

ABSTRACT**TITLE: METHOD AND APPARATUS FOR FLUID SEPARATION**

A method is disclosed for separating a multiphase fluid stream comprising a heavier fluid component and a lighter fluid component, the method comprising causing the fluid to flow along a first helical flowpath (106, 108), the first helical flowpath having a first pitch, the first helical flowpath being sufficiently long to establish a stabilised rotating fluid flow pattern for the stream causing the uniform rotating fluid to flow along a second helical flowpath (110, 112), the second helical flowpath having a second pitch, wherein the second pitch is greater than the first pitch; and removing the lighter fluid from a radially inner region of the second helical flowpath. An apparatus for carrying out the method is also disclosed. The method and apparatus are particular suitable for the separation of oil droplets from water, especially from water for reinjection into a subterranean formation as part of an oil and gas production operation. The method and apparatus are conveniently applied on a modular basis.

[Figure 1]