Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L8577/2011/2
Licence holder	Mincor Operations Pty Ltd
ACN	35 094 977 321
Registered business address	56 Ord Street WEST PERTH WA 6005
DWER file number	2012/006881-1
Duration	15/07/2024 to 14/07/2044
Date of issue	12/07/2024
Premises details	Miitel & Mariners Mines Norseman-Coolgardie Highway WIDGIEMOOLTHA WA 6443 Legal description - Mining Tenements M15/83, M15/85, M15/91, M15/92, M15/93, M15/543, M15/667, M15/668 and L15/243 As depicted in the Prescribed Premises map in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 6: Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore	3 million tonnes per year
Category 85: 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	50 m^3 per day
Category 89: Putrescible landfill site - premises on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer, as amended from time to time) is accepted for burial.	200 tonnes per year

This licence is granted to the licence holder, subject to the attached conditions, on 12 July 2024, by:

Neville J Welsh Date: 2024.07.12 09:54:28 +08'00'

SENIOR INDUSTRY LICENSING OFFICER
INDUSTRY REGULATION
Officer delegated under section 20 of the *Environmental Protection Act 1986*

Licence history

Date	Reference number	Summary of changes
18/07/2013	L8577/2011/1	Proponent amendment and DER conversion to REFIRE format
12/05/2016	L8577/2011/1	Licence amendment to remove category 6 (dewatering)
27/04/2022	L8577/2011/1	Licence amendment to enable category 6 mine dewatering activities.
12/07/2024	L8577/2011/2	Licence renewal with twenty-year duration.

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 must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Dewatering pipeline	(a) equipped with telemetry systems and pressure sensors along pipelines to allow for the detection of leaks and failures (b) equipped with automatic cut-outs in the event of a pipe failure (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections where required (d) pipelines to be buried (e) all breathers to be bunded	Dewatering Pipeline as shown in Figure 2 of Schedule 1
Settlement ponds	(a) A minimum vertical freeboard of 0.5 m must be maintained (b) To be lined with 1.5 mm thick HDPE liners (c) Water level sensors to be installed and maintained (d) A cumulative flowmeter will be installed and maintained at dam discharge point (e) Egress netting to be installed and maintained	Storage dams as shown in Figure 2 of Schedule 1
Dewatering pipeline outfall	(a) Discharge points to be maintained at least 50m away from Lake Lefroy and Lake Fore fringing vegetation (b) A rock mattress to be installed and maintained at the discharge points (c) A cumulative flowmeter will be installed and maintained at discharge points	Discharge points as shown in Figure 3 of Schedule 1

2. The licence holder must ensure that any saline dewater effluent shall only be used for dust suppression.

3. The licence holder must;

(a) undertake inspections as detailed in Table 2;

(b) where any inspection identified 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: Inspection of Infrastructure

Scope of Inspection[1]	Type of inspection	Frequency of inspection
Dewatering pipeline	Visual integrity	Daily
Settlement ponds	Visual check to confirm the freeboard level is maintained	Daily
Dewatering pipeline outfall	Daily visual inspection to identify any defects to the rock mattress at the outfalls	Daily

Note 1: Infrastructure only to be inspected when in use

4. The licence holder must undertake the assessment of vegetation health as detailed in Table 3. The assessments must:

(a) photograph and record the presence and condition of vegetation at the locations defined in Table 3; and

(b) compare the results of the assessment against previous years assessments and identify whether any deterioration in the presence and/or quality of vegetation has taken place.

Table 3: Vegetation health monitoring

Monitoring point reference and location	Frequency	Location
Lake Lefroy shoreline vegetation: Photographic Monitoring Points: LPM1 and LPM2	Annually between the months June to August only when dewatering discharge has occurred during the period.	Monitoring points as shown in Figure 3 of Schedule 1
Lake Fore shoreline vegetation: Photographic Monitoring Points: FPM1, FPM2 and FPM3		Monitoring points as shown in Figure 3 of Schedule 1

5. The licence holder must only accept and bury waste in the landfill if it is of a type listed in Table 4. All other wastes shall be removed from the Premises by the delivery vehicle or, where that is not possible, the licence holder must contact the CEO to agree a course of action in relation to the waste.

Table 4: Waste acceptance

Waste type	Quantity limit tonnes/ year	Disposal location
Clean fill	200	Landfill Area Map in Schedule 1
Inert Waste Type 1		
Putrescible Wastes		
Other wastes that comply with Class II criteria in the document titled Landfill Waste Classification and WasteDefinitions 1996 (as amended).		

6. The licence holder must ensure that wastes accepted onto the landfill are only subjected to the process set out in Table 5 and in accordance with any process limits described in that Table.

Table 5: Waste processing

Waste type	Process(es)	Process limits[1,2]
Putrescible Waste Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	All waste types. Disposal of waste by landfill shall only take place within the landfill area shown on the Landfill Area Map in Schedule 1. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.

Note 1: Requirements for landfilling tyres are set out in Part 6 of the Environmental Protection Regulations 1987.
Note 2: 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.

7. The licence holder must manage the landfilling activities to ensure:

(a) waste is levelled and compacted as soon as practicable after it is discharged;

(b) waste is placed and compacted to ensure all faces are stable and capable of retaining restoration material; and

(c) restoration of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.

8. The licence holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 6 and that sufficient stockpiles for cover are maintained on site at all times.

Table 6: Cover requirements

Waste type	Material	Depth	Timescales
Putrescible Waste	Inert and combustible material	Sufficient to ensure the waste is completely covered and that no waste is exposed	Cover shall be applied monthly
Inert WasteType 1	No cover required		

9. The licence holder must:

(a) implement security measures at the site to prevent as far as is practical unauthorised access to the site;

(b) undertake regular inspections of all security measured and repair damage as soon as practicable.

10. The licence holder must ensure that wind-blown waste is contained within the boundary of the Premises and that wind-blown waste is returned to the tipping area on at least a weekly basis.

Emissions and discharges

Mine dewater

11. The licence holder must ensure that the emissions specified in Table 7, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 7: Authorised discharge points

Emission	Discharge point	Discharge point location
Mine dewater	Lake Lefroy	Discharge point as shown in Figure 3 of Schedule 1
Mine dewater	Lake Fore (only as a contingency)	

12. The licence holder must ensure that mine dewater is stored in settlement dams and must have sufficient time for the visible settling of particulates prior to being discharged to Lake Lefroy or Lake Fore.

13. The licence holder must ensure that discharge of mine dewater into Lake Lefroy/Lake Fore occurs via the installed energy dissipation infrastructure (rock mattress) to minimise erosion and scouring impacts, reduce the likelihood of ponding in Lake Lefroy/Lake Fore and minimise damage to riparian vegetation.

Emissions to land

14. The licence holder is permitted, subject to conditions in the Licence, to emit waste to land through the emission points listed in Table 8 and identified in the Map of emission points in Figure 2 Schedule 1.

Table 8: Emissions to land

Emission point reference	Emission point reference on Map of emission points	Description	Source including abatement
L2	Irrigation field	Sewage facility irrigation field	Sewage facility

15. The licence holder must not cause or allow emissions to land greater than the limits listed in Table 9.

Table 9: Emission limits to land

Emission point reference	Emission point reference on Map of emission points	Parameter	Limit (including units)	Averaging period
L2	Irrigation field	Maximum inorganic nitrogen addition	480 kg/hectare/year1	Spot sample
		Maximum inorganic phosphorus addition	120 kg/hectare/year1	

Note 1: Water Quality Protection Note- Irrigation with nutrient-rich wastewater, WQPN 22, July 2008

Monitoring

General monitoring

16. The licence holder must ensure that:
    (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
    (b) all wastewater samples are collected in accordance with AS/NZS 5667.10;
    (c) all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant; and
    (d) all samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured.

17. The licence holder must ensure that:
    (a) monthly monitoring is undertaken at least 15 days apart; and,
    (b) six monthly monitoring is undertaken at least 5 months apart.

18. The licence holder must undertake the monitoring in Table 10 according to the specifications in that table

Table 10: Monitoring of point source emissions to surface water

Emission point reference	Parameter	Unit	Frequency
Lake Lefroy monitoring site LTG1; and Lake Fore monitoring sites FTG1 and FTG2	Salt crust thickness	mm	Six monthly(June and December)[1]
Lake Lefroy tide gauge location LTG1; and Lake Fore tide gauge location FTG1	Water levels in lakes	mm	Monthly[2]

Note 1: Only when dewatering discharge has occurred during the six (6) monthly period.
Note 2: Only when dewatering discharge has occurred during the monthly period.

19. The licence holder must monitor emissions and discharge points in accordance with the requirements specified in Table 11 and record the results of all such monitoring.

Table 11: Emissions and discharge monitoring

Monitoring Location	Parameters[1]	Units	Frequency	Limit (including units)	Sampling method
Mine dewatering discharge points to Lake Lefroy as shown in Figure 3 of Schedule 1 (to Lake Fore only when in use)	Volumetric flow rate	L/s	Continuous	None specified	AS/NZS 5667.1; AS/NZS 5667.4; and AS/NZS 5667.9
	Electrical conductivity[2] at 25°C	µS/cm	Monthly[3]		
	pH[2]	pH units			
	Total Dissolved Solids (TDS)	mg/L	Quarterly[4]		
	Total Suspended Solids (TSS)				

Monitoring Location	Parameters[1]	Units	Frequency	Limit (including units)	Sampling method
	Cumulative volume of mine dewater abstracted	kL/month	Quarterly[4]		
	Cumulative volume of mine dewater discharged to Lake Lefroy/Lake Fore	kL/month			
	Total alkalinity as $CaCO_3$	mg $CaCO_3$/L			
	Aluminium (Al), Ammonia (NH_3), Antimony (Sb), Arsenic (As III), Arsenic (As V), Beryllium (Be), Boron (B), Cadmium (Cd), Chromium (Cr III), Chromium (Cr VI), Chlorine (Cl), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Nitrate (NO3), Silver (Ag), Thallium (TI), Uranium (U), Vanadium (V), Zinc (Zn)	mg/L			
	Selenium (Se)	µg/L		27	

Note 1: Level of detection is required to be sufficient to enable a comparison with the Australian and New Zealand Guidelines for Fresh & Marine Water Quality (ANZ 2018).
Note 2: In-field non-NATA accredited analysis permitted.
Note 3: Only when dewatering discharge has occurred during the monthly period.
Note 4: Only when dewatering discharge has occurred during the quarterly period.

20. The licence holder must undertake lake sediments monitoring in accordance with the requirements specified in Table 12 and record the results of all such monitoring.

Table 12: Sediment monitoring requirements

Monitoring Location	Parameters[1]	Units	Frequency	Sampling method
Sediment sampling points[2] in Lake Lefroy and Lake Fore as shown in Figure 4 and 5 of Schedule 1	Electrical conductivity at 25°C	µS/cm	Annual[3,4]	AS/NZS 5667.12
	pH[2]	pH units		
	Total Dissolved Solids (TDS)	mg/L		
	Total Suspended Solids (TSS)			
	Total alkalinity as $CaCO_3$	mg		

Monitoring Location	Parameters[1]	Units	Frequency	Sampling method
		$CaCO_3$/L		
	Aluminium (Al), Ammonia (NH_3), Antimony (Sb), Arsenic (As III), Arsenic (As V), Beryllium (Be), Boron (B), Cadmium (Cd), Chromium (Cr III), Chromium (Cr VI), Chlorine (Cl), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Nitrate (NO3), Silver (Ag), Thallium (TI), Uranium (U), Vanadium (V), Zinc (Zn), Selenium (Se)	mg/L		

Note 1: Level of detection is required to be sufficient to enable a comparison with the Australian and New Zealand Guidelines for Fresh & Marine Water Quality (ANZ 2018) – Recommended default guideline values for toxicants in sediment.
Note 2: A minimum of one sample taken from each sediment sampling location each annual monitoring period.
Note 3: Annual monitoring is undertaken at least 300 days apart.
Note 4: Only when dewatering discharge has occurred during the annual period.

21. The licence holder must prepare and implement an effective management plan to reduce elevated concentrations of any metals and metalloids identified in the lake sediments post mine dewatering.

Monitoring of emissions to land

22. The licence holder must undertake the monitoring in Table 13 according to the specifications in that table.

Table 13: Monitoring of emissions to land

Emission point reference	Parameter	Units	Frequency
L2	Biochemical Oxygen Demand (BOD)	mg/L	Annually[1]
	Total Suspended Solids (TSS)	mg/L	
	Total Nitrogen (TN)	mg/L	
	Total Phosphorus (TP)	mg/L	
	Turbidity	NTU	
	Chlorine Residual	mg/L	
	pH	pH units	
	E. coli	cfu/100ml	
	Volume discharged	m^3	Each discharge

Note 1: Annual monitoring to be conducted annually where there is at least one discharge greater than 20 m^3 in one day.

Records and reporting

Records

23. All information and records required by the Licence shall:

(a) be legible;

(a) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;

(b) except for records listed in condition 23(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

(c) 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 groundwater.

24. The licence holder must ensure that:

(a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and

(b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

25. The licence holder must complete an Annual Audit Compliance Report indicating the extent to which the licence holder has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous year

26. The licence holder must implement a complaints management system that as a minimum record, 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.

Reporting

27. The licence holder must submit to the CEO at the Contact Address an annual environmental report by 30 September each year after the annual period. The report shall contain the information listed in Table 14 in the format or form specified in that table.

Table 14: Annual environmental report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the year and any action taken	None specified
25	Compliance	AACR
26	Complaints summary	None specified

Condition or table (if relevant)	Parameter	Format or form[1]
Table 3	Shoreline vegetation monitoring	None specified
Table 10	Salt crust thickness, water levels, inundation and assessment of discharge points	None specified
Table 13	pH, Total Dissolved Solids, Total Suspended Solids, Cadmium, Selenium, Iron, Cobalt, Lead, Copper, Nickel, Zinc, Arsenic, Sodium, Potassium, Calcium, Magnesium, Chlorine, Carbonate, Bicarbonate, Sulphate, Nitrate, Biochemical Oxygen Demand (BOD), Total Nitrogen (TN), Total Phosphorus (TP), Turbidity, Chlorine Residual, pH, E. Coli	None specified

28. The licence holder must ensure that the annual environmental report also contains:

(a) any relevant process, production or operational data;

(b) an assessment of the information contained within the report against previous monitoring results and licence limits; and

(c) a list of any original monitoring reports submitted to the Licensee from third parties in the reporting period and make these reports available on request.

29. The licence holder shall submit the information in Table 15 to the CEO according to the specifications in that table.

Table 15: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period	Format or form
Table 11	Emission and discharge monitoring	Quarterly[1]	Within 14 days of the quarterly period ending	None specified
-	Sediment monitoring requirements (in addition to annual monitoring required in Condition 20)	One off sample	Within 60 days after ceasing dewatering discharge	None specified

Note 1: Only when dewatering discharge has occurred during the quarterly period.

Definitions

In this licence, the terms in Table 16 have the meanings defined.

Table 16: 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 July until 30 June of the immediately following year.
ANZ 2018	means the *Australian and New Zealand guidelines for fresh and marine water quality.*
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.*
AS/NZS 5667.4	means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and manmade*.
AS/NZS 5667.9	means the Australian Standard AS/NZS 5667.9 *Water quality - Sampling - Guidance on sampling from marine waters*.
AS/NZS 5667.12	means the Australian Standard AS/NZS 5667.12 *Water quality - Sampling - Guidance on sampling of bottom sediments*.
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
Class II	as defined in the Landfill Definitions.
Clean fill	as defined in the Landfill Definitions.
condition	a condition to which this licence is subject under section 62 of the EP Act.
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.
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)
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
HDPE	high-density polyethylene
Inert waste type 1	as defined in the Landfill Definitions.

Term	Definition
Landfill Definitions	Landfill Waste Classification and Waste Definitions 1996 (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.
monthly period	means a one-month period commencing from day 15 of a month until day 14 of the immediately following month.
NATA	National Association of Testing Authorities
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 premises map (Figure 1) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
quarterly period	means a three-month period commencing from day 15 of month of January until day 14 of April (Quarter 1), then from day 15 of month of April until day 14 of July (Quarter 2), then from day 15 of month of July until day 14 of October (Quarter 3), and then from day 15 of month of October until day 14 of January the next year (Quarter 4).
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.

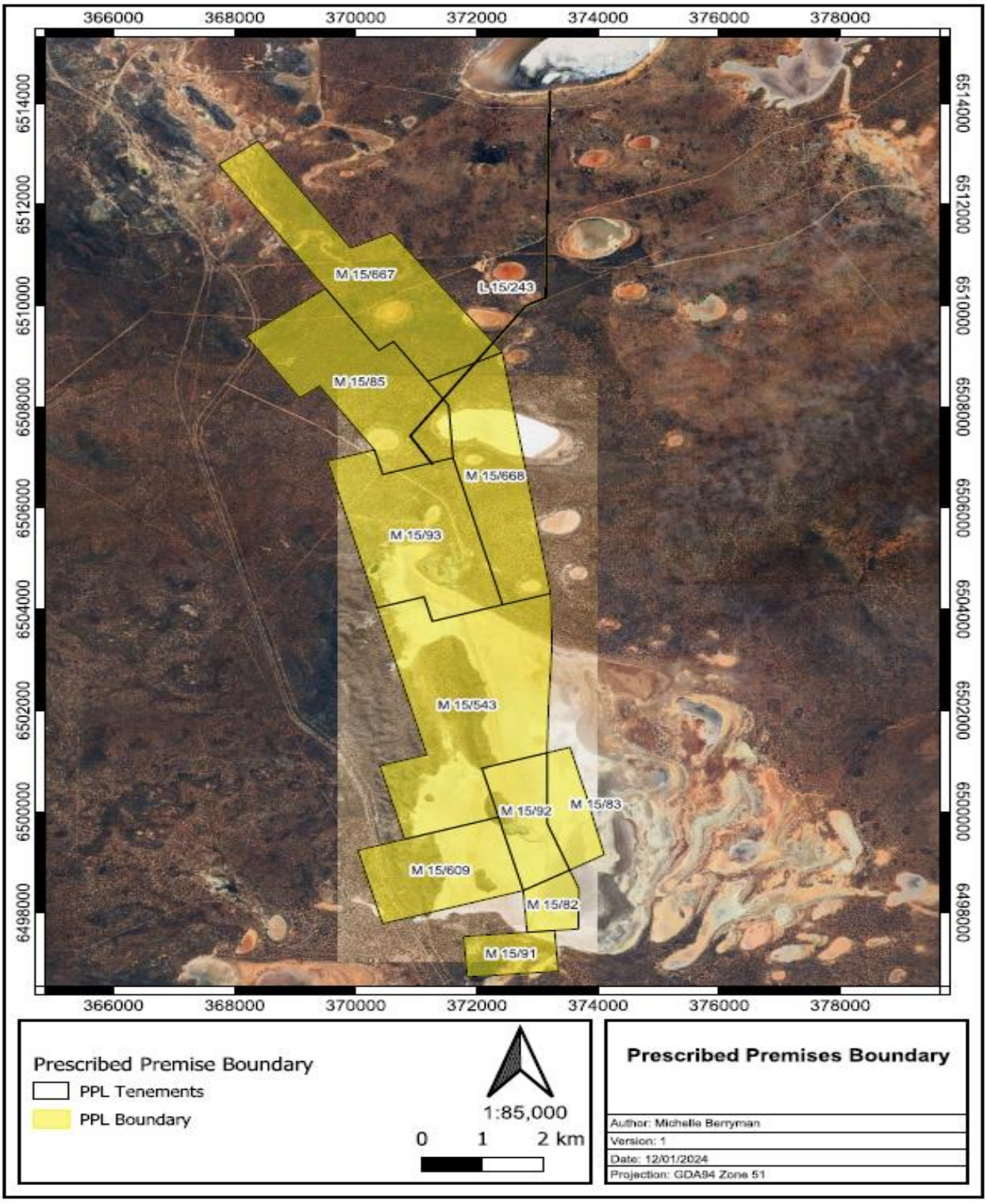

Figure 1: Map of prescribed premises boundary.

Map of emission points

Location of the irrigation field (L2) defined in Table 8, Table 9 and Table 13

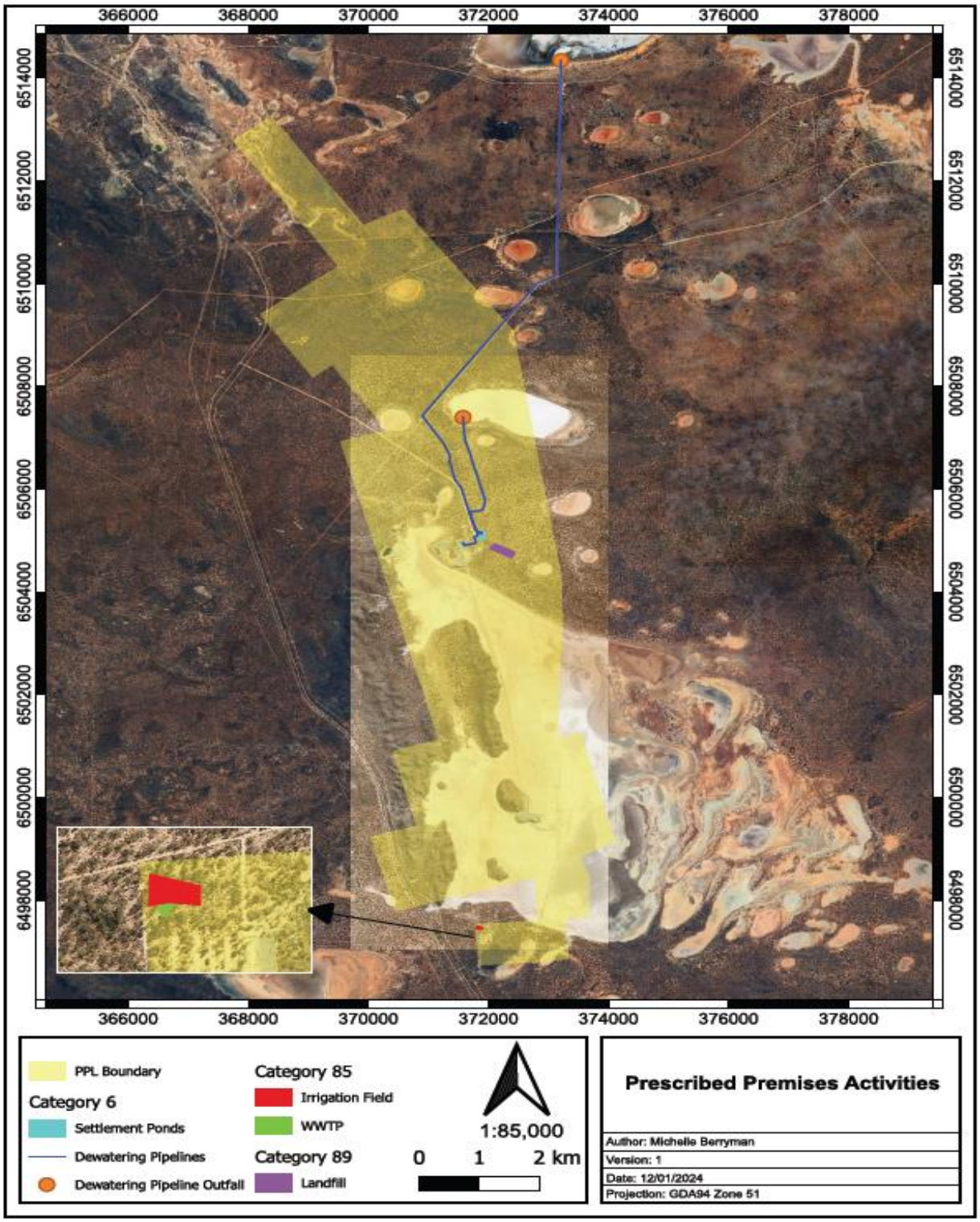

Figure 2:Map of irrigation field, WWTP dewatering pipeline and landfill.

Maps of monitoring locations

Map of vegetation and water level monitoring locations defined in Table 3 and Table 10

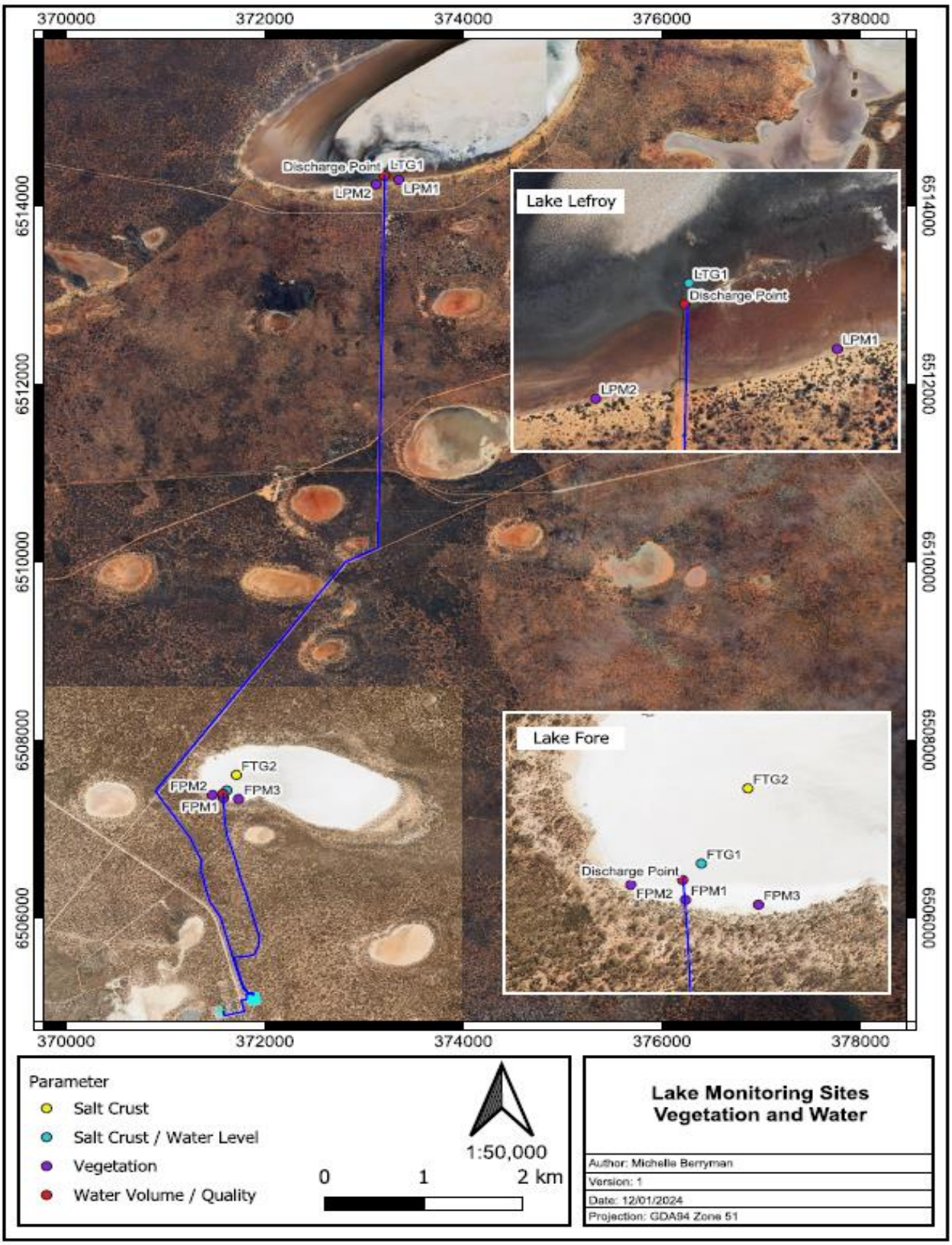

Figure 3: Location of lake monitoring points.

The locations of the sediment monitoring points as defined in Table 12

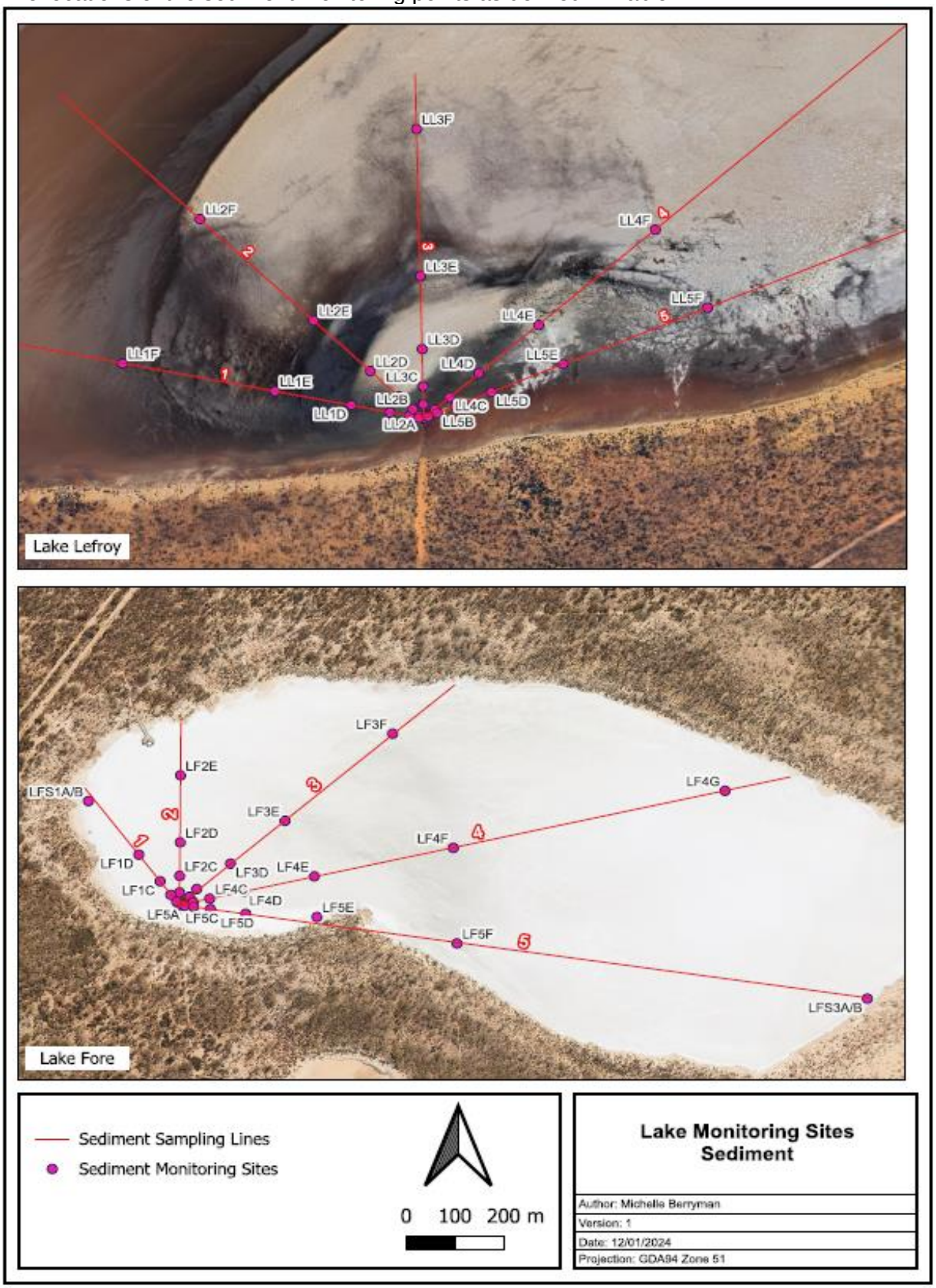

Figure 4: Sediment monitoring points in Lake Lefroy and Lake Fore