

# Works Approval

Works approval number W6891/2024/1

Works approval holder Greenstone Resources (WA) Pty Ltd

**ACN** 100 341 599

Level 2, 35 Vertnor Avenue Registered business address

WEST PERTH WA 6005

**DWER file number** DER2024/000052

Duration 18/04/2024 to 17/04/2029

Date of issue 18/04/2024

Premises details King of the Hills Gold Mine

**LEONORA WA 6438** 

Legal description -

Mining tenements M37/67, M37/76, M37/90, M37/201, M37/222, M37/248, M37/330, M37/410, M37/429, M37/449, M37/451, M37/457, M37/547, M37/548, M37/572, M37/573, M37/574, M37/1105 As defined by the Premises map in Schedule 1.

| 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                                  | 6,000,000 tonnes per annual period |

This works approval is granted to the works approval holder, subject to the attached conditions, on 18 April 2024, by:

## A/MANAGER, RESOURCE INDUSTRIES **REGULATORY SERVICES**

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

# Works approval history

| Date       | Reference number | Summary of changes      |
|------------|------------------|-------------------------|
| 18/04/2024 | W6891/2024/1     | Works approval granted. |

## Interpretation

In this works approval:

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

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

# Works approval conditions

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

## **Construction phase**

### Infrastructure and equipment

- **1.** The works approval holder must:
  - (a) construct the critical containment infrastructure;
  - (b) in accordance with the corresponding design and construction / installation requirements; and
  - $\hbox{(c)} \quad \hbox{ at the corresponding infrastructure location,} \\$

as set out in Table 1.

Table 1: Critical containment infrastructure design and construction requirements

|  | Infrastructure  | Design and construction / installation requirements  | Infrastructure location                                |
|--|---|--|--|
| 1.   | expansion and   | Perimeter embankment constructed to a maximum crest level of RL 433.0 m.   | Labelled as 'TSF4', as                                 |
|  | embankment<br>raise   | <ol> <li>Expansion area must be cleared of loose rock debris<br/>and lined with either HDPE liner or 300mm-thick<br/>compacted clay liner, with liner capable of achieving<br/>permeability of 1 x 10<sup>-8</sup> m/s or less.</li> </ol> | depicted in<br>Schedule 1:<br>Map, Figure 2.           |
|  |   | <ol> <li>Any exploration or monitoring bore holes within the<br/>expansion footprint must be fully grouted prior to<br/>installation of liner.</li> </ol>  |  |
|  | 4. Embankment raise must be constructed in accordance with design specifications (i.e., embankment construction material, geometry, bunding, and crossfall), as depicted in Schedule 2: Design drawings, Figure 7(H) and Figure 8(J). |  |  |
|  |   | <ol> <li>Cut-off trench with nominal depth of 1.5 m must be<br/>constructed and backfilled with low-permeability fill<br/>material under the upstream zone of the extended<br/>northern and southern embankment.</li> </ol>                |  |
|  |   | Historic central decant rock fill in Cell A and Cell B must be sealed using low-permeability fill material.  |  |
| 7. Visual marker must be installed along emb for freeboard monitoring. |   | <ol><li>Visual marker must be installed along embankments<br/>for freeboard monitoring.</li></ol>  |  |
|  |   | Water cart must be used for dust suppression during construction activities, when required.  |  |
|  | Rock ring decant structure  | 9. Rock ring decant and decant accessway must be constructed in accordance with design specifications, as depicted in Schedule 2: Design drawings, Figure 9(F) and Figure 9(G), respectively.  | Labelled as<br>'F04', as<br>depicted in<br>Schedule 1: |
|  |   | <ol> <li>Rock ring decant must be equipped with a<br/>submersible pump with a nominal throughput of<br/>18,100 m<sup>3</sup>/day (or greater).</li> </ol>  | Map, Figure 3.   |

|    | Infrastructure  | Design and construction / installation requirements  | Infrastructure location   |
|----|---|--|---|
|    | Tailings delivery pipeline and spigot   | <ul> <li>11. Tailings delivery pipeline must be equipped with leak detection sensors and isolation valves;</li> <li>12. Tailings spigots must be installed at intervals no less than 40 m along the TSF4 perimeter embankments in accordance with design specifications, as depicted in as depicted in Schedule 2: Design drawings, Figure 10.</li> </ul>  | Around perimeter embankment of TSF4, which is depicted in Schedule 1: Map, Figure 2 (labelled as 'TSF4'). |
| 2. | TSF4 Stage 2 expansion and embankment raise  1. Perimeter embankment constructed to a maximum crest level of RL 437.0 m.  2. Expansion area must be cleared of loose rock debris and lined with either HDPE liner or 300mm-thick compacted clay liner, with liner capable of achieving permeability of 1 x 10 <sup>-8</sup> m/s or less.  3. Any exploration or monitoring bore holes within the expansion footprint must be fully grouted prior to installation of liner.  4. Embankment raise must be constructed in accordance with design specifications (i.e., embankment construction material, geometry, bunding, and crossfall), as depicted in Schedule 2: Design drawings, Figure 9(D). |  | Labelled as<br>'TSF4', as<br>depicted in<br>Schedule 1:<br>Map, Figure 3.                                 |
|    |   | <ol> <li>New embankments on existing waste rock landform must be constructed in accordance with design specifications (i.e., embankment construction material, geometry, bunding, and crossfall), as depicted in Schedule 2: Design drawings, Figure 9(E).</li> <li>Cut-off trench with nominal depth of 1.5 m must be constructed and backfilled with low-permeability fill material under the upstream zone of the extended northern and southern embankment, as well as the new western embankment.</li> <li>Rock ring decant and decant accessway must be</li> </ol> |   |
|    |   | <ul> <li>raised in accordance with design specifications, as depicted in Schedule 2: Design drawings, Figure 9(F) and Figure 9(G).</li> <li>8. Visual marker must be installed along embankments for freeboard monitoring.</li> <li>9. Water cart must be used for dust suppression during construction activities, when required.</li> </ul>  |   |
|    | Tailings delivery pipeline and spigot   | <ul> <li>10. Tailings delivery pipeline must be equipped with leak detection sensors and isolation valves.</li> <li>11. Tailings spigots must be installed at intervals no less than 40 m along the TSF4 perimeter embankments in accordance with design specifications, as depicted in as depicted in Schedule 2: Design drawings, Figure 10.</li> </ul>  | Around perimeter embankment of TSF4, which is depicted in Schedule 1: Map, Figure 3 (labelled as          |

| Infrastructure Design and construction / installation requirements |  | Infrastructure location  |
|--|--|--|
|  |  | 'TSF4').   |
| Monitoring infrastructure  | <ul> <li>12. Seven standpipe piezometers must be installed along the TSF4 perimeter embankments in accordance with design specifications, as depicted in Schedule 2: Design drawings, Figure 10 at the locations depicted in Schedule 1: Maps, Figure 5.</li> <li>13. Three vibrating wire piezometers must be installed along the TSF4 perimeter embankments in accordance with design specifications, as depicted in Schedule 2: Design drawings, Figure 10 at the locations depicted in Schedule 1: Maps, Figure 5.</li> <li>14. Settlement pins must be installed at approximately 200 m intervals along the TSF4 perimeter embankments in accordance with design specifications, as depicted in as depicted in</li> </ul> | Standpipe piezometers labelled as 'Additional Standpipe Piezometer' and vibrating wire piezometers labelled as 'VWPs', as depicted in Schedule 1: Map, Figure 5. |

#### 2. The works approval holder must:

- construct and/or install the infrastructure and/or equipment; (a)
- in accordance with the corresponding design and construction / installation (b) requirements; and
- at the corresponding infrastructure location. (c)

as set out in Table 2.

**Table 2: Design and construction requirements** 

|    | Infrastructure                      | Design and construction / installation requirements  | Infrastructure location                                 |
|----|-------------------------------------|--|---|
| 1. | TSF4 Stage 3<br>embankment<br>raise | <ol> <li>Perimeter embankment constructed to a maximum<br/>crest level of RL 441.0 m (for TSF4 Stage 3<br/>embankment raise) and RL 445.0 m (for TSF4 Stage<br/>4 embankment raise).</li> </ol>  | Labelled as<br>'TSF4', as<br>depicted in<br>Schedule 1: |
| 2. | TSF4 Stage 4<br>embankment<br>raise | <ol> <li>Embankment raise must be constructed in accordance with design specifications (i.e., embankment construction material, geometry, bunding, and crossfall), as depicted in Schedule 2: Design drawings, Figure 9(D) and Figure 9(E).</li> </ol> | Map, Figure 3.  |
|    |                                     | <ol> <li>Rock ring decant and decant accessway must be<br/>raised in accordance with design specifications, as<br/>depicted in Schedule 2: Design drawings, Figure 9(F)<br/>and Figure 9(G), respectively.</li> </ol>                                  |   |
|    |                                     | <ol> <li>Visual marker must be installed along embankments<br/>for freeboard monitoring.</li> </ol>  |   |
|    |                                     | <ol><li>Water cart must be used for dust suppression during<br/>construction activities, when required.</li></ol>  |   |
| 3. | Booster pumping station             | Perimeter bunding must be constructed, with sufficient capacity to contain volume of tailings contained within pipelines between the nearest   | Labelled as<br>'Tailings<br>Booster Pump                |

| Infrastructure | Design and construction / installation requirements  | Infrastructure location   |
|----------------|--|---|
|                | isolation points.  2. Bunded area must be equipped with a sump to collect potential spills or leaks. | Station (40M X<br>40M)', as<br>depicted in<br>Schedule 1:<br>Map, Figure 4. |

### **Compliance reporting**

- 3. The works approval holder must within 90 calendar days of the critical containment infrastructure identified by condition 1 being constructed:
  - (a) undertake an audit of their compliance with the requirements of condition 1; and
  - (b) prepare and submit to the CEO a Critical Containment Infrastructure Report on that compliance.
- **4.** The Critical Containment Infrastructure Report required by condition 3 must include, as a minimum, the following:
  - (a) certification by a suitably qualified engineer that each item of critical containment infrastructure of component thereof, as specified in condition 1, has been built and installed in accordance with the requirements of condition 1;
  - (b) as-constructed plans and a detailed site plan showing the location and dimensions for each item of critical containment infrastructure or component thereof, as specified in condition 1;
  - (c) photographic evidence of the installation of the infrastructure;
  - (d) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.
- **5.** The works approval holder must within 60 calendar days of an item of infrastructure or equipment required by condition 2 being constructed and/or installed:
  - (a) undertake an audit of their compliance with the requirements of condition 2; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- **6.** The Environmental Compliance Report required by condition 5 must include, as a minimum, the following:
  - (a) certification by a suitably qualified engineer that the items of infrastructure or component(s) thereof, as specified in condition 2, have been constructed in accordance with the relevant requirements specified in condition 1;
  - (b) as-constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 2: and
  - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

## **Environmental commissioning phase**

7. The works approval holder may only commence environmental commissioning of an item of infrastructure identified in condition 8 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 5.

- **8.** Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 3 must be carried out:
  - (a) in accordance with the corresponding commissioning requirements; and
  - (b) for the corresponding authorised commissioning duration.

**Table 3: Environmental commissioning requirements** 

|    | Infrastructure          | Commissioning requirements   | Infrastructure<br>location   | Authorised commissioning duration                         |
|----|-------------------------|--|--|---|
| 1. | Booster pumping station | <ol> <li>Tailings delivery pipelines<br/>must be inspected visually at<br/>least twice daily.</li> <li>Leak detection sensors must<br/>be monitored to detect<br/>potential tailings delivery<br/>pipeline.</li> </ol> | Labelled as 'Tailings Booster Pump Station (40M X 40M)', as depicted in Schedule 1: Map, Figure 4. | For a period not exceeding 30 calendar days in aggregate. |

**9.** During environmental commissioning, the works approval holder must ensure that the emissions specified in Table 4 are discharged only from the corresponding discharge points and only at the corresponding discharge point locations.

Table 4: Authorised discharge point during environmental commissioning

| Emission point reference | Description     | Source  | Emission point location   |
|--------------------------|-----------------|---|---|
| TSF4                     | Tailings slurry | Tailings processing from gold processing plant via booster pumping station at the premises. | Labelled as 'TSF4', as depicted in Schedule 1: Map, Figure 2 (during Stage 1 expansion and embankment raise) and Figure 3 (during Stage 2 expansion, as well as Stage 3 and Stage 4 embankment raises). |

### **Compliance reporting**

- 10. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in condition 8.
- **11.** The Environmental Commissioning Report required by condition 10 must include, as a minimum, the following:
  - (a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of tailings discharged;
  - (b) environmental performance of each item of infrastructure or equipment as constructed or installed, including an assessment of any monitoring or testing against the intended design of the item of infrastructure or equipment;
  - (c) a review of the works approval holder's compliance with the requirements of condition 8; and
  - (d) where they have not been met, measures proposed to meet the manufacturer's design specifications and/or the conditions of this works approval, as well as timeframes for implementing the proposed measures.

## Time limited operations phase

### **Commencement and duration**

- **12.** The works approval holder may only commence time limited operation for an item of critical containment infrastructure identified in condition 15:
  - (a) where the CEO has notified the works approval holder that the Critical Containment Infrastructure Report for that item of critical containment infrastructure as required by condition 3 meets the requirements of that condition; or
  - (b) where at least 45 business days have passed after the Critical Containment Infrastructure Report for that item of critical containment infrastructure as required by condition 3 has been submitted to the CEO.
- **13.** The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 15:
  - (a) where the item of infrastructure is not authorised to undertake environmental commissioning under condition 8, the Environmental Compliance Report as required by condition 5 has been submitted by the works approval holder for that item of infrastructure; and
  - (b) where the item of infrastructure is authorised to undertake environmental commissioning under condition 8, the Environmental Commissioning Report for that item of infrastructure has been submitted by the works approval holder, as required by condition 10.
- **14.** The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 15:
  - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 12 or condition 13 (as applicable for the item of infrastructure); or
  - (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 14(a).

### Time limited operations requirements and emission limits

**15.** During time limited operations, the works approval holder must ensure that the premises infrastructure listed in Table 5 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 5.

Table 5: Infrastructure and equipment requirements during time limited operations

|    | Infrastructure                                       | Operational requirement  | Infrastructure location  |
|----|--|--|--|
| 1. | TSF4 Stage 1<br>expansion and<br>embankment<br>raise | <ol> <li>Tailings must be deposited sub-aerially, with deposition patterns rotated to optimise decant water recovery.</li> <li>Decant pond size must be maintained as small</li> </ol> | Labelled as 'TSF4',<br>as depicted in<br>Schedule 1: Map,<br>Figure 2. |
| 2. | TSF4 Stage 2 expansion and                           | as practicable.  3. Decant pond must be maintained around the  | Labelled as 'TSF4', as depicted in                                     |

|    | Infrastructure                   | Operational requirement   | Infrastructure<br>location  |
|----|----------------------------------|---|---|
|    | embankment<br>raise              | rock ring decant, with pond boundary at least<br>250 m from the perimeter embankment (from<br>operation of Stage 2 expansion and  | Schedule 1: Map,<br>Figure 3.   |
| 3. | TSF4 Stage 3                     | embankment raise onwards).  |   |
|    | embankment<br>raise              | <ol> <li>Decant pond must be maintained to allow a<br/>minimum of 500 mm total freeboard (including<br/>allowance for a 1% AEP 72-hour rain event).</li> </ol>                                      |   |
| 4. | 4. TSF4 Stage 4 embankment raise | <ol> <li>Leak detection sensors and isolation valves on<br/>tailings delivery pipelines and return water<br/>pipelines must be maintained and operational<br/>when pipelines are in use.</li> </ol> |   |
|    |                                  | <ol><li>Bunds, scour pits and sumps servicing tailings<br/>delivery pipelines and return water pipelines<br/>must be maintained.</li></ol>  |   |
| 5. | Booster pumping station          | 1. Bund integrity and sump must be maintained.  | Labelled as 'Tailings<br>Booster Pump<br>Station (40M X<br>40M)', as depicted in<br>Schedule 1: Map,<br>Figure 4. |

**16.** During time limited operation, the works approval holder must ensure that the emissions specified in Table 6 are discharged only from the corresponding discharge points and only at the corresponding discharge point locations.

Table 6: Authorised discharge point during time limited operation

| Emission point reference | Description     | Source  | Emission point location  |
|--------------------------|-----------------|---|--|
| TSF4                     | Tailings slurry | Tailings processing from gold processing plant via booster pumping station at the premises. | Labelled as 'TSF4', as depicted in<br>Schedule 1: Map, Figure 2 (during<br>Stage 1 expansion and embankment<br>raise) and Figure 3 (during Stage 2<br>expansion, as well as Stage 3 and<br>Stage 4 embankment raises). |

- **17.** During time limited operation, the works approval holder must:
  - (a) undertake inspections of the infrastructure at the corresponding frequency, as specified in Table 7;
  - (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 7: Inspection of infrastructure during time limited operation

| Infrastructure   | Type of inspection  | Frequency of inspection |
|--|---|-------------------------|
| TSF4 embankment  | Freeboard capacity  | Daily                   |
| TSF4 decant pond                                       | Size and location; and Wildlife sightings and activities at decant pond | Daily                   |
| Tailings delivery pipelines and return water pipelines | Visual integrity  | Twice daily             |

## **Monitoring during time limited operations**

- **18.** During time limited operation, the works approval 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; and
  - (c) all laboratory samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured.
- **19.** During time limited operation, the works approval holder must ensure that all monitoring equipment used on the premises to comply with conditions 21 and 22 is calibrated in accordance with manufacturer specification.
- **20.** During time limited operation, the works approval holder must ensure that monitoring is undertaken in each quarterly period such that there are at least 45 calendar days in between days on which samples are taken in successive quarters.
- **21.** During time limited operation, the works approval holder must monitor discharges:
  - (a) at the corresponding monitoring location;
  - (b) for the corresponding parameters;
  - (c) in the corresponding unit;
  - (d) for the corresponding averaging period; and
  - (e) at no less than the corresponding frequency,

as set out in Table 8.

Table 8: Monitoring of emissions and discharges during time limited operation

| Monitoring point reference | Monitoring<br>location            | Parameter                                 | Unit    | Averaging period | Frequency   |
|----------------------------|-----------------------------------|---|---------|------------------|---|
| TSF4 decant                | Labelled as 'F04', as depicted in | pH <sup>1</sup>                           | pH unit | Spot<br>sample   | Quarterly during time limited operation of TSF4 Stage 1 to Stage 4 embankment |
| pond                       | Schedule 1: Map,<br>Figure 3.     | Electrical conductivity (EC) <sup>1</sup> | μS/cm   | Sample           |   |
|                            |                                   | Total dissolved solids                    |         |                  |   |

| Monitoring point reference | Monitoring location | Parameter                              | Unit | Averaging period | Frequency |
|----------------------------|---------------------|--|------|------------------|-----------|
|                            |                     | (TDS)                                  | mg/L |                  | raises.   |
|                            |                     | Total cyanide                          |      |                  |           |
|                            |                     | Weak acid dissociable cyanide (WAD CN) |      |                  |           |

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

- **22.** During time limited operation, the works approval holder must undertake monitoring of ambient groundwater:
  - (a) at the corresponding monitoring locations;
  - (b) for the corresponding parameters;
  - (c) in the corresponding unit;
  - (d) for the corresponding averaging period;
  - (e) at no less than the corresponding frequency; and
  - (f) must not exceed the corresponding limit,

as set out in Table 9.

Table 9: Monitoring of ambient groundwater quality during time limited operation

| Monitoring point reference  | Monitoring location             | Parameter  | Unit          | Averaging period | Frequency   | Limit       |             |             |        |
|---|---------------------------------|--|---------------|------------------|---|-------------|-------------|-------------|--------|
| 1. MBH1(S);<br>2. MBH1(D);  | As depicted in Schedule 1: Map, | Standing water level (SWL) <sup>1</sup>                            | mbgl;<br>mAHD | Spot<br>sample   | Quarterly<br>during time<br>limited<br>operation of<br>TSF4 Stage | during time | during time | during time | 4 mbgl |
| 3. MBH2(S);   | Figure 6.                       | pH <sup>1</sup>  | pH unit       |                  |   |             |             |             |        |
| <ul><li>4. MBH2(D);</li><li>5. MBH3(S);</li><li>6. MBH3(D);</li></ul> |                                 | Electrical conductivity (EC) <sup>1</sup>                          | μS/cm         |                  | 1 to Stage 4 embankment raises.                                   |             |             |             |        |
| 7. MBH6;<br>8. MBH7;  |                                 | Total dissolved solids (TDS)                                       | mg/L          |                  |   |             |             |             |        |
| 9. MBH14;<br>10. MBH15;   |                                 | Weak acid dissociable cyanide (WAD CN)                             |               |                  |   | 0.5 mg/L    |             |             |        |
| 11. MBH18;<br>12. MBH19;  |                                 | Major ions:  • Calcium (Ca);                                       |               |                  |   |             |             |             |        |
| 13. MBH21;<br>14. MBH23.  |                                 | Magnesium (Mg);  |               |                  |   |             |             |             |        |
| 14. MBH23.  |                                 | <ul><li>Sodium (Na);</li><li>Potassium (K);</li></ul>              |               |                  |   |             |             |             |        |
|   |                                 | • Carbonate (CO <sub>3</sub> );                                    |               |                  |   |             |             |             |        |
|   |                                 | <ul><li>Chloride (CI);</li><li>Sulfate (SO<sub>4</sub>).</li></ul> |               |                  |   |             |             |             |        |
|   |                                 | Metals and metalloid:  |               |                  |   |             |             |             |        |

| Monitoring point reference | Monitoring location | Parameter                         | Unit | Averaging period | Frequency | Limit |
|----------------------------|---------------------|-----------------------------------|------|------------------|-----------|-------|
|                            |                     | • Arsenic (As);                   |      |                  |           |       |
|                            |                     | Cadmium (Cd);                     |      |                  |           |       |
|                            |                     | ◆Chromium (Cr);                   |      |                  |           |       |
|                            |                     | Copper (Cu);                      |      |                  |           |       |
|                            |                     | Cobalt (Co);                      |      |                  |           |       |
|                            |                     | Iron (Fe);                        |      |                  |           |       |
|                            |                     | Lead (Pb);                        |      |                  |           |       |
|                            |                     | <ul><li>Manganese (Mn);</li></ul> |      |                  |           |       |
|                            |                     | Mercury (Hg);                     |      |                  |           |       |
|                            |                     | Nickel (Ni);                      |      |                  |           |       |
|                            |                     | ∙ Zinc (Zn).                      |      |                  |           |       |

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

**23.** During time limited operation, the works approval holder must undertake the monitoring for the parameters specified in Table 10 in accordance with the specifications detailed in Table 10.

Table 10: Process monitoring during time limited operation

| Parameter   | Unit   | Frequency | Method          |
|---|--------|-----------|-----------------|
| Amount of tailings deposited                            | m³     | Monthly   | None specified. |
| Volume of return water recovered from the decant system |        |           |                 |
| Amount of ore processed at processing plant             | tonnes |           |                 |

### **Compliance reporting**

- 24. The works approval holder must submit to the CEO a report on the time limited operations of an item of infrastructure within 60 calendar days of the completion date of time limited operations for that item of infrastructure or 90 calendar days before the expiration date of the works approval, whichever is the sooner.
- **25.** The works approval holder must ensure the repot required by condition 24 includes the following:
  - (a) a summary of the time limited operations, including timeframes;
  - (b) the environmental performance of each item of infrastructure or equipment as constructed or installed against conditions 15, 16 and 17 of the works approval; and
  - (c) a summary and analysis of monitoring results obtained during time limited operation under conditions 21 and 22;
  - (d) a summary of process monitoring results obtained during time limited operation under condition 23;

- (e) a review of the works approval holder's compliance with the conditions of the works approval during time limited operation; and
- (f) where the environmental performance of an item of infrastructure or equipment has not been met, measures proposed to meet the manufacturer's design specifications and/or the conditions of this works approval, as well as timeframes for implementing the proposed measures.

## **Records and reporting (general)**

- **26.** The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
  - (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- **27.** The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:
  - (a) the works conducted in accordance with conditions 1, 2 and 8;
  - (b) any maintenance of infrastructure that is performed in the course of complying with conditions 15 and 17;
  - (c) monitoring programmes undertaken in accordance with conditions 21, 22 and 23; and
  - (d) complaints received under condition 26.
- **28.** The books specified under condition 26 must:
  - (a) be legible;
  - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained by the works approval holder for the duration of the works approval; and
  - (d) be available to be produced to an inspector or the CEO as required.

# **Definitions**

In this works approval, the terms in Table 11 have the meanings defined.

**Table 11: Definitions** 

| Term  | Definition   |
|---|--|
| AEP   | means Annual Exceedance Probability.   |
| annual period                                 | a 12-month period commencing from 1 January until 31 December of the same year.  |
| AS 1692                                       | refers to the Australian Standard 1692 – Steel tanks for flammable and combustible liquids.  |
| AS 1940                                       | refers to the Australian Standard 1940 – The storage and handling of flammable and combustible liquids.  |
| AS 5667.1                                     | refers to the Australian Standard 5667.1 – Water quality – Sampling,<br>Part 1: Guidance on the design of sampling programs, sampling<br>techniques and the preservation and handling of samples.  |
| AS 5667.11                                    | refers to the Australian Standard 5667.11 – Water quality – Sampling,<br>Part 11: Guidance on sampling of groundwaters.  |
| books   | has the same meaning given to that term under the EP Act.  |
| CEO   | means Chief Executive Officer.   |
|   | CEO for the purposes of notification means:  |
|   | Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919  |
|   | info@dwer.wa.gov.au  |
| critical containment infrastructure           | means the items of infrastructure listed in condition 2.   |
| Critical Containment<br>Infrastructure Report | means a report to satisfy the CEO that works of critical containment infrastructure have been constructed in accordance with the works approval.   |
| Department                                    | means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.   |
| discharge                                     | has the same meaning given to that term under the EP Act.  |
| emission                                      | has the same meaning given to that term under the EP Act.  |
| environmental commissioning                   | means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications. |
| Environmental                                 | means a report on any commissioning activities that have taken place   |

| Term                               | Definition   |  |  |
|------------------------------------|--|--|--|
| Commissioning Report               | and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.  |  |  |
| Environmental<br>Compliance Report | means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.  |  |  |
| EP Act                             | Environmental Protection Act 1986 (WA).  |  |  |
| EP Regulations                     | Environmental Protection Regulations 1987 (WA).  |  |  |
| HDPE                               | means high-density polyethylene.   |  |  |
| mbgl                               | means metres below ground level.   |  |  |
| mAHD                               | means metres in accordance with the Australian Height Datum.   |  |  |
| NATA                               | refers to the National Association of Testing Authorities.   |  |  |
| premises                           | the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.  |  |  |
| prescribed premises                | has the same meaning given to that term under the EP Act.  |  |  |
| suitably qualified engineer        | <ol> <li>means a person who:</li> <li>holds a Bachelor of Engineering recognised by the Australian Institute of Engineers; and</li> <li>has a minimum of five years of experience working in the design and/or implementation of the relevant infrastructure, or</li> <li>who is otherwise approved by the CEO to act in this capacity.</li> </ol> |  |  |
| time limited operations            | refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.  |  |  |
| works approval                     | refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.   |  |  |
| works approval holder              | refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.  |  |  |

## **END OF CONDITIONS**

# **Schedule 1: Maps**

## **Premises map**

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

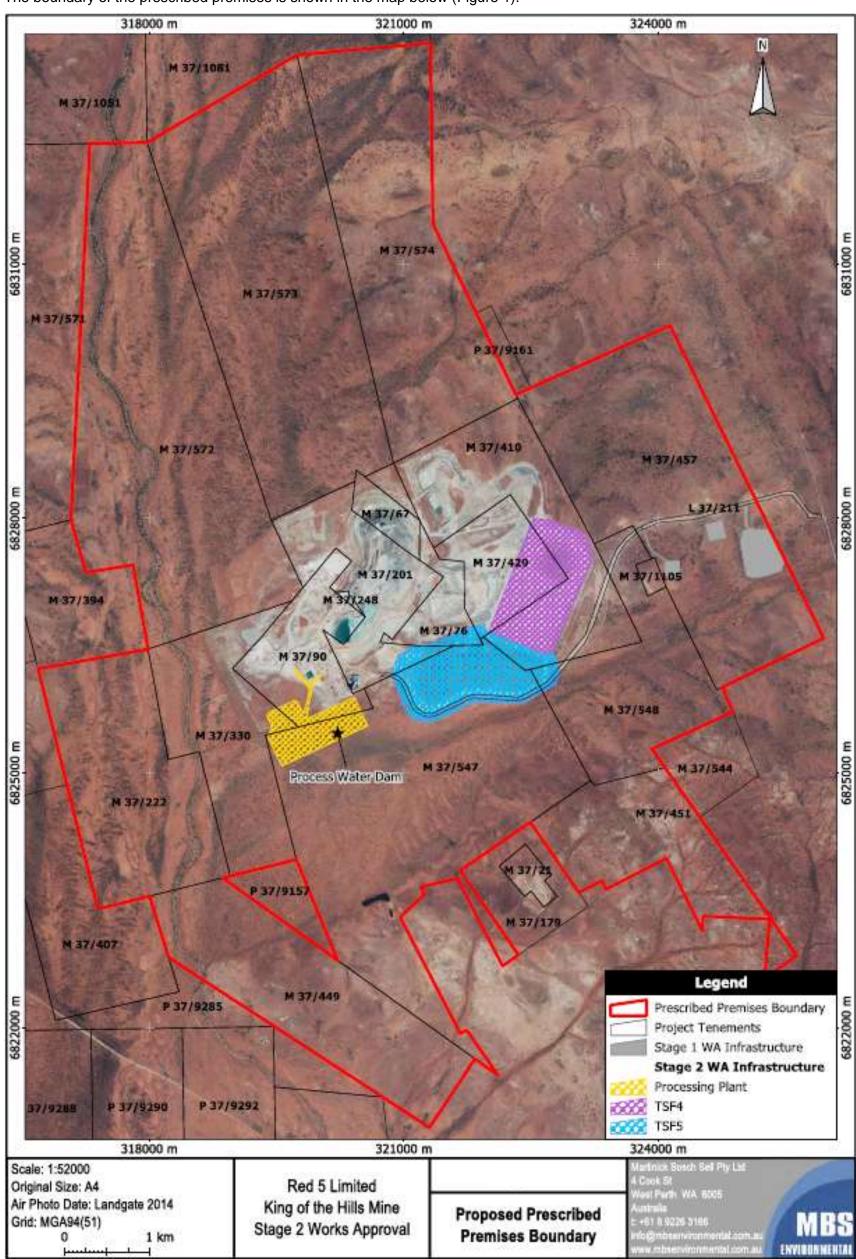


Figure 1: Map of the boundary of the prescribed premises

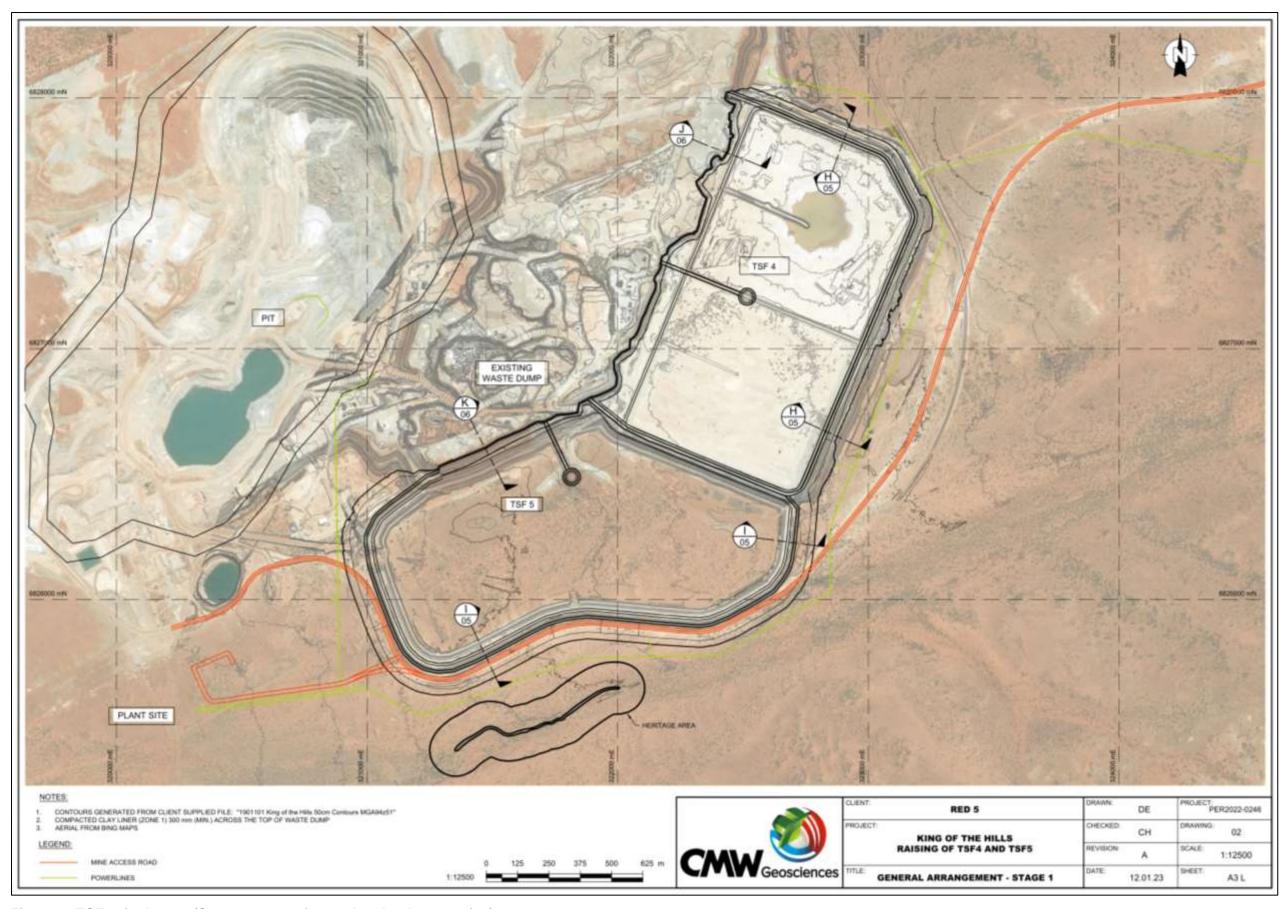


Figure 2: TSF4 site layout (Stage 1 expansion and embankment raise)

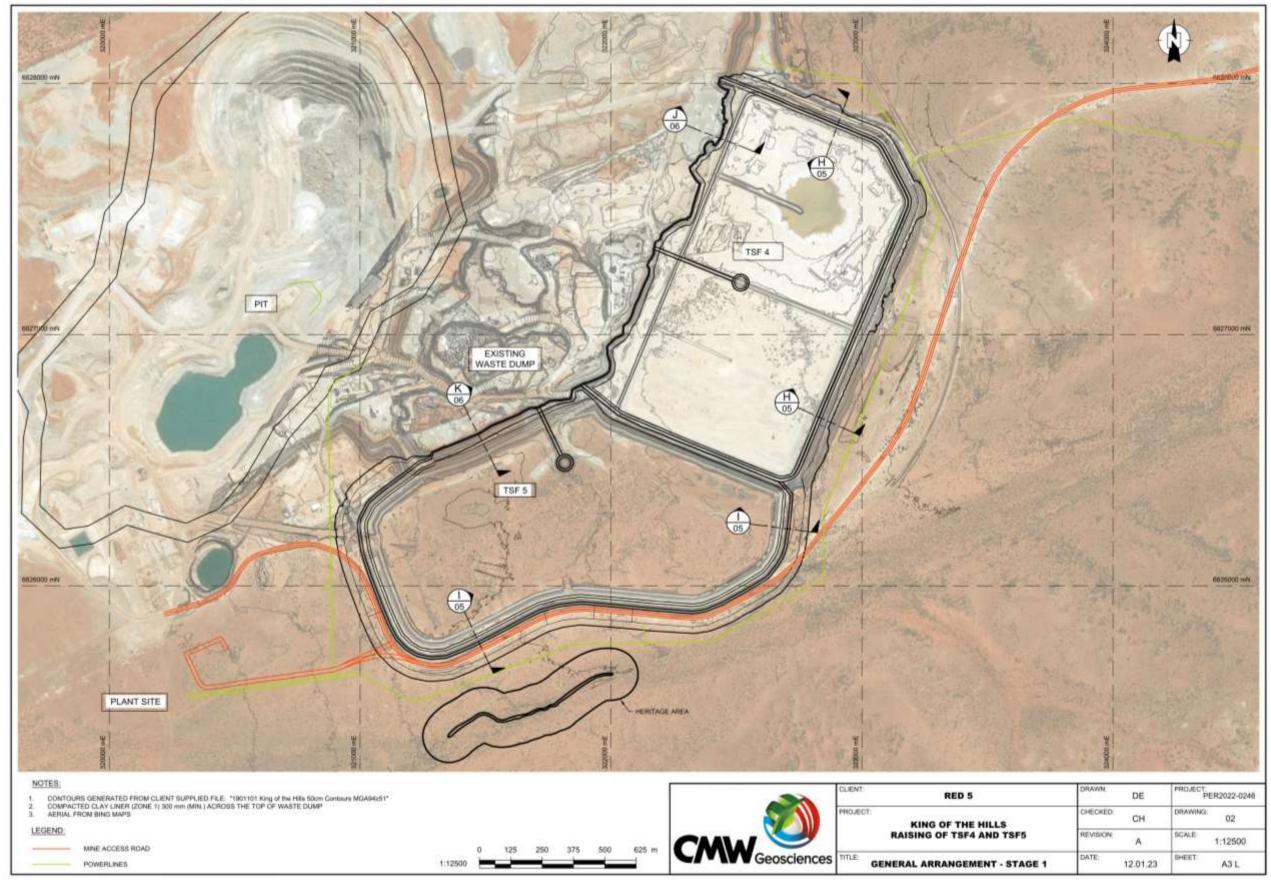


Figure 3: Site layout (Stage 2 to Stage 4 expansion and embankment raises)

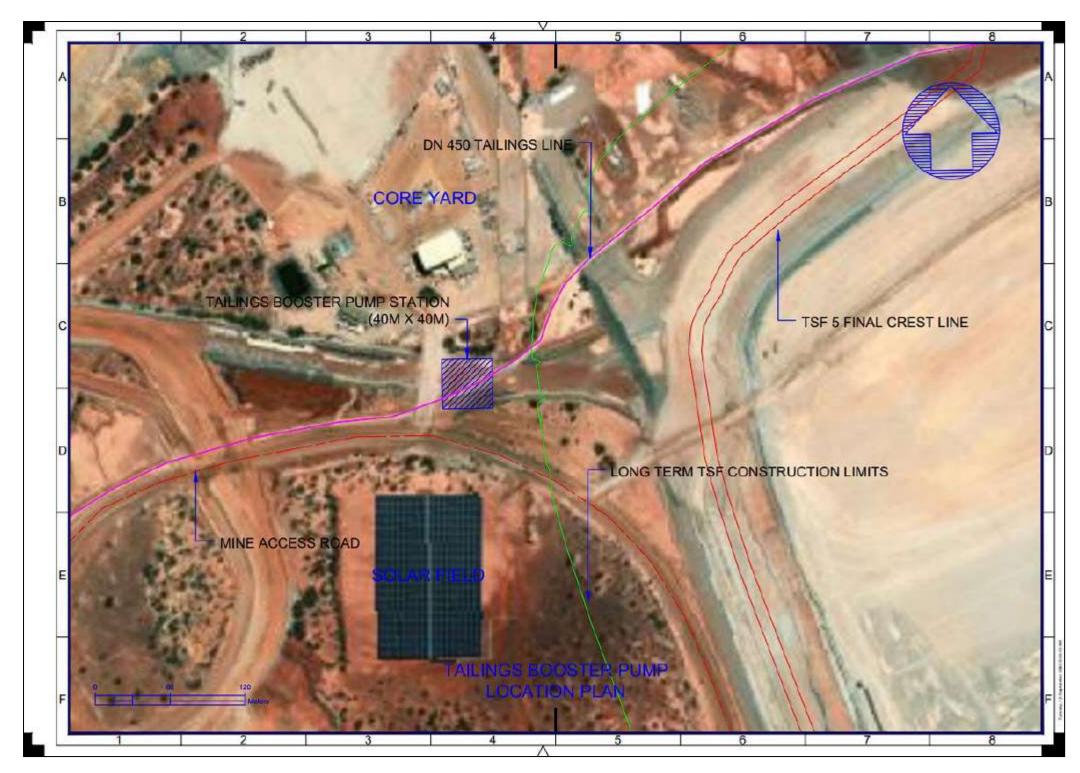


Figure 4: Location of booster pumping station

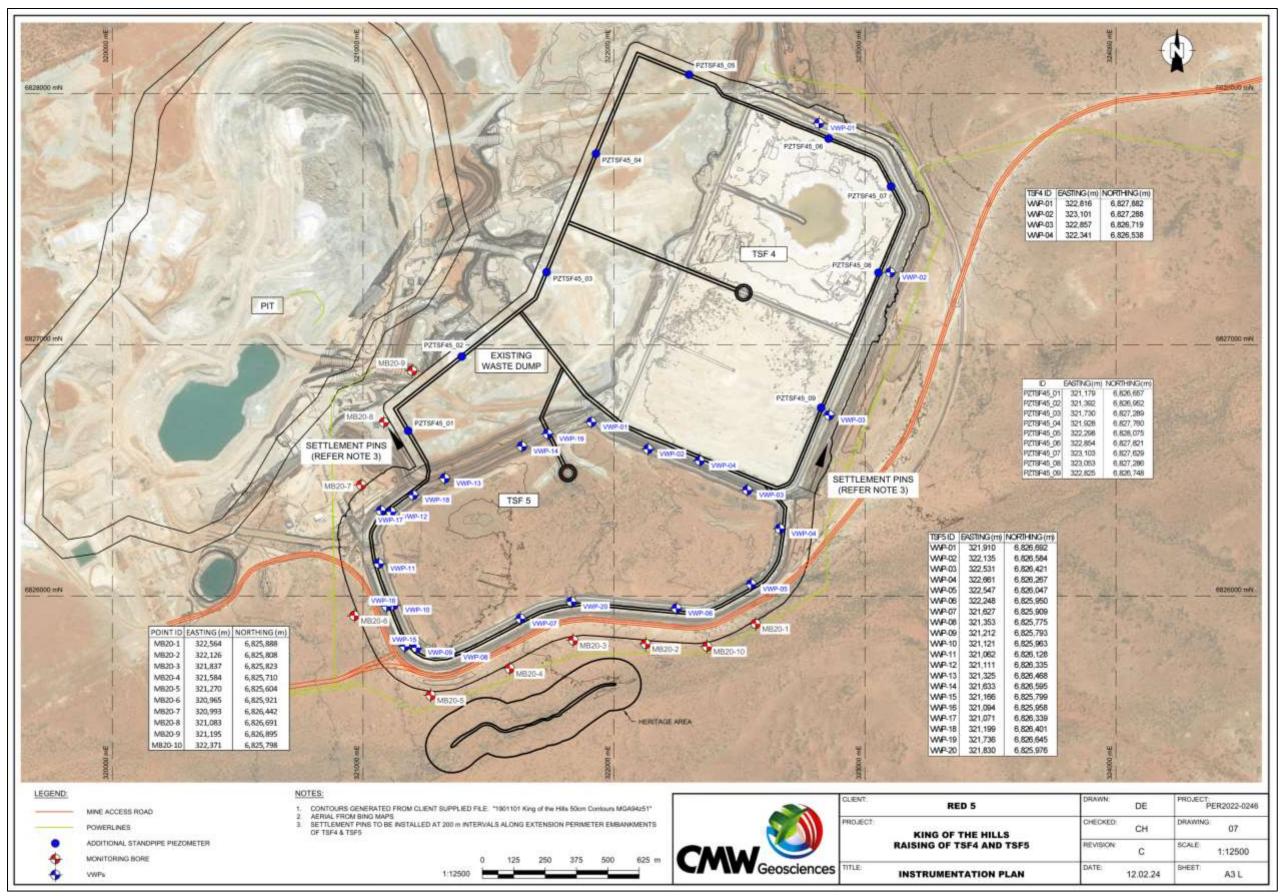


Figure 5: Location of standpipe piezometers and vibrating wire piezometers

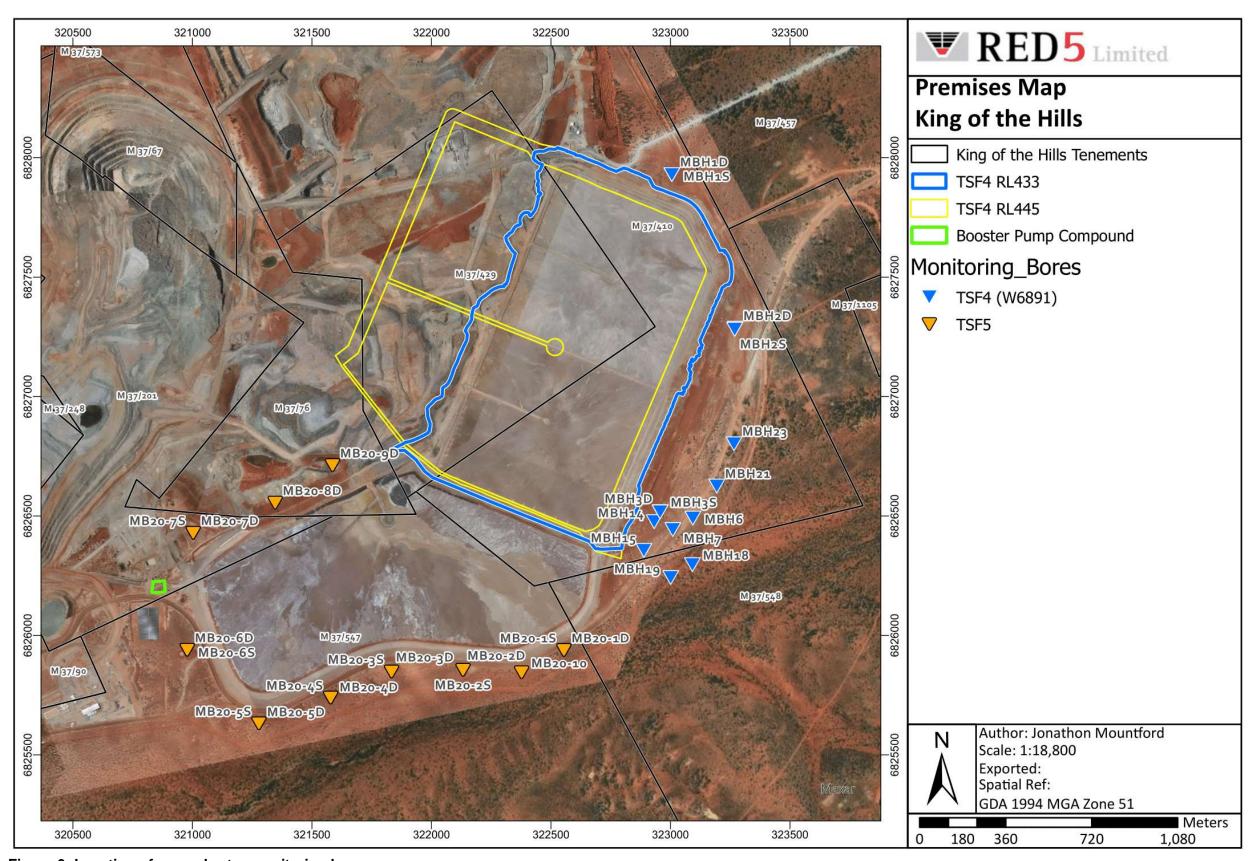


Figure 6: Location of groundwater monitoring bores

# **Schedule 2: Design drawings**

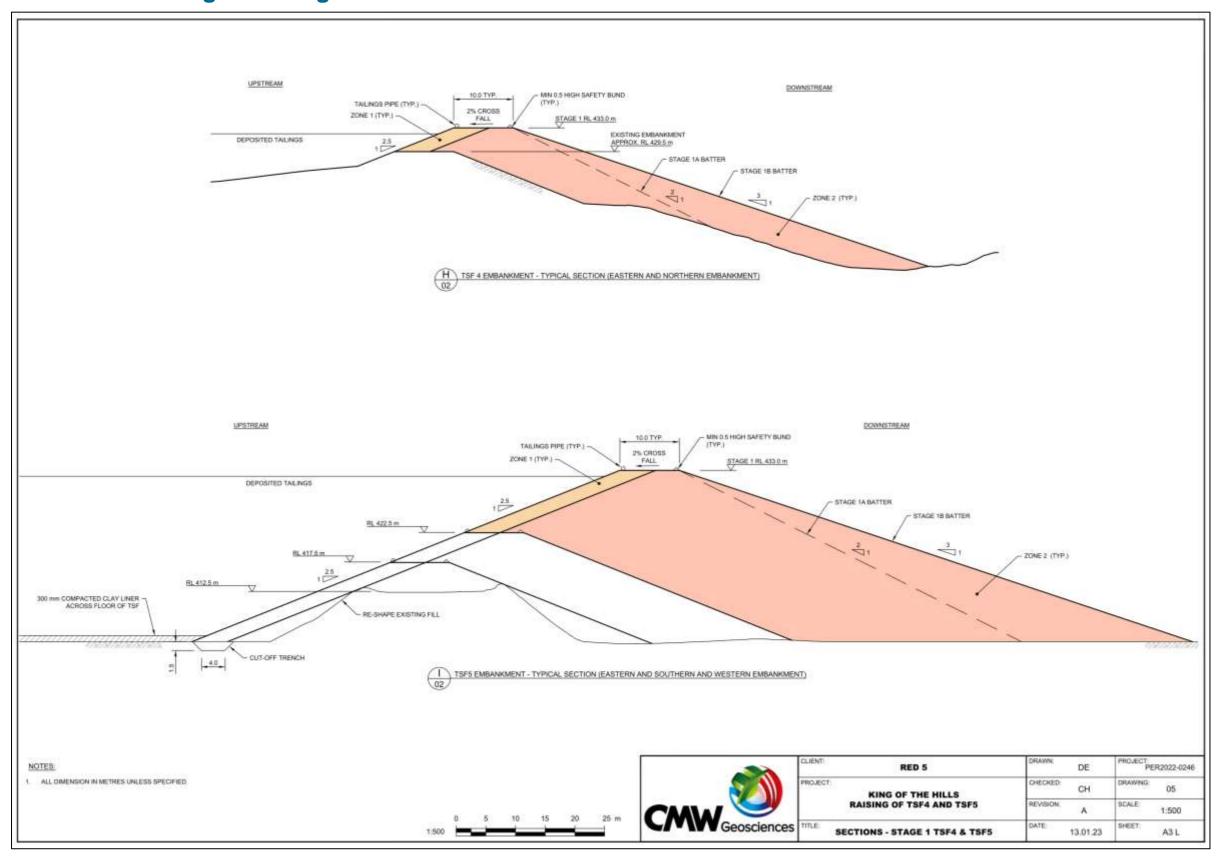


Figure 7: Design drawing for TSF4 Stage 1 embankment raise (eastern and northern embankment)

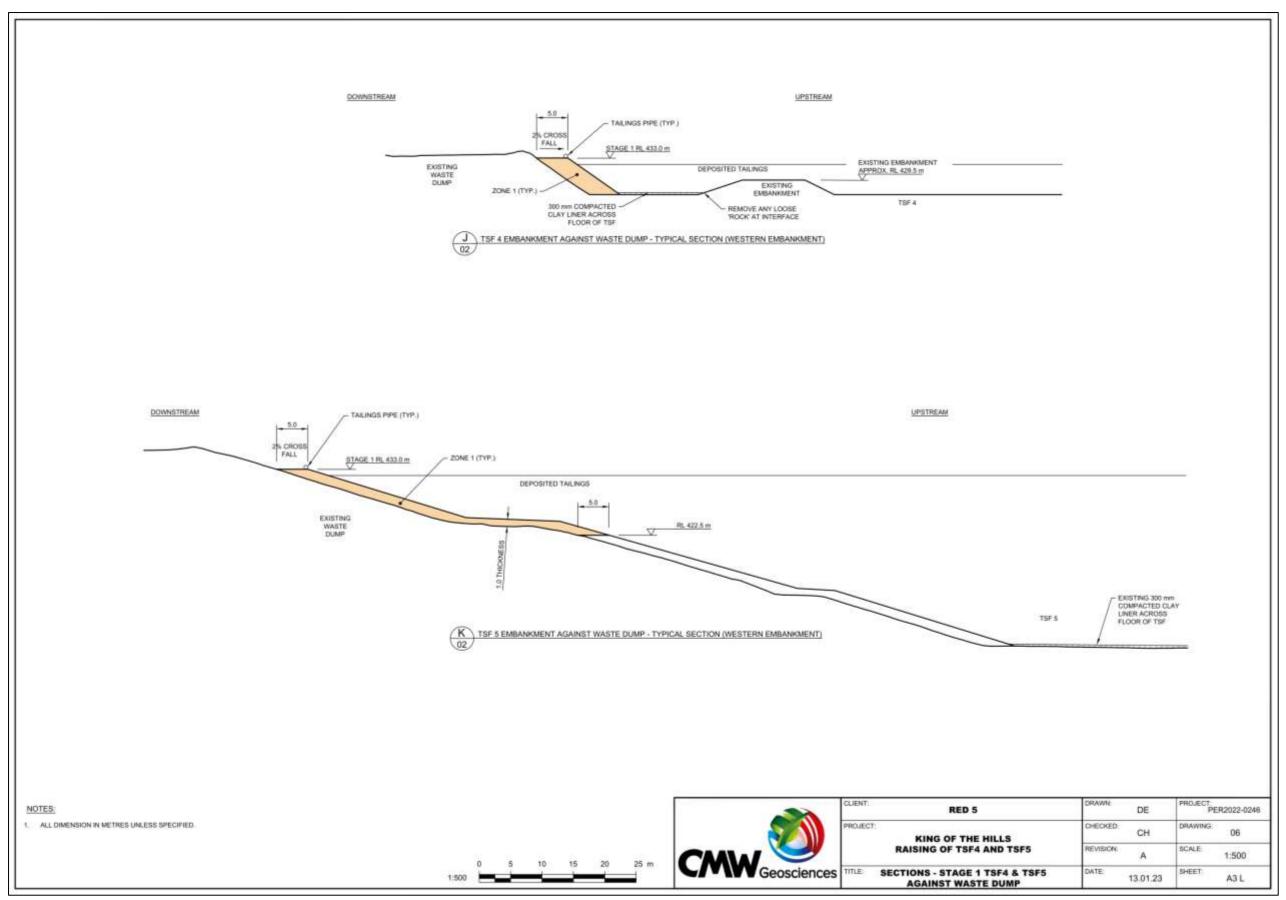


Figure 8: Design drawing for TSF4 Stage 1 embankment (western embankment)

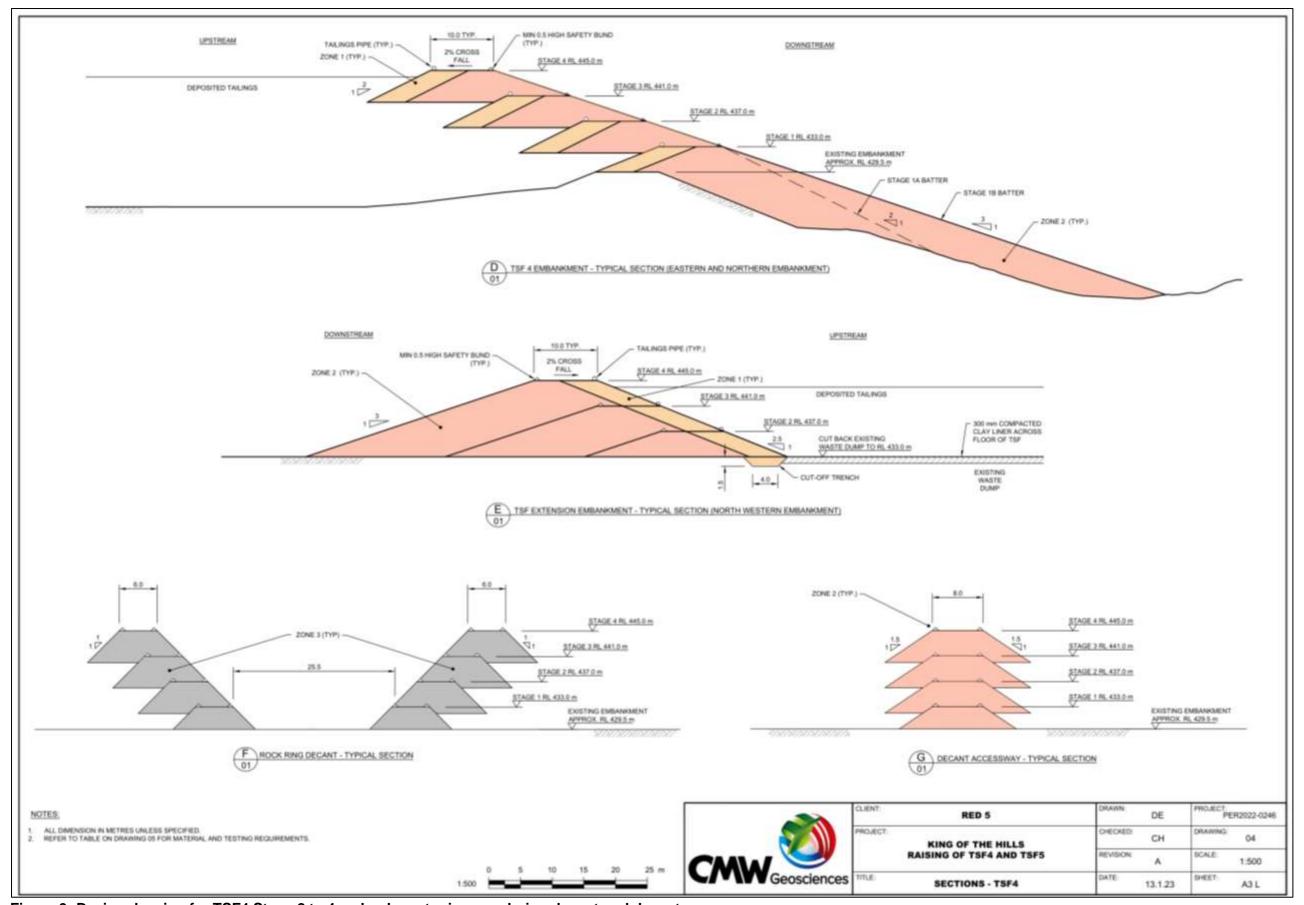


Figure 9: Design drawing for TSF4 Stage 2 to 4 embankment raises, rock ring decant and decant accessway

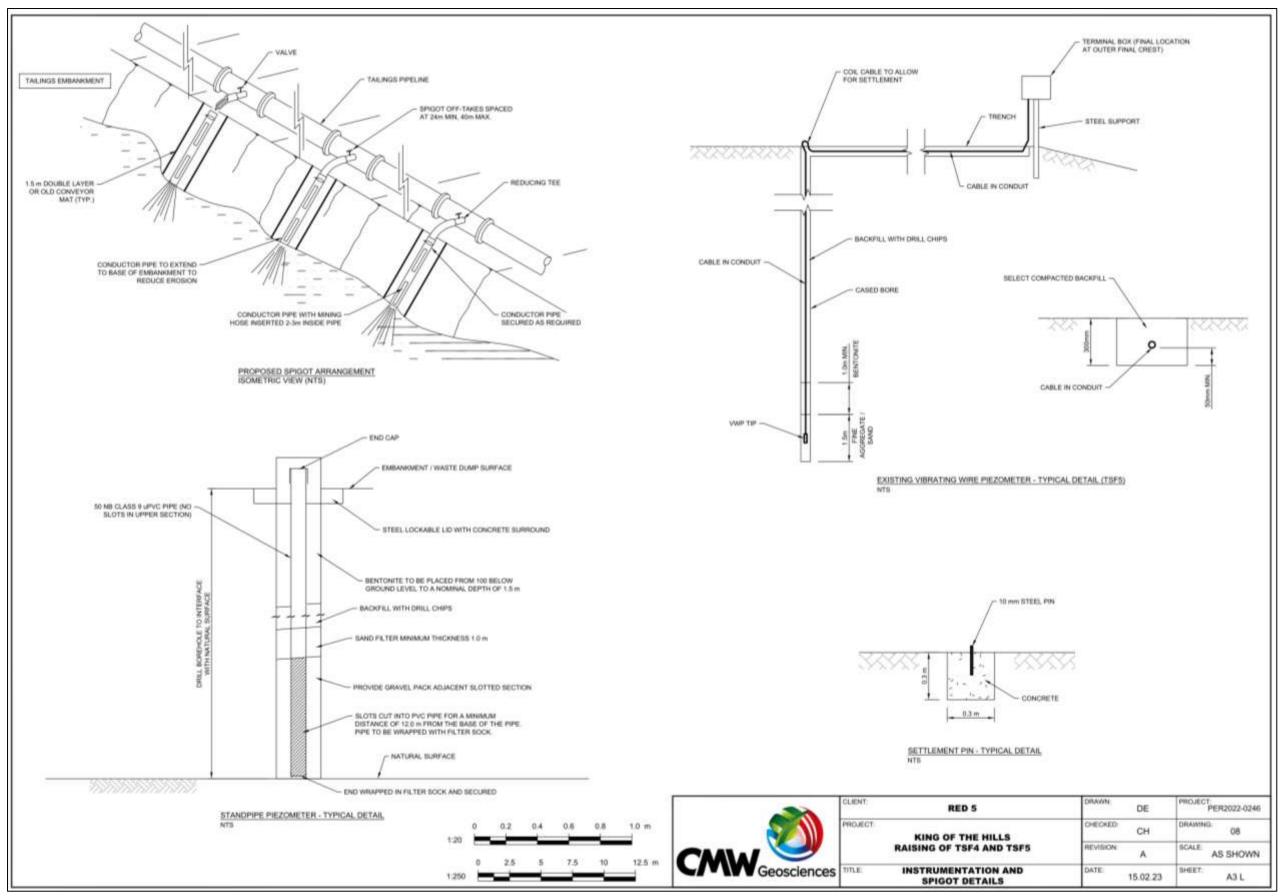


Figure 10: Design drawing for spigot arrangement, standpipe piezometer, vibrating wire piezometer and settlement pin