

APPENDIX D

Well Classification Guidelines

The CSD assigns an initial and final class to each well reported. The guidelines for assigning these classifications are described below (also see Figure 7). This classification of exploratory wells was established by the late Frederic H. Lahee in 1944, and has been used since then by AAPG-CSD and API. The classes were designed to characterize a well by the general degree of risk assumed by the operator. Of the 5 exploratory classes, the new-field wildcat represents the highest level of risk and the outpost (extension) represents the lowest risk. A well classed as a development well is lower in risk than any of the exploratory wells. Only a small percent of the total wells changes classes between the initial class and the final class. An example would be a well with an initial class of development that did not find expected production and was completed instead as a water-injection well. Its final class, therefore, would be service.

Placement of wells in the tables accompanying this paper is on the basis of their final class.

New-field wildcat.—A new-field wildcat is a well located on a structural feature or other type of trap which previously has not produced oil or gas. In regions where local geologic conditions have little or no control over accumulations, these wells are generally at least 2 mi from the nearest productive area. Distance, however, is not the determining factor. Of greater importance is the degree of risk assumed by the operator, and whether the operator intends to test a structure or stratigraphic condition not previously proved productive.

New-pool wildcat.—A new-pool wildcat is a well located to explore for a new pool on a structural feature or other type of trap already producing oil or gas but outside the known limits of the producing area. In some regions where local geologic conditions exert an almost negligible control, exploratory holes of this type may be called "near wildcats." Such wells usually will be less than 2 mi from the nearest productive area.

Deeper pool test.—A deeper pool test is an exploratory hole located within the productive area of a pool, or pools already partly or wholly developed. It is drilled below the deepest productive pool to explore for deeper unknown prospects.

Shallower pool test.—A shallower pool is an exploratory well drilled in search of a new productive reservoir, unknown, but possibly suspected from data secured from other wells, and shallower than known productive pools. This test is located within the productive area of a pool or pools previously developed.

Outpost or extension test.—An outpost is a well located and drilled with the expectation of extending for a considerable distance the productive area of a partly developed

pool. It is usually 2 or more locations distant from the nearest productive site.

Development well.—A development well is a well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive. If the well is completed for production, it is classified as an oil or gas development well. If the well is not completed for production and is abandoned, it is classified as a dry development hole.

Stratigraphic test.—A stratigraphic test is a drilling effort, geologically directed, to obtain information pertaining to a specific geologic condition that might lead toward the discovery of an accumulation of hydrocarbons. Such wells customarily are drilled without the intention of being completed for hydrocarbon production. This classification also includes tests identified as core tests and all types of expendable holes related to hydrocarbon exploration.

Service well.—A service well is a well drilled or completed for the purpose of supporting production in an existing field. Wells of this class are drilled for the following specific purposes: gas injection (natural gas, propane, butane, flue gas, or CO₂), water injection, steam injection, air injection, saltwater disposal, water supply for injection, observation, injection for in-situ combustion.

An old well drilled deeper is a previously drilled hole which is reentered and deepened by additional drilling. Such wells are reported as oil or gas wells if completed for production of oil or gas, or as dry holes if sufficient quantities of oil or gas are not found to justify completion at the greater depth. The additional footage below the old total depth (OTD) is reported under the appropriate well classification.

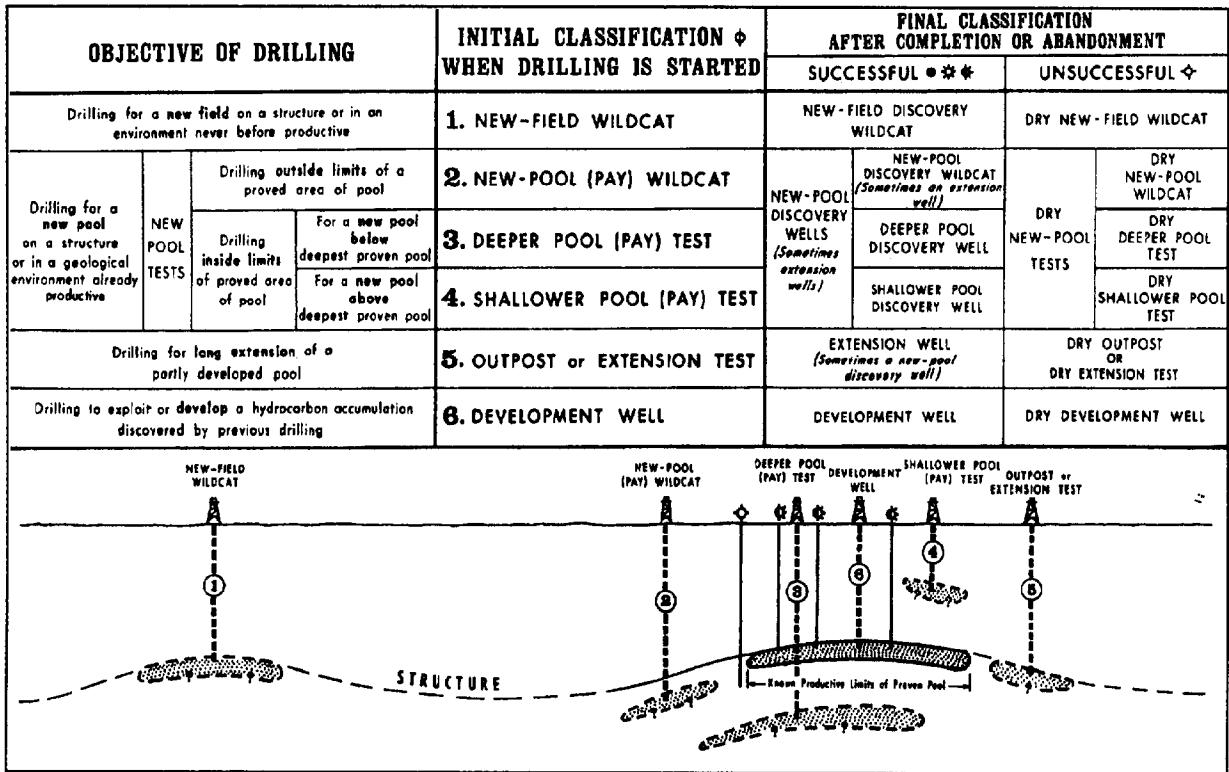


Figure 7—Lahee well classification (see Appendix D).