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The following terms are used in the oil and gas industry

Abandoned – A well that is permanently closed off when no viable hydrocarbons are discovered or it is depleted and no longer capable of producing profitably.

Abandonment – Converting a drilled well to a condition that can be left indefinitely without further attention and will not damage freshwater supplies, potential petroleum reservoirs, or the environment.

Agricultural Land Reserve (ALR) – The Agricultural Land Reserve (ALR) is a provincial zone in which agriculture is recognized as the priority use. Farming is encouraged and non-agricultural uses are controlled.

Agricultural Land Commission (ALC) – The ALC is an independent Crown agency whose mission is to preserve agricultural land.

Appropriate Dispute Resolution (ADR) – A process for resolving conflicts between parties. It can include direct negotiations, facilitated sessions, mediations, or arbitration.

Aquifer – The underground layer of water-soaked sand and rock that acts as a water source for a well.

Best practices – Management practices or techniques recognized to be the most effective and practical means to develop the resource, while minimizing adverse environmental and other effects.

Blowout – An uncontrolled flow of gas, oil, or other fluids from a well.

Blowout preventor (BOP) – Equipment installed on the wellhead to prevent the escape of fluids under pressure from the wellbore during drilling, completion, or workover operations. The BOP stack incorporates different sets of hydraulic rams enabling the well to be sealed with or without pipe in the hole, pumping of fluids into the well under pressure, and controlled release of fluids from the well.

Borehole – The wellbore; the hole made by drilling or boring a well.

Bottom hole pressure – The pressure in a well at the bottom of the hole, usually measured in pounds per square inch (psi).

Borrow pit – An area where gravel or sand has been removed for use somewhere else.

Casing – pipe or tubing of appropriate material, diameter and weight used to support the sides of a well hole and prevent the walls from caving, to prevent loss of drilling mud into porous formations, or to prevent fluid from entering or leaving the well.

CAODC – Canadian Association of Oilwell Drilling Contractors.

Cavitation – Creation of a cavity around the wellbore in a coal formation generally using high pressure water jets to increase the area of the coal exposed to the wellbore.

Cementing – Permanently securing the casing to the wellbore or plugging and sealing the wellbore.

Cement plug – A plug of cement slurry placed in the wellbore to seal the well.

Certificate of restoration – A document issued by the Oil and Gas Commission certifying that an abandoned wellsite has been restored to meet regulatory requirements.

Coalbed gas (CBG) – The natural gas found in most coal deposits; it is formed during coalification, a process that converts deposits of plant material into coal. It is also referred to as coalbed methane (CBM) or natural gas in coal (NGC).

Completed well – A well that has had the necessary work done to enable production.

Completion – The process of finishing a well so that it is ready to produce gas.

Compressor – A machine used to boost natural gas pressure to move it through pipelines or other facilities.

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Condensate – A low-density mixture of hydrocarbon liquids that are present as gaseous components in the raw natural gas produced from many natural gas fields.

Conventional natural gas – Natural gas consisting of a mixture of hydrocarbon compounds, primarily methane, and small quantities of various non-hydrocarbons.

Core – A cylindrical borehole sample taken from a well or test hole for analysis of various properties of the formation, including porosity, permeability, fluid content, and geological age.

Crown land – Land and land covered by water owned by the Province

CSA – Canadian Standards Association.

Delineation well – A well that extends the boundary of a previously discovered pool.

Dehydrator – Equipment used to remove water from the natural gas

Desorption – The process of detaching methane adsorbed onto coal by de-pressuring the coal seam through dewatering and other methods.

Development well – A well drilled in or adjacent to a proven part of a pool to optimise production.

Dewatering – The process of removing water from a coal seam in the vicinity of a producing gas well. Dewatering is required to reduce pressure within the coal seam, which in turn allows the methane gas to be released from the coal.

Disposal well – A well, commonly a depleted oil or gas well, into which waste fluids can be injected for safe disposal. Disposal wells require regulatory approvals.

Directional drilling – A well drilled at an angle from the vertical. This method can be used when local topography (e.g. river banks or other water bodies) prevents vertical drilling. Under normal conditions, vertical drilling is used (i.e. the bottom of the hole is located beneath the drill rig).

Diverter – A device used to direct fluids flowing from a well away from the drilling rig.

Drill bit – Interchangeable diamond tipped drill bit.

Drilling fluid (Mud) – The circulating fluid used to bring drilling cuttings out of the well bore, cool the drill bit and provide hole stability and pressure control

Drill Pipe – Steel pipe sections of about 9 m in length that are screwed together to form a continuous pipe extending from the drilling rig to the drilling bit at the bottom of the hole. Rotation of the drill pipe and bit causes the bit to bore through the rock.

Drill-stem test – A method of gathering data on the potential productivity of a geological formation before installing casing in a well. A drill stem test records pressure and fluid recovery data from which formation characteristics can be inferred.

Down-hole disposal – The disposal of formation water and drilling and waste fluids down a wellbore in a deep formation not in communication with an aquifer.

Drill string – Connected sections of drill pipe.

Emergency response plan (ERP) – ERPs are pre-planned responses to incidents to ensure protection of public health, safety, property and the environment and quick and effective responses (ERP Information sheet # 12).

Exploratory well – A well drilled in an unproven area or geological formation where no oil or gas production exists nearby.

Flaring – The burning of natural gas that cannot be conserved. It is restricted primarily to short term testing, well workovers, or exceedingly rare emergency situations.

Formation – A designated geological subsurface layer that is composed of substantially the same kind of rock or rock types.

Fracturing (or fracing) – A method of improving the permeability of a reservoir by

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pumping fluids such as water or carbon dioxide and nitrogen into the reservoir at sufficient pressure to crack or fracture the rock.

Freehold oil and gas rights – Mineral rights not owned by the Province. The Federal Government, First Nations, corporations, or individuals may own these mineral rights.

Footprint – A company or organization’s environmental impact (resource use, waste generation, physical environmental changes, etc.).

Fugitive emissions - Unintentional releases of gas or fumes resulting from production, processing, transmission, storage, and delivery of gas. This may occur from breaks or small cracks in seals, tubing, valves and pipelines, or when lids or caps on equipment or tanks have not been properly closed or tightened.

Gathering system – The pipelines and other infrastructure that move raw gas from the wellhead to processing and transmission facilities.

Geophysical exploration – The study of the physics of the Earth, especially its electrical, gravitational and magnetic fields and propagation of elastic (seismic) waves within it. Geophysical data are used by exploration and development personnel to make predictions about the presence, nature and size of subsurface hydrocarbon accumulations.

Good engineering practice (GEP) scheme – A scheme approved by the OGC under regulation for the exploration, evaluation and development of petroleum and natural gas.

Groundwater – Water that occurs below surface, either in unconsolidated materials (ex. Sand and gravel) or within bedrock.

Horizontal well – A horizontal extension to the bottom hole well location to facilitate production.

Hydraulic fracturing or fracking – The practice of pumping special fluids down the wellbore under high pressure; hydraulic fracturing causes the formation to crack open, creating passages for the reservoir

hydrocarbons to more easily flow into the wellbore.

Hydrogen sulphide (H₂S)– commonly known as sour gas. H₂S is colourless and smells like rotten eggs at low concentrations and is not detectable by odour at high concentrations. It is heavier than air and is flammable and may pose a public safety hazard if released at higher concentrations?

In-place resource (resource potential) – The quantity of oil or gas remaining in known accumulations plus those quantities already produced from known accumulations plus those quantities in accumulations yet to be discovered.

Kill – To prevent the threatened blowout of a well or to stop a blowout in progress, usually accomplished by the pumping of heavy fluids under pressure into the wellbore to overbalance (exceed) the formation pressure.

Lease – a legal document conveying the right to drill for oil and gas, or the tract of land on which a lease has been obtained where the producing wells and production equipment are located.

Log – A detailed depth-related record of geological, formation attribute, and hydrocarbon potential data obtained by lowering measurement instruments into a well.

Marginal well – A well that, for reasons of depletion or natural low productivity, is nearing the limits of viable production and profitability.

Migration – Movement from one place to another.

Methane –The most prevalent and common component of most natural gas produced in British Columbia.

Observation well – A non-producing well used to monitor pool pressure, usually included in annual pressure testing surveys.

Oil battery – A system or arrangement of tanks or other surface equipment or devices receiving the effluent of one or more wells for the purpose of separation and measurement

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prior to the delivery to market or other disposition.

Open hole – A wellbore in which casing has not been set.

Operator – The company or individual responsible for managing an exploration, development or production operation.

Perforate – Make holes through the casing and cement opposite the producing formation to allow gas to flow into the well.

Permeability – The capacity of a reservoir rock or coal seam to transmit fluids; how easily fluids can pass through rock.

Pool – A natural underground reservoir containing an accumulation of oil or gas or both, separated or appearing to be separated from any other accumulation.

Porosity – The volume of spaces within rock or coal seam that might contain oil and gas (like the amount of water a sponge can hold); the open or void space within rock.

Producer cost of service allowance – An allowance against royalties to cover the costs of gathering and processing natural gas for sale, and the costs of conserving conservation gas.

Produced water – The water extracted from the subsurface along with produced oil and gas, including water from the reservoir, water that has been injected into the formation, and any chemicals added during the production/treatment process.

Proppant – Sand (or ceramic beads) suspended in drilling fluid during fracturing job to keep (prop) open the cracks in the rock when the fluid is withdrawn.

Proven Reserve – The quantity of oil or gas that is proven to be technically and economically feasible to recover.

Reclamation – Process of restoring the surface area of a decommissioned wellsite, access road and related facilities to pre-

operational conditions as is technically and economically feasible

Reservoir (pool) – A porous and permeable underground rock formation containing a natural accumulation of crude oil or natural gas that is confined by impermeable rock or water barriers, and is separate from other reservoirs.

Resistivity – Means of determining the porosity of rock by measuring its electrical resistance to the passage of an electrical current

Riparian – Relating to or living or located on the bank of a natural watercourse (as a river) or sometimes of a lake or a tidewater.

Royalty – The portion of the value of the oil and gas produced by a company paid to the Crown.

Samples – The wellbore drill cuttings obtained at definite depth intervals during drilling. These cuttings can be examined to determine the rock type, the formation being drilled, and indications of gas content.

Shale gas – Natural gas contained in gas bearing shales.

Seismic line – Linear corridor created to position geophones facilitate recording geophysical information.

Solution gas – For the purposes of OGC guidelines, solution gas is all gas that is separated from oil production.

Sour gas – Natural gas containing hydrogen sulphide (H₂S). Depending on H₂S concentrations, sour gas may pose a public safety hazard if released or may result in unacceptable off-lease odours if vented into the atmosphere.

Stakeholder – Stakeholders are people who may be affected by a project or who can influence it.

Sump – Shallow Pond lined with plastic adjacent to the drilling rig, used to store drilling fluid.

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Surface casing – The first string of casing put into a well; it is cemented into place and serves to shut out shallow water formations and as a foundation for well control.

Surface lease – Includes all leases, easements, and rights-of-way that may be required for a well site, access road, pipeline, camp, workspace, sump, borrow pit and/or any other area related to oil and gas production.

Suspended well – A well that was previously completed but is now no longer being produced.

Sweet Gas – natural gas with no measurable quantities of hydrogen sulphide (H₂S).

Tcf – Trillion Standard Cubic Feet.

Target area – Predefined area in a gas spacing area where wells can be located without incurring a penalty on production for impacting adjacent spacing areas.

Tenure – Tenure is a time-limited ownership of the subsurface petroleum and natural gas (PNG) rights, and confers the right to apply to access, explore and develop oil and gas according to applicable statutory requirements.

Test hole – A well drilled to shallow depths for evaluation purposes. It can be drilled deeper formations with OGC approval and without the requirement of holding subsurface rights.

Tight gas – Natural gas contained in low permeability sandstones and carbonates

Unconventional gas – Natural gas contained difficult to produce formations requiring special completion, stimulation and other techniques to produce economically. (coalbed gas, tight gas, shale and hydrates)

Under-balanced drilling - drilling under conditions where the pressure being exerted inside the wellbore (from the drilling fluids) is less than the pressure of the oil or gas in the formation.

Venting – The intentional controlled release of un-combusted gases directly to the atmosphere. The practice is restricted primarily to short-term testing, well workovers or exceedingly rare emergency situations.

Well density – The concentration of wells on the land surface (per unit area).

Well servicing – The maintenance work performed on a well to maintain or improve production levels. Examples include: repairs to pumps, valves, and tubing.

Well spacing -The distance between wells producing from the same reservoir. Spacing is often expressed in terms of area and is usually established by regulatory agencies.

Wellbore – The hole made by the drilling bit.

Wellhead – The equipment used to maintain surface control of a well

Wildcat – Exploratory well several kilometres from any known pool.

Workover – Additional work required on a producing well to maintain, restore or improve production. Examples include wellbore flow stimulation by perforating or fracturing, removing sand or wax from the wellbore, and installing water pumps.