Comparison on geochemical properties of andesite from Pos Betau, Pahang with Malay Basin's Volcanic: An overview

SYAZWAN ZAINAL ABIDIN & ASKURY ABD KADIR

Geoscience Department,
Universiti Teknologi PETRONAS
32610 Bandar Seri Iskandar, Perak Darul Ridzuan
Email address: bayernean@gmail.com; askury_akadir@utp.edu.my

Abstract: This paper reviews the geochemical properties of andesite outcrop exposed along Jelai to Pos Betau. It aims to compare the geochemical properties of andesite and fracture pattern with the Malay Basin basement. The updated version of geological map of transect area compared to published geology of Peninsular Malaysia will be suggested through the lithological changes. The relationship between them to Anding Utara fractured basement reservoir are the main focus on this study. The geological analysis suggested that the observed serpentinite and chert represent remnant of Palaeo-Thethys sea that has been closed when Sibumasu collided with Indochina block. Fractured and sheared serpentinites indicate the compressional forces acted, or by convergent plates. Partly, the serpentinites altered to soapstone. As for structural analysis, the andesite outcrops have fracture system in direction of NW-SE with minor fracture system aligning in NNE-SSW direction which is closely related with the tectonic evolution of Peninsular Malaysia. For the geochemical properties analysis, the plotting of normative mineral calculation results on the International Union of Geological Sciences (IUGS) volcanic rock classification indicates that the andesite in Pos Betau falls in quartz andesite type. Based on previous study, the Anding Utara volcanic basement reservoir rock also have the same composition which is andesite shows that both of the rocks originate from the same magmatic composition which is andesitic and intermediate lava.

Keywords: Andesite, Anding Utara, fractured basement

Warta Geologi (Newsletter of the Geological Society of Malaysia), Vol. 44, No. 3, July-September 2018