

Distribution of Iron Sand in The Widarapayung Coast Area at Regency of Cilacap Based on Magnetic Anomaly Data

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Abstract	<p>Interpretation on the magnetic anomalies data has been done in the Widarapayung coast area, District of Binangun, Regency of Cilacap to identify distribution of iron sand. The acquisition of magnetic intensity data in this area has been done in December 2015 and May 2016 using Proton Precession Magnetometer (PPM) with type of GSM-19T. The research area extends on the geographic positions of 109.2501°BT “ 109.2702°E and 7.6781°LS “ 7.6986°S. Magnetic anomalies data modeling is done with using Mag2DC for Windows software so obtained some subsurface anomalous objects model. The anomaly object model having a value of magnetic susceptibility of 0.0093cgs unit is interpreted as iron sand interspersed with silt, clay, sand, and gravel from the alluvium formation. This formation is lain at a depth of 1.709 to 11.966m and a length of 1576.7m. The iron sand contained in this formation is estimated prospects for exploitation. Based on the interpretation results, alluvium formation is also found at a depth of 1.140 to 30.769m, which expected be composed of silt, clay, sand, and gravel with a magnetic susceptibility value of 0.0051cgs unit. The content of iron sand in this 2nd alluvium formation is expected to be relatively small.</p>
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