

GEOLOGI DAN POTENSI ANDESIT UNTUK MATERIAL KONSTRUKSI JALAN, DAERAH JONGGOL, KECAMATAN CIKALONGKULON, KABUPATEN CIANJUR, JAWA BARAT

Pratama Ari Wahandaru

ABSTRAK

Daerah penelitian secara administratif terletak di Daerah Jonggol, Kecamatan Cikalongkulon, Kabupaten Cianjur Jawa Barat. Penelitian dilakukan untuk mengetahui kondisi geologi, menghitung perkiraan cadangan potensi Andesit serta uji agregat untuk menguji kelayakan batuan yang ada pada daerah penelitian. Pemetaan geologi permukaan yang mencakup geomorfologi daerah penelitian dengan pengamatan peta topografi dan kondisi morfologi daerah penelitian, stratigrafi daerah penelitian dengan melakukan *spot mapping* dan struktur geologi serta pengambilan contoh batuan untuk analisa laboratorium. Sedangkan metode perhitungan potensi batuan menggunakan metode kontur dihitung dengan rumus kerucut terpancung, yang kemudian dibandingkan dengan data pengukuran langsung di lapangan. Berdasarkan analisa geomorfologi diketahui bahwa daerah penelitian dibagi menjadi 5 (lima) satuan, yaitu Satuan Lembah Aluvial Jamban Hilir, Satuan Perbukitan Struktural Buanajaya, Satuan Dataran Denudasional Cirahong, Satuan Perbukitan Denudasional Kiaramangu, Satuan Bukit Intrusi Gunung Gambir. Berdasarkan karakteristik litologi dan umur batuan dari tua ke muda dibagi menjadi 4 (empat) satuan batuan, yaitu Satuan Andesit, Satuan Batupasir, Satuan Breksi, Satuan Aluvial. Struktur geologi yang terdapat pada daerah penelitian berupa sesar geser. Keterdapatannya Intrusi Andesit daerah penelitian memiliki potensi sebagai bahan tambang yang bermanfaat untuk material konstruksi pembangunan. Berdasarkan hasil perhitungan potensi cadangan dengan metode konvensional kerucut terpancung dari luas kontur didapatkan potensi cadangan sebesar $3.281.505,2 \text{ m}^3$, sedangkan data pengukuran langsung di lapangan yaitu sebesar $2.966.430,2 \text{ m}^3$. Berdasarkan analisis uji agregat batuan, andesit pada daerah penelitian termasuk dalam batuan yang sangat keras.

Kata kunci: Geologi, Andesit, Potensi, Jonggol, Cianjur, Jawa Barat.

GEOLOGY AND ANDESIT POTENTIAL FOR CONSTRUCTION MATERIALS OF ROAD, JONGGOL REGION, CIKALONGKULON DISTRICTS, CIANJUR REGENCY, WEST JAVA

Pratama Ari Wahandaru

ABSTRACT

The administrative area is located in Jonggol Region, Cikalongkulon District, Cianjur Regency, West Java. The study was conducted to determine the geological conditions, calculate the estimated Andesite potential reserves and the aggregate test to test the feasibility of rocks in the study area. Surface geological mapping that includes geomorphology of the study area with topographic map observation and morphological conditions of the study area, stratigraphy of the research area by conducting spot mapping and geological structure and taking rock samples for laboratory analysis. While the method of calculating rock potential using the contour method is calculated by the conical frustum formula, which is then compared with direct measurement data in the field. Based on geomorphological analysis, it is known that the study area is divided into 5 (five) units, namely Lower Latrine Alluvial Valley Unit, Buanajaya Structural Hills Unit, Cirahong Denudational Plain Unit, Kiaramangu Denudational Hills Unit, Gambir mount Intrusion Unit. Based on the characteristics of lithology and age of rocks from old to young are divided into 4 (four) rock units, namely Andesite Unit, Sandstone Unit, Breccia Unit, Alluvial Unit. The geological structure found in the study area is a sliding fault. The presence of Andesite Intrusion in the study area has the potential as a useful mining material for construction material. Based on the results of the calculation of the reserve potential with conventional methods conical frustum from the area of the contour, the potential of reserves is 3,281,505.2 m³, while the measurement data directly in the field is 2,966,430.2 m³. Based on the analysis of rock aggregate test, andesite in the study area is included in very strong rocks.

Keywords: Geology, Andesite, Potential, Jonggol, Cianjur, West Java.