

Abstract

DOWNHOLE GRAVITATIONAL WATER SEPARATOR

A gravity water separation system that may be integrated within a well completion. A diverted flowpath is provided for produced hydrocarbons, external to the completion tubing. As produced hydrocarbons travel through the diverted flowpath, they pass through separation stages wherein gravity separation ensues by migration through predefined flow ports which extend from produced oil "separation chamber(s)" into separated "water chamber(s)."

FIGURE 1