Glossary of Oil and Gas Terms

Abandon

(1) The proper plugging and abandoning of a well in compliance with all applicable regulations, and the cleaning up of the wellsite to the satisfaction of any governmental body having jurisdiction with respect thereto and to the reasonable satisfaction of the operator.(2) To cease efforts to find or produce from a well or field.(3) To plug a well completion and salvage material and equipment.

Abatement

(1) The act or process of reducing the intensity of pollution. (2) The use of some method of abating pollution.

American Petroleum Institute (API)

The American Petroleum Institute is the primary trade association representing the oil and natural gas industry in the United States.

Appraisal Well

A well drilled as part of an appraisal drilling program which is carried out to determine the physical extent, reserves and likely production rate of a field.

Associated Gas

A well drilled as part of an appraisal drilling program which is carried out to determine the physical extent, reserves and likely production rate of a field.

Barrel

A unit of volume measurement used for petroleum and its products (7.3 barrels = 1 ton: 6.29 barrels = 1 cubic meter).

bbl

One barrel of oil; 1 barrel = 35 Imperial gallons (approx.), or 159 liters (approx.); 7.5 barrels = 1 ton (approx.); 6.29 barrels = 1 cubic meter.

bcf

Billion cubic feet; 1 bcf = 0.83 million tons of oil equivalent.

bcm

Billion cubic meters (1 cubic meter = 35.31 cubic feet).

Block

An acreage sub-division measuring approximately 10 x 20 kms, forming part of a quadrant. e.g. Block 9/13 is the 13th block in Quadrant 9.

Blow-out

When well pressure exceeds the ability of the wellhead valves to control it. Oil and gas "blow wild" at the surface.

Blow-out preventers (BOPs)

Are high pressure wellhead valves, designed to shut off the uncontrolled flow of hydrocarbons.

Borehole

The hole as drilled by the drill bit.

Casing

Pipe cemented in the well to seal off formation fluids or keep the hole from caving in.

Casing string

The steel tubing that lines a well after it has been drilled. It is formed from sections of steel tube screwed together.

Central estimate

A range of exploration drilling scenarios from which the following activity levels, based on recent historical experience, are adopted as the central estimates.

COGCC

Colorado Oil and Gas Conservation Commission

COGIS

Colorado Oil and Gas Information Systems

Commercial field

An oil and/or gas field judged to be capable of producing enough net income to make it worth developing.

Completion

The installation of permanent wellhead equipment for the production of oil and gas.

Coring

Taking rock samples from a well by means of a special tool -- a "core barrel".

Crane barge

A large barge, capable of lifting heavy equipment onto offshore platforms. Also known as a "derrick barge".

Crude Oil

Liquid petroleum as it comes out of the ground as distinguished from refined oils manufactured out of it.

Derrick

The tower-like structure that houses most of the drilling controls.

Development phase

The phase in which a proven oil or gas field is brought into production by drilling production (development) wells.

Drill

(1)To bore a hole, Also see Drilling(2)An implement with cutting edges used to bore holes.

Drilling

The using of a rig and crew for the drilling, suspension, completion, production testing, capping, plugging and abandoning, deepening, plugging back, sidetracking, redrilling or reconditioning of a well (except routine cleanout and pump or rod pulling operations) or the converting of a well to a source, injection, observation, or producing well, and including stratigraphic tests. Also includes any related environmental studies. Associated costs include completion costs but do not include equipping costs.

Drilling rig

A drilling unit that is not permanently fixed to the seabed, e.g. a drillship, a semi-submersible or a jack-up unit. Also means the derrick and its associated machinery.

Dry Gas

Natural gas composed mainly of methane with only minor amounts of ethane, propane and butane and little or no heavier hydrocarbons in the gasoline range.

Enhanced oil recovery

A process whereby oil is recovered other than by the natural pressure in a reservoir.

Exploration drilling

Drilling carried out to determine whether hydrocarbons are present in a particular area or structure.

Exploration phase

The phase of operations which covers the search for oil or gas by carrying out detailed geological and geophysical surveys followed up where appropriate by exploratory drilling.

Exploration well

A well drilled in an unproven area. Also known as a "wildcat well".

Field

A geographical area under which an oil or gas reservoir lies.

Formation water

Salt water underlying gas and oil in the formation.

Fracturing

A method of breaking down a formation by pumping fluid at very high pressures. The objective is to increase production rates from a reservoir.

Gas field

A field containing natural gas but no oil.

Gas injection

The process whereby separated associated gas is pumped back into a reservoir for conservation purposes or to maintain the reservoir pressure.

Gas/oil ratio

The volume of gas at atmospheric pressure produced per unit of oil produced.

Injection well

A well used for pumping water or gas into the reservoir.

Liquefied natural gas (LNG)

Oilfield or naturally occurring gas, chiefly methane, liquefied for transportation.

Liquefied petroleum gas (LPG)

Light hydrocarbon material, gaseous at atmospheric temperature and pressure, held in the liquid state by pressure to facilitate storage, transport and handling. Commercial liquefied gas consists essentially of either propane or butane, or mixtures thereof.

mboe

Million Barrels Oil Equivalent.

Mechanical Integrity Test

The act of setting a packer or retrievable bridge plug above the perforations in a wellbore and applying pressure to the annulus in order to ensure soundness of the casing.

Metric ton

Equivalent to 1000 kilos, 2204.61 lbs.; 7.5 barrels.

MOU/MOA

MEMORANDUMS OF UNDERSTANDING/AGREEMENT

Natural gas

Gas, occurring naturally, and often found in association with crude petroleum.

Natural Gas Policy Act Of 1978

Enacted on November 9, 1978 and became effective December 1, 1978. The Act has been amended, and it replaced or amended the Natural Gas Act. Refer to 15USC 3301-3432.

Oil

A mixture of liquid hydrocarbons of different molecular weights.

Oil field

A geographic area under which an oil reservoir lies.

Oil in place

An estimated measure of the total amount of oil contained in a reservoir, and, as such, a higher figure than the estimated recoverable reserves of oil.

Operator

The company that has legal authority to drill wells and undertake the production of hydrocarbons that are found. The Operator is often part of a consortium and acts on behalf of this consortium.

Petroleum

A generic name for hydrocarbons, including crude oil, natural gas liquids, natural gas and their products.

Possible reserves

Those reserves which at present cannot be regarded as 'probable' but are estimated to have a significant but less than 50% chance of being technically and economically producible.

Primary recovery

Recovery of oil or gas from a reservoir purely by using the natural pressure in the reservoir to force the oil or gas out.

Probable reserves

Those reserves which are not yet proven but which are estimated to have a better than 50% chance of being technically and economically producible.

Proven field

An oil and/or gas field whose physical extent and estimated reserves have been determined.

Proven reserves

Those reserves which on the available evidence are virtually certain to be technically and economically producible (i.e. having a better than 90% chance of being produced).

Recomplete

An operation involving any of the following: (1) Deepening from one zone to another zone.(2) Completing well in an additional zone.(3) Plugging back from one zone to another zone.(4) Sidetracking to purposely change the location of the bottom of the well, but not including sidetracking for the sole purpose of bypassing obstructions in the borehole.(5) Conversion of a service well to an oil or gas well in a different zone.(6) Conversion of an oil or gas well to a service well in a different zone.

Recoverable reserves

That proportion of the oil and/gas in a reservoir that can be removed using currently available techniques.

Recovery factor

That proportion of the oil and/gas in a reservoir that can be removed using currently available techniques.

Royalty payment

The cash or kind paid to the owner of mineral rights.

Secondary recovery

Recovery of oil or gas from a reservoir by artificially maintaining or enhancing the reservoir pressure by injecting gas, water or other substances into the reservoir rock.

Shut In Well

A well which is capable of producing but is not presently producing. Reasons for a well being shut in may be lack of equipment, market or other.

Shutdown

A production hiatus during which the platform ceases to produce while essential maintenance work is undertaken.

Surface Location

The location of a well or facility/measurement point.

Surface Reclamation

A restoration of the surface as for productivity or usefulness.

Suspended well

A well that has been capped off temporarily.

Temporarily Abandoned

The act of isolating the completed interval or intervals within a wellbore from the surface by means of a cement retainer, cast iron bridge plug, cement plug, tubing and packer with tubing plug, or any combination thereof.

Underground Injection Control

A program required in each state by a provision of the Safe Drinking Water Act (SDWA) for the regulation of Injection Wells, including a permit system. An applicant must demonstrate that the well has no reasonable chance of adversely affecting the quality of an underground source of drinking water before a permit is issued.

Well log

A record of geological formation penetrated during drilling, including technical details of the operation.

Wildcat well

A well drilled in an unproven area. Also known as an "exploration well". [The term comes from exploration wells in West Texas in the 1920s. Wildcats were abundant in the locality, and those unlucky enough to be shot were hung from oil derricks.]