On some open subset of $U_{12} \cap U_{13}$, we may express f_1, f_2, g_1 & g_2 as follows:

$$f_1(z_1, z_2, z_3, z_4) = \sum a_{n_1 n_2 n_3 n_4} z_1^{n_1} z_2^{n_2} z_3^{n_3} z_4^{n_4}$$
$$f_2(z_1, z_2, z_3, z_4) = \sum b_{n_1 n_2 n_3 n_4} z_1^{n_1} z_2^{n_2} z_3^{n_3} z_4^{n_4}$$
$$g_1(\omega_1, \omega_2, \omega_3, \omega_4) = \sum c_{m_1 m_2 m_3 m_4} \omega_1^{m_1} \omega_2^{m_2} \omega_3^{m_3} \omega_4^{m_4}$$
$$g_2(\omega_1, \omega_2, \omega_3, \omega_4) = \sum d_{m_1 m_2 m_3 m_4} \omega_1^{m_1} \omega_2^{m_2} \omega_3^{m_3} \omega_4^{m_4}$$

Since $g^*_{1312}(\Lambda) = \begin{pmatrix} 1, & -\frac{z_1}{z_3} \\ 0, & \frac{1}{z_3} \end{pmatrix}$,

$$\begin{pmatrix} 1, & -\frac{z_1}{z_3} \\ 0, & \frac{1}{z_3} \end{pmatrix} \begin{pmatrix} f_1 \\ f_2 \end{pmatrix} = \begin{pmatrix} g_1 \\ g_2 \end{pmatrix}.$$

$$\Rightarrow \quad f_1 - \frac{z_1}{z_3} f_2 = g_1$$
$$\frac{1}{z_3} f_2 = g_2 .$$

$$\Rightarrow \quad a_{n_1 n_2 n_3 n_4} z_1^{n_1} z_2^{n_2} z_3^{n_3} z_4^{n_4} - \frac{z_1}{z_3} b_{n_1 n_2 n_3 n_4} z_1^{n_1} z_2^{n_2} z_3^{n_3} z_4^{n_4}$$
$$= c_{m_1 m_2 m_3 m_4} \omega_1^{m_1} \omega_2^{m_2} \omega_3^{m_3} \omega_4^{m_4}$$
$$= c_{m_1 m_2 m_3 m_4} \left(-\frac{z_1}{z_3}\right)^{m_1} \left(z_2 - \frac{z_1 z_4}{z_3}\right)^{m_2} \left(\frac{1}{z_3}\right)^{m_3} \left(\frac{z_4}{z_3}\right)^{m_4}$$

$\Rightarrow$ In $f_1 - \frac{z_1}{z_3} f_2$, there is no term $\frac{\square}{z_3^i}$, $i \geq 2$.

$\Rightarrow 0 \leq m_1, \; m_2, \; m_3, \; m_4 \leq 1$

① $m_1 = 1$, $m_2 = m_3 = m_4 = 0$

$c_{1000} \left(-\frac{z_1}{z_3}\right)$.