

P12

The Importance of Establishing Stratigraphic Nomenclature for Exploration of Oil and Gas: the Tanzania Stratigraphic Nomenclature Project

R. Verreussel * (TNO Applied Geosciences AGS), F. Veenstra (TNO Geological Survey of the Netherlands), S. Houben (TNO Applied Geosciences AGS)

Summary

In essence, stratigraphic nomenclature is a naming convention, an agreement between stakeholders to use the same names and age relationships for lithological units that occur in the subsurface of a particular area. As such, it is an important prerequisite for discussions among stakeholders concerning geological issues, such as for instance the distribution of a source rock or reservoir unit. Its importance is even more obvious in the field of governance, for example in the assessment of oil and gas reserve estimations, stratigraphic nomenclature is key. In Tanzania, activities related to oil and gas are expanding rapidly and the need for stratigraphic nomenclature is apparent.

For that reason, the Tanzania Stratigraphic Nomenclature Project (TSNP) was initiated in 2015. Of particular interest is the link between the onshore and offshore. The two key players in the offshore of Tanzania, Statoil and BG (Shell), already developed a stratigraphic framework specifically for the offshore. This scheme is primarily based on stratal relationships derived from seismics (Sansom in prep.). In the onshore of Tanzania, the national oil company TPDC and multiple international oil companies (IOC's) are active in various basins.

TPDC is responsible for the development of the TSN, while the Petroleum Upstream Regulatory Authority (PURA) will act as custodian of the TSN, once the project is finished. The Netherlands Organization for Applied Scientific Research (TNO) acts in a supporting and capacity building role, towards both TPDC and PURA. External stakeholders, such as IOC's, universities like the Universities of Dar es Salaam (UDSM) and Dodoma (UDOM), and government bodies such as the Geological Survey of Tanzania (GST) and the Ministry of Energy and Minerals (MEM), play an important role in providing essential input and feedback.

Commitment and support from all end users is of prime importance, hence the subtitle of the project: Jitihada za pamoja – A collaborative effort. Round table meetings will be organized to reach consensus on important issues. The final product will be a public document with definitions and descriptions of lithostratigraphic units, type sections, age assessment and diagrams displaying the stratigraphic relationships of the units from the different basins.

abstract

In essence, stratigraphic nomenclature is a naming convention, an agreement between stakeholders to use the same names and age relationships for lithological units that occur in the subsurface of a particular area. As such, it is an important prerequisite for discussions among stakeholders concerning geological issues, such as for instance the distribution of a source rock or reservoir unit. Its importance is even more obvious in the field of governance, for example in the assessment of oil and gas reserve estimations, stratigraphic nomenclature is key. In Tanzania, activities related to oil and gas are expanding rapidly and the need for stratigraphic nomenclature is apparent.

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