

$$\log_{10}(p_{\text{H}_2\text{O}}) = -9.096853 \cdot \left( \frac{273.16}{T_{\text{sat}}} - 1 \right) - 3.566506 \cdot \log_{10} \left( \frac{273.16}{T_{\text{sat}}} \right) \\ + 0.876812 \cdot \left( 1 - \frac{T_{\text{sat}}}{273.16} \right) - 0.2138602$$

Eq. 1065.645-2

*Example:*

$$T_{\text{ice}} = -15.4 \text{ }^\circ\text{C} = 257.75 \text{ K}$$

$$\log_{10}(p_{\text{H}_2\text{O}}) = -9.096853 \cdot \left( \frac{273.16}{257.75} - 1 \right) - 3.566506 \cdot \log_{10} \left( \frac{273.16}{257.75} \right) \\ + 0.876812 \cdot \left( 1 - \frac{257.75}{273.16} \right) - 0.2138602$$

$$\log_{10}(p_{\text{H}_2\text{O}}) = -0.798207$$

$$p_{\text{H}_2\text{O}} = 10^{-0.79821} = 0.159145 \text{ kPa}$$