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(54) Title: VAPOR PHASE NEUTRALIZATION IN INTEGRATED SOLVENT DEASPHALTING AND GASIFICATION

(57) Abstract: In this invention a heavy crude is heated to from about 300 °F to about 600 °F. The crude is maintained at this temperature and gases are flashed off the crude. Salts such as magnesium chloride and calcium chloride react with water in the crude to form metal hydroxides and hydrochloric acid. Water, or preferably steam, may be advantageously admixed with the crude. Asphaltenes and other solids are subsequently separated from the heavy crude. The asphaltenes are gasified. Medium or high pressure steam is advantageously obtained from the gasification process. The steam is advantageously admixed with the heated crude to provide additional water and heat, as well as to carry away the hydrochloric acid. The hydrochloric acid is separated from the crude in a flash drum. The vapors are neutralized.