$$\mathbb{E}\left[0, 0, \frac{B_1}{1 - B_1 + B_1^2} + \frac{1}{\left(1 - B_1 + B_1^2\right)^3} B_1 \left(-B_1 + 2 B_1^2 + 2 B_1^4 + a_1 \left(-1 + B_1 - B_1^3 + B_1^4\right) - 2 x_1 y_1 - B_1^3 \left(3 + 2 x_1 y_1\right)\right) \in + O[\in]^2\right]$$