

Handbook of Oil Industry Terms & Phrases
Sixth Edition

PREFACE

This is the sixth edition of a book first compiled in 1974 by my father, a lifetime oilman who started in the Oklahoma oilfields and ended in the Gulf Oil headquarters in Pittsburgh, Pennsylvania, thirty years later. Editions followed in 1977, 1981, 1984, and 1994. In those first five editions my father captured not only the technical complexity of the oil field but its history and color. The result was a *mélange* of technical information and oil field history and mystique. An example of the history and color he sought to capture is the definition of “powder monkeys,” which can still be found among the terms such as “riser severance tool,” “fracturing pressure,” and “turbo drilling.”

Powder Monkeys: Workers who handle dynamite on pipeline construction jobs. They follow the rock-drill crew that have drilled spaced holes . . . The powder monkey inserts sticks of dynamite into the holes, cutting the sticks in half, if necessary, to fill the hole including the detonating cap. Breathing the fumes, the vapor that arises from working with the explosive, produces severe headaches. To circumvent this hazard, experienced workers put small amounts of dynamite on their tongues that will fill the tip of a knife blade, and eat it. It is not an unpleasant taste, similar to *crème of tartar*. (The author in his younger days was a powder monkey and ingested his share of 40 percent dynamite; it works.)

My father wrote from experience. He was the son of one of Oklahoma’s first pipeliners working to connect new Oklahoma oil fields to markets east and south. In addition to being a “powder monkey,” he had been a “line walker,” a “telegrapher,” a “pipeliner,” a “pumper,” a “roustabout,” a “roughneck,” a “gauger,” and probably at some time someone’s “dog robber.” He had lived in an “oil camp” along with his infant son—this author—he had “bird-dogged” a job, he had fled into a “doghouse” to get out of the rain, and he had handled “pipe tongs” as well as an “idiot stick” and a “thief.” Yet despite this oil encrusted experience he knew the chemical composition of “ethylene” and the meaning of “isomerization.”

My lifetime petroleum career has been less colorful but equally varied: college boy roustabout and refinery employee, oil and gas lawyer, government energy official, small exploration company owner, oil and gas law professor, international law lecturer, and State Department energy consultant. I have financed and drilled a hundred wells of my own and have served, while Deputy Assistant Secretary of the U.S. Energy Department, as the manager of both the Naval Petroleum Reserves and the Strategic Petroleum Reserves. I have also lectured and consulted in numerous foreign countries

on oil and gas. This career may have given me less time in the field but more time watching the kudzu-like expansion of petroleum development all over the world and in all of the oceans.

This sixth edition has sought to preserve most of the history and color, even though some of the terms are fading from use, and has added more than 500 new terms to capture the rapid movement of this industry into its new era in which wells are deeper and more likely to be offshore, the equipment more complex, and the drilling followed by new completion technology. Despite the greater depths drilled and the gigantic offshore platforms involved, despite the horizontal drilling and massive fracs, the basic production techniques remain surprisingly similar to those employed in the 1930s when rotary drilling was first perfected. This new edition also reflects the growth of oil exploration overseas, the emergence of national oil companies, and the increased complexity of deal making.

Between the two authors there are more than 80 exciting years of experience in the oil business stretching from Wolf Camp, Oklahoma, where Robert was a field mechanic in 1936 (and where his son grew up), to Luanda, Angola, where his son lectured on international petroleum contracts in 2013. We hope this volume is as interesting and useful as its predecessors.

— Robert D. Langenkamp (1913–2003)

— R. Dobie Langenkamp (1936–)

PREFACE TO THE FIRST EDITION

The oil industry in America was born in the wooded hills of western Pennsylvania and grew up in greasy clothes with a plug of tobacco in its jaw.

It all started when “Colonel” Edwin L. Drake struck oil with his 69½ foot well near Titusville in 1859. When news of the discovery reached town, a gold-rush fever spread through the countryside. Hardworking men—coal miners, farmers, lumbermen, blacksmiths—left their jobs for the hard work of digging for oil. Before long, adventurers, gamblers, and fast-talking promoters, attracted by the prospects of quick fortunes, joined the action.

From this mixed band, laboring like sourdoughs over their diggings, evolved a salty and expressive vocabulary. Familiar words took on new meanings; new phrases were invented to describe tools and equipment, the work being done, and those who were doing it.

The first 50 years of oil were the years of the steam drilling rigs, cable tools, pot stills, and kerosene. Among those speaking for this era, in a vernacular few non-oil people understood, were the tool dressers, mule skinner, well shooters, tankies, and pipeliners—hardy men who inhabited the rough and profane world of boom town.

In the following half century, the search for oil widened and grew more sophisticated. The vocabulary was enlarged to include the activities of the petroleum geologist, the geophysical crews, electric loggers, and the offshore men.

During the last 20 years or so, new terms have been added relating to oil in a global context, reflecting the industry’s multi-national character. Words such as participation, concession, fixer’s fee, buy-back oil, and the acronym OPEC are all part of the dynamic vocabulary of oil.

This handbook was compiled in order to bring together all that is old and historic and what is new in the lexicon of the industry, and to provide understandable, non-technical definitions and explanations.

The author, with 28 years in the oil patch and 10 years as editor of a major oil company magazine, has exercised the greatest care in compiling this work. All entries were checked against authoritative references and with operating oil men in the field to assure that definitions and explanations were correct.

Although certain words may have different meanings in different parts of the country, the conditions or procedures described are the same everywhere. A “kick” by any other name is still a potentially dangerous occurrence caused by encountering a pocket of high-pressure gas down hole; and “flanged up” anywhere in oil country means the job is finished.

The author hopes that this handbook will prove useful as well as interesting to those in the oil industry, to writers, students, lawyers, and investors as well as to members of the public who would like to learn more about an industry that, alongside the automobile, has affected their lives profoundly.

—R.D.L.
(1974)

A

A

A.A.D.E.

American Association of Drilling Engineers.

A.A.O.D.C.

American Association of Oilwell Drilling Contractors.

A.A.P.G.

American Association of Petroleum Geologists.

ABANDONED OIL

Oil permitted to escape from storage tanks or pipeline by an operator. If the operator makes no effort to recover the oil, the landowner on whose property the oil has run may trap the oil for his/her own use. The operator would also be responsible for damages from the oil.

ABANDONED WELL

A well no longer in use; a dry hole that in most states must be properly plugged.

ABSOLUTE ALCOHOL

One hundred percent ethyl alcohol.

ABSOLUTE PERMEABILITY

The ability of a rock or a formation to conduct a fluid (oil, gas, or water at 100 percent saturation).

ABSORPTION

The taking in or assimilation of a gas by a liquid; the soaking up of a substance by another. See Absorption Plant.

ABSORPTION OIL

An oil used to remove heavier hydrocarbons from natural gas in an absorption tower.

ABSORPTION PLANT

An oilfield facility that removes liquid hydrocarbons from natural gas, especially casinghead gas. The gas is run through oil of a proper

B

B**BABBITT**

A soft, silver-colored metal alloy of relatively low melting point used for engine and pump bearings; an alloy containing tin, copper, and antimony invented by Isaac Babbitt in 1862.

BACKFILL

To replace the earth dug from a ditch or trench; also, the earth removed from an excavation.

BACKFLOW GATE

See Gate, Backflow.

BACKHOE

A self-propelled ditching machine with a hydraulically operated arm equipped with a toothed shovel that scoops earth as the shovel is pulled back toward the machine.

BACK-IN AFTER PAY OUT

See Back-In Provision.

BACK-IN FARMOUT

A farmout agreement in which a retained non-operating interest of the lessor or the farmor may be converted, at a later date, into a specified individual working interest.

BACK-IN PROVISION

A term used to describe a provision in a farmout agreement whereby the person granting the farmout (the farmor) has the option to exchange a retained override for a share of the working interest.

BACK OFF

To raise the drill bit off the bottom of the hole; to slack off on a cable or winch line; to unscrew.

BACK-OFF JOINT

A section of pipe with left-hand thread on one end and right-hand, or conventional thread, on the other. A back-off joint is used in setting a liner. When a liner is lowered in and landed, the drill column can be

tion is mica. This mineral splits in successively thinner layers until very thin transparent sheets are left. In the early days, thin sheets of mica were used as small windows in the famous Franklin stove. Other geometric forms of cleavage are cubic (halite or rock salt); prismatic (hornblende); and conchoidal (smooth, curved surface as in quartz and obsidian).

CLEVIS

A U-shaped metal link or shackle with the ends of the U drilled to hold a pin or bolt; used as a connecting link for a chain or cable.

CLINIFORM STRUCTURE

An underwater landform similar to the continental slope of the oceans or to the foreset beds of a delta.

CLINIFORM SURFACE

An offshore, sloping depositional surface commonly associated with strata prograding, the building outward by river-borne sediment and accumulation, into deeper and deeper water.

CLOGGING, FRACTURE

See Screen-Out, Fracturing.

CLONE

The entry section of a cyclone desander or desilter the part of the cyclone cylinder that imparts a centrifugal or whirling motion to the fluid to be desanded, to be cleaned up.

CLOSED IN

Refers to a well, capable of producing, which is shut in.

CLOSE NIPPLE

A very short piece of pipe having threads over its entire length; an all-thread nipple.

CLOSE THE LOOP, TO

To contain and dispose of all liquids and solids generated at the drill site; to drill it out and put it back in the same hole closes the loop. The drilled solids and any liquid pollutants are pumped back into the well, into the annulus between casing and the wall of the borehole. A disposal method initially developed by Arco and Apollo Service, Lafayette, LA.

CLOUD POINT

The temperature at which paraffin wax begins to crystallize or separate from the solution, imparting a cloudy appearance to the oil, as it is chilled under prescribed conditions.