



Type: re-accreditation



Certificate of Accreditation

This is to certify that

CLEAN ENVIRONMENT SYSTEMS LTD

Address of Laboratory: 9, Dele Ogundele Street, Oregun, Ikeja, Lagos State

Has been assessed by the Nigeria National Accreditation System and meets the requirements of the International Standard

ISO/IEC 17025:2017

with demonstrated technical competence in the field of

Testing

for the specific services listed on the approved Scope of Accreditation.

On behalf of the Nigeria National Accreditation System:



Testing
No. T0006

Issue date: **June 06, 2022**
Validity through: **June 05, 2024**

Scope of Accreditation

Chemical Testing Laboratory

Name of Laboratory: Clean Environment Systems Ltd

Address of Laboratory: 9, Dele Ogundele Street, Oregon, Ikeja, Lagos State.

Schedule NO.: T0006

Issue No. 2: 06 06, 2022

Valid to : 05 06, 2024

Materials/ Products Tested	Types of Tests/ Properties Measured / Range of Measurements	Standard Specifications	/ Techniques Used
Food, Drugs, Cosmetics, Water, Effluent, Environmental Samples, Soil	Moisture Content	AOAC 945.15	Hot Air Oven
	Fat content	AOAC 932.06	Rose Gotlieb Extraction
	Total Ash	AOAC 923.03	Muffle Furnace
	Protein	AOAC 976.05	Kjeldahl
	Carbohydrate	AOAC 986.25E	Calculation
	pH	APHA 973.41	pH meter
	Electrical Conductivity	AOAC 957.16	Conductivity meter
	Turbidity	APHA 2130B	Turbidity meter
	Total suspended solids	APHA 2540B	Calculation
	Total Hardness	APHA 2340C	Titrimetric
	Phenolphthalein Alkalinity	APHA 2320B	Titrimetric
	Total Acidity	APHA 2310B	Titrimetric
	Residual Chlorine	APHA 4500B	Titrimetric
	Chloride	APHA 4500B	Titrimetric
	Nitrate	EPA 352.1	Colorimetric
	Nitrite	APHA 4500B	Colorimetric
	Phosphorus	APHA 4500C	Colorimetric
	Phosphorus-phosphate	APHA 4500C	Colorimetric
	Sulphate	APHA 4500C	Turbidimetry
Sulphide	APHA 4500F	Titrimetric	

Food, Drugs, Cosmetics, Water, Effluent, Environmental Samples, Soil	Oil/Grease	APHA 5520B	Extraction/Gravimetric
	Calcium	APHA 3500B	Titrimetric
	Total Iron	APHA 3500B	Colorimetric
	Magnesium	APHA 3500B	Titrimetric/Calculation
	Chemical Oxygen Demand	APHA 5220C	Reflux/ Titrimetric
	Total Nitrogen	APHA 4500 -N orgB	Kjeldahl method/Titrimetric
	Total Dissolved Solids	AOAC 957.16	Electrometric
	Total Solids	APHA 2540B	Gravimetric
	Sugar content	AOAC 923.09	Lane-Eynon method
	Reducing sugar	AOAC 923.09	Lane-Eynon method
	Sugar (Brix)	AOAC 932.14C	Refractometer
	Crude fibre	AOAC 978.10	Gravimetric
	Titrateable acidity	AOAC 940.15A	Titrimetric
	Acid insoluble ash	AOAC 941.12C	Muffle furnace
	Water soluble ash	AOAC 941.12C	Muffle furnace
	Alcohol Content	AOAC 920.57	Distillation
	Benzoic acid	AOAC 963.19	Extraction/Titrimetric
	Specific Gravity	AOAC 945.06C	Gravimetric
	Peroxide value	AOAC 965.33	Iodometric titration
	Acid value	AOAC 969.17	Titrimetric
	Total soluble solids	AOAC 932.12	Calculation
	Acidity of extracted Fat	AOAC 969.17	Extraction/Titration
	Iodine content	AOAC 925.56	Iodometric titration
	Aerobic mesophilic count	APHA 9215B/ AOAC 966.23	Pour Plate Method
	Staphylococcus aureus	APHA 9213B(6)/ AOAC 975.55	Spread Plate Method
	Coliforms	BAM CHAP 4(G)	Pour Plate Method

Food, Drugs, Cosmetics, Water, Effluent, Environmental Samples, Soil	Escherichia coli	BAM CHAP 4(F)	Streak Plate Method
	Salmonella sp	APHA 9260B/ AOAC 967.26	Streak Plate Method
	Shigella sp	APHA 9260E	Streak Plate Method
	Mould	APHA 9610B/ BAM CHAP18	Pour Plate Method
	Yeast	APHA 9610/ BAM CHAP18	Pour Plate Method
	Vibrio	APHA 9260H	Streak Plate Method
	Legionella	ISO 11731:2017(E)/ APHA 9260J	Spread Plate Method
	Bacillus cereus	AOAC 980.31(D)	Spread Plate Method
	Clostridium pefringes	AOAC 976.30(E)	Pour Plate Method
	Lacto bacillus	ISO 20128:2006	Spread Plate Method
	Enterobacteriaceae	ISO 21528:2017	Pour Plate Method
	Streptococcus faecalis	APHA 9230B	Streak Plate Method
	Pseudomonas aeruginosa	ISO 16266-2:2018	Pour Plate Method
	Listeria sp	AOAC 993.12/ISO 11290-2:2017	Pour Plate Method
Listeria monocytogen	AOAC 993.12/ISO 11290-2:2017	Pour Plate Method	
	Klebsiella sp	AOAC 966.24	Spread Plate Method