

## SARI

Gunungkidul merupakan salah satu kabupaten yang ada di Yogyakarta yang sangat menarik wisatawan karena keindahan pantainya. Akan tetapi masih banyak terdapat pantai yang sulit dijangkau dengan kendaraan karena akses jalannya yang kurang memadai. Pemerintah mensiasati dengan membangun jalan raya, salah satunya Jalan Paliyan – Ngobaran. Namun pembuatan jalan dengan memotong lereng juga akan mempengaruhi kestabilan lereng. Diperlukan upaya untuk mengetahui kondisi geologi dengan pemetaan geologi dan kondisi kestabilan lereng dengan melakukan analisis kestabilan lereng menggunakan metode SMR. Dari hasil analisis ini dapat digunakan sebagai evaluasi pada lereng daerah penelitian. Diperoleh 46 STA yang terdiri dari 20 STA RMR SMR dan 26 STA geologi. Berdasarkan hasil dari penelitian yang telah dilakukan, daerah penelitian secara geomorfologi terbagi menjadi dua satuan, yaitu satuan kerucut karst berlereng landai – agak curam dan satuan kerucut karst berlereng curam. Litologi daerah penelitian terbagi menjadi tiga satuan, yaitu satuan *packstone*, satuan *floatstone*, dan satuan *rudstone*. Struktur geologi yang berkembang pada daerah penelitian berupa kekar gerus dan kekar ekstensi yang memiliki arah gaya barat laut – tenggara. Hasil analisis kestabilan lereng menggunakan metode RMR diperoleh empat satuan yaitu satuan RMR buruk, satuan RMR Sedang, satuan RMR baik, satuan RMR sangat baik. Hasil analisis kestabilan lereng menggunakan metode SMR diperoleh tiga satuan, yaitu satuan SMR buruk, satuan SMR normal, dan SMR baik.

Kata kunci: kestabilan lereng, Paliyan – Ngobaran, RMR, SMR

## **ABSTRACT**

*Gunungkidul is one of the districts in Yogyakarta which is very attractive to tourists because of the beauty of its beaches. However, there are still many beaches that are difficult to reach by vehicle due to inadequate road access. The government anticipates by building highways, one of which is Jalan Paliyan – Ngobaran. However, the construction of roads by cutting the slopes will also affect the stability of the slopes. Actions are needed to determine the geological conditions with geological mapping and slope stability conditions by conducting slope stability analysis using the SMR method. From the results of this analysis can be used as an evaluation on the slopes of the study area. Obtained 46 STA consisting of 20 STA RMR SMR and 26 STA geology. Based on the results of the research that has been carried out, the research area is geomorphologically divided into two units, namely the karst cone unit with gently sloping slopes and the karst cone unit with steep slopes. The lithology of the research area is divided into three units, namely packstone units, floatstone units, and rudstone units. The geological structure that develops in the study area is in the form of shear joints and extension joints that have a northwest-southeast style direction. The results of the slope stability analysis using the RMR method obtained four units, namely bad RMR units, Medium RMR units, good RMR units, very good RMR units. The results of the slope stability analysis using the SMR method obtained three units, namely a bad SMR unit, a normal SMR unit, and a good SMR unit.*

**Keyword:** *Paliyan – Ngobaran, RMR, SMR, slope stability*