$$q_c(y;y_c) = -\mathcal{P}\frac{Q_1'(y)v_c(y;y_c)}{-ik\left(c_c(y_c)-U_1(y)\right)} + C_{\mathrm{II}i}(y_c)\frac{\pi Q_1'(y_c)}{U_1'(y_c)}\delta(y-y_c)$$