$$g_1 = a_{10} - \frac{z}{s} a_{11}, \qquad g_2 = \frac{1}{k^2 z s} a_{11}, \qquad g_3 = -\frac{i}{kz} a_9, \qquad g_4 = \frac{i}{k^2 Q z s} a_{12}$$