

SARI

Penelitian ini membahas karakteristik baik fisik maupun geokimia *beachrock* di Pantai Slili, Kecamatan Tepus, Kabupaten Gunungkidul. Pantai Slili tergolong sebagai pantai yang tertutup seperti teluk karena di bagian barat dan timur dibatasi oleh bukit batugamping. *Beachrock* di Pantai Slili memiliki karakteristik yang lebih terlitifikasi dibandingkan dengan *beachrock* yang terbentuk di pantai terbuka. Dengan maksud untuk melakukan kajian mengenai karakteristik dan proses pengendapan *beachrock* di Pantai Slili, penelitian ini bertujuan untuk mengetahui karakteristik fisik dan geokimia serta proses pengendapan *beachrock* di daerah tersebut. Dilakukan analisis petrografi, ICP-AES, dan ICP-MS terhadap sampel *beachrock* dan batugamping di daerah penelitian. Hasil penelitian menunjukkan singkapan *beachrock* di lapangan berada di sepanjang garis pantai dengan kenampakan megaskopis yaitu berwarna coklat kekuning-kuningan sampai abu-abu kekuning-kuningan, ukuran fragmen 1-20 mm, matriks <1 mm, kemas tertutup, sortasi buruk, *sub angular - rounded*, struktur sedimen perlapisan sejajar dan perlapisan sejajar bergelombang, dengan komposisi material karbonat, kalsit, dan *skeletal fragment* di mana *skeletal fragment* terdiri dari *Baculogypsina sphaerulata*, fragmen *coral*, dan fragmen *algae*. Kenampakan mikroskopis dari *beachrock* Pantai Slili menunjukkan dominansi dari *bioclast* dan mikrit. Berdasarkan analisis geokimia, *beachrock* Pantai Slili memiliki konsentrasi $\text{CaCO}_3 > 90\%$ sehingga dapat dikategorikan sebagai batuan karbonat. Hasil normalisasi data geokimia *trace element* dan *rare earth element* menunjukkan *beachrock* lebih terkayakan dibandingkan batugamping di daerah penelitian. Proses pengendapan *beachrock* di Pantai Slili dipengaruhi oleh 3 hal yaitu adanya penambahan material terigen pada saat pengendapan, adanya pengaruh diagenesis pada saat setelah terendapkan, dan proses pengendapan berlangsung pada lingkungan yang oksidatif.

Kata Kunci: *Beachrock*, geokimia, karakteristik, Pantai Slili

ABSTRACT

This study discusses about physical and geochemistry characteristics of beachrock in Slili Beach, Tepus district, Gunungkidul Regency. Slili beach is categorized as closed beach like a bay because on west and east side of this beach bordered by limestone hill. Beachrock in Slili Beach more lithified than beachrock in open beach. To conduct a study of the characteristics and depositional process of beachrock in Slili beach and its surrounding area, this study aims to know physical and geochemistry characteristics also depositional process of beachrock in this area. Petrographic, ICP-AES and ICP-AS analysis carried out to beachrock and limestone sample in study area. This study shows beachrock outcrop located along shoreline with yellowish brown to yellowish grey color, fragment size approximately 1-20 mm, <1mm matrix size, closed fabric, poorly sorted, sub angular - rounded, paralel bedding and wavy paralel bedding, with carbonate material, calcite, and skeletal fragments which is skeletal fragments consist of *Baculogypsina sphaerulata*, coral fragment, dan algae fragments composition in megascopic appearance in microscopic appearance, Slili beachrock showed domination of bioclast and micrite. From geochemistry analysis, Slili beachrock have more than 90% CaCO_3 so it can be classified as carbonate rocks. Normalization results of geochemical data for trace elements and rare earth elements showed more enrichment on beachrock than limestone in study area. Depositional process of beachrock in Slili beach influenced by 3 factors, addition of terrigenous material during deposition process, diagenesis influence after deposition, and oxidative environment during depositional process.

Keywords : beachrock, geochemistry, characteristic, Slili Beach