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# Recovery enhancement of liquid hydrocarbons in dew point control unit of natural gas processing plant

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ABSTR

The low ng unit to control t ultaneous absorpti leads to low purity ns, the ment int at −23° c at the ows very high am as been introduc -85° c by self-refri cess, the problem ercome. In this proc refrigeration cycle at −37° c and it is then expanded in an isotropic process to 2896 kPa

pressure. Expander outlet with reflux and condensate produced from a cold separator are fed to an absorption tower with a reboiler and the separation will occur. The advantage of this method is controlling the concentration of methane in the product streams. Simulation results show that the process can daily produce 22,280 barrels of gas liquids with a concentration of 0.5 mole% of methane. In addition, the recovery efficiencies of propane and butane in the newly proposed method are 97.3% and 99.99%, respectively, which show a remarkable advantage over the current trend.

KEYWORDS:

Self-refrigeration | turbo expander | absorption | gas liquids | dew point

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