

Table 2.5 Stripper Column Stream Results

Streams	6 (Feed Stream)	10 (Top Product)	15 (Recycle Stream)	12 (Reflux)	14 (Boil-up)
<b>Mass Flow (kg/h)</b>					
H <sub>2</sub>	--	--	TRACE	--	--
CO <sub>2</sub>	169	169	TRACE	1.82	88
H <sub>2</sub> S	1.42	1.42	TRACE	0.31	0.01
H <sub>2</sub> O	1609	134	1475	815	1043
MEA	500	TRACE	500	0.07	10
Total	2279	304	1975	817	1141
<b>Mass Fraction</b>					
H <sub>2</sub>	--	--	--	--	--
CO <sub>2</sub>	0.07	0.55	--	--	0.08
H <sub>2</sub> S	--	--	--	--	--
H <sub>2</sub> O	0.71	0.45	0.75	--	0.91
MEA	0.22	--	0.25	≈1	0.01
<b>Mole Fraction</b>					
H <sub>2</sub>	--	--	--	--	--
CO <sub>2</sub>	0.04	0.34	--	--	0.03
H <sub>2</sub> S	--	--	--	--	--
H <sub>2</sub> O	0.88	0.66	0.91	--	0.97
MEA	0.08	--	0.09	≈1	--
<b>Temperature (°C)</b>	90	86	102	86	102
<b>Pressure (bar)</b>	1.013	0.913	1.013	1.013	1.013

Table 2.6 Stream Results for Condenser

Streams	Heat Exchanger (H-2)				Flash Drum (F-1)	
	18 (CW* In)	19 (CW* Out)	7 (Hot In)	9 (Hot Out)	10 (Vapor Out)	11 (Liquid Out)
<b>Mass Flow (kg/h)</b>	40,000	40,000	1121	1121	304	817
<b>T (°C)</b>	22	33	98	86	86	86
<b>P (bar)</b>	1.013	0.913	1.013	0.913	0.913	0.913
<b>Vapor Fraction</b>	0	0	1	0.2	1	0

\*CW: cooling water