

### Frequently Used Terms in the Petroleum Industry

The petroleum industry uses a specialized vocabulary and we have drawn together here some of the more commonly used terms. These definitions are not always consistent from source to source and in some instances have changed with time.

**FOSSIL FUEL**—Combustible geologic deposits of carbon in organic form and of biological origin. These deposits include crude oil, natural gas, oil shales, oil sands and coal.

**PETROLEUM**—Often defined as naturally-occurring liquid hydrocarbons. Sometimes the definition is extended to include refined products in the liquid state; occasionally it is used to further encompass natural gas, bitumen and kerogen (a solid hydrocarbon found in oil shale).

**(CONVENTIONAL) CRUDE OIL**—A mixture mainly of pentanes and heavier hydrocarbons recoverable at a well from an underground reservoir, and which is liquid at the conditions under which its volume is measured or estimated.

**SYNTHETIC CRUDE OIL**—A mixture mainly of pentanes and heavier hydrocarbons that is derived from crude bitumen and which is liquid at the conditions under which its volume is measured or estimated. The output from the Athabasca oil sands comprises synthetic crude oil production in Canada today.

**CONDENSATE**—A mixture mainly of pentanes and heavier hydrocarbons recoverable at a well from an underground reservoir, and which is gaseous in its virgin reservoir state but is liquid at the conditions under which its volume is measured or estimated. Condensate is often understood to be included in "crude oil" and we follow that usage in this Report.

**PENTANES PLUS**—A mixture mainly of pentanes and heavier hydrocarbons which is obtained from the processing of raw gas, condensate or crude oil.

As used in this Report, the term *OIL* includes conventional and synthetic crude, condensate and pentanes plus. If we wish to exclude synthetic crude from this grouping, we denote the remaining three as *CONVENTIONAL OIL*.

**CRUDE BITUMEN**—A naturally-occurring mixture, mainly of hydrocarbons heavier than pentane, that in its natural highly-viscous state is not recoverable at a commercial rate through a well.

**TAR SANDS**—Sands impregnated with a heavy crude oil, tar-like in consistency, that is too viscous to permit recovery by natural flowage into wells.

**HEAVY OIL DEPOSITS**—Oil deposits transitional in character between the heavier tar sand type of bitumen deposit and conventional crude oil. The crude is highly viscous and either does not flow or flows at very low rates under normal conditions.

Tar sands and heavy oil deposits are usually jointly referred to as *OIL SANDS*, a terminology which we follow.

**NATURAL GAS LIQUIDS (NGL)**—A product intermediate between natural gas and crude oil, and which constitutes a family of hydrocarbons extracted as liquids during the production of natural gas. NGL includes ethane, propane, butanes or pentanes plus, or a combination thereof.

**LIQUEFIED PETROLEUM GASES (LPG)**—A subgroup of the natural gas liquids, consisting principally of a mixture of propane and butanes, which are gaseous at atmospheric pressure but liquid at slightly higher pressures. These are familiar as "bottled gas".

The commodities mentioned thus far — crude oil, synthetic crude oil, condensate, pentanes plus, propane, butanes and ethane — comprise the *LIQUID HYDROCARBONS*.

**ASSOCIATED GAS**—Gas in a free state in a reservoir and found in association with crude oil, under initial reservoir conditions.

**NON-ASSOCIATED GAS**—Gas in a free state in a reservoir but not found in association with crude oil, under initial reservoir conditions.

**SOLUTION GAS**—Gas that is dissolved in crude oil under reservoir conditions and which evolves as a result of pressure and temperature changes.

**RAW GAS**—Natural gas in its natural state, existing in a field or as produced from a field and prior to processing.

**MARKETABLE NATURAL GAS**—Raw gas from which certain compounds have been removed or partially removed by processing. Marketable gas is often referred to as "pipeline gas" or "sales gas", and is primarily composed of methane.