Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8845/2014/1
Licence holder	IB Operations Pty Ltd
ACN	165 513 557
Registered business address	Level 2 Hyatt Centre 87 Adelaide Terrace EAST PERTH WA 6004
DWER file number	DER2014/002065-1
Duration	08/06/2015 to 07/06/2036
Date of amendment	28/08/2025
Premises details	Iron Bridge Magnetite Project Mining Tenements M45/1226, M45/1244, L45/292, L45/294, L45/359, L45/360, L45/361, L45/364 and L45/367 MARBLE BAR WA 6760

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore: premises on which — (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; or (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	72 million tonnes per annual period
Category 12: Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	5,000,000 tonnes per annual period
Category 52: Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	16 MWe per annual period
Category 54: Sewage facility: premises — (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	585 m^3/day

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production capacity
Category 57: Used tyre storage facility	5,000 used tyres
Category 64: Class II putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the *Landfill Waste Classification and Waste Definitions 1996*, is accepted for burial.	6,800 tonnes per annual period
Category 73: Bulk storage of chemicals etc.: premises on which acids, alkalis or chemicals that – (a) contain at least one carbon to carbon bond; and (b) are liquid at STP (standard temperature and pressure), are stored.	2,500 m^3 in aggregate
Category 77: Concrete batching or cement products manufacturing: premises on which cement products or concrete are manufactured for use at places or premises other than those premises.	217,000 tonnes per annual period

This amended licence is granted to the licence holder, subject to the attached conditions, on 28 August 2025, by:

Jarrod Abrahams
Digitally signed by Jarrod Abrahams
Date: 2025.08.28 14:36:34 +08'00'

MANAGER, RESOURCE INDUSTRIES
Officer delegated under section 20 of the Environmental Protection Act 1986

Licence history

Date	Reference number	Summary of changes
04/09/2014	L8845/2014/1	Licence for North Star WWTP issued.
04/06/2015	L8845/2014/1	New licence application for operation of a category 52 power station (13 MWe).
07/01/2016	L8845/2014/1	Amendment to include category 5.
02/06/2016	L8845/2014/1	Amendment to include category 54, decrease category 5 approved production capacity for care and maintenance. Increase category 52 approved production capacity and include conditions for care and maintenance.
24/05/2017	L8845/2014/1	Amendment Notice 1 for Category 54 activities during care and maintenance, general stormwater management and administrative changes.
03/10/2018	L8845/2014/1	Amendment Notice 2 to amend the TSF inspection requirements.
13/02/2020	L8845/2014/1	Amendment to include a temporary 45 m^3/day WWTP and to consolidate the licence to incorporate Amendment Notices 1 and 2. Premises name changed to Iron Bridge Magnetite Project.
21/07/2020	L8845/2014/1	Amendment for operation of Category 77 concrete batching plants to supply concrete (from the Premises) to the Iron Bridge Magnetite Project, Fortescue's Powerline Transmission Project and other projects (as required)
20/05/2022	L8845/2014/1	Amendment to include Category 12 activities, increase Category 54 throughput capacity, and remove works conditions for Category 77.
19/01/2023	L8845/2014/1	Amendment to include category 89 allowing for operation of putrescible landfill at the facility constructed in line with works approval W6315/2019/1.
29/08/2023	L8845/2014/1	Amendment to: • Extend premises boundary; • Reduce Category 52 design capacity from 14 MW to 12.8 MW; • Remove the old power station (emission points to air) and replace with the back-up power station approved under Stage 1 of W6506/2021/1; • Include Category 73 (bulk fuel storage) with a design capacity of 2,500 m^3 in aggregate; • Allow for reuse of RO reject water for dust suppression where required; • Change Category 89 to Category 64 and increase

Date	Reference number	Summary of changes
		the capacity from 4,000 tpa to 6,800 tpa; • Update ambient groundwater quality bore locations; and • Allow water treated through the OWS to be used for dust suppression or in the event of a major storm event (where dust suppression is not feasible) discharged to land.
28/08/2025	L8845/2014/1	• Changes to Category 5 and Category 52 capacities to reflect construction of the Ore Processing Facility (OPF) and new generator sets from works approval W6322/2019/1 and W6506/2021/1. • Introduction of contact water network and use of contact water for dust suppression (aligning with existing approved strategy for RO reject water and treated Oily Water Separator use for dust suppression already approved on the licence). • Transfer of key mining infrastructure (OPF, TSF2 (Stage 1A) Process Water Pond, Return Water Pond, Raw Water Pond etc) from works approval (W6322/2019/1) and (W6506/2021/1) to the licence. • Proposed changes to infrastructure including: Japal Village WWTP design change (aeration tank), two additional generators at back-up power station (alignment with capacity approved under W6506/2021) and proposed change to the tailings deposition pipeline (to allow mining in adjacent Eastern Limb and North Star pits). • Waste management change to include Inert Waste Type 2 disposal (used tyres and other inert wastes) into Eastern Limb dumps and pits and dry reject landforms). • Changes to monitoring requirements to remove redundant facilities and requirement for surface water monitoring, and close out of works approval (W6506/2021/1).

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

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

Infrastructure and equipment

1. The licence holder must ensure that all pipelines or sections of pipelines containing tailings materials are either:

(a) equipped with telemetry; or

(b) equipped with automatic cut-outs in the event of a pipe failure; or

(c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

2. The licence holder must ensure that the materials listed in Table 1 are only discharged into containment cells and / or dams or ponds with relevant infrastructure requirements and at the locations specified in Table 1.

Table 1: Containment infrastructure

	Storage vessel or compound and location	Material	Requirements
1	Up to 10 ponds including Turkey Nests, transfer ponds and sediment ponds at various locations within the prescribed premises boundary. As shown in Schedule 1 Figure 6	Decant water, Stormwater, Process water, Contact water.	• Minimum freeboard of 200 mm • HDPE liner / concrete or similar impermeable layer
2	Process Water Pond As shown in Schedule 1 Figure 5	Process water, Contact water	• Minimum freeboard of 200 mm • HDPE liner / concrete or similar impermeable layer • With a high level detection alarm
3	Return Water Pond (RtWP) As shown in Schedule 1 Figure 5	Decant water, Contact Water, Canning Basin pipeline water	• Emergency spillway remains unobstructed • Visual inspections following significant rainfall events to check: Spillway operation, erosion and infrastructure
4	Raw Water Pond (RaWP)[1] As shown in Schedule 1 Figure 6	Raw water from borefields	• Minimum freeboard of 200 mm • HDPE liner / concrete or similar impermeable layer • With a high level detection alarm

[1] The Raw Water Pond has been constructed under works approval W6322/2019/1 and is currently under commissioning.

	Storage vessel or compound and location	Material	Requirements
5	Sediment Basins As shown in Schedule 1 Figure 5	Stormwater	• Earthen Pond • Sized to a 1 in 2 AEP of 1-hour duration
6	Contaminated Water Storage Ponds As shown in Schedule 1 Figure 2	Stormwater	• HDPE liner / concrete or similar impermeable layer. • Sized to a 1 in 2 AEP of 1-hour duration.
7	TSF 2 Stage 1A As shown in Schedule 1, Figure 6 as 'TSF2, Stage 1A'	Tailings up to 31.9 Mt (wet) of tailings per annum	a) Freeboard of 1:100 AEP, 72 hour rainfall event and normal operating (decant) pond depth of 400 mm; b) Main embankments A and B to RL 281.6 m, sacrificial bund to RL 276 m and the north decant system; c) Record volumes of wet tailings produced during operation; and d) Maintain beaching locations to ensure a crust forms, minimising dust lift off.
8	Landfill Cell As shown in Schedule 1, Figure 7	Putrescible and inert landfill	• Trenches constructed with compacted earth • Tipping area must be no more than 30 m in length and less than 2 m above ground level • Stock-proof fence to be installed around the perimeter

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: Inspections of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Tailings delivery pipelines	To confirm integrity	Daily
RtWP water return pipelines	To confirm integrity	Daily
Tailings storage facility embankment freeboard	To confirm required freeboard capacity is available.	Daily

Premises operation

4. The licence holder must ensure the limits specified in Table 3 are not exceeded.

Table 3: Production or design capacity limits

Category[1]	Category description[1]	Premises production or design capacity limit
5	Processing or beneficiation of metallic or non-metallic ore	72 million tonnes per annual period
12	Screening, etc. of material	5,000,000 tonnes per annual period
52	Electric power generation	16 Mwe per annual period
57	Used tyre storage	5000 used tyres
73	Bulk storage of chemicals etc.	2,500 m^3 in aggregate
77	Concrete batching or cement product manufacturing	217,000 tonnes per annual period

Note 1: *Environmental Protection Regulations 1987*, Schedule 1.

5. The licence holder must only allow waste to be accepted on to the premises if:

(a) it is of a type listed in Table 4; and

(b) the quantity accepted is below any limit listed in Table 4; and

(c) it meets any specification listed in Table 4.

Table 4: Waste acceptance

Waste	Quantity Limit	Specification[1]
Sewage	585 m^3/day	Accepted from sewer inflow(s) Acceptance of raw untreated sewage from within the premises boundary and other locations as required
RO reject water	140 m^3/day	Accepted from the RO plant via pipeline inflows to the blended irrigation tank
RO Reject Water	N/A	Accepted from the RO plant via pipeline inflows to the RO reject storage tank with standpipe for dust suppression.
Putrescible Inert Waste Type 1 Inert Waste Type 2 (not including tyres)	6,800 tonnes per annum	Accepted from within the premises boundary including from the Iron Bridge Mine Site, site construction and village waste

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

6. The licence holder must ensure that the waste types specified in Table 5 are only subjected to the corresponding management strategies subject to the requirements.

Table 5: Waste processing

Waste type	Management Strategy	Requirements
Sewage (excluding septage)	Physical, biological, and chemical treatment	Treatment of sewage waste shall be at or below the treatment capacity of 585 m^3/day
Putrescible Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	• No more than 6,800 tonnes of waste to be disposed of to the landfill per annual period • Disposal of waste by landfilling shall only take place within the Landfill Facility area shown in Schedule 1, Figure 7
Inert Waste Type 2 – untreated wood, Tyres, Conveyor, Steel, Rubber and Concrete	Disposal into Eastern Limb Sterilisation Dumps, Eastern Limb North Pit and Dry Reject Landforms (DRL)	• Low toxicity fire suppressants will be used where available. • Not more than 5000 tyres will be stored within the premises at any one time. • Used tyres stacks shall not exceed 500 tyres per stack and 5m in height. • Used tyre stacks are to be stored no less than 6m from any other tyre stack. • The waste tyres stockpiles shall not exceed 1,000m^3 in each area. • Any fire suppressants captured within the settlement basins must be disposed of as a suitably licensed facility after a fire.

7. The licence holder must ensure that the premises infrastructure and equipment listed in Table 6 is maintained and operated in accordance with the corresponding operational requirements and located at the corresponding infrastructure location set out in Table 6:

Table 6: Infrastructure and equipment operational requirements

Site infrastructure and equipment	Operational requirements	Infrastructure location
Wastewater treatment vessels	a) Volumetric flow meters are maintained on the WWTP inlet and outlet to the irrigation spray field; b) Sludge is contained within sealed sludge tanks prior to removal by a licensed waste carrier for disposal to a licensed disposal facility; c) Screenings are contained within a sealed screenings tank prior to removal	Wastewater treatment plant WWTP as shown in Schedule 1, Figure 8

Site infrastructure and equipment	Operational requirements	Infrastructure location
	for disposal to a licensed disposal facility; d) Chemicals, including sodium hypochlorite, are stored in accordance with Australian Standard AS3780-2008 Storage and Handling of Corrosive Substances; and e) Spills of wastewater, RO brine or chemicals outside of a vessel/container are cleaned up immediately.	
RO brine tank	a) A volumetric flow meter is maintained on the outlet to the irrigation spray field.	Wastewater treatment plant as shown in Schedule 1, Figure 8
	b) A volumetric flow meter is maintained on the standpipe line and WWTP RO reject line for dust suppression.	Not shown
Irrigation field	a) Not more than 725 m^3/day blended effluent is applied per day to the irrigation field; b) No discharge of undiluted RO reject water occurs; c) Pooling and ponding of blended effluent on the ground surface of the irrigation spray field does not occur; d) No irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area; and e) Vegetation cover is maintained over the irrigation area.	Irrigation field as shown in Schedule 1, Figure 8
Mobile crushing and screening facilities (MCSFs)	a) Fit screens, transfer points and crushing units with dust suppression controls; b) Ensure a sprinkler system or water truck is present and fully operational during use of an MCSF; c) Use dust suppression controls on stockpiles during dry conditions; and d) Control surface water runoff from MCSF operations such that it is captured and not discharged to the surrounding environment.	MCSFs must be located: a) On previously disturbed land; b) At least 100 m from the Turner River or Turner River West (including riparian vegetation); c) At least 50 m from any other waterway (including riparian vegetation); d) At least 50 m from any known location of priority flora; e) Outside of the Site 12 Pool catchment area;

Site infrastructure and equipment	Operational requirements	Infrastructure location
		f) At least 50 m from Northern Quoll foraging and denning habitat, as shown in Schedule 1, Figure 13; g) At least 100 m from the predicted lateral extent of Cave 13, as shown in Schedule 1, Figure 14 and h) At least 50 m from any registered or lodged Aboriginal heritage site, unless the Licence Holder has obtained the relevant permit(s) or approval(s) to disturb the site under all applicable legislation.
Concrete Batch Plant 1	Concrete production capacity of 75 m^3 per hour. 1 x 70 t capacity cement silo. 1 x 4 t cement weigh hopper. 2 x 8 m^3 aggregate weigh bins. 1 x wedge pit and washout box. 1 x cement storage tanker	Located as shown in Schedule 1, Figure 10 Layout as shown in Schedule 1, Figure 11
Concrete Batch Plant 2	Concrete production capacity of 50 m^3 per hour. 1 x 50 t capacity cement silo. 1 x 3.5 t cement weigh hopper. 1 x 7 m^3 aggregate weigh bin. 1 x wedge pit and washout box. 1 x cement storage tanker	Located as shown in Schedule 1, Figure 10 Layout as shown in Schedule 1, Figure 11
Aggregate and sand bins	8 x 300 t capacity bins. Each bin fitted with a dedicated spray water system consisting of 2 x 180º arc sprinklers, one on each side of the bin walls.	Located as shown in Schedule 1, Figure 10 Layout as shown in Schedule 1, Figure 11
Putrescible landfill infrastructure	Earthen bunds maintained to divert stormwater and surface runoff from open cells. Potentially contaminated stormwater will drain to, and be contained within the landfill trench. A fence must be maintained around the site which is an effective barrier to cattle, horses	Located as shown in Schedule 1, Figure 7

Site infrastructure and equipment	Operational requirements	Infrastructure location
	and other stock. The perimeter of any landfill cells must be no less than 5 m from the surrounding fence line, and 100 m from any surface water body. Active tipping face must be between no more than 30 m in length and less than 2 m above ground level. Ensure that waste does not get washed or blown outside the site; the landfill area to be inspected at least monthly to collect and return windblown or washed away waste to tipping area. Sufficient cover material must be maintained at the landfill site for the purpose of covering the tipping area of the landfill at least twice. Disposed waste material must be progressively covered totally so no waste is left exposed with a dense, inert and incombustible material, at least weekly. Records maintained of volume of waste accepted and location of landfill cells during operation. • The licence holder must ensure no visible dust escapes the landfill site. • The licence holder must ensure that there is a firebreak of at least 3 m around the boundary of the site.	
OWS	2 Oily Water Separator (OWS) designed to treat water to a Total Recoverable Hydrocarbon (TRH) concentration of 15 mg/L.	Located as shown in Schedule 1, Figure 4
Ore Processing Facility	Designed to process 72 million tonnes per annum (Mtpa) of magnetite ore, producing up to 25 Mtpa (wet) of concentrate	Located as shown in Schedule 1, Figure 2
	Comprises the following infrastructure/ equipment: a) Run of Mine (ROM) primary crushing hub b) Mobile crushing facility c) Secondary crushers d) Coarse Ore Stockpile (COS) e) Tertiary high pressure grinding rolls (HPGR) crushing / screening f) HPGR primary grinding / air classification g) Fine grinding with magnetic separation and deslime	

Site infrastructure and equipment	Operational requirements	Infrastructure location
	h) Cleaner wet magnetic separation concentrate upgrade circuit i) Concentrate and tailings thickening j) Slurry Pipe to the TSF: above ground steel pipeline nominal 800 mm diameter, with flow measurement at the start (Tailings Transfer Tank at OPF) and at the end of the pipeline (at the TSF), and continuous monitoring of pipeline pressure and pump performance k) Conveyors (15 enclosed, 10 unenclosed) and enclosed transfer stations l) Mobile conveyor and dry-rejects stacker on a raised pad.	
	Containers for chemicals used in the process, stored in a bunded impermeable area.	Not shown
	All tanks to be maintained and discharges contained within the stormwater infrastructure on site.	Not shown
	Dust minimisation equipment to be operational so as to meet the following specifications: • Feed and discharge transfer points are enclosed. • Coarse material from the Air Classifiers is fed along a skirted conveyor into a down chute. • Use of trouser leg chutes to reduce potential dust lift off. • water sprays, fitted and operational: ○ to the crusher hopper and along conveyors (where required) ○ transfer points within the crushing hubs ○ dry rejects stacking system and associated mobile conveying system • water trucks: ○ at the COS ○ at the ore day feed stockpile • dedicated dust collectors at located within the OPF where dry material is handled; collected dust fines will be slurried with process water and pumped	Not shown

Site infrastructure and equipment	Operational requirements	Infrastructure location
	back into the processing circuit.	
	Stormwater infrastructure must be maintained so as to meet the following specifications: • Direct all potentially contaminated stormwater to 4 sedimentation basins sized to a 1 in 2 AEP of 1-hour duration, to remove 80% (by mass) of suspended particles prior to release to the environment • Contaminated Water Storage Ponds (silt trap arrangement): up to 5 ponds up to 4 kL in size, un-lined ponds with freeboard of 1 in 2 AEP of 1-hour duration, with any overflow contained within the sump (apron) catchment	Located as shown in Schedule 1, Figure 5
	• Record volumes of wet ore concentrate produced. • Ensure dust minimisation and stormwater management is undertaken	Not applicable.
RaWP	• Pump water only to the OPF for re-processing • Regular inspections	Located as shown in Schedule 1, Figure 5
Scour Pits	5 Scour pits must be maintained to meet the following specifications: • Maintain the integrity of the external bunds to reduce surface water interaction • Tailings once dried out must be removed from the scour pits following a scouring event, as soon as practicable. • Any tailings spill that occurs on undisturbed ground the in process of scouring must be cleaned-up.	Located as shown in Schedule 1, Figure 3
10 x 1.6 Mwe containerised Cat 3516B diesel generator units	• Combined installed production capacity of not more than 16 Mwe • Generator units must be contained within a bunded compound constructed in accordance with AS 1940:2004 • Generators must not be operated for more than 400 hours in any annual period	Located as shown in Schedule 1, Figure 12
Diesel storage	• Leak monitoring and alarm shut down systems for each tank to be maintained	Located as shown in

Site infrastructure and equipment	Operational requirements	Infrastructure location
tanks	in working order. • Each bund maintained so that it can contain 110% the volume of the largest vessel, or 10% of the total volumes (which-ever is larger). • Spills to be immediately recovered.	Schedule 1, Figure 12
Contact water network	• Spray dribble bars on water carts will be used to ensure that contact water is controlled and easily directed to the required area. • Windrows and bunding around cleared/ operational work areas and access roads will be maintained where required to prevent runoff from these areas. • Brackish or saline water cannot be directed off-road into vegetation and the use of dribble bars on water carts is required to prevent spray drift.	Located within prescribed premises boundary as shown in Schedule 1

Construction requirements

8. The licence holder must:

(a) construct and/or install the infrastructure and/or equipment;

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

(c) at the corresponding infrastructure location.

as set out in Table 7.

Table 7: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Scour Pits	Remaining 3 Scour Pits must be designed and constructed to meet the following design requirements: • Construct scour pits located at intervals and on the upstream side of the tailings pipeline embankment, where practicable to contain material in the event of a failure. • Construct scour pits to have sufficient capacity to contain tailings where possible from contingency discharge. • Construct external bunds to reduce surface runoff interaction.	To be confirmed, within Prescribed Premises boundary
2.	Tailings deposition pipelines	Construction requirements: • Pipeline will be constructed within current cleared or approved operational areas	Located as shown in Schedule 1, Figure 15

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		and will not be constructed within drainage lines that drain outside of the prescribed premises boundary. • Pipeline will be made of nominally 800mm steel adapted into polyethylene pipework. • TSF pipelines to have installed with flow measurement at the start (Tailings Transfer Tank at OPF) and at the end of the pipeline (at the TSF), and continuous monitoring of pipeline pressure and pump performance. • Pipelines will not be constructed within 200m of Site 12 Pool.	
3.	Construction of ponds for Contact network	Flow meters must be installed at the following locations as a minimum: • Bores and extraction points • Water standpipes • Recycled water inputs • Dewatering discharge points and outlets Water storage facilities must be designed so that no inflow enters in a 5% AEP. All water storage facilities must be adequately sized with engineered overflow controls (level / float) switch. Water storage facilities must be lined with a minimum 1 mm HDPE liner that extend to the top of the facility wall. Prior to laying the liner, the surface must be cleared of any rocks that may pierce the liner. Standpipes must be fitted with an engineered fitting to minimise the splash and excessive loss of water. Area under the standpipe should be constructed with clean coarse rock to avoid boggy mud. Consider earthen bunds to avoid water run-off, erosion issues and discourage fauna attraction.	To be confirmed, within Prescribed Premises boundary
4.	Japal WWTP	Construction requirements for the design change to Japal WWTP: • Construction / installation of a 598 kL auxiliary aeration / anoxic tank; and • Two 22 kW aerators that tie into the existing aeration tank.	Located as shown in Schedule 1, Figure 9

9. The licence holder must within 60 calendar days of an item of infrastructure or equipment required by condition 8 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 8; and

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

10. The Environmental Compliance Report required by condition 9, must include as a minimum the following:

(a) certification by a suitably qualified person that the items of infrastructure, as specified in condition 8, have been constructed in accordance with the relevant requirements specified in condition 8;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 8; and

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

Emissions and discharges

Authorised discharge points for emissions

11. The licence holder must ensure that the emissions specified in Table 8, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 8: Authorised discharge points

Emission	Discharge point	Discharge point location
Point source emissions to air		
Exhaust gases	Emission stack No.1 Emission stack No. 2 Emission stack No. 3 Emission stack No. 4 Emission stack No. 5 Emission stack No. 6 Emission stack No. 7 Emission stack No. 8 Emission stack No. 9 Emission stack No. 10	As shown in Schedule 1, Figure 17 as 'Emission Stacks' and Figure 18
Emissions to land		
Treated effluent from the WWTP; or Blended effluent pumped from final storage or treatment tank	Irrigation Field	As shown in Schedule 1, Figure 8 as '7.2 hectare spray field' and '7.9 hectare spray field'
RO reject water used for dust	Cleared, maintained and	Within the areas depicted in

Emission	Discharge point	Discharge point location
suppression	operational areas such as roads, active mine areas such as pit voids and waste rock landforms and ore stockpiles	Schedule 1, Figure 19
OWS treated water used for dust suppression	Within cleared operational areas	Not shown
Water from sedimentation basins or sedimentation traps	L1	Within the areas depicted in Schedule 1, Figure 5
Discharge of OWS treated from Heavy Vehicle Wash Bay OWS & Light Vehicle Wash Bay OWS water in the event of a major storm event (when dust suppression is not feasible)	L2	As shown in Schedule 1, Figure 4 and Figure 5 as 'L2 Emission Points'
RtWP emergency stormwater overflow	L3 (Return Water Pond Emergency Spillway)	Within the areas depicted in Schedule 1, Figure 16
Contact water used for dust suppression	L4 (Numerous contact water network ponds including transfer ponds, turkeys nests, settlement ponds and raw water storage ponds)	At various locations within the active mining areas in the prescribed premises boundary as shown in Figure 6

12. The licence holder must ensure that the emissions from the discharge point listed in Table 9 do not exceed the corresponding limit(s) when monitored in accordance with condition 17.

Table 9: Emission and discharge limits

Discharge point	Parameter	Limit
Irrigation Field	Biochemical Oxygen Demand	20 mg/L
	Total Suspended Solids	30 mg/L
	Total Dissolved Solids	2,000 mg/L
	Total Nitrogen	30 mg/L
	Total Phosphorous	8 mg/L
	E. coli	1,000 cfu/100 mL
	pH	6.5 to 8.5
OWS treated water used for dust suppression	Total Recoverable Hydrocarbons	15 mg/L

Discharge point	Parameter	Limit
OWS treated water discharged at L2		

Monitoring

General monitoring

13. The licence holder must ensure that all sample analysis be undertaken by laboratories with current NATA accreditation for the relevant parameters, unless otherwise specified in conditions 17 and 18.

14. 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; and

(c) six monthly monitoring is undertaken at least 5 months apart.

15. 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.

16. 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.

Discharge point monitoring

17. The licence holder must monitor emissions in accordance with the requirements specified in Table 10 and record the results of all such monitoring.

Table 10: Emissions and discharge monitoring

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
RO brine tank outlet	Flow volume discharged to the irrigation field	m^3 /day	Monthly cumulative	Continuous when irrigating	Flow metering device
	Flow volume discharged for dust suppression		Monthly cumulative	Continuous when discharging	
	Total Dissolved Solids	mg/L	Quarterly	Spot Sample	AS/NZS 5667.1 AS/NZS 5667.10
	Electrical Conductivity	µS/cm			
Outfall pipe to irrigation area	Volume	m^3/day	Monthly	Continuous	Flow metering device
	pH[1]	pH units	Quarterly when irrigating	Spot Sample	AS/NZS 5667.1 AS/NZS 5667.10
	Biochemical Oxygen Demand	mg/L			

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
	(BOD_5)				
	Total Suspended Solids				
	Total Dissolved Solids				
	Total Nitrogen				
	Total Phosphorus				
	E. coli	cfu/100 mL			
	Load of Total Nitrogen	kg/ha/day	Annually when irrigating	Annually	-
	Load of Total Phosphorus	kg/ha/day	Annually when irrigating	Annually	-
Recirculation tanks holding the OWS treated water	Total Recoverable Hydrocarbons	mg/L	Monthly	Spot Sample	AS/NZS 5667.1 AS/NZS 5667.10
L1: Sedimentation Basins/ traps	Total Suspended Solids	mg/L	During discharge (when overflowing)	Spot Sample	AS/NZS 5667.1 AS/NZS 5667.10
L3: RWP Return Water Pond Emergency Spillway	Quality and estimate of volume	N/A	During discharge	Spot Sample	AS/NZS 5667.1 AS/NZS 5667.10

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

Ambient environmental quality monitoring

18. The licence holder must undertake the monitoring in Table 11 according to the specifications in those tables and record the results.

Table 11: Monitoring of ambient groundwater quality

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
IB_RWP_MB1 IB_RWP_MB2 IB_RWP_MB3 IB_RWP_MB4 IB_RWP_MB5 IB_RWP_MB6 As shown in Schedule 1,	Standing water level	mbgl	Monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	pH[1]	pH units			
	Electrical conductivity	µS/cm	Six monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	Total Dissolved Solids	mg/L			

Monitoring location	Parameter	Units	Frequency	Averaging period	Method
Figure 13	Sulfate SO_4				
	Nitrite NO_2				
	Nitrate NO_3				
	Acrylamide				
	Aluminum				
	Arsenic				
	Barium				
	Beryllium				
	Boron				
	Cadmium				
	Calcium				
	Chromium				
	Cobalt				
	Copper				
	Iron				
	Lead				
	Manganese				
	Mercury				
	Molybdenum				
	Nickel				
	Selenium				
	Strontium				
	Uranium				
	Vanadium				
	Zinc				

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

Records and Reporting

19. The licence holder must record the following information in relation to complaints received by the licence 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 licence holder to investigate or respond to any complaint.

20. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than the 31 March each year an Annual Audit Compliance Report in the approved form.

21. The licence holder must submit to the CEO by no later than 31 March each year, an Annual Environmental Report for that annual period for the conditions listed in Table 12, and which provides information in accordance with the corresponding requirements set out in Table 12.

Table 12: Annual Environmental Report

Condition	Requirement
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.
4	Limit exceedances.
5	Summary of any waste acceptance and any limit exceedances and any action taken.
6	Waste types and volumes disposed at the landfill; and Summary of any treatment capacity limit exceedances and any action taken.
7 for the MCSF	Summary of each MCSF operation including MCSF location, dust control, surface water run-off, throughput of each plant and total throughput.
13	Summary of any water quality limit exceedances. Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to exceedances of limits.
17 Emissions to land	Record the monthly cumulative volume of: • RO reject water discharged for the purpose of irrigation; • RO reject water used for dust suppression; and • Treated effluent for the purpose of irrigation; in tabular form.
18	<u>Groundwater monitoring</u> The results to be provided to the CEO must include, but need not be limited to the following: • The dates at which the monitoring was undertaken for each location; • The raw monitoring data from each location, for each parameter in a tabulated form; • A comparison of results against the trigger values specified in the document 'Tailings Storage Facility Monitoring Procedure' (662NS-0000-PR-EN-020); and • Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to trigger exceedances.
19	Complaints summary.

22. The licence holder must ensure that the Annual Environmental Report also contains information to demonstrate conformance with the manufacturer's environmental emission specifications, including, but not limited to, any emissions testing results

and a description of generator servicing regime(s).

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

(a) the calculation of fees payable in respect of this licence;

(b) the works conducted in accordance with conditions of this licence;

(c) any maintenance of infrastructure that is performed in the course of complying with condition 7 of this licence;

(d) monitoring programmes undertaken in accordance with conditions 17 and 18 of this licence; and

(e) complaints received under condition 19 of this licence.

24. The books specified under condition 23 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 licence holder for the duration of the licence; and

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

Definitions

In this licence, the terms in Table 13 have the meanings defined.

Table 13: Definitions

Term	Definition
ACN	Australian Company Number.
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).
annual period	a 12 month period commencing from 1 January until 31 December of the same year.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples.
AS/NZS 5667.6	means the Australian Standard AS/NZS 5667.6 Water Quality – Sampling – Guidance on sampling of rivers and streams.
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of waste waters.
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters.
averaging period	means the time over which a limit is measured or a monitoring result is obtained.
blended effluent	means treated effluent from the wastewater treatment plant blended with RO reject water.
BGM	Bituminous Geomembrane
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
cfu/100mL	means colony forming units per 100 millilitres.
controlled waste	has the definition in *Environmental Protection (Controlled Waste) Regulations 2004.*
COS	Coarse Ore Stockpile
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the

Term	Definition
	administration of the EP Act, which includes Part V Division 3.
DRL	Dry Rejects Landform
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.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
HDPE	means high density polyethylene.
HPGR	high pressure grinding roll
Inert Waste Type 1	has the meaning defined in Landfill Definitions.
Inert Waste Type 2	has the meaning defined in Landfill Definitions.
Landfill Definitions	means the document titled “Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)” published by the Chief Executive Officer of the Department of Water and Environmental Regulation 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.
mbgl	means metres below ground level.
Mtpa	million tonnes per annum
m RL	Metres at relative level
MCSFs	means mobile crushing and screening facilities.
mg/L	means milligrams per litre.
µS/cm	means microSiemens per centimetre.
MWe	means power output (electricity generated) in megawatts.
NATA	means the National Association of Testing Authorities, Australia.

Term	Definition
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.
NTU	means Nephelometric Turbidity Units.
OWS	oily water separator.
OPF	Ore Processing Facility.
PAF	Potentially Acid Forming
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) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
process equipment	means any wastewater or sludge containment infrastructure or wastewater treatment vessel.
Putrescible	has the meaning defined in Landfill Definitions.
RO	means reverse osmosis.
ROM	Run of Mine
RaWP	Raw Water Pond
RtWP	Return Water Pond
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
TSF	Tailings Storage Facility.
VWP	Vibrating Wire Piezometers
WWTP	means wastewater treatment plant.
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

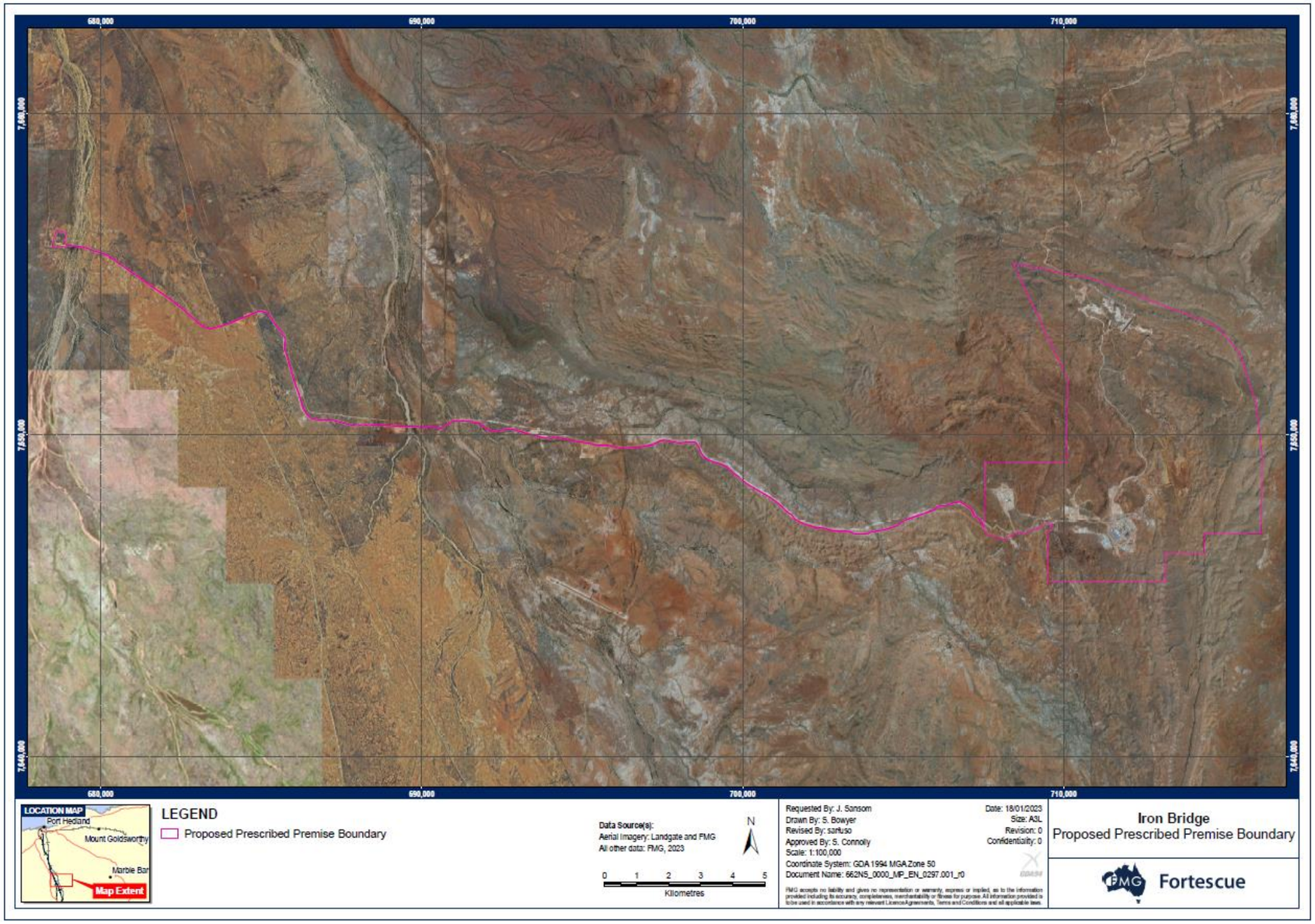

Figure 1: Map of the boundary of the prescribed premises

Infrastructure

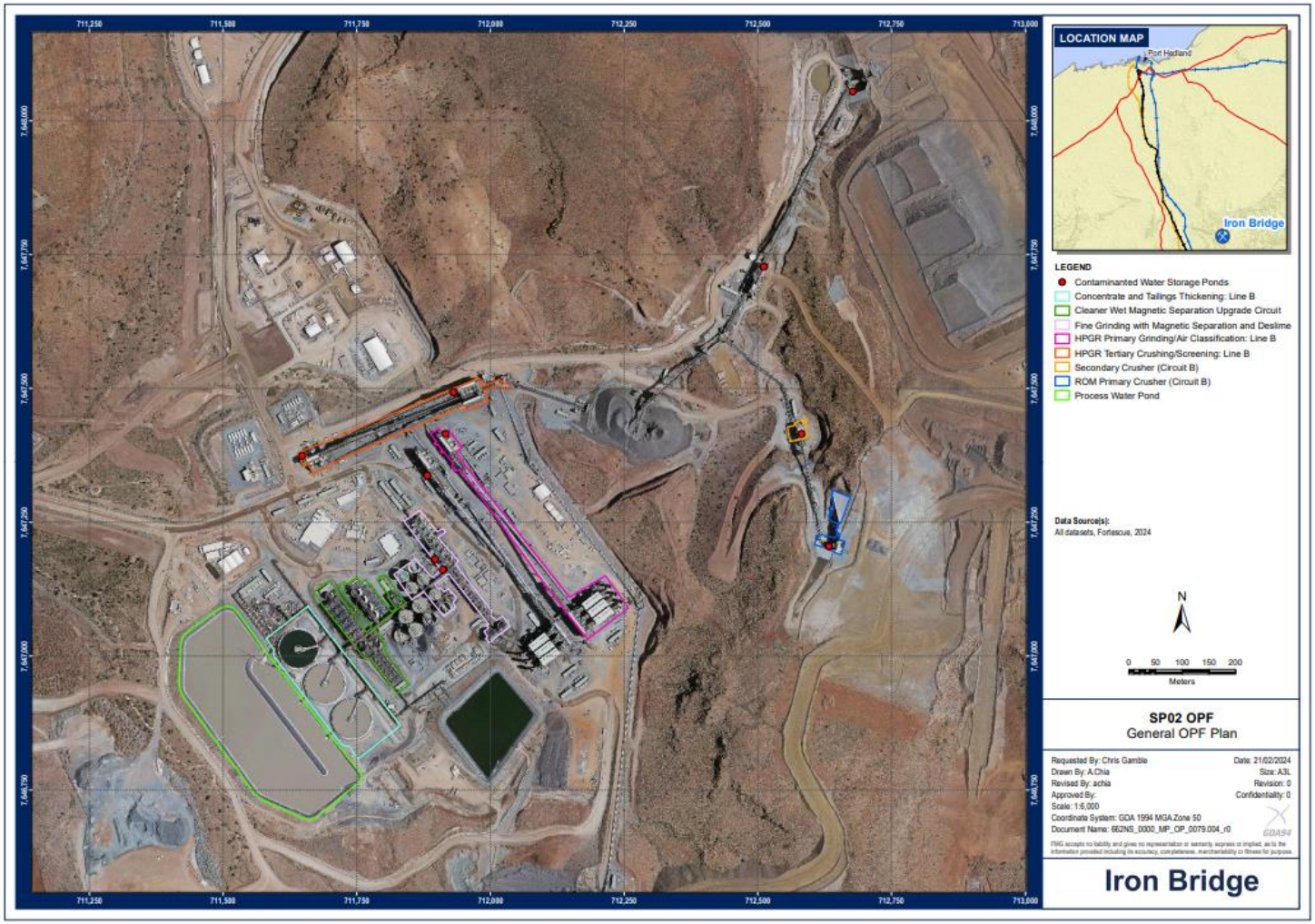

Figure 2: General OPF Plan – Contaminated Water Storage Ponds

Figure 3: Scour pits

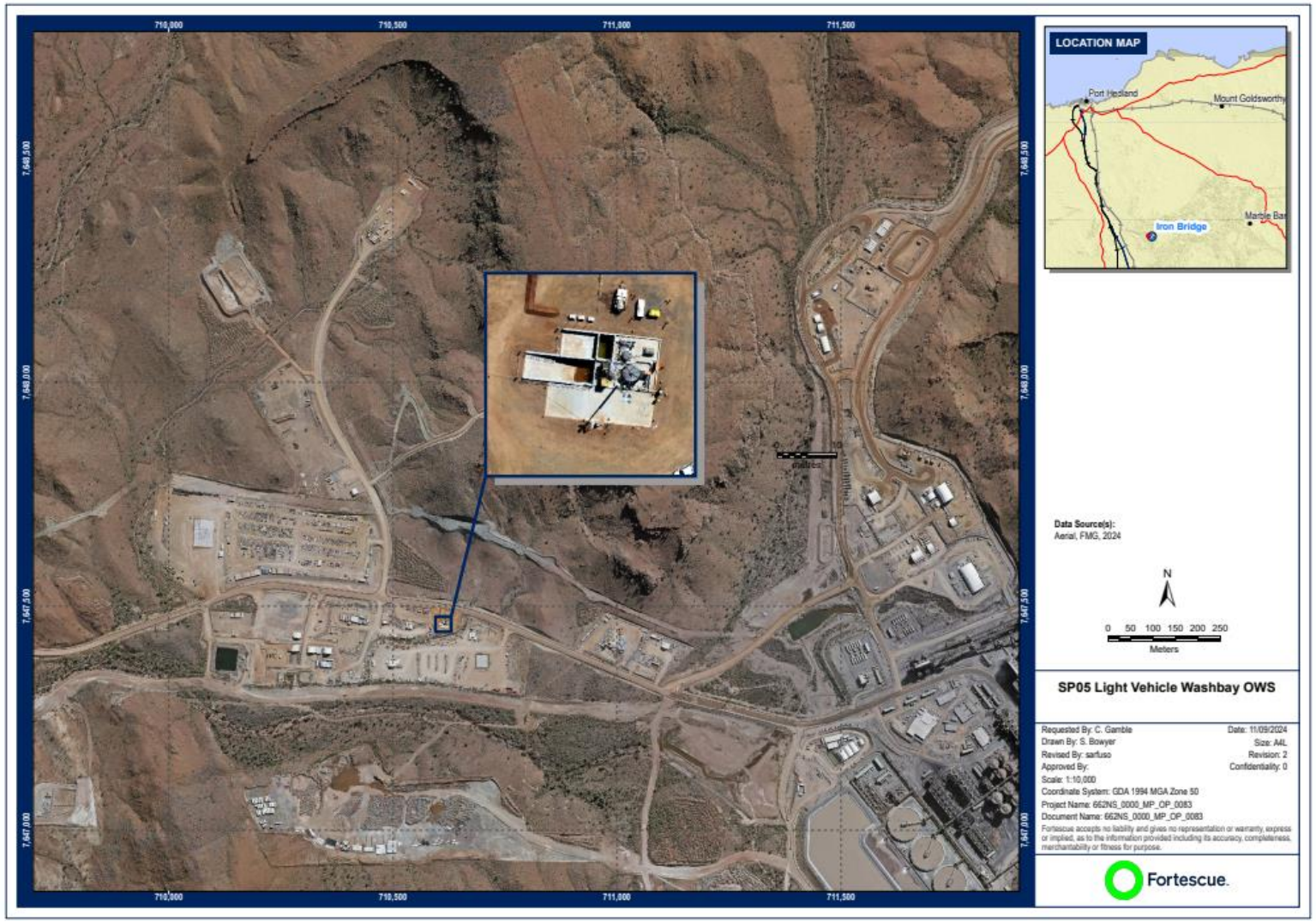

Figure 4: Light Vehicle Washbay OWS

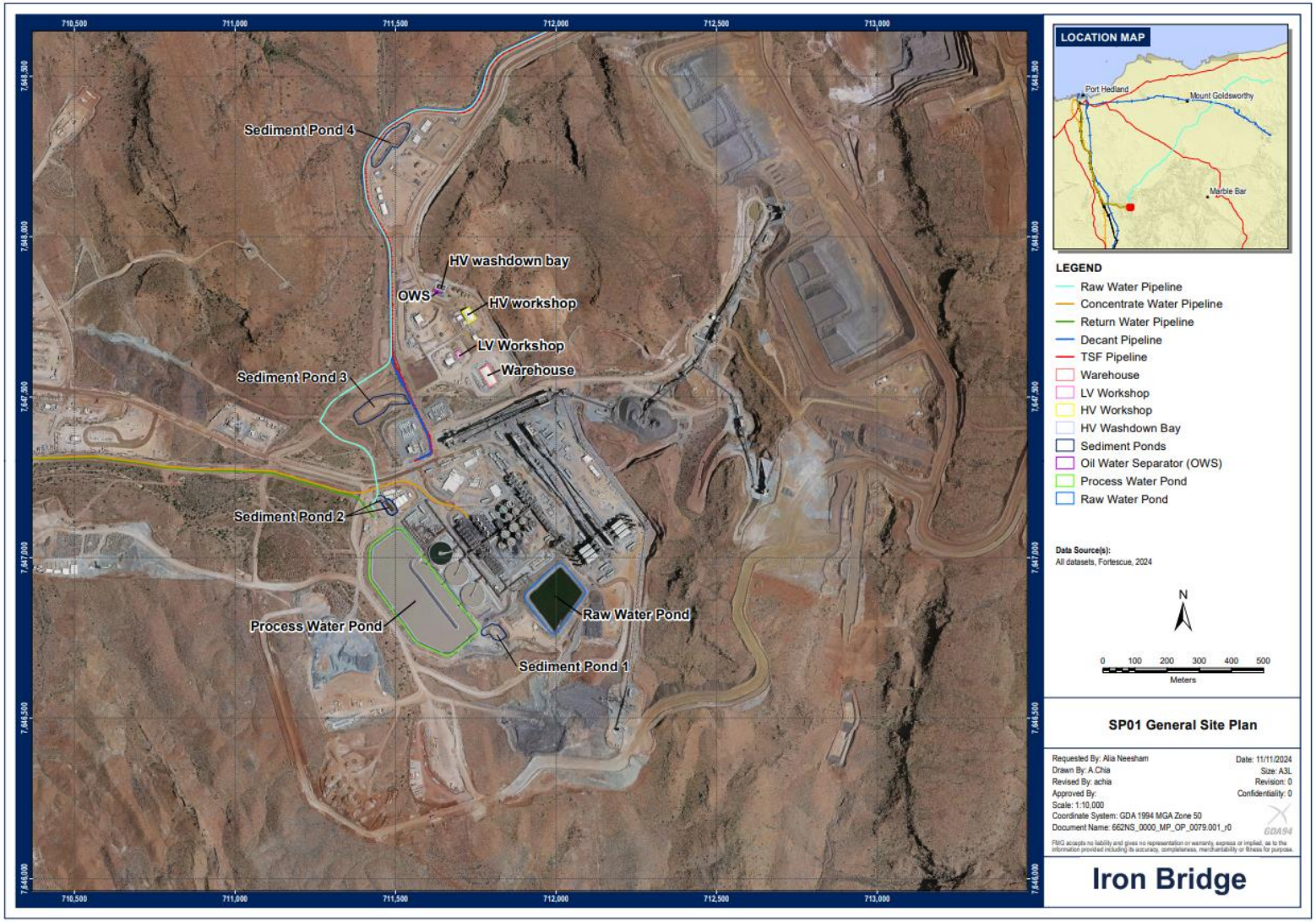

Figure 5: General site plan - Sedimentation basins

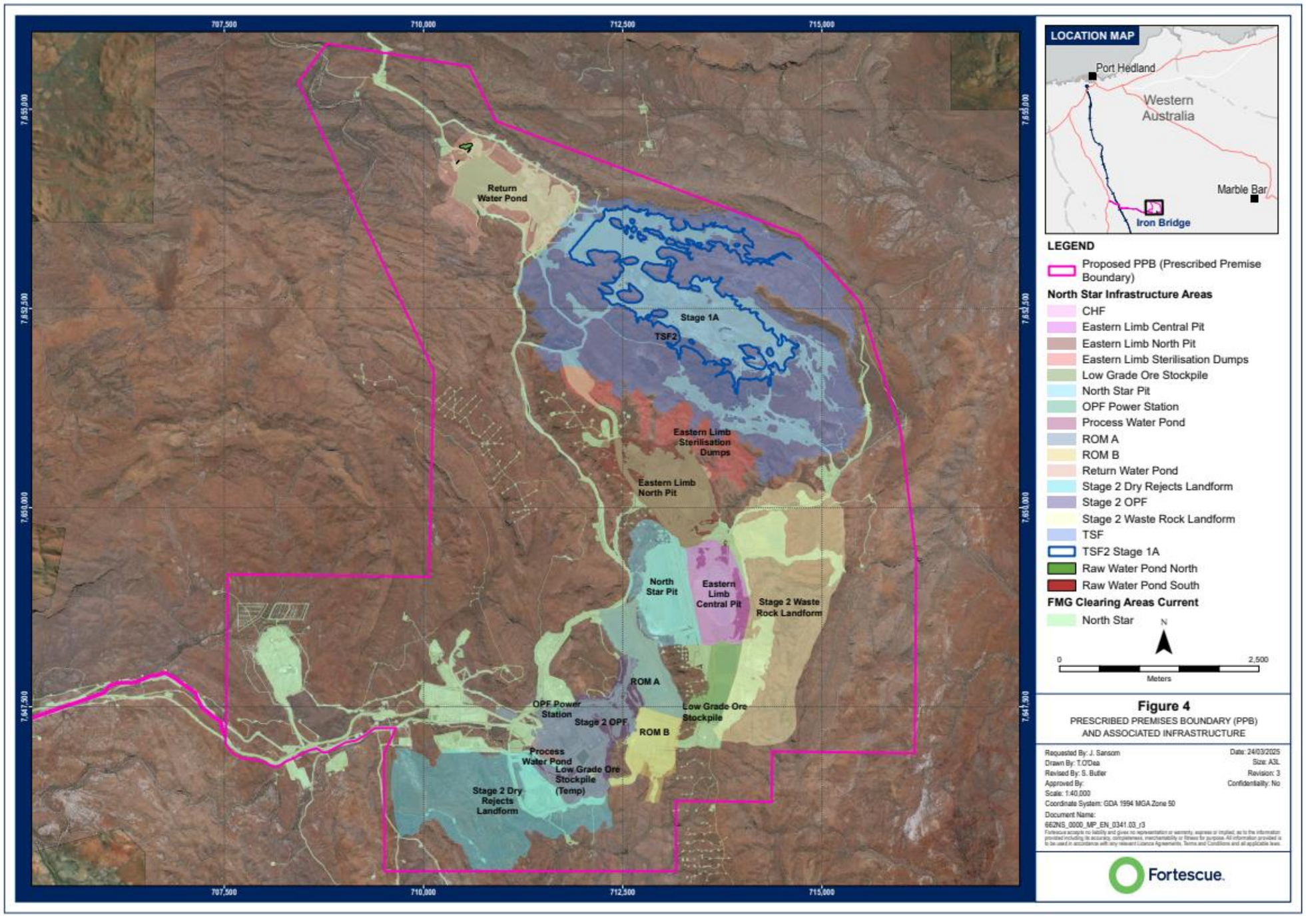

Figure 6: Prescribed Premises boundary and associated infrastructure

Figure 7: Existing and proposed landfill

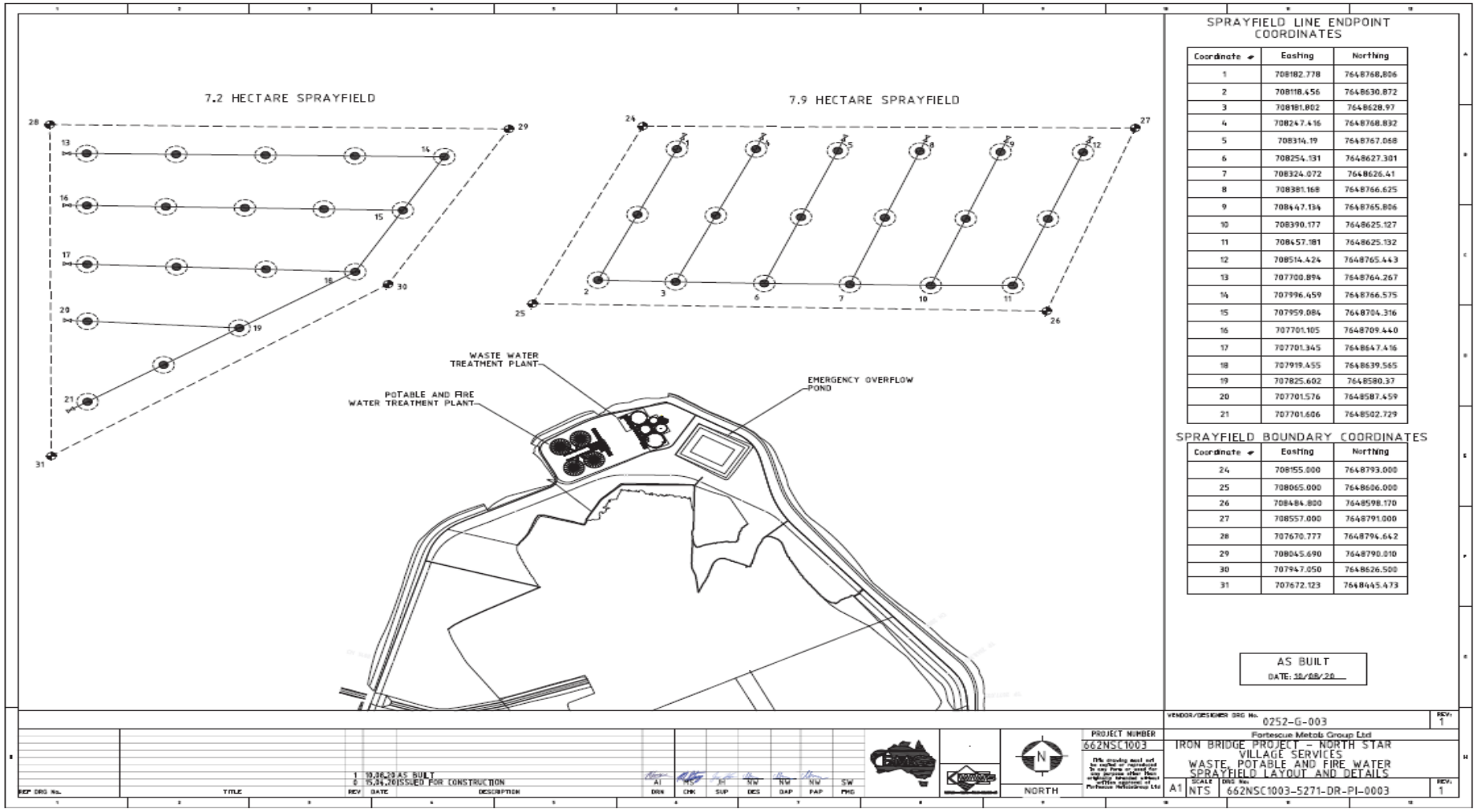

Figure 8: Location of WWTP and irrigation field

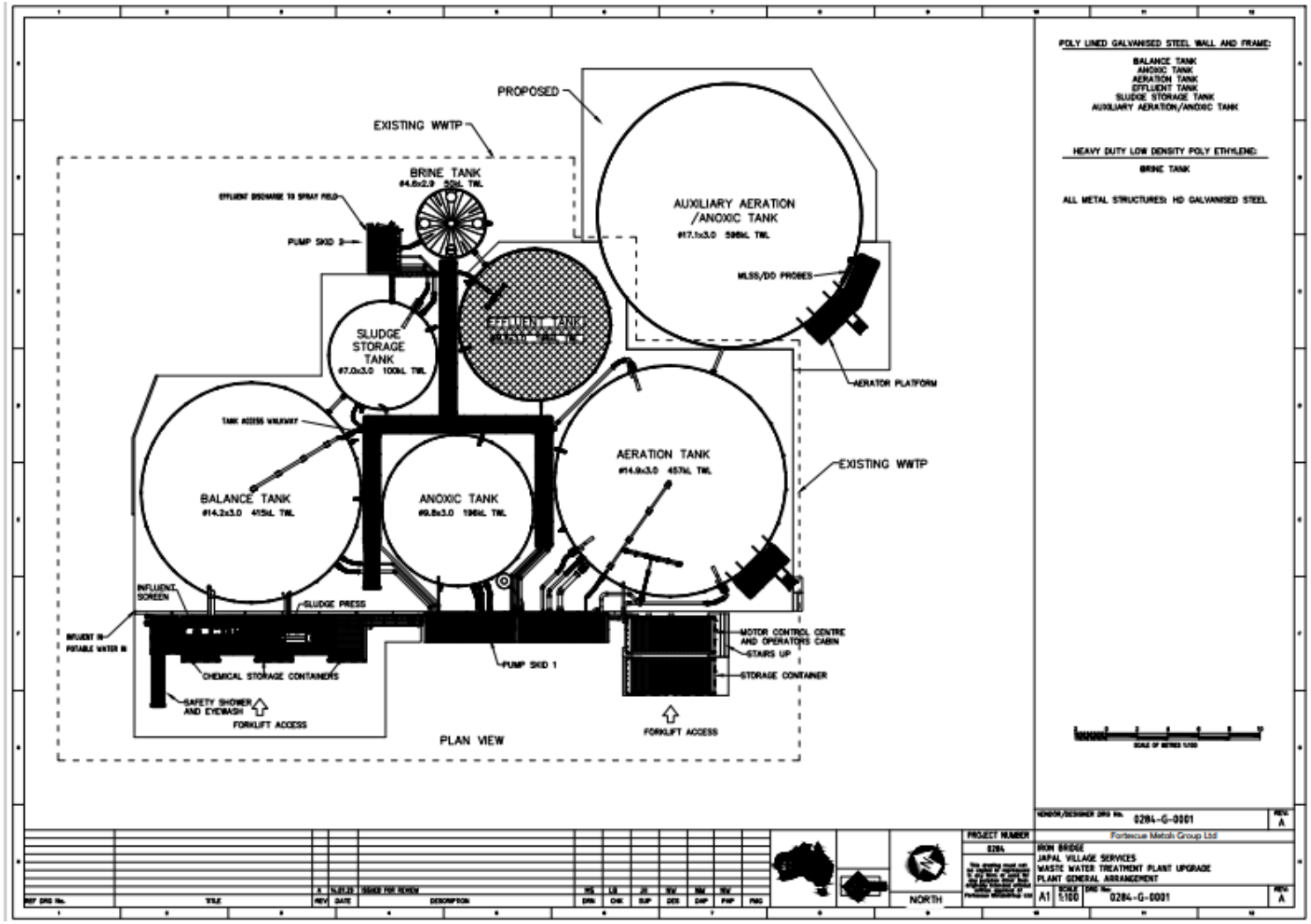

Figure 9: Japal Village WWTP Design change

The location and layout of the concrete batching plant infrastructure and equipment identified in Table 6 is shown in the maps below.

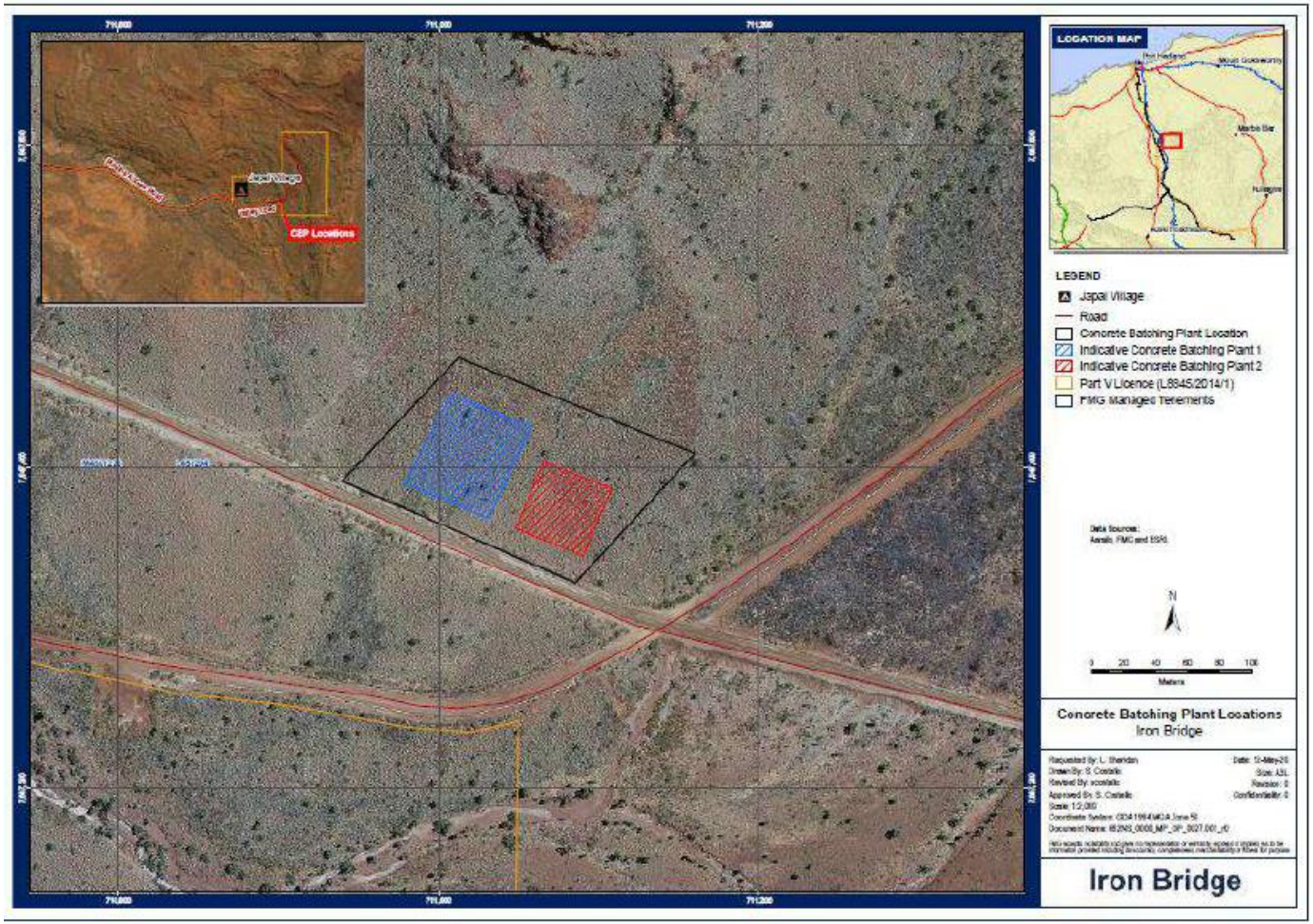

Figure 10: Concrete batching plant location

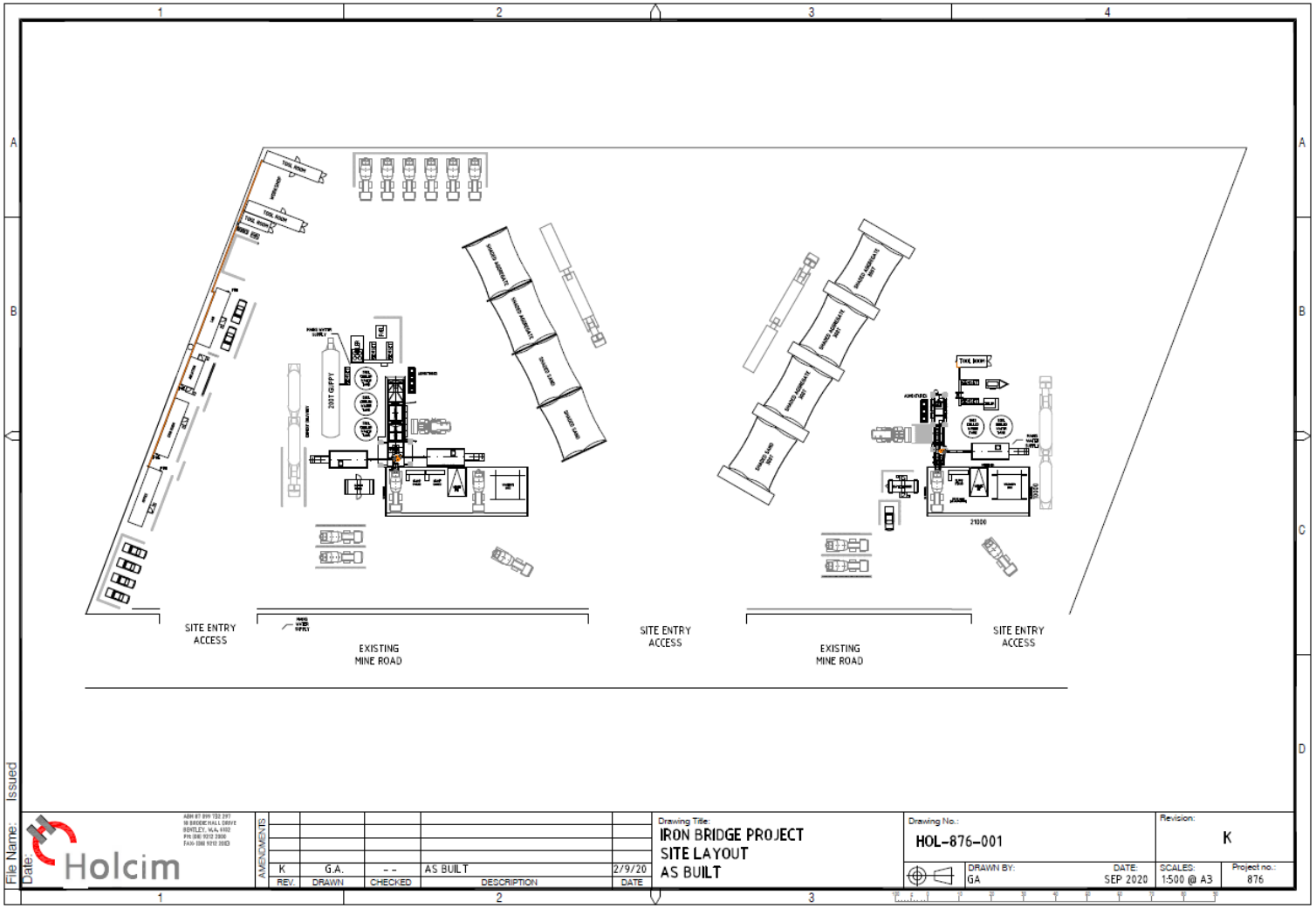

Figure 11: Layout of concrete batching plants

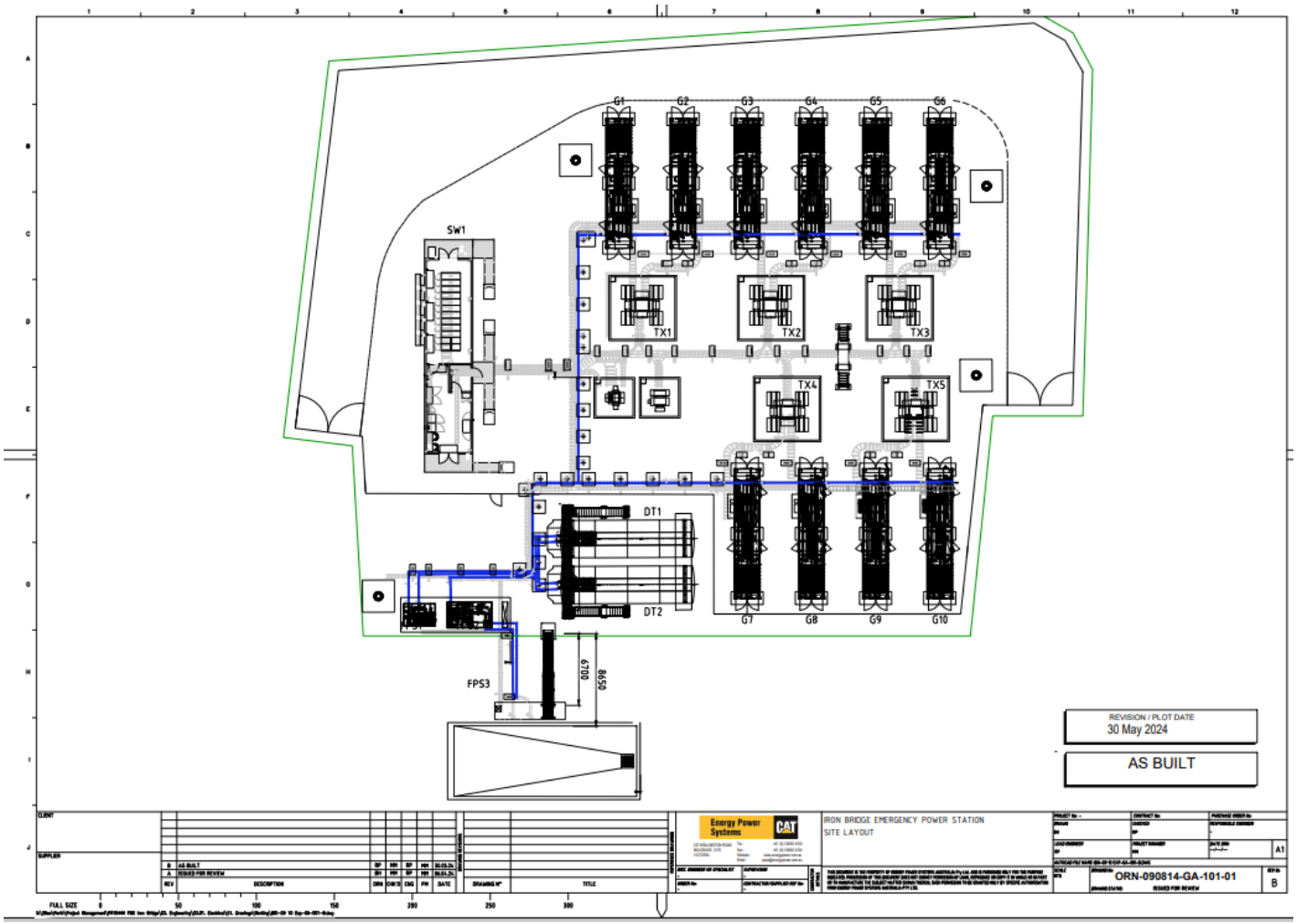

Figure 12: Diesel units and storage tanks

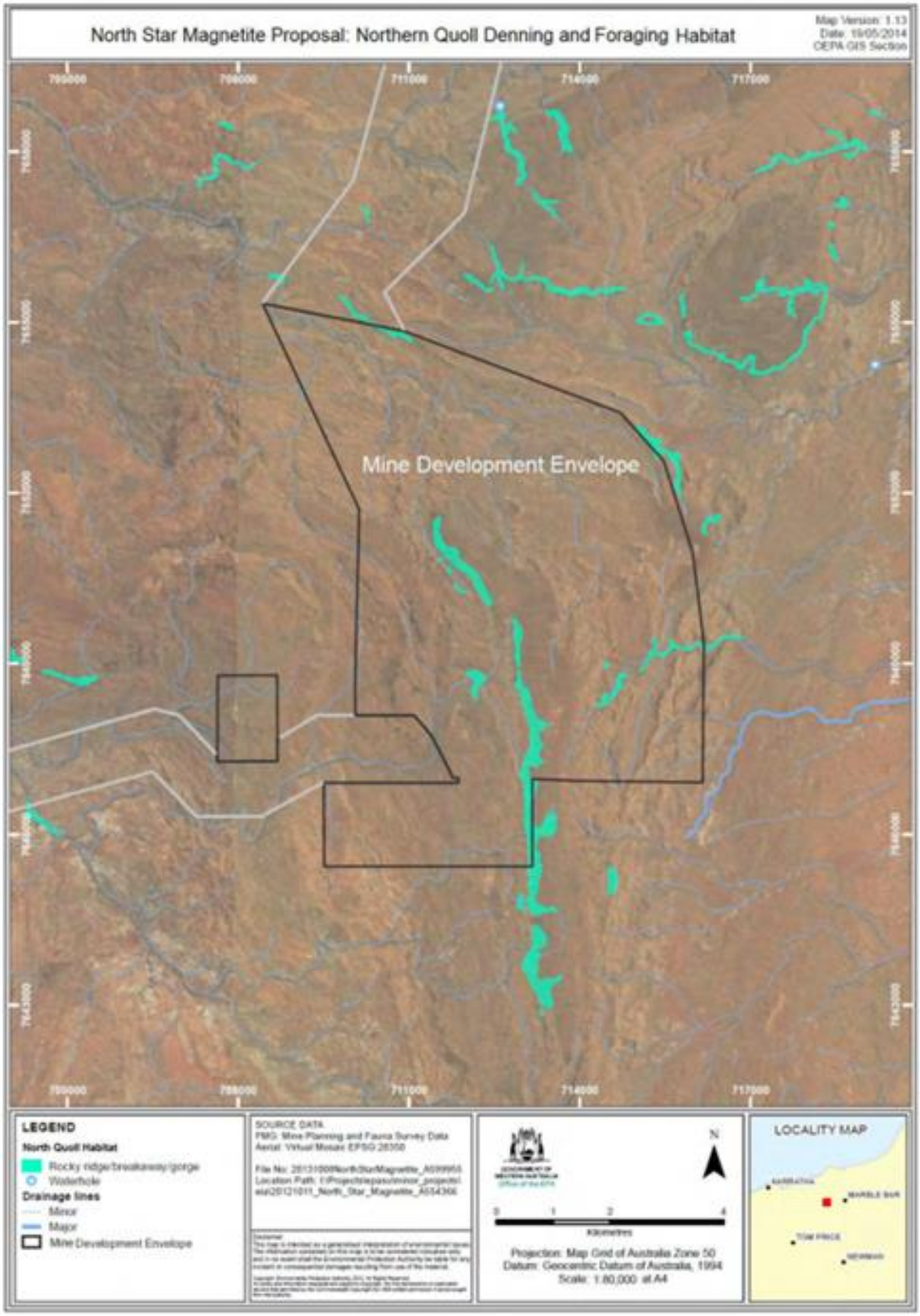

Figure 13: Northern Quoll foraging and denning habitat

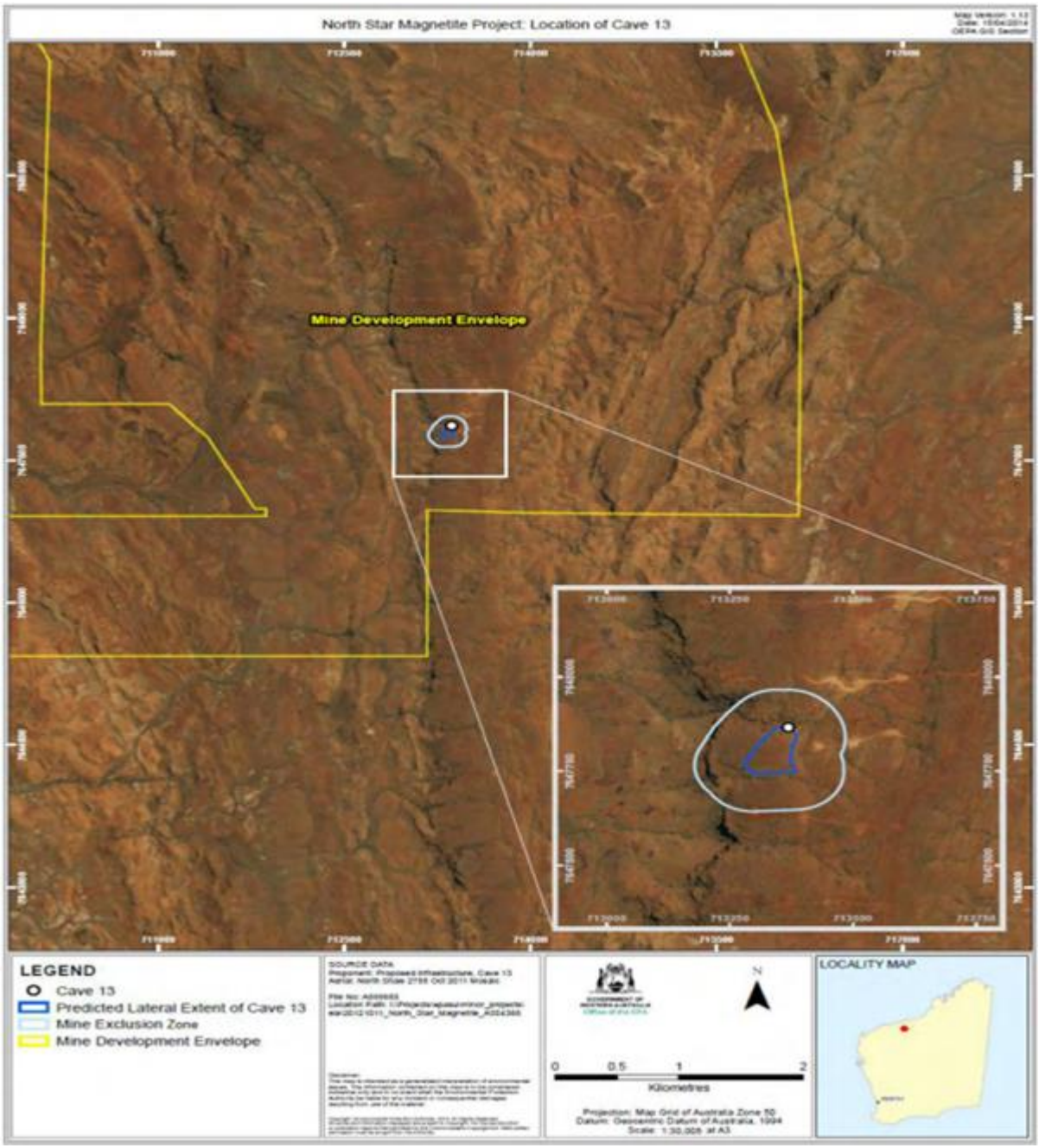

Figure 14: Map of predicted layer extent of Cave 13

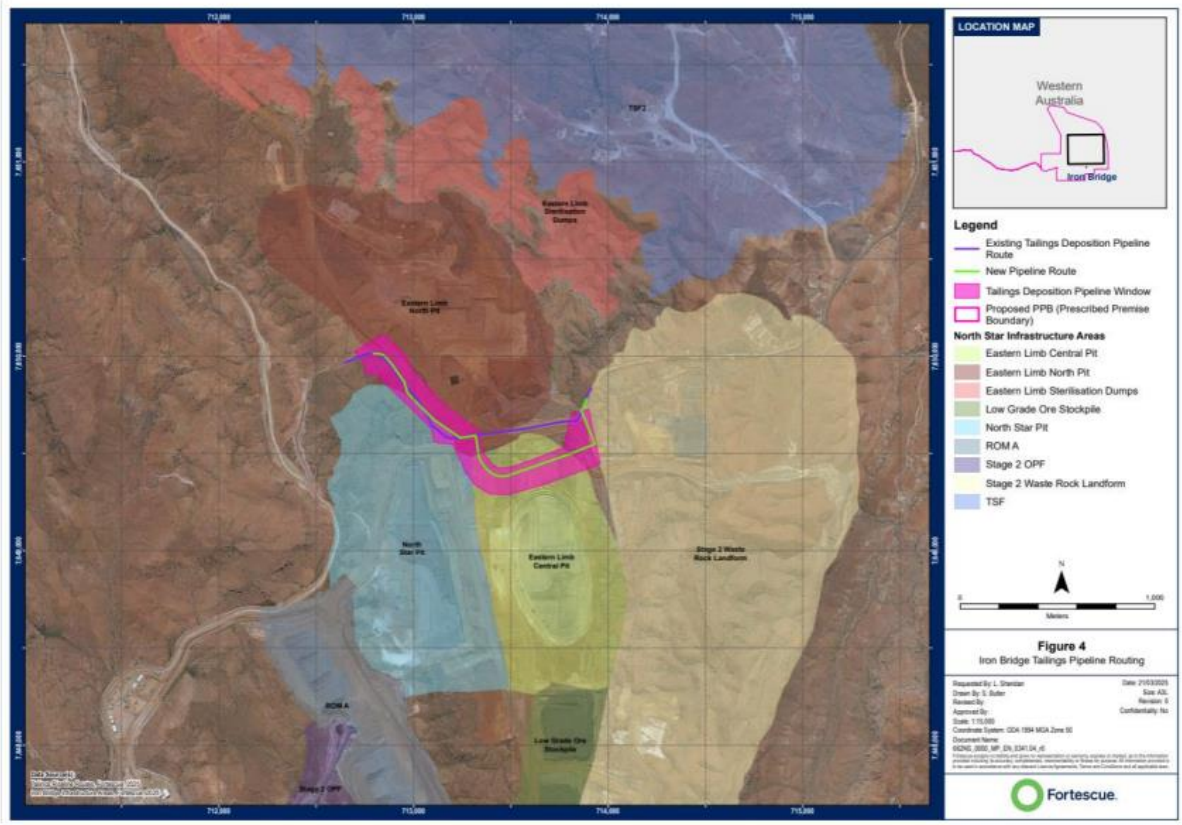

Figure 15: Proposed relocation of TSF2 (Stage 1A) deposition pipeline

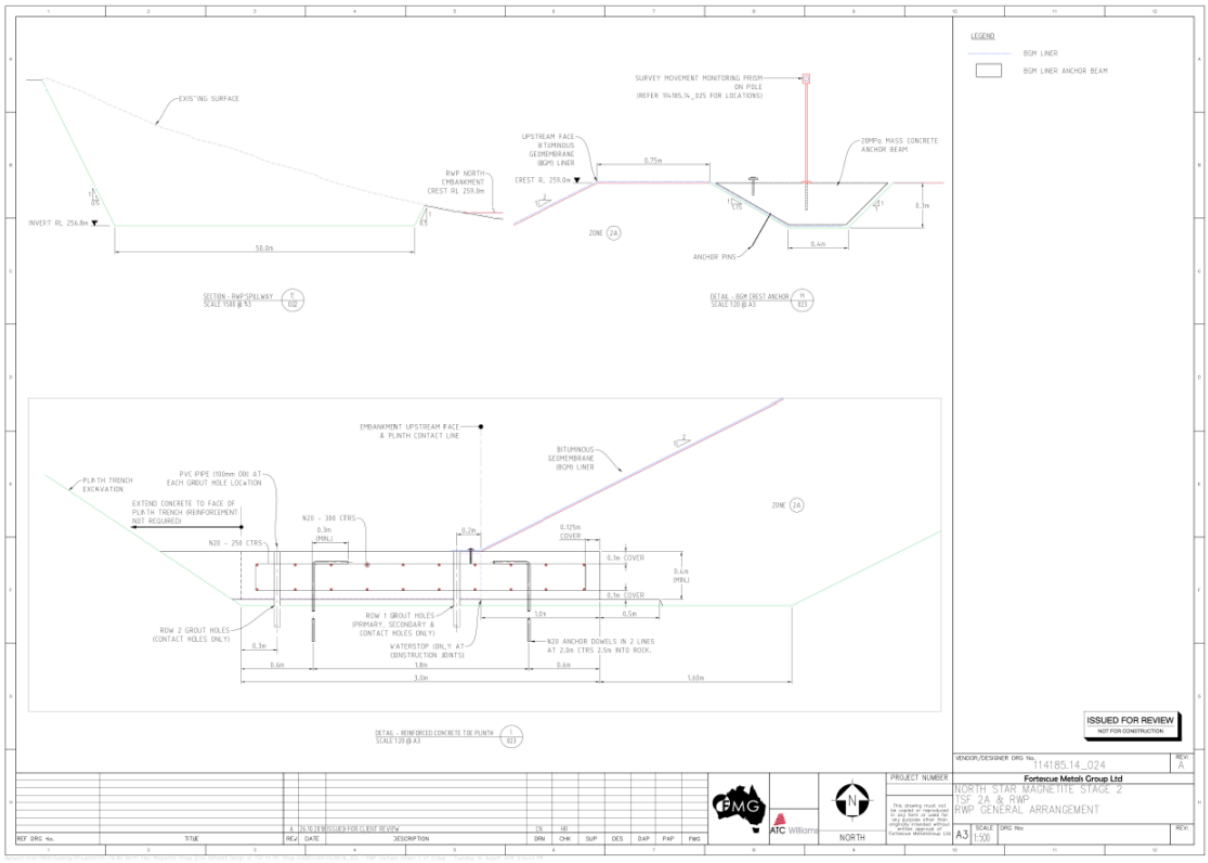

Figure 16: RWP emergency spillway cross-section and toe plinth

Emission points

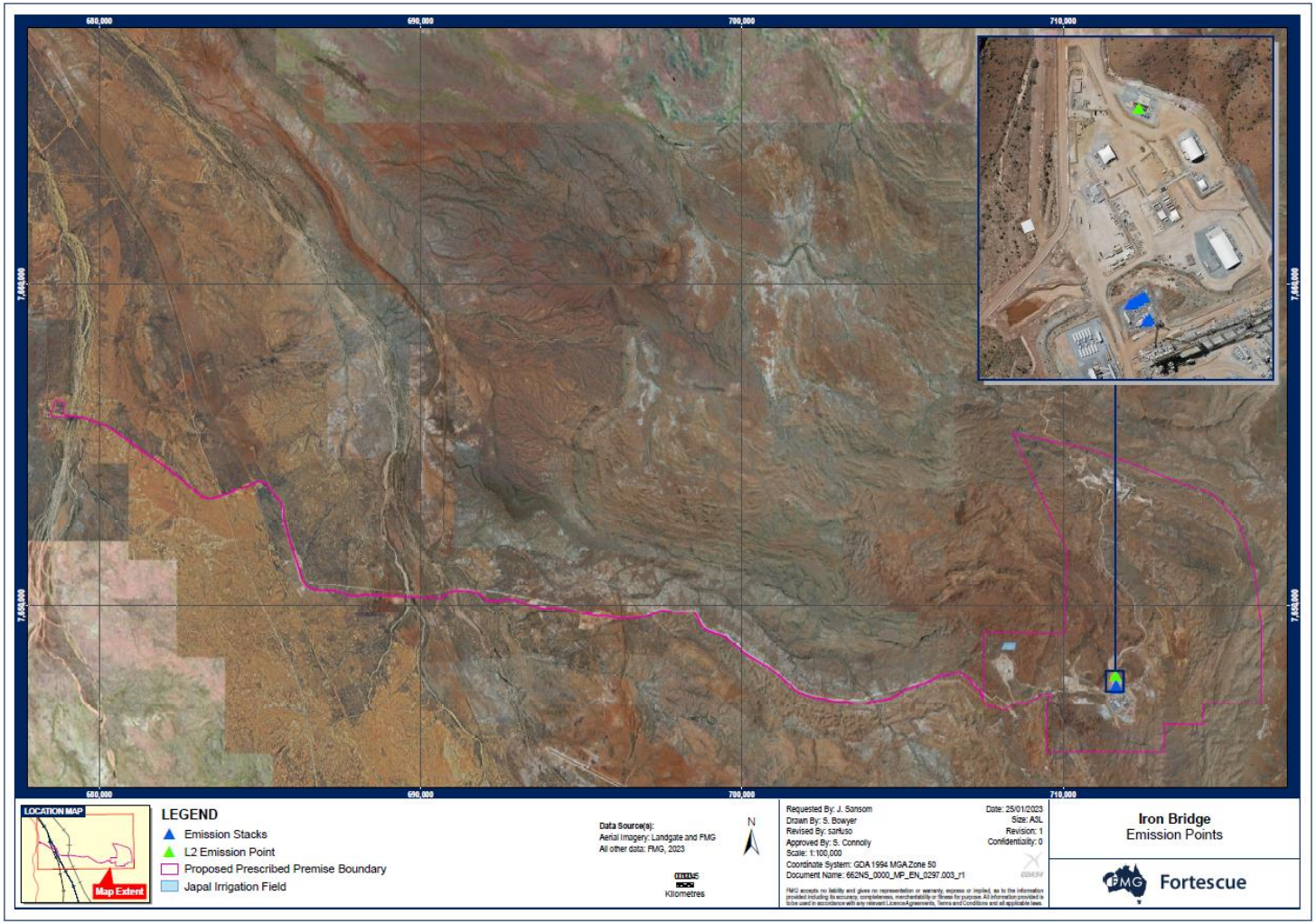

Figure 17: Emission points

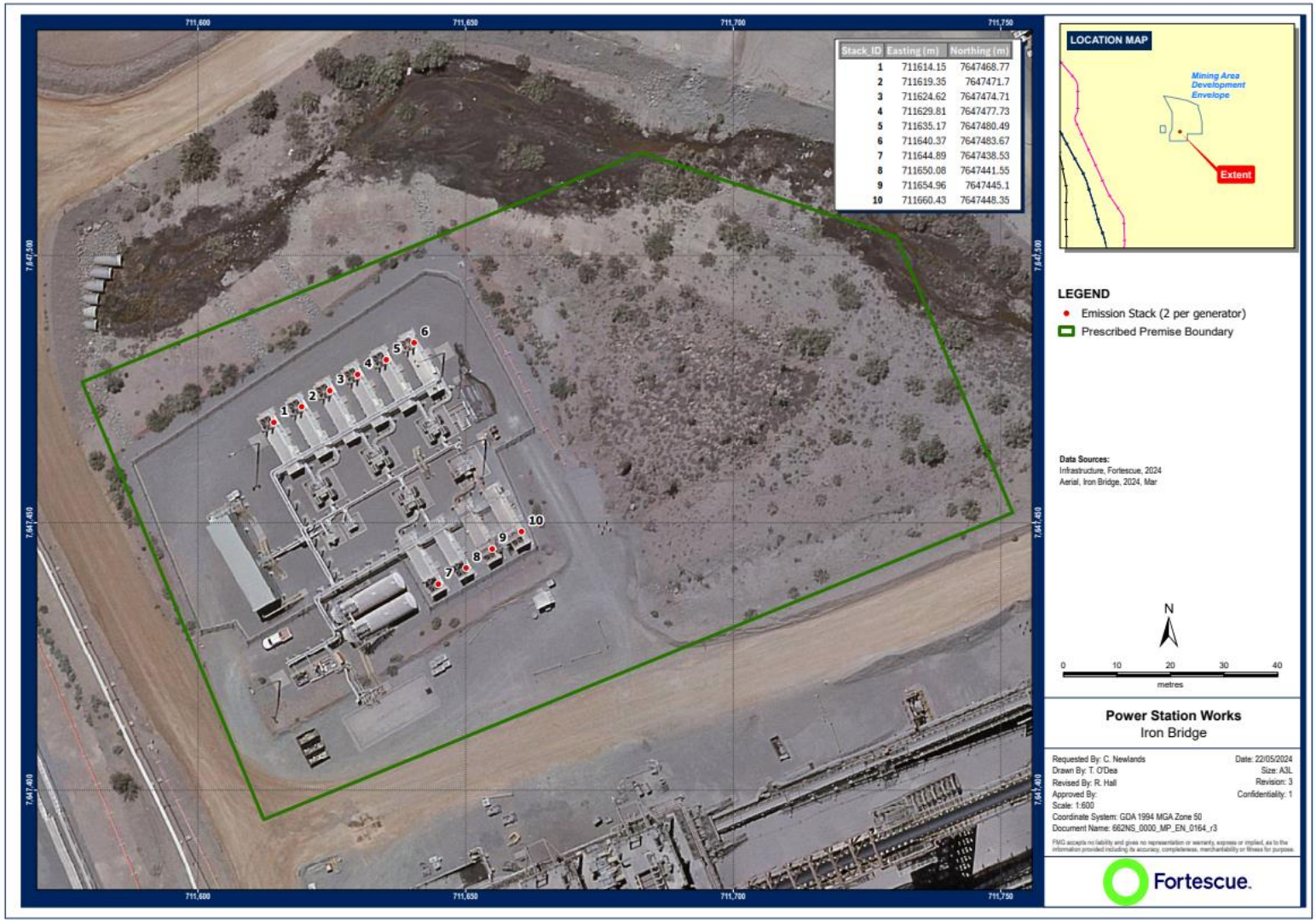

Figure 18: Power Station emission points

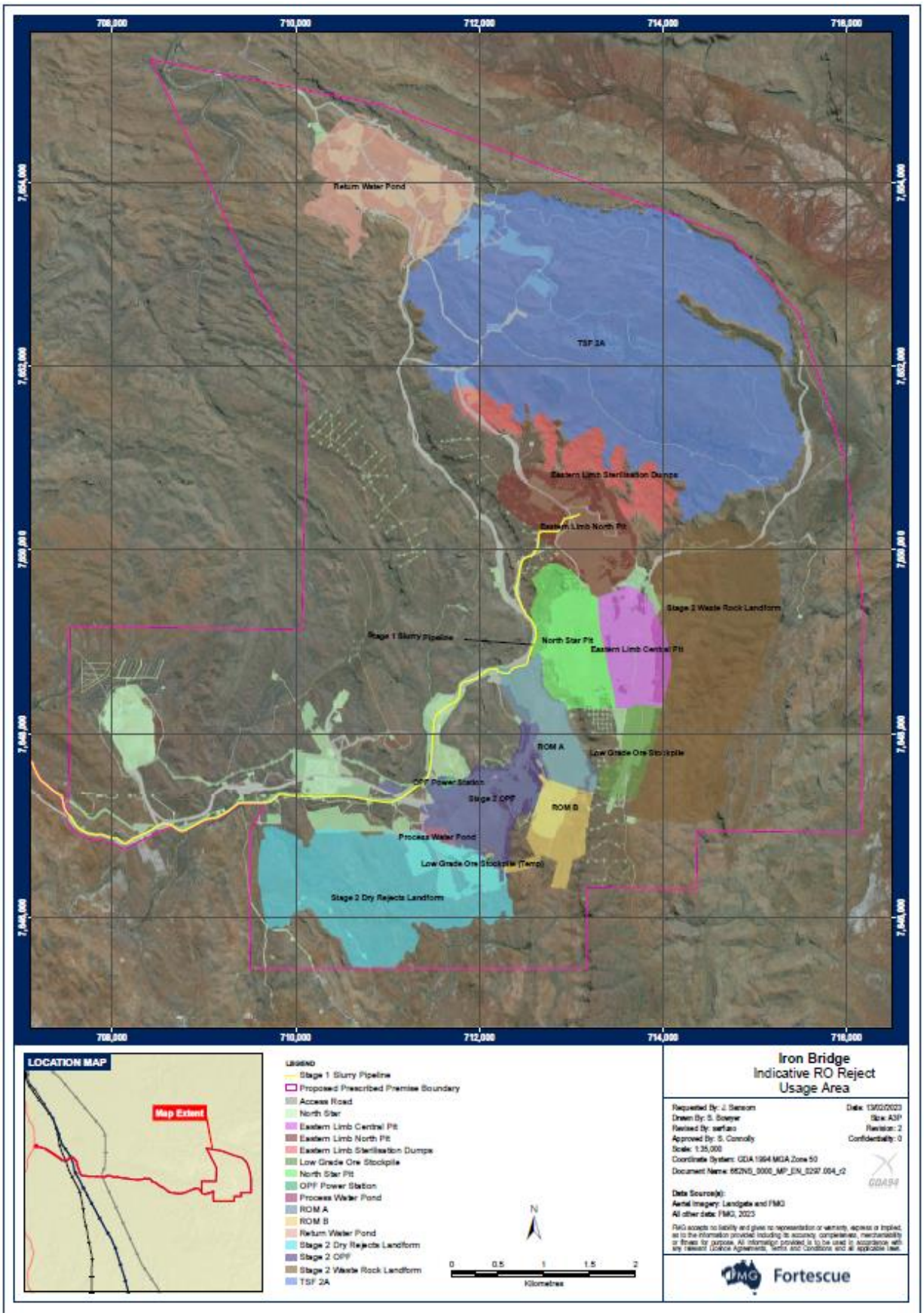

Figure 19: Indicative RO reject usage area

Monitoring locations

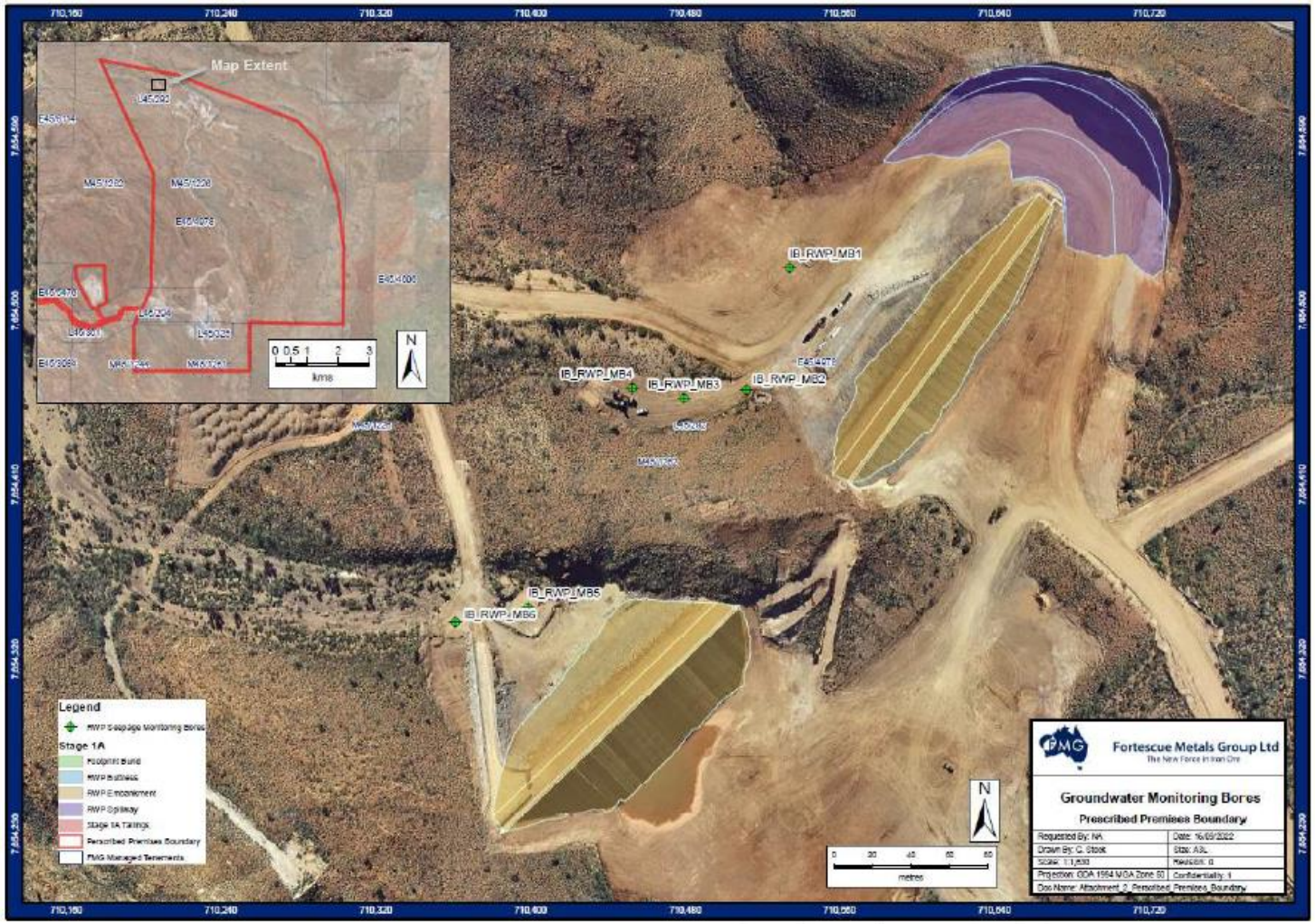

Figure 20: Ambient groundwater monitoring bores