

Title: Statistical investigation on anaerobic sulphate-reducing bacteria growth by turbidity method

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Abstract: In oil and gas industry, corrosion due to activity of microorganism is one of the main factors, which contribute to catastrophic structural failure. Previous study always linked Sulfate-Reducing Bacteria (SRB) upon the mechanism of Microbiologically Influenced Corrosion (MIC), as the major contributors. In this study, mechanisms of SRB genus *D. vulgaris* in terms of bacterial growth under influence of environmental factors were investigated. The growth of pure strain ATCC 7757 and SRB isolated from the soil in suspected areas in Peninsular Malaysia were investigated by using turbidity measurement. Results from the study were analyzed statistically to show the significant influence due to various environmental factors. The results agreed that variation of each environmental parameter tested gives strong influence upon bacterial growth for SRB strain individually.