In this thesis the set out goal was to find the lowest energy resonance in $W^\pm Z$ scattering process that can still be described using EFT. The results show that resonances with energy $E > 800$ GeV and an estimated minimum cross-section $\sigma_{resonance}$ of $92ab$ can be described accurately. The limits for all relevant parameters S0, M0, M1, T0, T1, T2 for the research mass points with greater than 800 GeV are shown in table **??**. These results are independent of the cross-section if the cross-section is greater than the minimum cross-section. Parameters showed a higher sensitivity for low cross-section in the transverse mass than in the invariant mass which required a cross-section $\sigma > 184ab$ as shon in figure **??**.

This result is only valid for the sensitivity of dim-8 operates in $W^\pm Z$ process, other VBS process may produce a different result. As the results are highly depend on binning further research with different binning depending on the resonance energy may be necessary since the same binning was used for all results. Only statistical uncertainties where used in this study including systematic uncertainties is needed for a more accurate prediction for the sensitivity of dim-8 operators. In this thesis dim-6 operates are assumed to be negligible or taken from another source which is often the case in EFT studies. This however may not always be true and needs further research the sensitivity of a combination of dim-6 and dim-8 operators for low energy resonances can not be predicted using these results. A next step in determining the sensitivity of dim-8 operators in VBS is to look at other VBS process which include different relevant operators. Another interesting research would be to use different models than the GM Model. EFT is model independent. The importance of matching the results to a BSM Model can not be overstated. Using other models will help to compare the models and if a BSM interaction is found using EFT help matching the result to a UV theory.