Permit[1]

Environmental Protection Act 1994

Environmental authority

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Permit[1] number: EPPG00653013

Project Name: Eromanga Refinery

Environmental authority takes effect 20 February 2015.

The anniversary date of this environmental authority is **10 September** of each year. An annual return and the payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
IOR Energy Pty Ltd ACN: 60 010 504 444	39 Byron Street BULIMBA QLD 4171

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Schedule 2A – 8 – a petroleum activity or GHG storage activity, other than an activity mentioned in any of items 1 to 7, for which an AES is stated. Schedule 2 - 11 – Oil refining or processing a quantity of 500m^3 to 150000m^3 of crude oil or shale oil in a year.	Petroleum Facility Licence (PFL) 1

Additional information for applicants

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

Signature	Date

Andrew Langford
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Petroleum and Gas
Department of Environment
and Heritage Protection
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Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

Schedule A	General Environmental Protection
Schedule B	Waste Management
Schedule C	Protecting Acoustic Values
Schedule D	Protecting Air Values
Schedule E	Protecting Land Values
Schedule F	Protecting Water Values
Schedule G	Rehabilitation
Schedule H	Dams
Schedule I	Definitions

SCHEDULE A: GENERAL

Authorised resource activities

(A1) This environmental authority does not authorise a relevant act to occur in carrying out an authorised resource activity unless a condition expressly authorises that relevant act to occur. Where there is no condition, the lack of a condition must not be construed as authorising the relevant act.

Monitoring standards

(A2) All monitoring must be undertaken by a suitably qualified person.

(A3) If requested by the administering authority in relation to investigating a complaint, monitoring must be commenced within 10 business days.

(A4) All laboratory analyses and tests must be undertaken by a laboratory that has NATA accreditation for such analyses and tests.

(A5) Notwithstanding condition (A4), where there are no NATA accredited laboratories for a specific analyte or substance, then duplicate samples must be sent to at least two separate laboratories for independent testing or evaluation.

(A6) Monitoring and sampling must be carried out in accordance with the requirements of the following documents (as relevant to the sampling being undertaken), as amended from time to time:

(a) for waters and aquatic environments, the Queensland Government's Monitoring and Sampling Manual 2009 – *Environmental Protection (Water) Policy 2009*

(b) for groundwater, *Groundwater Sampling and Analysis – A Field Guide* (2009:27 GeoCat #6890.1)

(c) for noise, the *Environmental Protection Regulation 2008*

(d) for air, the *Queensland Air Quality Sampling Manual* and/or Australian Standard 4323.1:1995 *Stationary source emissions method 1: Selection of sampling positions*, as appropriate for the relevant measurement

(e) for soil, the *Guidelines for Surveying Soil and Land Resources, 2nd edition* (McKenzie et al. 2008), and/or the *Australian Soil and Land Survey Handbook, 3rd edition* (National Committee on Soil and Terrain, 2009); and

(f) for dust, Australian Standard AS3580.

Notification

(A7) In addition to the requirements under Chapter 7, Part 1, Division 2 of the *Environmental Protection Act 1994*, the administering authority must be notified through the Pollution Hotline and in writing, as soon as possible, but within 48 hours of becoming aware of any of the following events:

(a) any unauthorised significant disturbance to land

(b) potential or actual loss of structural or hydraulic integrity of a dam

(c) potential or actual loss of well integrity

(d) unauthorised releases of any volume of prescribed contaminants to waters

(e) unauthorised releases of volumes of contaminants, in any mixture, to land greater than:

i. 200 L of hydrocarbons

ii. 1 000 L of brine

iii. 5 000 L of raw sewage; or

iv. 10 000 L of treated sewage effluent.

(f) monitoring results where two out of any five consecutive samples do not comply with the relevant limits in the environmental authority.

Financial assurance

(A8) Resource activities that cause significant disturbance to land must not be carried out until financial assurance has been given to the administering authority as security for compliance with the environmental authority and any costs or expenses, or likely costs or expenses, mentioned in section 298 of the *Environmental Protection Act 1994*.

(A9) Prior to any changes in resource activities which would result in an increase to the maximum significant disturbance since financial assurance was last given to the administering authority, the holder of the environmental authority must amend the financial assurance and give the administering authority the increased amount of financial assurance.

(A10) If the amount of financial assurance held by the administering authority has been discounted and either the nominated period of financial assurance has ended, or an event or change in circumstance has resulted in the holder of the environmental authority no longer being able to meet one or more of the mandatory pre-requisites or applicable discount criteria, the holder of the environmental authority must amend the financial assurance and give the administering authority the increased amount of financial assurance as soon as practicable.

Maintenance of plant equipment

(A11) All plant and equipment must be maintained and operated in their proper and effective condition.

(A12) No change, replacement or alteration of any plant or equipment is permitted if the change, replacement or alteration materially increases, or is likely to increase, the environmental harm caused by the petroleum activity.

Erosion and sediment control

(A13) For activities involving significant disturbance to land, control measures that are commensurate to the site-specific risk of erosion, and risk of sediment release to waters must be implemented to:

(a) allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities

(b) minimise soil erosion resulting from wind, rain, and flowing water

(c) minimise the duration that disturbed soils are exposed to the erosive forces of wind, rain, and flowing water

(d) minimise work-related soil erosion and sediment runoff; and

(e) minimise negative impacts to land or properties adjacent to the activities (including roads).

Complaints

(A14) Resource activities must not cause environmental nuisance at a sensitive place, other than where an alternative arrangement is in place.

Documentation

(A15) All documents required to be developed under this environmental authority must be kept for five years.

(A16) All plans and monitoring programs required by this environmental authority must be certified by a suitably qualified person.

(A17) All plans and monitoring programs required under this environmental authority must be implemented.

(A18) A record of all complaints must be kept including the date, complainant's details, source, reason for the complaint, description of investigations and actions undertaken in resolving the complaint.

SCHEDULE B: WASTE MANAGEMENT

General waste management

(B1) All general waste must be removed from the site and sent to a recycling facility or disposal facility licensed to accept the waste.

(B2) All regulated waste must be removed from the site by a person who holds a current authority to transport such waste under the provisions of the *Environmental Protection Act 1994* and sent to a recycling facility or disposal facility licensed to accept the waste.

(B3) Waste must not be burned or allowed to be burned on the licensed site.

Groundwater use for dust suppression

(B4) Groundwater may be used for dust suppression provided the following criteria are met;

(a) results of monitoring of groundwater used for dust suppression do not exceed any of the limits defined in *Schedule B, Table 1 – Dust Suppression Water Contamination Release Limits*, for each quality characteristic

(b) the amount applied does not exceed the amount required to effectively supress dust; and

(c) the application:

i. does not cause on site ponding or runoff

ii. is directly applied to the area being dust suppressed; and

iii. does not harm vegetation surrounding the area being dust suppressed.

Schedule B, Table 1 – Dust Suppression Water Contamination Release Limits

Water Quality Characteristics	Unit	Limit	Limit Type
pH	pH Units	6.0 to 9.0	range
Total Dissolved Solids	mg/L	2000	maximum
Total Petroleum Hydrocarbons	mg/L	10	maximum

Sewage treatment

(B5) The disposal of sewage effluent to land must not cause environmental nuisance or material or serious environmental harm.

SCHEDULE C: PROTECTING ACOUSTIC VALUES

General

(C1) In the event of a complaint about noise from the carrying out of the petroleum activity being made to the administering authority and that the administering authority considers is not frivolous nor vexatious nor based on mistaken belief, then the emission of noise from the licensed place must not result in levels greater than those specified in *Schedule C, Table 1 – Noise limits.*

(C2) In the event of a complaint about noise nuisance that the administering authority considers is not frivolous or vexatious then the holder of the environmental authority must prepare and submit a noise management plan to the administering authority within the reasonable and practicable timeframe specified in writing by the administering authority.

(C3) The noise management plan must address, but not be limited to, the following matters:
identification of component noise sources and activities at the place(s) which impact on noise sensitive areas;

(a) the measured and/or predicted level of these noise sources and activities at noise sensitive places;

(b) the reasonable and practicable control or abatement measures (including hours of operation) that can be undertaken to reduce identified intrusive noise sources;

(c) the level of noise at noise sensitive places that would be achieved from implementing these measures.

(d) the handling of future noise complaints;

(e) community liaison and consultation; and

(f) training of staff and contractors in noise management practices.

(C4) The holder of this environmental authority must commence implementation of the noise abatement recommendations of the noise management plan not more that 30 days following its submission to the administering authority, accounting for any comments made by the administering authority within that time.

Schedule C, Table 1 – Noise limits

Sensitive place						
Noise level dB(A) measured as:	**Monday to Saturday**			**Sundays and public holidays**		
	7am to 6pm	**6pm to 10pm**	**10pm to 7am**	**9am to 6pm**	**6pm to 10pm**	**10pm to 9am**
$L_{A90, adj, 15 mins}$	lesser of bg+3 or 48	lesser of bg+0 or 40	lesser of bg+0 or 40	lesser of bg+0 or 40	lesser of bg+0 or 40	lesser of bg+0 or 40
$L_{A10, adj, 15 mins}$	lesser of bg+5 or 50	lesser of bg+5 or 45	lesser of bg+0 or 40	lesser of bg+5 or 45	lesser of bg+5 or 40	lesser of bg+0 or 35
$L_{A1, adj, 15 mins}$	lesser of bg+10 or 55	lesser of bg+10 or 50	lesser of bg+5 or 45	lesser of bg+10 or 50	lesser of bg+10 or 45	lesser of bg+5 or 40
Commercial place						
Noise level dB(A) measured as:	**Monday to Saturday**			**Sundays and public holidays**		
	7am to 6pm	**6pm to 10pm**	**10pm to 7am**	**9am to 6pm**	**6pm to 10pm**	**10pm to 9am**
$L_{A90, adj, 15 mins}$	lesser of bg+5 or 50	lesser of bg+0 or 45	lesser of bg+0 or 40	lesser of bg+3 or 43	lesser of bg+0 or 40	lesser of bg+0 or 40
$L_{A10, adj, 15 mins}$	lesser of bg+10 or 55	lesser of bg+10 or 50	lesser of bg+5 or 45	lesser of bg+10 or 50	lesser of bg+10 or 45	lesser of bg+5 or 40
$L_{A1, adj, 15 mins}$	lesser of bg+15 or 60	lesser of bg+15 or 55	lesser of bg+10 or 50	lesser of bg+15 or 55	lesser of bg+15 or 50	lesser of bg+10 or 45

- bg = background noise level
- In the event that measured bg is less than 25 dB(A), then 25 dB(A) is to be substituted for the measured level
- If the background is higher than the number shown on the second line in any box, the limit is to be background plus 0.

SCHEDULE D: PROTECTING AIR VALUES

The release of contaminants to the atmosphere

(D1) The release of contaminants to the atmosphere from a point source must only occur from those release points identified in *Schedule D - Table 1 – Authorised point sources* and must be directed vertically upwards without any impedance or hindrance.

(D2) Contaminants must be released to the atmosphere from a release point at a height and a flow rate not less than the corresponding height and velocity stated for that release point in *Schedule D - Table 1 – Authorised point sources.*

(D3) Contaminants must not be released to the atmosphere from the release points at a mass emission rate/concentration, as measured at a representative monitoring point, in excess of that stated in *Schedule D - Table 1 – Authorised point sources.*

Schedule D - Table 1 - Authorised point sources

Release point	Minimum release height (metres)	Minimum velocity (m/sec)	Contaminant release	Maximum release limit
Diesel Furnace	3.5	20	NOx	450mg/Nm^3 dry @ 3% O_2
			VOC (as n-propane equivalent)	40mg/Nm^3 dry @ 3% O_2
Kerosene Furnace			Carbon Monoxide	2500mg/Nm^3 dry @ 3% O_2
			Particulates	100mg/Nm^3 dry @ 3% O_2

(D4) The holder of this environmental authority must ensure that all reasonable and practicable measures are taken in the design and operation of the plant to minimise fugitive VOC emissions including but not limited to:

(a) implementation of a monitoring program to regularly leak test all componentry including pumps, piping and controls, vessels and tanks; and

(b) operating, maintenance and management practices to be implemented to mitigate fugitive VOC emission sources. Standards, where such a standard is applicable.

Point source air monitoring

(D5) Point source air monitoring for each fuel burning or combustion facility listed in *Schedule D, Table 1—Authorised point sources* must:

(a) be undertaken once:

i. in the first three months after each facility is first commissioned, and then

ii. every year thereafter

(b) be carried out when the facility the subject of the sampling is operating under maximum operating conditions for the annual period; and

(c) demonstrate compliance with the limits listed in *Schedule D, Table 1—Authorised point sources* at each release point reference.

SCHEDULE E: PROTECTING LAND VALUES

General

(E1) Contaminants must not be directly or indirectly released to land except as permitted by conditions (B4) and (B5) of this environmental authority.

Chemical storage

(E2) Chemicals and fuels stored, must be effectively contained and where relevant, meet Australian Standards, where such a standard is applicable.

SCHEDULE F: PROTECTING WATER VALUES

Authorised impacts to waters

(F1) Contaminants must not be directly or indirectly released to any waters.

Watercourses, Wetlands and Springs

(F2) In the carrying out of the resource activity the holder of this environmental authority must not excavate, clear vegetation or place fill, except for the construction of roads and pipelines, in or within:

(a) 200 metres from any natural significant wetland

(b) 100 metres from any natural wetland, lakes or springs; or

(c) 100 metres of the high bank of any other watercourse.

(F3) Notwithstanding condition (F3), any excavation, clearing of vegetation or placing of fill within 100 metres of Erounghoola Creek carried out before 15 November 2012 is authorised under this environmental authority.

(F4) The holder of this environmental authority must not excavate or place fill in a way that interferes with the flow of water in a watercourse, wetland, or spring, including works that divert the course of flow of the water or works that impound the water.

Groundwater monitoring and reporting

(F5) Groundwater quality levels must be monitored at the compliance bores for quality characteristics and frequencies specified in *Schedule F, Table 1 – Groundwater monitoring locations, parameters and frequency.*

Schedule F, Table 1 – Groundwater monitoring locations, parameters and frequency

Monitoring point	Location		Surface RL	Monitoring frequency	Quality characteristics	Limit (mg/L) unless otherwise specified
	Easting (GDA94 – Zone 54)	Northing (GDA94 – Zone 54)	(m)[1]			
Compliance bores						
TBH1	143°16.343E	26°40.082S	14m (2014)	Quarterly	pH	6.0-9.0 value (range)
TBH6	726 280.06m	7 048 297.93m	11.16m (2011)		Benzene	0.001 (max)
					Toluene	0.8 (max)
TBH13	143°16.290E	26°40.074S	14m (2014)		Xylene	0.6 (max)
					Ethylbenzene	0.3 (max)
TBH15	143°16.368E	26°40.110S	13m (2014)		Poly Aromatic HCs (PAH)	0.00001 (max)
					TPH	0.2 (max)
PBH1	726 287.03m	7 048 346.56m	10.96m (2011)	Quarterly	pH	6.0-9.0 value (range)
					Benzene	0.001 (max)
					Toluene	0.8 (max)
					Xylene	0.6 (max)
TBH11	726 159.94m	7 048 335.94m	11.13m (2011)		Ethylbenzene	0.3 (max)
					Poly Aromatic HCs (PAH)	0.00001 (max)
					TPH	10 (max)

(F6) If the quality characteristics in groundwater at the compliance bores exceed any of the limits specified in *Schedule F, Table 1 – Groundwater monitoring locations, parameters and frequency*, the holder of the environmental authority must take actions necessary to ensure compliance with the limits specified in *Schedule F, Table 1 – Groundwater monitoring locations, parameters and frequency*.

SCHEDULE G: Rehabilitation

(G1) Progressive rehabilitation of disturbed areas must commence as soon as practicable following the completion of any construction or operational works associated with the petroleum activities.

(G2) As soon as practicable but no later than 12 months (or longer period agreed in writing by the administering authority) after the end of petroleum activities causing significant disturbance to land, the holder of the authority must:

(a) remediate contaminated land (e.g. dams containing salt);

(b) reshape all significantly disturbed land to a stable landform similar to that of surrounding undisturbed areas;

(c) on all significantly disturbed land, take all reasonable and practicable measures to:

i. re-establish surface drainage lines;

ii. reinstate the top layer of the soil profile; and

iii. promote establishment of vegetation.

(G3) All significantly disturbed land caused by the carrying out of the petroleum activities must be rehabilitated to:

(a) a stable landform and with a self-sustaining vegetation cover and species that are similar to adjoining undisturbed areas;

(b) ensure that all land is reinstated to the pre-disturbed land use and suitability class;

(c) ensure that the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance by petroleum activities; and

(d) ensure that the water quality of any residual void or water bodies constructed by petroleum activities meets criteria for subsequent uses and does not have potential to cause environmental harm.

(G4) Maintenance of rehabilitated areas must take place to ensure and demonstrate:

(a) stability of landforms;

(b) erosion control measures remain effective;

(c) stormwater runoff and seepage from rehabilitated areas does not negatively affect the environmental values of any waters;

(d) plants show healthy growth and recruitment is occurring; and

(e) rehabilitated areas are free of any declared pest plants.

(G5) Rehabilitation can be considered successful when:

(a) the site can be managed for its designated land-use (e.g. similar to that of surrounding undisturbed areas);

(b) no greater management input than for other land in the area being used for a similar purpose is required and there is evidence that the rehabilitation has been successful for at least three (3) years;

(c) the rehabilitation is carried out in accordance with the goals, objectives indicators and completion criteria as specified in *Schedule G, Table 1 – Planned rehabilitation specifications*; or

(d) written agreement is obtained from the landowner/holder and administering authority.

Schedule G, Table 1 - Planned rehabilitation specifications

Petroleum activity feature	Rehabilitation Goal	Rehabilitation objectives	Indicators	Completion criteria
Oil Refinery	1. Safe	Site safe for humans and animals	(a) Landform re-established	(a) No subsidence or major erosion gullies
	2. Non-polluting	Sediment and erosion control structures in place Storm water runoff does not pollute nearby watercourses	(a) Sediment traps and design of erosion control measures (b) Surface water monitoring	(a) Certification from suitably qualified and experience person and performance of control structures b) Develop a monitoring program which demonstrates runoff does not adversely impact upon the existing quality of the receiving water(s).
	3. Stable	Minimise erosion	(a) Re-establish surface drainage lines (b) Vegetation cover	(a) no subsidence or areas of major erosion for at least 12 months as assessed on a monthly basis. (b) 65% foliage cover maintained over a 12 month period as assessed on a monthly basis.

SCHEDULE H: DAMS

Low hazard dams

(H1) All low hazard dams must be:

(a) constructed, operated and maintained in accordance with accepted engineering standards currently appropriate for the purpose for which the dam is intended to be used and

(b) designed with a floor and sides made of material that will contain the wetting front and any entrained contaminants within the bounds of the containment system during both its operational life and including any period of decommissioning and rehabilitation.

(H2) In the event of early signs of loss of structural or hydrological integrity of a low hazard dam:

(a) immediate action to prevent or minimise any actual or potential environmental harm must be taken and

(b) any findings and actions taken must be reported in writing to the administering authority within 20 business days of that event.

Monitoring of Low Hazard Dams

(H3) The condition of all low hazard dams must be monitored for early signs of loss of structural or hydraulic integrity, based on the advice of a suitably qualified and experienced person.

SCHEDULE I: DEFINITIONS

Term	Definition
administering authority	means: (a) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 of the *Environmental Protection Act 1994*—the local government; or (b) for all other matters—the Chief Executive of the Department of Environment and Heritage Protection; or another State Government Department, Authority, Storage Operator, Board or Trust, whose role is to administer provisions under other enacted legislation.
alternative arrangement	means a written agreement about the way in which a particular environmental nuisance impact will be dealt with at a sensitive place, and may include an agreed period of time for which the arrangement is in place. An alternative arrangement may include, but is not limited to, a range of nuisance abatement measures to be installed at the sensitive place, or provision of alternative accommodation for the duration of the relevant nuisance impact.
Australian Standard 3580	means any of the following publications: • AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter—Gravimetric method. • AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet—Gravimetric method AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM10 low volume sampler—Gravimetric sampler.
background noise level	means the sound pressure level, measured in the absence of the noise under investigation, as the L A90,T being the A-weighted sound pressure level exceeded for 90 percent of the measurement time period T of not less than 15 minutes, using Fast response.
certification or certified by a suitably qualified and experienced person	in relation to a design plan or an annual report regarding dams, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit at any time: • exactly what is being certified and the precise nature of that certification. • the relevant legislative, regulatory and technical criteria on which the certification has been based; • the relevant data and facts on which the certification has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and • the reasoning on which the certification has been based using the relevant data and facts, and the relevant criteria.
clearing	means: • in relation to grass, scrub or bush—the removal of vegetation by disturbing root systems and exposing underlying soil (including burning), but does not include— ◦ the flattening or compaction of vegetation by vehicles if the vegetation remains living; or ◦ the slashing or mowing of vegetation to facilitate access tracks; or ◦ the clearing of noxious or introduced plant species; and • in relation to trees—cutting down, ringbarking, pushing over, poisoning or destroying in any way.
commercial place	means a work place used as an office or for business or commercial purposes, which is not part of the petroleum activities and does not include employees accommodation or public roads.
construction	in relation to a dam includes building a new dam and modifying or lifting an

Term	Definition
	existing dam.
control measure	has the meaning in section 47 of the Environmental Protection Regulation 2008 and means a device, equipment, structure, or management strategy used to prevent or control the release of a contaminant or waste to the environment.
dam(s)	means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.
design storage allowance or DSA	means an available volume, estimated in accordance with the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635), published by the administering authority, as amended from time to time, that must be provided in a dam to an annual exceedance probability specified in that Manual.
document	has the meaning in the *Acts Interpretation Act 1954* and means: • any paper or other material on which there is writing; and • any paper or other material on which there are marks; and • figures, symbols or perforations having a meaning for a person qualified to interpret them; and any disc, tape or other article or any material from which sounds, images, writings or messages are capable of being produced or reproduced (with or without the aid of another article or device).
environmental nuisance	has the meaning in section 15 of the *Environmental Protection Act 1994 and means* unreasonable interference or likely interference with an environmental value caused by— (a) aerosols, fumes, light, noise, odour, particles or smoke; or (b) an unhealthy, offensive or unsightly condition because of contamination; or (c) another way prescribed by regulation.
fill	means any kind of material in solid form (whether or not naturally occurring) capable of being deposited at a place but does not include material that forms a part of, or is associated with, a structure constructed in a watercourse, wetland or spring including a bridge, road, causeway, pipeline, rock revetment, drain outlet works, erosion prevention structure or fence.
fuel burning or combustion facility	means a permanent fuel burning or combustion equipment which in isolation, or combined in operation, or which are interconnected, is, or are capable of burning more than 500 kg of fuel in an hour.
flowable substance	means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other foreseeable future solution or suspension.
GDA	means Geocentric Datum of Australia.
hazard	in relation to a dam as defined, means the potential for environmental harm resulting from the collapse or failure of the dam to perform its primary purpose of containing, diverting or controlling flowable substances.
high bank	means the defining terrace or bank or, if no bank is present, the point on the active floodplain, which confines the average annual peak flows in a watercourse.
hydraulic integrity	refers to the capacity of a dam to contain or safely pass flowable substances based on its design.
lake	means: (a) a lagoon, swamp or other natural collection of water, whether permanent or intermittent; and (b) the bed and banks and any other element confining or containing the water.
mg/L	means milligrams per litre.
month	has the meaning in the *Acts Interpretation Act 1954* and means a calendar month and is a period starting at the beginning of any day of one (1) of the 12 named months and ending— • immediately before the beginning of the corresponding day of the next named month; or

Term	Definition
	if there is no such corresponding day—at the end of the next named month.
NATA accreditation	means accreditation by the National Association of Testing Authorities Australia.
normal cubic metre (m^3)	means the volume of dry gaseous contaminant which occupies 1 cubic metre at a temperature of zero degrees Celsius and at an absolute pressure of 101.3 kilopascals.
pest	means species: (a) declared under the *Land Protection (Pest and Stock route Management) Act 2002*; (b) declared under Local Government model local laws; and which may become invasive in the future.
prescribed contaminants	has the meaning in section 440ZD of the *Environmental Protection Act 1994* and means: (a) earth; or (b) a contaminant prescribed under section 440ZF.
rehabilitation	means the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.
sensitive place	means: • a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel) • a library, childcare centre, kindergarten, school, university or other educational institution • a medical centre, surgery or hospital • a protected area • a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment • a work place used as an office or for business or commercial purposes, which is not part of the petroleum activity(ies) and does not include employees accommodation or public roads for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008.
significantly disturbed or significant disturbance or significant disturbance to land or areas	has the meaning in Schedule 12, section 4 of the Environmental Protection Regulation 2008. Land is significantly disturbed if— (a) it is contaminated land; or (b) it has been disturbed and human intervention is needed to rehabilitate it— (i) to a condition required under the relevant environmental authority; or (ii) if the environmental authority does not require the land to be rehabilitated to a particular condition—to the condition it was in immediately before the disturbance.
site	means the petroleum authority(ies) to which the environmental authority relates.
spring	means the land to which water rises naturally from below the ground and the land over which the water then flows.
stable	in relation to land, means landform dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.
suitably qualified person	means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.
void	means any man-made, open excavation in the ground (includes borrow pits, drill sumps, frac pits, flare pits, cavitation pits and trenches).
waters	includes all or any part of a creek, river, stream, lake, lagoon, dam, swamp, wetland, spring, unconfined surface water, unconfined water in natural or artificial watercourses, bed and bank of any waters, dams, non-tidal or tidal waters (in-

Term	Definition
	cluding the sea), stormwater channel, stormwater drain, roadside gutter, storm-water run-off, and underground water.
watercourse	means a river, creek or stream in which water flows permanently or intermittently: (a) in a natural channel, whether artificially improved or not; or (b) in an artificial channel that has changed the course of the watercourse; but, in any case, only: (c) unless a regulation under paragraph (d), (e) or (f) declares otherwise-at every place upstream of the point (point A) to which the high spring tide ordinarily flows and reflows, whether due to a natural cause or to an artificial barrier; or (d) if a regulation has declared an upstream limit for the watercourse-the part of the river, creek or stream between the upstream limit and point A; or (e) if a regulation has declared a downstream limit for the watercourse-the part of the river, creek or stream upstream of the limit; or (f) if a regulation has declared an upstream and a downstream limit for the watercourse-the part of the river, creek or stream between the upstream and the downstream limits. Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.
well integrity	the ability of a well to contain the substances flowing through it.
wetland	means an area shown as a wetland on a 'Map of referable wetlands', a document approved by the chief executive (environment). A map of referable wetlands can be viewed at www.ehp.qld.gov.au .

END OF CONDITIONS