Rock-Eval pyrolysis, Total Organic Carbon and vitrinite reflection data of hydrocarbon source rocks, Phanerozoic and Neoproterozoic basins of Western Australia

by

DM Brooks and F Irimies

Abstract

The Energy Systems Atlas is a collection of new geological map layers designed to help explorers identify each of the essential elements and processes of a petroleum system: source, reservoir, seal, burial, maturation, stratigraphic framework, structure, trap formation and migration. To help assess the hydrocarbon source rock potential, organic geochemistry data from Rock-Eval pyrolysis, Total Organic Carbon (TOC) and vitrinite reflectance measurements (Vr) within the Phanerozoic and some Proterozoic basins of Western Australia have been compiled from new and legacy data submitted to or generated by the Geological Survey of Western Australia (GSWA). These datasets are useful for assessing petroleum source-rock quality and quantity. The source-rock analyses have been compiled from reports submitted to GSWA including from petroleum companies, other government departments, academic institutions and research bodies as well as new analysis arranged by GSWA covering the majority of Western Australian sedimentary basins. New Rock-Eval, TOC and Vr data will be added when they become open file.

The geology of the source rocks and descriptions of the data and methods of all Rock-Eval, TOC and Vr data are outlined in the original reports, which are included in the attribute tables for all data in the Energy Systems Atlas. GSWA publications are available from eBookshop. Unless otherwise stated the depths are given as metres measured depth.

How to access

The **Energy Systems Atlas** is best accessed using the Western Australian Petroleum and Geothermal Information Management System (<u>WAPIMS</u>). This online interactive mapping system allows data to be viewed and searched together with other datasets. The Energy Systems Atlas organic geochemistry data are also available as a data package on request from WAPIMS/requests form.

Recommended reference

Brooks, DM and Irimies, F 2021, Rock-Eval pyrolysis, Total Organic Carbon and vitrinite reflection data of hydrocarbon source rocks, Phanerozoic and Neoproterozoic basins of Western Australia: Geological Survey of Western Australia, digital dataset, <<u>www.dmirs.wa.gov.au/wapims</u>>.

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