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Critical events in the geology of Algeria
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The generation, migration and preservation of Algerian hydrocarbons can be related to critical events / episodes throughout geologic history from Precambrian times to the present day. These events relate to the development of source, reservoir and seal quality rocks; and to trap development and burial. It is the interaction and varied development of each of these events that determines the preserved hydrocarbon product and its occurrence in the stratigraphic column. The events, in time order, are:

- The development of a structural grain and fracture pattern within the Precambrian basement that provides a root and focus for deformation in the overlying cover;
- Deposition of the Cambrian and Lower/Middle Ordovician sandstones that provide important reservoirs for oil on the Hassi Messaoud – Amguid ridge;
- Taconic structuring and subsequent erosion period which locates the deposition of the Upper Ordovician sandstones acting as important reservoirs in the southern basins;
- Variable thickness deposition of the basal Silurian black shale oil prone source rocks across the entire platform;
- The end Silurian Caledonian event important as a period of uplift along the Tihemboka arch and elsewhere and resulting in subsequent increased sediment supply to the Algeria basins;
- Deposition of the Lower / Middle Devonian sandstones with sediment source in the south, and important as oil and gas reservoirs across the entire platform;
- Variable thickness deposition of the Frasnian oil prone black shale source rocks;
- Variable Carboniferous burial and reservoir development, important for the early generation of oil and gas from both main source rocks;
- The Hercynian collision event preserved in the thrust system along the western boundary of Algeria and causing uplift in the Touggourt, Amguid and Ougarta areas, and causing subsidence in the western basins;
- The erosion of the Hercynian mountain belt producing the present day Hercynian unconformity surface with its sub-crop pattern;
- Triassic / Jurassic extension creating NE-SW extensional faults controlling sedimentation and associated volcanism;
- Deposition of the Triassic fluvial and aeolian reservoirs in the Berkine and Oued Mya basins;
- Deposition of the Jurassic evaporite seals;
- The Lower Cretaceous Austrian structuring event important for trap formation in the Berkine and Oued Mya areas and for trap alteration elsewhere;
- Mesozoic burial bringing the onset of the oil window in upper Cretaceous times with continued generation to present day;
- The Alpine collision, important for alteration of traps across the entire platform;
- Uplift of the Hoggar with resulting tilting of the Illizi basin; and
- The development of the present day land surface providing the industry with the ultimate challenge to locate the traps.