ABSTRACT

INTERFACE AND MUD CONTROL SYSTEM AND METHOD FOR REFINERY DESALTERS

A method and system for controlling an interface emulsion layer and mud layer within a desalter vessel includes injecting a water flow through a plurality of nozzles arranged about a piping circuit located in the brine water layer. Each nozzle is oriented toward an interior space of the desalter vessel and is arranged oblique to the piping circuit. The water flow through the plurality of nozzles causes a horizontal and vertical rotation of a volume of water that is effective for suspending solids in the water and promoting a collapse of the interface emulsion layer. The water flow through each nozzle, which may be a recycled water flow, is preferably in a range of 1 to 3 fpm and each nozzle is preferably oriented at an angle of about 15° and 60° in a horizontal plane and a downward angle of about 15° and 60° in a vertical plane.

(FIG. 1)