$$\frac{\partial c}{\partial x}(x_i, y_j, t_n) \approx \frac{+3c^n_{i,j} - 4c^n_{i-1,j} + c^n_{i-2,j}}{2\Delta x} \qquad \text{for} \qquad v_x > 0$$

$$\frac{\partial c}{\partial x}(x_i, y_j, t_n) \approx \frac{-c^n_{i+2,j} + 4c^n_{i+1,j} - 3c^n_{i,j}}{2\Delta x} \qquad \text{for} \qquad v_x < 0$$