$$\begin{array}{ccc}
K(pm-1,2) & \xrightarrow{D'} & Y^{2p(pm-1)-2} \\
\downarrow{\scriptstyle \overline{g}_{pm-1}} & & \downarrow{\scriptstyle g_{pm-1}} \\
Q_4^{2pm-3} & \xrightarrow{\overline{\partial}_p} & Q_2^{2pm-3}
\end{array}$$