

GEOLOGY STRUCTURE ANALYSIS IN “FELYSIA” FIELD USING FAULT ENHANCING FILTER-NO TRANSITION IN COHERENCE ATTRIBUTE SEISMIC, TELISA FORMATION, CENTRAL SUMATERA BASIN

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ABSTRACT

The research has been done in “felysia” field which is one of PT. Chevron Pasific Indonesia workcontract area. Fault structure in back arc basin with active geology structure is the research area. Fault is a component of petroleum system as migration route of hydrocarbon so it is important to mapping that structure accurately. Faults in research are fault major and fault minor which have a pattern that need to identified. Attributre coherence is a method to indentify the pattern of faults using seismic attribute effectively.

Coherence attribute is an analisys which is focused on the same trace seismic with similarity reflected on seismic two way time (TWT), it is proper to mapping fault structure. Coherence attribute in “Felysia” field using before and after filtering to identified fault structure response in 3D seismic slice plane that can be imaging by coherence attribute. *Fault enhancing filter-no transition* is the filter in this research to reduce random noise and enhance structure.

The result analysis of coherence attribute seismic prove that coherence seismic is proper to mapping fault structure, in the other hand result of data processing from seismic attribute before and after filtering. Major fault can be mapping with coherence attribute but after filtering major and minor fault more clear to be mapping, so target of pattern and fault direction well to be interpreted.

Keywords: Coherence Attribute, Fault , *Fault enhancing filter-no transition*.