Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L5765/1994/11
Licence holder	AWE Perth Pty Ltd
ACN	009 204 031
Registered business address	Level 11, Exchange Tower 2 The Esplanade PERTH WA 6000
DWER file number	DER2014/001481-1
Duration	29/03/2014 to 28/03/2032
Date of issue	27/02/2014
Date of amendment	10 January 2024
Premises details	Dongara Production Facility Petroleum Production Licences L1 and L2 Brand Highway, Yardarino DONGARA WA 6525 Part of Lot 1 and Lot 2 on Diagram 41317 as depicted in Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 10: Oil or gas production from wells: premises, whether on land or offshore, on which crude oil, natural gas or condensate is extracted from below the surface of the land or the seabed, as the case requires, and is treated or separated to produce stabilised crude oil, purified natural gas or liquefied hydrocarbon gases.	50,000 tonnes per annual period

This amended licence is granted to the licence holder, subject to the attached conditions, on 10 January 2024 by:

Lara Saunder

Digitally signed by Lara Saunder
Date: 2024.01.10 15:03:11 +08'00'

A/Manager, Process Industries
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Contents

Introduction

This Introduction is not part of the licence conditions.

DWER's industry licensing role

The Department of Water and Environment Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to protect and conserve the state's environment on behalf of the people of Western Australia.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement licensing and industry regulation policy.

Licence requirements

This licence is issued under Part V of the Act. Conditions contained within the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the premises/ licence holder the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html

For your premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise

emissions from the premises to comply with the assigned noise levels set out in the Regulations

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your premises. Operating without a licence is an offence under the Act.

Ministerial conditions

If your premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and licence summary

The Dongara Production Facility (DPF) is located approximately 360 kilometres (km) north of Perth and 13 km east of Dongara, Western Australia. The premises operates in the Petroleum Production Licence permit areas L1 and L2, with the primary processing area occurring on Lot 1 on Diagram 41317 (L1).

The premises is a licenced facility L5765/1994/11 for Category 10, Oil and Gas production from wells as per the *Environmental Protection Act 1986*.

The main activities at the DPF are separation, gas compression, dehydration, crude oil and condensate storage and tanker loading. The equipment and facilities located at the DPF are listed below:

- Five production separators, one flash vessel, and one Corrugated Plate Interceptor (CPI).
- Two 150 kL vertical condensate storage tanks, one 80 kL vertical crude oil and one 80 kL vertical PFW storage tank, one 30 kL horizontal crude oil storage tank, and one 30 kL horizontal PFW storage tank
- Three tanker loading areas (two at the plant and one at 30-Group)
- Two export pumps
- Three gas compressors (one reciprocating type compressor and two screw-type compressors)
- Two gas-fired beam pumps (30-Group)
- Two PFW injection pumps and one 600 m deep PFW disposal bore
- Flow lines and fittings
- One gas fired water heater (30-Group)
- Two glycol reboilers and two gas dehydration towers
- Instrument air system and chemical injection system
- Pig launching and receiving facilities (temporary catchment used when pigging operations are conducted)
- Water bore, water storage tanks, fire water ring main and water standpipe
- Communication systems
- Bunds and sumps

- Stormwater drainage collection and storage system, concrete oily water separator and tank and connection to CPI unit prior to transfer to PFW storage tank
- Site office and workshop, chemical storage area and warehouse building
- Connection to electricity grid

Fluid from operational wells is transferred via flow line to the DPF. Separation is provided through one of two high pressure separators. The liquids are then transferred to a flash vessel where the condensate is transferred to the two vertical 150 kL condensate storage tanks and the water is transferred to the Corrugated Plate Interceptor (CPI). The carry-over crude oil from the CPI unit is transferred by gravity to the horizontal 30 kL hydrocarbon liquid storage tank and the produced formation water (PWF) is transferred by gravity to the horizontal 30 kL water tank, prior to being injected in the Water Disposal Well.

PFW from the 30-Group, water from the drains in the plant, and pipeline pigging operations are also collected and routed to the disposal well via the CPI.

The DPF ceased primary operation in October 2016 and is currently in care and maintenance. The DPF no longer produces or exports natural gas or condensate.

The DPF operations are managed under the Dongara Gas Field Environment Plan (21/HSEQ/ENV/PL03).

Instrument log		
Instrument	**Issued**	**Description**
L5765/1994/9	21/02/2008	Licence re-issue
L5765/1994/10	24/03/2011	Licence re-issue
L5765/1994/11	06/03/2014	Licence re-issue and converted into the latest format
L5765/1994/11	29/04/2016	Notice of Amendment: to extend the expiry date of the Licence
L5765/1994/11	20/10/2016	Notice of amendment: to remove groundwater monitoring locations DPF NW and 30 GROUP SE
L5765/1994/11	26/11/2019	Amendment to alter the existing premises boundary, change flow line inspection frequency from weekly to annually and update registered address details. The Amendment was granted in the form of a revised licence, and included the consolidation of amendment notices issued on 29 April and 20 October 2016.
L5765/1994/11	12/05/2020	Amendment to reduce the frequency of groundwater quality monitoring due to the premises being under care and maintenance.
L5765/1994/11	10/01/2024	Amendment to authorise the injection carbon dioxide (CO_2) into the Dongara gas reservoir, utilising an existing suspended production well, Dongara-23.

Severance

It is the intent of these licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this licence, unless the contrary intention appears:

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.

'the Act' means the *Environmental Protection Act 1986*;

'AACR' means Annual Audit Compliance Report, a report in a format approved by the CEO (relevant guidelines and templates are available on the Department's website);

'annual period' means the inclusive period from 1 July the previous year and ending on until 30 June in the following year;

'AS/NZS 1940' means the Australian Standard AS/NZS 1940, *The storage and handling of flammable and combustible liquids;*

'AS/ NZS 3833' means the Australian Standard AS/ NZS 3833, *The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers;*

'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 or target is measured or a monitoring result is obtained;

'care and maintenance' describe processes and conditions on a closed industrial premises where there is potential to recommence operations at a later date;

'CEO' means Chief Executive Officer of the Department of Water and Environmental Regulation;

'CEO' for the purpose of correspondence means:

Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 10
JOONDALUP DC WA 6027
Telephone: (08) 6367 7000
Facsimile: (08) 6367 7001
Email: info@dwer.wa.gov.au

'CO_2' means carbon dioxide;

'code of practice for the storage and handling of dangerous goods' means the Storage and handling of dangerous goods - code of practice, Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), Government of Western Australia, as amended from time to time;

'controlled waste' has the meaning defined in the *Environmental Protection (Controlled Waste) Regulations 2004*;

'dangerous goods' has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

'Department' means the department established under s.35 of the *Public Sector Management Act 1984* and designated as responsible for the administration of Division 3 Part V of the *Environmental Protection Act 1986;*

'DWER' means Department of Water and Environmental Regulation;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS);

'fugitive emissions' means all emissions not arising from point sources identified in section 2.4;

'hardstand' means a surface with a permeability of 10^{-9} metres/second or less;

'Landfill Waste Classification and Waste Definitions 1996 (as amended)', refers to the document issued by the Chief Executive Officer;

'licence' means this licence numbered L5765/1994/11 and issued under the *Environmental Protection Act 1986;*

'licence holder' means the person or organisation named as licence holder on page 1 of the licence;

'NATA' means the 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;

'normal operating conditions' means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

'NPI Calculation – estimation technique' means the National Pollutant Inventory, Emission Estimation Technique Manual for Oil and Gas Extraction and Production version 2.0, Department of Sustainability, Environment, Water, Population and Communities, July 2013 (as amended);

'PM' means total particulate matter including both solid fragments of material and miniscule droplets of liquid;

'PM_{10}' means particles with an aerodynamic diameter of less or equal to 10 μm;

'premises' means the area defined in the premises map in Schedule 1 and listed as the premises address on page 1 of the licence;

'quarterly' means the 4 inclusive periods from, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March; 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;

'shut-down' means the period when plant or equipment is brought from normal operating conditions to inactivity;

'six monthly' means the 2 inclusive periods from 1 July to 31 December and 1 January to 30 June in the following year;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'start-up' means the period when plant or equipment is brought from inactivity to normal operating conditions;

'triennial' means every three years;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia; and

'Waste' has the meaning defined in the *Environmental Protection Act 1986*.

1.1.3 Any reference to an Australian or other standard in the licence means the relevant parts of the current version of that standard.

1.1.4 Any reference to a guideline or code of practice in the licence means the current version of the guideline or code of practice.

1.2 General conditions

1.2.1 Nothing in the licence shall be taken to authorise any emission that is not mentioned in the licence, where the emission amounts to:
(a) pollution;
(b) unreasonable emission;
(c) discharge of waste in circumstances likely to cause pollution; or
(d) being contrary to any written law.

1.2.2 The licence holder must operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.3 The licence holder, except where storage is prescribed in section 1.3, must ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.

1.2.4 The licence holder shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.5 The licence holder must:
(a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the premises; and
(b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the premises.[1]

Note1: *The Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

1.3.1 The licence holder must ensure that all pipelines containing environmentally hazardous substances are either:
(a) equipped with automatic cut-outs in the event of a pipe failure; or
(b) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

1.3.2 The licence holder must, on a triennial basis, undertake integrity testing of the injection well casings to ensure that the disposal wastewater is reaching the disposal formation.

2 Emissions

2.1 General

2.1.1 The licence holder must record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this licence.

2.2 Point source emissions to air

2.2.1 The licence holder must ensure that where waste is emitted to air from the emission points identified in Table 2.2.1 and on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this licence.

Table 2.2.1: Emission points to air

Emission point reference and location on Map of emission points	Emission point	Emission point height (m)	Source, including any abatement
FGC001	Gas compressor	N/A	Gas compression (30-Group)
LP; ESD; RGC001	Vent stacks	2.5	Gas venting or flaring
FGC002	Gas compressor	N/A	Gas compression (Dongara-11)

2.3 Point source emissions to groundwater

2.3.1 The licence holder must ensure that where waste is emitted to groundwater from the emission points in Table 2.3.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 2.3.1: Emission points to groundwater

Emission point reference and location on Map of emission points	Emission point reference on Map of emission points	Description	Source including abatement
G1	Water disposal well	Direct injection below ground (600 m)	Produced formation water (PFW), stormwater and process water discharged via separator

2.4 Fugitive emissions

2.4.1 The licence holder must use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the premises.

2.4.2 The licence holder must ensure that no visible dust generated by the activities on the premises crosses the boundary of the premises.

2.5 Odour

2.5.1 The licence holder must ensure that odour emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the premises.

2.6 CO_2 Injection

2.6.1 The licence holder must ensure that the emissions specified in Table 2.6.1, are discharged only from the corresponding discharge point, at the corresponding discharge point location, for no longer than the corresponding duration and does not exceed the corresponding volume, as specified in table 2.6.1

Table 2.6.1: Emission points for CO_2 injection

Emission	Discharge point	Duration	Volume	Discharge point location
Direct injection of liquid CO_2	Dongara-23 production well	14 days from the commencement of injection	54 tonnes	As shown in Figure 6 in Schedule 1

3 Monitoring

3.1 General monitoring

3.1.1 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.

3.1.2 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.

3.1.3 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.

3.1.4 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.

3.2 Monitoring of point source emissions to air

3.2.1 The licence holder must undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to air

Emission point reference	Parameter	Units	Frequency[1]	Method
LP; ESD; RGC001	Total volume gas vented (with or without flaring)	m^3	Annually	None specified
FGC001 FGC002 LP; ESD; RGC001	Benzene	g/min		NPI Calculation – estimation technique.
	Carbon monoxide			
	Formaldehyde			
	Oxides of Nitrogen			
	Particulates (PM_{10})			
	Total volatile organic carbons			

Note [1]: Monitoring shall be undertaken to reflect normal operating conditions and any limits or conditions on inputs or production.

3.3 Monitoring of point source emissions to groundwater

3.3.1 The licence holder must undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of point source emissions to groundwater

Emission point reference	Parameter	Units	Frequency
G1	Volumetric flow rate	m^3/day	Monthly
	pH[1]	-	Annually
	Electrical conductivity	µS/cm	
	Metals (Ag, Al, As, B, Ba, Be, Cd, Co, Cr, Cr (VI), Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Zn)	mg/L	
	Total dissolved solids		
	Total recoverable hydrocarbons (TRH)		
	BTEX compounds		
	Silica		
	Calcium		
	Potassium		
	Magnesium		
	Sodium		
	Bicarbonate, HCO_3 as $CaCO_3$		
	Carbonate, CO32- as $CaCO_3$		
	Hydroxide, OH- as $CaCO_3$		
	Total Alkalinity as $CaCO_3$		
	Chloride in water		
	Sulphate in water		
	Hardness as $CaCO_3$		

Table 3.3.1: Monitoring of point source emissions to groundwater			
Emission point reference	**Parameter**	**Units**	**Frequency**
	Total Nitrogen (Total N)		
	Total Kjeldahl Nitrogen		
	Nitrate as N		
	Nitrite as N mg/L		
	Ammonia as N		
	Total Phosphorus (Total P)		
	Phosphate as P		

Note [1]: In-situ measurement permitted

3.4 Process monitoring

3.4.1 The licence holder must undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Process monitoring				
Input/Output	**Parameter**	**Units**	**Averaging period**	**Frequency**
Water treatment chemicals	Volume consumed	m^3	N/A	Monthly
Flow lines	Visual leak check	N/A	N/A	Annually

3.5 Ambient environmental quality monitoring

3.5.1 The licence holder must undertake the monitoring in Table 3.5.1 and Table 3.5.2 according to the specifications in those tables.

Table 3.5.1: Monitoring of ambient groundwater quality			
Emission point reference	**Parameter**	**Units**	**Frequency**
DPF NE; DPF SW; DPF NW: 30 GROUP NW; 30 GROUP SW.	Water level	mbTOC	Annually
	Electrical conductivity	µS/cm	
	pH[1]	-	
	Metals (Ag, Al, As, B, Ba, Be, Cd, Co, Cr, Cr (VI), Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Zn)	mg/L	
	Total dissolved solids		
	Total recoverable hydrocarbons (TRH)		
	BTEX compounds		

Note [1]: In-situ measurement permitted

Table 3.5.2: Monitoring of ambient groundwater quality			
Emission point reference	**Parameter**	**Units**	**Frequency**
DPF NE; DPF SW; DPF NW	Water level	mbTOC	3 discrete monitoring events: a) 1 monitoring event to be undertaken prior to CO_2 re-injection activities authorised by condition 2.6.1; and b) 2 monitoring events to be undertaken over the following two quarterly periods.
	Electrical conductivity	µS/cm	
	pH[1]	-	
	Metals (Ag, Al, As, B, Ba, Be, Cd, Co, Cr, Cr (VI), Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Zn)	mg/l	
	Total dissolved solids		
	Silica		
	Calcium		
	Potassium		
	Magnesium		
	Sodium		
	Bicarbonate, HCO_3 as $CaCO_3$		
	Carbonate, CO32- as $CaCO_3$		
	Hydroxide, OH- as $CaCO_3$		
	Total Alkalinity as $CaCO_3$		
	Chloride in water		
	Sulphate in water		
	Hardness as $CaCO_3$		
	Total recoverable hydrocarbons (TRH)		
	BTEX compounds		

Note [1]: In-situ measurement permitted

4 Information

4.1 Records

4.1.1 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 or are capable of retrieval;
- (c) except for records listed in 4.1.1(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.

4.1.2 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.

4.1.3 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 annual period.

4.1.4 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.

4.2 Reporting

4.2.1 The licence holder must submit to the CEO an Annual Environmental Report within 84 calendar days after the end of the annual period (i.e. 30 September). The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report

Condition or table (if relevant)	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
Table 3.2.1	Total volume of gas vented	None specified
	Monitoring of point source emissions to air	AR1[2]
Table 3.3.1	Monitoring of point source emissions to groundwater	GR1
Table 3.4.1	Monthly consumption water treatment chemicals	None specified
Table 3.5.1	Monitoring of ambient groundwater quality	GR1
4.1.3	Annual Audit Compliance Report	AACR[1]
4.1.4	Complaints summary	None specified

Note [1]: Form on Department's website;
Note [2]: Forms are in Schedule 2

4.2.2 The licence holder must submit to the CEO a CO_2 re-injection report within 90 days of the completion of CO_2 re-injection activities as specified in condition 2.6.1. The report must contain the information listed in Table 4.2.2.

Table 4.2.2: CO_2 re-injection reporting requirements		
Condition or table (if relevant)	**Parameter**	**Format or form**
2.6.1	a) Volume of CO_2 re-injected; b) Duration of re-injection activities (cumulative days); c) Summary of CO_2 re-injection activities undertaken, including details of the performance of the well, well integrity and the results of environmental monitoring activities undertaken; d) Any ambient groundwater monitoring results obtained (as specified by condition 3.5.1 for table 3.5.2); and e) A summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the re-injection activities and any action taken	None specified

4.2.3 The licence holder must submit the information in Table 4.2.3 to the CEO according to the specifications in that table.

Table 4.2.3: Non-annual reporting requirements				
Condition or table (if relevant)	**Parameter**	**Reporting period**	**Reporting date (after end of the reporting period)**	**Format or form**
Condition 1.3.2	Integrity testing of the injection well casings	Triennial	Within 28 days of testing completion	None specified

4.3 Notification

4.3.1 The licence holder must ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	**Parameter**	**Notification requirement[1]**	**Format or form[2]**
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
-	Re-commencement of oil and gas processing on the premises	Within 30 days of re-commencing oil and gas processing operations	None specified

Note [1]: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

Note [2]: Forms are in Schedule 2

Schedule 1: Maps

Premises map

The premises is shown in the map below. The blue shaded area depicts the premises boundary.

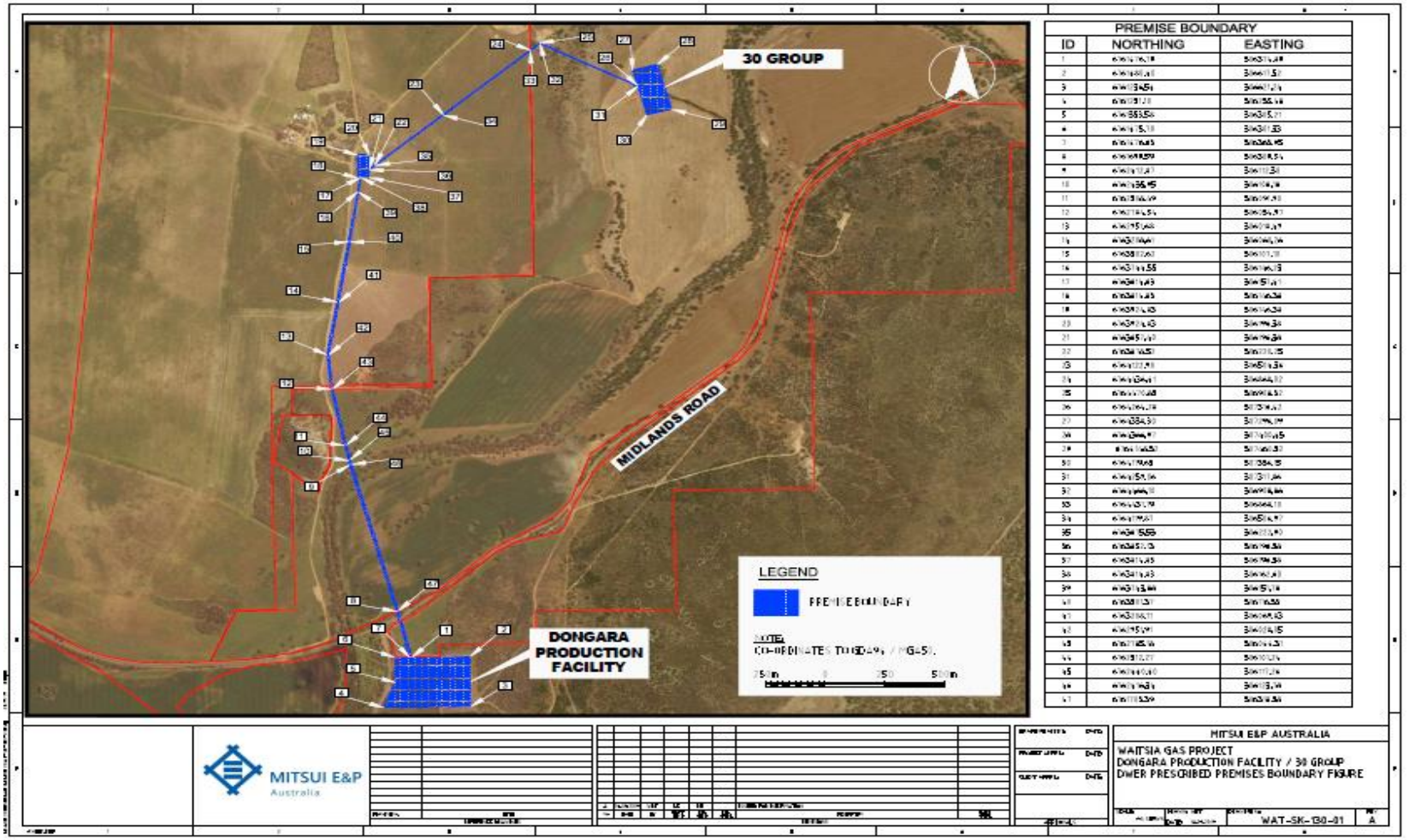

Figure 1: Map of the boundary of the prescribed premises

Figure 2: Dongara Production Facility – processing area (L1)

Maps of emission and monitoring points

The locations of the emission points defined in Tables 2.2.1 and 2.3.1 are shown in the maps below.

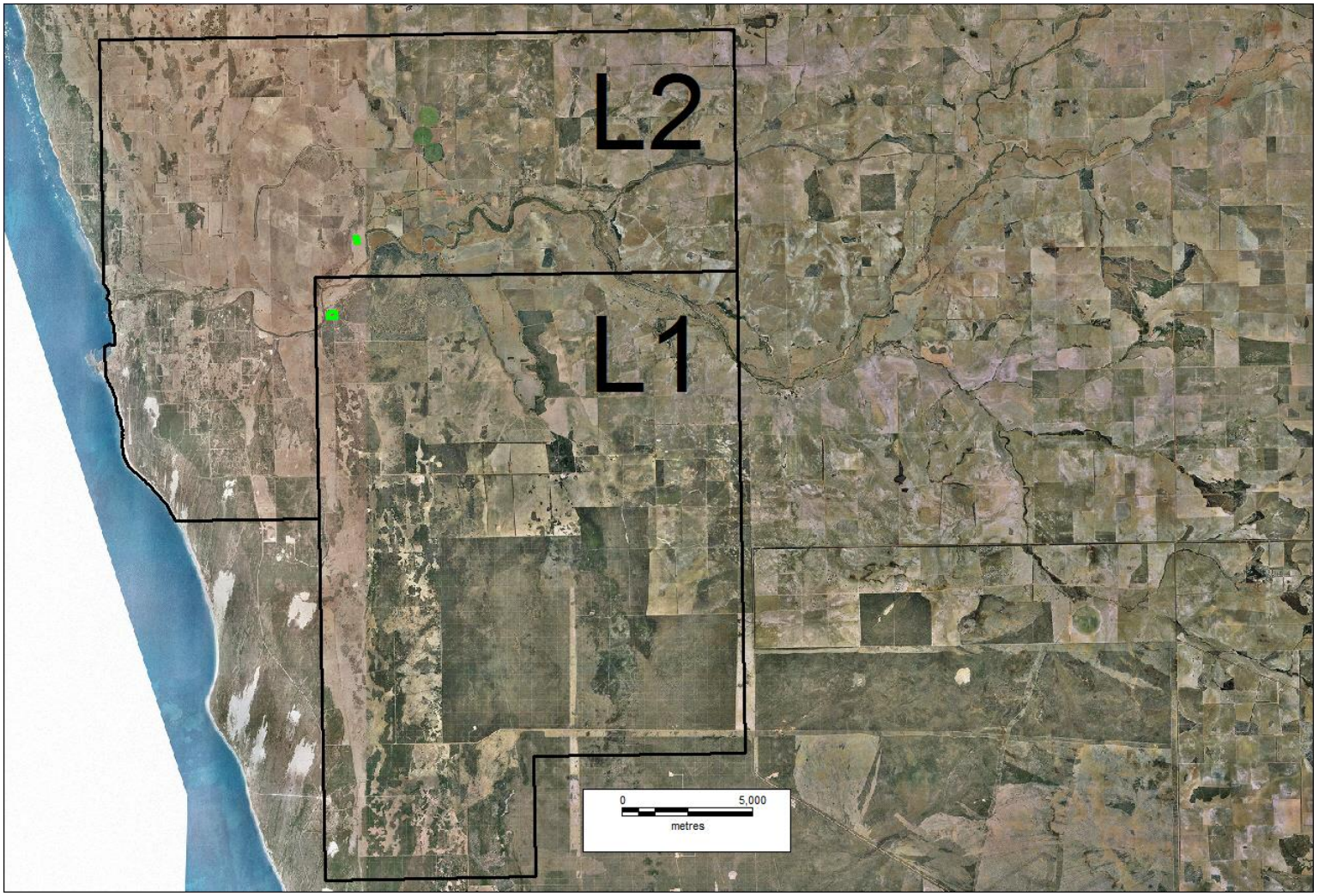

Figure 3: Dongara Production Facility locality map

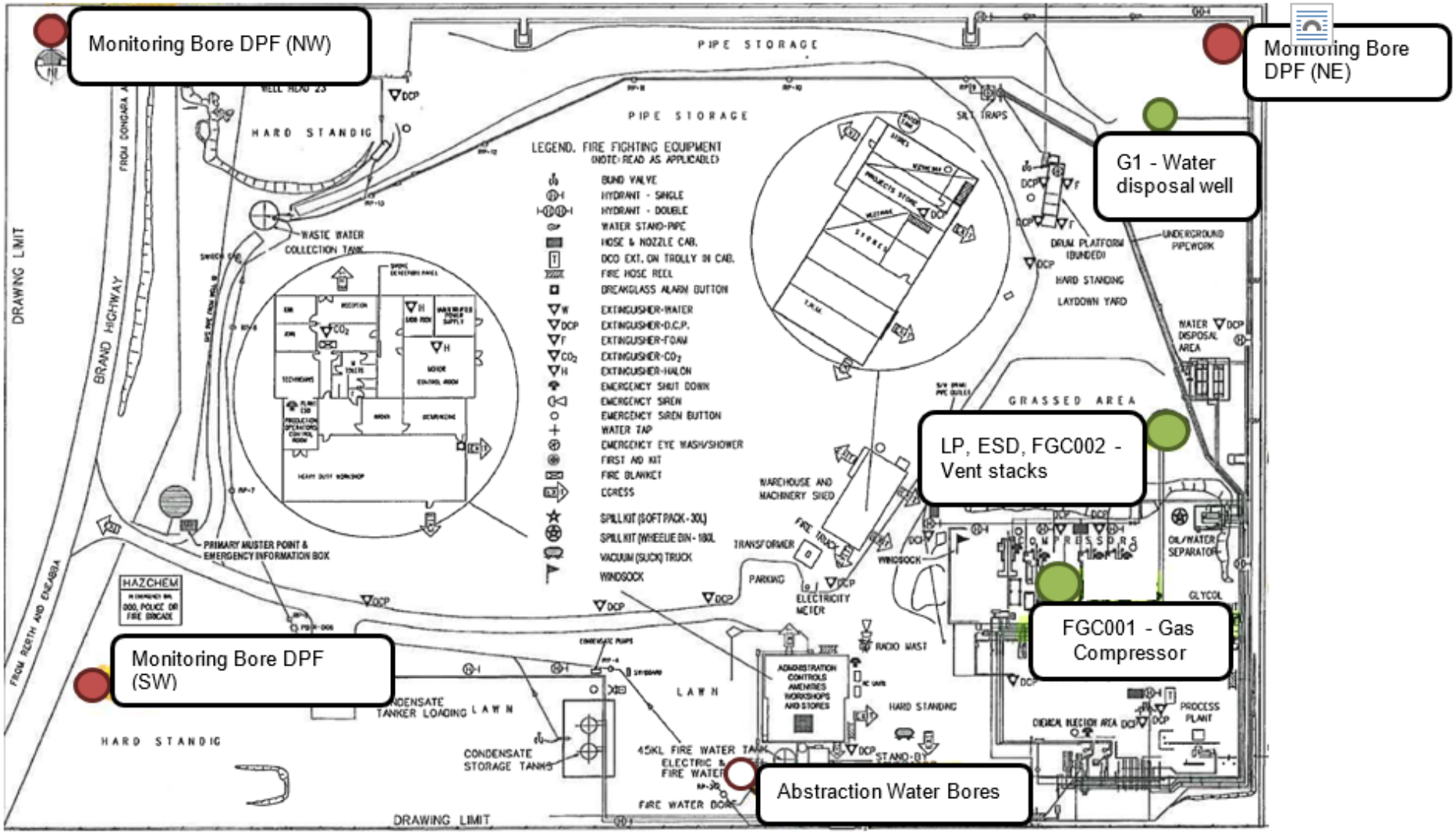

Figure 4: Dongara Production Facility (L1) – processing area and monitoring and emission points

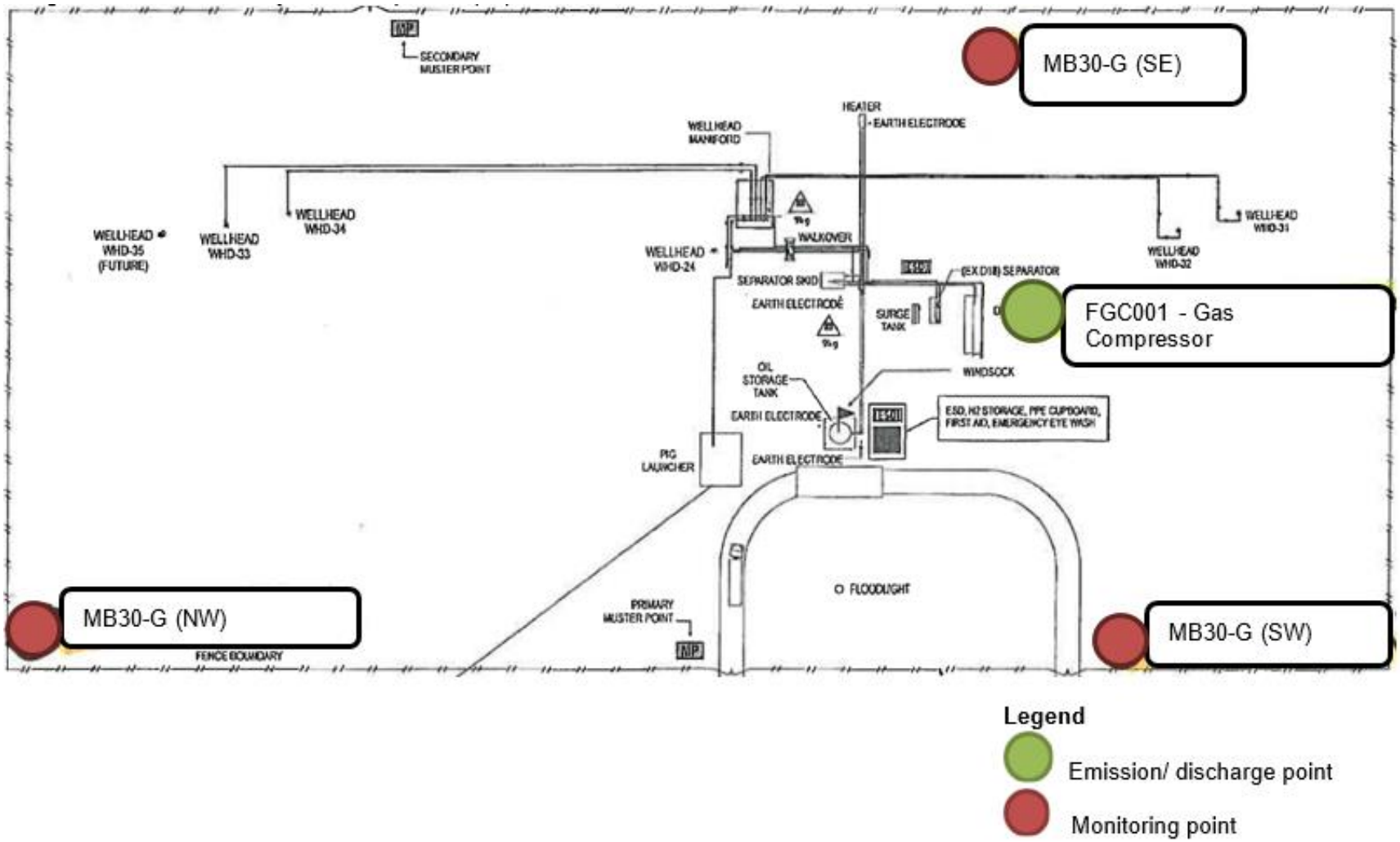

Figure 5: Dongara Production Facility 30-group wells (L2) and monitoring and emission points

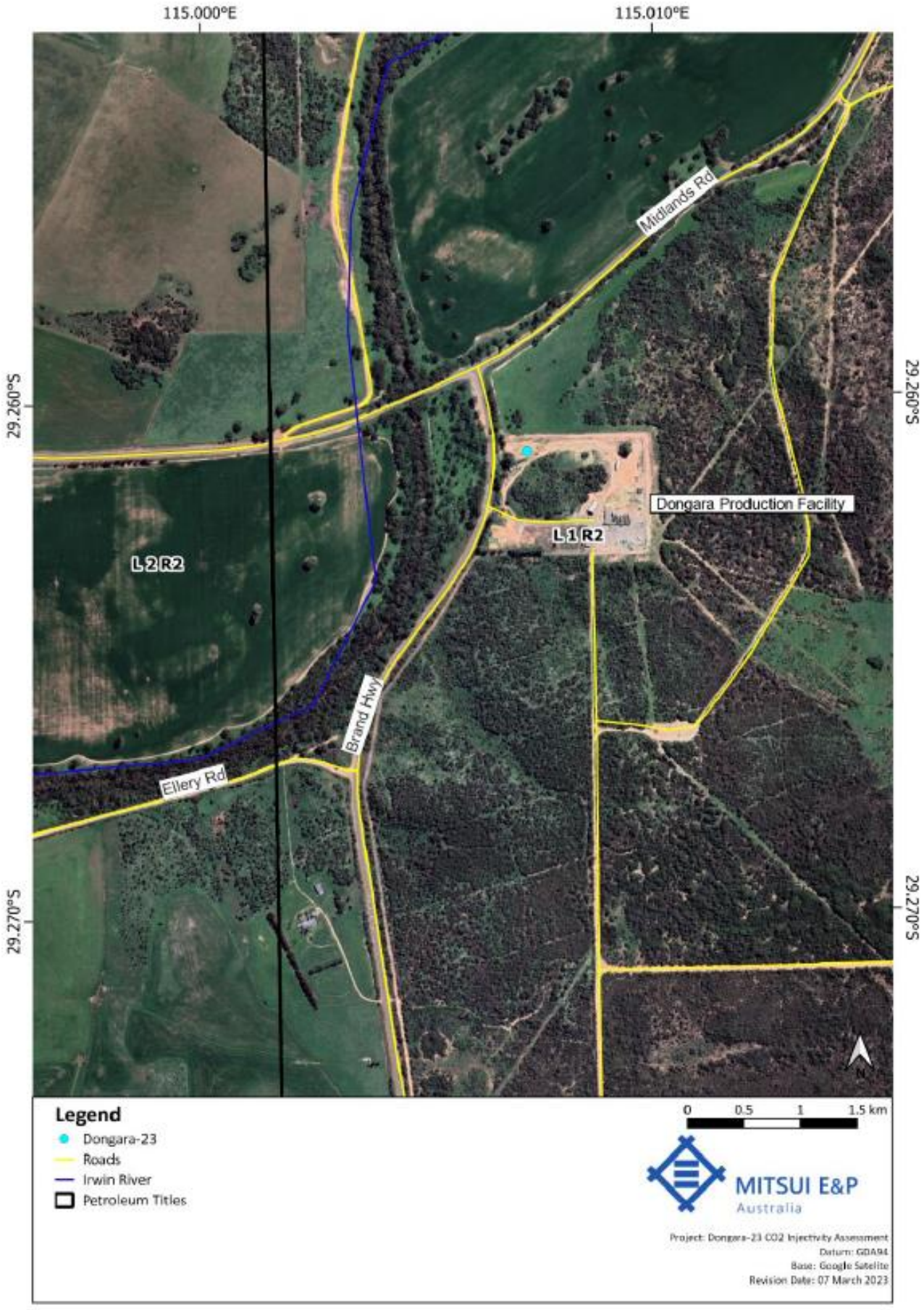

Figure 6: Dongara Production Facility and Dongara-23 well location

Schedule 2: Forms

Licence: **L5765/1994/11** **Licence holder:** **AWE Perth Pty Ltd**
Form: **AR1** **Period:**
Name: **Monitoring of point source emissions to air**

FORM AR1: Monitoring of point source emissions to air						
Emission point reference	**Parameter**	**Units**	**Result**	**Averaging period**	**Method**	**Sample date & times**
FGC001 FGC002 LP;ESD;RGC001	Benzene	g/min		Annually	NPI Calculation – estimation technique.	
	Carbon monoxide					
	Formaldehyde					
	Oxides of Nitrogen					
	Particulates (PM_{10})					
	Total volatile organic carbons					

Signed on behalf of AWE Perth Pty Ltd: …….. Date: …….

Licence: **L5765/1994/11** **Licence holder: AWE Perth Pty Ltd**
Form: **GR1** **Period :**
Name: **Monitoring of emissions to groundwater/ambient groundwater**

Form GR1: Monitoring of emissions to groundwater/ambient groundwater					
Emission point	**Parameter**	**Result[1]**	**Averaging period**	**Method**	**Sample date & times**
G1; DPF (NW); DPF (NE); DPF SW; 30 GROUP (NW); 30 GROUP (SW).	pH	-	Spot sample		
	Electrical conductivity	µS/cm			
	Metals (Ag, Al, As, B, Ba, Be, Cd, Co, Cr, Cr (VI), Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Zn)	mg/L			
	Total dissolved solids				
	Total recoverable hydrocarbons (TRH)				
	BTEX compounds				
	Silica				
	Calcium				
	Potassium				
	Magnesium				
	Sodium				
	Bicarbonate, HCO_3 as $CaCO_3$				
	Carbonate, CO32- as $CaCO_3$				
	Hydroxide, OH- as $CaCO_3$				
	Total Alkalinity as $CaCO_3$				
	Chloride in water				
	Sulphate in water				
	Hardness as $CaCO_3$				
	Total Nitrogen (Total N)				

	Total Kjeldahl Nitrogen				
	Nitrate as N				
	Nitrite as N mg/L				
	Ammonia as N				
	Total Phosphorus (Total P)				
	Phosphate as P				

Note [1]: All units are referenced to STP dry

Signed on behalf of AWE Perth Pty Ltd: …….. Date: …….

Form N1:

Licence: L5765/1994/11 Licence holder: AWE Perth Pty Ltd

Form: N1 Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

PART A

Licence Number	
Name of operator	
Location of premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	

PART B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of AWE Perth Pty Ltd	
Date	