

3.3.1 Gas to TEG Off gas Compressor for TEG Stripper.

Normal Operating Case
 Temperature - 212.5 °F
 Pressure - 0.47 psig
 Mass Flow - 850.8 lb/hr
 Std. Flow - 0.4144 MMSCFD

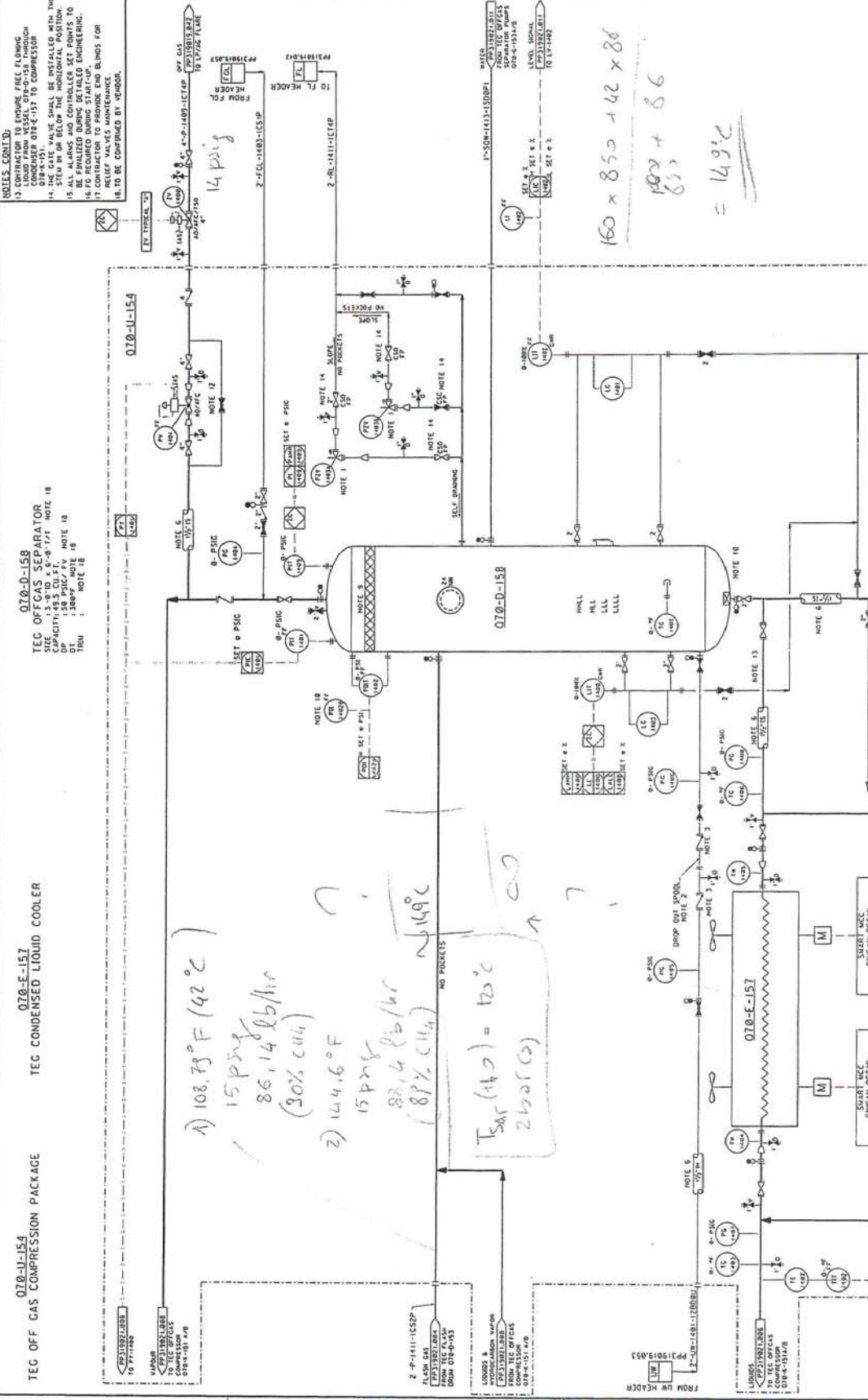
Components	Mole (%)
Nitrogen	0.009
Carbon Dioxide	0.087
Hydrogen Sulfide	0.003
Water	97.561
Methane	1.169
Ethane	0.181
Propane	0.098
i-Butane	0.030
n-Butane	0.069
i-Pentane	0.076
n-Pentane	0.059
n-Hexane	0.149
n-Heptane	0.509
Octane	0.000
Benzene	0.000
Toluene	0.000
p-Xylene	0.000
CS2	0.000
Triethylene Glycol	0.000

Stripping Gas Case
 Temperature - 174.6 °F
 Pressure - 0.47 psig
 Mass Flow - 1883.2 lb/hr
 Std. Flow - 0.9436 MMSCFD

Components	Mole (%)
Nitrogen	5.775
Carbon Dioxide	0.089
Hydrogen Sulfide	0.001
Water	43.916
Methane	48.644
Ethane	0.828
Propane	0.187
i-Butane	0.045
n-Butane	0.072
i-Pentane	0.059
n-Pentane	0.041
n-Hexane	0.085
n-Heptane	0.258
Octane	0.000
Benzene	0.000
Toluene	0.000
p-Xylene	0.000
CS2	0.000
Triethylene Glycol	0.000

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LEGEND	
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67. INSTRUMENT LOW MAINTENANCE IDENTIFICATION	68. INSTRUMENT EASY TO USE IDENTIFICATION
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NOTES:

- CONTRACTOR TO PROVIDE FUEL FLOWING LIQUID FROM VESSEL 070-D-158 THROUGH 070-U-154 TO COMPRESSOR.
- THE GATE VALVE SHALL BE INSTALLED WITH THE COMPRESSOR.
- ALL ALARMS AND CONTROLLER SET POINTS TO BE FINALIZED DURING DETAILED ENGINEERING.
- BE REQUIRED DURING START-UP.
- RELIEF VALVE MAINTENANCE.
- TO BE COVERED BY VENDOR.

070-D-158
TEC OFF GAS SEPARATOR
CAPACITY: 49.5 CU FT. NOTE 18
DP: 1.50 PSIG. FV: NOTE 18
THRU: NOTE 18

070-E-157
TEC CONDENSED LIQUID COOLER

070-U-154
TEC OFF GAS COMPRESSOR PACKAGE

14 psig

160 x 850 + 42 x 88 = 149°C

108.73°F (42°C)
15 psig
86.14 lbs/hr (90% CH4)

144.6°F
15 psig
88.14 lbs/hr (87% CH4)

$T_{sep}(42) = 102^\circ C$

9.52

14 psig

$Cp_1 T_1 + F_1 = Cp_2 T_2 + F_2$
 $(F_1 + F_2) C_p = T_0$

0.5 kcal/kg K

9.52

14 psig

160 x 850 + 42 x 88 = 149°C

