Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8688/2012/1
Licence holder	Hamersley HMS Pty Ltd
ACN	115 004 129
Registered business address	Level 18, Central Park 152-158 St Georges Terrace PERTH WA 6000
DWER file number	DER2014/000622-1
Duration	6/12/2012 to 9/12/2028
Date of amendment	28/10/2022
Premises details	Hope Downs 4 Mine Part of AM70/282, L47/399 and Part of L47/702 NEWMAN WA 6753 As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 5: Processing or beneficiation of metallic or non-metallic ore	21,000,000 tonnes per annual period
Category 6: Mine dewatering	N/A – Regulated under Ministerial Statement 854 (23 GL/year)
Category 12: Screening etc. of material	10,000,000 tonnes per annual period
Category 54: Sewage facility	372 cubic metres per day
Category 64: Class II putrescible landfill site	1,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 28 October 2022, by:

Carmen Standring
Digitally signed by Carmen Standring
Date: 2022.10.28 11:07:05 +08'00'

A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Reference number	Date	Summary of changes
L8688/2012/1	6/12/2012	Licence granted
L8688/2012/1	07/03/2013	Licence amendment to include two temporary crushing and screening plants constructed under W5222/2012/1
L8688/2012/1	16/01/2014	Licence amendment to include the process plant and WFSF constructed under W4965/2011/1
L8688/2012/1	16/10/2014	Licence amendment to include category 64 for the putrescible landfill facility constructed under W5551/2013/1
L8688/2012/1	15/01/2015	Licence amendment to include category 6 for the dewatering discharge infrastructure constructed under W5592/2014/1
L8688/2012/1	17/03/2016	Licence amendment to include category 12 and for the construction and operation of DSP WFSF
L8688/2012/1	29/04/2016	Notice of amendment of licence expiry dates in accordance with section 59B(9) of the *Environmental Protection Act 1986*. New expiry date for L8688/2012/1 is 9/12/2028
L8688/2012/1	10/04/2019	Licence review
L8688/2012/1	4/03/2022	Licence amendment for the following: • Inclusion of the operation of the Area 3 WFSF (Kalgan Pit 2 and Kalgan Pit 3) • Replacement of selected ambient groundwater monitoring bores • Update the licence to the current licence template
L8688/2012/1	28/10/2022	Licence amendment to increase the category 5 design capacity from 16,500,000 tonnes per annual period to 21,000,000 tonnes per annual period.

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:

General conditions

1. The Licence Holder must ensure the limits specified in Table 1 are not exceeded.

Table 1: 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	21,000,000 tonnes per annual period
12	Screening, etc. of material	10,000,000 tonnes per annual period

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

Infrastructure and equipment

2. The Licence Holder must ensure that the site infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding requirements set out in Table 2.

Table 2: Infrastructure and equipment operational requirements

Site infrastructure and equipment	Operational requirements	Infrastructure location
STP Sludge Drying Beds	Must have a hydraulic conductivity of equal to, or less than, 1 x 10^{-9} metres per second and have inbuilt drainage that prevents discharges beyond the drying beds All biosolids and solid residues from STP1 and STP2 must be removed and disposed of to a local off-site landfill for final disposal	As shown in Schedule 1: Figure 3 – Sludge Drying Bed
STP Overflow Pond	Must not allow the pond to overtop and discharge effluent into the environment Must return wastewater contained in the pond to the treatment tanks immediately when capacity becomes available	As shown in Schedule 1: Figure 3 – Overflow Pond
Irrigation Sprayfield	Heavy duty impact sprinklers must be operated to maintain flow pressure and distribution across the irrigation sprayfield to prevent pooling	As shown in Schedule 1: Figure 1 – Irrigation Sprayfield; and Figure 3 –Irrigation Field

Site infrastructure and equipment	Operational requirements	Infrastructure location
WFSF and DSP WFSF	Must ensure that there is no overflow of tailings or supernatant water from the WFSF or DSP WFSF unless under a 100: year ARI 72 hour event	As shown in Schedule 1: Figure 1 – Ex-Pit WFSF and DSP WFSF
WFSF	Must ensure that supernatant water does not come in contact with WFSF embankment walls unless under a 100: year ARI 72 hour event	As shown in Schedule 1: Figure 1 – Ex-Pit WFSF
Area 3 WFSF	Must maintain a freeboard of 1:100 AEP, 72 hour rainfall event and normal operating (decant) pond depth of 0.5 m	As shown in Schedule 1: Figure 1 – Area 3 WFSF
Area 3 WFSF, WFSF and DSP WFSF tailings and return water pipelines	• Two emergency containment ponds located at thelowest elevation along the waste fines delivery pipeline for the purposes of containing spillage caused by pipeline rupture or leaking valves/flanges • All pipeline infrastructure must also meet the requirements of condition 3	Not shown

3. The Licence Holder must ensure that all pipelines containing tailings or return water are either:

(a) equipped with telemetry systems, pressure sensors along pipelines to allow for the detection of leaks and failures, and remotely controlled cut-outs in the event of a pipe failure; or

(b) visually inspected at least once every 24 hours at a compliance rate of equal to, or greater than 90% of daily inspections per month to allow for operational or weather constraints; or

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

4. The Licence Holder must:

(a) undertake inspections as detailed in Table 3;

(b) where inspection identifies that an appropriate 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 3: Inspection of infrastructure

Facility	Infrastructure	Frequency
Area 3 WFSF	Facility integrity inspections (pit walls, discharge location)	Daily
	Waste fines level (freeboard)	Daily
	Supernatant pond location	Daily
	Supernatant pond level	Daily
	Freeboard capacity available	Daily

5. The Licence Holder must undertake an annual water balance for the Area 3 WFSF, and (as a minimum) record the following information:

(a) site rainfall;

(b) evaporation rate;

(c) dewater water recovery volumes;

(d) volumes of tailings deposited; and

(e) estimate of seepage losses.

Emissions and discharges

6. The Licence Holder must ensure that the emissions specified in Table 4, are discharged only at the corresponding discharge point location.

Table 4: Authorised discharge points

Emission	Discharge point location
Waste fines generated at the premises as a result of ore processing	As shown in Schedule 1: Figure 1 – Ex-Pit WFSF
	As shown in Schedule 1: Figure 1 – DSP WFSF
	As shown in Schedule 1: Figure 1 – Area 3 WFSF
Treated effluent for irrigation purposes	As shown in Schedule 1: Figure 1 – Irrigation Sprayfield; and Figure 3 – Irrigation Field
Surplus dewatering water	As shown in Schedule 1: Figure 1 – Kalgan Creek Dewatering Discharge Point

7. The Licence Holder must ensure that emissions from the discharge point listed in Table 5 for the corresponding parameter do not exceed the corresponding limit when monitored in accordance with condition 9.

Table 5: Emission and discharge limits

Discharge point	Parameter and unit	Limit
Irrigation Sprayfield	Volume (m^3)	372 m^3/day (cumulative total for STP1and STP2)
	Total Phosphorus (mg/L)	120 kg/ha/year
	Total Nitrogen (mg/L)	480 kg/ha/year

8. The Licence Holder must ensure that the waste types specified in Table 6 are only subjected to the corresponding processes, subject to the corresponding process, limits and/or specifications.

Table 6: Waste processing

Waste type[1]	Processes	Processes limits and/or specifications[2,3]
Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	No more than 1,000 tonnes per annual period of all waste types cumulatively shall be disposed of to the Waste Dump Landfill as depicted in Schedule 1, Figure 1.
Inert Waste Type 2		
Wooden pallets (Putrescible Waste)		

Note 1: As defined by the Landfill Definitions.
Note 2: Requirement for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987.*
Note 3: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

Monitoring

9. The Licence Holder must monitor the treated wastewater discharged for the parameter listed in Table 7:

(a) at the corresponding monitoring location;

(b) in the corresponding unit;

(c) at no less than the corresponding frequency;

(d) for the corresponding averaging period; and

(e) using the corresponding method

as set out in Table 7.

Table 7: Monitoring of treated wastewater

Parameter	Location	Unit	Frequency	Averaging period	Method
pH	Irrigation Field depicted in Schedule 1: Figure 3	pH units	Quarterly	Annual	AS/NZS 5667.10
Biochemical Oxygen Demand		mg/L			
Total Suspended Solids		mg/L			
Total Phosphorus		mg/L			
Total Nitrogen		mg/L			
Volume		m^3	Monthly	Continuous	Flow metering device

10. The Licence Holder must monitor groundwater for concentrations of the parameters in accordance with Table 8.

Table 8: WFSF groundwater monitoring

Premises infrastructure	Monitoring location as depicted in Figure 4	Parameter (units)	Unit	Frequency	Averaging period	Method
Area 3 WFSF	MB20HD40001 MB15HD4002 MB20HD40003 MB17HD40006 MB18HD40008 MB11HD4011	Standing water level[1]	mbgl	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
		Electrical Conductivity[1]	µS/cm	Six-monthly		
		pH[1]	pH units			
		Oxygen Dissolved[1]	mg/L and %			
		N NO_X Nitrogen	mg/L			
		Nitrogen Total	mg/L			
		N Ammonium NH4-N	mg/L			
		TDS	mg/L			
		NO_3	mg/L			
		Major ions: Na, K, Ca, Cl, F, Mg, SO^4, Alkalinity $CaCO_3$	mg/L			
		Metal/metalloids: Al, As, Ba, B, Cu, Fe, Mn, As, Cd, Cr, Pb, Hg, Ni, Co, Se, Mo, Sb, Si, Sn	mg/L			

Premises infrastructure	Monitoring location as depicted in Figure 4	Parameter (units)	Unit	Frequency	Averaging period	Method
WFSF	MB20HD40004 MB13EA0002 MB13EA0006 MB13EA0004 MB15HD4036 RC14EA1026 MB12HD4007 MB12HD4005 MB12HD4009 ERBORE1	Standing water level[1]	mbgl	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
		Electrical Conductivity[1]	µS/cm	Six-monthly		
		pH[1]	pH units			
		Oxygen Dissolved[1]	mg/L and %			
		N NO_X Nitrogen	mg/L			
		Nitrogen Total	mg/L			
		N Ammonium NH4-N	mg/L			
		TDS	mg/L			
		NO_3	mg/L			
		Major ions: Na, K, Ca, Cl, F, Mg, SO^4, Alkalinity $CaCO_3$	mg/L			
		Metal/metalloids: Al, As, Ba, B, Cu, Fe, Mn, As, Cd, Cr, Pb, Hg, Ni, Co, Se, Mo, Sb, Si, Sn	mg/L			
DSP WFSF	WB14HD4011 WB14HD4016	Standing water level[1]	mbgl	Quarterly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.11
	WB11HD4002 WB10HD40006 WB14HD4012 WB14HD4011 WB14HD4016	Electrical Conductivity[1]	µS/cm	Six-monthly		
		pH[1]	pH units			
		Oxygen Dissolved[1]	mg/L and %			
		N NO_X Nitrogen	mg/L			
		Nitrogen Total	mg/L			
		N Ammonium NH4-N	mg/L			
		TDS	mg/L			
		NO_3	mg/L			
		Major ions: Na, K, Ca, Cl, F, Mg, SO^4, Alkalinity $CaCO_3$	mg/L			
		Metal/metalloids: Al, As, Ba, B, Cu, Fe, Mn, As, Cd, Cr, Pb, Hg, Ni, Co, Se, Mo, Zn, U	mg/L			

Note 1: In-field non-NATA analysis permitted

Records and reporting

11. 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.

12. 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 30 April each year an Annual Audit Compliance Report in the approved form.

13. The Licence Holder must submit to the CEO as part of the Annual Audit Compliance Report required by condition 12 information in accordance with the corresponding requirements set out in Table 9.

Table 9: Reporting requirements

Condition	Requirement
1, 7 and 8	Exceedance of limits
4	Pipeline inspections Reasoning for any missed inspections
5	Annual water balance for the Area 3 WFSF
8	Waste types and volumes disposed at landfill
9	Treated wastewater monitoring The results to be provided to the CEO must include, but need not be limited to the following: (a) quarterly sampling or measurement dates for each location; (b) the raw monitoring data from quarterly monitoring of each location, for each parameter in tabulated form; and (c) the average of the quarterly monitoring results calculated for the period compared against the limits specified in Table 5
10	WFSF groundwater monitoring The results to be provided to the CEO must include, but need not be limited to the following: (a) sampling or measurement dates for each location; (b) the raw monitoring data from each location, for each parameter in tabulated form;

Condition	Requirement
	(c) the monitoring results for the period; and (d) an assessment and comparison against ANZECC Guidelines and background water quality data.

14. 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) any maintenance of infrastructure that is performed in the course of complying with condition 2 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 9 and 10 of this licence;

(d) pipeline inspection schedule logs in accordance with condition 4; and

(e) complaints received under condition 11 of this licence.

15. The books specified under condition 14 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 10 have the meanings defined.

Table 10: 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 in the same year
ANZECC Guidelines	refers to the Australian and New Zealand Guidelines for Fresh andMarine Water Quality (as amended from time to time)
AEP	Annual Exceedance Probability
Area 3 WFSF	refers to Kalgan Pit 2 and Kalgan Pit 3 only
ARI	Annual Recurrence Interval
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 5667.10	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
books	has the same meaning given to that term under the EP Act
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
Continuous	means a data recovery rate of at least 90%
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3

Term	Definition
discharge	has the same meaning given to that term under the EP Act
DSP WFSF	means Desert plains Satellite Pit waste fines storage facility, depicted in Figure 1 as DSP WFSF
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)
GL/year	means gigalitres per year
Inert Waste Type 1	has the meaning defined in Landfill Definitions
Inert Waste Type 2	has the meaning defined in Landfill Definitions
Inspector	means an inspector appointed by the CEO in accordance with s.88of the EP Act
kg/ha/year	means kilograms per hectare per year
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	metres below ground level
NATA	means the National Association of Testing Authorities, Australia
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
Primary Activities	refers to the Prescribed Premises activities listed on the front of this Licence
quarterly	means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December
Six-monthly	means the 2 inclusive periods from 1 January to 30 June and 1 July to 31 December
Spot sample	means a discrete sample representative at the time and place at which the sample is taken
STP	means Sewage Treatment Plant

Term	Definition
waste	has the same meaning given to that term under the EP Act
WFSF	means Waste Fines Storage Facility, depicted in Figure 1 as Ex-Pit WFSF, DSP WFSF and Area 3 WFSF
µS/cm	micro Siemens per centimetre

END OF CONDITION

Schedule 1: Maps

Premises map

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

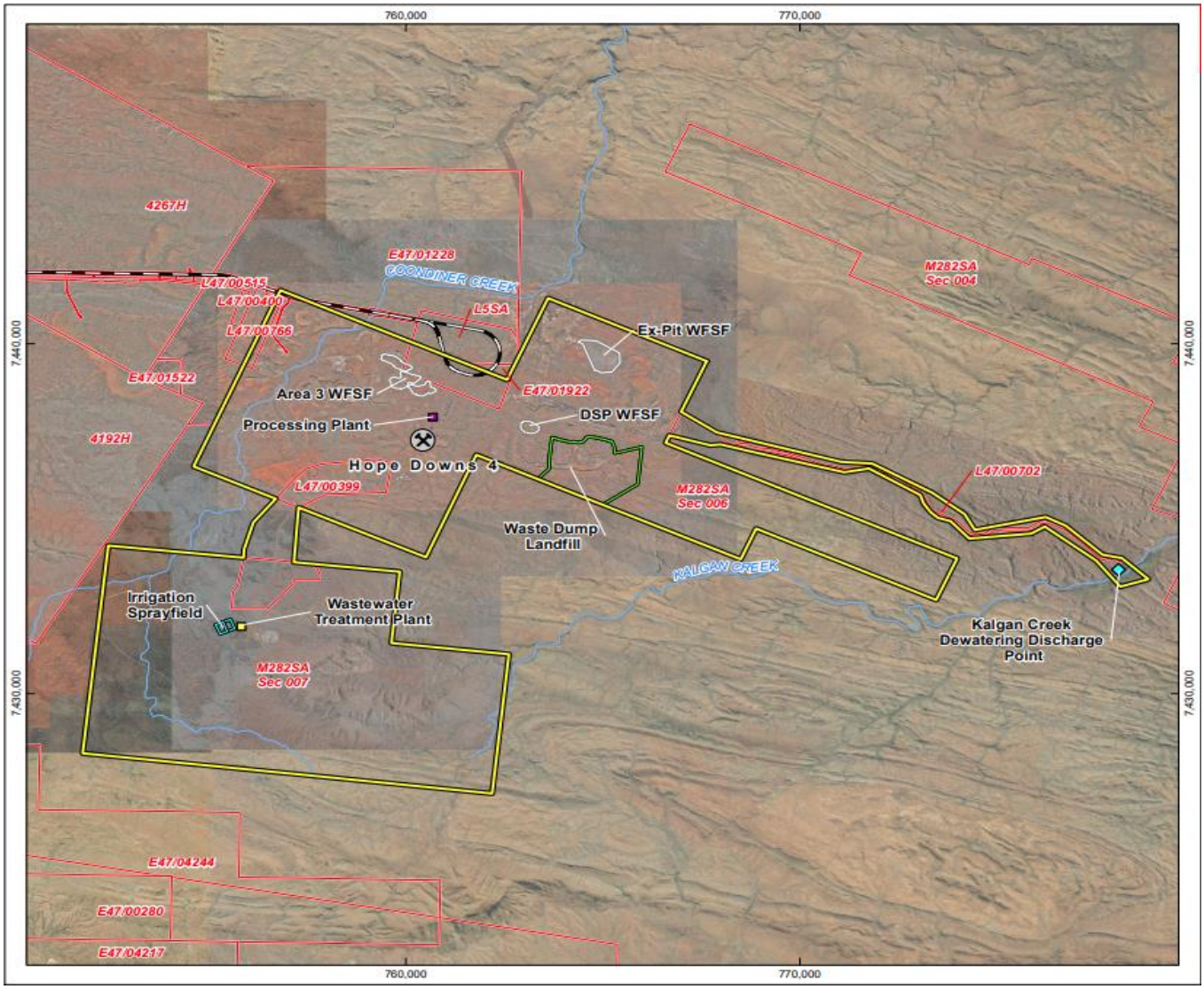

Figure 1: Map of the boundary and infrastructure of the prescribed premises

Infrastructure

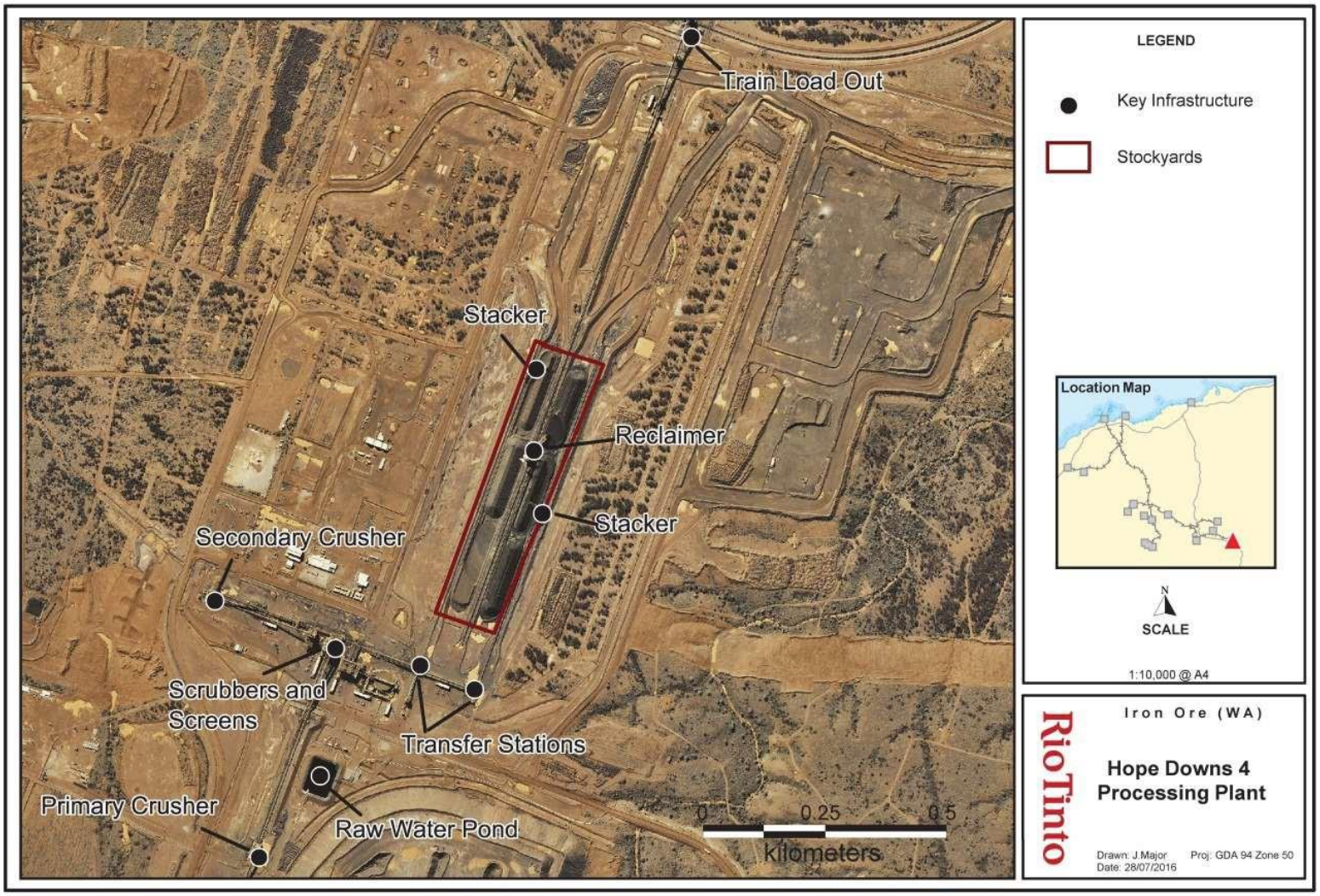

Figure 2: Processing Plant layout

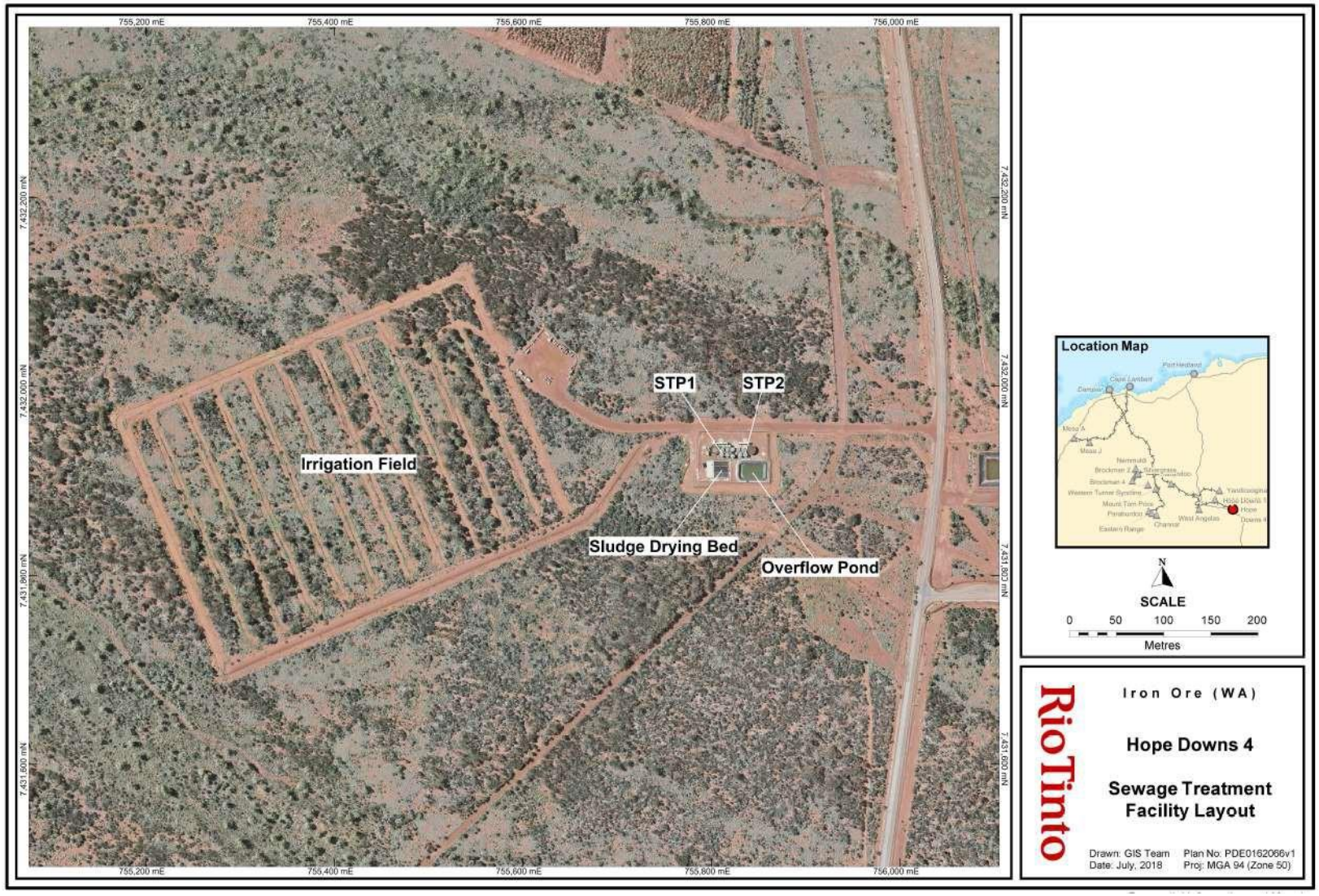

Figure 3: STP Layout

Monitoring

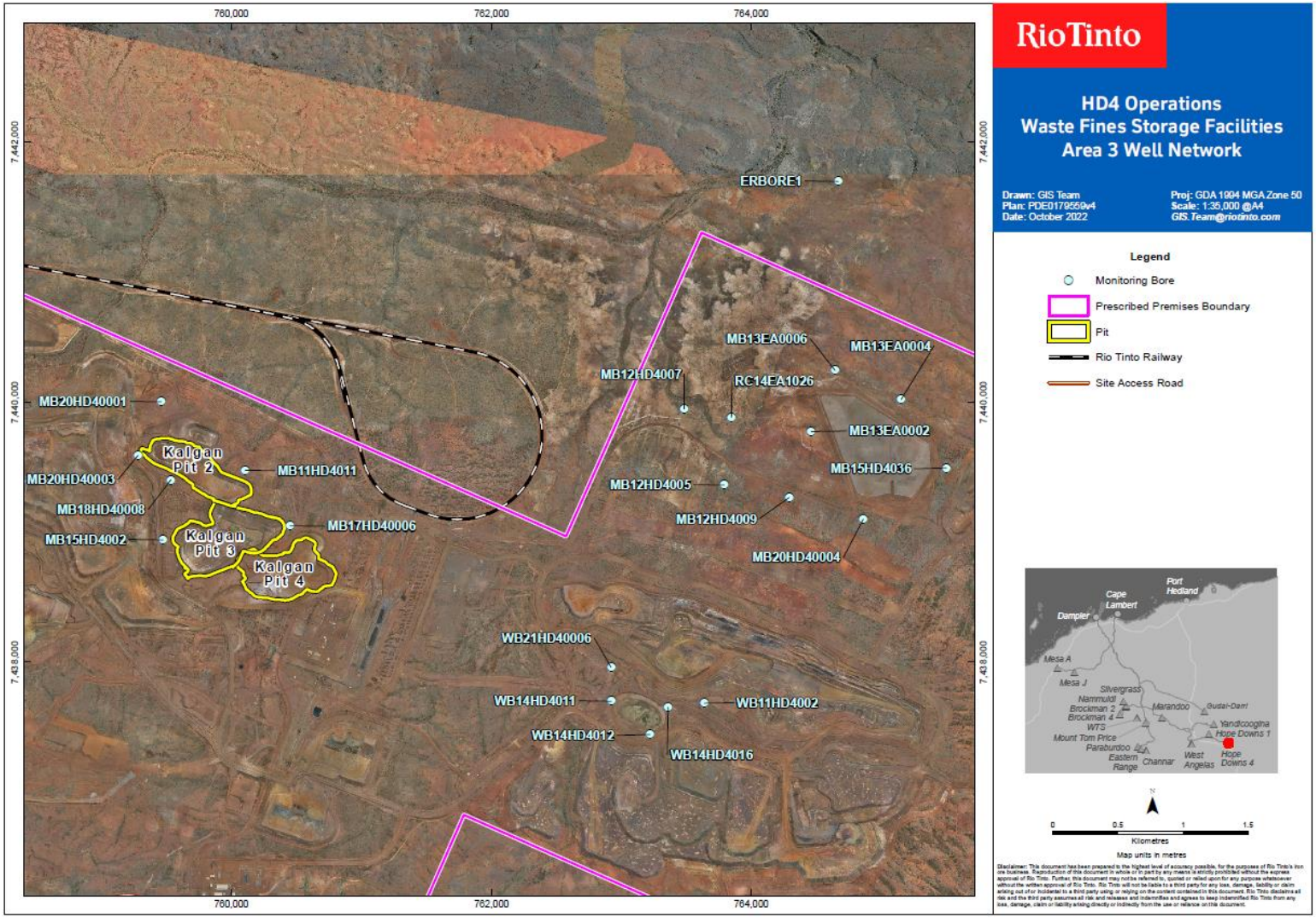

Figure 4: Groundwater Monitoring Sites

Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 11.

Table 11: Premises boundary coordinates

Easting	Northing	Easting (cont.)	Northing (cont.)	Easting (cont.)	Northing (cont.)
767639	7439505	768900	7434719	777693	7433967
763614	7441301	773468	7432680	776758	7434793
762573	7438964	773998	7433868	776255	7435042
756815	7441528	766598	7437170	774452	7434685
754605	7436489	766691	7437378	774195	7435132
756696	7435572	766734	7437366	773361	7435747
756129	7434890	767737	7437091	771846	7436575
755887	7434121	768002	7437119	771061	7436623
755874	7433883	768812	7436913	767903	7437469
752446	7434226	771134	7436326	766992	7438055
752008	7430246	771759	7436430	767022	7438122
751793	7428290	773061	7435673	767639	7439505
757203	7427697	773154	7435433		
762194	7427149	773322	7435188		
762613	7431129	773515	7435024		
759628	7431443	773839	7434928		
759842	7433484	774314	7434430		
757151	7433754	775882	7434573		
757272	7435319	776235	7434778		
757272	7435319	777533	7433807		
760504	7433901	778151	7433054		
761787	7436822	778854	7433265		
768506	7433836	778188	7433877		

Schedule 3: Infrastructure and equipment

The Primary Activity infrastructure and equipment situated on the Premises are detailed inTable 12.

Table 12: Infrastructure and equipment situated on the Premises

	Category 5 Infrastructure	**Plan reference**
1	Processing plant (wet and dry plant) and associated infrastructure	As shown in Schedule 1: Figure 1 – Processing Plant; and Figure 2 - Processing Plant layout including: Primary Crusher, Secondary Crusher, Transfer Stations, Scrubbers and Screens, Stackers, Reclaimer, Raw Water Pond and Train Load Out
2	WFSF	As shown in Schedule 1: Figure 1 - Ex-Pit WFSF
3	DSP WFSF	As shown in Schedule 1: Figure 1 - DSP WFSF
4	Area 3 WFSF	As shown in Schedule 1: Figure 1 – Area 3 WFSF
5	Groundwater monitoring bores	As shown in Schedule 1: Figure 4 - Groundwater monitoring sites
	Category 6 Infrastructures	**Plan reference**
6	Dewatering discharge point	As shown in Schedule 1: Figure 1 -- Kalgan Creek Dewatering Discharge Point
	Category 12 Infrastructure	**Plan reference**
7	Mobile crushing and screening equipment	N/A - Mobile
	Category 54 Infrastructure	**Plan reference**
8	STP 1 and 2	As shown in Schedule 1: Figure 3 - STP1 and STP2
9	Irrigation Field	As shown in Schedule 1: Figure 3 - Irrigation Field
10	Sludge Drying Bed	As shown in Schedule 1: Figure 3 - Sludge Drying Bed
11	Overflow pond	As shown in Schedule 1: Figure 3 - Overflow Pond
	Category 64 Infrastructure	**Plan reference**
12	Waste Dump Landfill	As shown in Schedule 1: Figure 1 - Waste Dump Landfill