The study investigates suitable site for the drilling and construction of productive well in water stressed sahelian zone of Northern Nigeria. Three sites were investigated (Kaura Namoda road, Gusau; FMC Gusau, and Bakura) in Zamfara State using vertical electrical sounding (VES) at visible and anomalous point. This was to provide more detailed hydrological and structural information of the area. The parameters of the geo-electrical soundings and other geological and hydro-geological information reveals that ground water potential of FMC Gusau appears generally low, that of the Kaura Namoda road shows that VES002 and VES003 have the best and better water bearing potentials while Bakura has fairly reasonably promising for borehole construction. It is recommended that the drilling at Kaura Namoda road be done to a minimum depth of 32m at VES002 and 29m at VES003. Although the Bakura site is considered to be generally encouraging for borehole development, borehole depth should range from about 30-35m while detailed geological logging to avoid missing crucial aquifers is recommended during or after drilling the borehole and the aquifers must be adequately and discretely screened to achieve maximum yield.