

Since 1970s, seismic attributes has been widely used in every seismic interpretation and reservoir characterization workflow. This practice has generalized due to the rapid development in computers technology (both hardware and software) and the emergence of 3D seismic surveys. In this paper, we describe the workflow of using seismic attributes to visualize hidden structures that cannot be seen on the original 3D seismic. We also studied the existence of a relationship between seismic attributes and natural fracture density. The results are interesting from geological and reservoir modeling aspects as the workflow helped to reveal hidden small faults below seismic resolution and some attributes had a good correlation with natural fracture density. This workflow is useful exploration cost optimization strategy for oil and gas national companies