**CHARACTERIZATION OF MINING SITE SOIL FROM IJERO-EKITI:**

**ROLES OF SOIL PARAMETERS ON POLLUTANT**

**BIOAVAILABILITY**

**BY**

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**(AEB/14/2181)**

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**DECLARATION**

I, OSALUSI Christopher Temitope of Matriculation number AEB/14/2181 declare that this project work was carried out by me under the supervision of Dr Stanley O. Agbo of the Department of Animal and Environmental Biology, Federal University Oye-Ekiti, Nigeria. I attest that this project has not been presented elsewhere wholly or partly for the award of any degree. All sources of data and scholarly information used in this project are dully acknowledged.

Signature……………………….

Date……………………………..

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**CERTIFICATION**

This is to certify that **OSALUSI Christopher Temitope** with Matriculation Number AEB/14/2181 from the Department of Animal and Environmental Biology carried out this project titled ‘Characterization of Mining Site Soil from Ijero Ekiti:

Roles of Soil Parameters on Pollutant Bioavailability’

……………………………… ………………………………

**Dr. STANLEY O. AGBO DATE**

**Project Supervisor**

…………………………….… ………………………………

**Dr. HILARY I. OKOH DATE**

**HEAD OF DEPARTMENT**

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**ABSTRACT**

The test soil sample A was obtained from an active mining site in Ijero-Ekiti, Ekiti State, Nigeria and transported to the campus of the Federal University Oye-Ekiti. A control Sample C was obtained from the campus surroundings, which served as a reference soil.

Soil is an important part in agriculture. An understanding of the physical and chemical condition of any soil is essential for proper implementation of management practices in agriculture.

Therefore, the physiochemical study of soil is very important because both physical and chemical properties are critical factors that affect soil productivity. This physiochemical study of soil is based on various parameters such as pH, soil texture, soil porosity, bulk density, soil salinity, soil moisture content, total organic carbon (TOC) and particle size distribution. Soil pH values ranged from 7.30- 7.50, moisture content ranged from 0.87- 0.43%, bulk density ranged from 1.43- 1.58g/cm3, conductivity ranged from 164-287.9cm, salinity ranged from 0.09-0.15ppt, the TOC ranged from 0.81- 1.89%, and the porosity ranged from 40.82- 46.44%.

Particle sizes comprise of the relative composition of sand, silt and clay. Based on our analysis, sand size distribution ranged from 89.15-99.28, silt ranged from 0- 10.6 and clay ranged from 0.25- 0.72.

Therefore, it was observed from the various parameters analyzed in Ijero mining site that the soil was less rich in organic matter compared to the control sample from the Federal University Oye- Ekiti. The mining site soil confirmed availability of various pollutants, which in the control occurred at lower levels and favourable for agricultural use.

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**DEDICATION**

This PROJECT is dedicated to God Almighty for the gift of life and for his unconditional love towards me.

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**ACKNOWLEDGEMENT**

I am thankful to the Almighty God for His inspiration**,** guidance and strength throughout the course of the work. He alone deserves all the praise and adoration.

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My acknowledgement will be incomplete if I do not appreciate my course mate.

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