INTEGRATED NGL RECOVERY AND LIQUEFIED NATURAL GAS PRODUCTION

Abstract

The separation of methane from an admixture (110) with ethane and higher hydrocarbons, especially natural gas, using a scrub column (114), in which the admixture is separated into a methane-rich overhead (116) that is partially condensed (122) to provide reflux to the column (114) and liquid methane- depleted bottoms liquid (126), is improved by providing additional reflux (136) derived from an ethane enriched stream (130) from fractionation (128) of the bottoms liquid. Preferably, absorber liquid (140) from the fractionation (128) also is introduced into the scrub column. The vapor fraction (120) remaining after partial condensation can be liquefied (122) to provide LNG product (124).

Figure 1