GEOLOGI DAN PETROGENESIS *APOPHYSIS SILL BASALTIC* DAERAH CIWUNI DAN SEKITARNYA KECAMATAN KESUGIHAN KABUPATEN CILACAP PROVINSI JAWA TENGAH

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SARI

Indonesia dilalui oleh tiga lempeng tektonik besar, yaitu lempeng Indo – Australia, Eurasia, dan lempeng Pasifik yang saling bertumbukan. Oleh karena itu, pulau Jawa khususnya Jawa Tengah memiliki karakteristik fisik yang bervariasi serta terdapat batuan-batuan hasil magmatisme dan vulkanisme. Lokasi penelitian berada di daerah Ciwuni dan sekitarnya, kecamatan Kesugihan, kabupaten Cilacap, provinsi Jawa Tengah. Geomorfologi daerah penelitian dibagi menjadi tiga satuan, Satuan Struktural Perbukitan Curam Antiklinal (S9), Satuan Struktural Teras Denudasional Perbukitan Rendah Agak Curam (S8), dan Satuan Dataran Rendah Denudasional Agak Miring (D7). Berdasarkan karakteristik litologi, daerah penelitian dibagi menjadi dua satuan litostratigrafi dari tua ke muda, yaitu satuan batupasir sisipan batulempung dan intrusi basalt. terdapat struktur geologi yaitu lipatan antiklin G. Anjir, sesar anjak Gunungwetan, sesar mendatar kiri Karangkemiri, dan sesar mendatar kiri Pangadegan. Metode yang dipilih mengetahui proses pembentukan intrusi basalt dengan menggunakan XRF (*X-Ray Flourscene*) untuk mengetahui kandungan unsur mayor dan unsur jejak. Berdasarkan kajian geokimia didapatkan hasil berupa jenis batuan basaltik-andesit dan basalt dengan afinitas magma tergolong *medium – K (Transitional/Calc-Alkaline Series) Continental Tholeiitic* dengan magma yang bersifat *Tholeiitic.*

Kata Kunci : Ciwuni, Cilacap, XRF, Unsur Mayor, Intrusi Basalt, *Tholeiitic*

GEOLOGY AND PETROGENETIC *APOPHYSIS SILL BASALTIC* CIWUNI, KESUGIHAN, CILACAP, CENTRAL JAVA

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ABSTRACT

Indonesia is traversed by three large tectonic plates, namely the Indo-Australian, Eurasian, and Pacific plates that collide with each other. Therefore, Java, especially Central Java, has varied physical characteristics and there are rocks from magmatism and volcanism. The research location is in the Ciwuni and surrounding areas, Kesugihan sub-district, Cilacap district, Central Java province. The geomorphology of the research area is divided into three units, the Anticlinal Steep Hill Structural Unit (S9), the rather steep (S8) Low Hill Denudational Terrace Structural Unit, and a Slightly Sloping Denudational Low Unit (D7). Based on the characteristics of lithology, the study area was divided into two lithostratigraphic units from old to young, namely units of claystone insert into sandstone and basalt intrusion. There is a geological structure, namely G. Anjir Anticline, Gunungwetan Thrust Fault, Karangkemiri Left Slip Fault, Pangadegan Left Slip Fault. The method chosen was to know the process of forming basalt intrusion using XRF (X-Ray Flourscene) to determine the content of major elements and trace elements. Based on geochemical studies, the results are in the form of basaltic-andesite and basalt rocks with the affinity of the medium-K (Transitional / Calc-Alkaline Series) Continental Tholeiitic with Tholeiitic magma.

Keyword : Ciwuni, Cilacap, XRF, Major Element, Basalt Intrusion, *Tholeiitic*