

GREEN AND ENVIRONMENT AUDIT (2023 – 2024)

FOR



**WEST GUWAHATI COMMERCE COLLEGE
PANDAV NAGAR, GUWAHATI, ASSAM-781012**

Conducted By



**ENVIRO-TESTING-SERVICES
NOONMATI, GUWAHATI-781020, ASSAM
AUGUST -2024**

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01	8-08-2024	Issued For West Guwahati Commerce College Pandav Nagar, Guwahati, Assam-781012		
No.	Date	Description	Checked	Approved
ETS, ENVIRO-TESTING-SERVICES Guwahati	A Report on Green and Environment Audit		Job No. :ETS /WGCC /GEA/ 01 dated 8/08/2024	
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ETS-GUWAHATI

ENVIRO-TESTING-SERVICES

**Accredited by NABL, Pollution Control Board Assam,
ISO 9001, ISO 45001, MSME**

Ref: ETS/WGCC/GER/01/2024

Date: 8th August 2024

COMPLETION CERTIFICATE

This is a Green and Environment Audit report compiled on the basis of field survey and field investigation of various environmental components such as Land Use Land Cover, Micro meteorological Quality, Ambient Air Quality, Drinking Water Quality, Soil Quality, Noise Quality, Illumination Level, Carbon Footprint, Flora, Fauna along with environmental and Energy management practices.

The present work was carried out at the request of the Principal, West Guwahati Commerce College, Pandav Nagar, Guwahati, Assam-781012 vide order number BC /Green & Environment Audit /Invitation/2023-24 Dated 20.03.2023. The findings of the study carried out during the period of May 2023 to June 2024 are presented in this report. All the Analysis of Environmental Quality Parameters is done at the laboratories of Enviro Testing Services, Noonmati, Guwahati. The Laboratory is duly recognised by NABL, State Pollution Control Board, Assam, ISO 9001 :2015; ISO 14001:2015 and MSME.

For Enviro Testing Services



Date: 8.08.2024

**(Dr. Hrishikesh Sarma)
Ex. Director, ETS, Guwahati**



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We are also thankful to other office staff members who were actively involved while collecting the data and conducting field survey

For Enviro Testing Services



(Dr. Hrishikesh Sarma)
Ex. Director, ETS, Guwahati

Date: 8.08.2024

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1.0 Introduction of the Institute

1.1 Brief Introduction

The origin of West Guwahati Commerce College dates back to the year 1992 when prominent academician and a visionary Dr. Binoy Kr. Tamuly propounded the idea of establishing an ideal commerce college in the Maligaon locality to cater to the vital need of commerce education in the greater west Guwahati area. Accordingly, on 17-05-1992 a public meeting was held at Gotanagar Nambari High School premises under the Presidentship of Late Dr. Mina dhar Borthakur, Secretary Dulal Ch. Das and Treasurer Sri Tarun Ch. Baruah, it was resolved that an ideal commerce college be established in the West Guwahati locality with the active participation and co-operation of the concerned citizen of the locality.

Within a brief period of time an institute emerged as West Guwahati Commerce College with the unified effort, devotion and sacrifice of the founders with Late N.C Das as the founder Principal and the team of devoted faculty members which soon flourished into a full-fledged commerce college.

The college is situated on the northern side of Maligaon Over Bridge. The college is away from the cacophony of city, the site is ideal for both teaching and learning in a peaceful surrounding. From the point of view of communication, the college is just two minutes walking distance from the city bus route, with a stoppage at Baripara. It is only about 2 kilometers away from Gauhati University.

At present, West Guwahati Commerce College is the third Government Provincialised Commerce College in Guwahati Metro.

Vision

West Guwahati Commerce College is committed to highest level of integrity in terms of academics and beyond. Adaptability towards improvement of present conventional higher education system to face the challenges of management, industries and business. The College has initiated a major programme for the next five years to ensure that the graduates who come out after successful completion of these courses would have knowledge, skills and aptitude for gaining employment in all sectors. The college has started a few self-financing courses from the session 2007-2008.

From the academic year 2008-2009, the college has introduced remedial classes for slow learners as well as tutorial classes' for students from underprivileged section of the society for their upliftment.

Mission

- To impart need based quality education to the students.
- To help gaining acquisition of practical skill, attitudes relating to professions in various organized and unorganized sectors.
- To prepare professionally qualified commerce graduates with sound knowledge of their core discipline and values of sustainability
- To provide more relevant and career oriented courses focusing on quality and excellence.
- To produce work forces having self-determination and the ability to explore opportunities.
- To enhance self-confidence and leadership qualities of the students to face present day challenges and risks.
- To promote independent thinking, creativity, innovation and decision making capability.

1.2 Location of the College Campus

Location	: Urban
Campus Area	: 4478.01 Sq. mtrs
Built Up Area	: 2448.53 Sq. mtrs

1.3 Physical Structure of the College Campus

Total No of Departments	:10
Auditorium	: 01
Cafeteria	: 01
Health Centre	: 01
Heritage Corner	: 01
Teachers Common Room	: 01
Libraries	: 01

1.4 Student, Teacher & Employees Strength

Total Number of Students	: 1041
Total Number of Teachers	: 21
Total Number. of Employees	: 13 (non-teaching)

2.0 Brief Outlines of Green Audit

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of organization. It aims to analyse environmental practices within and outside of the concerned place, which will have an impact on the eco-friendly atmosphere.

Green audit is a valuable means for a college to determine how and where they are using the most energy or water or other resources; the college can then consider how to implement changes and make savings. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of green impact on campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus, it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more predominant. The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises.

On this background it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development and at the same time reduce a sizable amount of atmospheric CO₂ from the environment. The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

3.0 Objective of Green Audit

- (i) Land use & Built-up Environment
- (ii) Geographical Location with Campus Map
- (iii) Present status of Micro meteorology, Ambient air, Noise, Soil quality, Water quality & Illumination Study
- (iv) Floral and Faunal diversity
- (v) Management Practices with respect to Water, Energy and Waste
- (vi) Carbon footprint
- (vii) Organizational Level Efforts

4.0 Methodology

Methodology includes

- (i) Physical inspection of the campus
- (ii) Collection of Primary & Secondary Data
- (iii) Observation and review of the documentation
- (iv) Data analysis

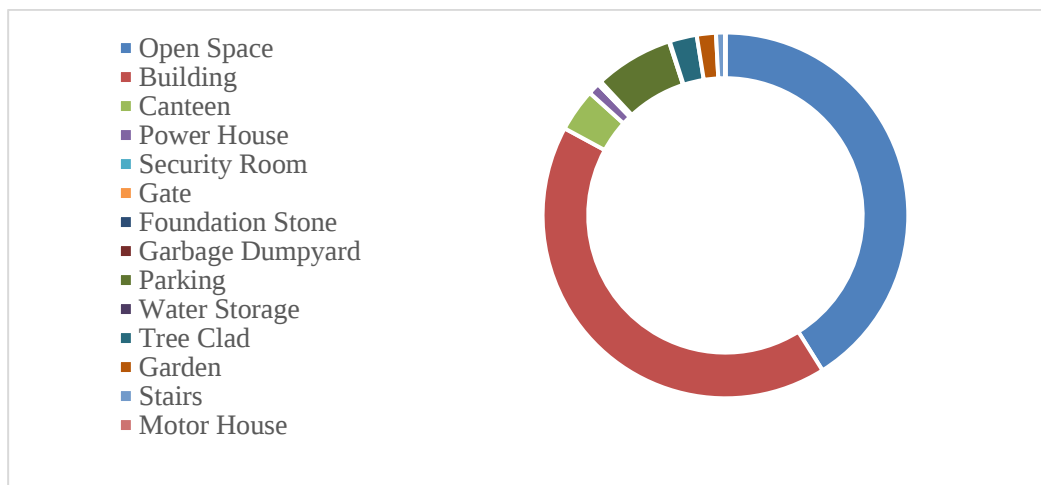
5.0 Objective wise Analysis

5.1 Land use & Built-up Environment

It encompasses area about 4478.01 sq. mtrs. Total built-up area is 2448.53 Sq. mtrs. out of the total 4478.01 sq. mtrs of the campus. Both Assam type and multi-storied RRC construction are found within the campus.

The area coverage of different land use classes

West Guwahati Commerce College Campus		
Sr. No.	Feature	Sq. m
1	Open Space	1840.24
2	Building	1871.75
3	Canteen	169.77
4	Power House	47
5	Security Room	2.66
6	Gate	6.25
7	Foundation Stone	0.34
8	Garbage Dumpyard	5.53
9	Parking	310.73
10	Water Storage	2.94
11	Tree Clad	107.94
12	Garden	75.77
13	Stairs	36.67
14	Motor House	0.42
	Grand Total	4478.01



Geographical Location with Campus Map

West Guwahati Commerce College is situated in Guwahati, Kamrup(M) district of Assam, within the geo-position

Latitude N 26°9'36.06''

Longitude E 91°41'21.76''





Glimpses of West Guwahati Commerce College

5.3 Present status of Micrometeorology, Ambient air, Noise Quality, Water quality, Soil Quality and Illumination Level

5.3.1 Micrometeorology Status

Monitoring Station	Date	GPS Coordinate
Micrometeorology	18.05.2024	N 26°9'35.47'' E 91°41'22.62''

Table 1 : Micrometeorological Study at West Guwahati Commerce College

S/N	Parameters	Unit	Metrological Data at West Guwahati Commerce College	
1	Temperature	°C	Min	22
			Max	31
2	Relative Humidity	%	10.30am	74
			16.30pm	79
3	Wind Speed	Km/hr	10.30am	4.2
			16.30pm	6.8
4	Wind Direction	-	10.30am	SSE
			16.30pm	SE

5.3.2 Ambient Air Quality

The average results obtained in the month of May 2024 at West Guwahati Commerce College are presented in Tables 2. All the results meet the National Ambient Air Quality (NAAC) standards.

Monitoring Station	Date	GPS Coordinate
Ambient Air Quality	18.05.2024	N 26 ⁰⁹ /36.07 ^{//} E 91 ⁰⁴¹ /23.17 ^{//}

Table 2: Ambient Air Quality at West Guwahati Commerce College

AMBIENT AIR QUALITY						
Duration (24 Hour)			Average			
S/N	Parameters	Unit	Concentration	Limit	Weather Condition*	Test Method
1	Particulate Matter (PM10)	µg/m ³	67.6	100	Clear	IS5182(23)
2	Particulate Matter (PM2.5)	µg/m ³	44.8	60		CPCB Guideline
3	Sulphur Dioxide (SO ₂)	µg/m ³	12.6	80		IS5182(2)
4	Nitrogen Dioxide(NO ₂)	µg/m ³	14.2	80		IS5182(vi)
5	Pb in PM 10	µg/m ³	<0.2	1.0		IS5182(vi)
6	Pb in PM2.5	µg/m ³	<0.2	1.0		IS5182(vi)
7	Ni in PM10	ng/m ³	<0.2	20		IS5182(vi)
8	Ni in PM2.5	ng/m ³	<2.0	20		IS5182(vi)
9	As in PM10	ng/m ³	BDL	06		IS5182(vi)
10	As in PM2.5	ng/m ³	BDL	06		IS5182(vi)

5.3.3 Noise Quality study

In the present study, the noise level measurements were recorded using a precision sound level meter (Envirotech SLM100) with a measuring range between 0-150 dB. The instrument is calibrated before the measurements are recorded. The microphone was placed at 1.0 m from the facades of house, away from any reflecting surface and 1.2 m above the ground. In each location, adequate number of samples was taken at 10-minute intervals. The noise levels were recorded during day time and meteorological conditions: no wind no rain. The Noise Level Monitored (Table 3) and analyzed is found to be within the CPCB Prescribed Limit

Table 3: Noise Quality at West Guwahati Commerce College

S/N	Locations	GPS Co-ordinate		Daytime SPL(dB) [6 am to 10 pm]		CPCB Limit SPL(dB)
				Leq	Range	
1	College Main Gate	N 26°9'36.06''	E 91°41'21.76''	64.4	61 – 72	75
2	Near Ground Floor Class Room	N 26°9'35.67''	E 91°41'22.77''	61.2	52 – 67	
3	Class Room No. 6	N 26°9'35.5''	E 91°41'22.41''	63.4	45 – 62	
4	Near Faculty Room	N 26°9'35.65''	E 91°41'22.99''	61.2	55 – 64	
5	Near College Canteen	N 26°9'37.11''	E 91°41'21.77''	68.1	56 - 63	
6	Near Library	N 26°9'36.66''	E 91°41'23.99''	62.4	58 - 68	
7	Near Class Room 12	N 26°9'37.15''	E 91°41'22.65''	62.8	54 - 67	
8	Roof Top of ADM Building	N 26°9'35.36''	E 91°41'22.94''	68.1	59 – 69	

5.3.4 Drinking Water Quality

Drinking Water samples were collected from various locations of West Guwahati Commerce College and the sampling locations are as follows

Sr.No.	Sampling Locations	GPS Co-ordinate	
1	Inside college drinking water facility	N 26°9'35.67''	E 91°41'22.77''
2	Faculty Room	N 26°9'35.65''	E 91°41'22.99''

Results of analysis of the most relevant water quality parameters are given in Tables 4. The test method for all the parameters along with tolerance limit as suggested by IS-10500 is presented in Table 3. All the parameters with respect to drinking water quality are found to be within the tolerance limit as suggested by IS: 10500.

Table 4: Various Test Methods of Water Quality Monitoring

S/N	Parameters	Test Methods	IS-10500
1	Odour	APHA 20 th Edition, 2150 B	Unobjectionable
2	Temperature (°C)	Thermometry Method	50
3	Turbidity (NTU)	APHA 20 th Edition, 2130B	5
4	pH	APHA 20 th Edition, 4500-H+B	6.5 – 8.5
5	Conductance (mS/cm)	APHA 20 th Edition, 2510B	-
6	Total Dissolved Solid (mg/L)	APHA 20 th Edition, 2540 B	500
7	Total Suspended Solid (mg/L)	APHA 20 th Edition, 2540 B	-
8	Chloride (mg/L)	APHA 20 th Edition, 4500-Cl- B/B	250
9	Residual Chlorine (mg/L)	APHA 20 th Edition, 4500-Cl-B	0.2
10	Sulphates as SO ₄ (mg/L))	APHA 20 th Edition, 4500-SO ₄ ²⁻ B	250
11	Nitrate (mg/L)	APHA 20 th Edition, 4500-NO ₃ ⁻ B	45
12	Fluoride (mg/L)	APHA 20 th Edition, 4500-F ⁻ D	1
13	Calcium (mg/L)	APHA 20 th Edition, 3500 B	75
14	Magnesium (mg/L)	APHA 20 th Edition, 3500 B	-
15	Iron (mg/L)	APHA 20 th Edition, 3111 B	0.3
16	Manganese	APHA 20 th Edition, 3111 B	0.1
17	Zinc	APHA 20 th Edition, 3111 B	5
18	Arsenic	APHA 20 th Edition, 3112 B	0.01
19	Total Coliform (MPN/100 mL)	APHA 20 th Edition, 3111 B	0
20	Faecal Coliform (MPN/100 mL)	APHA 20 th Edition, 9221 E	0

Table 5 : Results of Drinking Water Quality at West Guwahati Commerce College

S/N	Parameters	Unit	DW1	DW2
1	Odour	--	NS	NS
2	Temperature (°C)	°C	29	29
3	Turbidity (NTU)	NTU	0.3	0.2
4	pH	-	7.2	7.1
5	Conductance (mS/cm)	mS/cm	0.48	0.46
6	Total Dissolved Solid (mg/L)	mg/L	52.0	48.0
7	Total Suspended Solid (mg/L)	mg/L	18.1	19.2
8	Chloride (mg/L)	mg/L	21.6	24.2
9	Residual Chlorine (mg/L)	mg/L	<0.01	<0.01
10	Sulphates as SO ₄ (mg/L))	mg/L	9.1	8.9
11	Nitrate (mg/L)	mg/L	7.2	8.2
12	Fluoride (mg/L)	mg/L	0.26	0.28
13	Calcium (mg/L)	mg/L	24.2	25.1
14	Magnesium (mg/L)	mg/L	26.1	26.3
15	Iron (mg/L)	mg/L	0.12	0.13
16	Manganese	mg/L	0.003	0.004
17	Zinc	mg/L	0.05	0.04
18	Arsenic	mg/L	<0.001	<0.001
19	Total Coliform (MPN/100 mL)	mg/L	03	03
20	Faecal Coliform (MPN/100 mL)	mg /L	NIL	NIL

5.3.5 Quality of Soil in the Study Area

Soil sample is collected from the college campus as follows.

Sr.No.	Sampling Locations	GPS Co-ordinate	
1	Near College Main Gate	N 26°9'36.06''	E 91°41'21.76''

It was analyzed for the most relevant physical and chemical parameters. It may be noted from the results of analysis that Of the soil sample have little alkaline pH . The presence of N, P, K and organic matter content is considerable.

Table 6: Results of Soil Quality Monitoring at West Guwahati Commerce College

S/N	Parameters	[S1]
1	PH (1: 2)	7.8
2	Conductance (ms)	0.36
3	Sand (%)	86.1
	Silt (%)	1.03
	Clay (%)	12.4
4	Water Holding Capacity (%)	46.3
5	Bulk Density (gcm ⁻³)	1.3
6	Cation Exchange capacity (meq/kg)	0.36
7	Nitrogen (%)	0.06
8	Potassium (mg/kg)	18.6
9	Sodium (mg/kg)	21.8
10	Calcium (g/kg)	16.8
11	Magnesium (mg/kg)	23.2
12	Phosphorous (mg/kg)	9.6
13	Organic matter (%)	0.68
14	Sodium Absorption Ratio (SAR)	1.8
15	Zinc (mg/kg)	16.2
16	Copper (mg/kg)	6.4

5.3.6 Illumination Study

Adequate, well-balanced levels of illumination are essential in establishing safe and productive working conditions. Good lighting plays an important role in safeguarding health at work by enabling employees to perform their work comfortably and efficiently. Accordingly, there should be an appropriate level of the light falling on the surface on which workers are working. Excessive contrast, strong glare and light flickering in their fields of vision are also inappropriate.

To ensure good lighting the person responsible for a workplace should arrange for a suitable assessment on the lighting levels in the workplace. Good lighting can decrease errors by 30-60 % as well as decrease eye-strain and the headaches, nausea, and neck pain which often accompany eyestrain.

The Lux Levels were measured during day time in the college campus as well as in the office buildings. In this present study the Installed load Efficacy Ratio (IIER) are calculated as per BEE Lighting Code.

1	A	B	C	D
2		Equation	Value	Unit
3	Time of Measurement		Day time	
4	Room Identification			
5	Number Of lamps			
6	Length of the room			m
7	Width of the room			m
8	Floor Area	$A = \text{Length} * \text{Width}$		m^2
9	Height of the lamp from the Plane of measurement			m
10	Room index	$(L * W) / Hm * (L + W)$		
11	Average room illuminance	$(\text{Max} + \text{Min.lux}) / 2 * \text{Correction factor}$		lux
12	Measured/estimated circuit power			W
13	Installed lighting Efficacy	$(\text{Avg.illum} * \text{Floor area}) / \text{Circuit watts}$		lm/W
14	Target lighting efficacy			lm/W
15	Installed lighting Efficacy ratio (ILER)	$\text{Installed lighting efficacy} / \text{Target lighting efficacy}$		

Installed lighting Efficacy ratio (ILER)	<u>Assessment</u>
0.75 or above	Satisfactory to good
0.51 to 0.74	Review suggested
0.5 or less	Urgent action required

Table 7: Results of Installed lighting Efficacy ratio (ILER) at West Guwahati Commerce College

S/N	Location	ILER	Assessment
1	Room No. 6	2.78	Satisfactory
2	Room No 7	1.50	Satisfactory
3	Room No 10	1.25	Satisfactory
4	Room No 12	2.06	Satisfactory
5	Room No 13	2.95	Satisfactory
6	Room No 14	1.74	Satisfactory
7	Room No 16	1.67	Satisfactory
8	Room No 17	4.69	Satisfactory
9	Room No 18	5.18	Satisfactory
10	Room No 19	4.75	Satisfactory
11	Room No 20	0.78	Satisfactory
12	Library	5.18	Satisfactory
13	Principal Office	3.75	Satisfactory
14	Faculty Room	4.74	Satisfactory
15	College Canteen	5.86	Satisfactory



Environmental Monitoring at different locations of the West Guwahati Commerce College

5.4 Floral and Faunal diversity

5.4.1 Floral Biodiversity

The survey was conducted in the month of May 2024 following the Quadrat sampling procedure. In the study area the vegetation is a complex of plant communities with considerable diversities. Since the plants showed normal and very good growth, there appears to be no adverse environmental factors prevailing in the area.

Plants of all types, in general, showed healthy and luxuriant growth in terrestrial, aquatic and aerial habitats in the study areas. Leaf diseases (leaf spot and shot-holes) on the aerial parts of the plants were very infrequently observed and did not show any adverse effect on the growth of the plants.

In this present study, different types of flora along with the total of species of the respective flora identified in the college campus are as follows.

<u>Different types of flora</u>	<u>Total number of species</u>
Full Grown Tree	: 60
Semi Grown	: 10
Bushes	: 5

List of plants are presented in Table- 8

Table 8 : List of Plants recorded at West Guwahati Commerce College

Plant list of West Guwahati Commerce College						
Sl no.	Family	Scientific name	Vernacular name	English name	Uses	Number
1	Moraceae	<i>Ficus religiosa</i> L.	Ahot	Peepal tree	Bark and ripe fruits are used in the treatment of asthma.	2
2	Rutaceae	<i>Murraya koenigii</i> (L). Spreng	Narasingha	Curry leaf tree	Leaves are used in culinary purpose	1
3	Myrtaceae	<i>Psidium guajava</i> L.	Modhuriaam	Guava	Fruit is edible, young leaves are	5
4	Sapotaceae	<i>Mimusops elengi</i> L.	Bokul	Spanish cherry	Ornamental	3
5	Combretaceae	<i>Terminalia arjuna</i> (Roxb.)Wight & Arn.	Arjun	Arjun tree	Bark decoction is used to treat hypertension and heart diseases.	2
6	Anacardiaceae	<i>Mangifera indica</i> L.	Aam	Mango	Fruits edible	6
7	Arecaceae	<i>Cocos nucifera</i> L.	Narikol	Coconut	Fruits edible	2
8	Annonaceae	<i>Monoon longifolium</i> (Sonn.)B. Xue & R.M.K Saunders	Debodaru	Indian mast tree	Ornamental	2
9	Pinaceae	<i>Pinus roxburghii</i>	Pine	Pine	Ornamental	4
10	Musaceae	<i>Musa paradisiaca</i> L.	Kolgos	Banana	Whole plant along with fruits are edible	14
11	Arecaceae	<i>Borassus flabellifer</i> L.	Tal	Toddy palm	Unripe Fruits edible, leaves are used to make hand fans	1
12	Myrtaceae	<i>Syzygium cumini</i> (L.)Skeels	Jamu	Java plum	Fruits edible	2
13	Moraceae	<i>Artocarpus heterophyllus</i> Lam.	Kothal	Jackfruit	Fruits edible	2
14	Rhamnaceae	<i>Zizyphus jujube</i> Mill.	Bogori	Jujube	Fruits edible	5
15	Meliaceae	<i>Azadiracta indica</i> Nees.	Neem	Indian lilac	Seed oil is used as pesticides and insecticides.	1
16	Lyrthaceae	<i>Lawsonia inermis</i> L.	Jetuka	Henna tree	Leaves are crushed and juice is used as Dye	1
17	Asteraceae	<i>Tagates erecta</i> L.	Genda	Marigold	Ornamental	1
18	Apocynaceae	<i>Cascabela thevetia</i> (L.)Lippold	Korobi	Yellow oleander	Ornamental	3
19	Asparagaceae	<i>Dracaena trifasciata</i> (Prain) Mabb.	Snake plant	Sansevieria	Ornamental	1
20	Rutaceae	<i>Citrus aurantifolia</i>	Gol Nemu	Key Lime	Fruits edible	1
21	Malvaceae	<i>Bombax ceiba</i> L.	Simolu tula	Silk cotton tree	Silk cotton is obtained from this tree . bark	1

					juice is used to treat intestinal worms and diarrhoea.	
22	Callophyllaceae	<i>Mesua ferrea</i> L.	Nahar	Ceylon ironwood	Ornamental , timber is used for making furnitures.	2
23	Lamiaceae	<i>Coleus sp.</i>	Pattabahar		Ornamental	4
24	Arecaceae	<i>Areca catechu</i> L.	Tamul	Betel nut	Nut is chewed with Betel leaf and works as digestive.	4
TOTAL						70



Areca catechu L.



Ficus religiosa L



Mesua ferrea L.



Coleus sp.



Bombax ceiba L



Monoon longifolium



Azadiracta indica



Psidium guajava



Terminalia arjuna



Colocasia esculenta sp.

Few Photographs of Plants in the West Guwahati Commerce College Campus

5.4.2 Faunal Biodiversity

In view of the need to determine the faunal characteristics of the study areas within the constraints of time, a checklist survey method was followed. Checklist surveys are employed primarily to confirm the presence of species, and sometimes the number of individuals of species in a surveyed area.

The survey was conducted during May 2024. A few numbers of different species were recorded in the West Guwahati Commerce College Campus.

Table 9 : Faunal Biodiversity Recorded in the West Guwahati College Campus
List of avian species recorded in the College campus

Serial No.	Common Name	Scientific Name
1	Owl	<i>Bubo benghalensis</i>
2	House Crow	<i>Corvus splendens</i>
3	Hedge Sparrow	<i>Prunella modularis</i>
4	Common nightangle	<i>Luscinia megarhynchos</i>
5	Pigeon	<i>Columba livia</i>
6	House sparrow	<i>Passer domesticus</i>
7	Asian koel	<i>Eudynamys scolopaceus</i>
8	Indian Myna	<i>Acridotheres tristis</i>
9	Bulbul	<i>Hypsipetes leucocephalus</i>
10	Parrot	<i>Psittacula krameri</i>
11	Pigeon	<i>Columba livia domestica</i>
12	House crow	<i>Corvus splendens</i>
13	Red Vented Bulbul	<i>Pycnonotus cafer</i>
14	Asian Pied Starling	<i>Gracupica contra</i>
15	Spotted Dove	<i>Spilopelia chinensis</i>
16	Common Myna	<i>Acridotheres tristis</i>
17	Purple Sunbird	<i>Cinnyris asiaticus</i>
18	White wagtail	<i>Motacilla alba</i>

List of butterflies recorded in the College campus

Serial No.	Common Name	Scientific Name
1	Common spotted flat	<i>Celanorrhinus leucocera</i>
2	Indian cabbage white	<i>Pieris canidia</i>
3	Common sailor	<i>Neptis hylas</i>
4	Lemon Pansy	<i>Junonia lemonias</i>
5	Red Lacewing	<i>Cethosia bibilis</i>
6	Common crow	<i>Eupolea core</i>
7	Grey Pansy	<i>Junonia atlites</i>
8	White Admiral	<i>Limenitis Camilla</i>
9	Common Mormon	<i>Papilio polytes</i>
10	Common Grass Yellow	<i>Eurema hecabe</i>



Common Myna



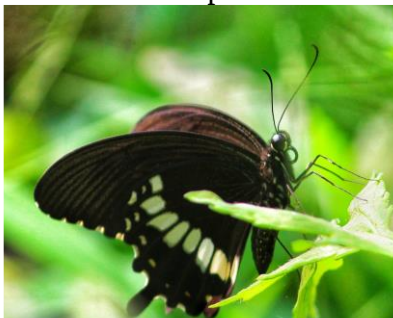
Pigeon



House Sparrow



Spotted Dove



Common Mormon



Common Grass Yellow



Lemon Pansy



Common crow

5.5 Management Practices with respect to Water, Energy and Waste

5.5.6 Water Management Practices

- Water Storage per day= 5000 Lt
- Water Tank Cleaning=Twice per Annum
- Daily Consumption of water= 5000 Lt

Department	Wise use of water	Water Leakage Repair	Use of push Tap	Use of Water purification	Rain Water Harvest	Water Use Per Day	Water Management Practices
Library	✓	-	x	-	x	-	✓
Office	✓	-	x	-	x	-	✓
Information Technology	✓	-	x	-	x	-	✓
Principal room	✓	-	x	-	x	200	✓
Vice-principal room	✓	-	x	-	x	250	✓
Examination room	✓	-	x	-	x	300	✓
Teacher Common Room		-	x	-	x	180	✓
Boys Common Room	✓	-	x	-	x	500	✓
Girls Common Room	✓	-	x	-	x	500	✓
Auditorium	✓	-	x	-	x	500	✓
Student Toilet	✓	-	x	-	x	500	✓
Canteen	✓		x	-	x	500	✓
Gardening	✓	-	x	-	x	400	✓

Observations

- (i) No leaking taps, pipes, valves were identified in the college premise.
- (ii) There are no any push button taps
- (iii) The college has optimized its irrigation system at night or early morning hours to minimize evaporation for gardening.
- (iv) Water escaping from overflows either inside or outside building was not identified during onsite audit.

5.5.2 Energy Management Practices

- Electric Load = 22 KW
- Daily Consumption=unit 130 kwh
- Electric Bill paid for the period of 2023-24(Bill Attached)

Department	No. of Tubes	No. of CFL Light	No. of LEDs	No. of Fans Ceiling+wall+ exhaust	No. of LCD projector	No. of Computers + Printers	No. of photocopier	Common / sophisticated analytical equipments	No. of Ac
Examination Branch	06	01		05	01				
Vice principal's room	02			02					
General Class Room	110			102					
Library	08	02				01			
Office	05	02		08		07	01		
Teacher Common Room	06			07					
Boys Common Room	02			02					
Girls Common Room	02			02					
Student Toilet	02			01					
Canteen	02			03					

Observations:

- i) There is minimum or practically negligible use of lights during day time as the building structure has possibility of daylight usage
- ii) The lighting arrangements are well balanced with arrangements to switch ON and OFF
- iii) The policy of college is switch off the lights and other electrical equipment when they are not in use.
- iv) Cleanliness is well maintained. In- house light fittings are cleaned time to time.
- v) Lights are negligibly operated during day time. The lights are operated manually. There is no any sensor-based lighting system
- vi) The college is utilising natural lighting as first preference
- vii) Computers, printers, photocopiers and other equipment are switched off at the end of the day.
- viii) The all the electrical equipment is well operated. The overall electrification system is regularly monitored by a duly qualified electrician.
- ix) Regarding the use of renewable energy college has not installed any solar panels yet.
- x) College Management is evaluating the feasibility of introduction of the solar PV generation.

5.5.3 Waste Management Practices

Waste can be solid as well as liquid. Solid waste can be further divided into

- (i) Biodegradable- Like food waste, waste from toilets etc.
- (ii) Non-biodegradable-Like Plastics, tins, glassware etc.

Along with these, there are some hazardous wastes generated from laboratories, and E-waste (Computers, electric and electronic parts). Besides this, liquid waste is also there. The institute has over 2600 stakeholders which includes students, teaching staff and non-teaching staffs, thus a huge amount of waste is generated on a daily basis.

Sl/No.	Source	Type of waste	Approximate amount of waste generated per day
1.	Classroom, staff room, Library	Paper, pen, wrappers, plastic bottles etc	Biodegradable waste = 3 kg Non-biodegradable waste = 5 kg. Liquid waste= 20 kL E waste per annum = 55 kg
2.	Laboratories	Chemicals, glassware, waste water and solvents	
3.	Toilets	Sanitary napkins, waste water etc.	
4.	Canteen	Disposable plates, leftover food and water, wrappers, plastic bottles etc.	
5.	Office and computer centre	Papers, wrappers, plastics, paper pins, E-waste etc.	

Waste management practices adopted by the College**1. Solid waste generated in the campus**

- dry and wet waste are collected in dustbins with two chambers which are placed in the library, teachers' common room, canteen, near classroom etc.
- Segregation of solid waste into dry and wet waste in different bins.
- Specific waste management plans are adopted to manage solid waste in the campus.
- E-waste includes malfunctioning computer monitors, printers, scanners, calculators, keyboards, mouse, cables, circuit boards, bulbs etc. generated from campus is subjected to handover E-waste authorised agency

2. Toilet waste

- Soak pits are available in toilets
- Toilet waste is connected to large tanks. These tanks are cleaned periodically.

3. Other waste

- Sanitary napkins are subjected to burn in the incinerator.
- Leaf litters are presently burnt but planned for vermicomposting.
- Waste like broken bulbs, tubes etc. which cannot be repaired are dumped temporarily at the dumping bin and later on disposed of to the municipality collection van.

6.0 Carbon footprint due to Transport System

Emission of CO₂ through transport system – both public and private – is very high in India as India is credited with the third rank in carbon emission in this regard. It is estimated that in India, 9% of the total carbon is emitted by the transport system.

In West Guwahati Commerce College during survey, it was observed that on an average, there are 07 number of four wheelers are used by faculty while 200 number of two wheelers are used by students and staff. Further student uses bicycles 100 numbers. It is appropriate to calculate the petrol consumption separately for four wheelers and two wheelers.

The fuel consumption by vehicles is determined by the type of vehicle, year of manufacturing, maintenance status, traffic system of the particular area, etc. High-end and medium-range bikes consume different quantities of petrol.

Conversion table to calculate carbon emission by vehicles per liter is very complicated in view of the local variables to be taken for calculation. Instead, a simple but universally accepted calculation calendar for various types of fuels and their CO₂ conversion rate was adopted.

6.1 Emissions of CO₂ by transport system at West Guwahati Commerce College

It is estimated that the average mileage covered by each vehicle is about	10 km.
The total mileage covered by the 200 number of two wheelers per year	$(200 \times 10 \times 200) = 400000$ km
The average mileage covered by four wheelers is	8 km per day
The total mileage covered by 07 four wheelers per year	$(07 \times 8 \times 200) = 11200$ km
The total mileage covered by two and four wheelers per year	$(400000 + 11200) = 411200$ km
The standard fuel consumption for two wheelers is taken	35 km / 1L of Fuel
The standard fuel consumption for Four wheelers is taken	15 km / 1L of Fuel
The total quantity of petrol consumed by 200 number Two Wheelers	$(400000 / 35) = 11429$ L
The total quantity of fuel consumed by 07 number four wheelers per year	$(11200 / 15) = 747$ L
The total fuel consumption per year (Two+ Four) Wheelers	$(11429 + 747) = 12176$ L
Combustion of 1 litre of diesel/petrol leads to the emission of CO ₂	2.68 kg
The total quantity of CO₂ emitted by per liters of fuel per year	$(12176 \times 2.68) = 32632$ kg

6.2 Flora and Carbon Footprint Reduction

Carbon Absorption Capacity of Flora at West Guwahati Commerce College

The carbon footprint calculation is based on the following standard accepted assumptions

- Carbon absorption capacity of one full grown tree = 6.8 kg CO₂
- Carbon absorption capacity of one semi grown tree = 3.4 kg CO₂
- Carbon absorption capacity of one Shrubby vegetation = 0.2 kg CO₂

Total CO₂ absorption Capacity of Flora

Total amount of CO ₂ absorption capacity by Flora	443 kg
--	--------

6.3 Oxygen Emission Capacity of Flora at West Guwahati Commerce College

The carbon footprint calculation is based on the following standard accepted assumptions

- Oxygen Emission capacity of one full grown tree = 117.6 kg O₂
- Oxygen Emission capacity of one semi grown tree = 58.8 kg O₂
- Oxygen Emission Capacity of 400 number of Shrubby vegetation = 550 kg O₂

Total amount of Oxygen Emission by Flora	7651
--	------

6.4 Summary of Carbon Footprint Reduction at West Guwahati Commerce College

Carbon Absorption Capacity of Flora	443 kg
Oxygen Emission Capacity of Flora	7651 kg
The total quantity of CO ₂ emitted by vehicles	32632kg

6.5 Summary of Carbon Footprint per person at West Guwahati Commerce College

Total Carbon Footprint in kg	: 32632kg
Total Average number of persons in the College	: 1041
Carbon emission per person in kg	: $32632/1041 = 31.3$
Carbon emission per person in kg	: 31.3 kg

7.0. Organizational effort

S/N	Items	Responses
Organizational effort		
1	Is the college having campus green team?	Yes. Copy Attached
2	Have you established an environmental mission/vision for your campus	Yes. College has established Environment to make the students and teachers aware about the environmental issues and challenges. The college has organized several programmes addressing environmental awareness among students and community as well (e.g. World Wetland Day, 2 nd February; World Environment Day, 5 th June; World Wildlife Conservation Day, 4 th December; World Soil Day 5 th December).
3	College initiates any tree plantation programme	Yes. programme organized within and outside the college campus particularly on College Foundation Day and World Environment Day (5 th June)
4	How many numbers of existing tree, shrubs and herbs species	In total 70
5	How many numbers of existing full-grown tree, semi grown trees	Full Grown - 60 Semi Grown – 10
6	Is there any lawn in the college campus? If yes what is area	No, planning to do

7	Is the college encouraging sustainable behaviour via: Education campaigns? Such as Posters, placards, Messages, incentives? Contests? awards?	Yes, College organized various programme encouraging sustainable behaviour such as World Environment day (5 th June), World Wetlands day (2 nd February), National Science day (28 th February), International Yoga Day (21 st June), World AIDS Day(1 st December), No Tobacco Day (31 st May)
8	Is the college staff modelling sustainable behaviour for students, peers, and community?	College has adopted a village namely Senduri Ghopa, District Kamrup (Rural). Various community development work in terms of education, health & hygiene, environmental education etc. has been initiated.
9	Is the college having solar, wind, or other forms of renewable energy?	No. Planning to initiate very soon
10	What are the good practices pertaining to Transport?	Encourage the use of public transport, Bicycle and Zero Use of Plastic in the college campus.
11	What is the average number of vehicle movements in terms of two & Four wheelers	Two Wheelers: 200 - 215 Four Wheelers: 08 – 10
12	Has the college initiated to reduce its carbon footprint	Yes, College has taken several initiatives to reduce total carbon footprint amount within the college campus.
13	Has the college adopted any specific measures to reduce pollution	To motivate students, social service competitions are being held on special occasion such as college week, environment day, Science Day, Azadi ka Amrit Mahotsav etc., where they are awarded for their active participation.



Various Activity by West Guwahati Commerce College

8.0 Recommendations

Water Management

- (i) The college Management needs to consider the low - flow faucets, as the replacement for the existing conventional taps.
- (ii) The toilet and wash room should be equipped with push button
- (iii) Sprinkler and drip irrigation should use for gardening
- (iv) The college should install rain water harvesting unit
- (v) More advanced water purification treatment facilities may be installed within the campus in order to ensure safe drinking water.

Energy Management

- The public lights within the campus may be run with solar panels and the replacement of existing lights should be done with LED lamps.
- Energy auditing should be done with the help of Energy Management Centre (EMC)

Waste Management

- Specific waste management plans should be adopted to manage solid waste in the campus, use of plastic carry bags, plastic glass/ cups/plates and flex boards should be banned inside the College to create a plastic free zone.
- For managing organic wastes organised vermicompost plant may be installed in the campus
- There should be a proper system for the management of hazardous wastes.
- ETP and STP should install in the campus properly

Green Management

- Green habitat concept should be adopted for all the building construction activities of the college in future, which may help a long way in reducing energy usage, increasing aesthetic appeal of the buildings and class rooms, besides reducing carbon foot print.
- Further, more green spaces should be established all around the campus around larger trees and shades for the benefit of the students. All these aspects should monitor by Green Campus Committee.
- Air quality, drinking water quality should monitor annually.

- Annexure 1 : Scanned copy of Green Campus Committee of West Guwahati
Commerce College*
- Annexure 2 : Scanned copy of electric bill paid receipt*
- Annexure 3 : Scanned copy of ISO Certificate*
- Annexure 4 : Scanned copy of NABL Certificate*
- Annexure 5 : Scanned copy of PCB Certificate*
- Annexure 6 : Scanned copy of MSME Certificate*



WEST GUWAHATI COMMERCE COLLEGE

Maligaon, Baripara, Pandav Nagar, Guwahati-781012

Email: wgcc1992@gmail.com

Website: wgccguwahati.in

Phone : 0361-3514592

Ref. No.:

Date:

Date: 12.12.2022

I have the honour to inform you that a Green Campus Committee was formed in 09.09.2021 with the following composition:

Chairman: Mr. Harendra Kumar Nath

Convenor: Sujit Nandi

Members: Dr. Raktima Hujuri

Mrs Madhusmita Devi

Mrs. Manashi Bhattacharjee

Mrs. Pratiksha Barman

Thanking You,

Bhatia
12-12-2022

Mr. Bhabananda Dutta
West Guwahati Commerce College
Baripara, Maligaon, Guwahati-12

Principal I/C
West Guwahati Commerce College
Maligaon, Guwahati-781012



Assam Power Distribution Company Limited

ELECTRICAL SUB-DIVISION/IRCA: Jalukbari

CIN: U40109AS2003SGC007242

GSTIN: 18AABCL1354J1ZJ

MONTHLY SMART PRE-PAID STATEMENT



website : www.apdcl.org

Centralized Customer Care Number : 1912

Consumer Name: PRINCIPAL WEST GUWAHATI COMMERCE CO	Consumer Number: 023010089575	Bill Amount: 12063.79
Address: ,P.NAGAR,JALUKBARI	Old Consumer Number: 53000012442	Statement Number: 514968221
	DTR Number: A01R	Statement Month: May, 2024
	Connected Load in KW: 10.00	Bill Period: 30-April-2024 To 31-May-2024
	Contracted Demand in KVA: 11.76	Number of Days: 31
Contact Number : 9435909924	Meter Number: AP10003428	
Email:	Tariff Category: LT IV COMMERCIAL	

Meter Reading Details

Reading Type	Meter Number	MF	MD	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWh (Normal)	AP10003428	1.00	11.76	42743.73	0	43844.36	0	1100.63	0

Unit Consumed	PF	PF Penalty/Rebate	LT Metering Penalty @ 3%	DTR Penalty @ 10%	HT Rebate @ 3%	Billable Units in KWh
1100.63	95.00	-9.50				1091.13
Previous Excess Solar Unit	0	Solar Unit Adjusted	0	Remaining Excess Solar Unit	0	

PLEASE RECHARGE ON TIME TO AVOID DISCONNECTION

Energy Consumption of Last 6 Months

Consumption & recharge history of last 6 statements
(Statement#1 being the latest statement prior to this current statement)

	Stmnt#1	Stmnt#2	Stmnt#3	Stmnt#4	Stmnt#5	Stmnt#6
Unit Consumed	960.52	829.93	662.51	546.15	767.89	1003.20
Bill Amount (in Rs.)	10760.20	9560.27	7851.96	6840.24	8965.63	11169.26
Recharge (in Rs.)	0	15000.00	0	20000.00	0	20000.00

*Stmnt: Statement

Charges Breakup

Details	Units	Rate	Amount
Energy Charge	1091.13	7.90	8619.91
	0	0	0
	0	0	0
	0	0	0
	0	0	0
Total Energy Charge			8619.91
Demand/Fixed Charge	10.00	150.00	1528.90
FPPPA Charge		0.70	1407.55
Electricity Duty		5.00 %	507.43
Government Subsidy		0	0
Solar Rebate		0	0
Meter Rent		0	0
Transformer M D Charge			0
Overdrawal Penalty			0
Charges for dishonoured cheque			0
Total Monthly Charge			12063.79
Opening Balance			1923.32
Recharge Amount			15000.00
Adjustment			0
Arrear Adjustment			0
Credit Adjustment			0
Jeevan Dhara Adjustment			0
Final Balance			4859.53
Balance Arrear as on 01-Jun-2024			0
Balance Credit as on 01-Jun-2024			0

This is a system generated statement. Signature is not required. Please contact your subdivision for any clarification.

MD: Maximum Demand
KWh: Kilo Watt Hour
LT: Low Tension
HT: High Tension

MF: Multiplying factor of the meter
Transformer M D Charge : Transformer Maintenance & Depreciation Charge
FPPPA Charge: Fuel & Power Purchase Price Adjustment Charge



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

ENVIRO-TESTING SERVICES

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

BIJAY NAGAR, HOUSE NO. 35, NOONMATI, GUWAHATI, KAMRUP METRO, ASSAM, INDIA

in the field of

TESTING

Certificate Number: TC-13637

Issue Date: 08/05/2024

Valid Until: 07/05/2026

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: ENVIRO-TESTING SERVICES

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer

This is to Certify that the Management System of
ENVIRO TESTING SERVICES

**BIJAY NAGAR, NOONMATI, GUWAHATI - 781020,
ASSAM, INDIA**

has been found to conform to the Quality Management System standard:

ISO 9001:2015

This certificate is valid for the following scope of operations:

**ENVIRONMENTAL ASSESSMENT, MANAGEMENT AND
MONITORING FOR SOIL, WATER, AIR, FLORA
AND FAUNA.**

Certificate No.: 09110783A

<u>Date of initial registration</u>	<u>Date of this Certificate</u>	<u>Surv. audit on or before/ Certificate expiry</u>	<u>Recertification Due</u>
24 August 2022	24 August 2022	23 August 2023	23 August 2025

Accreditation

This Certificate remains valid subject to satisfactory surveillance audits.



ICL/FM-001/REV06



Director



For verification and updated information concerning the present certificate visit to www.iclcert.com

This certificate is property of Integral Certification (P) Ltd. and shall be returned immediately when demanded.

Integral Certification (P) Ltd.

301, U-60 (3rd Floor), Shakar Pur, Laxmi Nagar, Delhi-110092

E-mail: info@iclcert.com Website : www.iclcert.com

Contact No. : +91-9319332223

This is to Certify that the Management System of

ENVIRO TESTING SERVICES

BIJAY NAGAR, NOONMATI, GUWAHATI - 781020, ASSAM, INDIA

has been found to conform to the Environmental Management System standard:

ISO 14001:2015

This certificate is valid for the following scope of operations:

**ENVIRONMENTAL ASSESSMENT, MANAGEMENT,
GREEN AUDIT AND ENVIRONMENTAL AUDIT**

Certificate No.: IN19503B

<i>Date of initial registration</i>	<i>Date of this Certificate</i>	<i>Surv. audit on or before/ Certificate expiry</i>	<i>Recertification Due</i>
08 February 2023	08 February 2023	07 February 2024	07 February 2026

Accreditation

This Certificate remains valid subject to satisfactory surveillance audits.



ICL/FM-001/REV06



Director



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E-mail: info@iclcert.com Website : www.iclcert.com

Contact No. : +91-9319332223



Pollution Control Board, Assam

(Department of Environment & Forests : : Government of Assam)

অসম প্রদূষণ নিয়ন্ত্ৰণ পৰিষদ
(অসম চৰকাৰৰ বন আৰু পৰিৱেশ বিভাগ)



No.WB/GUW/T-2445/13-14/213

Dated Guwahati the 26th June, 2021

OFFICE ORDER

In exercise of the powers conferred under section 17(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 17(2) of the Air (Prevention & Control of Pollution) Act, 1981, the Pollution Control Board, Assam is pleased to recognize of M/s. **Enviro Testing Services, Bijoy Nagar, House No. 35, Noonmati, Guwahati-22, Kamrup (M), Assam** as an Environmental Laboratory. This recognition is awarded for the purpose of analyzing following parameters and shall be valid till **07.05.2026**.

A. Water & Waste Water quality parameters:

Sl. No.	Parameters	Sl. No.	Parameters
1	pH	31	Lead
2	Temperature	32	Copper
3	TSS	33	Nickel
4	Zinc	34	Cr (Total & Hexa)
5	BOD	35	Cadmium
6	COD	36	Aluminium
7	Total Dissolved Solids	37	Manganese
8	Chloride	38	Arsenic
9	Sulphate	39	Pesticides
10	Oil & Grease	40	Total Acidity
11	Sodium	41	DO
12	Phenol	42	Cobalt
13	Odour	43	Vanadium
14	Turbidity	44	Molybdenum
15	Alkalinity	45	Silver
16	Conductivity	46	Hydrazine
17	Total Hardness	47	Silica
18	Calcium	48	Colour
19	Magnesium	49	Anionic Detergent
20	Nitrate	50	Corrosivity
21	Sulphide	51	Ignitibility
22	Fluoride	52	Reactivity
23	Residual Free Chlorine	53	Cyanide
24	Total Residual Chlorine	54	Polychlorinated Biphenyls
25	Boron	55	Polynuclear Aromatic Hydrocarbon
26	Free Ammonia	56	DDT
27	Ammonical Nitrogen	57	Trihalomethanes
28	TKN	58	Selenium
29	Phosphate (Dissolved)	59	Mercury (Hg)
30	Iron		

B. Bacteriology & Bio-assay:

1	Total Coliform
2	Fecal Coliform
3	Bio-Assay (Toxicity)

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Contd...p/2



-2-

C. Noise Quality Parameters:

Noise Level Monitoring – Noise in dB(A)

D. Ambient Air Quality Parameters:

Sl. No.	PARAMETER	Sl. No.	PARAMETER
1	Oxides of Sulphur	11	Arsenic
2	Oxides of Nitrogen	12	Nickel
3	PM 10	13	Mercury
4	PM 2.5	14	Hydrogen Sulphide
5	Ozone	15	Toluene
6	Lead	16	Carbon Dioxide
7	Carbon Monoxide	17	Total Hydrocarbon
8	Ammonia	18	VOC
9	Benzene	19	Chromium
10	Benzo (a) Pyrene		

E. Stack Emission Parameters:

Sl. No.	PARAMETER
1	Oxides of Sulphur
2	Oxides of Nitrogen
3	Particulate Matter
4	Oxygen
5	Carbon Monoxide
6	Total Hydrocarbon
7	Hydrogen Sulphide
8	Carbon Dioxide
9	Furan
10	Dioxin
11	VOC

Terms & Conditions:

1. The recognition may be revoked or withdrawn subject to the violation of the following conditions :-
 - i. The laboratory shall carry out analysis only for the parameters authorized by the Board as mentioned in the certificate of approval.
 - ii. The laboratory shall carry out analysis of samples as per IS, APHA code of Federal Regulation and should specify the method in the analysis report.
 - iii. The laboratory will keep a proper record of receipt of samples, the analysis report of all the parameters analyzed.
 - iv. The laboratory will collect samples, which will be divided in two parts. One part will be analyzed, while the other part will be preserved for thirty days. For air samples, the used thimbles and filter papers will be preserved for six (6) months so that the Board can check randomly and verify the credibility.
 - v. The Board officials may visit laboratory for verification of preserved samples.
 - vi. Records pertaining to inventory of the chemicals/ reagents shall be kept properly on a permanent register and will be subject to inspection by the Board.

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- vii. The Laboratory shall submit information on whether ETPs/APCDs installed by the respective unit was running or not along with test report. The analysis report shall reflect site conditions and capacity at which the industry was running at the time of sampling.
 - viii. Laboratory will submit details of staffs involved in sampling and testing and the person coming for collection of sample should have authority letter of Laboratory.
 - ix. Prior information is to be given to the concerned Regional Officers and Head Office for collection of sample.
 - x. **The approval shall be suspended or cancelled if the Board has reason to believe that the data reported by the Laboratory is repeatedly erroneous. Further the Laboratory and its key personnel shall be liable to be proceeded against for imposition of penalty in case the Board has reason to believe that the data reported by the Laboratory is intentionally manipulated.**
 - xi. If the laboratory fails to achieve the satisfactory performance regarding testing of the coded samples supplied by the Pollution Control Board, Assam will result in withdrawal of recognition.
 - xii. The instruments/equipment should be always kept in working and perfectly calibrated condition.
 - xiii. The Laboratory has to submit a brief plan on safety measures undertaken for risk management pertaining to the work environment.
 - xiv. Board will have every right to accept or reject the analytical and other reports submitted by the aforesaid laboratory without assigning any reason thereof.
2. This order will remain valid upto **07.05.2026 with effect from the date of issue of this order** subject to the outcome of Hon'ble Gauhati High Court Order in WP(C) - 8468/2018. But the said recognition may also be withdrawn at any time in case of violation of any of the aforementioned conditions or for any other unlawful activities, which are not proper under the law of the land.
 3. The Laboratories should maintain certified Reference Materials/Standard reference materials along with valid Certificate of Analysis (CoA) related to the parameters for which recognition is granted.
 4. The Laboratories should properly prepare standard curves periodically as per their used method depending on analyse concentration range and shall perform standard checks during testing.
 5. The Laboratories should calibrate all utility equipment, volumetric glassware and sampling instruments through NABL accredited Calibration Laboratory periodically and shall maintain records with traceability. The Laboratories should also perform internal calibration checks during validity of calibration period.
 6. The Laboratories should maintain documents on Method Validation, Detection Limits (LOD, LOQ) Measurement Uncertainty etc.
 7. The Laboratories should perform Internal Quality Control programme like repeat testing, remnant testing, participation in Inter Laboratory Comparison (ILC)/Proficiency Testing (PT) Programme, Intra- Laboratory Comparison etc.
 8. The Laboratories should maintain the system of coding of samples to ensure impartiality and confidentially in test procedure.
 9. The Laboratories should maintain dedicated Log Books for Instruments and Analysis Registers of each parameter.
 10. The Laboratories should maintain Stock Registers for chemicals, glassware, thimbles, Filter Papers to verify stock position, consumption pattern, reordering level etc.

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11. Standard method documents (e.g APHA methods, IS methods, USEPA methods etc.) should be made accessible to the laboratory personnel and the Standard Operating Procedures/ Work instructions of analytical processes should be made available at working areas.
12. The Laboratories to which recognition for PM2.5 parameter in Ambient Air has been granted, should possess Electronic Balance of having readability minimum upto 5th place of decimal.
13. The Laboratories should train their personnel on regular intervals for capacity building on sampling methodology and analytical procedure to ensure quality analysis.
14. The Laboratories should upgrade instrumental analysis (handling, operation and practice) for successful implementation of standards to improve data quality.
15. If any Laboratory is not equipped with proper facilities and infrastructure to execute the test/analysis, the same should be informed to the State Board with fifteen (15) days of the discontinuation of test.
16. The Laboratories should not change the location without prior intimation to the State Board and in case of any change of address, the concerned Laboratory should inform the State Board with fifteen (15) days of closure of activity in the address.
17. Information of any Kinship and any relation of any Laboratory owner with any State Board employee must be disclosed to the State Board.
18. The Laboratories shall obtain NABL accreditation as per ISO/IEC 17025:2017 for the parameters for which recognition has been recommended.

This order has been passed as per the approval of Competent Authority.

(Shantanu Kr. Dutta)
Member Secretary

Memo No.WB/GUW/T-2445/13-14/213-A

Dated Guwahati the 26th June, 2024

Copy to:

✓ M/s. Enviro Testing Services, Bijoy Nagar, House No.35, Noonmati, Guwahati-22, Kamrup (M) for information and necessary action.

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Member Secretary



भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises



UDYAM REGISTRATION CERTIFICATE

UDYAM REGISTRATION NUMBER

UDYAM-AS-16-0015132

NAME OF ENTERPRISE

ENVIRO TESTING SERVICES

TYPE OF ENTERPRISE *

SNo.	Classification Year	Enterprise Type	Classification Date
1	2023-24	Micro	29/04/2023

MAJOR ACTIVITY

SERVICES

SOCIAL CATEGORY OF ENTREPRENEUR

GENERAL

NAME OF UNIT(S)

S.No.	Name of Unit(s)
1	ENVIRO TESTING SERVICES

OFFICAL ADDRESS OF ENTERPRISE

Flat/Door/Block No.	-	Name of Premises/ Building	BIJOY NAGAR,
Village/Town	Kamrup,	Block	-
Road/Street/Lane	NOONMATI,	City	Assam,
State	ASSAM	District	KAMRUP , Pin 781020
Mobile	9435732705	Email:	envirotesting2011@gmail.com

DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE

15/12/2001

DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS

15/12/2001

NATIONAL INDUSTRY CLASSIFICATION CODE(S)

SNNo.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	70 - Activities of head offices; management consultancy activities	7010 - Activities of head offices	70100 - Activities of head offices	Services
2	70 - Activities of head offices; management consultancy activities	7020 - Management consultancy activities	70200 - Management consultancy activities	Services
3	71 - Architecture and engineering	7110 - Architectural and engineering	71100 - Architectural and engineering	Services

	activities; technical testing and analysis	activities and related technical consultancy	activities and related technical consultancy	
4	71 - Architecture and engineering activities; technical testing and analysis	7120 - Technical testing and analysis	71200 - Technical testing and analysis	Services
5	74 - Other professional, scientific and technical activities	7490 - Other professional, scientific and technical activities n.e.c.	74904 - Security consulting	Services

DATE OF UDYAM REGISTRATION**29/04/2023**

* In case of graduation (upward/reverse) of status of an enterprise, the benefit of the Government Schemes will be availed as per the provisions of Notification No. S.O. 2119(E) dated 26.06.2020 issued by the M/o MSME.

Disclaimer: This is computer generated statement, no signature required. Printed from <https://udyamregistration.gov.in> & Date of printing:- 29/04/2023

For any assistance, you may contact:**1. District Industries Centre: DIC KAMRUP (ASSAM)****2. MSME-DFO: GUWAHATI (ASSAM)**Visit : www.msme.gov.in ; www.dcmsme.gov.in ; www.udyamregistration.gov.in

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