



Amended Licence

Licence number L6161/1988/13

Licence holder Iluka Resources Limited

ACN 008 675 018

Registered business address 240 St Georges Terrace
PERTH WA 6000

DWER file number DER2016/000794

Duration 01/01/2013 to 31/12/2035

Date of amendment 28/08/2024

Premises details Yoganup Extended Mineral Sands Mine
Hyder Road
THE PLAINS WA 6271

Legal description -

Part of tenements M70/93 and M70/478 within Lot 1 on Diagram 29330, Lots 3 & 4 on Diagram 41602, Lot 3833 on Plan 159644, Lot 4988 on Plan 171968 and part of Boyanup State Forest

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category 8: Mineral sands mining or processing: premises on which mineral sands ore is mined, screened, separated or otherwise processed.	120,000 tonnes per annual period

This amendment is granted to the licence holder, subject to the attached conditions, on 28 August 2024, by:

Alana Kidd
Manager, Green Energy

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

Licence history

Date	Instrument	Summary of changes
11/01/2000	L6161/5	Licence renewed. First licence issued to Iluka Resources Ltd
18/12/2001	L6161/6	Licence renewed
30/12/2002	L6161/7	Licence renewed
31/03/2003	L6161/7	Amendment
15/12/2003	L6161/8	Licence renewed
08/12/2004	L6161/9	Licence renewed
07/05/2005	L6161/10	Short term licence (6 months)
24/10/2005	L6161/11	Licence renewed
24/10/2006	L6161/12	Licence renewed
28/12/2007	L6161/1988/9	Licence renewed. Mining ceased early 2007, however site still being used for disposal of tailings from North Capel dry mill. First non-annual licence
20/12/2012	L6161/1988/13	Licence renewed. Removal of conditions specific to former mining operation, addition of conditions specific to disposal of dry mill tailings to the 90-foot pit. Version number rectified
08/02/2013	L6161/1988/13	Amendment to clarify waste acceptance criteria from North Capel and Capel dry mills
11/08/2016	L6161/1988/13	Amendment to update premises boundary and amount of tailings permitted for disposal at the 90-foot pit
09/08/2019	L6161/1988/13	Amendment Notice 1 – expansion of approved disposal area
07/05/2020	L6161/1988/13	Licence amendment to authorise disposal of Cataby NCT at the 90-foot pit, and update to current licence format
28/08/2024	L6161/1988/13	Amendment to update premises boundary, removal of conditions specific to surface water emissions and monitoring for former mine area (This Amendment)

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 means the version of the standard, guideline, or code of practice in force at the time of granting of this licence and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the licence;
- (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 must only dispose waste on the Premises if:
 - (a) it is of a type listed in Table 1; and
 - (b) the quantity is below any limit specified in Table 1; and
 - (c) it meets the specifications in Table 1.

Table 1: Authorised waste types and processing table

Waste type	Quantity limit (tonnes/year)	Specification
Inert waste type 1	20,000 (combined)	<ul style="list-style-type: none"> • Industrial, non-recyclable waste only, including process wastes (oversize, dust, scales and other plant tailings, etc.), maintenance wastes (dust extraction filter bags, tank/pipe lining, plant equipment, etc.), construction and demolition wastes (building materials, non-recyclable packaging, etc.); • Solid waste only; • Waste generated from Iluka South West Operations only (including historic processing and Cataby NCT); • Contaminants must comply with CT1 criteria; • Must only be disposed by burial within the '90-foot pit', as depicted in the map in Schedule 1; and • Material with a pH of < 4.0 is not permitted for disposal within in the pit.
MSP final tailings	100,000	

Monitoring (general)

2. The licence holder must ensure that:
 - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all surface water sampling is conducted in accordance with AS/NZS 5667.6;
 - (c) all groundwater sampling is conducted in accordance with AS 2531 and 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.
3. 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) 6-monthly monitoring is undertaken at least 4 5 months apart; and
 - (d) annual monitoring is undertaken at least 9 months apart.
4. 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.
5. The licence holder must, where the requirements for calibrations 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.

Process monitoring

6. The licence holder must undertake monitoring of the parameters for the process listed in Table 2, in the corresponding units and the frequency specified in that table.

Table 2: Process monitoring table

Process description	Parameter	Units	Frequency
MSP final tailings disposal	Amount of MSP final tailings disposed at the 90-foot pit	tonnes	Monthly (cumulative)

Ambient environmental monitoring

7. The licence holder must undertake monitoring of ambient surface water quality at the locations and for the parameters listed in Table 3, in the corresponding units, over the averaging period and at the frequency set out in that table.

Table 3: Surface water monitoring table

Monitoring point reference	Parameter	Units	Averaging period	Monitoring frequency
Monitoring of ambient water quality within the 90-foot pit ³ and Scott's Dam ³	pH ¹	-	Spot sample	<u>Monthly</u>
	Electrical conductivity ^{1,2}	µS/cm		Quarterly
	Total dissolved solids	mg/L		
	Total titratable acidity			
	Total alkalinity			6-monthly
	Major ions: bicarbonate, calcium, carbonate, chloride, magnesium, nitrate, potassium, sodium, sulfate			
	Metals and metalloids: aluminium, antimony, arsenic, barium, beryllium, boron, cadmium, chromium (total), cobalt, copper, iron (total), lead, manganese, mercury (total), molybdenum, nickel, selenium, silver, uranium, vanadium, zinc			

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

Note 2: Referenced to 25°C.

Note 3: The spatial distribution of sampling locations, and sampling depth at each location within the 90-foot pit, must be sufficient to demonstrate the variation in both a horizontal and vertical direction across the body of water.

8. The licence holder must undertake monitoring of ambient groundwater at the locations and for the parameters listed in Table 4, in the corresponding units, over the averaging period and at the frequency set out in that table.

Table 4: Groundwater monitoring table

Monitoring point reference	Parameter	Units	Averaging period	Monitoring frequency
YXP004, YXP005, YXP007, YXP008, YXP010, YXP011, YXP013, YXP014, YXP015, YXP016, YXP017, YXP018, YXP021, YXP022, YXP023, YXP025, YXP026, YXP027, YXP028, YXP029	pH ¹	-	Spot sample	Monthly
	Standing Water Level ^{1,2}	m AHD		Quarterly
	Electrical conductivity ^{1,3}	µS/cm		
	Total dissolved solids	mg/L		
YXP004, YXP005, YXP011, YXP013, YXP023, YXP024, YXP025, YXP026, YXP027, YXP028, YXP029	Total titratable acidity			Annually
	Total alkalinity			
	Major ions: bicarbonate, calcium, carbonate, chloride, magnesium, nitrate, potassium, sodium, sulfate			
	Metals and metalloids: aluminium, antimony, arsenic, barium, beryllium, boron, cadmium, chromium (total), cobalt, copper, iron (total), lead, manganese, mercury (total), molybdenum, nickel, selenium, silver, uranium, vanadium, zinc			
YXP024, YXP025, YXP028, YXP029	Radium-226, radium-228			6-monthly

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

Note 2: SWL to be determined prior to the collection of other samples.

Note 3: Referenced to 25°C.

Records and reporting

9. 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 9(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.

10. 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 31 March in each year, an annual audit compliance report in the approved form.

Department of Water and Environmental Regulation

- 11. 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

- 12. The licence holder must submit to the CEO, by 31 March in each year, an annual environmental report which includes, but is not limited to:
 - (a) details of the calculation of fees payable in respect of this licence;
 - (b) a summary of the amount of MSP final tailings disposed at the 90-foot pit;
 - (c) monitoring reports required by conditions 6, 7 and 8 for the preceding annual period;
 - (d) a summary of any complaints received and management actions taken for each complaint; and
 - (e) a summary of any environmental incidents and any action(s) taken.
- 13. The licence holder must ensure the report required by condition 12 includes:
 - (a) an appraisal and trend analysis of the results against any baseline data and previous monitoring results; and
 - (b) time-series figures for all monitoring data, with axes presented on relevant scales.

Notification

- 14. The licence holder must notify the CEO in accordance with the notification requirements specified in Table 5.

Table 5: Notification requirements table

Condition	Parameter	Notification requirement
-	Proposal to recommence mining and or mine dewatering operations	At least 3 months prior to the proposed commencement date
7	Pit water quality monitoring indicates pH less than 5.5 or total alkalinity less than 30 mg/L	Within 7 days of becoming aware of pit water quality being pH less than 5.5 or total alkalinity less than 30 mg/L

Definitions

In this licence, the terms in Table 6 have the meanings defined.

Table 6: 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 January until 31 December in the same year
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 5667.6	means the Australian Standard AS/NZS 5667.6 <i>Water Quality – Sampling – Guidance on sampling of rivers and streams</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
<u>Cataby NCT</u>	<u>Cataby non-conductor tails</u>
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 Bag 10 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
CT1 criteria	means the contaminate threshold (CT) values for a Class I 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 (WA)</i>
EP Regulations	means the <i>Environmental Protection Regulations 1987 (WA)</i>
Iluka South West Operations	means the North Capel dry plant and synthetic rutile plant, the Capel dry mill and the Tutunup South mine
Inert Waste Type 1	has the same meaning given to that definition 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 criteria but excluding paper and cardboard and materials that require treatment to render them inert (e.g. peat, acid sulfate soils)
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
MSP final tailings	means mineral separation plant final tailings, being a combination of reject mags and non-mags sourced from the company's licensed mineral separation plants
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
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 in the same year
6-monthly	means the two inclusive periods from 1 January to 30 June and 1 July to 31 December in the same year
spot sample	means a discrete sample representative of the time and place at which the sample is taken
µS/cm	means microsiemens per centimetre

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

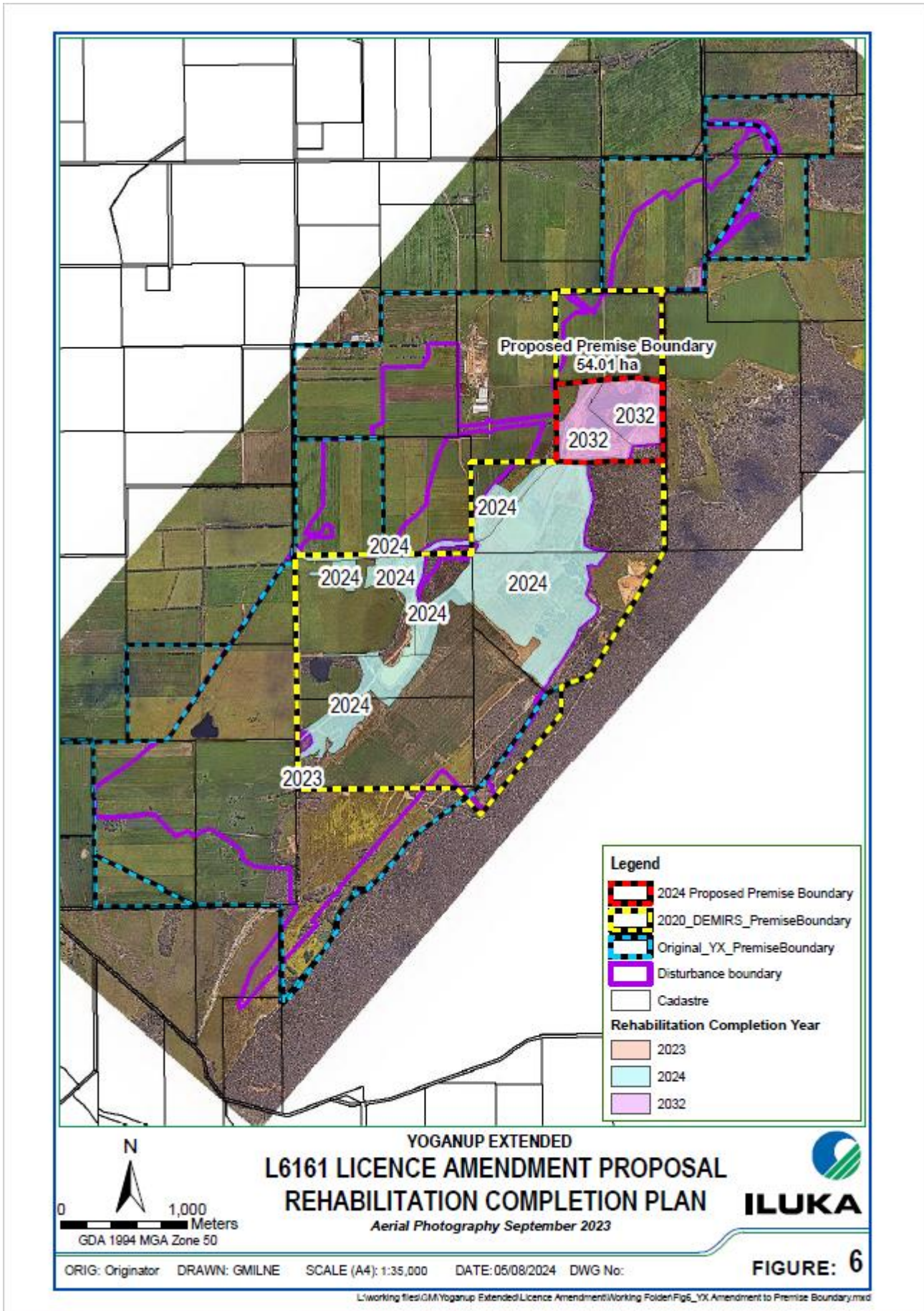


Figure 1 Premises boundary and rehabilitation areas

Schedule 1: Maps

Waste disposal area

The location of the 90-foot pit is shown below. The pink polygon line depicts the approximate extent of the authorised disposal area. The surface water and groundwater monitoring points are depicted in the map as well.

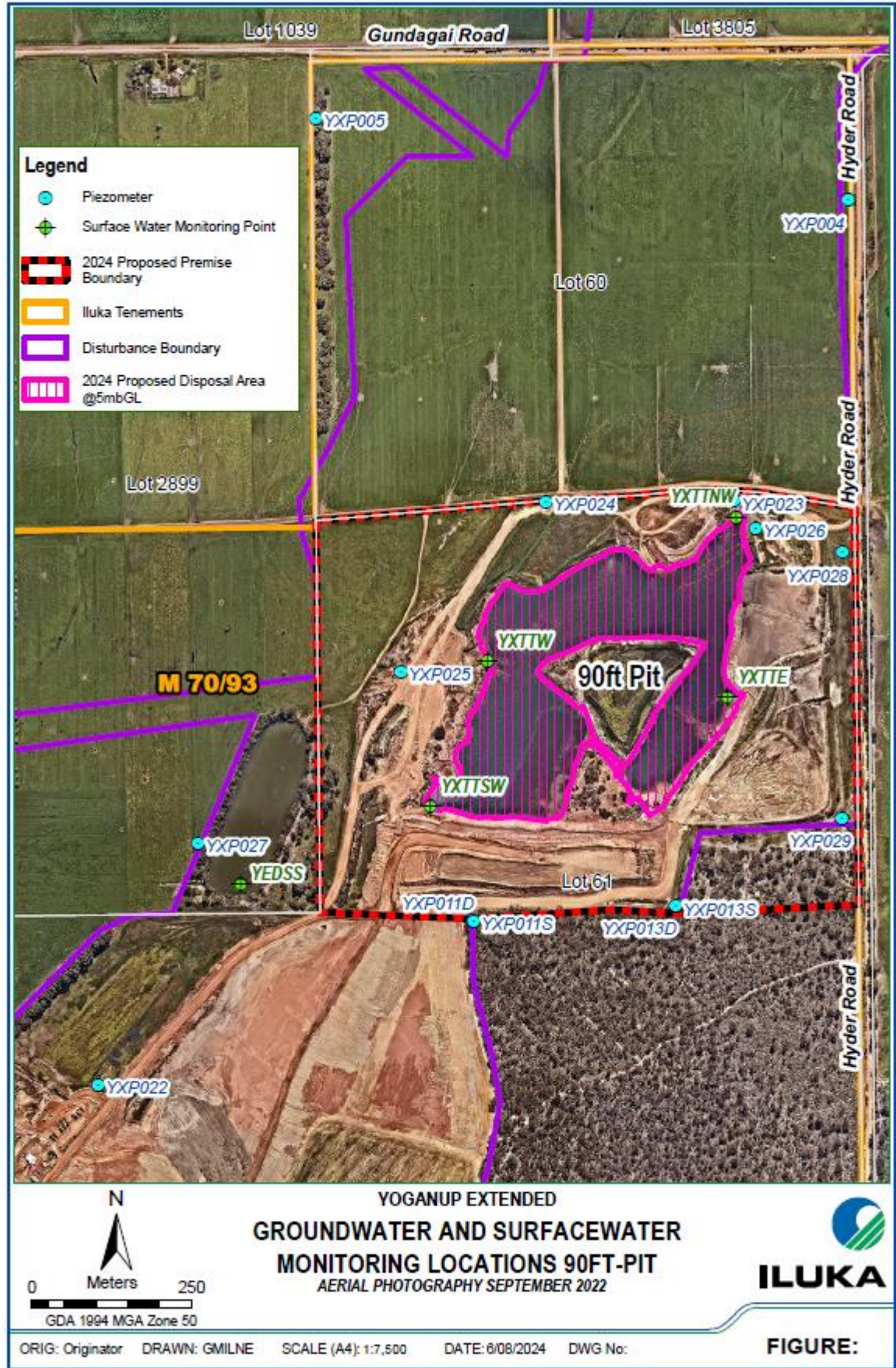


Figure 2: 90ft Pit waste disposal area and monitoring locations