

	$\mu\tau_h$	$e\tau_h$	$\tau_h\tau_h$	$e\mu$
Trigger (threshold in GeV)	$\mu(22)$	$e(25)$	$\tau_h(35)$ & $\tau_h(35)$	$\mu(8)$ & $e(23)$ or $\mu(23)$ & $e(12)$
Offline selection	$p_T^\mu > 23$ GeV, $ \eta^\mu  < 2.1$ $p_T^{\tau_h} > 30$ GeV, $ \eta^{\tau_h}  < 2.3$	$p_T^e > 26$ GeV, $ \eta^e  < 2.1$ $p_T^{\tau_h} > 30$ GeV, $ \eta^{\tau_h}  < 2.3$	$p_T^{\tau_h} > 40$ GeV, $ \eta^{\tau_h}  < 2.1$ $p_T^{\tau_h} > 40$ GeV, $ \eta^{\tau_h}  < 2.1$	$p_T^\mu > 10(24)$ GeV, $ \eta^\mu  < 2.4$ $p_T^e > 13(24)$ GeV, $ \eta^e  < 2.5$
Additional ID	Medium ID -	MVA ID 80% -	- -	Medium ID MVA ID 80%
Isolation	$I_\mu^{rel} < 0.15$ MVA Medium	$I_e^{rel} < 0.1$ MVA Medium	MVA Tight MVA Tight	$I_\mu^{rel} < 0.2$ $I_e^{rel} < 0.15$
Impact parameter (cm)	$d_{xy}^\mu < 0.045$ $d_z^\mu < 0.2$ $d_z^{\tau_h} < 0.2$	$d_{xy}^e < 0.045$ $d_z^e < 0.2$ $d_z^{\tau_h} < 0.2$	$d_z^{\tau_h} < 0.2$ $d_z^{\tau_h} < 0.2$	$d_{xy}^{\mu/e} < 0.045$ $d_z^{\mu/e} < 0.2$
Lepton vetoes	No loose $\mu^+\mu^-$ pair with $p_T^\mu > 15$ GeV	No loose $e^+e^-$ pair with $p_T^e > 15$ GeV	-	
	No additional loose e with $p_T > 10$ GeV and $ \eta  < 2.5$ No additional loose $\mu$ with $p_T > 10$ GeV and $ \eta  < 2.4$			