

$$Data = \frac{220}{33} + 1 = 7.67$$

$$SP = 1.2$$

$$DF = 1.0$$

$$TED = 5.2$$

$$w = \frac{6.47}{6.67} = 0.97$$

$$F_{O_2}^{DII} = \frac{1.0}{7.67} = 0.13$$

$$\begin{aligned} F_{He}^{loop} &= \frac{1.2 \times 1.428 + 6.47 \times 1.251 - 5.2}{7.67 + 1.072} \\ &= \frac{4.608}{8.222} \\ &= 0.56 \end{aligned}$$

$$\therefore F_{O_2}^{DII} = \frac{0.56}{0.97} = 0.58$$

$\therefore$ Diluent mix is **TMX 13/58**