

Date: 22.05.2025

To,
The Director
Ministry of Environment, Forest & Climate Change
Kendriya Bhawan, 5th Floor, Sector "H" Aliganj
Lucknow (Uttar Pradesh)

Subject: Six Monthly Compliance Report of Environmental Clearance for proposed expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity 41.0 MW within existing industry premises by **M/s Dhampur Bio Organics Limited, (Unit: Asmoli, Division: Sugar)**, at village-Asmoli, Tehsil & District– Sambhal, Uttar Pradesh for the period of October, 2024 to March-2025.

EC Identification No. EC23B025UP167115 (File No. 7801-7491), dated June 22nd, 2023

Reg: Submission of Six-Monthly Compliance Report for Period of October, 2024 to March-2025.

Dear Sir,

This is in connection to above mentioned subject we are hereby submitting the six-monthly compliance report of the conditions of Environmental Clearance for proposed expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity 41.0 MW within existing industry premises by **M/s Dhampur Bio Organics Limited, (Unit: Asmoli, Division: Sugar)**, at village-Asmoli, Tehsil & District– Sambhal, Uttar Pradesh for the period of October, 2024 to March-2025 along with annexures as follows:

1. **Annexure-01:** Copy of CTO (Air and Water),
2. **Annexure-02:** Copy of Environmental Clearance
3. **Annexure-03:** Ground Water NOC (UPGWD)
4. **Annexure-04:** Test Report
5. **Annexure-05:** Public notice published in news paper
6. **Annexure-06:** Photograph Environmental display board

Requesting you to accept the hard and soft copy reports submitted for information please.

Thanking You,
Your's sincerely
M/s Dhampur Bio-organics Limited
(Unit: Asmoli, Division: Sugar)


Authorized Signatory

**SIX-MONTHLY ENVIRONMENTAL COMPLIANCE
REPORT OF STIPULATED CONDITIONS OF
ENVIRONMENTAL CLEARANCE**

(October, 2024 to March, 2025)

For

**PROPOSED EXPANSION OF EXISTING SUGAR UNIT FROM
9,000 TCD TO 14,000 TCD WITHOUT CHANGE IN EXISTING
CO GEN POWER CAPACITY - 41 MW**

By

**M/s Dhampur Bio Organics Limited
Unit: Asmoli, Division: Sugar**

At

Village: Asmoli, Tehsil & District: Sambhal, Uttar Pradesh

For Submission to:

**Ministry of Environment, Forest & Climate Change
(Regional Office, Lucknow)**

Submitted by:

**M/s Dhampur Bio Organics Limited
Unit: Asmoli, Division: Sugar**

TABLE OF CONTENT

Sr. No	Title	Page No.
CHAPTER No. 01: INTRODUCTION AND PROJECT DESCRIPTION		05
CHAPTER No. 02: COMPLIANCE OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE		06 - 14
CHAPTER No. 03: DETAILS OF ENVIRONMENTAL MONITORING		15 - 41
3.1	AMBIENT AIR QUALITY MONITORING	15
3.1.1	Ambient air Quality Monitoring Stations	15
3.1.2	Ambient Air Quality Monitoring Methodology	15
3.1.3	Ambient Air Quality Monitoring Results at ETP Area	16
3.1.4	Ambient Air Quality Monitoring Results at Residential Colony (A - Block)	16
3.1.5	Ambient Air Quality Monitoring Results at Boiling House Near Dryer House	17
3.1.6	Ambient Air Quality Monitoring Results at Co-Gen Area Near D.M. Plant	17
3.1.7	Discussion on Ambient Air Quality in the Study Area	18
3.2	STACK EMISSION MONITORING	20
3.2.1	Stack Emission Monitoring Methodology	20
3.3	AMBIENT NOISE MONITORING	20
3.3.1	Ambient Noise Monitoring Locations	20
3.3.2	Methodology of Noise Monitoring	20
3.3.3	Ambient Noise Monitoring Results	21
3.3.4	Discussion on Ambient Noise Levels in the Study Area	21
3.4	GROUND WATER QUALITY MONITORING	22
3.4.1	Ground water Quality Monitoring Locations	22
3.4.2	Methodology of ground water Quality Monitoring	22
3.4.3	Ground water Quality Monitoring Results	23
3.5	WASTE WATER QUALITY MONITORING	39
3.5.1	Effluent Water Monitoring Locations	39
3.5.2	Methodology of Effluent Water Quality Monitoring	39
3.5.3	Effluent Water Quality Monitoring Results	39
3.6	SOIL MONITORING	40
3.6.1	Soil Monitoring Locations	40
3.6.2	Methodology of Soil Monitoring	40
3.6.3	Soil Monitoring Results	40
3.6.4	Discussion on Soil Characteristics in the Study Area	41

Sr. No.	List of Table	Page No.
1.	Table-3.1: Details of Ambient Air Quality Monitoring Stations	15
2.	Table-3.2: Techniques used for Ambient Air Quality Monitoring	16
3.	Table-3.3: Ambient Air Quality Monitoring Results ETP Area	16
4.	Table-3.4: Ambient Air Quality Monitoring Results at Residential Colony (A - Block)	17
5.	Table-3.5: Ambient Air Quality Monitoring Results Boiling House Near Dryer House	17
6.	Table-3.6: Ambient Air Quality Monitoring Results at Co-Gen Area Near D.M. Plant	17
7.	Table-3.7: Details of Stack Emission Monitoring Results	20
7.	Table-3.8: Details of Ambient Noise Monitoring Stations	20
8.	Table-3.9: Details of Ambient Noise Monitoring Results	21
9.	Table-3.10: Noise Standards as per CPCB Schedule rule 3(1) and 4(1)	21
10.	Table-3.11: Details of Water Quality Monitoring Station	22
12.	Table-3.12: Ground water Quality Results at Borewell No. 01 (October, 2024)	24
13.	Table-3.13: Ground water Quality Results at Borewell No. 02 (October, 2024)	25
14.	Table-3.14: Ground water Quality Results at Borewell No. 03 (October, 2024)	26
15.	Table-3.15: Ground water Quality Results at Borewell No. 01(November, 2024)	27
16.	Table-3.16: Ground water Quality Results at Borewell No. 02(November, 2024)	28
17.	Table-3.17: Ground water Quality Results at Borewell No. 03(November, 2024)	29
18.	Table-3.18: Ground water Quality Results at Borewell No. 01(December, 2024)	30
19.	Table-3.19: Ground water Quality Results at Borewell No. 02(December, 2024)	31
20.	Table-3.20: Ground water Quality Results at Borewell No. 03(December, 2024)	32
21.	Table-3.21: Ground water Quality Results at Borewell No. 01(January, 2025)	33
22.	Table-3.22: Ground water Quality Results at Borewell No. 02(January, 2025)	34
23.	Table-3.23: Ground water Quality Results at Borewell No. 03(January, 2025)	35
24.	Table-3.24: Ground water Quality Results at Borewell No. 01(February, 2025)	36
25.	Table-3.25: Ground water Quality Results at Borewell No. 02(February, 2025)	37
26.	Table-3.26: Ground water Quality Results at Borewell No. 03(February, 2025)	38
27.	Table-3.27: Details of Effluent Water Quality Monitoring Station	39
28.	Table-3.28: Effluent Water Quality Results of ETP Inlet & ETP Outlet	39
29.	Table-3.29: Details of Soil Monitoring Stations	40
30.	Table-3.30: Physico-Chemical Characteristics of Soil at Plant Premises	41

Sr. No.	List of Figures	Page No.
1.	Figure-3.1: Graphs Showing PM ₁₀ Concentration at all sites	17
2.	Figure-3.2: Graphs Showing PM _{2.5} Concentration at all sites	17
3.	Figure-3.3: Graphs Showing SO ₂ Concentration at all sites	18
4.	Figure-3.4: Graphs Showing NO _x Concentration at all sites	18
5.	Figure-3.5: Day and Night Time noise Level at Monitoring Locations	20

CHAPTER No. 01: INTRODUCTION AND PROJECT DESCRIPTION

Six monthly environmental compliance/status report is submitted for Proposed Expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity - 41 MW within existing industry premises by M/s Dhampur Bio Organics Limited, Unit: Asmoli, Division: Sugar for October, 2024 to March, 2025. The Project is located at Village: Asmoli, Tehsil & District: Sambhal (U.P.). Prior Environment Clearance was obtained from State Level Environment Impact Assessment Authority, Uttar Pradesh wide EC Identification No. **EC23B025UP167115**, dated **22nd June, 2023**. & File No.: **7801-7491** Consolidated Consent & Authorization obtained for the project Vide Ref No.- **225486/UPPCB/Moradabad(UPPCBRO)/CTO/both/SAMBHAL/2024,dated 04/03/2025** for validity upto 31/12/2026. Copy of CTO is attached here as **Annexure-1**. Currently unit is running at capacity – 12500 TCD and co gen power capacity 41 MW.

Environmental mitigation measures described in Environmental Management Plan are being implemented during operation phase. **M/s Dhampur Bio Organics Limited, Unit: Asmoli, Division: Sugar** management team is fully conscious about Environmental Management and enhancing green belt development in project surrounding area.

Six monthly compliance/status reports for **October, 2024 to March, 2025** for conditions stipulated in the Environmental Clearance letter issued by SEIAA, UP are enclosed as **Annexure-2**. Photographs view of implemented mitigation measures are also attached for the ready reference as Photo Documentation.

CHAPTER No. 02 COMPLIANCE OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE

Name of the Project: Proposed Expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity - 41 MW within existing industry premises at village: Asmoli, Tehsil & District: Sambhal (U.P.). by M/s Dhampur Bio Organics Limited, Unit: Asmoli, Division: Sugar.

EC Identification No. EC23B025UP167115, dated 22nd June, 2023.

Period of Compliance Report: October, 2024 to March, 2025.

Sr. No.	Condition	Reply
SPECIFIC CONDITION:		
i.	Discharge should be as per MoEF&CC Guidelines.	Point is noted and same is being complied. Discharge of treated waste water is within stipulated standard as per GSR 35(E).
ii.	PP shall install CAAQMS.	Industry established ambient air quality monitoring location in consultation with UPPCB. Third party monitoring is being done on regular basis.
iii.	Disposal of fly ash shall be done within the premises.	Fly ash generated is primarily mixed with press mud and provided to farmer for soil amelioration. It is also provided to brick manufacturer.
iv.	Three tier green belt shall be developed with native species all along the periphery of the project. Site survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years (Miyawaki method to be adopted for plantation).	Green belt has been already developed within premises. Appox 33 % area has been developed as green belt and it shall be maintained.
v.	Performance test shall be conducted on all pollution control system every year and report shall be submitted to Regional office of the MoEF and CC.	Stack monitoring on regular basis has been conducted. Emission from stack is found within CPCB standard.
vi.	Greening and paving shall be implemented in the plant area to arrest soil erosion and dust pollution exposed soil surface.	Greening and paving is being implemented in the plant area to arrest soil erosion and dust pollution exposed soil surface.

vii.	Properly covered vehicles shall be used while transporting material and product.	Covered trucks are being utilised in transportation of Bagasse and Fly ash.
viii.	Allergy test should also be included in health checkup of works.	Health check-up of employee has been done on regular basis.
ix.	Industry should comply with the CPCB charter guidelines for sugar units and treated water shall be used for the different purposes as per the requirement in industry.	Industry is comply with the CPCB charter guidelines for sugar units and treated water is being used for the different purposes as per the requirement in industry, irrigation purpose and surplus treated water is being discharge as per GSR 35(E) .
STANDARD ENVIRONMENTAL CLEARANCE CONDITIONS:		
I	Statutory Compliance	
i	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	Not applicable as there is no forest land involved in existing project and no forest is situated within 10 km radius.
ii	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not applicable.
iii	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/ Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (In case of the presence of schedule-I species in the study area).	No schedule-I species is found in study area, hence this condition is not applicable.
iv	The project proponent shall obtain Consent to Establish/ Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	The unit has obtained Consent to Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the water (Prevention & Control of Pollution) Act, 1974 from Uttar Pradesh Pollution Control Board for existing capacity. Copy of CTO (Air & water) is enclosed as Annexure-1.
v	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules,	Hazardous waste generated will be disposed as per the Hazardous

	2016 as amended from time to time.	Waste Management Rules 2016. Copy of Hazardous Waste Authorisation as Annexure-1
vi	The company shall strictly comply with the rules and guidelines under Manufacture, Storage and import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.	Point is noted and same shall be implemented as per rules and guidelines under Manufacture, Storage and import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time.
II	Air Quality Monitoring and Preservation:	
i	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connect to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Unit has installed 24 x 7 continuous emission monitoring system at process stacks.
ii	The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM ₁₀ and PM _{2.5} in reference to PM emission, and SO ₂ and NO _x in reference to SO ₂ and NO _x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.	Point is noted and four locations for ambient air quality monitoring has been identified. Monitoring has been done at identified sites. Monitoring report enclosed as Annexure-4.
iii	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six monthly monitoring report.	Stack monitoring has been done by third party monitoring at the time of industry operation. Emission monitoring report is attached as Annexure - 4.
iv	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Wet Scrubber & ESP and common stack height of 60 meter from ground level at the boiler of 70 TPH and 50 TPH and ESP and stack height of 72 meter from ground level at the boiler of 170 TPH. Emission from stack is within

		CPCB standard.
v	The National Ambient Air Quality Emission Standard issued by the Ministry vide G.S.R No. 826(E) dated 16 th November, 2009 shall be complied with.	Ambient air quality monitoring has been done at four locations. Test report enclosed as Annexure-4.
vi	Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/ SPCB guidelines.	Point is noted and only Bagasse is being used as fuel in Boiler. In Bagasse, sulphur level is negligible.
vii	The D.G. sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.	Adequate Stack height has been provided.
viii	Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and their other fugitive emissions.	This is Sugar Cane Crushing unit. Bagasse is being stored in specific area and covered shed has been provided.
III	Water Quality Monitoring and Preservation	
i	For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD) and connected to SPCB and CPCB online servers.	Continuous online monitoring system has been installed and connected to CPCB & SPCB online server.
ii	Process effluent / any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.	Separate storm water drain has been provided. Storm water from the premises shall be collected and discharged.
iii	The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/ Water Act, whichever is more stringent.	Point is noted and same is being complied. Generation of waste water and discharge of treated waste water is being discharged as per UPPCB and CPCB norms.
iv	Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/ CGWA in this regard.	After expansion freshwater requirement has been 980 KLD and same is being abstracted. NOC for ground water abstraction has been obtained. Copy of NOC is attached as Annexure – 3.
v	Generated effluent shall be treated in ETP and treated effluent shall conform the standard under the EP Act, 1986/CPCB/MoEFCC and treated water from ETP	This is sugar unit; therefore, wastewater generated is being treated in ETP, which comprises of

	shall be used for irrigation.	Bar screen Oil & Grease separator, Equalisation tank , Anaerobic digester, Aeration tank with diffused aeration system, Clarifier, MGF, ACF & Decanter.
vi	The company shall harvest rainwater from the roof tops of the buildings and storm water drain to recharge the ground water and utilize the same for different industrial operations within the plant.	Industry already constructed rainwater harvesting pit within premises for rainwater harvesting. Industry also adopted village pond to ensure artificial recharge of rainwater.
IV	Noise Monitoring and Preservation	
i	Acoustic enclosure shall be provided to D.G. set for controlling the noise pollution.	Acoustic enclosure is provided with DG set for controlling the noise pollution.
ii	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.	Acoustic enclosure and silencer has been provided for plant and machinery to reduce noise level. Ambient Noise Monitoring has been done at three locations. Test report enclosed as Annexure-4.
iii	The amount noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Noise monitoring has been done at three locations and Test report enclosed as Annexure-4.
V	Energy Conservation Measures	
i	The energy sources for lighting purpose shall preferably by LED based.	The unit already preferred and installed LED Lighting in the campus for proposed expansion.
VI	Waste Management	
i	Hazardous chemicals shall be stored in tanks, tanks farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.	Hazardous chemical is being stored in drum in dedicated area and provided to TSDF and authorised recycler for further disposal.
ii	Process organic residue and spent carbon, if any shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	No Process organic residue and spent carbon are generated. ETP sludge is being provided to farmer which is being utilised as manure. Fly ash generated is being provided to brick manufacturer.
iii	The company shall undertake waste minimization measures wherever feasible as below:-	

	a.	Metering and control of quantities of active ingredients to minimize waste.	The unit has metered all necessary flow points as per CPCB / UPPCB guidelines.
	b.	Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.	Molasses is the by-product generated from Sugar unit, which is being utilised as raw material in Distillery plant.
	c.	Use of automated filling to minimize spillage.	Condition noted and complied.
	d.	Use of Close Feed system into batch reactors.	Not applicable.
	e.	Venting equipment through vapour recovery system.	Not applicable.
	f.	Use of high-pressure hoses for equipment clearing to reduce wastewater generation.	Complied.
VII	Green Belt		
	i.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	33 % of total project land has been provided as Green Belt.
VIII	Safety, Public Hearing and Human Health Issues		
	i	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Disaster management plan for project has been prepared and same is being implemented.
	ii	The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Personal Protection Equipment (PPE) like Goggles, safety boots, safety helmets etc.
	iii	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Training is imparted to all concerning employees on safety and health aspects of chemicals handling.
	iv	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc has been provided to Construction labour.
	v	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupation health surveillance of the workers is done on a regular basis and records has been maintained.
	vi	There shall be adequate space inside the plant	Sufficient parking has been

	premises earmarked for parking of vehicles for raw materials and finished products. And no parking to be allowed outside on public places.	provided and same will be utilised after expansion.
IX	Corporate Environmental Responsibility	
i	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1 st May 2018, as applicable, regarding Corporate Environment Responsibility.	Point is noted and same will be complied.
ii	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental/ forest/ wildlife norms/ conditions and/ or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	The company is having an environmental policy duly approve by the Board of Directors.
iii	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	The unit has organized an Environmental Cell to take care of all concerning stipulated conditions regarding environment.
iv	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/ Regional Office along with the Six-Monthly Compliance Report.	Point is noted and complied.
v	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Point is noted and complied.
X	Miscellaneous	
i	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two	The copy of published information (in newspapers) regarding grant of Environmental Clearance. Copy of public notice is attached as

	local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Annexure - 5.
ii	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	The copies of the environmental clearance is being submitted to the Heads of local bodies, Panchayats
iii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Condition noted and will be complied.
iv	The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Environmental display board has been installed at the gate of industry. Photograph of the same is attached as Annexure - 6.
v	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Point is noted and Complied.
vi	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Unit has submitted environmental statement in Form-V as per schedule.
vii	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Condition noted and complied.
viii	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Point is noted and will be complied.
ix	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing	Condition noted and complied.

	and also that during their presentation to the Expert Appraisal Committee.	
x	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Point is noted and agreed.
xi	Concealing factual data or submission of false/ fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	No Concealing of factual data has been done.
xii	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Condition noted and agreed.
xiii	The Ministry reserves the right to stipulate additional conditions if found necessary.	Condition noted and agreed.
xiv	The Company in a time bound manner shall implement these conditions.	Condition noted and agreed.
xv	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports.	Condition noted and agreed.
xvi	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/ High Courts and any other Court of Law relating to the subject matter.	Condition noted and agreed.
xvii	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Condition noted and agreed.

CHAPTER No. 03 DETAILS OF ENVIRONMENTAL MONITORING

3.1 AMBIENT AIR QUALITY MONITORING

3.1.1 Ambient air Quality Monitoring Stations

Ambient air quality monitoring has been carried out ETP Area, Residential Colony (A - Block), Boiling House Near Dryer House, and Co-Gen Area Near D.M. Plant to assess the ambient air quality. This will enable to have analytical understanding about air quality and the changes in the air environment in the study area with respect to the condition prevailing. The locations of the ambient air quality monitoring stations are given in **Table-3.1**:-

Table-3.1:

Details of Ambient Air Quality Monitoring Stations

Sr. No.	Location Code	Location Name/ Description	Environmental Setting of surrounding	Date of Monitoring
1.	AAQ - 01	ETP Area	Industrial	14.11.2024 to 15.11.2024
2.	AAQ - 02	Residential Colony (A - Block)	Residential	13.11.2024 to 14.11.2024
3.	AAQ - 03	Boiling House Near Dryer House	Industrial	13.11.2024 to 14.11.2024
4.	AAQ - 04	Co-Gen Area Near D.M. Plant	Industrial	14.11.2024 to 15.11.2024

AAQ - 01: ETP Area

The sampler was placed within ETP Area and was free from any obstructions. Surroundings of the sampling site represent industrial environmental setting.

AAQ - 02: Residential Colony (A - Block)

The sampler was placed at Residential Colony (A - Block) and was free from any obstructions. Surroundings of the sampling site represent residential environmental setting.

AAQ - 03: Boiling House Near Dryer House

The sampler was placed at Boiling House Near Dryer House and was free from any obstructions. Surroundings of the sampling site represent industrial environmental setting.

AAQ - 04: Co-Gen Area Near D.M. Plant

The sampler was placed at Co-Gen Area Near D.M. Plant and was free from any obstructions. Surroundings of the sampling site represent industrial environmental setting.

3.1.2 Ambient Air Quality Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Respirable Suspended Particulate Matter (PM₁₀)
- Fine Particulate Matter (PM_{2.5})
- Sulphur Dioxide (SO₂)
- Oxides of Nitrogen (NO_x)

The duration of sampling of PM₁₀, PM_{2.5}, SO₂ and NO_x was 24 hourly continuous sampling per day duration monitoring. The monitoring was conducted for one day at the location. This is to allow a comparison with the National Ambient Air Quality Standards.

The air samples were analyzed as per standard methods specified by Indian Standards (IS: 5182). The techniques used for ambient air quality monitoring and minimum detectable levels are given in **Table-3.2**.

Fine Particulate Sampler instruments have been used for monitoring Particulate Matter 2.5 (PM_{2.5} i.e. <2.5 microns), and Respirable Dust Sampler with gaseous sampling attachment was used for sampling Respirable fraction (<10 microns), gaseous pollutants like SO₂, and NO_x.

**Table-3.2:
Techniques used for Ambient Air Quality Monitoring**

Sr. No	Parameter	Technique	Range of testing /limit of detection
1.	Respirable Suspended Particulate Matter (PM ₁₀)	Respirable Dust Sampler, with cyclone separator, Gravimetric Method	5.0 - 1200
2.	Fine Particulate Matter (PM _{2.5})	Fine Particulate Sampler, Gravimetric Method	2.0 - 500
3.	Sulphur dioxide	Modified West and Gaeke	5.0 - 1050
4.	Oxides of Nitrogen	Jacob & Hochheiser	6.0 - 750

3.1.3 Ambient Air Quality Monitoring Results at ETP Area

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in **Table-3.3**.

**Table-3.3:
Ambient Air Quality Monitoring Results ETP Area**

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part-23): 2006, RA: 2022	µg/m ³	83.2	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part-24): 2019	µg/m ³	48.81	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part-02): 2001, RA: 2022	µg/m ³	14.26	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part-06): 2006, RA: 2022	µg/m ³	21.30	For 24 hour = 80

3.1.4 Ambient Air Quality Monitoring Results at Residential Colony (A - Block)

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in **Table-3.4**.

Table-3.4: Ambient Air Quality Monitoring Results at Residential Colony (A - Block)

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part-23): 2006, RA: 2022	µg/m ³	76.2	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part-24): 2019	µg/m ³	45.69	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part-02): 2001, RA: 2022	µg/m ³	13.25	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part-06): 2006, RA: 2022	µg/m ³	18.69	For 24 hour = 80

3.1.5 Ambient Air Quality Monitoring Results at Boiling House Near Dryer House

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in Table-3.5.

Table-3.5: Ambient Air Quality Monitoring Results Boiling House Near Dryer House

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part-23): 2006, RA: 2022	µg/m ³	86.2	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part-24): 2019	µg/m ³	52.30	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part-02): 2001, RA: 2022	µg/m ³	13.89	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part-06): 2006, RA: 2022	µg/m ³	20.42	For 24 hour = 80

3.1.6 Ambient Air Quality Monitoring Results at Co-Gen Area Near D.M. Plant

The detailed on-site monitoring results of PM_{2.5}, PM₁₀, SO₂ and NO_x are presented in Table-3.6.

Table-3.6: Ambient Air Quality Monitoring Results at Co-Gen Area Near D.M. Plant

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part-23): 2006, RA: 2022	µg/m ³	85.9	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part-24): 2019	µg/m ³	52.42	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part-02): 2001, RA: 2022	µg/m ³	14.53	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part-06): 2006, RA: 2022	µg/m ³	22.08	For 24 hour = 80

3.1.7 Discussion on Ambient Air Quality in the Study Area

The value of PM₁₀ at Ambient Air Monitoring at all 04 locations are 83.20 µg/m³, 76.2 µg/m³, 86.20 µg/m³ & 85.90 µg/m³ respectively which were within permissible limit of 100 µg/m³ and PM_{2.5} levels are 48.81 µg/m³ ETP Area, 45.69 µg/m³ Residential Colony (A - Block), 52.30 µg/m³ at Boiling House Near Dryer House and 52.42 µg/m³ at Co-Gen Area Near D.M. Plant, were also observed within permissible limit of 60 µg/m³ (for residential, rural and other areas as stipulated in the National Ambient Air Quality Standards). SO₂ ranges between 13.25 µg/m³ to 14.53 µg/m³ and NO_x ranges between 18.69 µg/m³ to 22.08 µg/m³ was also observed within the corresponding stipulated limits (Limit for SO₂ and NO_x; 80 µg/m³) at all of the 2 monitoring locations. Station wise variation of ambient air quality parameters has been graphically shown in **Figure-3.1 to 3.4**.

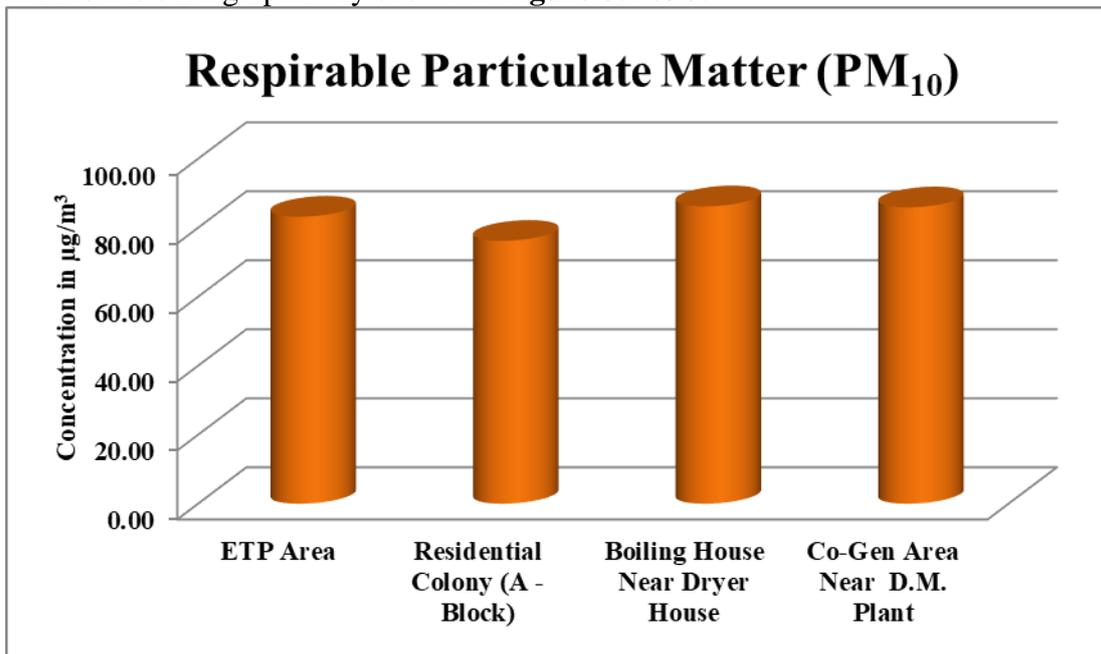


Figure-3.1: Graphs Showing PM₁₀ Concentration at all sites

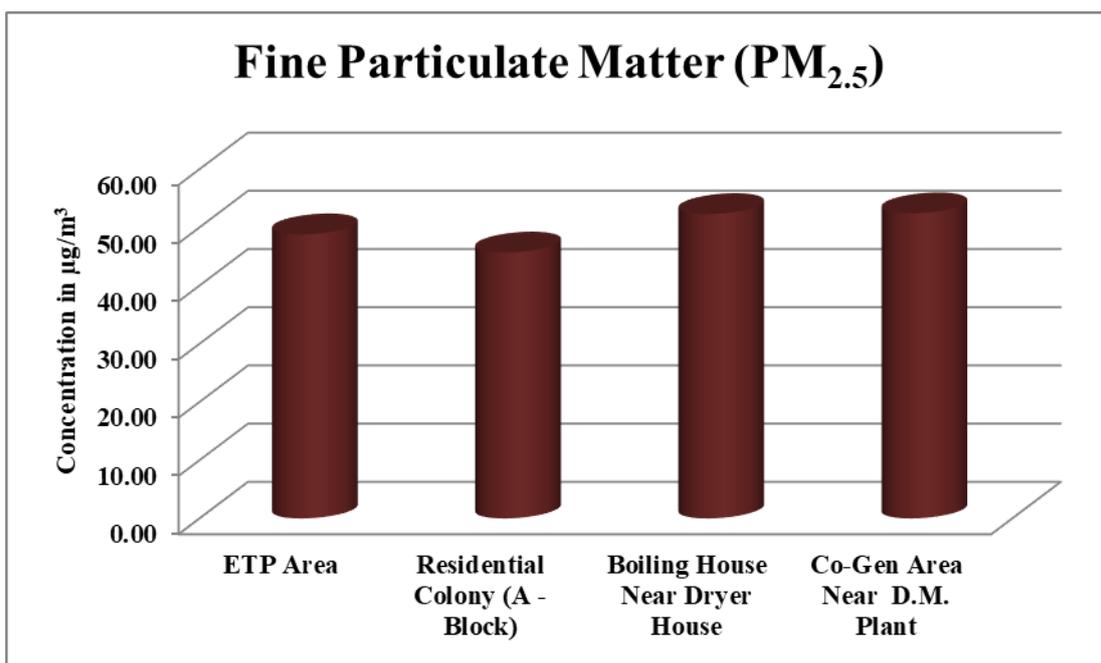


Figure-3.2: Graphs Showing PM_{2.5} Concentration at all sites

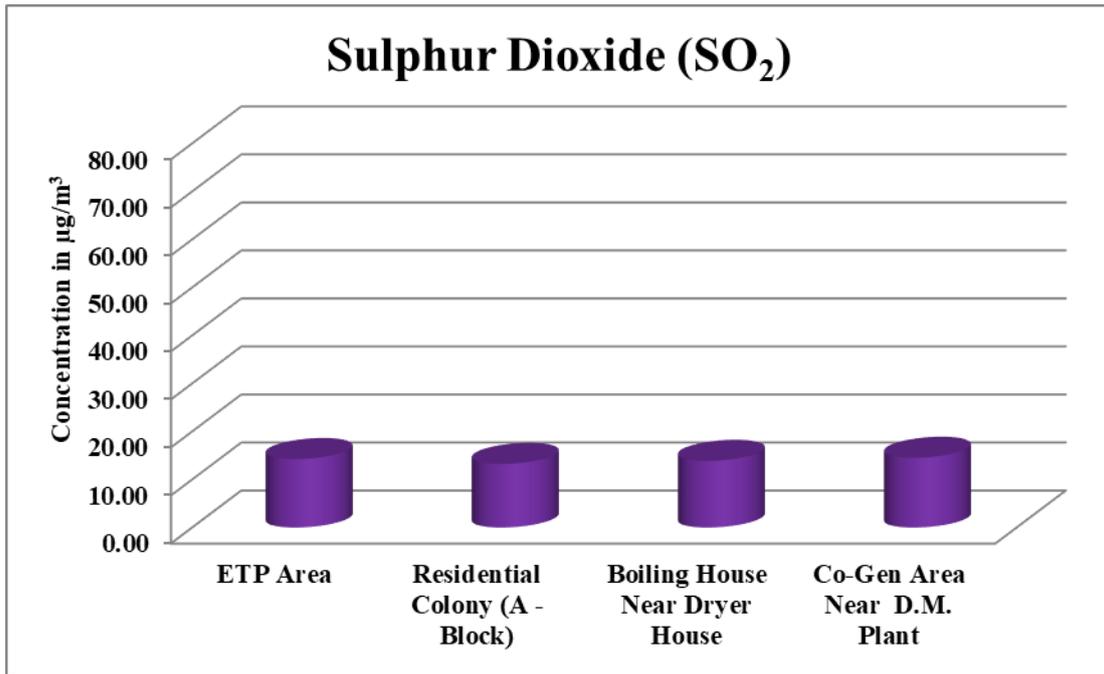


Figure-3.3: Graphs Showing SO₂ Concentration at all sites

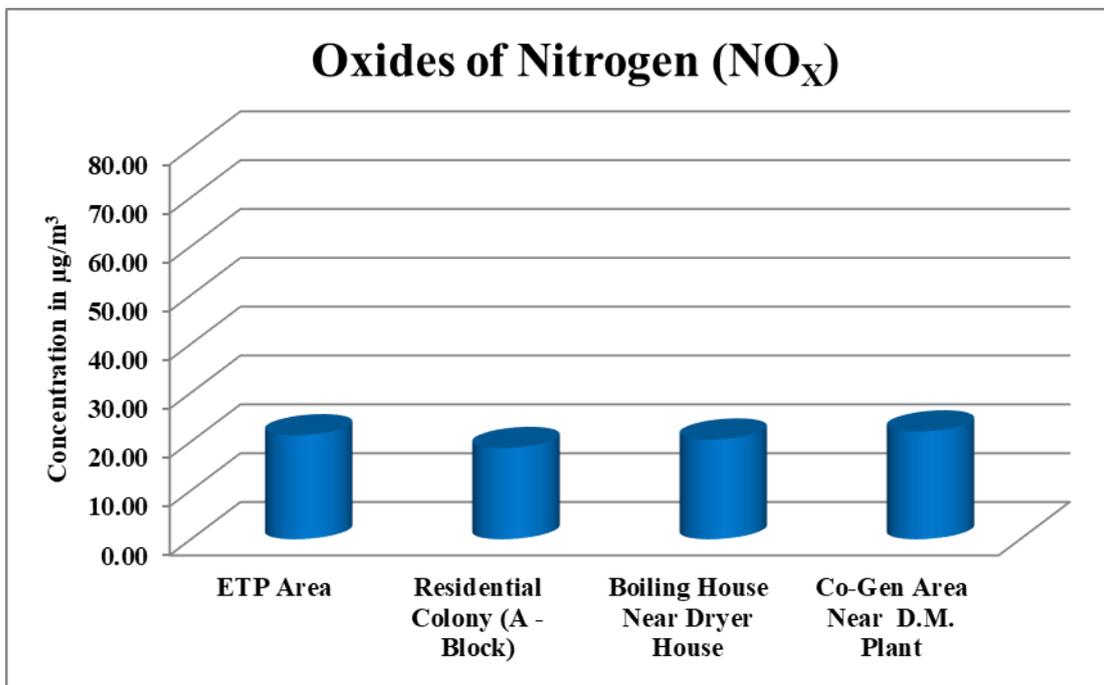


Figure-3.4: Graphs Showing NO_x Concentration at all sites

3.2 STACK EMISSION MONITORING

Stack Emission monitoring was carried out by EPA approved Laboratory on date 13.11.2024 & 14.11.2024 for stack attached with 50.0 TPH boiler (ESP is used as Air Pollution Control Device with a stack height of 60.0 meter) & for stack attached with 170.0 TPH boiler (ESP is used as Air Pollution Control Device with a stack height of 72.0 meter) respectively.

3.2.1 Stack Emission Monitoring Methodology

Monitoring was conducted in respect of the following parameters:

- Particulate Matter (PM)

The Method used for Stack Emission monitoring and range of testing with CPCB standard are given in **Table-3.7**

**Table-3.7:
Details of Stack Emission Monitoring Results**

Sr. No.	Parameter	Unit	Protocol	Result	Range of Testing/ Limit of Detection	Standard (as per CPCB)
1	Particulate Matter	mg/Nm ³	IS: 11255 (Part-1): 1985 Reaffirmed: 2019	86.2	2.0 - 1000	150
2	Particulate Matter	mg/Nm ³	IS: 11255 (Part-1): 1985 Reaffirmed: 2019	78.9	2.0 - 1000	150

3.3 AMBIENT NOISE MONITORING

3.3.1 Ambient Noise Monitoring Locations

The main objective of noise monitoring in the study area is to assess the present ambient noise levels near project site due to various Industrial activities and increased vehicular movement. A preliminary reconnaissance survey has been undertaken to identify the major noise generating sources in the area. Ambient noise monitoring was conducted at 1 location as given in **Table-3.8**.

Table-3.8: Details of Ambient Noise Monitoring Stations

Sr. No	Location Code	Location name and description	Date of Monitoring
1.	NQ - 01	Near Project Site	14/11/2024 to 15/11/2024

3.3.2 Methodology of Noise Monitoring

Noise levels were measured using sound level meter. Noise level monitoring was carried out continuously for 24-hours with one hour interval starting at 06:00 hrs to 06:00 hrs next day. The noise levels were monitored on working days only. During each hour Leq were directly computed by the instrument based on the sound pressure levels. Monitoring was carried out at 'A' response.

3.3.3 Ambient Noise Monitoring Results

The location wise ambient noise monitoring results is summarized in **Table-3.9**. The noise levels are graphically presented in **Figure-3.5**.

Table-3.9: Ambient Noise Monitoring Results

Ambient Noise Level				
Sr. No.	Locations	Unit	Results Day Time (06:00 AM - 10:00 PM)	Results Night Time (10:00 PM - 06:00 AM)
1.	Near Project Site	dB(A)	59.62	48.62

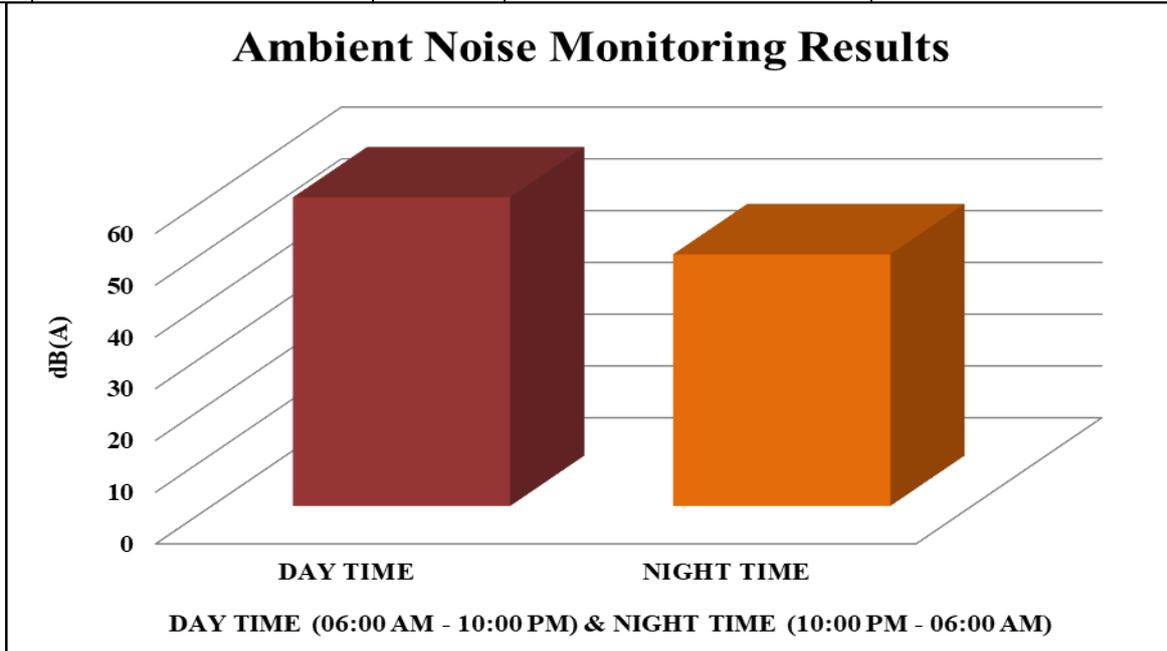


Figure-3.5: Day and Night Time noise Level at Monitoring Location

Table-3.10: Noise Standards as per CPCB Schedule rule 3(1) and 4(1)

Area Code	Category of Area/Zone	Limits in dB(A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
B	Silence Zone	50	40

3.3.4 Discussion on Ambient Noise Levels in the Study Area

Day Time Noise Levels (L_{day}):

The day time noise level at monitoring station was ranged from 59.62 dB(A) which is within limits prescribed for industrial area i.e. 75 dB (A).

Night Time Noise Levels (L_{night}):

The night time noise level at monitoring station was ranged from 48.62 dB(A) which is within limit prescribed for industrial area i.e. 70 dB (A).

3.4 GROUND WATER QUALITY MONITORING

3.4.1 Ground water Quality Monitoring Locations

Keeping in view the importance of ground water, sample of ground water was collected from the project site for the assessment of impacts of the project on the groundwater quality.

Water sample was collected from the project site. The sample was analyzed for various parameters to compare with the standards for Ground water as per IS: 10500 for Groundwater sources. The details of water sampling locations are given in **Table-3.11**.

Table-3.11: Details of Water Quality Monitoring Station

Sr. No	Location Code	Location name and description	Date of Monitoring
1.	GW - 01	Borewell Water	10 th October, 2024
2.	GW - 02	Borewell Water	
3.	GW - 03	Borewell Water	
4.	GW - 01	Borewell Water	15 th November, 2024
5.	GW - 02	Borewell Water	
6.	GW - 03	Borewell Water	
7.	GW - 01	Borewell Water	24 th December, 2024
8.	GW - 02	Borewell Water	
9.	GW - 03	Borewell Water	
10.	GW - 01	Borewell Water	22 nd January, 2025
11.	GW - 02	Borewell Water	
12.	GW - 03	Borewell Water	
13.	GW - 01	Borewell Water	26 th February, 2025
14.	GW - 02	Borewell Water	
15.	GW - 03	Borewell Water	

3.4.2 Methodology of ground water Quality Monitoring

Sampling of ground water was carried out on 10.10.2024, 15.11.2024, 24.12.2024, 22.01.2025 & 26.02.2025. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures. **Sample for chemical analysis was collected in polyethylene carboys. Sample collected for metal content were acidified to <2 pH with 1 ml HNO₃.**

Soon after the completion of sampling, chain of custody sheets for the samples are filled in and then they were transported by road to Environmental & Technical Research Centre, Lucknow for further analysis. Proper care was taken during packing and transportation of samples. All the samples reached the central laboratory within the holding times for different parameters. After ensuring the same the samples were forwarded immediately for analysis.

The samples were analyzed as per the standard procedures specified in 'Standard Methods for the Examination of Water and Wastewater' published by American Public Health Association (APHA) and CPCB. The analytical techniques and the test methods adopted for testing of ground water are given in **Table-3.12 - Table-3.26**.

3.4.3 Ground water Quality Monitoring Results

The detailed Ground water quality monitoring results are presented in **Table-3.12 - Table-3.26**.

**Table-3.12:
Ground water Quality Results at Borewell No. 01 (October, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	398.4	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	57.6	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	28.18	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.41	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	284.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	260.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.08	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.06	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.65	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.13:
Ground water Quality Results at Borewell No. 02 (October, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	410.2	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	56.0	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	33.048	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	30.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F- C	0.36	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	24.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	292.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	276.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.12	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.07	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.58	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.14:
Ground water Quality Results at Borewell No. 03 (October, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	406.8	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	57.6	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	29.16	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F-C	0.40	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	29.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	300.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	264.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.11	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.05	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.88	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.15:
Ground water Quality Results at Borewell No. 01 (November, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	386.4	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	52.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	32.076	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.23	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	26.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	288.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	264.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.14	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.05	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.25	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.16:
Ground water Quality Results at Borewell No. 02 (November, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	368.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	56.0	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	32.076	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	24.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.42	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	292.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	272.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.05	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.03	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.43	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.17:
Ground water Quality Results at Borewell No. 03 (November, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	390.2	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	52.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	33.048	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F-C	0.33	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	24.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	280.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	268.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.09	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.22	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.18:
Ground water Quality Results at Borewell No. 01 (December, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	390.8	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	54.4	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	30.13	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	24.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.32	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	24.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	284.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	260.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.11	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.02	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.39	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.19:
Ground water Quality Results at Borewell No. 02 (December, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	402.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	52.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	33.048	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl ⁻ B	22.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F ⁻ C	0.40	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	26.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	296.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	268.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.09	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.40	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.20:
Ground water Quality Results at Borewell No. 03 (December, 2024)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	396.2	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	56.0	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	29.16	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	24.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F-C	0.38	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	288.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	260.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.12	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.02	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.39	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.21:
Ground water Quality Results at Borewell No. 01 (January, 2025)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	386.8	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	52.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	29.16	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F-C	0.33	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	36.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	280.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	252.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.13	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.62	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.22:
Ground water Quality Results at Borewell No. 02 (January, 2025)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	410.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	51.2	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	31.10	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	24.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F- C	0.41	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	276.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	256.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.10	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.02	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.41	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.23:
Ground water Quality Results at Borewell No. 03 (January, 2025)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	396.6	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	54.4	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	30.13	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	20.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.29	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	284.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	260.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.13	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.05	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.32	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.24:
Ground water Quality Results at Borewell No. 01 (February, 2025)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	372.2	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	52.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	30.13	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.38	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	32.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	276.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	248.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.11	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.03	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.59	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.25:
Ground water Quality Results at Borewell No. 02 (February, 2025)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	406.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	48.8	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	33.04	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F-C	0.40	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	26.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	272.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	252.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.14	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.05	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.46	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

**Table-3.26:
Ground water Quality Results at Borewell No. 03 (February, 2025)**

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part-04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part-05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	<2.0	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part-16): 2023	396.4	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	<0.5	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	<0.05	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part-40): 1991 Reaffirmed: 2019	54.0	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	26.24	0.1 - 400	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F- C	0.33	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part-26): 1986 Reaffirmed: 2019	<0.1	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part-34): 1986 Reaffirmed: 2019	<1.0	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	<0.001	0.001-0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	280.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	256.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.015	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.05	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.12	0.05 - 20	0.3	No Relaxation
22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.55	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.003	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.01	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	<0.5	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.02	0.02 - 2	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	<0.03	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	<i>E. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	<i>T. coli</i>	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

3.5 WASTE WATER QUALITY MONITORING

3.5.1 Effluent Water Monitoring Locations

Water sample was collected from ETP (Inlet & Outlet) and analyzed for its quality. The sample was analyzed for various parameters. The details of effluent water sampling are given in Table-3.27.

Table-3.27: Details of Effluent Water Quality Monitoring Station

Sr. No	Location Code	Location name and description	Date of Monitoring
1.	WW - 1	ETP Inlet	15 th November, 2024
2.	WW - 2	ETP Outlet	

3.5.2 Methodology of Effluent Water Quality Monitoring

Sampling of effluent water was carried out from ETP Inlet & ETP Outlet of on 15.11.2024. Samples were collected as grab sample and sampling forms are filled in as per the sampling plan. The preservative sample were properly added to preserve as per standard operating procedures (SOP) and stored immediately in ice boxes, which were ensured for appropriate temperatures.

3.5.3 Effluent Water Quality Monitoring Results

The detailed Effluent water quality monitoring results are presented in Table 3.28.

Table-3.28: Effluent Water Quality Results of ETP Inlet & ETP Outlet

Sr. No.	Test Parameter	Unit	Protocol/Test Method	ETP Inlet	ETP Outlet	Range of testing /limit of detection
1	pH	-	APHA 24 th Ed. 2023 - 4500H ⁺	7.1	7.3	1 - 14
2	Total Dissolved Solid (TDS)	mg/l	IS: 3025 (Part-16): 2023	1286.2	1224.0	10 - 40000
3	Total Suspended Solid (TSS)	mg/l	APHA 24 th Ed. 2023 - 2540 D	164.0	9.6	5.0 - 20000
4	Bio chemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part-44): 1993 Reaffirmed: 2019	440.0	15.22	1.0 - 150000
5	Chemical Oxygen Demand (COD)	mg/l	IS: 3025 (Part-58): 2006 Reaffirmed: 2022	1784.0	80.0	2.0 - 600000
6	Oil & Grease	mg/l	APHA 24 th Ed. 2023 - 5520 A+D	8.8	<5	5.0 - 200

3.6 SOIL MONITORING

3.6.1 Soil Monitoring Locations

The objective of the soil monitoring is to identify the impacts of ongoing project activities on soil quality and also predict impacts, which have arisen due to execution of various industrial activities. Accordingly, a study of assessment of the soil quality has been carried out.

To assess impacts of ongoing project activities on the soil in the area, the Physico-chemical characteristics of soils were examined by obtaining soil samples from selected points and analysis of the same. Single sample of soil was collected from the project site for studying soil characteristics, the location of which is listed in **Table-3.29**.

Table-3.29: Details of Soil Monitoring Stations

Sr. No.	Location Code	Location name and description
1.	SQ - 01	Plant Premises

3.6.2 Methodology of Soil Monitoring

The sampling has been done in line with IS: 2720 & Methods of Soil Analysis, Part-1st, 2nd Edition, 1986 of American Society for Agronomy and Soil Science Society of America. The homogenized samples were analyzed for physical and chemical characteristics (physical, chemical and heavy metal concentrations). The soil samples were collected in the month of January on 22.01.2025.

The samples have been analyzed as per the established scientific methods for Physico-chemical parameters. The heavy metals have been analyzed by using Atomic Absorption Spectro-photometer.

3.6.3 Soil Monitoring Results

Single sample of soil is collected from the site to check the quality of soil of the study area. The Physico-chemical characteristics of the soil, as obtained from the analysis of the soil sample, are presented in **Table-3.30**.

Table-3.30: Physico-Chemical Characteristics of Soil at Plant Premises

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	pH	-	IS: 2720 (Part-26): 1987 Reaffirmed: 2021	7.2	1 - 14
2	Electrical Conductivity	µmhos/cm	IS: 14767: 2000 Reaffirmed: 2021	320.0	1.0 - 40000
3	Moisture content	%	IS: 2720 (Part -2): 1973 Reaffirmed: 2020	3.16	1.0 - 50
4	Nitrate as N	Kg/Hec	Method Manual of Soil Testing in Inda	238.0	5.0 - 500
5	Phosphorus (as P₂O₅)	Kg/Hec	Method Manual of Soil Testing in Inda	20.0	1-2000
6	Potash as K₂O	Kg/Hec	Method Manual of Soil Testing in Inda	164.0	1-2000
6	Copper	mg/kg	Method Manual of Soil Testing in Inda	0.42	0.3 - 500
7	Zinc as Zn	mg/kg	Method Manual of Soil Testing in Inda	9.76	1.0 - 500
8	Iron as Fe	mg/kg	Method Manual of Soil Testing in Inda	142.0	5.0 - 500
9	Manganese as Mn	mg/kg	Method Manual of Soil Testing in Inda	9.2	5.0 - 500
4	Sulphur	Kg/Hec	IS: 14685: 1999 Reaffirmed: 2019	13.0	5.0 - 100

3.6.4 Discussion on Soil Characteristics in the Study Area

The soil in study area is characterized by moderate organic content. The soil quality in the project area has not been affected by the project activities



Uttar Pradesh Pollution Control Board

Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010

Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.in, Website: www.uppcb.com

Category : RED

Application Id : 28880127

225323/UPPCB/Moradabad(UPPCBRO)/CTO/both/SAMBHAL/2024

Date: 31/12/2024

To,

M/s

DHAMPUR BIO ORGANICS LIMITED unit Asmoli Division Sugar

Village - Asmoli and PO Asmoli Tehsil and District Sambhal U.P.,SAMBHAL,244251

Consolidated Consent to Operate and Authorisation hereinafter referred to as the CCA (Consolidated Consent & authorization) (Fresh) under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule-6(2) of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 notified under Environment (Protection) Act, 1986 as applicable (to be referred hereinafter as Water Act, Air Act and HW Rules respectively).

CCA is hereby granted to **DHAMPUR BIO ORGANICS LIMITED unit Asmoli Division Sugar** located at **Village - Asmoli and PO Asmoli Tehsil and District Sambhal U.P.,SAMBHAL,244251**. subject to the provisions of the **Water Act, Air Act and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016** and the orders that may be made further and subject to following terms and conditions :-

1. This CCA DHAMPUR BIO ORGANICS LIMITED unit Asmoli Division Sugar **granted for the period from 01/01/2025 to 31/12/2026** and valid for manufacturing of following products.

S No	Product	Quantity	Unit
1	Sugar	1375	Metric Tonnes/Day
2	Co-generation Power	41	Megawatt

2. Conditions under Water(Prevention and Control of Pollution) Act -1974 as amended :-

(i) The daily quantity of effluent discharge (KLD) :-

Kind of Effluent	Quantity(KLD)	Treatment facility	Discharge point
Domestic	48 KLD	STP	Irrigation on Land
Industrial	Industrial effluent quantity shall be restricted to 1250 KLD and Cooling Tower blow down shall be restricted to 1250 KLD , only one outlet is allowed	ETP	Partially re-used in process and rest is used in irrigation.

(ii) Trade Effluent Treatment and Disposal :-The applicant shall operate Effluent Treatment Plant consisting of primary/secondary and tertiary treatment as is required with reference to influent quantity and quality.

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In case of stoppage of functioning of ETP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.

(iii) The treated effluent shall be recycled to the maximum extent and should be reused within the premises for gardening etc. Quality of the treated effluent shall meet to the following general and specific standards as prescribed under Environment (Protection) Rules, 1986 and applicable to the unit from time-to-time :-

Industrial Effluent Quality Standard

S.No.	Parameter	Standard
1	pH	5.5 to 8.5
2	BOD	30 mg/l (In case of discharge in surface water body) / 100 mg/l (in case of discharge on land)
3	TSS	30 mg/l (In case of discharge in surface water body) / 100 mg/l (in case of discharge on land)
4	COD	250 mg/l
5	Oil & Grease	10 mg/l
6	Quantity of Discharge	Industrial effluent quantity shall be restricted to 1250 KLD and Cooling Tower blow down shall be restricted to 1250 KLD , only one outlet is allowed

(iv) Sewage Treatment and Disposal :- The applicant shall provide comprehensive STP as is required with reference to influent quantity and quality. In case of stoppage of functioning of STP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.

(v) The treated sewage shall be reused in gardening as far as possible. The STP shall be maintained continuously so as to achieve the quality of the treated sewage to the following standards.

S No.	Parameters	Standards
1	BOD (mg/L)	30
2	pH	6.5 to 9.0
3	Fecal Coliform (MPN/100ml)	1000
4	TSS (mg/L)	100

3. Conditions under Air (Prevention and Control of Pollution) Act -1981 as amended :-

i) The applicant shall use following fuel and install a comprehensive control system consisting of control equipment as required with reference to generation of emissions and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards.

Air Pollution Source Details

S No.	Air Pollution Source	Type of fuel	Stack no	Control Device	Height of Stack

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1	Boiler 170 TPH	Bagasses	01	Particulate Matter	Equipped with ESP and stack with height of 72 meter from ground level.
2	Boiler 70 TPH (Stand-by) and 50 TPH	Bagasses	02	Particulate Matter	70 TPH boiler is equipped with ESP & 50 TPH boiler equipped with wet scrubber with common stack with height of 60 meter from ground level
3	DG set 750 KVA	Diesel	03	Particulate Matter	Equipped with canopy and stack height of 5.5 meters above the roof of nearest building

Emmission Quality Standards

S No.	Stack no	Parameters	Standards
1	01	Particulate Matter	150 mg/Nm ³
2	02	Particulate Matter	150 mg/Nm ³
3	03	Particulate Matter	As per E(P)A Rules 1986

In case of stoppage of functioning of air pollution control equipment, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately

(ii) The unit will not use any type of restricted fuel.

iii) Noise from the D.G. Set and other source(s) should be controlled by providing an acoustic enclosure as is required for meeting the ambient noise standards for night and day time as prescribed for respective areas/zones (Industrial, Commercial, Residential, Silence) which are as follows :-

Day time : from 6.00 a.m. to 10.00 p.m., Night time: from 10.00 p.m. to 6.00 a.m.

Standards for Noise level in db(A) Leq	Industrial Area		Commercial Area		Residential Area		Silence Zone	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
	75	70	65	55	55	45	50	40

4. Conditions under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 :-

The Factory Manager of M/s DHAMPUR BIO ORGANICS LIMITED unit Asmoli Division Sugar. is hereby granted an authorization to operate a facility for collection and storage of Hazardous wastes. The authorization is granted to operate a facility for generation, collection and storage of hazardous wastes within factory premises for following category of wastes:-

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S.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity(ton/annum)
1	Schedule I (Category 5.1) Used oil and waste oil	TSDF / Authorised recycler	0.5 KL per Annum
2	Schedule I (Category 35.4) Oil Skimming	TSDF / Authorised recycler	1.0 Ton per Annum
3	Schedule I (Category 33.2) Contaminated Cotton Rugs / Waste PPE	TSDF	0.69 Ton per Annum
4	Schedule I (Category 33.1) Empty Barrels / Containers	TSDF / Authorised recycler	1.5 Ton per Annum

The authorization shall be in force and shall be valid upto 31/12/2026. The authorization is subject to the conditions stated below and such conditions as may be specified in the rules for the time being in force under Environment (Protection) Act, 1986.

Terms and conditions of Hazardous Waste authorization :-

- (i) The authorization shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- (ii) The authorization and its renewal shall be produced for inspection at the request of an officer authorized by the SPCB.
- (iii) The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the SPCB.
- (iv) Any unauthorized changes in personnel, equipment as working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- (v) It is the duty of the authorized person to take prior permission of the SPCB to close down the facility.
- (vi) An application for the renewal of an authorization shall be made as laid down under these rules.
- (vii) The unit shall comply with any other conditions specified in the guidelines issued by the MoEF or CPCB/SPCB from time to time.
- (viii) The authorization is valid for temporary storage of Hazardous Waste within premises only.
- (ix) The authorized agency shall ensure that on-line data with regard to quantity and nature of hazardous chemicals being used in the plant as well as air emission and waste generated within premises is displayed on Display Board of size 6x4 feet outside the main factory gate within premises
- (x) It is duty of the authorized person to take prior permission of this Board to close and cleanup the facility for treatment, storage and disposal of hazardous waste.
- (xi) The applicant shall maintain record of hazardous waste in Form-3 and shall submit annual return in Form-4 on or before the 30th day of June following to the financial year to which that return relates.
- (xii) In no case any hazardous waste shall be disposed off on land, in any drain, or into any water stream. All spillage must also be safely collected and stored.
- (xiii) Before the hazardous waste is stored or dumped in the facility, applicant must conduct a detailed physical and chemical analysis of hazardous waste sample and report to the Board.
- (xiv) Dried hazardous sludge from the process in the plant shall be stored in double lined HDPE pit constructed with R.C.C. or such material which does not react with the waste contained in it.
- (xv) The storage area should be fenced properly and Sign/Notice Board indicating 'Danger' and 'Hazardous' shall be displayed at appropriate position both in Hindi and English.

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(xvi) The industry shall store non-ferrous metal waste, used oil/spent oil waste in sealed drums placed on impervious floor under covered shed. Hazardous waste if required shall be sold only to Registered Recyclers/Re-processors.

(xvii) In case of any transportation of hazardous waste, the details in Form-10 of the Hazardous and Other Wastes Rules, 2016 shall be submitted to the Board.

5. Essential documents to be submitted by the Industry/Unit as Applicable:-

(i) Annual return in Form-4 and Waste Disposal Manifest in Form-10 under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and Third Party Audit Report.

(ii) Environment Statement in Form-V of Environment (Protection) Rules, 1986.

(iii) Quarterly compliance report of the CCA, photograph of ETP/APCs/Waste Storage Area.

6. Competent Authority reserves the right to change/modify/add any time any condition of this CCA.

7. Unit has to comply with the following specific & general conditions. Non compliance of any provision of this CCA and provisions of the Water Act, Air Act and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 will result in legal action under the aforesaid Acts and Rules.

8. In compliance to the G.O 1011/81-7-2021-09 (Writ)/2016 dated.13.10.2021 issued by Department of Environment, Forest and Climate Change, Uttar Pradesh. You are directed to develop Miyawaki Forest as per the SOP available at URL:-<http://www.upecp.in/TrainingSession.aspx> for ensuring timely compliance of this direction, you are hereby directed to submit a bank guarantee with minimum validity of one year of the amount equivalent to the sum of initial consent fees (Air and Water) or Rs. 50,000/- (Rs. Fifty Thousand Only) whichever is more, within 30 days from the date of issuance of this certificate. In case of non-compliance of this direction, your consent will be revoked by the Board.

9. If the unit uses the ground water and requires the permission from SGWA/CGWA for water abstraction then the industry will have to obtain No objection certificate for abstraction of ground water. It will be the responsibility of the industry to comply with the various conditions of the NOC obtained from the competent authority and submit to the Board, within 3 months time failing which CTO will be revoked.

General Conditions:-

1. The applicant shall get analysed the samples of effluent/emission/hazardous wastes at least once in a three month from the laboratory recognized by the MoEF and shall report to the UPPCB.

2. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gases emission or sewage waste from the unit.

3. Treated Industrial waste water and domestic waste water shall be disposed jointly at one disposal point. The applicant shall provide discharge measurement equipment at final disposal point.

4. The applicant shall strictly comply with conditions of this CCA and submit compliance report of stipulated conditions within 30 days of receipt of this CCA. If at any point of time, it is found that the industry is not complying with stipulated conditions or any further direction/instruction issued by the Board, legal action shall be initiated against the applicant.

5. The applicant shall maintain good house keeping. All valves/pipes/sewer/drains etc. must be leak-proof

6. The industry shall provide uninterrupted entry to the STP/ETP inlet and outlet points, Air Pollution Control equipment and stack for smooth sampling/monitoring of efficiency of pollution control systems.

7. The industry shall provide Inspection Book at the time of inspection to the Board's officials.

8. Whenever due to any accident or other unforeseen act or event, such emission occurs or is apprehended to occur in excess of standards laid down, such information shall be reported to the Board's offices and all other concerned offices. In case of failure of pollution control equipment, the production process connected to it shall be stopped with immediate effect.

9. The industry shall operate in a manner so that all emissions be emitted through designated chimney/stack only.

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10. In case of any damage to the agriculture productivity, human habitation etc. by the operation of industry, it shall be imperative to stop production in the industry with immediate effect and such information shall be reported to Board's offices. The industry shall be liable to pay compensation also in such cases as decided by the Competent Authority.

11. The applicant shall apply before the 60 days of expiry of CCA or any change in production types/ production capacity/manufacturing process/capacity enhancement etc. or any change in effluent discharge point or emission point

12. The Board reserves the right to revoke/add/modify any stipulated condition issued along with CCA, as may be necessary.

Specific Conditions:-

1. This consent to operate is valid for production Sugar and cane crushing capacity of 12,500 TCD and co-generation power- 41 MW.

2. Industrial effluent quantity shall be restricted to 1250 KLD and Cooling Tower blow down shall be restricted to 1250 KLD, only one outlet is allowed in compliance of notification no G.S.R.35(E) dated 15.01.2016 of MoEF & CC.

3. Unit shall operate and maintain the APCS i.e. ESP at the boiler of 170 TPH with stack height of 72 meters from ground level.

4. Unit shall operate and maintain the APCS i.e. ESP at the stand-by boiler of 70 TPH and wet scrubber at 50 TPH boiler with common stack height of 60 meters from ground level.

5. DG sets of 750 KVA shall be equipped with canopy and stack height of 5.5 meters above the roof of nearest building.

6. Unit shall operate and maintain the installed online emission monitoring system and ensure connectivity to the server of UPPCB.

7. Unit shall use Bio-briquette as co-fuel with main fuel in the ratio of minimum 20 percent in boiler subject to its availability.

8. Fly ash shall be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with storm water. Direct exposure of workers to fly ash & dust shall be avoided.

9. Unit shall comply with the directions issued Central Pollution Control Board, New Delhi.

10. Unit shall identify recipient drains/ rivulets and their u/s & d/s location in consultation with UPPCB and shall carry out monthly monitoring of identified recipient drains at u/s & d/s location through lab recognized under Environment (Protection) Act, 1986 and shall submit the analysis report on monthly basis by 10th of every month to CPCB and UPPCB.

11. Unit shall operate and maintain the installed electromagnetic flow meter at water source and outlet of ETP with running hours and maintain the records of water extracted and treated effluent supplied to irrigation or discharge in drain.

12. Unit shall maintain and operate properly the installed online effluent monitoring system at the outlet of ETP and ensure the connectivity to the servers of CPCB and UPPCB.

13. Unit shall develop Green Belt in minimum 33 percent area of Industrial Premises as per the provisions laid down in office order no. H16405/220/2018/02 dated 16-02-2018 of U.P. Pollution Control Board. The copy of said office order is available on the website of U.P. Pollution Control Board www.uppcb.com.

14. Unit shall comply the provisions of Water (Prevention and Control of Pollution) Act 1974 as Amended, Air (Prevention and Control of Pollution) Act 1981 as Amended and Environment (Protection) Act 1986, and direction issued by Hon'ble National Green Tribunal, New Delhi in Order dated 13.07.2017 in OA no. 200/2014, M.C. Mehta v/s Union of India.

15. Unit shall submit treated effluent monitoring report of the ETP and ground water quality of premises as well as of the irrigated area done by MoEF & CC approved laboratory in every 3 months.

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16. Unit shall maintain the log-book for the generation and disposal of ETP sludge and other solid wastes including boiler ash generation.
17. Unit shall install Condensate Polishing Unit (CPU) for high pressure boilers (105 Kg/cm²) to treat process condensate for reuse in process. This will help in reduction of fresh water consumption.
18. The Unit must ensure the maximum reuse of treated effluent in process.
19. Treated effluent shall be used in irrigation on land and discharge of effluent is not allowed in drains/ river or any other surface water body.
20. All domestic waste water generated within the Unit's premises and residential colony shall be discharged after proper treatment. The Unit shall install Sewage Treatment Plant (STP) of adequate capacity for the treatment of domestic wastewater.
21. Unit shall maintain pipe line from outlet of ETP and to the point of irrigation land.
22. Unit shall install flow meters at Mill Fibrizer, Mescuite cooling and RO reject and submit the compliance with authentic data and records thereof.
23. Unit shall provide Hazardous tank in the Boiling house.
24. Unit shall provide lagoon (for storage of treated effluent) properly lined to prevent leaching/contamination of ground water.
25. The mechanical sludge dewatering/handling system for better management of wet sludge shall be provided by the Unit.
26. This Consent order shall automatically become invalid on issuance of Closure Order by C.P.C.B / UPPCB and further on Revoking of Closure order, the Consent order shall become valid.

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Chief Environmental Officer

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Copy to:

Regional Officer Moradabad to ensure compliance of the conditions imposed in the consent order.

**RAM
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Chief Environmental Officer

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मिशन LIFE - पर्यावरण के लिए जीवन शैली (Lifestyle For Environment) जनसहभागिता का सन्देश



- स्वच्छता – देशसेवा में अपने परिवेश की स्वच्छता हेतु अपना सक्रिय योगदान सुनिश्चित करें
- संकल्प लें -एकल उपयोग प्लास्टिक उत्पाद जैसे कप, तश्तरी, चम्मच, स्ट्रॉ, ईयरबड्स आदि का उपयोग न हो एवं पर्यावरण अनुकूल विकल्पों जैसे कागज/पत्तों से बने दोने या कटलरी को प्राथमिकता दी जाय |
- एकल उपयोग प्लास्टिक उत्पाद के प्रयोग को रोकने एवं प्लास्टिक बैग के बजाय कपड़े के थैले का उपयोग करने मात्र से 375 मिलियन टन ठोस (प्लास्टिक) कचरे का उत्सर्जन बचाया जा सकता है
- चक्रीय अर्थव्यवस्था (सर्कुलर इकोनॉमी) का समुचित कार्यान्वयन वर्ष 2030 तक लगभग 14 लाख करोड़ रुपये की अतिरिक्त बचत उत्पन्न कर सकता है | वेस्ट /अपशिष्ट फेकने के पूर्व सोचें, ये किसी का संसाधन तो नहीं ...?
- अनुपयोगी इलेक्ट्रिक / इलेक्ट्रॉनिक उत्पाद को कचरे में फेकने से रुकें | इसके उपयुक्त निस्तारण हेतु इसे प्राधिकृत ई – वेस्ट रीसाइकलर को दें | प्राधिकृत ई-रीसाइकिलिंग इकाई में अनुपयोगी इलेक्ट्रिक / इलेक्ट्रॉनिक उत्पाद को देने मात्र से 0.75 मिलियन टन तक ई-कचरे का पुनर्चक्रण किया जा सकता है एवं ई-कचरे के विषम पर्यावरणीय दुष्प्रभाव से बचा जा सकता है
- बाहर जाते समय - सोचें कि क्या आपको वास्तव में परिवहन की आवश्यकता है - वह भी क्या व्यक्तिगत रूप से ? छोटी दूरी के लिए पैदल चलना पसंद करें, अथवा सम्भव हो तो कार पूल के रूप में संसाधन को साझा करें अथवा सार्वजनिक परिवहन पर विचार करें
- घरेलू स्तर पर कम से कम ठोस अपशिष्ट का उत्सर्जन करें और इनका प्रथाक्रीकरण करें
- उपयोगी शेष खाद्य सामग्री आपके स्वयं प्रयास अथवा निकटस्थ सक्रिय स्वयं सेवी संस्थाओं की सहायता से समाज के वंचित वर्ग तक पहुंचाई जा सकती है | वहीं अनुपयोगी भोजन /खाद्य सामग्री को कंपोस्ट (वर्मी कम्पोस्ट) करने से 15 अरब टन भोजन को नष्ट होने से बचाया जा सकता है
- ध्यान रखें - उपयुक्त नल और शावर के उपयोग से पानी की खपत को 30 - 40% तक कम किया जा सकता है। एवं उपयोग में न होने पर नलों को बंद रखने मात्र से 9 ट्रिलियन लीटर पानी बचाया जा सकता है
- ट्रेफिक लाइट/रेलवे क्रॉसिंग पर कार/स्कूटर के इंजन बंद करने मात्र से 22.5 बिलियन kWh तक ऊर्जा की बचत हो सकती है
- परम्परागत बल्ब के स्थान पर CFL का उपयोग बिजली की खपत में प्रभावी कमी लाते हैं | उपयोग में न होने पर बिजली उपकरणों को बंद करें | स्टार रेटेड विद्युत उपकरणों के उपयोग को प्राथमिकता दें

हमारे द्वारा अपनी जीवन शैली की प्राथमिकताओं का उचित और पर्यावरण अनुकूल पुनर्निर्धारण समाज और पर्यावरण के प्रति हमारा दायित्व है |



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), UTTAR PRADESH)

To,

The -1
DHAMPUR BIO ORGANICS LIMITED
Sugar Mill Compound, Vill - Asmoli, Distt- Sambhal (UP) -244304

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/UP/IND2/426671/2023 dated 20 Apr 2023. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC23B025UP167115 |
| 2. File No. | 7801-7491 |
| 3. Project Type | Expansion |
| 4. Category | B |
| 5. Project/Activity including Schedule No. | 5(j) Sugar Industry |
| 6. Name of Project | Proposed expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity – 41 MW within existing industry premises at village-Asmoli, Tehsil & District– Sambhal, Uttar Pradesh by M/s Dhampur Bio Organics Limited, (Unit: Asmoli, Division: Sugar) |
| 7. Name of Company/Organization | DHAMPUR BIO ORGANICS LIMITED |
| 8. Location of Project | UTTAR PRADESH |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 22/06/2023

(e-signed)
Member Secretary
Member Secretary
SEIAA - (UTTAR PRADESH)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,
and Virtuous Environmental Single-Window Hub)





State Level Environment Impact Assessment Authority, Uttar Pradesh

Directorate of Environment, U.P.

Vineet Khand-1, Gomti Nagar, Lucknow- 226010

E-Mail- doeuplko@yahoo.com, seiaaup@yahoo.com

Phone no- 0522-2300541

Reference- MoEFCC Proposal no- SIA/UP/IND2/426671/2023 & SEIAA, U.P File no-7801-7491

Sub: Environmental Clearance for Proposed expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity – 41 MW within existing industry premises at Village-Asmoli, Tehsil & District– Sambhal, U.P., M/s Dhampur Bio Organics Limited, (Unit: Asmoli, Division: Sugar).

Dear Sir,

This is with reference to your application / letter dated 20-04-2023, 17-05-2023 on above mentioned subject. The matter was considered by 753rd SEAC in meeting held on 19-05-2023 and 739th SEIAA meeting held on 09-06-2023.

A presentation was made by the project proponent along with their consultant M/s Environmental & Technical Research Centre to SEAC on 19-05-2023.

Project Details Informed by the Project Proponent and their Consultant

The project proponent, through the documents and presentation gave following details about their project –

1. The environmental clearance is sought for expansion of existing Sugar unit from 9000 TCD to 14000 TCD without change in existing co gen power capacity – 41 MW within existing industry premises at Village-Asmoli, Tehsil & District– Sambhal, U.P., M/s Dhampur Bio Organics Limited, (Unit: Asmoli, Division: Sugar).
2. The terms of reference in the matter were issued through online Parivesh Portal on 28/12/2022.
3. The public hearing was organized on 08/04/2023 and final EIA report submitted through online Parivesh Portal on 20/04/2023.
4. Salient features of the project:

Sr No	Particulars	Details		
Sr No.	Nature and Size of Project	Existing	Proposed expansion	After Expansion
1.	Sugar Cane Crushing Capacity	9000 TCD	5000TCD	14000 TCD
2.	Co gen power Plant	41.0 MW	-	41.0 MW No Change
3.	Area Details			
	Total Plant Area	Existing Industry: 34.5 Hectare Proposed Expansion: Nil No change in the area of industry, expansion will be done within existing premises.		
4.	Greenbelt / Plantation Area	11.385 Hectare (> 33% of total plot area) will be used for green belt development.		
5.	Cost Details			
	Total Project Cost	Existing Cost - Rs 25955 Lakhs for expansion. Cost for proposed Expansion - Rs 9800 Lakhs.		

		Total Cost after expansion - Rs 35755 Lakhs.		
	Cost for Environment Management Plan	Capital Cost: Rs1500 Lakhs. Recurring cost: Rs 225 Lakh /Annum.		
Sr No	Particulars	Details		
6.	Environmental Setting Details (with approximate aerial distance & direction from plant site)			
	Nearest Village	Village Asmoli – 1.30 km in South-West direction. Village Kanpur Band – 1.60 km in South direction. Village Ramnagar – 1.32 km in South-East direction. Village Akbarpur Gahra – 1.92 km in North-West direction.		
	Nearest Town & City	Tehsil & District – Sambhal – 12.56 km in South direction.		
	Nearest National Highway / State Highway	157 W (Sambhal- Joya Rd) – 1.23 Km in South-West direction. Asmoli Madhan Rd - 0.01 Km in West direction. NH-9 (Ghaziabad-Moradabad-Rampur) – 12.89 Km in North direction. SH-51 (Sambhal-Hasanpur Rd) – 10.47 Km in South-West direction. SH-51 (Moradabad- Sambhal-Bahjoi Rd) – 11.82 Km in South-East direction.		
	Nearest Railway station	Sirsi Mukhdampur Railway Station – 12.48 km in South-East direction. Sambhal Hatim Sarai- Railway Station – 12.54 km in South direction.		
	Nearest Airport	Hindon Airport – 115.57 km in West direction. Indira Gandhi International Airport– 145.55 km in West direction.		
	National Parks, Reserved Forests (RF)/ Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius	No National Park, Wild Life Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridors Protected Forests (PF) etc. falls within 15 km radius of the plant site.		
8.	Basic Requirements for the project			
	Water Requirement	Existing	Proposed expansion	After Proposed expansion
	Industrial (Fresh Water)	900 KLD (0.09 KL/T of cane crush)	480 KLD	1380 KLD (@ 0.10 KL/T of cane crush)
	Domestic (Fresh Water)	500 KLD	200 KLD	700 KLD
	Total Fresh Water requirement	1400 KLD	680 KLD	2080 KLD
	Source of Fresh Water	Ground water through existing Tube / Bore well.		
	Power Requirement	Existing power requirement – 11.0 MW, After proposed expansion: 17.0 MW, Power requirement after expansion will be met from in-house co-gen power plant. Surplus power will be supplied to grid.		
	Man Power Requirement	Nil for proposed expansion, existing employees are		

		capable of running the complete plant after expansion also. Indirect employment: 100 no will be expected to increase after expansion.		
9.	Steam requirement	Existing: 165 TPH, After proposed expansion: 282 TPH		
10.	Product Details	Existing	After Proposed Expansion	
a	Sugar	990 MT/Day	1540 MT/Day	
b	Molasses (By product)	405 MT/Day	630 MT/Day	
c	Bagasse (By product)	2520 MT/Day	3920 MT/Day	
d	Press Mud (By Product)	405 MT/Day	630 MT/Day	
e	Co gen Power	41.0 MW		
11.	Fuel and its Quantity	Bagasse is being and will be used as fuel. Existing requirement: 3163 TPD, After proposed expansion: same as per existing		
13.	Raw Material	Existing	Proposed expansion	After proposed expansion
	Sugar Cane Crushing	9000 TCD	5000 TCD	14000 TCD

5. Land use details;

Sr. No.	Land Use	Area in Sqm	Area in Percentage
1	Roof Top (Building, Covered Shed)	17077.5	4.95 %
2	Green Belt	113850	33.0 %
3	Road and Paved	16111.5	4.67 %
4	Open Area	197961.0	57.38 %
Grand Total		345000	100 %

6. Product details:

Product and its Quantity	Existing	After Expansion
	Sugar Cane 9000 TCD Crushing	Sugar Cane 14000 TCD Crushing
Sugar (Product)	990 MT/Day	1540 MT/Day
Molasses (By Product)	405 MT/Day	630 MT/Day
Bagasse (By Product)	2520 MT/Day	3920 MT/Day
Press Mud (By Product)	405 MT/Day	630 MT/Day

7. Raw material details:

Sr. No.	Particulars	Existing	Proposed Expansion	Total after expansion	Source of the raw material & mode of transportations
1.	Sugar Cane	9000 T	5000 T	14000 T	From reserve area by tractor trolley/trucks

2. Chemicals

a.	Lime	18.0 T	10.0 T	28.0 T	Will be sourced from Lime Stone mines and transported by trucks
b.	Caustic Soda	0.45 T	0.25 T	0.70 T	Will be purchased from Caustic Soda Manufacturers and will be transported by trucks
c.	Common salt	1.8 T	1.0 T	2.8 T	Will be sourced from Open Market.

8. Water requirement details;

Particular	Existing capacity	Proposed	After proposed expansion
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			expansion	
Total Water Requirement	Industrial : 820 KLD (@ 0.16 KL/T of cane crush) Domestic : 70.0 KLD	Industrial : 80 KLD Domestic : 10.0 KLD	Industrial : 900 KLD (@ 0.16 KL/T of cane crush) Domestic: 80.0 KLD	
Total	890 KLD	90 KLD	980 KLD	
Source of Water	Ground water through Tube / Bore well. Industry applied for renewal of NOC in GWD department.			
Waste Water Generation	1800 KLD	1000 KLD	Total after proposed expansion : 2800 KLD	
Waste water treatment	Existing treatment Strategy : Effluent is being treated through Activated sludge process. ETP comprises of Bar Screen, Oil & Grease trap, chemical Mixing, Equalization, Primary Clarifier, Anaerobic Digester, Aeration, Secondary Clarifier, MGF, ACF and Decanter. Treatment Strategy after expansion : Effluent will be treated through same treatment strategy, Capacity of ETP – 3000 KLD found adequate for effluent treatment.			

9. Solid waste details;

Category	Type of Waste	Colour of Bins	Disposal Method	Total Waste (Kg/day)
Bio Degradable	Organic Waste	Green	Organic waste converter within the project site	150.0
Non-Biodegradable	Recyclable Waste	White	Authorized Recycler	60.0
Non-Biodegradable	Inert Waste	Black	Nearby Landfill Site	40.0
	Total			250 Kg/day

10. Process waste:

Solid waste	Existing Capacity	Proposed Expansion	Method of disposal
Boiler ash	56.93 MT/Day	No Change	Boiler ash will be supplied to the brick manufacturer.
ETP Sludge	8.0 MT/Day	12.0 MT/Day	ETP Sludge will be given to the farmers.
Press Mud	405 MT/Day	630 MT/Day	Press mud will be given to the farmers
Oil & Grease from ETP	1500 kg/day	No Change	Will be provided to Authorised UPPCB vendor for further disposal. Hazardous authorisation from UPPCB will be obtained.

11. The project proposal falls under category–5(j) of EIA Notification, 2006 (as amended).

Based on the recommendations of the State Level Expert Appraisal Committee Meeting (SEAC) held on 19-05-2023 the State Level Environment Impact Assessment Authority (SEIAA) in its Meeting held 09-06-2023 and recommended grant of environmental clearance on the proposal as above alongwith standard environmental clearance conditions prescribed by MoEF&CC, Gol and following additional conditions:

Specific Conditions:

- I. Discharge should be as per MoEF&CC Guidelines.
- II. PP shall install CAAQMS.

- III. Disposal of fly ash shall be done within the premises.
- IV. Three tier green belt shall be developed with native species all along the periphery of the project. Site survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years (Miyawaki method to be adopted for plantation)
- V. Performance test shall be conducted on all pollution control system every year and report shall be submitted to Regional office of the MoEF and CC.
- VI. Greening and paving shall be implemented in the plant area to arrest soil erosion and dust pollution exposed soil surface.
- VII. Properly covered vehicles shall be used while transporting material and product.
- VIII. Allergy test should also be included in health checkup of works.
- IX. Industry should comply with the CPCB charter guidelines for sugar units and treated water shall be used for the different purposes as per the requirement in industry.

Standard environmental clearance conditions:

I. Statutory compliance:

- I. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- II. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- III. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden, if applicable. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six - monthly compliance report. (in case of the presence of schedule-I species in the study area).
- IV. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- V. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
- VI. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989

II. Air quality monitoring and preservation:

- I. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- II. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission , and SO2 and NOx in

reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

- III. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report.
 - IV. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
 - V. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
 - VI. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
 - VII. The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.
 - VIII. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- III. Water quality monitoring and preservation*
- I. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises and connected to SPCB and CPCB online servers.
 - II. Process effluent /any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
 - III. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
 - IV. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
 - V. Generated effluent shall be treated in ETP and treated effluent shall conform the standard under the EP Act, 1986/CPCB/MoEFCC and treated water from ETP shall be used for irrigation.
 - VI. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- IV. Noise monitoring and prevention*
- I. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
 - II. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers , enclosures etc. on all sources of noise generation.
 - III. The ambient noise levels should conform to the standards prescribed under

E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

- I. The energy sources for lighting purposes shall preferably be LED based.

VI. Waste management

- I. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- II. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt, if hazardous shall be disposed off to the TSDF.
- III. **The company shall undertake waste minimization measures wherever feasible as below :-**
 - a. Metering and control of quantities of active ingredients to minimize waste .
 - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c. Use of automated filling to minimize spillage.
 - d. Use of Close Feed system into batch reactors.
 - e. Venting equipment through vapour recovery system.
 - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation

VII. Green Belt

- I. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

VIII. Safety, Public hearing and Human health issues

- I. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- II. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- III. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- IV. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- V. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- VI. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places

IX. Corporate Environment Responsibility

- I. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable,

- regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements /deviation/violation of the environmental / forest /wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation/ violation of the environmental/ forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
 - iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive , who will directly report to the head of the organization.
 - iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
 - v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- x. *Miscellaneous*
- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
 - ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
 - iii. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
 - iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
 - v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - vii. The project proponent shall inform the Regional Office as well as the Ministry,

- the date of financial closure and final approval of the project by the concerned authorities , commencing the land development work and start of production operation by the project.
- VIII. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - IX. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - X. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - XI. Concealing factual data or submission of false /fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - XII. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - XIII. The Ministry reserves the right to stipulate additional conditions if found necessary.
 - XIV. The Company in a time bound manner shall implement these conditions.
 - XV. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - XVI. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
 - XVII. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Concealing factual data and information or submission of false/fabricated data and failure to comply with any of the conditions stipulated in the Prior Environmental Clearance attract action under the provision of Environmental (Protection) Act, 1986.

This Environmental Clearance is subject to ownership of the site by the project proponents in confirmation with approved Master Plan for Sambhal. In case of violation; it would not be effective and would automatically be stand cancelled.

The project proponent has to ensure that the proposed site in not a part of any no-development zone as required/prescribed/identified under law. In case of the violation this permission shall automatically deemed to be cancelled. Also, in the event of any dispute on ownership or land use of the proposed site, this Clearance shall automatically deemed to be cancelled.

Further project proponent has to submit the regular 6 monthly compliance report regarding general & specific conditions as specified in the E.C. letter and comply the provision of EIA notification 2006 (as Amended).

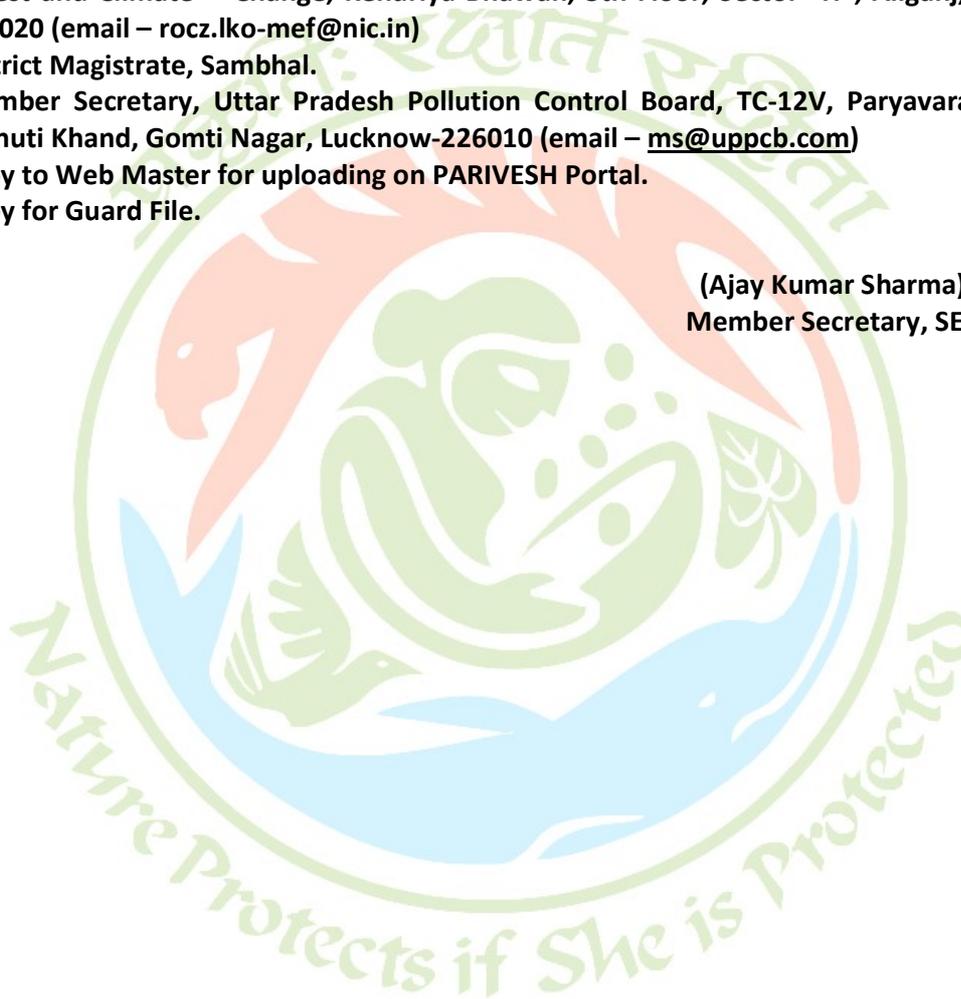
These stipulations would be enforced among others under the provisions of Water

(Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006 including the amendments and rules made thereafter.

Copy, through email, for information and necessary action to –

1. **Additional Chief Secretary, Department of Environment, Forest and Climate Change, Government of Uttar Pradesh, Lucknow (email – psforest2015@gmail.com)**
2. **Joint Secretary, Ministry of Environment, Forest and Climate Change, Government of India, 3rd Floor, Prithvi-Block, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 (email – sudheer.ch@gov.in)**
3. **Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, Kendriya Bhawan, 5th Floor, Sector “H”, Aliganj, Lucknow – 226020 (email – roc.z.lko-mef@nic.in)**
4. **District Magistrate, Sambhal.**
5. **Member Secretary, Uttar Pradesh Pollution Control Board, TC-12V, Paryavaran Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow-226010 (email – ms@uppcb.com)**
6. **Copy to Web Master for uploading on PARIVESH Portal.**
7. **Copy for Guard File.**

**(Ajay Kumar Sharma)
Member Secretary, SEIAA**





GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)

Ministry of Jal Shakti

Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC013653

VALID FROM 29/06/2021 TO 28/06/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202104000082			
Name of the Owner	JAGVEER SINGH		
Designation पद	Dy GM Production	Company Name कंपनी का नाम	DSM SUGAR ASMOLI SUGAR UNIT
Company Address कंपनी का पता	DSM Sugar Asmoli , Asmoli, Distt - Sambhal (UP)	Authorization Letter प्राधिकार पत्र	Download
Address of the Applicant	DSM SUGAR ASMOLI ASMOLI SAMBHAL	Application No.	SMBL0421NIN0004
Date of Submission	06/04/2021	Specimen Signature	
Location Particulars			
District	Sambhal	Block	ASMOLI
Plot No./Khasra No.	existing premises details attached	Municipality/Corporation	NA
Ward No./Holding No.			NA
Particular of the Existing Well and Pumping Device			
Date of Construction/Sinking of the Well	01/04/2007		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	60.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Turbine	H.P. of the Pump	40.00
Operational Device	Electric Motor	Rate of Withdrawal (m³/hr.)	100.00
Date of Energization (In Case of Electric Pump)			01/04/2007
Maximum Allowable Rate of Withdrawal (m³/hr.):	100.00	Maximum Allowable Running Hours Per Day:	4.00
Maximum Allowable Annual Extraction of Ground Water:	60000.00	Recharge Required	120000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 120000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m³/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis

Guidelines for Installation of Piezometers and their Monitoring

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.
- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.

- o Any other site specific requirement regarding safety and access for measurement may be taken care of.
- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
 - i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
 - ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
 - iii) All industries abstracting ground water in excess of 100 m³/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
 - iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m³ /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
 - v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
 - vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
 - vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
 - i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
 - ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m³ /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**05/07/2021**

Place:**Sambhal**

This certificate is electronically generated and does not require digital signature



GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)

Ministry of Jal Shakti

Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC039759

VALID FROM 29/06/2021 TO 28/06/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202104000085			
Name of the Owner	JAGVEER SINGH		
Designation पद	Dy GM Production	Company Name कंपनी का नाम	DSM SUGAR ASMOLI (SUGAR UNIT)
Company Address कंपनी का पता	DSM SUGAR ASMOLI, ASMOLI SAMBHAL UP,	Authorization Letter प्राधिकार पत्र	Download
Address of the Applicant	DSM SUGAR ASMOLI ASMOLI SAMBHAL	Application No.	SMBL0421NIN0005
Date of Submission	06/04/2021	Specimen Signature	
Location Particulars			
District	Sambhal	Block	ASMOLI
Plot No./Khasra No.	existing Premises details attached	Municipality/Corporation	NA
Ward No./Holding No.			NA
Particular of the Existing Well and Pumping Device			
Date of Construction/Sinking of the Well	01/04/2007		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	60.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Turbine	H.P. of the Pump	40.00
Operational Device	Electric Motor	Rate of Withdrawal (m³/hr.)	100.00
Date of Energization (In Case of Electric Pump)			01/04/2007
Maximum Allowable Rate of Withdrawal (m³/hr.):	100.00	Maximum Allowable Running Hours Per Day:	4.00
Maximum Allowable Annual Extraction of Ground Water:	60000.00	Recharge Required	120000.00

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- Holder of this NOC is hereby directed to assure annual recharge of 120000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m³/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis

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4	> 500	2	0	2

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- o Any other site specific requirement regarding safety and access for measurement may be taken care of.
- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
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- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
 - i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
 - ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
 - iii) All industries abstracting ground water in excess of 100 m³/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
 - iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m³ /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
 - v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
 - vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
 - vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
 - i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
 - ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m³ /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :**05/07/2021**

Place:**Sambhal**

This certificate is electronically generated and does not require digital signature



GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)

Ministry of Jal Shakti

Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC034938

VALID FROM 29/06/2021 TO 28/06/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202104000117

Name of the Owner	JAGVEER SINGH		
Designation पद	Dy GM Production	Company Name कंपनी का नाम	Jagveer Singh
Company Address कंपनी का पता	DSM SUGAR ASMOLI ASMOLI SAMBHAL UP SHAMBHAL,	Authorization Letter प्राधिकार पत्र	Download
Address of the Applicant	DSM SUGAR ASMOLI ASMOLI SAMBHAL	Application No.	SMBL0421NIN0006
Date of Submission	08/04/2021	Specimen Signature	

Location Particulars

District	Sambhal	Block	ASMOLI
Plot No./Khasra No.	existing Premises details attached	Municipality/Corporation	NA
Ward No./Holding No.			NA

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/04/2007		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	60.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	15.00
Operational Device	Electric Motor	Rate of Withdrawal (m ³ /hr.)	40.00
Date of Energization (In Case of Electric Pump)			01/04/2007
Maximum Allowable Rate of Withdrawal (m ³ /hr.):	40.00	Maximum Allowable Running Hours Per Day:	3.00
Maximum Allowable Annual Extraction of Ground Water:	18000.00	Recharge Required	36000.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 36000.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m³/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis

Guidelines for Installation of Piezometers and their Monitoring

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.
- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.
- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.

- o Any other site specific requirement regarding safety and access for measurement may be taken care of.
- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- **SPECIFIC CONDITIONS:**
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
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Date :**05/07/2021**

Place:**Sambhal**

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ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

Office & Laboratory : 2/261, Vishwas Khand, Gomti Nagar, Lucknow - 226 010 (U.P.)

Email : ETRCLTH@YAHOO.IN, Web.: www.etrcindia.com

(ISO 9001:2015, ISO 45001:2018 (OH&S) ISO 14001:2015)

An approved laboratory from Ministry of Environment, Forest and Climate change, Govt. of India under EPA 1986

ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/1710/14784/2024	Date of Report: 17.10.2024
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	Borewell Water	6	Sample Collected by	Industry self
				Sample Collection date	10.10.2024
3	Sample received date	10.10.2024	7	Analysis Start Date	10.10.2024
4	Sample Quantity	5.0 liters	8	Analysis End Date	16.10.2024

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part - 04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part - 05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part - 16): 2023	386.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	BDL	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part - 40): 1991 Reaffirmed: 2019	54.4	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	27.21	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl ⁻ B	24.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F ⁻ C	0.34	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part - 26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part - 34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	280.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	248.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.12	0.05 - 20	0.3	No Relaxation



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Test Report Ref No.: ETRC/1710/14784/2024

22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.05	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.34	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	BDL	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	E. coli	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	T. coli	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

BDL=Below Detection Limit

..... END OF REPORT.....

- ETRC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices and that this data reflects our best attempt to generate accurate results for the sample, mentioned in the report as above.
- The result relate only to the items tested.
- ETRC does not assume any liability for any claims or damages related to the quality of parameter analyzed in the results and/or the performance of the equipment constituting to the results.
- All disputes subject to Lucknow jurisdiction.
- This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- Complain register is available in our laboratory.

Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge



Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/12505/2024	Date of Report: 28.11.2024
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	Borewell Water	6	Sample Collected by	Industry self
3	Sample received date	21.11.2024	7	Sample Collection date	21.11.2024
4	Sample Quantity	5.0 liters	8	Analysis Start Date	21.11.2024
				Analysis End Date	27.11.2024

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part - 04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part - 05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part - 16): 2023	368.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	BDL	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part - 40): 1991 Reaffirmed: 2019	51.2	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	28.18	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl ⁻ B	30.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F ⁻ C	0.36	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part - 26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part - 34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	32.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	288.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	244.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.13	0.05 - 20	0.3	No Relaxation



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Test Report Ref No.: ETRC/EPA/12505/2024

22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.02	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.50	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	BDL	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	E. coli	MPN/ 100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	T. coli	MPN/ 100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

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- Complain register is available in our laboratory.


Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/12800/2024	Date of Report: 21.12.2024
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	Borewell Water	6	Sample Collected by	Industry self
				Sample Collection date	16.12.2024
3	Sample received date	16.12.2024	7	Analysis Start Date	16.12.2024
4	Sample Quantity	5.0 liters	8	Analysis End Date	20.12.2024

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part - 04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part - 05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part - 16): 2023	390.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	BDL	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part - 40): 1991 Reaffirmed: 2019	49.6	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	29.16	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl ⁻ B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F ⁻ C	0.38	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part - 26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part - 34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	272.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	244.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.11	0.05 - 20	0.3	No Relaxation



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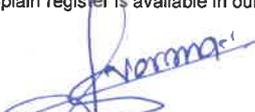
Test Report Ref No.: ETRC/EPA/12800/2024

22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.04	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.39	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	BDL	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	E. coli	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	T. coli	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

BDL=Below Detection Limit

..... END OF REPORT.....

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Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/13224/2025	Date of Report: 17.01.2025
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	Borewell Water	6	Sample Collected by	Industry self
				Sample Collection date	09.01.2025
3	Sample received date	09.01.2025	7	Analysis Start Date	09.01.2025
4	Sample Quantity	5.0 liters	8	Analysis End Date	16.01.2025

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part - 04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part - 05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part - 16): 2023	284.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	BDL	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part - 40): 1991 Reaffirmed: 2019	54.4	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	30.13	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F C	0.40	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part - 26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part - 34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	30.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	296.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	260.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.10	0.05 - 20	0.3	No Relaxation



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22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.02	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.48	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	BDL	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	E. coli	MPN/ 100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	T. coli	MPN/ 100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

BDL=Below Detection Limit

..... END OF REPORT.....

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**Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge**



**Authorized Signatory
(Ritu Garg)
QM**



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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/13643/2025	Date of Report: 22.02.2025
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	Borewell Water	6	Sample Collected by	Industry self
3	Sample received date	16.02.2025	7	Sample Collection date	16.02.2025
4	Sample Quantity	5.0 liters	8	Analysis Start Date	16.02.2025
				Analysis End Date	21.02.2025

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part - 04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part - 05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.4	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part - 16): 2023	362.0	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	BDL	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part - 40): 1991 Reaffirmed: 2019	51.2	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	29.16	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl ⁻ B	26.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F ⁻ C	0.36	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part - 26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part - 34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	28.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	288.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	248.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.12	0.05 - 20	0.3	No Relaxation



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22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.03	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.36	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	BDL	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	E. coli	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	T. coli	MPN/100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

BDL=Below Detection Limit

..... END OF REPORT.....

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/EPA/13771/2025		Date of Report: 03.03.2025	
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304	
Monitored by		ETRC, Lucknow	
Location of Sampling points		Residential Colony (A - Block)	
Sr. No.	GENERAL OBSERVATIONS	DETAILS-PM ₁₀	DETAILS-PM _{2.5}
1 (a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	58	58
(d)	Average ambient temperature (°C)	23	23
(e)	Time of Sampling Started (Hours)	09:36 am (24.02.2025)	09:36 am (24.02.2025)
(f)	Time of Sampling completed (Hours)	09:16 am (25.02.2025)	09:16 am (25.02.2025)
(g)	Total time of sampling (minutes)	24 hour (1406 minutes)	24 hour (1406 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.155	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1624.392	• 23.434
	• GAS (liter)	• 703.2	

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part - 23): 2006, RA: 2022	µg/m ³	78.4	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	48.22	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001, RA: 2022	µg/m ³	13.52	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006, RA: 2022	µg/m ³	18.40	For 24 hour = 80
5	Carbon Monoxide (CO)	IS: 5182 (Part - 10): 1999, RA: 2019	mg/m ³	0.51	For 08 hour = 02
6	Ozone (O ₃)	IS: 5182 (Part - 09): 1974, RA: 2019	µg/m ³	BDL	For 08 hour = 100
7	Ammonia (NH ₃)	IS: 5182 (Part - 25): 2018	µg/m ³	22.69	For 24 hour = 400
8	Lead (Pb)	IS: 5182 (Part - 22): 2004, RA: 2019	µg/m ³	BDL	For 24 hour = 01
9	Benzene (C ₆ H ₆)	IS: 5182 (Part - 11): 2006, RA: 2022	µg/m ³	BDL	Annual = 05
10	Nickel (Ni)	IS: 5182 (Part - 26): 2020	ng/m ³	BDL	Annual = 20
11	Arsenic (As)	EPA/625/R-96/010a; US EPA IO 3.2	ng/m ³	BDL	Annual = 06
12	Benzo (a) Pyrene - particulate phase only	IS: 5182 (Part - 12): 2004, RA: 2019	ng/m ³	BDL	Annual = 01

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/EPA/13772/2025		Date of Report: 03.03.2025	
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304	
Monitored by		ETRC, Lucknow	
Location of Sampling points		Boiling House Near Dryer House	
Sr. No.	GENERAL OBSERVATIONS	DETAILS-PM ₁₀	DETAILS-PM _{2.5}
1 (a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	58	58
(d)	Average ambient temperature (°C)	23	23
(e)	Time of Sampling Started (Hours)	09:49 am (24.02.2025)	09:49 am (24.02.2025)
(f)	Time of Sampling completed (Hours)	09:26 am (25.02.2025)	09:26 am (25.02.2025)
(g)	Total time of sampling (minutes)	24 hour (1408 minutes)	24 hour (1408 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.160	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1633.512	• 23.465
	• GAS (liter)	• 704.1	

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part - 23): 2006, RA: 2022	µg/m ³	83.4	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	51.99	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001, RA: 2022	µg/m ³	14.59	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006, RA: 2022	µg/m ³	19.63	For 24 hour = 80
5	Carbon Monoxide (CO)	IS: 5182 (Part - 10): 1999, RA: 2019	mg/m ³	0.52	For 08 hour = 02
6	Ozone (O ₃)	IS: 5182 (Part - 09): 1974, RA: 2019	µg/m ³	BDL	For 08 hour = 100
7	Ammonia (NH ₃)	IS: 5182 (Part - 25): 2018	µg/m ³	23.10	For 24 hour = 400
8	Lead (Pb)	IS: 5182 (Part - 22): 2004, RA: 2019	µg/m ³	BDL	For 24 hour = 01
9	Benzene (C ₆ H ₆)	IS: 5182 (Part - 11): 2006, RA: 2022	µg/m ³	BDL	Annual = 05
10	Nickel (Ni)	IS: 5182 (Part - 26): 2020	ng/m ³	BDL	Annual = 20
11	Arsenic (As)	EPA/625/R-96/010a; US EPA IO 3.2	ng/m ³	BDL	Annual = 06
12	Benzo (a) Pyrene - particulate phase only	IS: 5182 (Part - 12): 2004, RA: 2019	ng/m ³	BDL	Annual = 01

BDL=Below Detection Limit

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/EPA/13773/2025		Date of Report: 03.03.2025	
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304	
Monitored by		ETRC, Lucknow	
Location of Sampling points		Co-Gen Area Near D.M. Plant	
Sr. No.	GENERAL OBSERVATIONS	DETAILS-PM ₁₀	DETAILS-PM _{2.5}
1 (a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	58	58
(d)	Average ambient temperature (°C)	24	24
(e)	Time of Sampling Started (Hours)	09:25 am (25.02.2025)	09:25 am (25.02.2025)
(f)	Time of Sampling completed (Hours)	09:11 am (26.02.2025)	09:11 am (26.02.2025)
(g)	Total time of sampling (minutes)	24 hour (1413 minutes)	24 hour (1413 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.150	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1624.950	• 23.548
	• GAS (liter)	• 706.5	

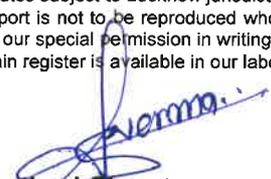
TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part - 23): 2006, RA: 2022	µg/m ³	84.4	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	52.66	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001, RA: 2022	µg/m ³	14.13	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006, RA: 2022	µg/m ³	20.86	For 24 hour = 80
5	Carbon Monoxide (CO)	IS: 5182 (Part - 10): 1999, RA: 2019	mg/m ³	0.52	For 08 hour = 02
6	Ozone (O ₃)	IS: 5182 (Part - 09): 1974, RA: 2019	µg/m ³	BDL	For 08 hour = 100
7	Ammonia (NH ₃)	IS: 5182 (Part - 25): 2018	µg/m ³	22.34	For 24 hour = 400
8	Lead (Pb)	IS: 5182 (Part - 22): 2004, RA: 2019	µg/m ³	BDL	For 24 hour = 01
9	Benzene (C ₆ H ₆)	IS: 5182 (Part - 11): 2006, RA: 2022	µg/m ³	BDL	Annual = 05
10	Nickel (Ni)	IS: 5182 (Part - 26): 2020	ng/m ³	BDL	Annual = 20
11	Arsenic (As)	EPA/625/R-96/010a; US EPA IO 3.2	ng/m ³	BDL	Annual = 06
12	Benzo (a) Pyrine - particulate phase only	IS: 5182 (Part - 12): 2004, RA: 2019	ng/m ³	BDL	Annual = 01

BDL=Below Detection Limit

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ETRC/PM09/TEST-REP/FT/42

TEST REPORT AMBIENT AIR QUALITY MONITORING REPORT

Test Report Ref No.: ETRC/EPA/13774/2025		Date of Report: 03.03.2025	
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304	
Monitored by		ETRC, Lucknow	
Location of Sampling points		ETP Area	
Sr. No.	GENERAL OBSERVATIONS	DETAILS-PM ₁₀	DETAILS-PM _{2.5}
1 (a)	Weather conditions	Clear	Clear
(b)	Wind direction	West to East	West to East
(c)	Average humidity (%)	58	58
(d)	Average ambient temperature (°C)	24	24
(e)	Time of Sampling Started (Hours)	09:46 am (25.02.2025)	09:46 am (25.02.2025)
(f)	Time of Sampling completed (Hours)	09:24 am (26.02.2025)	09:24 am (26.02.2025)
(g)	Total time of sampling (minutes)	24 hour (1403 minutes)	24 hour (1403 minutes)
2	Average sampling rate for PM (m ³ /minute)	1.165	NA
3	Average sampling rate for gas (LPM)	0.5	NA
4	TOTAL VOLUME OF AIR SAMPLED		
	• PM (m ³)	• 1634.262	• 23.372
	• GAS (liter)	• 701.4	

TEST RESULT

Sr. No.	Particulars	Protocol	Unit	Result	Standard as per NAAQS: dated 18/11/ 2009
1	Particulate matters size less than 10 µm (PM ₁₀)	IS: 5182 (Part - 23): 2006, RA: 2022	µg/m ³	81.9	For 24 hour = 100
2	Particulate matters size less than 2.5 µm (PM _{2.5})	IS: 5182 (Part - 24): 2019	µg/m ³	50.49	For 24 hour = 60
3	Sulphur Dioxide (SO ₂)	IS: 5182 (Part - 02): 2001, RA: 2022	µg/m ³	13.68	For 24 hour = 80
4	Oxides of Nitrogen (NO _x)	IS: 5182 (Part - 06): 2006, RA: 2022	µg/m ³	19.02	For 24 hour = 80
5	Carbon Monoxide (CO)	IS: 5182 (Part - 10): 1999, RA: 2019	mg/m ³	0.48	For 08 hour = 02
6	Ozone (O ₃)	IS: 5182 (Part - 09): 1974, RA: 2019	µg/m ³	BDL	For 08 hour = 100
7	Ammonia (NH ₃)	IS: 5182 (Part - 25): 2018	µg/m ³	20.46	For 24 hour = 400
8	Lead (Pb)	IS: 5182 (Part - 22): 2004, RA: 2019	µg/m ³	BDL	For 24 hour = 01
9	Benzene (C ₆ H ₆)	IS: 5182 (Part - 11): 2006, RA: 2022	µg/m ³	BDL	Annual = 05
10	Nickel (Ni)	IS: 5182 (Part - 26): 2020	ng/m ³	BDL	Annual = 20
11	Arsenic (As)	EPA/625/R-96/010a; US EPA IO 3.2	ng/m ³	BDL	Annual = 06
12	Benzo (a) Pyrine - particulate phase only	IS: 5182 (Part - 12): 2004, RA: 2019	ng/m ³	BDL	Annual = 01

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ETRC/PM09/TEST-REP/FT/43

TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT STACK No. 01

Test Report Ref No.: ETRC/EPA/13775/2025		Date of Report: 03.03.2025
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304
Monitored by		ETRC, Lucknow
Sr. No.	GENERAL INFORMATION	DETAILS
1.(a)	Date of monitoring	24.02.2025
(b)	Stack material	RCC
(c)	Height of stack from ground level	72 mts
(d)	Source to which stack attached	Boiler
(e)	No. of boiler attached with capacity	01 No., 170 TPH
(f)	Type and quantity of fuel used	Bagasse
(g)	Details of APCS installed	ESP
2.	PARAMETERS	VALUES
(a)	Ambient temperature (°C)	24.0
(b)	Stack gas temperature (°C)	149.0
(c)	Stack gas velocity (m/sec)	11.90
(d)	Flow rate (LPM)	17
(e)	Sampling time (minutes)	61
(f)	Volume of air sampled (liters)	1037

TEST RESULT

Sr. No.	Parameter	Unit	Protocol	Result	Range of Testing / Limit of Detection	Standard (as per CPCB)
1	Particulate Matter	mg/Nm ³	IS: 11255 (Part-01): 1985 Reaffirmed: 2019	82.5	2.0 - 1000	150
2	Sulphur Dioxide (SO ₂)	mg/Nm ³	IS:11255 (Part-02): 1985 Reaffirmed: 2019	7.6	1.0 - 2000	-
3	Oxide of Nitrogen (NO _x)	mg/Nm ³	IS:11255 (Part-07): 2005 Reaffirmed: 2022	19.4	2.0 - 1000	-

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ETRC/PM09/TEST-REP/FT/43

TEST REPORT STACK EMISSION MONITORING AND ANALYSIS REPORT STACK No. 02

Test Report Ref No.: ETRC/EPA/13776/2025		Date of Report: 03.03.2025
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304
Monitored by		ETRC, Lucknow
Sr. No.	GENERAL INFORMATION	DETAILS
1.(a)	Date of monitoring	24.02.2025
(b)	Stack material	RCC
(c)	Height of stack from ground level	60 mts
(d)	Source to which stack attached	Boiler
(e)	No. of boiler attached with capacity	01 No., 50 TPH
(f)	Type and quantity of fuel used	Bagasse
(g)	Details of APCS installed	Wet Scrubber
2.	PARAMETERS	VALUES
(a)	Ambient temperature (°C)	25.0
(b)	Stack gas temperature (°C)	151.0
(c)	Stack gas velocity (m/sec)	11.92
(d)	Flow rate (LPM)	17
(e)	Sampling time (minutes)	62
(f)	Volume of air sampled (liters)	1054

TEST RESULT

Sr. No.	Parameter	Unit	Protocol	Result	Range of Testing / Limit of Detection	Standard (as per CPCB)
1	Particulate Matter	mg/Nm ³	IS: 11255 (Part-01): 1985 Reaffirmed: 2019	77.8	2.0 - 1000	150
2	Sulphur Dioxide (SO ₂)	mg/Nm ³	IS:11255 (Part-02): 1985 Reaffirmed: 2019	7.2	1.0 - 2000	-
3	Oxide of Nitrogen (NO _x)	mg/Nm ³	IS:11255 (Part-07): 2005 Reaffirmed: 2022	18.0	2.0 - 1000	-

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ETRC/PM09/TEST-REP/FT/44

TEST REPORT

AMBIENT NOISE MONITORING AND ANALYSIS REPORT

Test Report Ref No.: ETRC/EPA/13778/2025		Date of Report: 03.03.2025
Name /Address/Type of Industry		M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304
Monitored by		ETRC, Lucknow
Sr. No.	GENERAL INFORMATION	DETAILS
(a)	Date of monitoring	25/02/2025 (06:00 AM) to 26/02/2025 (06:00 AM)
(b)	Sample Description	Ambient Noise
(c)	Sampling Location	Near Main Gate
(d)	Environmental Condition	Normal
(e)	Monitoring Protocol	IS: 9989: 1981, Reaffirmed: 2020

TEST RESULT

Ambient Noise Level				
Sr. No.	Parameter	Unit	Results	Results
			Day Time (06.00 AM - 10.00 PM)	Night Time (10.00 PM - 06.00 AM)
1	Equivalent sound level	dB(A)	61.23	49.84

Noise Standards as per CPCB Schedule rule 3(1) and 4(1)			
Area Code	Category of Area/Zone	Limits in dB(A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/13782/2025	Date of Report: 03.03.2025
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Waste Water	5	Packing Condition	Sealed
2	Sample Description	ETP Inlet	6	Sample Collected By	ETRC
3	Sample received date	26.02.2025	7	Analysis Start Date	26.02.2025
4	Sample Quantity	2.0 liters	8	Analysis End Date	03.03.2025

TEST RESULT

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	pH	-	APHA 24 th Ed. 2023 - 4500H ⁺	6.8	1 - 14
2	Total Dissolved Solid (TDS)	mg/l	IS: 3025 (Part - 16): 2023	1412.0	10 - 40000
3	Total Suspended Solid (TSS)	mg/l	APHA 24 th Ed. 2023 - 2540 D	296.0	5.0 - 20000
4	Bio-chemical Oxygen Demand (BOD)	mg/l	IS: 3025 (Part - 44): 1993 Reaffirmed: 2019	320.0	1.0 - 150000
5	Chemical Oxygen Demand (COD)	mg/l	IS: 3025 (Part - 58): 2006 Reaffirmed: 2022	1868.0	2.0 - 600000
6	Oil & Grease	mg/l	APHA 24 th Ed. 2023 - 5520 A+D	12.4	5.0 - 200

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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/13783/2025	Date of Report: 03.03.2025
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Waste Water	5	Packing Condition	Sealed
2	Sample Description	ETP Outlet	6	Sample Collected By	ETRC
3	Sample received date	26.02.2025	7	Analysis Start Date	26.02.2025
4	Sample Quantity	2.0 liters	8	Analysis End Date	03.03.2025

TEST RESULT

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection
1	pH	-	APHA 24 th Ed. 2023 - 4500H ⁺	7.3	1 - 14
2	Total Dissolved Solid (TDS)	mg/l	IS: 3025 (Part - 16): 2023	1326.0	10 - 40000
3	Total Suspended Solid (TSS)	mg/l	APHA 24 th Ed. 2023 - 2540 D	14.6	5.0 - 20000
4	Bio-chemical Oxygen Demand (BOD)	mg/l	IS: 3025 (Part - 44): 1993 Reaffirmed: 2019	12.0	1.0 - 150000
5	Chemical Oxygen Demand (COD)	mg/l	IS: 3025 (Part - 58): 2006 Reaffirmed: 2022	76.0	2.0 - 600000
6	Oil &Grease	mg/l	APHA 24 th Ed. 2023 - 5520 A+D	BDL	5.0 - 200

BDL = Below Detection Limit

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An approved laboratory from Ministry of Environment, Forest and Climate change, Govt. of India under EPA 1986

ETRC/PM09/TEST-REP/FT/46

TEST REPORT SOIL ANALYSIS

Test Report Ref No.: ETRC/EPA/13786/2025	Date of Report: 03.03.2025
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Sampling Location	Plant Premises	5	Packing Condition	Sealed
2	Sample Description	Soil	6	Sample Collected By	ETRC
3	Sample received date	26.02.2025	7	Analysis Start Date	26.02.2025
4	Sample Quantity	1.0 kg	8	Analysis End Date	03.03.2025

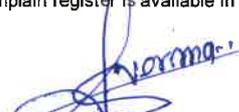
TEST RESULT

Sr. No.	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing / limit of detection
1	pH	-	IS: 2720 (Part - 26):1987 Reaffirmed: 2021	7.3	1 - 14
2	Electrical Conductivity	µS/cm	IS: 14767: 2000 Reaffirmed: 2021	314.0	1 - 40000
3	Moisture Contents	%	IS: 2720 (Part - 02): 1973 Reaffirmed: 2020	3.10	1.0 - 50
4	Nitrate as N	kg/Hec	Method Manual of Soil Testing in Inda	276.0	5.0 - 500
5	Phosphorus (as P ₂ O ₅)	kg/Hec	Method Manual of Soil Testing in Inda	24.0	1 - 2000
6	Potash as K ₂ O	kg/Hec	Method Manual of Soil Testing in Inda	172.0	1.0 - 2000
7	Copper as Cu	mg/kg	Method Manual of Soil Testing in Inda	0.39	0.3 - 500
8	Zinc as Zn	mg/kg	Method Manual of Soil Testing in Inda	9.82	1.0 - 500
9	Iron as Fe	mg/kg	Method Manual of Soil Testing in Inda	152.0	5.0 - 500
10	Manganese as Mn	mg/kg	Method Manual of Soil Testing in Inda	9.4	5.0 - 500
11	Sulphur	mg/kg	IS: 14685: 1999 Reaffirmed: 2019	14.0	5.0 - 100

Method Manual of Soil Testing in India (Department of Agriculture and Corporation Ministry of Agriculture, Government of India), 4.6.3 (16b): 2022

..... END OF REPORT.....

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- All disputes subject to Lucknow jurisdiction.
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- Complain register is available in our laboratory.


Authorized Signatory
(Sandeep Kr Verma)
Lab-Incharge




Authorized Signatory
(Ritu Garg)
QM



ENVIRONMENTAL AND TECHNICAL RESEARCH CENTRE

Office & Laboratory : 2/261, Vishwas Khand, Gomti Nagar, Lucknow - 226 010 (U.P.)

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ETRC/PM09/TEST-REP/FT/45

TEST REPORT WATER & WASTE WATER ANALYSIS

Test Report Ref No.: ETRC/EPA/13833/2025	Date of Report: 10.03.2025
Name /Address/Type of Industry	M/s Dhampur Bio-organics Limited Unit: Asmoli, Division Sugar Village: Asmoli Tehsil: & District: Sambhal (U.P.) - 244304

SAMPLE DETAILS

1	Water/ Waste Water	Ground Water	5	Packing Condition	Sealed
2	Sample Description	Borewell Water	6	Sample Collected by	Industry self
3	Sample received date	04.03.2025	7	Sample Collection date	04.03.2025
4	Sample Quantity	5.0 liters	8	Analysis Start Date	04.03.2025
				Analysis End Date	10.03.2025

TEST RESULT

Sr. No	Test Parameter	Unit	Protocol/Test Method	Result	Range of testing /limit of detection	Indian Standard 10500: 2012	
						Desirable	Permissible
Physico-chemical Parameters							
1	Colour	Hazen	IS: 3025 (Part - 04): 2021	<5.0	5 - 30	5	15
2	Odour	-	IS: 3025 (Part - 05): 2018	Agreeable	Qualitative	Agreeable	Agreeable
3	pH	-	APHA 24 th Ed. 2023 - 4500 H ⁺	7.5	1 - 14	6.5-8.5	No Relaxation
4	Turbidity	NTU	APHA 24 th Ed. 2023 - 2130 B	BDL	2 - 40	1	5
5	Total Dissolved Solids (TDS)	mg/l	IS: 3025 (Part - 16): 2023	376.4	10 - 5000	500	2000
6	Ammonia (as total ammonia-N)	mg/l	APHA 24 th Ed. 2023 - 4500-NH ₃ F	BDL	0.5 - 2.0	0.5	No Relaxation
7	Anionic Detergents (as MBAS)	mg/l	APHA 24 th Ed. 2023 - 5540 C	BDL	0.05 - 0.5	0.2	1.0
8	Calcium as Ca	mg/l	IS: 3025 (Part - 40): 1991 Reaffirmed: 2019	49.6	2.0 - 600	75	200
9	Magnesium as Mg	mg/l	APHA 24 th Ed. 2023 - 3500 Mg, B	27.21	0.1 - 200	30	100
10	Chloride as Cl	mg/l	APHA 24 th Ed. 2023 - 4500-Cl ⁻ B	28.0	2.0 - 2000	250	1000
11	Fluoride as F	mg/l	APHA 24 th Ed. 2023 - 4500 F ⁻ C	0.29	0.02 - 5.0	1.0	1.5
12	Free Residual Chlorine	mg/l	IS: 3025 (Part - 26): 1986 Reaffirmed: 2019	BDL	0.1 - 5.0	0.2	1.0
13	Nitrate as NO ₃	mg/l	IS: 3025 (Part - 34): 1986 Reaffirmed: 2019	BDL	1.0 - 70	45	No Relaxation
14	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	APHA 24 th Ed. 2023 - 5530 C	BDL	0.001 - 0.005	0.001	0.002
15	Sulphate as SO ₄	mg/l	APHA 24 th Ed. 2023 - 4500- SO ₄ ²⁻	26.0	1.0 - 500	200	400
16	Alkalinity as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2320 B	276.0	2.0 - 1000	200	600
17	Total Hardness as CaCO ₃	mg/l	APHA 24 th Ed. 2023 - 2340 C	236.0	5.0 - 800	200	600
18	Aluminium as Al	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.015 - 5.0	0.03	0.2
19	Boron as B	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.05 - 2.0	0.5	1.0
20	Copper as Cu	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 10	0.05	1.5
21	Iron as Fe	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.19	0.05 - 20	0.3	No Relaxation



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22	Manganese as Mn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.03	0.02 - 5.0	0.1	0.3
23	Zinc as Zn	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	0.24	0.05 - 15	5	15
24	Cadmium as Cd	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.003 - 2.0	0.003	No Relaxation
25	Lead as Pb	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.01 - 10	0.01	No Relaxation
26	Mercury as Hg	µg/l	APHA 24 th Ed. 2023 - 3112 B	BDL	0.5 - 1000	1.0	No Relaxation
27	Nickel as Ni	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 5.0	0.02	No Relaxation
28	Arsenic as As	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.02 - 2.0	0.01	0.05
29	Total Chromium	mg/l	APHA 24 th Ed. 2023 - 3120 B (ICP-OES)	BDL	0.03 - 5.0	0.05	No Relaxation
Microbiological Parameters							
30	E. coli	MPN/ 100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	
31	T. coli	MPN/ 100 ml	IS: 1622 - 1981 Reaffirmed: 2019	Absent	1.8 - 1600	Shall not be detected in any 100 ml sample	

BDL=Below Detection Limit

..... END OF REPORT.....

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(Sandeep Kr Verma)
Lab-Incharge




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(Ritu Garg)
QM

परिक्षा स परीक्षार्थी



। देते परीक्षार्थी। संवाद

गिजर रहे। दूसरी पाली में बीए
तीसरे सेमेस्टर की परीक्षा भी

संभल। तहसील क्षेत्र के गांव कल्याणपुर स्थित त्यागी स्पोर्ट्स एकेडमी में रविवार की सुबह 10 बजे से कुश्ती प्रतियोगिता आयोजित होगी। इसमें 15, 17 और 20 वर्ष आयु वर्ग में कुश्ती होंगी। इसमें जिले की कई पहलवान प्रतिभाग करेंगे। जिला कुश्ती संघ के सचिव भोला सिंह त्यागी ने बताया कि जो टीम इस प्रतियोगिता में भाग लेना चाहती है। उन टीम के पहलवानों के पासपोर्ट साइज फोटो और आधार कार्ड की कॉपी देनी होगी। इसके बाद ही पहलवान कुश्ती में भाग ले पाएंगे। संवाद

धामपुर बायो ऑर्गेनिक्स लि. असमोली जिला-संभल

आप सभी को सूचित किया जाता है कि पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा मेसर्स धामपुर बायो ऑर्गेनिक्स लि0, इकाई असमोली डिबीजन शुगर ग्राम व पोस्ट असमोली, जिला संभल उत्तर प्रदेश-244304 को ई.सी. संख्या EC23B025UP167115 दिनांक 22.06.2023 के द्वारा इकाई क्षमता विस्तार 9000 टी0सी0डी0 प्रतिदिन से 14000 टी0सी0डी0 प्रतिदिन की पर्यावरण स्वीकृति प्रदान की है। पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा जारी पर्यावरण स्वीकृति की प्रति विभाग कि वेबसाइट <http://moef.nie.in> (<http://environmentalclearance.nic.in>). एवं उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड के पास उपलब्ध है।

मेसर्स धामपुर बायो ऑर्गेनिक्स लि0

इकाई असमोली डिबीजन शुगर,

ग्राम व पोस्ट, असमोली

जिला-संभल उत्तर प्रदेश-244304



30प्र0 लोक सेवा आयोग

हाथ के शस्त्र, क्री में शरी में गो पर व

ति जाई शा के में

जगदीश यादव, प्रशांत यादव, चर यादव, बबलू यादव, मिश्री सिंह

सेंट थॉमस पब्लिक स्कूल

चंदौसी। नगर के सेंट थॉमस पार्षिकोत्सव मनाया गया। कार्यक्रम की इस पहनकर शामिल हुए। शुरूआत बच्चों ने सांस्कृतिक कर्मों में सेंटा क्लोज ने बच्चों को उपहार मोहन ने प्रभु ईशु के त्याग व आकांक्षा कि हम भी उनके जीवन के हमारे भीतर परोपकार की भावना मोहन, विक्रम मोहन, जया मोहन चौहान, डॉ. सौरभ कुकरेजा, तस भटनागर, राखी चौहान, अमन,

सुबह में छाया कोहरा,

संभल। दिसंबर के महीने के दि होता जा रहा है। शुक्रवार को जबकि अधिकतम तापमान 21 चादर से आसमान ढका हुआ दिवकत का सामना करना पड़ शुरू हो गई। इससे लोगों को डिग्री बढ़ने के बाद भी लोगों न्यूनतम तापमान 7 डिग्री दर्ज

ANNEXURE – 6 (Environmental Display Board)

DISPLAY BOARD - 2

1 EFFLUENT DISCHARGE OF ETP
1.1 DAILY MONITORING OF ETP

DATE	QUANTITY (KL)	MODE OF DISPOSAL DRAIN/SEWER/LAND LAND IRRIGATION	TYPE/CAPACITY OF ETP	TYPE OF TREATMENT USED
01-12-2024				

1.2 RESULTS OF LATEST ANALYSIS OF EFFLUENT QUALITY:

PRESCRIBED PARAMETERS	PH	TSS (PPM)	BOD5 (MG/L)	Oil & Grease (PPM)	TOTAL DISSOLVED SOLIDS (PPM)	FREE AMMONIA NITROGEN (PPM)
PRESCRIBED LIMITS OUTLET	55-8.5	100	100	NIL	2100	200
INPUT TO THE ETP WITH DATE	6.3	32			1875	
OUTPUT FROM THE ETP WITH DATE	7.6	64	24		245	

2 AIR EMISSIONS AND CONTROL:

DATE	CAPACITY OF BOILER/FURNACE (LITRE OR KG PER DAY)	FUEL CONSUMPTION (CYRS OR KG PER DAY)	AIR POLLUTION CONTROL SYSTEM	D.G. SETS (KVA)	STACK HEIGHT(S) (MTRS ABOVE GROUND)
	170 TPA, 70 TPA, 50 TPA		ESP AND WET SCRUBBER		72 MTRS. AND 60 MTRS.

PRESCRIBED PARAMETERS	PARTICULATE MATTER (MG/M ³)	SO ₂ (PPM)	NO _x (PPM)
PRESCRIBED LIMITS	150		
LATEST MONITORING RESULTS OF AIR EMISSION WITH DATE (Boiler)	84.6	92.6	

3. HAZARDOUS WASTE GENERATION:

DATE	CATEGORY OF WASTE	QUANTITY OF WASTE	MODE OF STORAGE	CAPACITY OF REMAINING STORAGE	FINAL DISPOSAL METHOD
	Schedule I Category (Electronics)		Plastic container		TSDP
	Schedule II Category (Waste Paper)				TSDP
	Schedule III Category (Waste Oil)				TSDP

4. USE OF HAZARDOUS CHEMICALS

HAZARDOUS CHEMICALS	QUANTITY USED	SAFETY MEASURES FOR STORAGE & HANDLING
H ₂ O		

DISPLAY BOARD - 1

1. DATE OF INFORMATION UPDATE 01-12-2024

2. NAME OF THE COMPANY-DHAMPUR BIO ORGANICS LTD. UNIT-ASMOLI

3. ADDRESS- VILLAGE+POST-ASMOLI, DISTT.+TEHSIL-SAMBHAL(UP) 244304

4. CONTACT PERSON-VIVASHWAN TRIPATHI CONTACT NO.-9720108229 DESIGNATION-FACTORY MANAGER

5. TOTAL CAPACITY/PRODUCTION - 12500

WEEKS	DATE	RAW MATERIELS	PRODUCTS	WASTES
PREVIOUS WEEK	FROM: 11/12 TO 17/12			
CURRENT WEEK	FROM: 18/12 TO 24/12			

6. PRODUCTION FLOW CHART INDICATING POINTS TO WASTE (SOLID, LIQUID & GASEOUS) GENERATION:

7. CONSENT UNDER AIR AND WATER ACT ISSUED ON: 01-09-23 to 31-03-2025

8. CONDITIONS FOR EFFLUENT DISCHARGE: 01-12-2024

(i) QUANTITY OF EFFLUENT PER DAY:

TRADE EFFLUENT	NON TRADE EFFLUENT
2500 LIT	50 KLD

(ii) QUALITY OF TREATED EFFLUENT (SPECIFY THE RELEVANT POLLUTANT): (a) pH: 7.0-8.5 (b) TSS: 100 ppm (c) TDS: 2500 ppm (d) BOD: 100 ppm

(iii) MODE OF DISPOSAL OF TREATED EFFLUENT: LAND-IRRIGATION

(iv) CONDITION FOR AIR EMISSION: (i) STACK HEIGHT (S) (ii) CAPACITY OF DG SET

FUEL DATA	DG SET	FURNACE	BOILER
TYPE OF FUEL: HSD			
QUANTITY OF FUEL			BAGASSE
POLLUTANTS: PM, SO ₂ , NO _x			PARTICULATE MATTER

(v) QUALITY OF AIR EMISSION (SPECIFY THE RELEVANT POLLUTANTS FOR THE INDUSTRY): Particulate Matter - 150 mg/m³

(vi) AUTHORIZATION UNDER HAZARDOUS WASTE (MANAGEMENT & HANDLING) RULES ISSUED ON 25-12-2022, VALID UPTO: 27-12-27

(vii) CATEGORY OF WASTE AT STORAGE FACILITY: S-1, S3.2, S3.1

(viii) QUANTITY OF WASTE AT STORAGE FACILITY: 100 kg

(ix) WASTE DISPOSAL FACILITY: TSDP-BHARAT OIL & WASTE MANAGEMENT LTD.