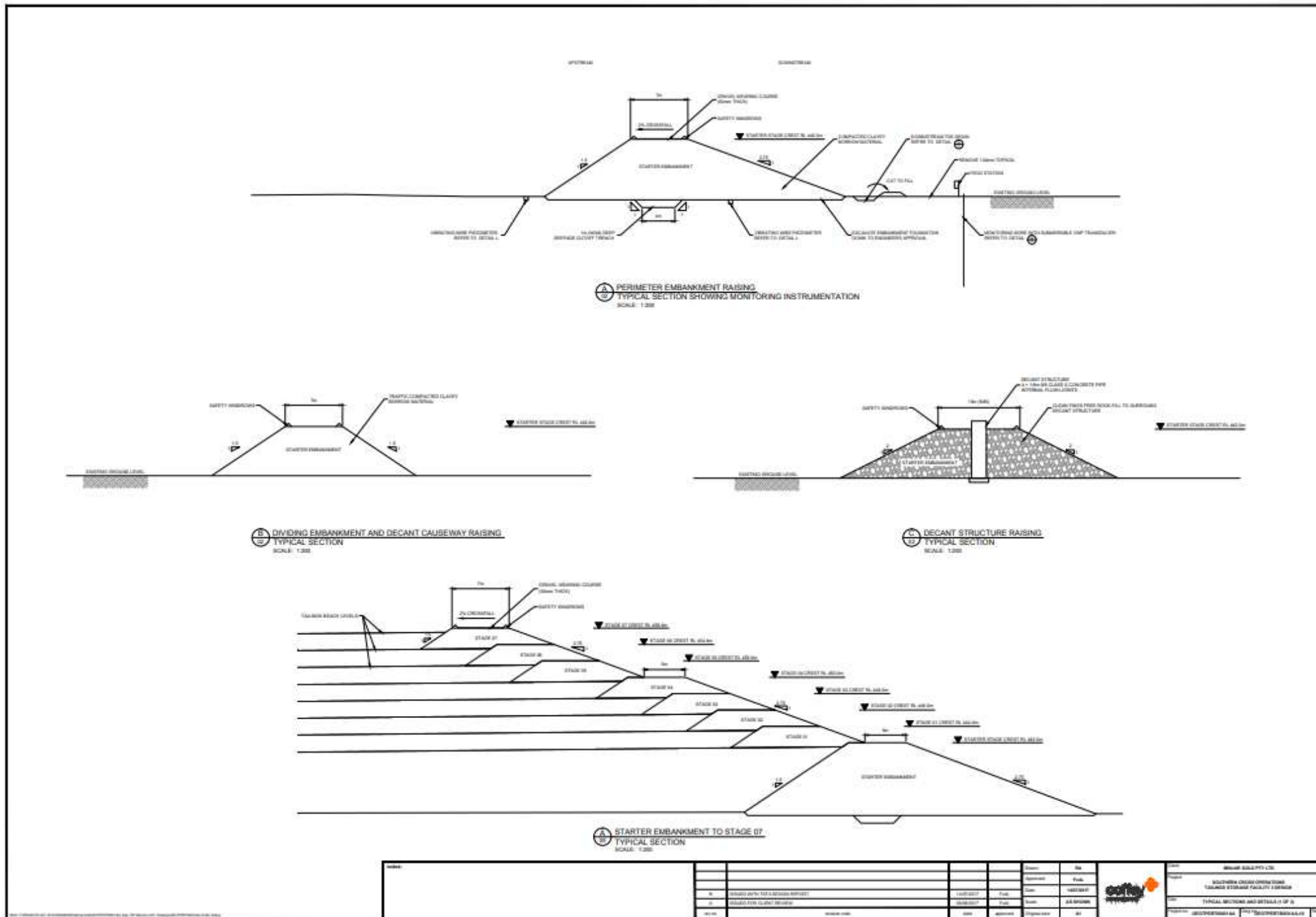


Figure 37: TSF3 Section details