Glossary
Units of measurement
References
### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 Hawke Report</td>
<td>Review of the Northern Territory Environmental Assessment and Approval Processes. Dr Allan Hawke AC, 2015</td>
</tr>
<tr>
<td>AAPA</td>
<td>Aboriginal Areas Protection Authority</td>
</tr>
<tr>
<td>ABA</td>
<td>Area-based analysis</td>
</tr>
<tr>
<td>Abandonment</td>
<td>A process which involves shutting down the well and rehabilitating the site. It includes decommissioning the well.</td>
</tr>
<tr>
<td>ACIL Allen</td>
<td>ACIL Allen Consulting Pty Ltd</td>
</tr>
<tr>
<td>ARC</td>
<td>Administrative Review Council</td>
</tr>
<tr>
<td>ACOLA</td>
<td>Australian Council of Learned Academies</td>
</tr>
<tr>
<td>AECOM</td>
<td>AECOM Australia Pty Ltd</td>
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<tr>
<td>AER</td>
<td>Alberta Energy Regulator</td>
</tr>
<tr>
<td>AFANT</td>
<td>Amateur Fishermen’s Association of the Northern Territory</td>
</tr>
<tr>
<td>AHD</td>
<td>Australian Height Datum</td>
</tr>
<tr>
<td>ALEC</td>
<td>Arid Lands Environment Centre</td>
</tr>
<tr>
<td>ANAO</td>
<td>Australian National Audit Office</td>
</tr>
<tr>
<td>Annulus</td>
<td>The space between surrounding pipe and wellbore.</td>
</tr>
<tr>
<td>APEEL</td>
<td>Australian Panel of Experts on Environmental Law</td>
</tr>
<tr>
<td>APPEA</td>
<td>Australian Petroleum Production and Exploration Association</td>
</tr>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
</tr>
<tr>
<td>ARC</td>
<td>Administrative Review Council</td>
</tr>
<tr>
<td>ASIC</td>
<td>Australian Securities and Investment Commission</td>
</tr>
<tr>
<td>AusRivAS</td>
<td>Australian River Assessment System</td>
</tr>
<tr>
<td>BC</td>
<td>British Columbia, Canada</td>
</tr>
<tr>
<td>BCOGC</td>
<td>BC Oil and Gas Commission</td>
</tr>
<tr>
<td>Beetaloo Sub-basin Case Study</td>
<td>Beetaloo Sub-basin Social Impact Assessment Case Study, Coffey Services Australia Pty Ltd, 17 January 2018</td>
</tr>
<tr>
<td>Beetaloo Sub-basin SIA Report</td>
<td>Beetaloo Sub-basin Social Impact Assessment Summary Report, Coffey Services Australia Pty Ltd, 17 January 2018</td>
</tr>
<tr>
<td>BOM</td>
<td>Bureau of Meteorology</td>
</tr>
<tr>
<td>BOP</td>
<td>Blowout preventer equipment installed on the wellhead assemblies to contain wellbore fluids either in the annular space between casing and the tubulars, or in an open hole during well drilling, completion, and testing operations.</td>
</tr>
<tr>
<td>BTEX</td>
<td>Benzene, toluene, ethylbenzene, xylenes</td>
</tr>
<tr>
<td>Casing</td>
<td>A pipe placed in a well to prevent the wall of the hole from caving in and to prevent movement of fluids from one formation to another.</td>
</tr>
<tr>
<td>Casing string</td>
<td>Steel pipe used to line a well and support the rock. The casing extends to the surface and is sealed by a cement sheath between the casing and the rock. Often, multiple casings are used to provide additional barriers between the formation and well.</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>Cementing</td>
<td>The application of a liquid slurry of cement and water to various points inside and outside the casing.</td>
</tr>
<tr>
<td>CBL</td>
<td>Cement Bond Log. A key method for testing the integrity of cement used in the construction of the well, especially whether the cement is adhering effectively to both sides of the annulus between casings or between the outer casing and the rock sides.</td>
</tr>
<tr>
<td>CBI</td>
<td>Confidential business information</td>
</tr>
<tr>
<td>CCF</td>
<td>Community Capital Framework</td>
</tr>
<tr>
<td>CCGT</td>
<td>Combined-cycle gas turbine (power plant)</td>
</tr>
<tr>
<td>CCSG</td>
<td>University of Queensland Centre for Coal Seam Gas</td>
</tr>
<tr>
<td>CEM</td>
<td>Conceptual Exposure Model</td>
</tr>
<tr>
<td>Central Petroleum</td>
<td>Central Petroleum Limited</td>
</tr>
<tr>
<td>CET</td>
<td>Clean energy target</td>
</tr>
<tr>
<td>CGE</td>
<td>Computable general equilibrium</td>
</tr>
<tr>
<td>CH₄</td>
<td>Methane</td>
</tr>
<tr>
<td>Christmas tree</td>
<td>Control valves, pressure gauges and chokes assembled at the top of a well to control the flow of gas after the well has been drilled and completed.</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence interval</td>
</tr>
<tr>
<td>CLA</td>
<td>Cambrian Limestone Aquifer</td>
</tr>
<tr>
<td>CLC</td>
<td>Central Land Council</td>
</tr>
<tr>
<td>CLP</td>
<td>Country Liberal Party</td>
</tr>
<tr>
<td>CMA</td>
<td>Cumulative management area</td>
</tr>
<tr>
<td>CNS</td>
<td>Central nervous system</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>COAG</td>
<td>Council of Australian Governments Energy Council</td>
</tr>
<tr>
<td>CoC</td>
<td>Chemicals of concern</td>
</tr>
<tr>
<td>Coffey</td>
<td>Coffey Services Australia Pty Ltd</td>
</tr>
<tr>
<td>Coffey reports</td>
<td>Reports prepared by Coffey:</td>
</tr>
<tr>
<td></td>
<td>• CSRM Report</td>
</tr>
<tr>
<td></td>
<td>• Beetaloo Sub-basin SIA Report</td>
</tr>
<tr>
<td></td>
<td>• Beetaloo Sub-basin Case Study; and</td>
</tr>
<tr>
<td></td>
<td>• CSIRO Report</td>
</tr>
<tr>
<td>COP21</td>
<td>Conference of the Parties, United Nations Framework Convention on Climate Change, 21st session. See ‘Paris Agreement’.</td>
</tr>
<tr>
<td>CRS</td>
<td>Chronic rhinosinusitis</td>
</tr>
<tr>
<td>CSG</td>
<td>Coal seam gas</td>
</tr>
<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
</tr>
<tr>
<td>CSM</td>
<td>Conceptual site model</td>
</tr>
<tr>
<td>CSRM</td>
<td>Centre for Social Responsibility in Mining (University of Queensland)</td>
</tr>
<tr>
<td>DDPHU</td>
<td>Darling Downs Public Health Unit</td>
</tr>
<tr>
<td>Deloitte</td>
<td>Deloitte Access Economics</td>
</tr>
<tr>
<td>DENR</td>
<td>Department of Environment and Natural Resources (NT)</td>
</tr>
<tr>
<td>DIDO</td>
<td>Drive-in drive-out worker</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>DIPL</td>
<td>Department of Infrastructure, Planning and Logistics (NT)</td>
</tr>
<tr>
<td>DLs</td>
<td>Detection limits</td>
</tr>
<tr>
<td>Drilling fluid/mud</td>
<td>Circulating fluid that lifts rock cuttings from the wellbore to the surface during the drilling operation. Also functions to cool down the drill bit, and is a component of well control.</td>
</tr>
<tr>
<td>DPIR</td>
<td>Department of Primary Industry and Resources (NT)</td>
</tr>
<tr>
<td>Draft Final Report</td>
<td>Draft Final Report, published December 2017</td>
</tr>
<tr>
<td>EAA</td>
<td>Environmental Assessment Act 1982 (NT)</td>
</tr>
<tr>
<td>EDO</td>
<td>Environmental Defenders Office NT</td>
</tr>
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<td>EDOA</td>
<td>Environmental Defenders Offices of Australia</td>
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<tr>
<td>EIS</td>
<td>Environmental impact statement</td>
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<td>EMP</td>
<td>Environment management plan</td>
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<tr>
<td>EnRiskS</td>
<td>Environment Risk Sciences</td>
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<tr>
<td>EO</td>
<td>Environmental objective</td>
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<tr>
<td>EP</td>
<td>Petroleum exploration permit under the Petroleum Act 1984 (NT)</td>
</tr>
<tr>
<td>EP Act</td>
<td>Environment Protection Act - proposed new environmental legislation</td>
</tr>
<tr>
<td>EPA</td>
<td>Northern Territory Environment Protection Authority</td>
</tr>
<tr>
<td>EPBC Act</td>
<td>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</td>
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<tr>
<td>EPO</td>
<td>Environmental protection order</td>
</tr>
<tr>
<td>ERA</td>
<td>Economic Regulation Authority</td>
</tr>
<tr>
<td>ESD</td>
<td>Ecologically sustainable development</td>
</tr>
<tr>
<td>EUR</td>
<td>Estimated ultimate recoveries</td>
</tr>
<tr>
<td>EV</td>
<td>Environmental values</td>
</tr>
<tr>
<td>Exploration activity</td>
<td>Any physical activity associated with drilling and hydraulic fracturing (which may include cleaning and/or well construction) pursuant to the granting of exploration approvals for onshore shale gas on an exploration permit.</td>
</tr>
<tr>
<td>Exploration approvals</td>
<td>All operational approvals under the Schedule and all environmental approvals under the Petroleum Environment Regulations granted on an exploration permit for an exploration activity.</td>
</tr>
<tr>
<td>Exploration creep</td>
<td>Large numbers of exploration wells being drilled and hydraulically fractured pursuant to exploration approvals granted on an exploration permit.</td>
</tr>
<tr>
<td>FIFO</td>
<td>Fly-in fly-out worker</td>
</tr>
<tr>
<td>Flowback</td>
<td>Allowing fluids to flow from the well following a hydraulic fracturing treatment. Flowback fluid is composed of a mixture of hydraulic fracturing fluid and formation fluid.</td>
</tr>
<tr>
<td>Formation fluid</td>
<td>Any fluid within the pores of the rock. It may be water, oil, gas or a mixture. Formation water in shallow aquifers can be fresh. Formation water in deeper layers of rock is typically saline.</td>
</tr>
<tr>
<td>FPIC</td>
<td>Free, prior, and informed consent</td>
</tr>
<tr>
<td>Fracking</td>
<td>See ‘hydraulic fracturing’</td>
</tr>
<tr>
<td>Framework</td>
<td>NT Water Allocation Planning Framework</td>
</tr>
<tr>
<td>FTE</td>
<td>Full time equivalent</td>
</tr>
<tr>
<td>Fugitive emissions</td>
<td>Intentional and unintentional release of greenhouse gases during the production, processing, transport, storage, transmission and distribution of fossil fuels.</td>
</tr>
<tr>
<td>GAB</td>
<td>Great Artesian Basin</td>
</tr>
<tr>
<td>GDE</td>
<td>Groundwater dependent ecosystems</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse gases</td>
</tr>
<tr>
<td>GISERA</td>
<td>Gladstone Liquefied Natural Gas</td>
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<tr>
<td>GLNG</td>
<td>Gas Industry Social and Environmental Research Alliance</td>
</tr>
<tr>
<td>Government</td>
<td>Northern Territory Government</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>GSP</td>
<td>Gross State product</td>
</tr>
<tr>
<td>GST</td>
<td>Goods and services tax</td>
</tr>
<tr>
<td>GWP</td>
<td>Global warming potential</td>
</tr>
<tr>
<td>H2S</td>
<td>Hydrogen sulfide</td>
</tr>
<tr>
<td>Hancock Prospecting</td>
<td>Hancock Prospecting Pty Ltd</td>
</tr>
<tr>
<td>HDPE</td>
<td>High-density polyethylene</td>
</tr>
<tr>
<td>HELE</td>
<td>High efficiency, low emissions power generation</td>
</tr>
<tr>
<td>Heritage Act</td>
<td>Heritage Act 2011 (NT)</td>
</tr>
<tr>
<td>HFF</td>
<td>Hydraulic fracturing fluid</td>
</tr>
<tr>
<td>HHRA</td>
<td>Human health risk assessment</td>
</tr>
<tr>
<td>HI</td>
<td>Hazard index</td>
</tr>
<tr>
<td>HIA</td>
<td>Health impact assessment</td>
</tr>
<tr>
<td>Horizontal drilling</td>
<td>Drilling of a well in a horizontal or near-horizontal plane, usually within the target hydrocarbon-bearing formation. Requires the use of directional drilling techniques that allow the deviation of the well on to a desired trajectory.</td>
</tr>
<tr>
<td>Hydraulic fracturing</td>
<td>Also known as ‘fracking’, ‘fraccing’ or ‘fracture simulation’. This is a process by which geological formations bearing hydrocarbons (oil and gas) are ‘stimulated’ to increase the flow of hydrocarbons and other fluids towards the well. In most cases, hydraulic fracturing is undertaken where the permeability of the formation is initially insufficient to support sustained flow of gas. The process involves the injection of fluids, proppant and additives under high pressure into a geological formation to create a conductive fracture. The fracture extends from the well into the production interval, creating a pathway through which oil or gas is transported to the well.</td>
</tr>
<tr>
<td>Hydraulic fracturing fluid</td>
<td>The fluid injected into a well for hydraulic fracturing. Consists of a primary carrier fluid (usually water or a gel), a proppant such as sand and chemicals to modify the fluid properties.</td>
</tr>
<tr>
<td>IBRA</td>
<td>International Biogeographic Regionalisation for Australia</td>
</tr>
<tr>
<td>IEA</td>
<td>International Energy Agency</td>
</tr>
<tr>
<td>IMAP</td>
<td>Inventory Multi-tiered Assessment and Prioritisation</td>
</tr>
<tr>
<td>Impact</td>
<td>The difference between what happens as a result of activities and processes, and what happens without them. Impacts can be changes that occur to the natural environment, community or economy. They can be a direct or indirect result of activities, or a cumulative result of multiple activities or processes.</td>
</tr>
<tr>
<td>Interim Report</td>
<td>Interim Report, published July 2017</td>
</tr>
<tr>
<td>Indigenous land</td>
<td>Land under the Land Rights Act and the Native Title Act</td>
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<tr>
<td>Inquiry</td>
<td>Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs and Associated Activities in the Northern Territory</td>
</tr>
<tr>
<td>IPA</td>
<td>Indigenous Protected Areas</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
</tr>
<tr>
<td>ISO</td>
<td>International Standards Organisation</td>
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<tr>
<td>Issues Paper</td>
<td>Background and Issues Paper, published February 2017</td>
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<tr>
<td>KTP</td>
<td>Key threatening process</td>
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<tr>
<td>Land Access Guidelines</td>
<td>Stakeholder Engagement Guidelines Land Access</td>
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<tr>
<td>Land Rights Act</td>
<td>Aboriginal Land Rights (Northern Territory) Act 1976 (Cth)</td>
</tr>
<tr>
<td>Lazarus Report</td>
<td>Senate Select Committee on Unconventional Gas Mining Interim Report. Chaired by Senator Glenn Lazarus in 2016</td>
</tr>
<tr>
<td>LCOE</td>
<td>Levelised cost of electricity</td>
</tr>
<tr>
<td>LEC</td>
<td>Land and Environment Court of NSW</td>
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<tr>
<td>LNG</td>
<td>Liquefied natural gas</td>
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<td>Lock the Gate</td>
<td>Lock the Gate Alliance</td>
</tr>
<tr>
<td>LULUCF</td>
<td>Land use, land-use change and forestry</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>MAR</td>
<td>Managed aquifer recharge</td>
</tr>
<tr>
<td>MEI</td>
<td>Melbourne Energy Institute</td>
</tr>
<tr>
<td>Minister for Environment</td>
<td>Northern Territory Minister for Environment and Natural Resources</td>
</tr>
<tr>
<td>Minister for Resources</td>
<td>Northern Territory Minister for Primary Industry and Resources</td>
</tr>
<tr>
<td>MNES</td>
<td>Matters of national environmental significance</td>
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<tr>
<td>Montara Inquiry</td>
<td>Montara Commission of Inquiry</td>
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<tr>
<td>MSDS</td>
<td>Material Safety Data Sheets</td>
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<tr>
<td>NAIF</td>
<td>Northern Australia Infrastructure Facility</td>
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<td>NARMCO</td>
<td>North Australian Rural Management Consultants Pty Ltd</td>
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<tr>
<td>Native Title Act</td>
<td>Native Title Act 1993 (Cth)</td>
</tr>
<tr>
<td>Native title land</td>
<td>Land subject to a native title application or determination under the Native Title Act 1993 (Cth).</td>
</tr>
<tr>
<td>NCRA</td>
<td>National Chemicals Risk Assessment</td>
</tr>
<tr>
<td>NEPM</td>
<td>National Environment Protection Measure</td>
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<tr>
<td>NETL</td>
<td>US National Energy Technology Laboratory</td>
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<tr>
<td>NGER</td>
<td>National Greenhouse and Energy Reporting</td>
</tr>
<tr>
<td>NGGI</td>
<td>National Greenhouse Gas Inventory</td>
</tr>
<tr>
<td>NGP</td>
<td>Northern gas pipeline</td>
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<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<tr>
<td>NICNAS</td>
<td>National Industrial Chemicals Notification and Assessment Scheme</td>
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<tr>
<td>NIR</td>
<td>National Inventory Report</td>
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<tr>
<td>NLC</td>
<td>Northern Land Council</td>
</tr>
<tr>
<td>NNTT</td>
<td>National Native Title Tribunal</td>
</tr>
<tr>
<td>N2O</td>
<td>Nitrous oxide</td>
</tr>
<tr>
<td>NOPSEMA</td>
<td>National Offshore Petroleum Safety and Environmental Management Authority</td>
</tr>
<tr>
<td>NORM</td>
<td>Naturally occurring radioactive materials. Radioactive elements and their decay products found in the environment that have been generated from natural processes.</td>
</tr>
<tr>
<td>NOx</td>
<td>Oxides of nitrogen</td>
</tr>
<tr>
<td>NSPS</td>
<td>US EPA New Source Performance Standards</td>
</tr>
<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>NTA</td>
<td>Native Title Act 1993 (Cth)</td>
</tr>
<tr>
<td>NT</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>NTCA</td>
<td>Northern Territory Cattlemen’s Association</td>
</tr>
<tr>
<td>NTCAT</td>
<td>Northern Territory Civil and Administrative Tribunal</td>
</tr>
<tr>
<td>OCGT</td>
<td>Open cycle gas turbine</td>
</tr>
<tr>
<td>OGI</td>
<td>Optical gas imaging</td>
</tr>
<tr>
<td>OGIA</td>
<td>Office of Groundwater Impact Assessment</td>
</tr>
<tr>
<td>OR</td>
<td>Odds ratio (a measure of association between exposure and outcome)</td>
</tr>
<tr>
<td>Overpressure</td>
<td>Occurs when the pore pressure is higher than the hydrostatic pressure, caused by an increase in the amount of fluid or gas in the rock, or changes to the rock that reduce the amount of pore space. If the fluid cannot escape, the result is an increase in pore pressure. Overpressure can only occur where there are impermeable layers preventing the vertical flow of water, otherwise the water would flow upwards to equalise back to hydrostatic pressure.</td>
</tr>
<tr>
<td>Origin</td>
<td>Origin Energy Limited</td>
</tr>
<tr>
<td>OSGR</td>
<td>Onshore Shale Gas Regulator</td>
</tr>
<tr>
<td>Panel</td>
<td>The scientific panel appointed by the Chief Minister to conduct the Inquiry</td>
</tr>
<tr>
<td>Pangaea</td>
<td>Pangaea Resources Pty Ltd</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<td>-----------------------------</td>
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<tr>
<td>Pastoral Land Act</td>
<td>Pastoral Land Act 1992 (NT)</td>
</tr>
<tr>
<td>Pastoral Lease</td>
<td>Pastoral leases granted under the Pastoral Land Act 1992 (NT)</td>
</tr>
<tr>
<td>Pastoral lessee/ pastoralist</td>
<td>Holder of a pastoral lease under the Pastoral Land Act 1992 (NT)</td>
</tr>
<tr>
<td>Perforation</td>
<td>A channel created through the casing and cement in a well to allow fluid to flow between the well and the reservoir (hydraulic fracturing fluids into the reservoir, or gas and oil into the well). The most common method uses perforating guns equipped with shaped explosive charges that produce a jet.</td>
</tr>
<tr>
<td>Permeability</td>
<td>The measure of the ability of a rock, soil or sediment to yield or transmit a fluid. The magnitude of permeability depends largely on the porosity and the interconnectivity of pores and spaces in the ground.</td>
</tr>
<tr>
<td>Petroleum Act</td>
<td>Petroleum Act 1984 (NT)</td>
</tr>
<tr>
<td>Petroleum Environment Regulations</td>
<td>Petroleum (Environment) Regulations 2016 (NT)</td>
</tr>
<tr>
<td>Petroleum permittee</td>
<td>Holder of a petroleum exploration permit under the Petroleum Act 1984 (NT)</td>
</tr>
<tr>
<td>Petroleum Regulations</td>
<td>Petroleum Regulations 1994 (NT)</td>
</tr>
<tr>
<td>Plug</td>
<td>A mechanical device or material (such as cement) placed within a well to prevent vertical movement of fluids.</td>
</tr>
<tr>
<td>PM</td>
<td>Particulate matter</td>
</tr>
<tr>
<td>Pressure test</td>
<td>A method of testing well integrity by raising the internal pressure of the well up to maximum expected design parameters.</td>
</tr>
<tr>
<td>Production activity</td>
<td>Any physical activity associated with drilling and hydraulic fracturing (which may include clearing and/or well construction) pursuant to the granting of production approvals for onshore shale gas on a production licence.</td>
</tr>
<tr>
<td>Production approvals</td>
<td>All operational approvals granted under the Schedule and all environmental approvals granted under the Petroleum Environment Regulations on a production licence for a production activity.</td>
</tr>
<tr>
<td>Production casing</td>
<td>A casing string that is set across the reservoir interval and within which the primary completion components are installed.</td>
</tr>
<tr>
<td>Production zone</td>
<td>Hydrocarbon producing zone of the shale formation.</td>
</tr>
<tr>
<td>Proppant</td>
<td>A component of the hydraulic fracturing fluid system comprised of sand, ceramics or other granular material that ‘prop’ open fractures to prevent them from closing when the injection is stopped.</td>
</tr>
<tr>
<td>RECs</td>
<td>Reduced emission completions</td>
</tr>
<tr>
<td>Risk</td>
<td>The probability of an adverse effect in an organism, system or population (or subpopulation) caused under specified circumstances by exposure to an agent.</td>
</tr>
<tr>
<td>RMPs</td>
<td>Regional Management Plans</td>
</tr>
<tr>
<td>SA</td>
<td>South Australia</td>
</tr>
<tr>
<td>Sacred Sites Act</td>
<td>Northern Territory Aboriginal Sacred Sites Act 1989 (NT)</td>
</tr>
<tr>
<td>Santos</td>
<td>Santos Ltd</td>
</tr>
<tr>
<td>Schedule</td>
<td>Schedule of Onshore Petroleum Exploration and Production Requirements 2016 (NT)</td>
</tr>
<tr>
<td>Seismic survey</td>
<td>A method for imaging the subsurface using controlled seismic energy sources and receivers at the surface. Measures the reflection and refraction of seismic energy as it travels through rock.</td>
</tr>
<tr>
<td>SIA</td>
<td>Social impact assessment</td>
</tr>
<tr>
<td>SLO</td>
<td>Social licence to operate</td>
</tr>
<tr>
<td>SREBA</td>
<td>Strategic regional environmental and baseline assessment</td>
</tr>
<tr>
<td>SCVF</td>
<td>Surface casing vent flow. Flow of gas from a vent in the annulus between surface casing and other casing strings in a well.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SCP</td>
<td>Sustained casing pressure. Sustained pressure in the annulus between casing strings.</td>
</tr>
<tr>
<td>TAMEST</td>
<td>The Academy of Medicine, Engineering and Science of Texas.</td>
</tr>
<tr>
<td>TAP</td>
<td>Threat abatement plan.</td>
</tr>
<tr>
<td>TDS</td>
<td>Total dissolved salts.</td>
</tr>
<tr>
<td>TMP</td>
<td>Traffic management plans.</td>
</tr>
<tr>
<td>TWP</td>
<td>Total warming potential.</td>
</tr>
<tr>
<td>UGE</td>
<td>Unconventional gas extraction.</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom.</td>
</tr>
<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change.</td>
</tr>
<tr>
<td>UQ</td>
<td>University of Queensland.</td>
</tr>
<tr>
<td>US</td>
<td>United States of America or United States.</td>
</tr>
<tr>
<td>US EPA</td>
<td>United States Environmental Protection Agency.</td>
</tr>
<tr>
<td>USGS</td>
<td>United States Geological Survey.</td>
</tr>
<tr>
<td>VOCs</td>
<td>Volatile organic compounds.</td>
</tr>
<tr>
<td>WA</td>
<td>Western Australia.</td>
</tr>
<tr>
<td>WAP</td>
<td>Water Allocation Plan.</td>
</tr>
<tr>
<td>Waste Mgmt</td>
<td>Waste Management and Pollution Control Act 1998 (NT).</td>
</tr>
<tr>
<td>WCD</td>
<td>Water Control District.</td>
</tr>
<tr>
<td>Weeds Act</td>
<td>Weeds Management Act 2001 (NT).</td>
</tr>
<tr>
<td>Well barrier</td>
<td>Envelope of one or several dependent barrier elements (including casing, cement, and any other downhole or surface sealing components) that prevent fluids from flowing unintentionally between a bore or a well and geological formations, between geological formations or to the surface.</td>
</tr>
<tr>
<td>Well integrity</td>
<td>The International Standards organisation defines well integrity as, “well integrity refers to maintaining full control of fluids (or gases) within a well at all times by employing and maintaining one or more well barriers to prevent unintended fluid (gas or liquid) movement between formations with different pressure regimes, or loss of containment to the environment.”</td>
</tr>
<tr>
<td>Well integrity failure</td>
<td>Can result from a well breach (or a number of well breaches) and can take the form of a hydrological breach (fluid moves between different geological units) or an environmental breach (fluid leaks from the well and contaminates water resources).</td>
</tr>
<tr>
<td>Well pad</td>
<td>The area of land on which the surface infrastructure for drilling and hydraulic fracturing operations are placed. The size of a well pad depends on the type of operation (for example, well pads are larger during the initial drilling and HF than at production).</td>
</tr>
<tr>
<td>WIMS</td>
<td>Well integrity management system.</td>
</tr>
<tr>
<td>Zonal isolation</td>
<td>Exclusion of fluids such as water or gas in one zone from mixing with fluids in another zone.</td>
</tr>
</tbody>
</table>
## Units of measurement

<table>
<thead>
<tr>
<th>Unit</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Bcm</td>
<td>Billion cubic metres</td>
</tr>
<tr>
<td>CO₂e</td>
<td>Carbon dioxide equivalent. A metric for the measurement of the global warming potential of a substance.</td>
</tr>
<tr>
<td>EC</td>
<td>Electrical conductivity</td>
</tr>
<tr>
<td>EUR</td>
<td>Estimated Ultimate Recoveries</td>
</tr>
<tr>
<td>GL</td>
<td>Gigalitre</td>
</tr>
<tr>
<td>GL/y</td>
<td>Gigalitres per year</td>
</tr>
<tr>
<td>GWP</td>
<td>Global Warming Potential</td>
</tr>
<tr>
<td>ha</td>
<td>Hectare (10,000 m²)</td>
</tr>
<tr>
<td>km</td>
<td>Kilometre</td>
</tr>
<tr>
<td>km²</td>
<td>Kilometre squared</td>
</tr>
<tr>
<td>L</td>
<td>Litre</td>
</tr>
<tr>
<td>L/s</td>
<td>Litres per second</td>
</tr>
<tr>
<td>L/min</td>
<td>Litres per minute</td>
</tr>
<tr>
<td>m³</td>
<td>Metres cubed</td>
</tr>
<tr>
<td>mg/L</td>
<td>Miligrams per litre</td>
</tr>
<tr>
<td>MJ</td>
<td>Megajoule (1 joule x 10⁶)</td>
</tr>
<tr>
<td>ML</td>
<td>Megalitre (1 litre x 10⁶)</td>
</tr>
<tr>
<td>ML/y</td>
<td>Megalitres per year</td>
</tr>
<tr>
<td>mm</td>
<td>Millimetre</td>
</tr>
<tr>
<td>mmcf/d</td>
<td>Million cubic feet per day</td>
</tr>
<tr>
<td>mm/y</td>
<td>Millimetres per year</td>
</tr>
<tr>
<td>mS/cm</td>
<td>Millisiemens per centimetre (- 1000 uS/cm)</td>
</tr>
<tr>
<td>Mt CO₂e</td>
<td>Million tonnes of carbon dioxide equivalent</td>
</tr>
<tr>
<td>Mₘₙ</td>
<td>Moment magnitude. The moment magnitude scale is based on the total moment release of the earthquake. Moment magnitude estimates are about the same as Richter magnitudes for small to large (ie &lt;8) earthquakes.</td>
</tr>
<tr>
<td>MWh</td>
<td>Megawatt-hour</td>
</tr>
<tr>
<td>PJ</td>
<td>Petajoules</td>
</tr>
<tr>
<td>t</td>
<td>Tonne (1,000 kg)</td>
</tr>
<tr>
<td>Tcf</td>
<td>Trillion cubic feet</td>
</tr>
<tr>
<td>TDS</td>
<td>Total dissolved salts</td>
</tr>
<tr>
<td>Tj</td>
<td>Terajoule (1 joule x 10²⁵)</td>
</tr>
<tr>
<td>Tj/d</td>
<td>Terajoule (1 joule x 10²⁵) per day</td>
</tr>
<tr>
<td>TOC</td>
<td>Total organic content</td>
</tr>
<tr>
<td>TSS</td>
<td>Total suspended solids</td>
</tr>
<tr>
<td>uS/cm</td>
<td>Microsiemens per centimetre</td>
</tr>
</tbody>
</table>
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