$$P_{ws} = e^{\left(-\left(\frac{5.8\times10^{3}}{T_K}\right)-5.516-\left(4.864\times10^{-2}T_K\right)+\left(4.176\times10^{-5}{T_K}^{2}\right)-\left(1.445\times10^{-8}{T_K}^{3}\right)+6.546\,ln(T_K)\right)}$$