

**IDENTIFIKASI PENCEMARAN AIR LAUT DI PESISIR
PANTAI SUNGAI PISANG KOTA PADANG DITINJAU DARI
PARAMETER FISIKA DAN KIMIA**

Skripsi



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PADANG**

2024

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ABSTRAK

Penelitian ini bertujuan untuk menentukan konsentrasi logam berat, konduktivitas listrik, total padatan terlarut (TDS), total padatan tersuspensi (TSS), suhu, dan pH pada sampel air laut pesisir pantai Sungai Pisang, Kota Padang. Nilai konsentrasi logam berat diukur menggunakan alat *Atomic Absorption Spectroscopy* (AAS), konduktivitas listrik diukur menggunakan konduktiviti meter, TDS dan TSS ditentukan menggunakan metode gravimetri, suhu diukur menggunakan termometer, dan pH diukur menggunakan pH meter. Dari hasil penelitian diperoleh nilai pH tertinggi sebesar 7,8, nilai temperatur tertinggi sebesar 33 °C, nilai konduktivitas listrik tertinggi sebesar 163,6 $\mu\text{S}/\text{cm}$ dan nilai TSS tertinggi sebesar 22,6 mg/L. Nilai rata-rata pH, temperatur, konduktivitas listrik dan TSS yang diperoleh tidak melewati batas baku mutu berdasarkan Peraturan Menteri Lingkungan Hidup Nomor 51 Tahun 2004. Nilai TDS tertinggi yang diperoleh sebesar 3821 mg/L tidak melewati batas baku mutu berdasarkan Peraturan Pemerintah Republik Indonesia Nomor 82 Tahun 2001. Nilai kosentrasi logam berat Pb, Cd, dan Cu di pesisir pantai Sungai Pisang tidak melewati batas baku mutu berdasarkan Peraturan Menteri Lingkungan Hidup Nomor 51 Tahun 2004. Dari hasil penelitian dapat disimpulkan bahwa kualitas air laut di pesisir pantai Sungai Pisang tidak tercemar.

Kata Kunci: AAS, kandungan logam berat, konduktivitas listrik, TDS, TSS



IDENTIFICATION OF SEAWATER POLLUTION ON THE COAST OF THE SUNGAI PISANG PADANG CITY BASED ON PHYSICS AND CHEMICAL PARAMETERS

ABSTRACT

This research aims to determine the concentration of heavy metals, electrical conductivity, total dissolved solids (TDS), total suspended solids (TSS), temperature and pH in seawater samples from the coast of Sungai Pisang, Padang City. Heavy metal concentration values were measured using an Atomic Absorption Spectroscopy (AAS), electrical conductivity was measured using a conductivity meter, TDS and TSS were determined using the gravimetric method, temperature was measured using a thermometer, and pH was measured using a pH meter. From the research results, the highest pH value was obtained at 7.8, the highest temperature value was 33 °C, the highest electrical conductivity value was 163.6 $\mu\text{S}/\text{cm}$ and the highest TSS value was 22.6 mg/L. The average values of pH, temperature, electrical conductivity and TSS obtained did not exceed the quality standard limits based on Minister of the Environment Regulation Number 51 of 2004. The highest TDS value obtained was 3821 mg/L and did not exceed the quality standard limits based on Republic of Indonesia Government Regulation Number 82 of 2001. The concentration values of the heavy metals Pb, Cd, and Cu on the coast of the Pisang River did not exceed the quality standard limits based on Minister of Environment Regulation Number 51 of 2004. From the research results it can be concluded that the quality of sea water on the coast of the Pisang River not polluted.

Keywords: AAS, heavy metal content, electrical conductivity, TDS, TSS

