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# 1 INTRODUCTION

This manual is intended to be used by process plant staff who undertake daily inspections of the Tailings Storage Facility 3 (TSF3) tailings storage at the Moolart Well Gold Project (MWGP), a gold mine located approximately 130 km north of Laverton and 790 km northeast of Perth, Western Australia. MWGP is owned by Regis Resources Limited (RRL).

TSF3 has a storage footprint area of approximately 92.3 ha, a maximum embankment height of 15.0 m (final crest RL 555.0 m AHD), TSF3 will be constructed out as part of DNO mining operations with the TSF being located partially within a waste dump. The embankment of TSF3 will be a zoned embankment comprising an upstream zone of low permeability roller compacted clayey mine waste and a waste dump downstream.

The purpose of this manual and the attached proformas is to allow both shift and daily inspection records to be taken and recorded and, if required, reported to senior staff. The provisions of the Operations Manual must be strictly adhered to by the owner and the storage must be operated strictly in accordance with its provisions. CMW Geosciences Pty Ltd (CMW), the designer shall not be liable in any respect whatsoever for any damage to or failure in the operations of the tailings storages resulting from failure of the Owner, its servants or agents to comply with the provisions of this Operations Manual.

This document sets out details of the components of the storage facility which are influenced by the general day to day activities. Each of these components forms part of the overall operation of the storage facility and attention must be paid to each component to ensure the storage facility is operated to achieve the design objectives.

The components which are influenced by the general day to day activities include:

- Tailings deposition.
- Decant pump operation.
- Routine inspections and maintenance.

Site personnel involved with TSF3 should be trained in the requirements of this manual. Proforma PF4 should be signed by each person and training records retained on site. A risk register relating to TSF3 should be compiled using a workshop involving the operators and designers. The register should be updated as required.

## 1.1 Scope of the Operations Manual

This document details the requirements for plant management and operators who have the responsibility for ensuring that:

- The containment embankment for TSF3 has been constructed to achieve the design objectives relevant to the operation of the facility.
- The TSF and all associated infrastructure is operated, maintained and monitored to achieve the design objectives.
- The facility is operated in accordance with the parameters that have been provided by RRL for use in the design of the TSF. Where changes in the parameters are proposed, the process plant management must advise the designers in order that the impact of the changes can be fully assessed.

- Additional storage requirements are planned, designed, budgeted for and constructed well in advance of the expected availability of the additional capacity.
- The annual engineering audit is completed.

## 1.2 Roles and Responsibilities

The individual responsibilities for the TSF for this project are detailed in Table 1.

Table 1 – Individual Responsibilities					
Staff Designation	Operation	Maintenance	Surveillance & Reporting	Emergency Response	Reports to
Resident Manager (RM) / General Manager (GM)	√	√	√	√	Board / Company Directors
Process Plant Manager (PPM)	√	√	√	√	General Manager (GM)
Process Plant Supervisor (PPS) and Process Plant Operators (PPO)	√		√	√	PPM
Maintenance Supervisor (MS) electrical, instrumentation, pumping and piping		√		√	PPM
Mining Foreman (MF) mining activities and other earthworks				√	GM
Environmental Consultant (EC)			√		GM / PPM
Emergency Response Team (ERT)				√	GM
Design Consultant (DC)			√		GM / PPM

### 1.3 Training and Competency

The Process Plant Manager (PPM) has the responsibility for ensuring that the training and competency of all the personnel relevant to the day to day operation of TSF3 are completed.

The PPM will also ensure the various departments (Process Plant, Maintenance, Mining and Environmental) are each aware of their respective duties and roles and shall confirm that the training and competency of the relevant personnel within these departments have been completed.

The PPM also has the responsibility to ensure the training and competency of contractors is completed prior to work being undertaken on TSF3 or the associated infrastructure.

All personnel involved with TSF3 must be aware of visual indicators (leaking pipes, high solution levels, cracking, etc.) of the performance of TSF3.

### 1.4 Document Control

The PPM or his appointed designate has the responsibility for all document control for TSF3 including the Operating Manuals. The essential documents for TSF3 comprise the following:

- Design documents, including drawings.
- Operating Manual, including the associated records.
- Managing Change Documents.

### 1.5 Managing Change Documents

#### 1.5.1 Modifications to Design and/or Operation

No changes shall be made to the design or operation of TSF3 without the written approval of the PPM, the GM and TSF designers where the proposed change to TSF3 materially affects the design or the operation of the facility.

Where design standards change, the designers should contact the PPM and the General Manager and advise of the changes required to bring either the design or operation of the facilities into line with current standards.

All approved changes to the design and/or operation of TSF3, no matter how minor, must be thoroughly documented and recorded in the master document control sheet for TSF3.

The procedures for making changes to the design and operation of TSF3 comprise:

- Submission of a written Request for Change to the PPM. The Request for Change Submission must outline the proposed change, the reason for the change, the expected impact (if any) of the change and the expected benefit (if any) of the change.
- Determination by the PPM if the proposed change has any impact, either positive or negative, and determine the value of the benefits of the proposed change.
- If the proposed change has no material effect on the design and/or operation of TSF3, the Request for Change Submission can be implemented and the relevant design and operational documents updated as required and the change noted in the master document.
- If the proposed change materially affects the design and/or operation of TSF3, the Request for Change Submission will be forwarded to the GM and DC with the comments of the PPM, for action as appropriate.

- Where the Request for Change Submission affects the design of TSF3, the DC will review the submission and make the necessary changes ensuring that any impacts not envisaged by the PPM are noted on the submission. The revised documents and the submission will be returned to the PPM. The revised documents will be appended to the OM document and the amendments noted on the document control sheet.
- Where the Request for Change Submission affects the operation of TSF3, the DC will review the submission and note the changes ensuring that any impacts not envisaged by the PPM are noted on the submission. The revised documents and the submission will be returned to the PPM. The revised documents will be appended to the OM document and the amendments noted on the document control sheet.
- Where the Request for Change Submission affects the operation of TSF3, the training and competency procedures will be reviewed to assess whether changes need to be made. Where changes are required, the relevant documents will be amended and the amendments noted on the document control sheets.

### 1.5.2 Regulatory Changes

Changes in the regulatory requirements will be passed to the PPM to be assessed, processed and documented using the same procedures as outlined in Section 1.5.1 above.

### 1.5.3 Ownership and Designation Changes

Changes in the ownership or changes to the organisational structure or designation hierarchy (Table 1) will be passed to the PPM, processed and documented using the same procedures as outlined in Section 1.5.1 above.

## 2 DESIGN CONCEPT

Details of the design are presented in the CMW (2021) report, '*Tailings Storage Facility 3 (TSF3), Moolart Well Gold Project, WA, Design Report*', referenced PER2021-0102AD Design Report Rev 3 dated 13/10/2021. TSF3 has been designed to store approx. 8 Mt of tailings over a 2-years and 8-months life.

Based on the DMP Code of Practice (2013), the hazard rating for TSF3 has been assessed as 'Category 2 – Medium'. The ANCOLD (2019) consequence rating is 'High C'.

TSF3 will be a single paddock (cell) style, irregular 'octagonal' facility, constructed in a single stage as part of the mining operations at the MWGP. The TSF has a footprint of approximately 96.8 ha and a maximum embankment height of 15 m (final crest RL555.0 m AHD).

Following topsoil stripping, TSF3 subgrade comprising colluvial clayey silty sand will be moisture conditioned and compacted to produce a low permeability liner at the base of the TSF embankment to reduce seepage losses.

TSF3 embankment will be a zoned embankment comprising an upstream zone of low permeability roller compacted clayey mine waste, and a downstream zone of waste dump. It has design slopes of 1(V):2(H) upstream and 1(V):3(H) downstream, with a minimum crest width of 18 m. Along the western boundary, TSF3 has operational design slopes of 1(V):2(H) upstream and 1(V):1.5(H) downstream, with a minimum crest width of 29 m.

Surface water will be removed from TSF3 by a decant pump located within a rock-ring decant at the centre of the TSF. Return water will be pumped to the plant for reuse. The efficacy of the water

return system is the key to achieving a high in-situ dry density within the tailings bed. The design also incorporates a seepage collection system under the embankment footprint.

The minimum capacity of the water recovery system should be not less than 420 tph including the additional capacity to recover water from design storm events.

### **3 SUMMARY OF OPERATIONAL PROCEDURES**

#### **3.1 General**

The operational design of the facilities is aimed at:

- Provide 8 Mt of tailings storage. This will provide approximately 2-years and 8-months storage life at 3 Mtpa.
- Provide optimum removal of water from the facility and return to the plant for re-use in processing (i.e. an existing water treatment facility).
- Optimise tailings storage capacity by maximising tailings density (i.e. undertaking cyclic tailings deposition between groups of spigots).
- Reduce environmental impact (i.e. due to seepage).

The following operational considerations have been incorporated into the design:

- Tailings in the form of slurry will be discharged sub-aerially and cyclically into the facility in thin discrete layers, not exceeding 0.3 m thickness, in order to allow optimum density and strength gain by subjecting each layer to a drying cycle. Deposition will take place via multiple spigots from around the facility. Tailings deposition will be from the perimeter of the storage.
- Spigotting of tailings is to be carried out such that the supernatant pond is maintained within and around the rock-ring decant. The pond is to be maintained away from the perimeter embankments at all times.
- Water will be removed from the facility and pumped back to the process plant via a decant pump located in a centrally located rock-ring type decant structure.
- The tailings storage area will assume the form of a truncated prism with a depressed cone on the top surface. The facility will have the capacity to store a considerable volume of water during a storm event. The minimum total freeboard for TSF3 under normal operating conditions is 0.7 m which includes an allowance for the temporary storage of the 1:100 years or 1% average exceedance probability (AEP) storm event of 72-hour duration whilst maintaining the required minimum freeboard (refer Figure 2).
- Frequent inspections should be made of the tailings line, water return line, discharge points, water recovery system and the position of the supernatant pond in relation to the water recovery system.
- Only by regular inspection and appropriate remedial action can the performance of the water return system be optimised and operational problems be avoided.
- The operation, safety and environmental aspects should be periodically reviewed during an audit by a suitably experienced and qualified engineer. This audit should be done at least every year.
- On eventual decommissioning, the facility will remain as a permanent feature of the landscape and drain to an increasingly stable mass. The top surface and batters will be stabilised and rehabilitated as detailed in the design report.

## 4 COMPONENTS OF TAILINGS STORAGE

### 4.1 Deposition of Tailings

The method of deposition of tailings into storage is one of the major controlling factors in achieving:

- Higher in-situ densities in the tailings storage.
- Higher water returns.
- Maintaining embankment stability.

In order to understand the tailings deposition requirements, detailed knowledge of the components of the tailings system is required. These components include:

- Tailings pipe-work.
- Tailings deposition process.
- Ring main flushing.

#### 4.1.1 Tailings Pipe-work

Tailings are transported from the process plant to TSF3 via an HDPE pipeline. At the TSF, the pipeline will split into two distribution lines to distribute the tailings around the active storage. One line distributes tailings to the western section and one to the eastern section.

The tailings distribution lines comprise welded HDPE pipe. The distribution lines have spigot offtakes are located at nominally 40 m intervals on the embankment. The pipework is located adjacent to the upstream crest of the embankment and perimeter access road. Figure 3 shows a schematic pipe arrangement.

#### 4.1.2 Deposition Process

Tailings should be deposited over the exposed beaches, at a low velocity from several spigot discharge points. Deposition should occur for a period of around two days from each group of spigots.

Each spigot comprises a mining hose fitted with a valve/scissor clamp to control flow through the spigot (or similar). Tailings should not be discharged so as to erode the perimeter containment embankments. During deposition, conductor pipes (slotted) should be utilised to ensure the tailings are deposited at the toe of the embankment.

#### 4.1.3 Main Flushing

At the completion of the sequential deposition on each distribution main and following the change over to the alternative distribution main, the inoperative tailings line should be flushed with water (tails return water) until it is clean. The flushing operation will be supervised by the Shift Foreman.

## 4.2 Return Water Operation

Surface water will be removed from TSF3 by a decant pump located within a rock-ring type central decant structure. Return water will be pumped back to the process plant for reuse. The target average water return under normal operating conditions is approximately 68% of slurry water inflow. The minimum capacity of the water recovery system should not be less than 420 tph including the additional capacity to recover water from design storm events.

The location of the decant water pond will be controlled by the tailings discharge sequence employed. The process of tailings deposition is aimed at ensuring that the pond is positioned around the decant

facilities and that the pond is maintained in that position. The pond is positioned by altering the location of deposition point around the perimeter of the storage, as appropriate.

The pond around the decant should be maintained at the smallest practical operational size (i.e. ideally within the rock-ring) to maximise water return to the plant to enable most of the free water to be recovered through the decant for recycling to the process plant.

The size of the pond will be largely governed by the efficiency of the decant system in removing water from the tailings storage. Other controlling factors will be:

- Evaporation from the surface of the pond;
- Variations to the input of tailings water (percentage solids);
- Rainfall events;
- Difference in permeability between the tailings and the underlying rock units; and
- The ratio of horizontal to vertical permeability of the tailings.

## 5 ROUTINE INSPECTIONS AND MAINTENANCE

The following routine inspection and maintenance procedures are to be carried out for the various components of the system. Reporting sheets (Proformas) are attached covering the following inspections:

- Monthly Inspection Log                      PF1
- Daily Inspection Log                         PF2
- Personnel Contact Details                 PF3
- Staff Confirmation Log                      PF4
- Assembly Points                              To be supplied by Regis Resources Limited (RRL)

Routine inspections, as detailed below, are to be undertaken by an operator or shift supervisor, each shift on a daily basis. The date and time of each inspection are to be entered onto the inspection log and is to be signed by the person allocated to undertake the inspection on that shift to ensure the requirements have been undertaken. Suggested proformas are attached to this operations manual.

The Shift Inspection Log Sheet is to be filled out on each shift, daily. The frequency of the routine inspection is to be increased if any untoward conditions are observed at any time. Copies of inspection logs should be retained on-site.

The inspections should cover:

- The pipelines (tailings delivery line and water return lines) to and from TSF3.
- Leak detection.
- Pumps.
- Valves.
- Spigotting and deposition.
- Location and size of the decant pond.
- Decant and return water pumps operation.
- Seepage recovery flows and pumps.
- Seepage from the embankment toe.
- The general integrity of the embankments i.e. any new cracking or new seepage (daily).

- Any changes to existing cracking or seepage.

## 5.1 Monthly Inspections

Monthly inspections of TSF3 should be carried out by process plant management, refer to PF1 in order to provide management oversight of the facility.

These inspections should assess the items listed in the proforma and note any changes which have occurred since the previous inspection.

## 5.2 Annual Engineer's Inspection

An audit by a qualified geotechnical engineer with experience in the design, operation and auditing of tailings storages should be carried out at least once every year.

## 5.3 Inspections

### 5.3.1 Tailings Lines

The tailings line is to be inspected at least once per shift. The date and time of each inspection are to be entered onto the inspection log.

All tailings lines will be banded. The HDPE tailings lines are sensitive to temperature, and the expansion and contraction of this line can cause leaks, and in extreme situations, failure of the pipeline. Any leaks or failures of the tailings pipeline should be immediately reported to the following personnel or project equivalents and an incident report completed.

- Shift Foreman; or
- Mill Superintendent (Processing Manager).

### 5.3.2 Return Water System

The position and size of the pond in relation to TSF3 should be inspected at the same time as the tailings lines are inspected. Any abnormalities (i.e. lack of freeboard, pumps not operable) should be reported immediately to the following personnel or project equivalents:

- Shift Foreman; or
- Mill Superintendent (Processing Manager).

The return water lines to the plant from TSF3 should also be inspected at the same time as the tailings line. All return water lines will be banded. Any leaks or failure of the water pipeline should be immediately reported to the following personnel or project equivalents:

- Shift Foreman; or
- Mill Superintendent (Processing Manager).

## 5.4 Embankments

Part of the general activities of the Shift Foreman, when visiting the storage facilities, shall be to inspect the embankments, including berms and batter slopes. The inspection shall note any cracking or new features, such as seepage, embankment erosion or scour (caused by tailings deposition or rainfall runoff) or any other obvious changes or problems.

## 6 MONITORING REQUIREMENTS

The following section details the monitoring requirements to ensure TSF3 is performing in accordance with the design parameters and the details presented in the detailed design report.

Monitoring results (e.g. water quality and water level) should be recorded on spreadsheets and plotted and graphed as soon as possible. The information should be reviewed after being entered and graphed to allow any changes to be identified and acted upon.

The plotting of recorded information allows trends to be determined. Where newly recorded information deviates (generally significantly) from a previously established trend the reading should be checked, the general area should be inspected and the information reported to plant management for consideration and action.

Copies of the current leased licence conditions (DWER or DMIRS) relevant to the tailings storage should be attached to this document to allow for easy reference. Each time the licence is renewed or updated all conditions should be checked for any changes, with appropriate confirmation they have been read and records have been updated and will be acted upon as considered appropriate.

### 6.1 Process Plant

In addition to the daily visual inspections of the water pond, spigots, water return pumps, tailings and return water pipelines the following information should be recorded at a minimum on a monthly basis:

- Ore treatment, measured in dry tonnes.
- Tailings slurry density, measured in percentage solids or slurry water volume.
- Water return from all sources from TSF3 to the process plant, measured in cubic metres or tonnes.

This information will be utilised to estimate a water balance as part of the annual review of TSF3.

### 6.2 Embankment Monitoring

The requirement for additional instrumentation (i.e. monitoring bores, piezometers) associated with TSF3 should be reviewed as part of the yearly audit.

#### 6.2.1 Vibrating Wire Piezometers

Vibrating wire piezometers (VWP) are to be installed as part of the starter embankment construction. Allowance needs to be made for three (3) pairs, a total of six (6) VWPs. VWPs will enable the phreatic surface within TSF3 embankment to be monitored and stability analyses to be validated in the future.

VWPs are connected to data loggers downstream of the TSF. Under normal operating conditions the data should be downloaded from the loggers at least monthly, but under some circumstances, more frequent readings are required as defined in the trigger action response plan (TARP) presented in Appendix B. The data should be downloaded to a spreadsheet and assessed by a geotechnical engineer.

Installation details and calibration of the VWPs should be provided following construction. For the VWP trigger levels, refer to the TARP. The VWP data should be reviewed as part of the annual audit by CMW or an independent 3<sup>rd</sup> Party.

#### 6.2.2 Monitoring Bores

Three (3) monitoring bores (min) should be installed around TSF3 to a depth of 45 m as recommended in the CMW (2021) report.

It is recommended that as a minimum:

- Groundwater level readings are taken monthly, except in circumstances as defined by the TARP in Appendix B.
- Groundwater samples for laboratory analyses are taken quarterly, except for pH which is analysed on site.
- Analysis will be for Cu, Pb, Zn, As, Cd, Al, Fe, Ca, Mg, Na, K, HCO<sub>3</sub>, SiO<sub>2</sub>, SO<sub>4</sub>, Cl, NO<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub>, B, Br, Sr, Mn, F, Ag, Ba, Be, Bi, CO<sub>3</sub>, Hg, Mo, Ni, P, Sb, Se, Si, Sn, U, W and Cr.
- Information collected from the monitoring bores be reviewed regularly and reported in an annual environmental review (AER) and annual TSF audit (every 3 years in DMIRS guidelines).

### 6.2.3 Movement Monitoring

High-resolution surveys are conducted every 6 months from an unmanned aerial vehicle (UAV) or 'drone'. These provide a detailed survey of the surface of the TSF to +/- 100 mm resolution. Surveys are conducted every 4 to 6 months. Digital terrain models are prepared from the survey data and successive models can be compared to determine any deformation magnitude greater than the LIDAR limits of vertical accuracy of +/-100 mm.

## 6.3 Environmental Monitoring

### 6.3.1 Climatic Data

If climatic information is collected on-site or at a nearby BOM station, the following climatic data is to be collected daily or at the end of each month:

- Rainfall for the month.
- Evaporation for the month (if recorded on site or a nearby BOM station).

This information can be utilised in order to assist with determining a water balance for the annual review of TSF3.

### 6.3.2 Water Quality

Water quality monitoring (sampling and testing) is required from the following areas or sources:

- Monitoring bores located in and around TSF3.
- Seepage and any surface water located either downstream or upstream of TSF3.
- Slurry water discharged into the storage, decant water on the storage and water returned to the plant.

The frequency of the water quality monitoring is usually determined by the regulatory authorities with the details of the water quality requirements stipulated either on a licence or other approval documents issued by the regulatory authorities.

### 6.3.3 Storage Monitoring

Detailed mudline and water pond level surveys are to be carried out at least on an annual basis. This will enable the storage volume that has been used to be reconciled with the tailings tonnage deposited into the storage to establish an in-situ density of the tailings from comparison with the design in-situ density.

If any embankment construction is undertaken, as-built survey plans should be updated.

## 7 EMERGENCY ACTION PLAN

The Emergency Response Plan (ERP) or the Dam Safety Emergency Plan (DSEP) for MWGP (including the plant and TSF3) should be based on the results of the dam break analyses presented in the design report. The plan should be reviewed and updated as a minimum on a yearly basis. DESP and a risk register are presented in Appendix C and Appendix D, respectively.

The plan should include:

- Management responsibilities and emergency coordination.
- Muster points.
- Seeking specialist geotechnical advice.
- Emergency Plan Triggers, namely:
  - Freeboard less than design values.
  - Significant embankment distress.
  - Elevated piezometer and monitoring bore readings (see TARP).
  - Imminent overtopping.
  - Damage following an earthquake or extreme rainfall event.

The emergency response should be managed by the Processing Manager. When the triggers above have been exceeded, personnel should be directed to the muster area, upslope of the TSF3 area, as appropriate. The designers should also be advised as required when geotechnical advice is required.

To enable the emergency action plan to be implemented and to allow a safe and timely response to be instigated, the attached documents (Personnel Contact Details, Assembly Points and Staff Confirmation Log) outline current information pertaining to assembly points and contact names. The sheets shall be reviewed at least six monthly or updated as required when new staff become responsible for activities in and around the facilities.

Contractors shall also be made familiar with the location of the assembly point and be made aware of their reporting responsibilities and to whom they shall report to.

The attached sheets should provide a list of relevant contact details of staff associated with the tailings storage, senior site responsible staff, safety officers and emergency services.

### 7.1 Response Actions

In the event of an emergency, the site ERT must immediately be notified and advised of the nature of the emergency to enable the appropriate emergency action plan to be implemented. The site ERP/DSEP contains the details presented in the following sections such that response activities are coordinated with operations personnel.

At the time of the emergency, the PPS or his designated (trained operator) representative is to ensure that:

- All personnel and contractors who were or are working in or around the location of the emergency are accounted for.
- Personnel contact details are provided. This form must be reviewed quarterly as a minimum and must be updated immediately in the event of personnel leaving or joining the operation.
- All mine based personnel listed in the responsibility hierarchy are immediately contacted and advised of the nature of the emergency and any assistance required is requested.

All personnel who are working in the vicinity of the emergency are expected to be present at the muster points and are expected to be aware of other assembly points around TSF3 and the relevant reporting procedures. Emergency assembly points to be determined prior to commissioning of the TSF.

## 7.2 Tailings Storage

TSF3 has an adequate factor of safety against failure under normal operating and seismic load conditions, appropriate for the location.

Normal operating conditions refer to the tailings surface and surface of the supernatant water pond being within the freeboard requirements.

The probability of the containment failure during normal operations is very low, given:

- TSF3 embankments have been designed with adequate factors of safety and construction has been monitored by the designer of the TSF; and
- The implementation of the tailings operation methodology, appropriate to the facility, including the routine inspections and maintenance practices is adhered to as set out in this document.

However, in the unlikely event of embankment failure, the flow of tailings from the storage will be controlled by the extent of the water pond and the degree of saturation of the tailings at the time of failure.

Action to control an embankment failure and to limit environmental damage would include:

- Shut down of the process plant;
- Evacuate areas that will likely be affected by the tailings breach (i.e. plant);
- Construction of bunds by earthmoving equipment to divert and contain the tailings;
- Contacting a suitably qualified geotechnical organisation for technical assistance;
- Advising the relevant regulatory authorities;
- Deployment of pumps to recover tailings water and returning it to TSF3 if structurally sound or to the plant water storage facilities if evaporation and or dilution is impractical;
- Undertaking a thorough inspection of the area with the assistance of a geotechnical specialist prior to the commencement of any repairs;
- Repairing the damaged embankment;
- Cleaning up of tailings as soon as practicable after the repairs have been completed;
- Preparing an incident report, detailing all factors prior to the incident and the situation after clean-up. The report should identify causes of the problem and what actions will be taken to prevent a similar occurrence. This report should detail the on-going monitoring program to fully assess the impact of the incident;
- Advising all appropriate regulatory authorities as necessary of the incident; and
- Reviewing conditions of any license or lease conditions in respect to the timing of advising the regulatory authorities and the contents of that notification (reporting criteria).

It must be stressed however, that the safe operation of TSF3 relies upon the implementation of operational procedures which comprise tailings deposition, decant operation and routine inspections and maintenance, as set out in this document to minimise the potential for a catastrophic event such as a failed embankment.

### 7.3 Tailings Lines and Return Water Lines

The tailings lines from the process plant to the tailings storage and the return water lines from the decant facilities to the process water dam are to be located inside bunded, pipes/open trenches to contain any spillage of materials resulting from leaks or burst pipes during operation. In the event of pipeline failure, the PPM is to be notified and the affected pipeline is to be shut down until repaired and the spilled materials collected and/or pumped, as appropriate, and deposited in TSF3.

### 7.4 Process Water Tank

The decant pump is operated manually and run at all times. The pump is only switched off:

- During plant shutdowns or maintenance periods; and
- When dirty water is pumped into the process water tank, or when embankment construction is scheduled in accordance with the design.

Alternative pumping equipment and pump locations may be required during periods of pump maintenance or when embankment construction work is being undertaken.

## 8 INCIDENT REPORTING

The undertaking of regular inspections and monitoring is aimed at identifying any problems prior to them causing a major impact on the operation or integrity of the structure. The inspections may result in the identification of an event that may require reporting to senior staff and in some cases to relevant government departments, i.e. new seepage as indicated by monitoring bores.

Typical reporting events include:

- Any fauna death on or near TSF3 (not road kill).
- Any uncontrolled release of tailings slurry or return water and the cause (pipe break, overtopping, pump malfunction, automatic switch malfunction, operator error, etc.).
- Impact from seepage (vegetation distress, soil contamination, water quality changes).
- Defects to the tailings storage facility covering such things as the embankments and return water system (i.e. pertaining to safety issues).
- Changes in water quality that exceed prescribed conditions of licence criteria.
- Increases in production tonnages.

It is recommended that prior to submitting an incident report to DWER or DMIRS that an assessment be undertaken to confirm the nature, type and impact of the incident by either senior site staff or an independent organisation. If an incident requires reporting to the DWER or DMIRS, as a minimum, an incident report form should be used as well as any other reporting requirements (refer to licences).

## 9 DECOMMISSIONING AND REHABILITATION WORKS

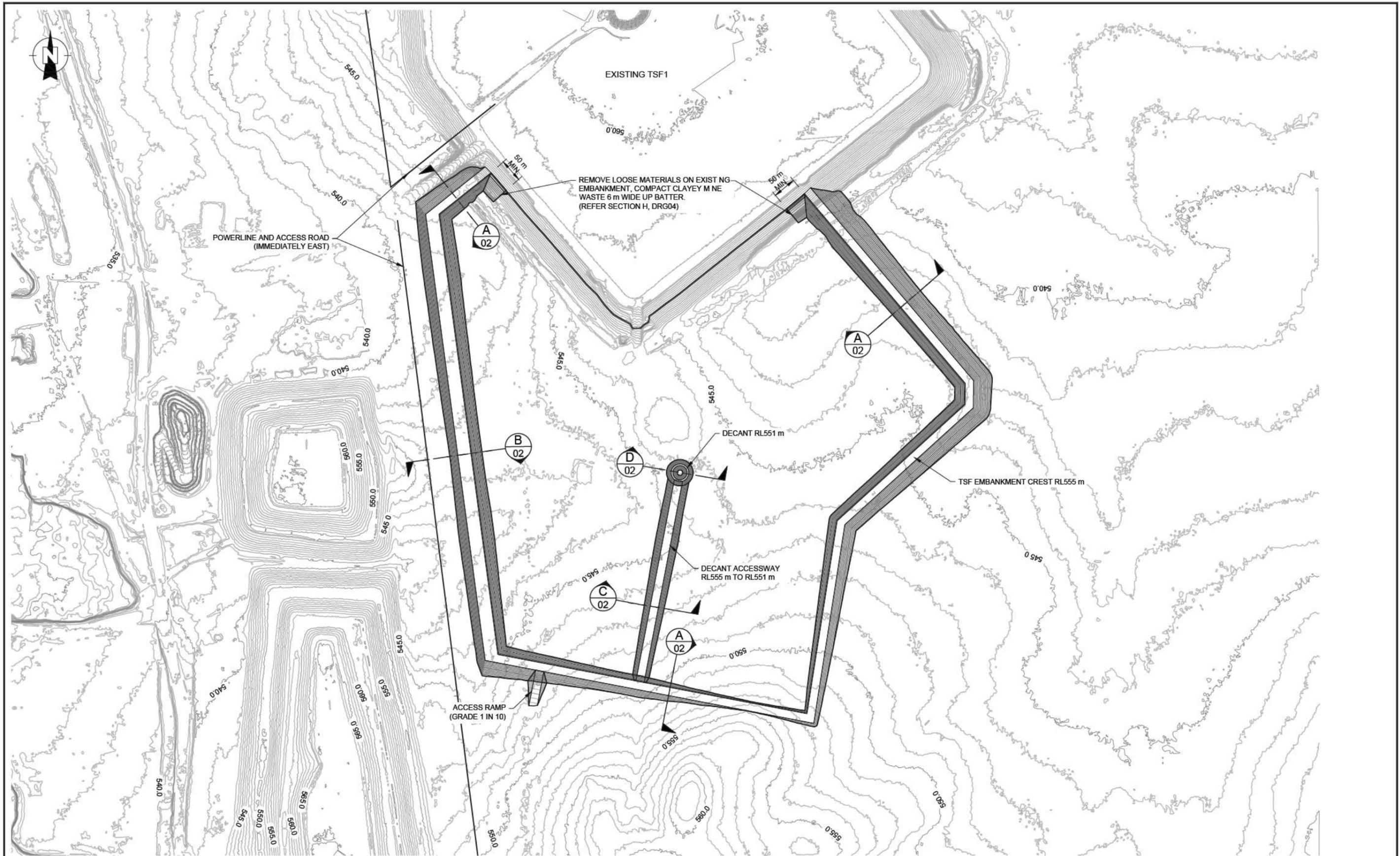
Refer to the CMW (2021) detailed design report for details of closure works associated with TSF3. Progressive rehabilitation works cannot be performed for the TSF during operations.

Rehabilitation closure criteria for TSF3 including observations specific to the tailings and consolidation will be developed and progressed as part of a Mine Closure Plan. Details of the criteria will be documented in the Mine Closure Plan (MCP) associated with the Mining Proposal.

## **10 CLOSURE**

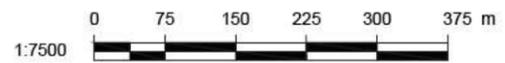
This Operations Manual is to be read in conjunction with the CMW (2021) design report. This Operating Manual contains copies of proforma log sheets and lists of information to be inspected and recorded on a daily, monthly or yearly basis.

# Figures

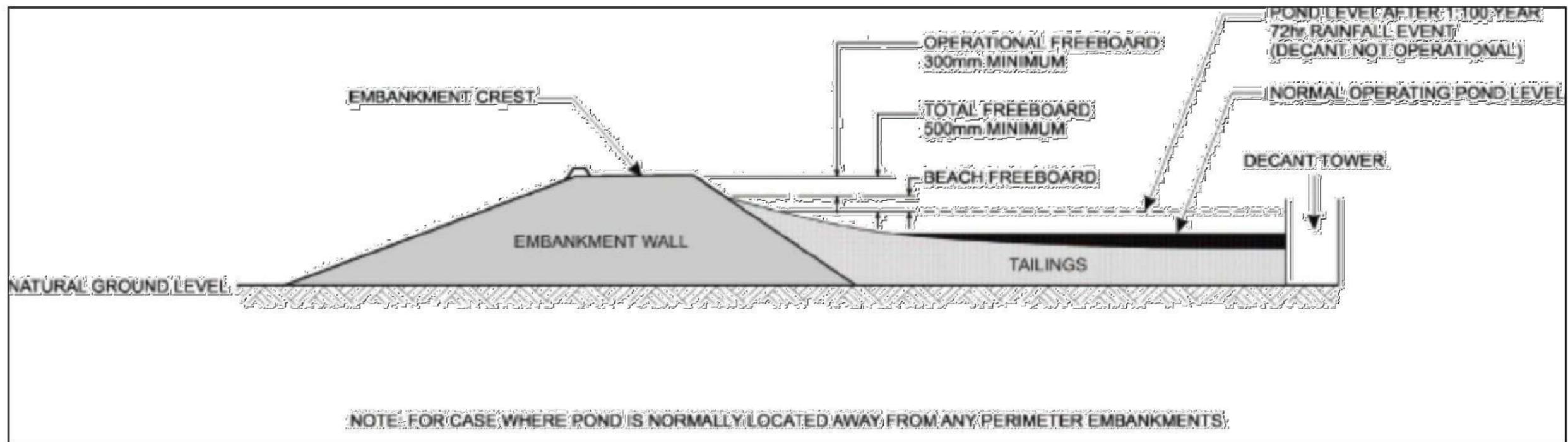


**NOTES:**

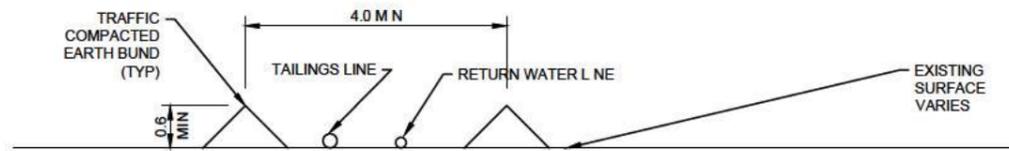
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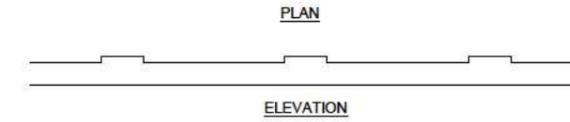
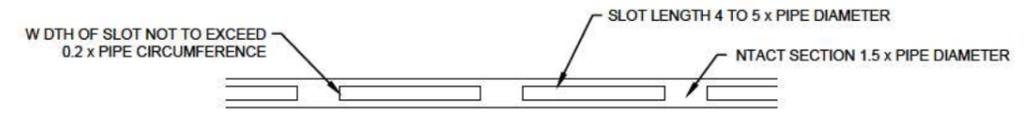
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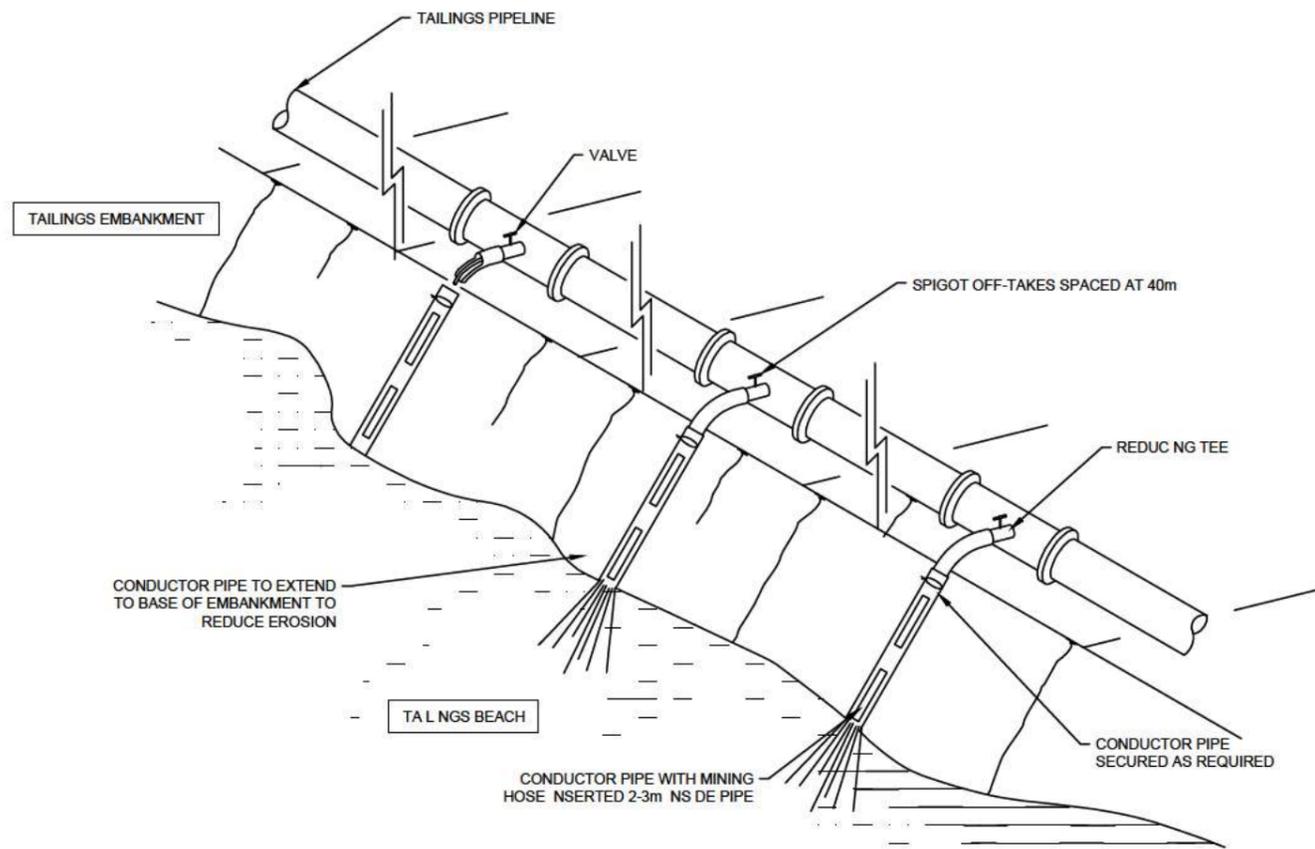
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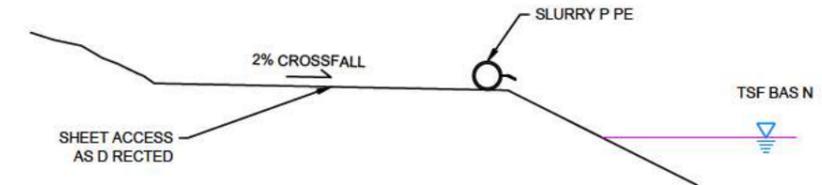
PIPELINE BUNDING - TYPICAL SECTION  
1:100



CONDUCTOR PIPE (SLOTTED PVC) - TYPICAL DETAIL  
1:50



PROPOSED SPIGOT ARRANGEMENT  
ISOMETRIC VIEW (NTS)



PIPE BENCH  
SECTION VIEW (NTS)

**NOTES:**

1. ALL DIMENSIONS IN METRES UNLESS SPECIFIED



CLIENT:	<b>REGIS RESOURCES LTD</b>	DRAWN:	DE	PROJECT:	PER2021-0102AF
PROJECT:	<b>TSF3 MOOLART WELL DUKETON, WA</b>	CHECKED:	CH	FIGURE:	03
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