



Licence number	L8041/1990/5
Licence holder	Western Areas Limited
ACN	091 049 357
Registered business address	Level 2, 2 Kings Road WEST PERTH WA 6005
DWER file number	DER2015/000458
Duration	17/10/2013 to 18/07/2027
Date of amendment	08/09/2020
Premises details	Forrestania Nickel Operations Forrestania-Southern Cross Road FORRESTANIA WA 6359 Legal description - Mining tenements M74/57, M74/58, M74/90, M74/91, M77/335, M77/399, M77/545, M77/568, M77/574, M77/582, M77/583, M77/584, M77/586, M77/587, M77/588, M77/589, M77/912, L70/111, L74/44, L77/104, L77/141, G70/226 and G70/231

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	680,000 tonnes per annual period
Category 6: Mine dewatering	6,400,000 tonnes per annual period
Category 12: Screening, etc. of material	150,000 tonnes per annual period
Category 54: Sewage facility	110 cubic metres per day
Category 89: Putrescible landfill site	1,500 tonnes per annual period

This amendment is granted to the licence holder, subject to the attached conditions, on 8 September 2020, by:

Carmen Standring
A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES

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

Licence history

Date	Instrument	Summary of changes
17/11/2004	W4019/1990/1	Works Approval for construction of dewatering operational and monitoring infrastructure at Flying Fox, to enable commencement of mining and subsequent disposal of mine dewater into the abandoned Flying Fox underground mine (stage 1), and the abandoned McMahon and Lounge Lizard open mine pits (stages 2 & 3).
17/10/2005	L8041/1990/1	New licence issued to authorise commencement of mining and dewatering operations (2,000,000 tpa) at Flying Fox.
09/10/2006	W4244/1990/1	Works Approval for expansion of dewatering operations at Flying Fox to allow mining of the T5 zone (2,900,000 tpa). This included constructing a 22 km transfer pipeline from Flying Fox to Cosmic Boy, re-establishment of the Seagull and Liquid Acrobat reinjection borefields, and development of a new reinjection borefield (Sibelius).
16/10/2006	L8041/1990/2	Licence reissued for the Flying Fox mine.
09/11/2006	W4243/1990/1	Works Approval for construction of the Cosmic Boy concentrator (350,000 tpa capacity) and TSF.
31/08/2007	L8041/1990/2	Amendment to Flying Fox licence to authorise discharge of dewatering effluent to the 3 reinjection borefields and to formalise commitments regarding groundwater and native vegetation monitoring.
11/10/2007	L8041/1990/3	Licence reissued for the Flying Fox mine.
19/12/2008	W4465/2008/1	Works Approval for construction of the Mossco Farm evaporation ponds, including 32 km of dewatering pipeline from the Cosmic Boy site.
01/01/2009	L8233/2008/1	New licence issued for dewatering operations at Digger Rocks (Diggers Rock South – stage 1).
19/02/2009	W4465/2008/1	Amendment to works approval for construction of the Mossco Farm evaporation ponds, to include an additional tenement that was erroneously omitted from the original approval.
26/02/2009	L8831/2009/1	New licence issued for the Cosmic Boy concentrator & TSF.
27/08/2009	L8041/1990/3	Amendment to Flying Fox licence following complete review of operations and issue in new format. Conditions added requiring groundwater monitoring, groundwater discharge criteria (limits and targets) and exceedance reporting, native vegetation monitoring and annual audit compliance reporting (AACR). Additional tenements added to the premises description.
03/09/2009	W4558/2009/1	Works Approval for stage 2 upgrade of the Cosmic Boy concentrator to 600,000 tpa capacity.
28/09/2009	W4499/2008/1	Works Approval for construction of the Spotted Quoll mine and associated dewatering infrastructure.
19/10/2009	W4499/2008/1	Amendment to Spotted Quoll works approval for a temporary mobile screening operation.
05/11/2009	L8041/1990/3	Amendment to Flying Fox licence to include category 12 for a temporary mobile screening operation.
04/02/2010	L8041/1990/3	Amendment to Flying Fox licence to authorise dewatering at the new Spotted Quoll mine.
11/02/2010	W4604/2009/1	Works Approval for the McMahon clearwater pond expansion, to separate dewatering effluent from Flying Fox and the new Spotted

		Quoll mine, the latter of which contains higher salinity.
15/10/2010	L8041/1990/4	Licence reissued for the Flying Fox mine.
11/11/2010	W4771/2010/1	Works Approval for construction of a paste fill plant at the Spotted Quoll mine.
02/12/2010	L8041/1990/4	Administrative amendment to the Flying Fox licence following a compliance inspection in November 2010.
03/11/2011	L8041/1990/4	Amendment to Flying Fox licence to add the Mossco Farm evaporation ponds as an authorised discharge point for mine dewater.
04/10/2013	L8041/1990/5	Licence renewed for the Flying Fox mine, including the amalgamation of all other instruments issued to WSA for the FNO, being the Cosmic Boy concentrator & TSF (L8331), Diggers Rock South mine (L8233), Cosmic Boy sewage facility (R1996) and Flying Fox landfill (R2311).
21/08/2014	W5665/2014/1	Works approval for construction of a septic sludge drying pond in an old gravel pit east of Spotted Quoll.
15/01/2015	W5750/2014/1	Works approval for construction of a paste fill plant at the Flying Fox mine.
26/02/2015	W5767/2014/1	Works approval for construction of an additional septage evaporation pond at the Cosmic Boy accommodation camp.
20/08/2015	W5839/2015/1	Works approval for construction of a bioleach plant at the Cosmic Boy concentrator site.
08/10/2015	W5859/2015/1	Works approval for TSF embankment lift.
14/04/2016	L8041/1990/5	Amendment following full review. Changes made to update conditions are remove redundant conditions. Category 12 added to authorise various on-site crushing and screening operations. Category 5 design capacity increased to 680,000 tpa. Improvement added to develop a groundwater management plan for the long term management of groundwater mounding at the Mossco Farm pond site.
14/12/2017	L8041/1990/5	Amendment Notice 1 – changes to groundwater monitoring program following submission of groundwater management plan for the Mossco Farm pond.
24/01/2019	L8041/1990/5	Amendment Notice 2 – dewatering from Spotted Quoll mine.
14/05/2019	L8041/1990/5	Amendment Notice 3 – operation of septage drying lagoons constructed under W5665.
08/09/2020	L8041/1990/5	Amendment to authorise operation of Bioleach plant constructed under W5839 (this amendment). Amalgamation of Amendment Notices 1 – 3 into the licence document.

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:

Premises operation

1. The licence holder shall ensure that all pipelines containing environmentally hazardous materials are either:
 - (a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
 - (b) equipped with automatic cut-outs in the event of a pipe failure; or
 - (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
2. The licence holder must ensure that any dewatering effluent used for dust suppression on the Premises is used in a manner that minimises damage to surrounding vegetation.
3. The licence holder must ensure that materials listed in Table 1 are only discharged into the corresponding infrastructure specified in that table.

Table 1: Containment infrastructure table

Infrastructure	Material	Infrastructure requirements
Cosmic Boy TSF	Tailings	<ul style="list-style-type: none"> Clay-lined to achieve a permeability of at least 1×10^{-9} m/s or equivalent A minimum freeboard (total) of 500 mm is maintained A seepage collection and recovery system is provided and used to capture seepage from the TSF Seepage is returned to the TSF or re-used in the process, or to a discharge facility
McMahon open mine pit	Dewatering effluent	<ul style="list-style-type: none"> None specified;
Lounge Lizard open mine pit		
Digger Rocks open mine pit		<ul style="list-style-type: none"> HDPE lined to achieve a permeability of at least 1×10^{-9} m/s or equivalent A minimum top of embankment freeboard of 300 mm is maintained
Spotted Quoll staging pond		
McMahon staging pond		
Cosmic Boy staging pond		
Digger Rocks staging pond		<ul style="list-style-type: none"> Clay lined to achieve a permeability of at least 1×10^{-9} m/s or equivalent A minimum top of embankment freeboard of 300 mm is maintained
Digger Rocks evaporation pond		
Mossco Farm evaporation ponds	Sewage effluent/ treated sewage	<ul style="list-style-type: none"> Clay lined to achieve a permeability of at least 1×10^{-9} m/s or equivalent A minimum top of embankment freeboard of 300 mm is maintained
Cosmic Boy accommodation camp wastewater treatment ponds		
Flying Fox septic system evaporation pond		
Spotted Quoll septic system evaporation pond	Septage sludge	<ul style="list-style-type: none"> Clay lined to achieve a permeability of at least 1×10^{-9} m/s or equivalent
Spotted Quoll septage sludge drying pond		
Septic tank sludge drying lagoons at the junction of	Septic tank sludge	<ul style="list-style-type: none"> Constructed in accordance with W5665/2014/1

M77/583 and M77/584		<ul style="list-style-type: none"> Maximum depth of 300 mm sludge waste Total freeboard equal to, or greater than, 300 mm is maintained in each lagoon at all times
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4. The licence holder must:
- undertake inspections as detailed in Table 2;
 - 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
 - maintain a record of all inspections undertaken.

Table 2: Inspection of infrastructure requirements table

Scope of inspection	Type of inspection	Frequency of inspection
Tailings pipelines	Visual integrity and leak assessment.	Daily when operating, Monthly when not operating.
Mine dewater pipelines		
Containment infrastructure listed in Table 1		
TSF embankment freeboard	Visual to confirm required freeboard capacity is available.	
Reinjection bores	Visual integrity and leak assessment.	Daily, when in use.

5. The licence holder must ensure that, prior to dispatch for transport from the Premises, all nickel concentrate product containers:
- are free of leaks and are fit for purpose;
 - contain no visible concentrate product on the external face, or adhering to the outside of the container(s); and
 - contain nickel concentrate product in a dampened state.
6. The licence holder must only dispose waste on the Premises if:
- it is of a type listed in Table 3; and
 - the quantity is below any limit specified in Table 3;
 - it meets the specifications in Table 3; and
 - it originates only from activities on the Premises.

Table 3: Authorised waste types and processing table

Waste type	Quantity limit (tonnes/year)	Specification
Inert waste type 1	1,500 (combined)	<ul style="list-style-type: none"> Industrial, non-recyclable waste, including maintenance, construction and demolition wastes such as building materials, non-recyclable packaging, etc. Solid waste only Contaminants must comply with CT2 criteria
Used tyres		<ul style="list-style-type: none"> Light vehicle tyres only
Putrescible waste		<ul style="list-style-type: none"> General refuse, light industrial rubbish and bioremediated soils from site operations only Solid waste only Contaminants must comply with CT2 criteria

7. The licence holder must ensure that wastes disposed on the Premises are only subjected to the processes set out in Table 4 and in accordance with any process limits described in that table.

Table 4: Waste processing requirements table

Waste type	Process	Process limits
Inert waste type 1 and Putrescible waste.	Disposal of waste by burial	<ul style="list-style-type: none"> Shall only take place within the approved disposal area (Flying fox tip), as depicted on the map in Schedule 1; No waste shall be burnt
Used tyres	Storage of tyres	<ul style="list-style-type: none"> To be stored in piles of up to 100 units with a 6 m separation distance between piles.

8. The licence holder must ensure that sufficient cover is applied and maintained on landfilled wastes in accordance with Table 5.

Table 5: Waste cover requirements table

Waste type	Material	Timescale
All	Clean fill or soil	<ul style="list-style-type: none"> Monthly; and Waste with the potential to become windblown must be covered as soon as practicable after deposit;

9. The licence holder must ensure that no visible dust generated from the Cosmic Boy TSF crosses the boundary of the premises.

Emissions

Emissions to air

10. The licence holder must ensure that where waste is emitted to air from the emission points in Table 6 it is done so in accordance with the conditions of this licence.

Table 6: Emission points to air table

Emission point reference	Emission point	Emission point height (m)	Source, including any abatement
A1	Cosmic Boy lime silos (2) (vents)	12	Lime silo via bag filters
A2	Spotted Quoll paste plant binder silo (1) (vent)	22	Binder silo via bag filter
A3	Flying Fox paste plant binder silos (2) (vents)	22	Binder silos via bag filter
A4	Sulfide precipitation tank	(min.) 3.0	Sulfide precipitation tank vent(s)
A5	Reagent mixing tank	(min.) 10.0	Reagent mixing tank vent

Emissions to groundwater

11. The licence holder must ensure that where waste is emitted to groundwater from the emission points in Table 7 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 7: Emission points to groundwater table

Emission point reference	Description	Source, including abatement
G1 – G2	Discharge into abandoned open mine pits: McMahon pit (G1) and Lounge Lizard pit (G2)	Saline/hypersaline groundwater from mine dewatering, treated via
G3 – G5	Direct injection below ground (Sibellius borefield)	

G6 – G7	Direct injection below ground (Liquid Acrobat borefield)	settling pond(s) with sufficient residence time to reduce suspended solids
G8 – G9	Direct injection below ground (Seagull borefield)	
G10	Discharge into abandoned underground workings (Cosmic Boy)	
G11	Discharge into abandoned open mine pit (Diggers Rock)	

12. The licence holder must not cause or allow emissions to groundwater greater than the limits listed in Table 8.

Table 8: Emission limits to groundwater table

Emission point reference	Parameter	Limit	Averaging period
G1	Electrical conductivity @ 25°C	90,000 µS/cm	Spot sample
G2		130,000 µS/cm	
G3 – G11		150,000 µS/cm	

Monitoring (general)

13. The licence holder must ensure that:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
 - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured, unless indicated otherwise in the relevant table.
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;
 - (c) six-monthly monitoring is undertaken at least 5 months apart; and
 - (d) annual monitoring is undertaken at least 9 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.

Emissions monitoring

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

Table 9: Point source emissions to groundwater monitoring table

Emission point reference	Monitoring point reference	Parameter	Units	Averaging period	Frequency ²
G1 – G11	MG1 – MG11 (discharge)	Volumetric flow rate (cumulative) ¹	L/s m ³ /d	Continuous	Monthly, when

	point into pit/ borefield)				discharging
		pH ¹	-	Spot sample	Annual, when discharging
		Electrical conductivity @ 25°C ¹	µS/cm		
		Total dissolved solids ¹	mg/L		
		Sulfate, chloride, sodium, ammonia (as nitrogen), total nitrogen, total phosphorus, total aluminium, total iron			
		Aluminium, arsenic, chromium, cadmium, iron, manganese, nickel, selenium, zinc			

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

Note 2: Prior to the commencement of dewatering activities on the Premises, monitoring must be undertaken at least six-monthly.

Process monitoring

18. The licence holder must undertake monitoring of the parameters for the process listed in Table 10, in the corresponding units and the frequency specified in that table.

Table 10: Process monitoring table

Monitoring point reference	Process description	Parameter	Units	Frequency
-	Processing of ore	Amount of ore processed	tonnes	Annual
-	Tailings disposal	Amount of tailings deposited within the TSF and sent to paste plants	m ³	Continuous
-	TSF water recovery	Volume of water recovered		
-	TSF water management	Phreatic surface levels within TSF embankments	mAHD	Monthly
-	Mine dewatering	Cumulative volume of mine dewater abstracted from the Flying Fox and Spotted Quoll mining operations	m ³	Continuous
WQ1 – WQ3 ²	Monitoring of ambient water quality within Mossco Farm evaporation pond	pH ¹	-	Annual
		Electrical conductivity @ 25°C ¹	µS/cm	
		Total dissolved solids ¹	mg/L	
		Sulfate, chloride, sodium, ammonia (as nitrogen), total nitrogen, total phosphorus, total aluminium, total iron		
		Aluminium, arsenic, chromium, cadmium, iron, manganese, nickel, selenium, zinc		

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

Note 2: Mossco Farm evaporation pond monitoring locations (MFEP1 – MFEP3).

Ambient environmental monitoring

19. The licence holder must undertake monitoring of ambient groundwater quality according to the specifications in Table 11.

Table 11: Groundwater monitoring table

Monitoring point reference ²	Parameter	Limit	Units	Averaging period	Monitoring frequency		
GQ1 – GQ10	Standing water level ¹	≥4	mAHD mbgl	Spot sample	Quarterly		
GQ11 – GQ27 GQ35 – GQ48		≥8					
GQ28		≥5					
GQ29 – GQ34 GQ49 – GQ56 GQ61		≥4					
GQ1 – GQ62		pH ¹				-	µS/cm
	Electrical conductivity @ 25°C ¹	-	mg/L	Quarterly ³ for bores GQ49-GQ62			
	Total dissolved solids ¹	-			Annually		
	Sulfate, chloride, sodium, ammonia (as nitrogen), total nitrogen, total phosphorus, total aluminium, total iron	-					
	Aluminium, arsenic, chromium, cadmium, iron, manganese, nickel, selenium, zinc	-					

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

Note 2: See cross reference of monitoring point reference with WSA bore ID in Schedule 2.

Note 3: Quarterly for Mossco Farm evaporation pond monitoring bores (GQ49 – GQ62). See map in Schedule 2

20. The licence holder must operate the groundwater recovery bore network at the Cosmic Boy TSF to ensure mounding of the groundwater table does not exceed the limits specified in Table 11.
21. The licence holder must, if monitoring undertaken in accordance with Table 11 indicates the concentration of arsenic exceeds a trigger value of 25 µg/L in bores surrounding the Cosmic Boy TSF (GQ1 – GQ10), undertake the following actions:
- establish the context of the exceedance and determine whether the result requires re-sampling and analysis, immediate further action, or no response;
 - increase sampling frequency for arsenic if it is confirmed that arsenic concentrations exceed 25 µg/L in successive sampling events; and
 - prepare and implement a contingency action plan suited to the level of risk to groundwater users and environmental receptors if it is confirmed that arsenic concentrations have deteriorated to levels outside of background levels.
22. The licence holder must undertake a six-monthly assessment of vegetation within the area of influence of any mine dewater reinjection bores and evaporation ponds.

- 23.** The assessment required by condition 22 must include:
- (a) photographs and records of the presence and condition of key vegetation features within the area of influence;
 - (b) an appraisal of the species representation, species diversity, vegetation density, % foliage cover, and health of the vegetation communities at each quadrant established for the purpose of vegetation monitoring;
 - (c) compare the results of the assessment against previous years assessments and similar vegetation communities in the local area and identify whether any deterioration in the presence and/or quality of vegetation has taken place;
 - (d) be undertaken by a person suitably qualified in vegetation identification and sampling; and
 - (e) be undertaken in autumn and spring.

Records and reporting

- 24.** All information and records required by the licence must:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;
 - (c) except for records listed in condition 24(d), be retained for at least 6 years from the date the records were made or until the expiry of the licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.
- 25.** 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 1 October in each year, an annual audit compliance report in the approved form.
- 26.** The licence holder must implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

Annual environmental report

- 27.** The licence holder must submit to the CEO, by 1 October in 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 requirement set out in Table 12, which includes, but is not limited to:

Table 12: Annual environmental report

Condition or table	Parameter	Format or form
-	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	None specified
-	Amount of waste disposed at each landfill site, including a breakdown of amount per waste type	

Condition or table	Parameter	Format or form
-	A copy of the annual Groundwater Monitoring Summary required by Licence to Take Water GWL156459(4)	
-	A copy of the relevant triennial groundwater report required by Licence to Take Water GWL156459(4)	
-	An annual water balance for the TSF, including site rainfall, evaporation, decant water recovery volumes, seepage recovery volumes, volumes of tailings deposited	
Condition 17	Monitoring of point source emissions to groundwater data	
Condition 18	Process monitoring data	
Condition 19	Monitoring of ambient groundwater quality data, including a summary of the monitoring program undertaken at each site. Including summary of any exceedances of the limits specified and any action(s) taken.	
Condition 21	A summary of any exceedances of the arsenic trigger value specified in condition 21 and any action(s) taken in accordance with condition requirements.	
Condition 22	Vegetation monitoring assessment	AACR form ¹
Condition 25	Compliance	
Condition 26	Complaints summary	
		None specified

Note 1: AACR form can be found at website www.dwer.wa.gov.au

- 28.** The licence holder must ensure the report required by condition 27 also includes:
- an appraisal and trend analysis of any monitoring results against any baseline data and previous monitoring results; and
 - time-series figures for all monitoring data, with axes presented on relevant scales.
- 29.** The licence holder must, within 7 days of becoming aware of any non-compliance with the limits specified in conditions 12 and 19 of this licence, notify the CEO in writing of that non-compliance and include in that notification the following information:
- which condition was not complied with;
 - the time and date when the non-compliance occurred;
 - if any environmental impact occurred as a result of the non-compliance and if so what that impact is and where the impact occurred;
 - the details and result of any investigation undertaken into the cause of the non-compliance;
 - what action has been taken and the date on which it was taken to prevent the non-compliance occurring again; and
 - what action will be taken and the date by which it will be taken to prevent the non-compliance occurring again.

Definitions

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

Table 13: Definitions

Term	Definition
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
AHD	Australian Height Datum
annual period	means a 12 month period commencing from 1 July until 30 June in the following year
area of influence	means the extent of groundwater drawdown/mounding impacts on the standing water table
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i>
averaging period	means the time over which a limit is measured or a monitoring result is obtained
CEO	means Chief Executive Officer of the Department CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag10 JOONDALUP DC WA 6919 info@dwer.wa.gov.au
condition	means a condition to which this licence is subject under s.62 of the EP Act
CT2 criteria	means the contaminate threshold (CT) values for a Class II landfill, as per Table 3 of the landfill definitions
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
EP Act	means the <i>Environmental Protection Act 1986</i> (WA)
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA)
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point
hardstand	means a surface with a permeability of 1×10^{-9} metres per second or less
Inert Waste Type 1	has the same meaning given to that term in the Landfill Definitions and means a non-hazardous, non-biodegradable (half-life greater than 2 years) waste containing contaminant concentrations less than Class I landfill acceptance criteria but excluding paper and cardboard and materials that require treatment to render them inert (e.g. peat, acid sulfate soils)

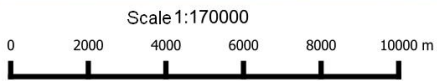
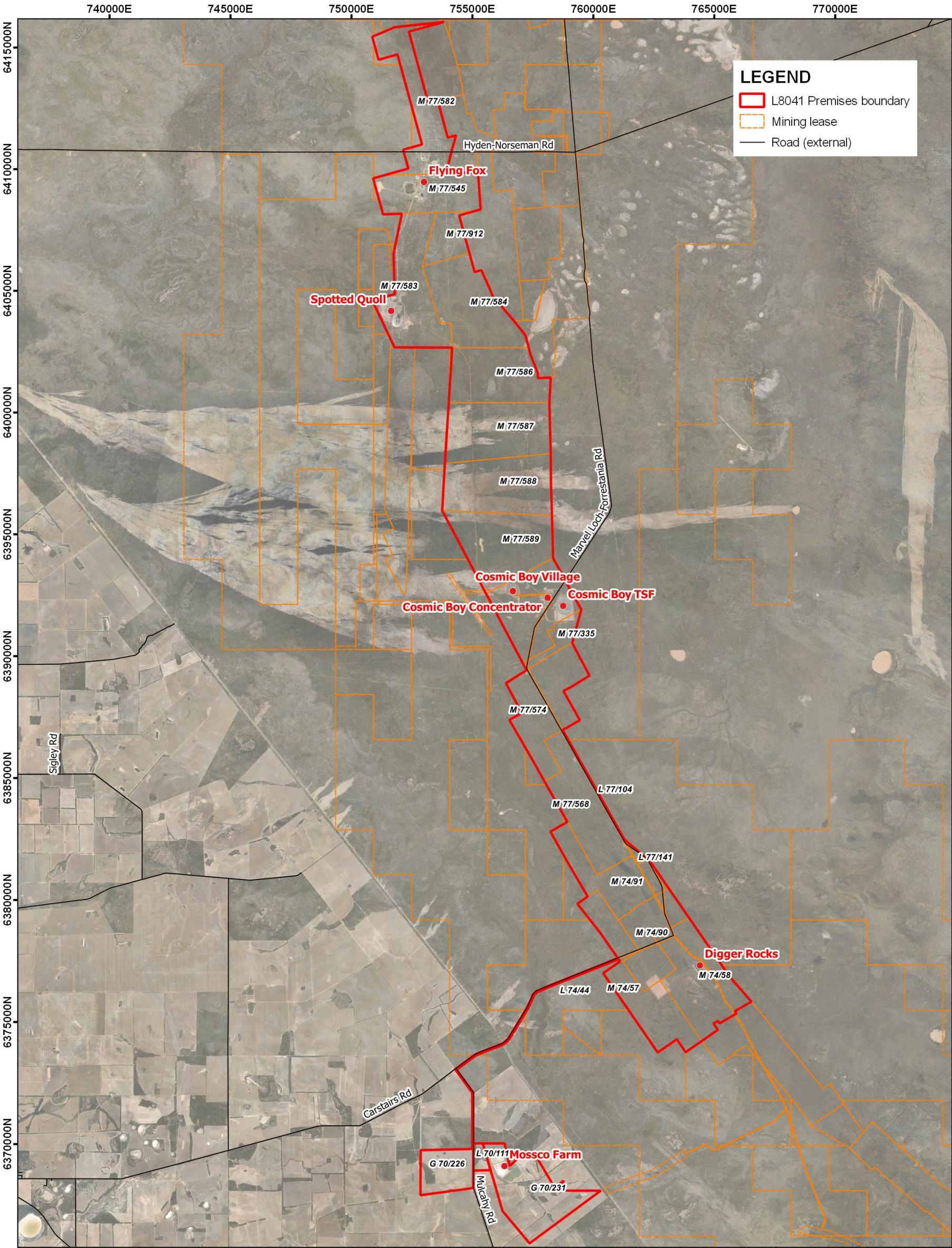
HDPE	high density polyethylene
hypersaline	means water containing sodium chloride levels $\geq 35,000$ mg/L
landfill definitions	means the document entitled 'Landfill Waste Classification and Waste Definitions 1996' published by the CEO and as amended from time to time
licence	refers to this document, which evidences the grant of a licence by the CEO under s.57 of the EP Act, subject to the conditions
licence holder	refers to the occupier of the premises being the person to whom this licence has been granted, as specified at the front of this licence
NATA	National Association of Testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
Premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the map in Schedule 1 to this licence
prescribed premises	has the same meaning given to that term under the EP Act
putrescible waste	has the same meaning given to that term in the landfill definitions and means the component of a waste stream likely to become putrid
quarterly	means the 4 inclusive periods from 1 July to 30 September and 1 October to 31 December, and in the following year 1 January to 31 March and 1 April to 30 June
Schedule 1	means Schedule 1 of this licence, unless otherwise stated
Schedule 2	means Schedule 2 of this licence, unless otherwise stated
significant rainfall event	means greater than a 1:10 year, 24 hour rainfall event
six-monthly	means the two inclusive periods from 1 July to 31 December and 1 January to 30 June and in the following year
spot sample	means a discrete sample representative of the time and place at which the sample is taken
SWL	standing water level
TSF	means an engineered containment pond or dam used to store tailings
$\mu\text{S/cm}$	means microsiemens per centimetre

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below.



Scale 1:170000
UNIVERSAL TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994
Grid lines indicate 1 500 metre interval of the Map Grid Australia Zone 50



The Map Grid Australia (MGA) is based on the Geocentric Datum of Australia 1994 (GDA 1994)
GDA94 positions are compatible within one metre of the datum WGS84 positions

PREMISES MAP AND SURROUNDING FEATURES

FORRESTANIA NICKEL
OPERATIONS

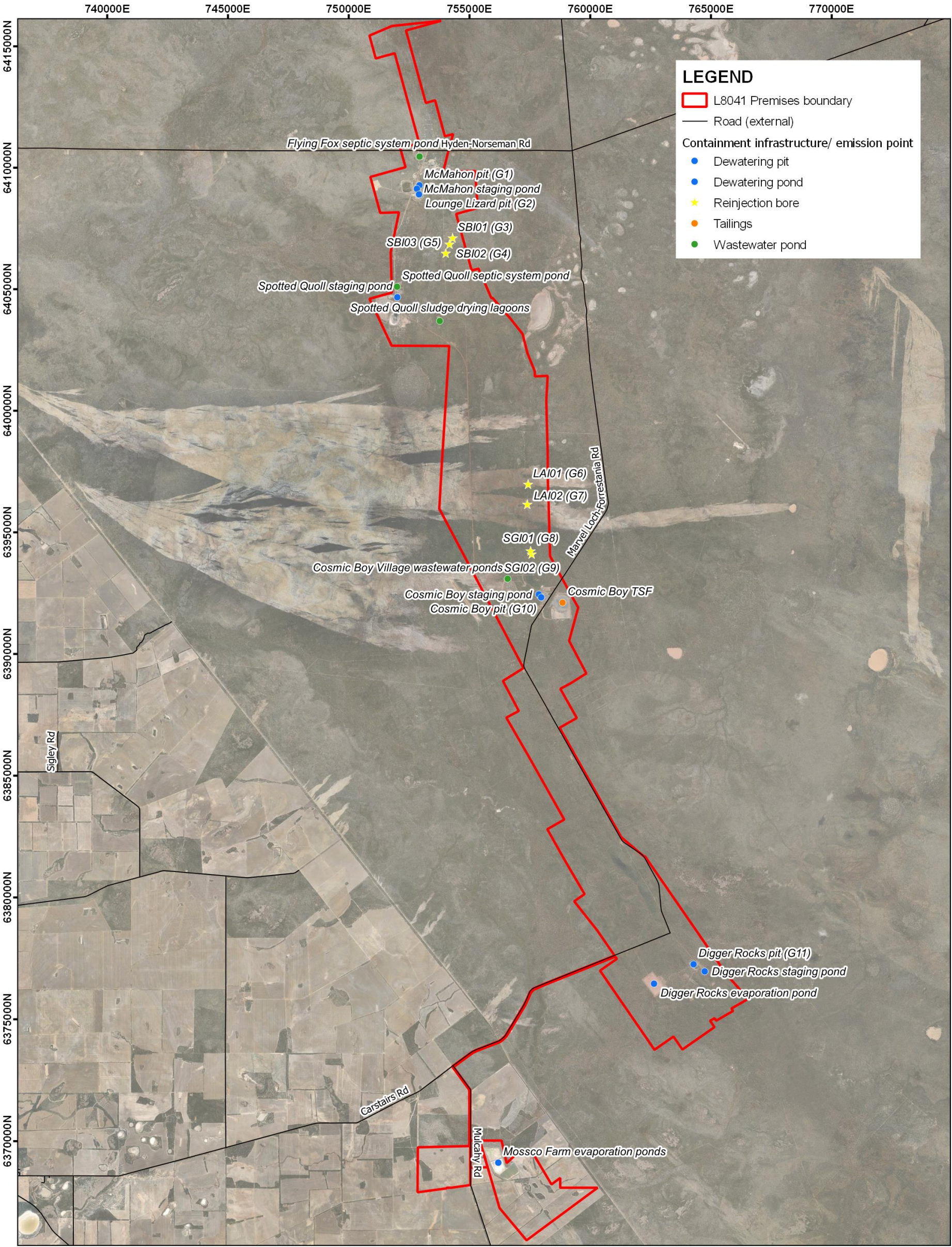


Government of Western Australia
Department of Water and Environmental Regulation

The Department of Water and Environmental Regulation does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted.

Containment infrastructure locations and emission points

The location of the containment infrastructure listed in Table 1, and the emission points to groundwater listed in Table 7, are depicted in the map below.



Scale 1:170000
0 2000 4000 6000 8000 10000 m
UNIVERSAL TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994
Grid lines indicate 1 500 metre interval of the Map Grid Australia Zone 50
The Map Grid Australia (MGA) is based on the Geocentric Datum of Australia 1994 (GDA 1994)
GDA94 positions are compatible within one metre of the datum WGS84 positions

CONTAINMENT INFRASTRUCTURE AND
EMISSION POINTS
FORRESTERIA NICKEL
OPERATIONS

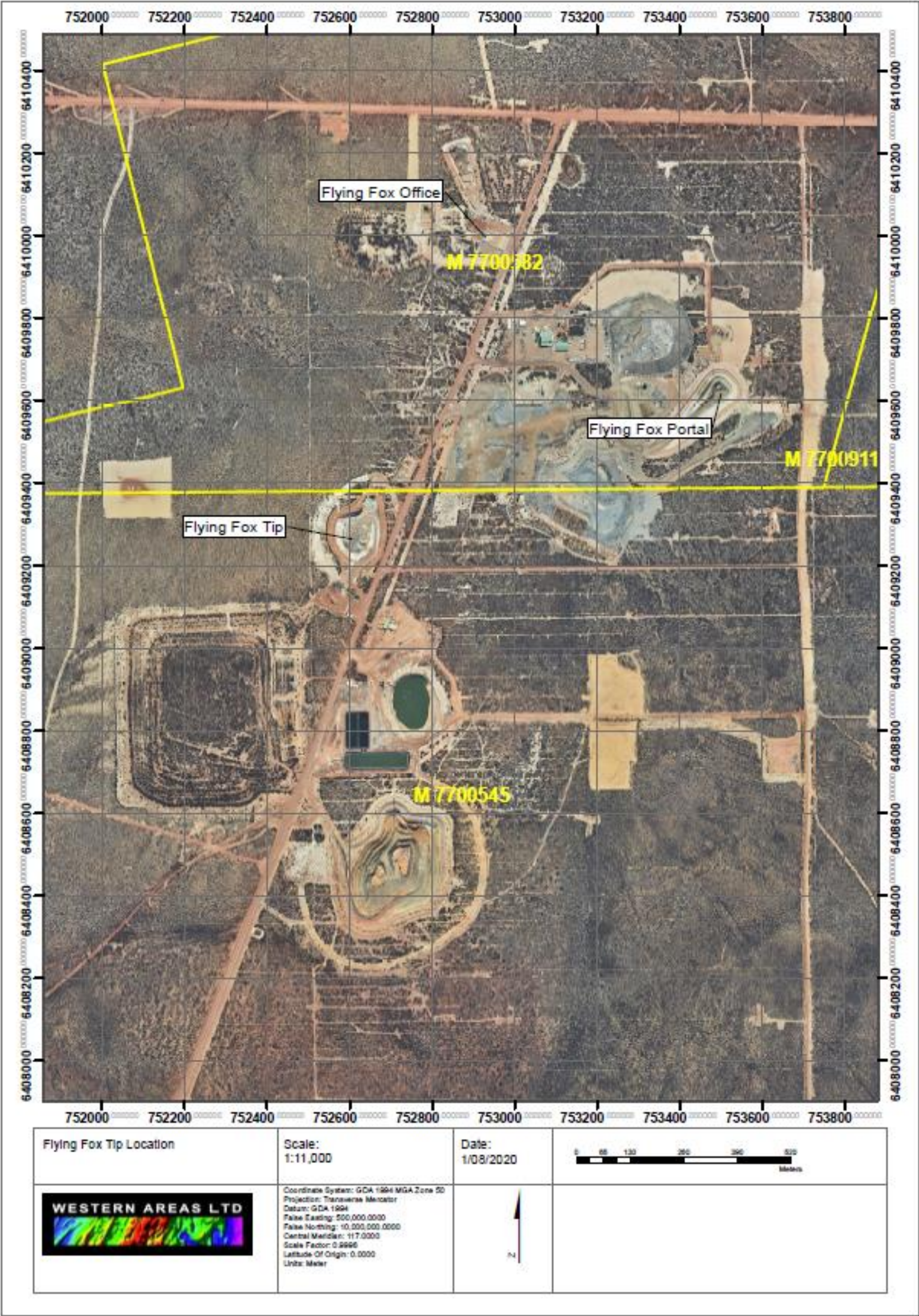


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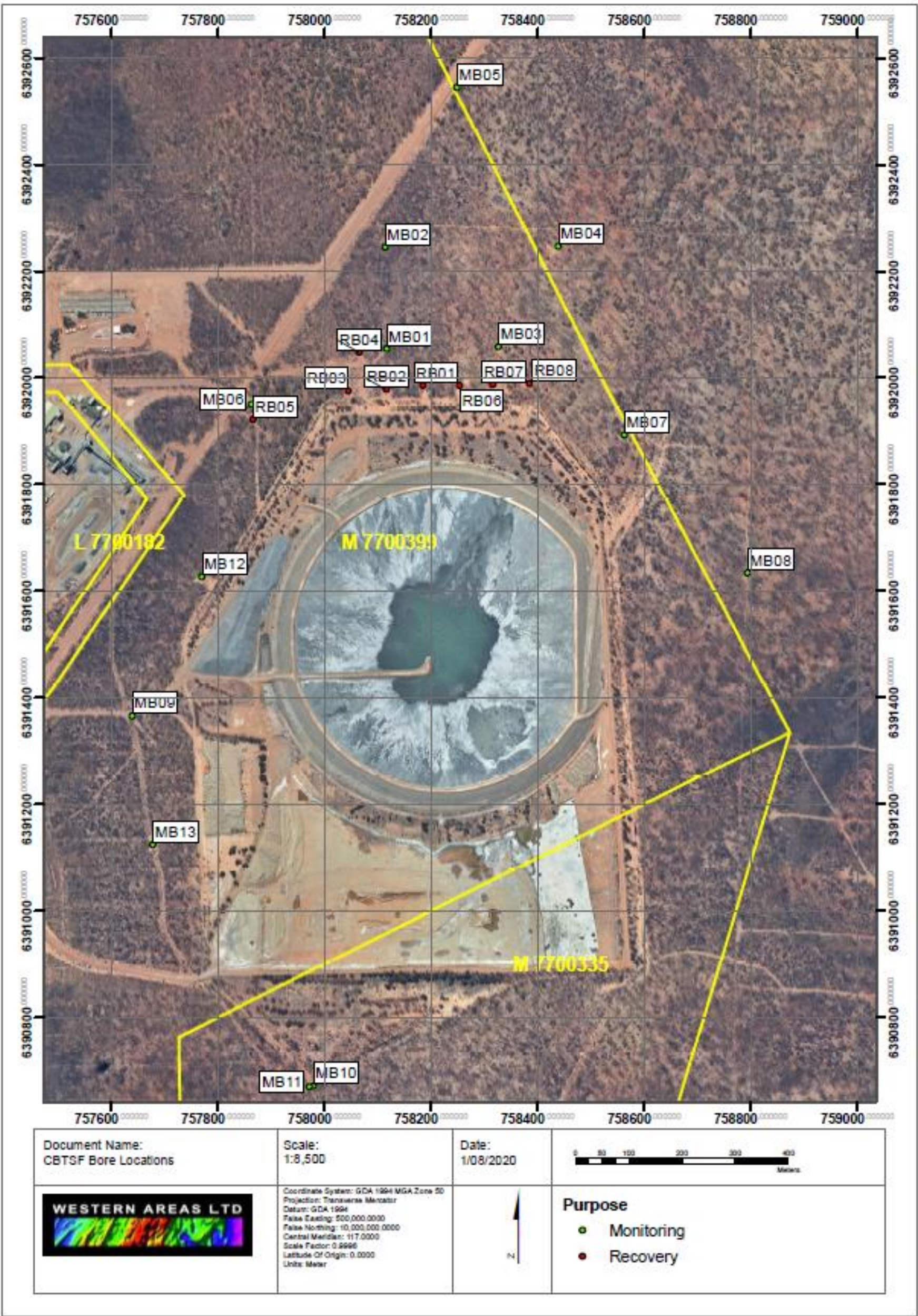
Map depicting landfill location

The location of the flying fox landfill as mentioned within condition 7, Table 4.



Map depicting Cosmic Boy TSF seepage recovery bore and groundwater monitoring bore network

Location of the Cosmic boy TSF seepage recovery bore network as mentioned within condition 19.



Schedule 2: Groundwater monitoring point references

Monitoring point reference	Licence Holder's bore ID	Easting (GDA)	Northing (GDA)	Area	SWL	pH, EC, TDS	Major ions, metals and metalloids
GQ1	MB01	758117	6392058	Cosmic Boy TSF	Quarterly	Annual	Annual
GQ2	MB02	758115	6392238				
GQ3	MB03	758330	6392061				
GQ4	MB04	758451	6392257				
GQ5	MB05	758248	6392551				
GQ6	MB06	757866	6391924				
GQ7	MB08	758793	6391636				
GQ8	MB09	757639	6391368				
GQ9	MB10	757977	6390673				
GQ10	MB11	757972	6390669				
GQ11	FFMB21	751618	6408190	Flying Fox Mine			
GQ12	FFMB22	755990	6410197				
GQ13	FFMB23	754893	6410831				
GQ14	FFMB24	757612	6410795				
GQ15	FFMB25	758982	6411788				
GQ16	SB06	754295	6406656	Sibelius borefield			
GQ17	SB08	753913	6406405				
GQ18	SB14	754085	6406651				
GQ19	SB18	753584	6405304				
GQ20	SB19	754221	6406896				
GQ21	SB21	753645	6405907				
GQ22	SB22	754953	6407561				
GQ23	SB25	753901	6406033				
GQ24	LA01	757260	6395862	Liquid Acrobat borefield			
GQ25	LA04	756893	6396329				
GQ26	LA06	757085	6395162				
GQ27	LAX2	756965	6395617				
GQ28	LA07	757368	6396535				
GQ29	SG01	756782	6393687	Seagull borefield			
GQ30	SG02	757706	6394546				
GQ31	SG03	757190	6393818				
GQ32	SG05	757324	6393326				
GQ33	SEX3	756979	6393686				
GQ34	SEX4	757016	6393566				
GQ35	CBP2	756933	6391366	Cosmic Boy old underground mine workings			
GQ36	CBP3	757310	6390973				
GQ37	CBX7	757229	6391348				
GQ38	CBX9	757062	6391890				
GQ39	DRW10	763047	6376662	Digger Rocks South			
GQ40	DRX13	763400	6376467				
GQ41	DRX14	763202	6376427				
GQ42	DRX18	763227	6376764				
GQ43	DRMB14						
GQ44	DRMB02	761755	6376055				
GQ45	DRMB03A	761998	6375718				
GQ46	DRMB15	761830	6375952				
GQ47	DRMB18	761889	6375856				
GQ48	DRMB19						
GQ49	MFE01*	756294	6369026	Mossco Farm evaporation pond	Quarterly	Quarterly	Annual
GQ50	MFE02*	756633	6368257				
GQ51	MFE03*	755903	6369101				
GQ52	MFE04*	755525	6368809				
GQ53	MFE18*	755245	6368965				
GQ54	MFE19*	755156	6369318				
GQ55	MFE20*	754732	6369425				
GQ56	MFE21*	754294	6369522				
GQ57	MFE23	755765	6368983				
GQ58	MFE24	754890	6367977				
GQ59	MFE25	754633	6368317				
GQ60	MFE26	754503	6368584				
GQ61	MFE27*	754177	6369078				
GQ62	MFE28	755328	6367851				

*static water level limit of 4 m applies.

