1.0% CH$_4$, 2.0% O$_2$, 97% Ar, $\Phi = 1.0$, $p_{av} = 10.43$ atm

3.5% CH$_4$, 7.0% O$_2$, 89.5% Ar, $\Phi = 1.0$, $p_{av} = 3.04$ atm
6.7% CH₄, 6.7% O₂, 86.6% Ar, Φ = 2.0, \( p_{av} = 11.81 \text{ atm} \)

![Graph showing ignition delay time (τ)/μs against \(10^4 K/T\). The graph illustrates the comparison between Aramco Mech 1.3 (dashed line) and Aramco Mech 2.0 (solid line).]