

JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD., HUPARI

Shri Kallappanna Awadenagar, Hupari-Yalgud 416 203, Tal.: Hatkanangale, Dist.: Kolhapur (Maharashtra)
Phone (0230) 2450402 (5 Lines), Fax (0230) 2450401, E-mail : kprjsssk@gmail.com

Ref. No. MFG/ ETP / 6986 /2023

Date: - 23/11/2023

To,
The Regional Officer,
MoEFCC; Western Region (WCZ),
Ground Floor, East Wing,
New Secretariat Building,
Civil Lines,
Nagpur – 440001.

Sub: Submission of Six Monthly Environment Compliance report for period April 2023 to September 2023 w.r.t Co-gen Unit of 28.5 MW – **Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari.** Shri Kallappanna Awadenagar, Hupari-Yalgud, Tal.: Hatkanangale, Dist.: Kolhapur, Maharashtra State.

Ref: Environmental Clearance (EC) Letter No. ENV (NOC) 2005/1591/CR224/TC-II dated 27.08.2007.

Dear Sir,

This has reference to Environmental Clearance (EC) granted to our Co-gen Unit of 28.5 MW– **Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,Hupari** Shri Kallappanna Awadenagar, Hupari-Yalgud, Tal.: Hatkanangale, Dist.: Kolhapur, Maharashtra State.

We are submitting a six monthly compliance report for a period of April 2023 to September 2023.

We hope the details furnished by us are in accordance with your requirements.

Thanking you,

Yours Faithfully,



(M.G.Joshi)
Managing Director

Encl. - As above

Copy for information to:-

1. The Integrated Regional Office,
MoEFCC; Western Region (WCZ),
Ground Floor, East Wing,
New Secretariat Building,
Civil Lines,
Nagpur – 440001.
Email – ecompliance-mh@gov.in
Eccompliance-mh@gov.in

2. Sh. Bharat Kr. Sharma
Scientist 'F'
Central Pollution Control Board,
Pune.
Email – bksharma.cpcb@nic.in

3. Member Secretary,
Maharashtra Pollution Control Board,
Kalpataru Point, 3rd & 4th Floor,
Opp.Cine Planet,
Near Sion Circle, Sion (E),
Mumbai (Maharashtra) - 400 022.
Email – ms@mpcb.gov.in

4. Regional Officer,
Maharashtra Pollution Control Board,
Udyog Bhavan Building,
Naer Collector Office,
Kolhapur- 416 002.
Email – rokolhapur@mpcb.gov.in

GOVERNMENT OF MAHARASHTRA

☎ 2285 50 82
☎ 2202 59 48

No.ENV(NOC)2005/1591/CR224/TC-II
ENVIRONMENT DEPARTMENT,
Mantralaya, New Administrative Bldg.,
15th floor, Madam Cama Marg,
MUMBAI - 400 032.

Dated : 27 AUG 2007

To,

The Chairman /Managing Director,
M/s. Jawahar Shetkari Sahakari Sakhar Kharkhana Ltd.,
Kallapanna Awade Nagar,
Hupri Yalgud Road,
Dist. Kolhapur

Sub : Environment clearance.

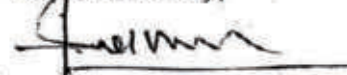
Sir,

I am directed to refer to your letter dated 11th October, 2006, on the subject mentioned above and to state that the Environment Department of the State Government has no objection from the environmental angle to permit you expansion of sugarcane crushing capacity from 5000 TCD to 7500 TCD (from Five Thousand TCD to Seven Thousand Five Hundred TCD only) and Co-Generation from 24 MW to 28.5 MW at, Kallapanna Awade Nagar, Hupri Yalgud Road] Dist. Kolhapur, Maharashtra State subject to the following conditions & general conditions stipulated in the Annexure.

These stipulations will be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 alongwith their amendments.

The above permission is without prejudice to any other permissions required under any of the laws, bye-laws or regulations in force and that the Government may impose any additional conditions from time to time for control of pollution, if necessary.

Yours faithfully,



(Surendra Jadhav)

Deputy Secretary to Government

ENCL : As above.

JAWAHAR SSSK LTD.. HUP..
IW No. 2292 Date 1/9/07
Sent To MD
Up to ADM, Chemical Engg, CHE,
Secretary / Managing Director.

1

1. The Project Authority shall take adequate safety precautions in handling the raw materials, plant and machinery and the products of the processes so as to avoid any damage / loss of property, or environment.
2. The Project Authority shall provide personal protective equipments, impart training and medical facilities to the workers handling the hazardous / dangerous raw materials, finished products or processes.
3. The Project Authority shall prepare the on-site disaster management plan and should submit to the Director, Industrial Safety and Health. The copies of which shall also be submitted to the District Collector, Local Authority, Maharashtra Pollution Control Board (MPCB) and the Environment Department, Government of Maharashtra. The Project Authority shall submit the information to the Director, Industrial Safety and Health for the preparation of the off-site disaster management plan. The Project Authority should carry out periodical rehearsal of the on-site disaster management plan.
4. The Project Authority shall comply with all statutory requirements for safe transportation of raw materials / finished products in case of trucks / tankers carrying hazardous raw materials shall be washed and cleaned up within the plant premises, so as to ensure no pollution in the vicinity.
5. The Project Authority shall use cleaner technology for the manufacturing process and the clean fuel for the operations so as to reduce process waste, liquid effluents and gaseous emissions.
6. The Project Authority shall treat the liquid effluents so as to conform to the standards prescribed by MPCB. The disposal of the treated effluent shall be in accordance with the conditions imposed by MPCB / GOM (Government of Maharashtra / Government of India). The continuous monitoring facility for the effluents should be provided by the project authority. If the effluent quality exceeds the standards at any time the corresponding units of the plant which are contributing the excessive pollutant load shall be stopped from the operations till the quality of pollutant discharged from those units are brought down to the required level. Under no circumstances, the quality of the effluent shall exceed the limits mentioned in the consent letter. The Project Authority should draw water consumption plans and the time bound sincere efforts for the reduction of water consumption should be made.
7. In case the treated effluent is proposed to be utilized for land irrigation / gardening on the land owned by the Project Authority, the sufficient area should be earmarked for the same purpose in consultation with the Agriculture Department. Under no circumstances, such an effluent should be allowed to flow outside the premises of the project. During Monsoon, on heavy rainfall period, if the treated effluent can not be absorbed in the project land and there is likelihood of the effluent going into the nearby areas, the respective unit should be put out of operation immediately. For the purpose of effluent disposal, mechanical system (Sprinkler etc.) and shall make adequate arrangements for the storage of excessive effluent (impervious storage tank etc.) in consultation with MPCB.
8. The Project Authority shall regularly and periodically undertake soil testing of the land which are being used for the disposal of the effluent and shall also undertake periodical and regular testing of water sources in the vicinity of the project.
9. The Project Authority shall control the air emissions as per the standards prescribed by MPCB. No change in the design of stack and fuel mix be done without the permission of MPCB. Minimum number of air quality monitoring

stations should be set up in consultation with MPCB in the plant and nearby areas. The air quality should be monitored on regular basis. All the stacks of the plant should be provided with the continuous stack monitoring equipment and the stack emission levels shall be recorded and submitted to the MPCB as per their directives.

10. The process emissions shall meet the standards prescribed by MPCB. At no time, the emissions should be beyond the standards. The respective units which exceed the standard should be put out of order immediately and should not be restarted until the control systems are rectified.
11. The solid waste shall be treated and disposed off as prescribed in the authorization certificate granted by MPCB in accordance with the Hazardous Waste (Handling and Management) Rules, 1989 (wherever applicable).
12. The Project Authority shall take precautions so as to reduce other types of environmental problems like noise, odour, thermal / heat and radio activity etc. (if applicable).
13. The Project Authority shall set up environment management cell with a suitably qualified staff, to carry out various functions of the environment management. The Environment Management Plan should be prepared by the project authority shall also earmarked submitted to MPCB. The Project Authority shall also earmarked funds for the Environment Management Cell and same shall not be diverted for any other purpose. The Project Authority shall prepare environment statement every year and copy of the same should be submitted to the MPCB.
14. The cases of any disaster / accident / mishap due to handling raw materials, process, plant and machinery or finished products, the Project Authority shall be personally, jointly and severally be responsible for the event.
15. Tree plantation programs should be undertaken at the rate of not less than 2500 trees per ha. on the factory land, in consultation with the Forest Department of the State Government and MPCB.
16. This environment clearance is not transferable and shall lapse after a period of 2 years from the date on which the clearance is given, unless the intended development is commenced before the expiry of the period.
17. The Project Authority must strictly adheres to the stipulations made by MPCB / Government of Maharashtra / Government of India. The Project Authority shall submit the compliance report regarding conditions imposed by MPCB / Government of Maharashtra (Environment Department) / Government of India before commencement of production / activity.
18. The Company should used a treated effluent for afforestation and create a green belt around the factory premises with necessary fencing around it.

**Six monthly (Period April 2023- September 2023) Compliance reports for
M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd for Co-gen Unit of
capacity 28.5 MW**

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
1	<p>Condition No.1 The Project Authority shall take adequate safety precautions in handling the raw materials, plant and machinery and the products of the processes so as to avoid any damage/ loss of land or property or environment.</p>	<p>Adequate safety measures for handling the raw material, plant and machinery are taken. Employees are provided with PPEs kits. Bagasse which is used as fuel for boiler is transported to boiler through close conveyor belt. Moreover, Industry is following the safety measures during manufacturing process in material handling. Industry has installed & provided fire-fighting system infrastructure comprising of fire water lines, fire hydrants, fire tender, fire extinguishers etc. at all strategic & fire prone areas in the industry, bagasse yard, molasses storage section etc. The firefighting arrangements have been provided on site as per Factories Act. Regular firefighting mock drills are conducted to train workers for fire hazards. Latest mock drill was carried out Photographs of Firefighting system, Mock drill, Boiler interlocks is enclosed at Annexure – I.</p>
2	<p>Condition No.2 The Project Authority shall provide personal protective equipments; impart training and medical facilities to the workers handling the hazardous/dangerous raw materials, finished products or processes.</p>	<p>No hazardous chemicals are being used in the process. The workers engaged in handling operations are provided with necessary Personal Protective Equipment's (PPEs) like safety helmet, shoes, goggles, face mask, dust mask, hand gloves, welder goggles, earmuffs, safety belts etc. Regular training is important for workers who are handling the hazardous / dangerous raw materials, finished products or processes etc. Moreover, annual health checkup of all workers is done through authorized and qualified doctor and records are maintained. Latest health checkup report dated</p>

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
		02.09.2022 to 01/09/2023 is enclosed at Annexure-II.
3	<p>Condition No.3 The Project Authority shall prepare the on-site disaster management plan and should submit to the Director, Industrial Safety and Health. The copies of which shall also be submitted to the District Collector, Local Authority, Maharashtra Pollution Control Board (MPCB) and the Environment Department, Government of Maharashtra. The Project Authority shall submit the information to the Director, Industrial Safety and Health for preparation of the off-site disaster management plan. The Project Authority should carry out periodical rehearsal of the on-site disaster management plan.</p>	<p>Risk Assessment Report have already prepared for entire project complex. Therein, identification of hazard and migration measures have been suggested. Moreover, the fire hazard areas like bagasse storage yard, switch yard etc. have been provided with appropriate firefighting arrangement. Periodic mock drills are conducted for imparting training on handling hazardous situations and handling of firefighting equipments. Photographs of Firefighting system and Mock drill is enclosed at Annexure I.</p>
4	<p>Condition No.4 The Project Authority shall comply with all statutory requirements for safe transportation of raw materials/ finished products in case of trucks/tankers carrying hazardous raw material shall be washed and cleaned up within the plant premises, so as to ensure no pollution in the vicinity.</p>	<p>Not applicable. Since electricity generated is directly fed to MSEB grid.</p>
5	<p>Condition No.5 The Project Authority shall be use cleaner technology for the manufacturing process and the clean fuel for the operations so as to reduce process waste, liquid effluents and gaseous emissions.</p>	<p>In the Co-gen plant electricity is generated using steam from boiler. Bagasse is used as fuel for steam generation, which is one of the process waste of sugar factory. Moreover, excess condensate water from sugar factory is used in process.</p>

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
6	<p>Condition No.6 The Project Authority shall treat the liquid effluents so as to conform to the standards prescribed by MPCB. The disposal of the treated effluent shall be in accordance with the conditions imposed by MPCB / GOM (Government of Maharashtra / Government of India). The continuous monitoring facility for the effluent should be provided by the project authority. If the effluent quality exceeds the standards at any time, the corresponding units of the plant which are contributing the excessive pollutant load shall be stopped from the operations till the quality of pollutant discharged from those units are brought down to the required level. Under no circumstances, the quality of the effluent shall exceed the limits mentioned in the consent letter. The Project Authority should draw water consumption plans and the time bound sincere efforts for the reductions of water consumption should be made.</p>	<p>The effluent generated from the Co-gen plant operation is forwarded to the sugar factory ETP. The same is treated in state of art effluent treatment plant. The treated effluent is used for gardening and the development of green belt in own factory premises. OCMS is installed for ETP. Moreover, STPs of capacity 100 KLPD and 50 KLPD has been installed on-site for the treatment of domestic effluent. Flow sheet and Photographs of ETP as well as that of STP is enclosed at Annexure –III</p>
7	<p>Condition No7 In case of the treated effluent is proposed to be utilized for land irrigation / gardening on the land owned by the project Authority, the sufficient area should be earmarked for the same purpose in consultation with the Agriculture Department. Under no circumstances, such an effluent should be allowed to flow outside the premises of the project. During Monsoon on heavy rainfall period, if the treated effluent cannot be absorbed in the project land and there is likelihood of the effluent going into the nearby areas, the respective unit should be put out of operation immediately. For the purpose of effluent disposal, mechanical system (Sprinkler etc.) and shall make adequate arrangements for the storage of excessive effluent (impervious storage tank etc.) in</p>	<p>No effluent is discharged outside industrial premises. The treated effluent is being recycled and use for gardening in premises. An online monitoring system as well as a flow meter is provided for ETP. Moreover, impervious storage tank have been provided for the storage of treated effluent. Flow sheet and Photographs of ETP as well as that of STP is enclosed at Annexure –III.</p>

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	consultation with MPCB.	
8	<p>Condition No.8 The Project Authority shall regularly and periodically undertake soil testing of land which are being used for the disposal of the effluent and shall also undertake periodical and regular testing of water sources in the vicinity of the project.</p>	<p>The treated effluent from sugar factory ETP is used for gardening and development of green belt in own factory premises. Moreover, soil testing laboratory is established within plant premises and regular monitoring is being carried out.</p>
9	<p>Condition No.9 The Project Authority shall control the air emissions as per the standards prescribed by MPCB. No change in the design of stack and fuel mix be done without the permission of MPCB. Minimum number of air quality monitoring stations should be set up in consultation with MPCB in the plant and nearby areas. The air quality should be monitored on regular basis. All the stacks of the plant should be provided with the continuous stack monitoring equipment and stack emission levels shall be recorded and submitted to the MPCB as per their directives.</p>	<p>ESPs as APC are provided followed by stack height of 75M (common for 90 TPH and 20 TPH) & 72M for 75 TPH boiler to control particulate matter and Gaseous pollutants. As per latest guidelines of CPCB, an online monitoring system (OCMS) has been installed for boiler. Moreover, industry conducts self-monitoring w.r.t. Ambient Air, Stack Emissions, Noise as well as analysis of untreated and treated effluent on monthly basis. The same is done through an approved laboratory. The AAQ locations are selected in upwind and downwind directions. The report as well as OCMS Photographs of the same are enclosed at Annexure - IV</p>
10	<p>Condition No.10 The process emissions shall meet the standards prescribed by MPCB. At no time, the emissions should be beyond the standards. The respective units which exceed the standard should be put out of order immediately and should not be restarted until the control systems are rectified.</p>	<p>The condition is being followed. As per latest guidelines of CPCB, online monitoring systems (OCMS) have been installed for boiler. Moreover, industry conducts self-monitoring w.r.t. Ambient Air, Stack Emissions, Noise as well as analysis of untreated and treated effluent on monthly basis. The same is done through an approved laboratory. The report of the same are enclosed at Annexure IV</p>
11	<p>Condition No.11 The solid waste shall be treated and disposed off as prescribed in the authorization certificate granted by MPCB in accordance with the Hazardous Waste (Handling and Management) Rules, 1989 (Wherever applicable).</p>	<p>Hazardous waste in form of Used Oil is burnt in boiler along with bagasse. Moreover, Solids waste in form of boiler ash is given to farmers as Manure / Brick Manufacturing.</p>

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
12	<p>Condition No. 12 The project Authority shall take precautions so as to reduce other types of environment problems like noise, odour, thermal/heat and radio activity etc. (if applicable).</p>	<p>Major noise-generating sources are Boilers, Turbines, D.G. Set, etc. The overall noise level in around the plant area are maintained within the standards prescribed under the Environment (Protection) Act, 1986 Rules. Workers working in noisy area are provided with personal protective equipment's such as earplug, earmuffs etc. The measures adopted under existing unit for controlling the same are proper housekeeping, sludge management in biological ETP units, steaming of major pipe lines, regular use of bleaching powder in the drains, efficient handling, prompt & proper disposal of pressmud. No any radioactive substances are used in Co-gen plant.</p>
13	<p>Condition No. 13 The Project Authority shall set up environment management cell with suitably qualified staff, to carry out various functions of the environment management. The Environment Management Plan should be prepared by the project authority shall also earmarked submitted to MPCB. The project Authority shall also earmarked funds for the Environment Management Cell and same shall not be diverted for any other purpose. The Project Authority shall prepare environment statement every year and copy of the same should be submitted to the MPCB.</p>	<p>The industry has an Environmental Management Cell (EMC) functioning. Members of the EMC are well qualified and experienced in their concerned fields. A separate Environment Management cell is already established. Structure of EMC is enclosed at Annexure - V</p>
14	<p>Condition No. 14 The cases of any disaster/accident/mishap due to handling raw materials, process, plant and machinery or finished products, the Project Authority shall be personally, jointly and severally be responsible for the event.</p>	<p>Noted.</p>
15	<p>Condition No. 15 Tree plantation programs should be undertaken at the rate of not less than 2500 trees per ha on the factory land, in consultation with the Forest Department of</p>	<p>Total Plot area of JSSSKL is 99.57 Ha. Industry has developed a green belt on area of 39.9 Ha. This comes to about 40% of total plot area.Total 69279 Nos. of trees</p>

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	the state Government and MPCB.	have been planted in the factory premises. Which includes evergreen & pollution resistant species like Silver Oak, Rain tree, Neem, Suru, Saag etc have been planted. Avenue plantation, shelter belt plantation, mass plantation& pocket plantation has been done on site.Details and Photographs of the Green belt is enclosed at Annexure VI .
16	Condition No. 16 This environment clearance is not transferable and shall lapse after a period of 2 years from the date on which the clearance is given, unless the intended development is commenced before the expiry of the period.	The Condition is followed by industry.
17	Condition No. 17 The Project Authority must strictly adhere to the stipulations made by MPCB/ Government of Maharashtra/ Government of India. The Project Authority shall submit the compliance report regarding conditions imposed by MPCB/ Government of Maharashtra (Environment Department)/ Government of India before commencement of production/activity.	Industry is strictly following all the stipulations made by the Central Pollution Control Board (CPCB) as well as Maharashtra State Pollution Control Board (MPCB).
18	Condition No. 18 The Company should use treated effluent for afforestation and create a green belt around the factory premises with necessary fencing around it.	Effluent is treated in existing sugar factory ETP. Treated effluent is used for gardening and the development of Green belt purposes in the industrial premises.

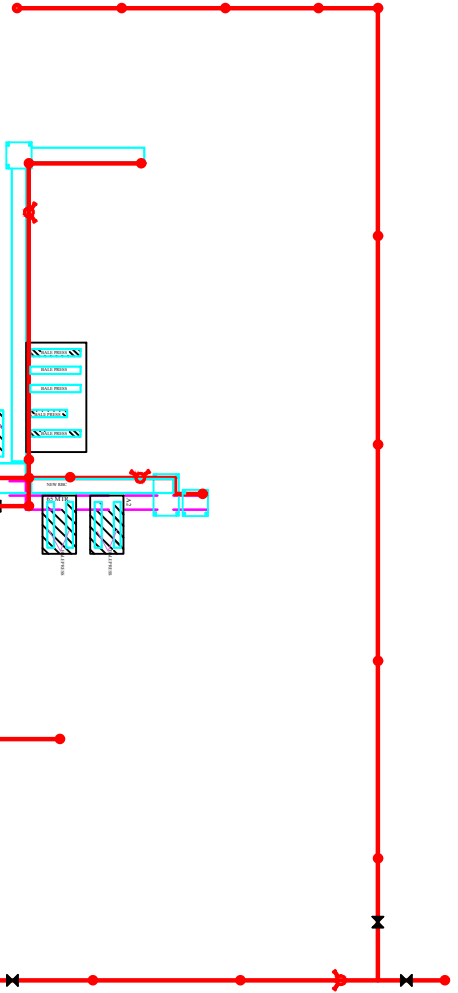
Annexure – I
Photographs of Firefighting
&
Mock drill

Photographs of firefighting arrangements



Photographs of Mock Drills

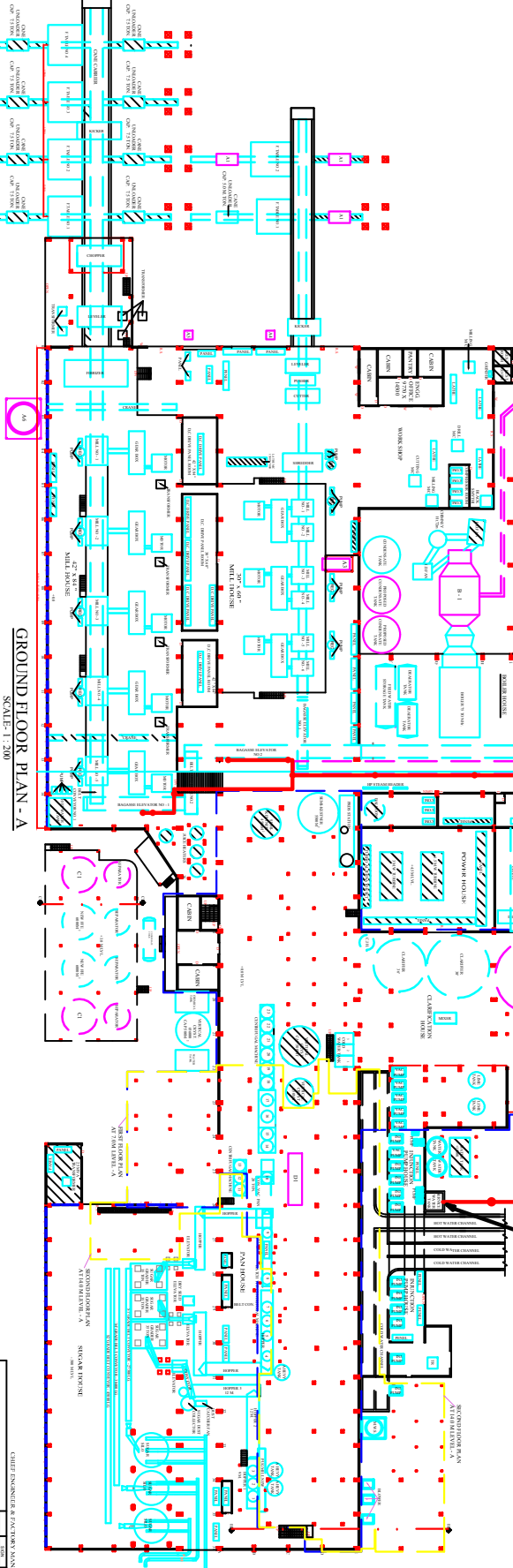




SERIAL NO	PARTICULARS	QTY
1	HYDRANT POINTS	35
2	VALVES	5
3	HYDRANT MONITORS	3
4	HYDRANT PUMPS	3

THE HYDRANT MONITOR IS SHOWN AS RED CIRCLE	
THE HYDRANT MONITOR IS SHOWN AS RED COLOUR	
THE HYDRANT LINE IS SHOWN AS RED COLOUR	
THE HYDRANT VALVE IS SHOWN AS WHITE COLOUR	

Hydrant Pump Details.	
Model	Krioskar MF-25/30
Capacity	450 M ³ /HR.
Head	32 Mtr.
Motor	55 KW.
Rpm	1440
QTY	3



GROUND FLOOR PLAN - A
SCALE: 1:200

CHIEF ENGINEER, REGISTERED ARCHITECT

JAWAHAR SSS&KLTD.

101, JALAN ANSON, 43000 KUALA SELANGOR, SELANGOR

TEL: 03-2921 1111

FAX: 03-2921 1112

WWW.JAWAHARSS&K.COM

SCALE: 1:200

DATE: 15/05/2018

PROJECT NO: 180101

PROJECT TITLE: FIRE PROTECTION SYSTEM

DESIGNED BY: [Name]

CHECKED BY: [Name]

DATE: 15/05/2018

Boiler Interlock

Fuel Handling System:-

- 1) Excess Bagasse Carrier stopped or tripped then MBC, CCSC and RBC tripped.
- 2) MBC stopped or tripped then CCSC and RBC tripped.
- 3) CCSC stopped or tripped then RBC tripped.
- 4) Pole cord switch or belt swa switch act then RBC tripped.

Ash Handling System:-

- 1) Ash Belt elevator stopped or tripped then all ash belt conveyer and ESP and APH RAV tripped.

FAN Interlock System:-

- 1) ID FAN stopped or tripped then FD FAN, SA FAN and fuel handling System are tripped.
- 2) FD FAN stopped or tripped then SA FAN and fuel handling System are tripped.
- 3) SA FAN stopped or tripped then fuel handlings System are tripped.

Drum Level Interlock:-

- 1) Drum level greater than 80% or less than 20% then FD Fan tripped.

Bagasse Feeder interlocks:-

- 1) Screw feeder stopped or tripped then bagasse feeder tripped.
- 2) SA FAN air pressure for fuel feeding less than 350 mmWc or both SA Fan stopped or tripped.

Feed Pump Interlock :-

- 1) Deareator level less than 30% or suction pressure less than $1\text{kg}/\text{cm}^2$ or suction valve close or in between feedback or motor bearing temperature 90°C or winding temperature greater than 110°C or feed pump cooling water pressure less than $2\text{ kg}/\text{cm}^2$. All any above conditions or any one of above conditions occur then feed pump tripped.

ESP Interlock System:-

- 1) Any of ESP RAV stopped or purge air blower stopped or tripped or ESP inlet flue gas temperature less than 130°C or ESP hopper level hi hi alarm then ESP TRCC tripped.

Boiler Alarm

- 1) ID, FD, SA and BFW bearing temperature greater than 80 °C .
- 2) ID, FD, SA and BFW winding temperature greater than 90 °C .
- 3) Fuel feeding air pressure for bagasse less than 450 mmWc.
- 4) ESP inlet Temperature 140 °C .
- 5) Main steam pressure less than 80 kg/cm² .
- 6) Main steam Temperature 500 °C .
- 7) Main steam pressure greater than 90 kg/cm² .
- 8) Main steam Temperature 529 °C .
- 9) Deareator level less than 60%
- 10) Deareator level greater than 90%
- 11) Deareator Temperature less than 105 °C .
- 12) Deareator Temperature greater than 112 °C .

Turbine Interlock System

Turbine Tripping Interlock:-

- 1) Lube oil pressure less than 1.8 kg/cm².
- 2) Control oil pressure less than 7.8 kg/cm².
- 3) Oil tank level less than 36.5%.
- 4) Turbine inlet pressure less than 41.5 kg/cm².
- 5) Turbine inlet temperature less than 485 °C.
- 6) Turbine inlet pressure greater than 99 kg/cm².
- 7) Turbine inlet temperature greater than 543 °C.
- 8) Exhaust steam temperature less than 120 °C.
- 9) Exhaust steam Temp. between 105 °C and 120 °C. more than 1hr.
- 10) Exhaust steam pressure less than -0.763 kg/cm².
- 11) Hotwell level greater than 92.5%.
- 12) OHT level less than 94%.
- 13) Turbine no load more than 1hr.

Pressure Timer:-

Timer T1:

TG inlet pressure in between 87.12 kg/cm² And 99.56 kg/cm² Then timer start for counting 12 hr (paused timer). After completion 12 hr then turbine trip.

Timer T2:

Turbine running time 1year after that turbine Trip.

Temperature Timer:**Timer T1 (Retentive Timer):**

TG inlet Temp. in Between 523⁰ C to 529⁰ C then timer start counting 16 day 16 hr (paused timer) after completion 16 day 16 hr then turbine trip.

Timer T2 (Retentive Timer):

Turbine running time 1year after that turbine Trip.

Timer T3 (Retentive Timer):

TG inlet Temp. in Between 529⁰ C to 543⁰ C then timer start counting 3 day 8 hr (paused timer) after completion 3 day 8 hr then turbine trip.

Timer T1:

TG inlet Temp. in Between 529⁰ C to 543⁰ C continuously timer start for 15 min (reset timer) after completion 15 min then turbine trip.

Vibration Alarm and Trip Condition(Turbine, gearbox and Alternator):-

SR NO	TAG	Service Name	Alarm H	Trip HH	Alarm L	Alarm LL
1	ZI-801	Axial Displacement	0.4 mm	0.6 mm	-0.4mm	-0.6mm
2	ZI-802	Axial Displacement	0.4 mm	0.6 mm	-0.4mm	-0.6mm
3	YI-801	Turbine Front Bearing Vibration X-axis	76 μ	99 μ		
4	YI-802	Turbine Front Bearing Vibration Y-axis	76 μ	99 μ		
5	YI-803	Turbine Rear Bearing Vibration X-axis	76 μ	99 μ		
6	YI-804	Turbine Rear Bearing Vibration Y-axis	76 μ	99 μ		
7	YI-805	GB High Speed DE Vibration X-axis	65 μ	125 μ		
8	YI-806	GB High Speed DE Vibration Y-axis	65 μ	125 μ		
9	YI-807	GB High Speed NDE Vibration X-axis	65 μ	125 μ		
10	YI-808	GB High Speed NDE Vibration Y-axis	65 μ	125 μ		
11	YI-809	GB Low Speed NDE Vibration X-axis	90 μ	150 μ		
12	YI-810	GB Low Speed NDE Vibration Y-axis	90 μ	150 μ		
13	YI-811	GB Low Speed DE Vibration X-axis	90 μ	150 μ		
14	YI-812	GB Low Speed DE Vibration Y-axis	90 μ	150 μ		
15	YI-813	Alternator Front Vibration X-axis	178 μ	232 μ		
16	YI-814	Alternator Front Vibration Y-axis	178 μ	232 μ		
17	YI-816	Alternator Rear Vibration X-axis	178 μ	232 μ		
18	YI-817	Alternator Rear Vibration Y-axis	178 μ	232 μ		
19	-	Exciter Field Volt	200 V	200 V		
20	-	Exciter Field Current	25 A	25 A		

Bearing Temperature, Alarm and Trip Condition(Turbine, gearbox):-

SR NO	SENSOR	ALARM	TRIP
1	Turbine Thrust active top bearing Temp.	95 °C.	100 °C.
2	Turbine Thrust non active top bearing Temp.	95 °C.	100 °C.
3	Turbine Front Bearing Temp.	110 °C.	120 °C.
4	Turbine Rear Bearing Temp.	110 °C.	120 °C.
5	Turbine active bearing Bottom Temp.	95 °C.	100 °C.
6	Turbine non active bearing Bottom Temp.	95 °C.	100 °C.
7	Gear box High speed front bearing Temp.	100 °C.	107 °C.
8	Gear box High speed rear bearing Temp.	100 °C.	107 °C.
9	Gear box low speed front bearing Temp.	85 °C.	90 °C.
10	Gear box low speed rear bearing Temp.	85 °C.	90 °C.

Bearing Temperature, Alarm and Trip Condition(Alternator):-

SR NO	SENSOR	ALARM	TRIP
1	Alternator Front Bearing Temp.	85 °C.	95 °C.
2	Alternator Rear Bearing Temp.	85 °C.	95 °C.
3	Alternator Winding Temp. (U1)	125 °C.	130 °C.
4	Alternator Winding Temp. (V1)	125 °C.	130 °C.
5	Alternator Winding Temp. (W1)	125 °C.	130 °C.
6	Alternator Winding Temp. (U2)	125 °C.	130 °C.
7	Alternator Winding Temp. (V2)	125 °C.	130 °C.
8	Alternator Winding Temp. (W2)	125 °C.	130 °C.
9	Inlet air Temp.-1 (Not Trip)	50 °C.	55 °C.
10	Outlet air Temp.-1 (Not Trip)	80 °C.	85 °C.
11	Inlet air Temp.-2 (Not Trip)	50 °C.	55 °C.
12	Outlet air Temp.-2 (Not Trip)	80 °C.	85 °C.
13	Alternator Core-1 Temp.	125 °C.	130 °C.
14	Alternator Core-2 Temp.	125 °C.	130 °C.
15	Alternator Core-3 Temp.	125 °C.	130 °C.
16	Exciter Field Temp.	125 °C.	130 °C.

CEP Interlock System:-

- 1) Condensate discharge header pressure less than 3.5 kg/cm² then CEP auto start.
- 2) Hotwell level Greater 84.40% then auto start.
- 3) Hotwell level less than 20% then CEP Pump tripped.

Barring Gear Motor Interlock System:-

- 1) Lube oil pressure greater than 1.95 kg/cm² then barring gear motor start permissive.
- 2) Turbine RPM less than 250 RPM then barring gear motor start permissive.
- 3) EOP ready or HOT level greater than 94% barring gear motor start permissive.

- 4) Turbine speed greater than 350 RPM then barring gear motor auto stopped.

Hood Spray Valve Interlock System:-

- 1) Exhaust temperature greater than 80 °C then auto open valve.
- 2) Exhaust temperature less than 55 °C then auto close valve.
- 3) Hood spray valve continuously 1 hr open then auto valve closed.

Vacuum Breaker Valve Interlock System:-

- 1) Lube oil header pressure less 1.95 kg/cm² then auto open.
- 2) Generator differential relay operated then auto open.
- 3) Turbine rotor axial movement hi hi.
- 4) Turbine RPM less than 70% then open.

Turbine Extraction QCNRV Interlock System:-

- 1) Active Power greater than 6.6 MW then valve open permissive.
- 2) Active Power less than 5.5 MW then valve auto closed.
- 3) Turbine Trip then valve auto closed.

Turbine Bleed QCNRV (HP Heater) Interlock System:-

- 1) TG inlet Steam flow greater than 40 TPH then open permissive.
- 2) TG inlet Steam flow less than 35 TPH then valve auto closed.
- 3) Turbine Trip then valve auto closed.

Turbine Bleed QCNRV (MP Process) Interlock System:-

- 1) TG inlet Steam flow greater than 40 TPH then open permissive.
- 2) TG inlet Steam flow less than 35 TPH then valve auto closed.
- 3) Turbine Trip then valve auto closed.

Wonder Bleed Control Valve 101 Interlock System:-

- 1) TG Steam Flow greater than 40 TPH then valve open permissive.
- 2) TG Steam Flow less than 35 TPH then valve auto closed.
- 3) TG Steam Flow greater than 65 TPH then valve auto closed slowly and wonder valve 102 slowly simultaneously opened.
- 4) Turbine Trip then valve auto closed.

Wonder Bleed Control Valve 102 Interlock System:-

- 1) TG Steam Flow greater than 65 TPH then valve open permissive.
- 2) TG Steam Flow less than 60 TPH then valve auto closed.
- 3) TG Steam Flow greater than 60 TPH then valve auto closed slowly and wonder valve 101 slowly simultaneously opened.
- 4) Turbine Trip then valve auto closed.

Annexure - II
Health Checkup Report

Form No 7 (Prescribed under Rule 18 (7))

HEALTH REGISTER

From: 02/09/2022 To 01/09/2023

Certifying Surgeon
DR. ARVIND MANE
MBBS DPH AFIP (Mumbai)

Company Name : KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.

Sr. No.	Emp. No.	Name	Age	Sex	Dept of employment of present work	Date of leaving or transfer to other work	Reason for leaving Transfer of discharge	Nature of job or occupation	Raw material or bye product handled	Exam. Date	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Certified fit to resume duty on with signature of Certifying Surgeon	If Certificate of fitness or suspension issued to worker	Signature with gate certifying surgeon.
1	2304	MR. ASHOK S NALLAWADE	42	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
2	6023	MR. AKASH A BODHALE	30	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
3	1817	MR. JAWAHAR B MALI	47	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
4	7362	MR. MANOJ B KARAKE	31	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
5	1099	MR. KAMLAKAR B SUTAR	52	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
6	0334	MR. ARUN D PATI	58	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
7	2030	MR. SUNIL M KIRUNGI	32	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
8	1346	MR. PARGONDA N PATIL	51	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
9	7451	MR. HEMANT R PATIL	26	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
10	0853	MR. IQBAL A ATTAR	49	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
11	2066	MR. BHIMRAO M VAJANTRI	57	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
12	1721	MR. JAGDISH K PATIL	48	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
13	0308	MR. SARDAR S ROHILE	56	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
14	1733	MR. SARDAR S MOMIN	49	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
15	1401	MR. SANJAY A AKIWATE	52	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
16	2072	MR. VASANT A GHUNAKE	55	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
17	1684	MR. RIZWAN B BEDKALE	44	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
18	5999	MR. RAVI K KORAVI	33	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	
19	7364	MR. MALLU B AMALE	24	M		NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
M.B.B.S., D.P.H., F.I.C. (MUMBAI)
MMC REGD. NO. : 2010/10/3176

Form No 7 (Prescribed under Rule 18 (7))

HEALTH REGISTER

From: 02/09/2022 To 01/09/2023

Certifying Surgeon

DR. ARVIND MANE

MBBS DPH AFIH.(Mumbai)

Company Name : KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.

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1583	MR. UTTAM S MANGALE	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7308	MR. PANKAJ S SHINDE	23	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1234	MR. SURESH L POL	49	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7254	MR. PRATHAMESH CHOUGULE	23	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1719	MR. AMOL A PATIL	43	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1475	MR. SUNIL A TASHILDAR	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1777	MR. SANJAY K BADBADE	40	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1469	MR. ABHAY B PATIL	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1967	MR. TUKARAM M CHAVAN	39	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0073	MR. MAHAVIR A BARWADE	59	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1884	MR. SANTOSH A KOLI	37	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
6032	MR. PRAVIN B GURAV	30	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0948	MR. RAJENDRA KOLHAPURE	58	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1816	MR. DAYANAND A KAMBLE	40	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2028	MR. SOPAN B BIRJE	32	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0954	MR. BALU S MALI	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0623	MR. SHIVAJI K KOLI	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2134	MR. MOHAN J HEGADE	55	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0934	MR. DASHARATH N BAGAL	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
 MB.B.S., D.P.H.A.F.I.H. (MUMBAI)
 MMC REGD. NO.: 2010/10/3176
 GOVT. OF INDIA-DG/ASLI REGD. NO. 42388
 Consultant Industrial Health Physician

Form No 7 (Prescribed under Rule 18 (7))

HEALTH REGISTER

From: 02/09/2022 To 01/09/2023

Certifying Surgeon
DR. ARVIND MANE
MBBS DPH AFIH.(Mumbai)

Company Name : **KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.**

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39	0652	MR. VIRAPPA B BHANSE	56	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
40	0996	MR. RAKESH D MALI	49	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
41	6068	MR. KALPESH K KAPASE	33	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
42	0931	MR. SHAMRAO M MOHITE	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
43	7290	MR. BHUSHAN J NARWADE	26	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
44	1725	MR. BAPUSO D VANI	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
45	7230	MR. ADESH A YADAV	24	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
46	1687	MR. SHREANSH PATIL	50	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
47	1261	MR. SANDEEP B PATIL	42	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
48	2254	MR. SACHIN P KHOT	27	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
49	6012	MR. S M KOIK	29	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
50	2180	MR. RUTURAJ M INAMDAR	30	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
51	1569	MR. SUNIL S SHETKE	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
52	1694	MR. SHREEDHAR PATIL	47	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
53	1351	MR. AKBAR M MOKASHE	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
54	1834	MR. DAVAL M SHAIKH	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
55	2300	MR. VITHAL D RANDIVE	37	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
56	0968	MR. RAJENDRA D KORADE	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
57	1894	MR. GANGADHAR AADNANE	47	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
M.B.B.S., D.P.H., F.I.H. (MUMBAI)
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Consultant Industrial Health Physician

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HEALTH REGISTER

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58	0915	MR. POPAT D KAMBLE	57	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
59	7019	MR. BALASO B KOLAJ	36	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
60	7026	MR. ABHIJIT B PATIL	27	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
61	1367	MR. KIRAN I BHARMAL	47	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
62	1071	MR. KUBER S GOURAI	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
63	0994	MR. LAXMAN S LALI	51	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
64	0936	MR. SANJAY B JADHAV	55	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
65	1692	MR. MUSTAK A NAYANI	51	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
66	7001	MR. PRAVIN P PATIL	29	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
67	1823	MR. ARVIND P KAKADE	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
68	1726	MR. SUNIL B AITWADE	43	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
69	7531	MR. S M MHETRE	24	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
70	2247	MR. ANIL D SUTAR	33	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
71	6009	MR. PAVANKUMAR B PATIL	31	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
72	1819	MR. SHANKAR S GAWADE	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
73	7542	MR. ANURAGH A PATIL	21	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
74	1978	MR. FIROJ M KALAWANT	36	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
75	0951	MR. MAHADEV S PATIL	59	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
76	7514	MR. SAJID B JAMADAR	27	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE

M.B.B.S., D.P.H., F.I.H. (MUMBAI)

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GOVT. OF INDIA-DGFASLI REGD. NO.-02388

Consultant Industrial Health Physician

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0637	MR. AJJI G DALWADE	49	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
6011	MR. DADASO S KUMBHAR	36	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1665	MR. ABHIJEET S KUMBHAR	42	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7005	MR. NITIN N SHINDE	28	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7010	MR. UTTAM K KHOT	32	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1896	MR. SANJAY G KAMBLE	58	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1437	MR. SADIK I MUJAWAR	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2208	MR. SWAPANIL V KHOT	29	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1091	MR. BALWANT A PATIL	56	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2027	MR. SANJAY P KURALE	36	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7023	MR. R R FIRAGANAVAR	31	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
6042	MR. SURAJ D PATIL	30	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7139	MR. AKBAR B FARID	29	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1454	MR. ARUN A MALAGE	47	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0998	MR. KUNTINATH VANDURE	51	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2132	MR. RAMESH A BANNE	35	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1832	MR. AMAR B PATIL	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1444	MR. PRAKASH M SHENAVI	49	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2294	MR. SACHIN A KAMBLE	33	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
M.B.B.S., D.P.H.A.F.I.H. (MUMBAI)
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7040	MR. SULEMAN Y DADIWALE	26	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7048	MR. SANTOSH PATIL	32	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1655	MR. VINOD KHOT	42	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7509	MR. PRASHANT KHATAVKAR	26	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7498	MR. V D HANCHNALE	24	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7154	MR. KASHINATH MUDHALE	23	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7140	MR. SHIVAJI S MUDHALE	26	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1018	MR. BAPUSO B DHONGADE	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1240	MR. ARUN K PATIL	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2170	MR. SURAJ SHIRDHONE	29	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2285	MR. VAIBHAV A MANE	26	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7469	MR. CHANDRAKANT PUJARI	25	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
0607	MR. B R KHOT	59	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7365	MR. PRASAD V BADIGER	26	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7134	MR. PAVANKUMAR A HEGADE	24	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7073	MR. TUSHAR PATIL	28	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
7146	MR. AVINASH M VASWADE	30	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
1652	MR. B A MAYAPPANAWAR	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
2187	MR. RAJENDRA S NIRMALE	44	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
 M.B.B.S., D.P.H.A.F.I.H. (MUMBAI)
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15	7052	MR. GOVIND M LAWATE	28	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
16	2091	MR. BHARAT R PATIL	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
17	7173	MR. BAJIRAO B PATIL	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
18	7383	MR. MUSTAFA A MUJAWAR	23	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
19	2217	MR. AVINASH J DONGALE	35	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
20	7127	MR. SURAJ S R	30	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
21	7403	MR. SOURABH R CHOUGULE	24	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
22	2275	MR. YASHWANT K JADHAV	42	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
23	7487	MR. RUSHIKESH S GAJARE	22	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
24	1228	MR. SHASHIKANT A SHINDE	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
25	1710	MR. SANDEEP N MAGDUM	44	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
26	2146	MR. ANIL N MAGDUM	30	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
27	1922	MR. SADASHIV S PATIL	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
28	1170	MR. RAVINDRA B PATIL	58	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
29	7131	MR. SUJIT S RANGOLI	34	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
30	0426	MR. ANIL B DESHPANDE	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
31	1944	MR. AJIT S MANE	44	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
32	7172	MR. NANDKUMAR KAMBLE	46	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
33	7135	MR. SHAMRAO V DAVAR	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
M.B.B.S., D.P.H., A.F.I.H. (MUMBAI)
MMC REGD. NO. : 2010/10/3176
GOVT. OF INDIA-DGFASLI REG. NO.-02388
Consultant Industrial Health Physician

Form No 7 (Prescribed under Rule 18 (7))

HEALTH REGISTER

From: 02/09/2022 To 01/09/2023

Certifying Surgeon
DR.ARVIND MANE
MBBS DPH AFIH.(Mumbai)

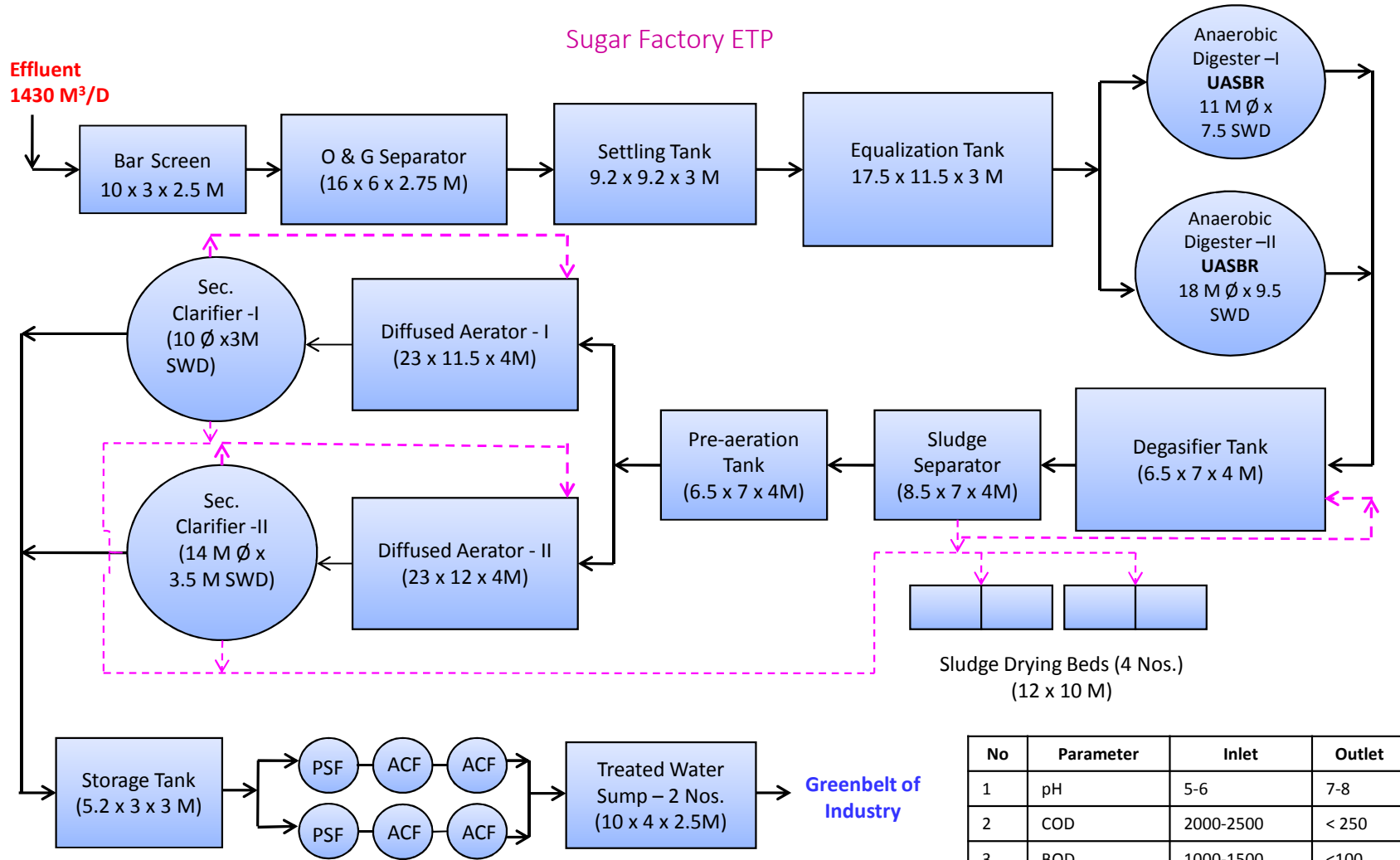
Company Name : KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.

Sr. No.	Emp. No.	Name	Age	Sex	Dept of employment of present work	Date of leaving or transfer to other work	Reason for leaving Transfer of discharg	Nature of job or occupation	Raw material or bye product handled	Exam. Date	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Certified fit to resume duty on with signature of Certifying Surgeon	If Certificate of unfitness or suspension issued to worker	Signature with gate certifying surgeon.
134	7147	MR. NITIN S MITHARI	40	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
135	1790	MR. BAHUBALI M KESTE	42	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
136	0359	MR. SHRIKANT'S KHOT	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
137	0609	MR. MARUTI M JADHAV	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
138	2080	MR. SATISH B DANAGAR	44	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
139	0463	MR. DEVGONDA B MAGDUM	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
140	2292	MR. PRAKASH R KARADE	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
141	0643	MR. SANJAY T BHOSALE	53	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
142	1841	MR. M B SURYAWANSHI	48	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
143	7144	MR. PRAKASH N KAMBLE	52	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
144	7136	MR. ANIL S KAMBLE	55	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
145	1533	MR. NABILAL B MUJAWAR	39	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
146	1800	MR. J B MADBHAVE	49	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
147	1458	MR. SANJAY A MURABATTE	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
148	0656	MR. BHIMRAO D KHOT	49	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
149	1387	MR. RAJKUMAR S MAGDUM	54	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
150	1600	MR. MAHAVIR T PATIL	59	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
151	1718	MR. SANJAY A CHAVARE	45	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	
152	0052	MR. VISHWAS L PATIL	56	M	-	NA	NA			02/09/2022	Fit	NA	Fit	NA	

Dr. ARVIND A. MANE
MB.B.S., D.P.H.A.F.I.H. (MUMBAI)
MMC REGD. NO. 2010/10/3176
GOVT. OF INDIA-DGFASLI REGD. NO.-02386
Consultant Industrial Health Physician

Annexure – III
Photographs of ETP & STP

Sugar Factory ETP



No	Parameter	Inlet	Outlet
1	pH	5-6	7-8
2	COD	2000-2500	< 250
3	BOD	1000-1500	<100
4	TDS	1800-2200	<2100
5	SS	250-300	<100

All parameters except pH are in mg/lit.

Photographs of Sugar Factory ETP



Sugar Factory ETP



New Equalization Tank



Treated Water Outlet Tank



Secondary Clarifier



Sludge Drying Bed

Photographs of Sugar Factory ETP



Sand & Activated Carbon Filters



OCMS (Sensor)

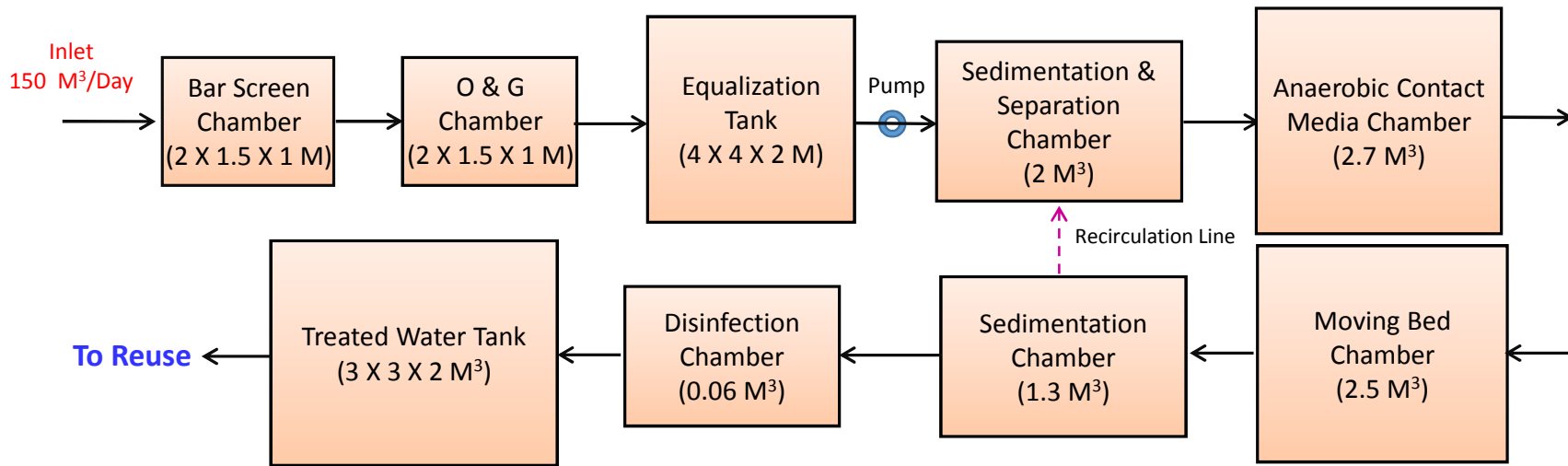


OCMS (Analyzer)



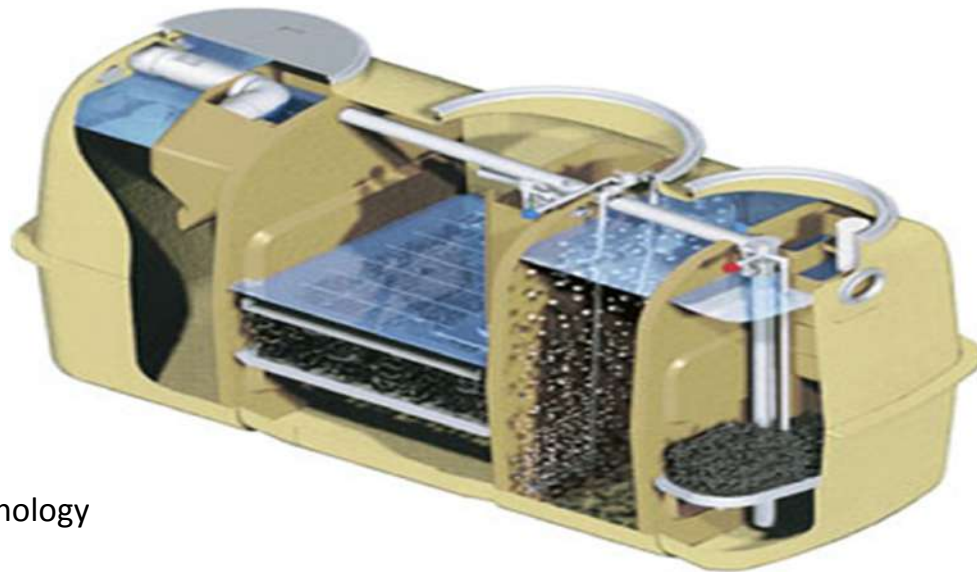
Flow Meter on Treated Effluent Pipe

Sewage Treatment Plant

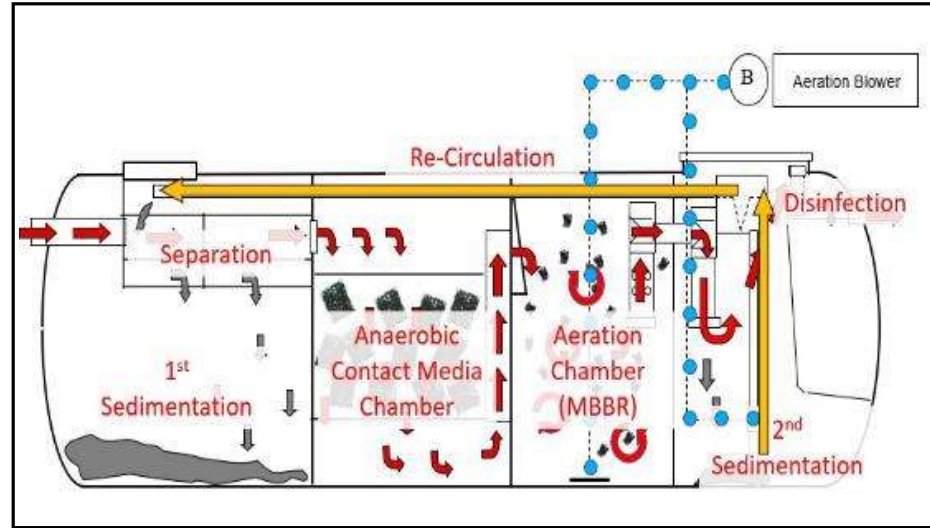


No	Parameter	Unit	Inlet	Outlet
1	pH	---	6.0 – 8.5	6.0 – 8.5
2	COD	mg/lit	400 – 500	< 50
3	BOD	mg/lit	250 – 300	< 10
4	TSS	mg/lit	150 - 250	< 30
5	O & G	mg/lit	20 - 30	< 10

- Expeditious treatment; easy maintenance
- Energy-saving
- Most updated automated manufacturing technology
- Stable high-quality FRP material



Johkasou STP Treatment Process



Unit	MOC	Process Description
Separation & Sedimentation Chamber	FRP	Suspended Solids (SS) are separated.
Anaerobic Chamber	FRP	Organic matters are anaerobically decomposed.
Moving Bed Chamber	FRP	BOD content reduced by continuous aeration.
Sedimentation Chamber	FRP	SS are settled and clear treated water is obtained.
Disinfection Chamber	FRP	Treated Water is disinfected by Disinfection agent.
Sludge Re-circulation Arrangement	-	Sludge from 2 nd Sedimentation Chamber is recirculated to the 1 st Sedimentation Chamber.

Technological Frame Work
<ul style="list-style-type: none"> • Technology approved by National Jal Jeevan Mission. • Technology Approved by CII (Confederation of Indian Industry) • No COVID-19 Trace observed in outlet water

Photographs of STP



Annexure – IV
Photographs of OCEMS
(Stack & ETP)

Online Monitoring System



Boiler Ash Handling System



OCMS for Sugar Factory ETP



OCMS (Analyzer)



OCMS (Sensor)



Flow Meter on Treated Effluent Pipe


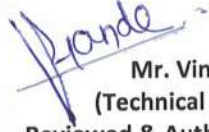
ESP for 20 & 90 TPH Boiler Capacity



ESP for 75 TPH Boiler Capacity





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and ISO/IEC 17025:2017 (NABL), ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2022-23/11/785		Report Date	30/11/2022
Sample ID: -	GESEC/PRO/AAQM/2022-23/11/785			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near Main Gate		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
02:00 P.M.	03:00 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	21.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	44.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/11/2022	25/11/2022	26/11/2022	30/11/2022	
Name of Instrument	High Volume Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1528	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	61.33
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	18.25
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	17.74
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	21.40
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
		  Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By		

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- MoEF approved Lab by Govt. of India. From date. 16/02/2022 to 29/02/2024.

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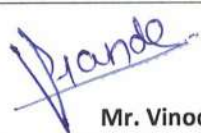
TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2022-23/11/786		Report Date	30/11/2022
Sample ID: -	GESEC/PRO/AAQM/2022-23/11/786			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near ETP		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
02:10 P.M.	03:10 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	21.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	44.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/11/2022	25/11/2022	26/11/2022	30/11/2022	
Name of Instrument	Respirable Dust Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1525	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	59.36
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	17.01
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	14.87
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	19.09
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
		 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By		
				

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 and ISO/IEC 17025:2017 (NABL), ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company



TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/11/787		Report Date	30/11/2022	
Sample ID: -	GESEC/PRO/AAQM/2022-23/11/787				
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location			Sampling done by	
Ambient Air	Near Cane Yard			GESEC	
Sampling Time					
Start Time	Stop Time			Total Hrs.	
02:25 P.M.	03:25 P.M.			60 Min	
Metrological Data/Environmental Conditions					
Ambient Temperature °C	29.0	Wet Bulb Temperature °C	19		
Dry Bulb Temperature °C	29.0	Relative Humidity % RH	48.7		
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date		
24/11/2022	25/11/2022	26/11/2022	30/11/2022		
Name Of Instrument	High Volume Combined Sampler	Date Of Calibration	19/10/2022		
Calibration Certificate No.	SSEC/FF/1526	Due Date of Calibration	18/10/2023		
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	63.86	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	20.76	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	18.04	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	23.59	
Remark:-					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
					
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By		

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ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company



TEST REPORT				
Test Report No	GESEC/PRO/ST/2022-23/11/788		Report Date	30/11/2022
Sample ID -	GESEC/PRO/ST/2022-23/11/788			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
24/11/2022	25/11/2022	26/11/2022	30/11/2022	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 1 (90+20 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	4.73	Pressure	5.00	
Height (m)		75		
Temperature (°C)	125	Velocity (m/s)	8.47	
Gas Volume (Nm ³ /Hr)		401649.21		
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	42.36
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	18.45
		Kg/day	-	177.85
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
				 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By

END OF REPORT

Terms and conditions

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Recognised by Ministry of Environment and Forests (MoEF) / Central Pollution Control Board Govt. of India (CPCB)
ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

TEST REPORT				
Test Report No	GESEC/PRO/ST/2022-23/11/789	Report Date	30/11/2022	
Sample ID -	GESEC/PRO/ST/2022-23/11/789			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
24/11/2022	25/11/2022	26/11/2022	30/11/2022	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 2 (75 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	2.5	Pressure	4.00	
Height (m)		72		
Temperature (°C)	120	Velocity (m/s)	7.53	
Gas Volume (Nm ³ /Hr)		100993.84		
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	39.86
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	17.41
		Kg/day	-	42.20
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	
END OF REPORT				

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ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

TEST REPORT

Test Report No: -	GESEC/PRO/ANLM/2022-23/11/790	Report Date	30/11/2022
Sample ID: -	GESEC/PRO/ANLM/2022-23/11/790		

Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)
--------------------------------	--

Ambient Noise Sample Details

Type	Ambient Noise
------	---------------

Sampling done by	GESEC
Standard method	As Per IS: 9989:2020

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
24/11/2022	25/11/2022	26/11/2022	30/11/2022

Name Of Instrument	Digital Sound Level Meter	Date Of Calibration	17/10/2022
Calibration Certificate No.	SSEC/ME/266	Due Date of Calibration	16/10/2023

Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (04:00 P.M.)	Night (10:30 P.M.)	
Near Main Gate	dB(A)	60.3	57.1	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	68.7	62.4	
Near Bagasse Section	dB(A)	67.4	62.3	
Near Sugar Godown	dB(A)	65.9	61.8	
Near Cane Yard	dB(A)	66.2	63.0	

Remark-
➤ Centre Pollution Control Board (CPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time.





Hande
Mr. Vinod Hande
(Technical Manager)
Reviewed & Authorized By

END OF REPORT

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TEST REPORT				
Test Report No: -	GESEC/PRO/WNLM/2022-23/11/791		Report Date	30/11/2022
Sample ID: -	GESEC/PRO/WNLM/2022-23/11/791			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Work Zone Noise Sample Details				
Type	Work Zone Noise			
Sampling done by	GESEC			
Standard method	As Per IS: 9989:2020			
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/11/2022	25/11/2022	26/11/2022	30/11/2022	
Name of Instrument	Sound Level Meter	Date of Calibration	07/10/2022	
Calibration Certificate No.	SSEC/ME/259	Due Date of Calibration	06/10/2023	
Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (04:40 P.M.)	Night (11:30 P.M.)	
Centrifugal Section	dB(A)	83.1	80.4	≤ 90
Turbine Section	dB(A)	88.6	84.5	
Boiler Section	dB(A)	85.0	82.2	
Mill Section	dB(A)	87.3	82.7	
Pan Section	dB(A)	86.4	83.0	
Remark-				
<ul style="list-style-type: none"> ➤ The Factories Act, 1948, has prescribed 90 dB (A) as an upper limit of noise level for 8 hours exposure. ➤ All above results are within Factories Act 1948 Standards. 				
				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	

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TEST REPORT			
Test Report No: GESEC/PRO/WW/2022-23/11/792	Report Date	30/11/2022	
Sample ID : GESEC/PRO/WW/2022-23/11/792	Sample Details	ETP Inlet	
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water	
	Volume Of Sample	1 Lit plastic bottle	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	24/11/2022	
	Sample Receipt Date	25/11/2022	
	Analysis start Date	26/11/2022	
	Analysis End Date	30/11/2022	
Parameters	Results	Unit	Standard Method
pH	3.00	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	141.79	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	3251.42	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	3012.98	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	1497.20	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	963.32	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4--	822.79	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	14.00	mg/lit	IS 3025 (Part 39), 2019
			
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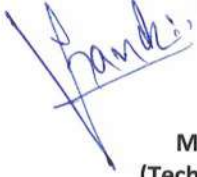
TEST REPORT				
Test Report No: GESEC/PRO/WW/2022-23/11/793		Report Date	30/11/2022	
Sample ID : GESEC/PRO/WW/2022-23/11/793		Sample Details	ETP Outlet	
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water	
		Volume Of Sample	1 Lit plastic bottle	
		Sample Status	Sealed	
		Sample Collected By	GESEC	
		Date of Sample Collection	24/11/2022	
		Sample Receipt Date	25/11/2022	
		Analysis start Date	26/11/2022	
		Analysis End Date	30/11/2022	
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.25	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	18.62	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1137.91	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	65.20	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	23.47	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	164.01	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4 --	124.99	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
<ul style="list-style-type: none"> ➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit. 				
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2022-23/11/794		Report Date	30/11/2022
Sample ID: -	GESEC/PRO/WZM/2022-23/11/794			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling done by	
Ambient Air	Pan Section		GESEC	
	Sampling Time			
Start Time	Stop Time		Total Hrs.	
02:35 P.M.	03:35 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	32	Wet Bulb Temperature °C	23	
Dry Bulb Temperature °C	32	Relative Humidity % RH	46	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/11/2022	25/11/2022	26/11/2022	30/11/2022	
Name of Instrument	Handy Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1517	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.346
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.008
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.012
Note:				
• NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
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Test Report No: -	GESEC/PRO/WZM/2022-23/11/795		Report Date	30/11/2022	
Sample ID: -	GESEC/PRO/WZM/2022-23/11/795				
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
WORKZONE AIR QUALITY MONITORING RESULTS					
Type	Sampling Location		Sampling was done by		
Ambient Air	Sugar House		GESEC		
Sampling Time					
Start Time	Stop Time		Total Hrs.		
02:45 P.M.	03:45 P.M.		60 Min		
Metrological Data/Environmental Conditions					
Ambient Temperature °C	32	Wet Bulb Temperature °C	23		
Dry Bulb Temperature °C	32	Relative Humidity % RH	46		
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date		
24/11/2022	25/11/2022	26/11/2022	30/11/2022		
Name Of Instrument	Personal Sampler	Date of Calibration	19/10/2022		
Calibration Certificate No.	SSEC/FF/1519	Due Date of Calibration	18/10/2023		
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.362	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.007	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.011	
Note:					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18 th November 2009.					

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(Technical Manager)
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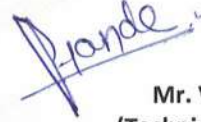
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TEST REPORT



Test Report No: -	GESEC/PRO/AAQM/2022-23/12/1113	Report Date	03/01/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/12/1113			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near Main Gate		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
04:00 P.M.	05:00 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	29.0	Wet Bulb Temperature °C	17.0	
Dry Bulb Temperature °C	29.0	Relative Humidity % RH	28.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Name of Instrument	High Volume Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1528	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	63.86
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	20.09
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	18.02
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	24.11
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
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TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/12/1114	Report Date	03/01/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/12/1114			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near ETP		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
04:10 P.M.	05:10 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	29.0	Wet Bulb Temperature °C	17.0	
Dry Bulb Temperature °C	29.0	Relative Humidity % RH	28.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Name of Instrument	Repairable Dust Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1525	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	60.23
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	18.71
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	15.74
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	19.86
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
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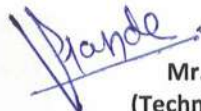
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TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/12/1115		Report Date	03/01/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/12/1115				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location		Sampling done by		
Ambient Air	Near Cane Yard		GESEC		
Sampling Time					
Start Time	Stop Time		Total Hrs.		
04:20 P.M.	05:20 P.M.		60 Min		
Metrological Data/Environmental Conditions					
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	19		
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	31.1		
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date		
28/12/2022	29/12/2022	30/12/2022	03/01/2023		
Name Of Instrument	High Volume Combined Sampler	Date Of Calibration	19/10/2022		
Calibration Certificate No.	SSEC/FF/1526	Due Date of Calibration	18/10/2023		
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	64.12	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	21.16	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	16.74	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	21.85	
Remark:-					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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TEST REPORT				
Test Report No	GESEC/PRO/AAQM/2022-23/12/1116	Report Date	03/01/2023	
Sample ID -	GESEC/PRO/AAQM/2022-23/12/1116			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 1 (90+20 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	4.73	Pressure	4.00	
Height (m)	75			
Temperature (°C)	130	Velocity (m/s)	7.62	
Gas Volume (Nm ³ /Hr)	357010.44			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	38.63
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	16.87
		Kg/day	-	144.55
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2022-23/12/1117		Report Date	03/01/2023
Sample ID -	GESEC/PRO/ST/2022-23/12/1117			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 2 (75 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	2.5	Pressure	3.00	
Height (m)	72			
Temperature (°C)	125	Velocity (m/s)	6.56	
Gas Volume (Nm ³ /Hr)	86912.11			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	43.13
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	19.50
		Kg/day	-	40.67
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
			<p><i>Hande</i></p> <p>Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By</p>	


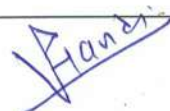
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TEST REPORT

Test Report No: -	GESEC/PRO/ANLM/2022-23/12/1118	Report Date	03/01/2023	
Sample ID: -	GESEC/PRO/ANLM/2022-23/12/1118			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Noise Sample Details				
Type	Ambient Noise			
Sampling done by	GESEC			
Standard method	As Per IS: 9989:2020			
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Name Of Instrument	Digital Sound Level Meter	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SSEC/ME/266	Due Date of Calibration	16/10/2023	
Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (05:45 P.M.)	Night (11:00 P.M.)	
Near Main Gate	dB(A)	61.7	60.4	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	65.3	64.2	
Near Bagasse Section	dB(A)	70.2	66.3	
Near Sugar Godown	dB(A)	68.9	64.7	
Near Cane Yard	dB(A)	72.3	68.0	
Remark-				
➤ Centre Pollution Control Board (CPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time.				
				 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By

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TEST REPORT

Test Report No: -	GESEC/PRO/WNLM/2022-23/12/1119	Report Date	03/01/2023
Sample ID: -	GESEC/PRO/WNLM/2022-23/12/1119		

Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)
--------------------------------	--

Work Zone Noise Sample Details

Type	Work Zone Noise
Sampling done by	GESEC
Standard method	As Per IS: 9989:2020

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
28/12/2022	29/12/2022	30/12/2022	03/01/2023

Name of Instrument	Sound Level Meter	Date of Calibration	07/10/2022
Calibration Certificate No.	SSEC/ME/259	Due Date of Calibration	06/10/2023

Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (06:20 P.M.)	Night (11:40 P.M.)	
Centrifugal Section	dB(A)	86.9	84.1	≤ 90
Turbine Section	dB(A)	89.0	87.2	
Boiler Section	dB(A)	87.2	85.7	
Mill Section	dB(A)	88.5	84.1	
Pan Section	dB(A)	88.1	86.0	

Remark-

- The Factories Act, 1948, has prescribed 90 dB (A) as an upper limit of noise level for 8 hours exposure.
- All above results are within Factories Act 1948 Standards.

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TEST REPORT			
Test Report No GESEC/PRO/WW/2022-23/12/1120	Report Date	03/01/2023	
Sample ID : GESEC/PRO/WW/2022-23/12/1120	Sample Details	ETP Inlet	
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water	
	Volume Of Sample	1 Lit plastic bottle	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	28/12/2022	
	Sample Receipt Date	29/12/2022	
	Analysis start Date	30/12/2022	
	Analysis End Date	03/01/2023	
Parameters	Results	Unit	Standard Method
pH	4.00	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	168.95	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	2895.61	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	2541.97	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	1156.03	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	869.20	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4--	741.77	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	13.00	mg/lit	IS 3025 (Part 39), 2019
			
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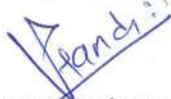
TEST REPORT

Test Report No: GESEC/PRO/WW/2022-23/12/1121		Report Date		03/01/2023
Sample ID : GESEC/PRO/WW/2022-23/12/1121		Sample Details		ETP Outlet
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		28/12/2022
		Sample Receipt Date		29/12/2022
		Analysis start Date		30/12/2022
		Analysis End Date		03/01/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.53	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	17.40	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1236.52	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	63.11	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	24.09	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	186.52	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4 --	110.67	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
<ul style="list-style-type: none"> ➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit. 				
				
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TEST REPORT			
Test Report No: GESEC/PRO/WW/2022-23/12/1122		Report Date	03/01/2023
Sample ID : GESEC/PRO/WW/2022-23/12/1122		Sample Details	Factory STP Inlet
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	28/12/2022
		Sample Receipt Date	29/12/2022
		Analysis start Date	30/12/2022
		Analysis End Date	03/01/2023
Parameters	Results	Unit	Standard Method
pH	6.10	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	67.40	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1236.52	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	147.63	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	60.49	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	186.52	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	110.67	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark: > BDL – Below Detectable Limit.			
			
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TEST REPORT				
Test Report No: GESEC/PRO/WW/2022-23/12/1123		Report Date		03/01/2023
Sample ID : GESEC/PRO/WW/2022-23/12/1123		Sample Details		Factory STP Outlet
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		28/12/2022
		Sample Receipt Date		29/12/2022
		Analysis start Date		30/12/2022
		Analysis End Date		03/01/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.74	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	16.28	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	652.10	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	41.52	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	15.74	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	95.63	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	64.20	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
<ul style="list-style-type: none"> ➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit. 				
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TEST REPORT

Test Report No: GESEC/PRO/WW/2022-23/12/1124	Report Date	03/01/2023
Sample ID : GESEC/PRO/WW/2022-23/12/1124	Sample Details	Colony STP Inlet
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water
	Volume Of Sample	1 Lit plastic bottle
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	28/12/2022
	Sample Receipt Date	29/12/2022
	Analysis start Date	30/12/2022
	Analysis End Date	03/01/2023

Parameters	Results	Unit	Standard Method
pH	6.47	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	55.20	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1302.56	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	125.63	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	52.30	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	210.47	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	145.96	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019

Remark:

- BDL – Below Detectable Limit.





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TEST REPORT				
Test Report No: GESEC/PRO/WW/2022-23/12/1125		Report Date		03/01/2023
Sample ID : GESEC/PRO/WW/2022-23/12/1125		Sample Details		Colony STP Outlet
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		28/12/2022
		Sample Receipt Date		29/12/2022
		Analysis start Date		30/12/2022
		Analysis End Date		03/01/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.50	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	17.63	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	596.20	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	45.11	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	13.47	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	102.56	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	78.01	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark: > BDL – Below Detectable Limit. > All parameters are within the MPCB limit.				
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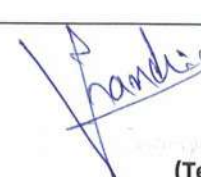
TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2022-23/12/1260		Report Date	03/01/2023
Sample ID: -	GESEC/PRO/WZM/2022-23/12/1260			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling done by	
Ambient Air	Pan Section		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
04:30 P.M.	05:30 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30	Wet Bulb Temperature °C	22	
Dry Bulb Temperature °C	30	Relative Humidity % RH	49	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Name of Instrument	Handy Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1517	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.412
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.009
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.013
Note:				
• NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
				
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2022-23/12/1261		Report Date	03/01/2023
Sample ID: -	GESEC/PRO/WZM/2022-23/12/1261			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling was done by	
Ambient Air	Sugar House		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
04:40 P.M.	05:40 P.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30	Wet Bulb Temperature °C	22	
Dry Bulb Temperature °C	30	Relative Humidity % RH	49	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
28/12/2022	29/12/2022	30/12/2022	03/01/2023	
Name Of Instrument	Personal Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1519	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.341
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.008
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.010
Note:				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18 th November 2009.				
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TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/01/778	Report Date	01/02/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/01/778			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near Main Gate		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
09:00 A.M.	10:00 A.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	22.0	Wet Bulb Temperature °C	17.0	
Dry Bulb Temperature °C	22.0	Relative Humidity % RH	60.6	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Name of Instrument	High Volume Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1528	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	61.36
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	21.50
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	16.57
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	23.40
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
  Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By				

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TEST REPORT



Test Report No: -	GESEC/PRO/AAQM/2022-23/01/779		Report Date	01/02/2023
Sample ID: -	GESEC/PRO/AAQM/2022-23/01/779			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near ETP		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
09:10 A.M.	10:10 A.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	22.0	Wet Bulb Temperature °C	17.0	
Dry Bulb Temperature °C	22.0	Relative Humidity % RH	60.6	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Name of Instrument	Respirable Dust Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1525	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	60.83
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	20.69
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	14.78
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	20.10
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
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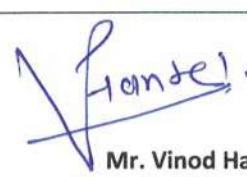
TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/01/780		Report Date	01/02/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/01/780				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location		Sampling done by		
Ambient Air	Near Cane Yard		GESEC		
Sampling Time					
Start Time	Stop Time		Total Hrs.		
09:20 A.M.	10:20 A.M.		60 Min		
Metrological Data/Environmental Conditions					
Ambient Temperature °C	23.0	Wet Bulb Temperature °C	17.0		
Dry Bulb Temperature °C	23.0	Relative Humidity % RH	54.6		
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date		
25/01/2023	27/01/2023	28/01/2023	01/02/2023		
Name Of Instrument	High Volume Combined Sampler	Date Of Calibration	19/10/2022		
Calibration Certificate No.	SSEC/FF/1526	Due Date of Calibration	18/10/2023		
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	63.36	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	23.07	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	15.45	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	22.41	
Remark:-					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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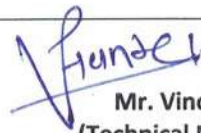
TEST REPORT				
Test Report No	GESEC/PRO/ST/2022-23/01/781		Report Date	01/02/2023
Sample ID -	GESEC/PRO/ST/2022-23/01/781			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 1 (90+20 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	4.73	Pressure	3.00	
Height (m)	75			
Temperature (°C)	125	Velocity (m/s)	6.56	
Gas Volume (Nm ³ /Hr)	311116.14			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	42.36
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	15.42
		Kg/day	-	115.14
Remarks-				
➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM ³ .				
➤ Maharashtra Pollution Control Board (MPCB) Limits: SO ₂ : As per consent.				
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2022-23/01/782		Report Date	01/02/2023
Sample ID -	GESEC/PRO/ST/2022-23/01/782			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 2 (75 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	2.5	Pressure	4.00	
Height (m)	72			
Temperature (°C)	120	Velocity (m/s)	7.53	
Gas Volume (Nm ³ /Hr)	100993.84			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	40.63
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	14.97
		Kg/day	-	36.29
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/Nm³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
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TEST REPORT

Test Report No: -	GESEC/PRO/ANLM/2022-23/01/783	Report Date	01/02/2023
Sample ID: -	GESEC/PRO/ANLM/2022-23/01/783		

Name & Address of the Customer
 M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
 Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)

Ambient Noise Sample Details

Type	Ambient Noise
Sampling done by	GESEC
Standard method	As Per IS: 9989:2020

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
25/01/2023	---	----	----

Name Of Instrument	Digital Sound Level Meter	Date Of Calibration	17/10/2022
Calibration Certificate No.	SSEC/ME/266	Due Date of Calibration	16/10/2023

Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (11:45 P.M.)	Night (10:10 P.M.)	
Near Main Gate	dB(A)	63.9	61.5	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	63.0	62.2	
Near Bagasse Section	dB(A)	68.2	64.9	
Near Sugar Godown	dB(A)	69.0	64.8	
Near Cane Yard	dB(A)	72.1	68.0	

Remark-
 ➤ Centre Pollution Control Board (CPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time.





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TEST REPORT				
Test Report No: -	GESEC/PRO/WNLM/2022-23/01/784	Report Date	01/02/2023	
Sample ID: -	GESEC/PRO/WNLM/2022-23/01/784			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Work Zone Noise Sample Details				
Type	Work Zone Noise			
Sampling done by	GESEC			
Standard method	As Per IS: 9989:2020			
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/01/2023	---	---	---	
Name of Instrument	Sound Level Meter	Date of Calibration	07/10/2022	
Calibration Certificate No.	SSEC/ME/259	Due Date of Calibration	06/10/2023	
Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (12:30 P.M.)	Night (10:45 P.M.)	
Centrifugal Section	dB(A)	84.8	82.2	≤ 90
Turbine Section	dB(A)	87.6	84.8	
Boiler Section	dB(A)	84.8	83.0	
Mill Section	dB(A)	83.5	81.1	
Pan Section	dB(A)	85.2	82.7	
Remark-				
➤ The Factories Act, 1948, has prescribed 90 dB (A) as an upper limit of noise level for 8 hours exposure. ➤ All above results are within Factories Act 1948 Standards.				
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TEST REPORT			
Test Report No: GESEC/PRO/WW/2022-23/01/785	Report Date	01/02/2023	
Sample ID : GESEC/PRO/WW/2022-23/01/785	Sample Details	ETP Inlet	
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water	
	Volume Of Sample	1 Lit plastic bottle	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	25/01/2023	
	Sample Receipt Date	27/01/2023	
	Analysis start Date	28/01/2023	
	Analysis End Date	01/02/2023	
Parameters	Results	Unit	Standard Method
pH	3.50	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	154.77	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	2659.80	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	2631.45	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	1294.87	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	754.12	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4--	632.99	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	12.00	mg/lit	IS 3025 (Part 39), 2019
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TEST REPORT				
Test Report No: GESEC/PRO/WW/2022-23/01/786		Report Date		01/02/2023
Sample ID : GESEC/PRO/WW/2022-23/01/786		Sample Details		ETP Outlet
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		25/01/2023
		Sample Receipt Date		27/01/2023
		Analysis start Date		28/01/2023
		Analysis End Date		01/02/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.64	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	16.47	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	862.01	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	65.24	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	23.77	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	95.63	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4 --	74.19	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
➤ BDL – Below Detectable Limit.				
➤ All parameters are within the MPCB limit.				
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TEST REPORT			
Test Report No: GESEC/PRO/WW/2022-23/01/787		Report Date	01/02/2023
Sample ID : GESEC/PRO/WW/2022-23/01/787		Sample Details	Factory STP Inlet 50 KLPD
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	25/01/2023
		Sample Receipt Date	27/01/2023
		Analysis start Date	28/01/2023
		Analysis End Date	01/02/2023
Parameters	Results	Unit	Standard Method
pH	6.22	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	82.47	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1305.96	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	160.24	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	85.79	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	210.64	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	165.98	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark:			
➤ BDL – Below Detectable Limit.			
➤ All parameters are within the MPCB limit.			
			
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TEST REPORT				
Test Report No: GESEC/PRO/WW/2022-23/01/788		Report Date		01/02/2023
Sample ID : GESEC/PRO/WW/2022-23/01/788		Sample Details		Factory STP Outlet 50 KLPD
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		25/01/2023
		Sample Receipt Date		27/01/2023
		Analysis start Date		28/01/2023
		Analysis End Date		01/02/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.55	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	13.74	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	589.67	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	40.80	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	15.74	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	78.02	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	66.39	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
➤ BDL – Below Detectable Limit.				
➤ All parameters are within the MPCB limit.				
				 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By



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TEST REPORT			
Test Report No: GESEC/PRO/WW/2022-23/01/789		Report Date	01/02/2023
Sample ID : GESEC/PRO/WW/2022-23/01/789		Sample Details	Colony STP Inlet 100 KLPD
Name & Address of the Customer: M/s. Kallappaanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	25/01/2023
		Sample Receipt Date	27/01/2023
		Analysis start Date	28/01/2023
		Analysis End Date	01/02/2023
Parameters	Results	Unit	Standard Method
pH	6.30	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	75.41	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1143.69	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	142.07	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	66.81	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	156.92	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	136.92	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark:			
➤ BDL – Below Detectable Limit.			
➤ All parameters are within the MPCB limit.			
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TEST REPORT

Test Report No: GESEC/PRO/WW/2022-23/01/790		Report Date		01/02/2023
Sample ID : GESEC/PRO/WW/2022-23/01/790		Sample Details		Colony STP Outlet 100 KLPD
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		25/01/2023
		Sample Receipt Date		27/01/2023
		Analysis start Date		28/01/2023
Analysis End Date		01/02/2023		
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.45	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	15.94	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	502.31	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	38.93	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	14.07	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	86.92	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	65.11	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
<ul style="list-style-type: none"> ➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit. 				
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2022-23/01/795		Report Date	01/02/2023
Sample ID: -	GESEC/PRO/WZM/2022-23/01/795			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling done by	
Ambient Air	Pan Section		GESEC	
	Sampling Time			
Start Time	Stop Time		Total Hrs.	
09:30 A.M.	10:30 A.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	26.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	26.0	Relative Humidity % RH	51.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Name of Instrument	Handy Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1517	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.437
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.008
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.013
Note:				
<ul style="list-style-type: none"> NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009. 				
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TEST REPORT

Test Report No: -	GESEC/PRO/WZM/2022-23/01/796	Report Date	01/02/2023	
Sample ID: -	GESEC/PRO/WZM/2022-23/01/796			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling done by	
Ambient Air	Sugar House		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
09:40 A.M.	10:40 A.M.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	26.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	26.0	Relative Humidity % RH	51.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Name Of Instrument	Personal Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1519	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.326
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.007
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.012
Note:				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18 th November 2009.				
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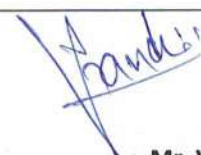
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TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/01/797		Report Date	01/02/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/01/797				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location		Sampling done by		
Ambient Air	Talandage Village (Upwind West)		GESEC		
Sampling Time					
Start Time	Stop Time		Total Hrs.		
08:00 AM.	09:00 AM.		60 Min		
Metrological Data/Environmental Conditions					
Ambient Temperature °C	22.0	Wet Bulb Temperature °C	17.0		
Dry Bulb Temperature °C	22.0	Relative Humidity % RH	61.0		
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date		
25/01/2023	27/01/2023	28/01/2023	01/02/2023		
Name of Instrument	High Volume Sampler	Date Of Calibration	19/10/2022		
Calibration Certificate No.	SSEC/FF/1528	Due Date of Calibration	18/10/2023		
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	56.13	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	10.74	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	14.29	
Remark					
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TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/01/798	Report Date	01/02/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/01/798			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Jangamwadi Village (Downwind East)		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
09:00 AM.	10:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	24.0	Wet Bulb Temperature °C	18.0	
Dry Bulb Temperature °C	24.0	Relative Humidity % RH	56.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/01/2023	27/01/2023	28/01/2023	01/02/2023	
Name of Instrument	Respirable Dust Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1525	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	58.66
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	12.47
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	16.01
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
				
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TEST REPORT



Test Report No. -	GESEC/PRO/AAQM/2022-23/02/636		Report Date	03/03/2023	
Sample ID. -	GESEC/PRO/AAQM/2022-23/02/636				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location			Sampling done by	
Ambient Air	Near Main Gate			GESEC	
Sampling Time					
Start Time	Stop Time			Total Hrs.	
11:30 AM.	12:30 PM.			60 Min	
Metrological Data/Environmental Conditions					
Ambient Temperature °C	30.0	Wet Bulb Temperature °C		15.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH		16.5	
Date of Sampling	Sample Receipt Date	Analysis Start Date		Analysis End Date	
24/02/2023	25/02/2023	27/02/2023		03/03/2023	
Name of Instrument	High Volume Sampler	Date Of Calibration		19/10/2022	
Calibration Certificate No.	SSEC/FF/1528	Due Date of Calibration		18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	60.23	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	20.00	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	14.78	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	21.94	
Remark					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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TEST REPORT

Test Report No: -	GESEC/PRO/AAQM/2022-23/02/637		Report Date	03/03/2023
Sample ID: -	GESEC/PRO/AAQM/2022-23/02/637			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near ETP		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
11:40 AM.	12:40 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	16.5	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/02/2023	25/02/2023	27/02/2023	03/03/2023	
Name of Instrument	Respirable Dust Sampler	Date Of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1525	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	59.13
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	18.33
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	12.45
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	17.96
Remark				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
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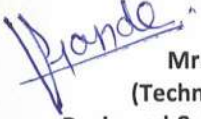
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TEST REPORT


Test Report No: -	GESEC/PRO/AAQM/2022-23/02/638		Report Date	03/03/2023	
Sample ID: -	GESEC/PRO/AAQM/2022-23/02/638				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location		Sampling done by		
Ambient Air	Near Cane Yard		GESEC		
Sampling Time					
Start Time	Stop Time		Total Hrs.		
11:50 AM.	12:50 PM.		60 Min		
Metrological Data/Environmental Conditions					
Ambient Temperature °C	31.0	Wet Bulb Temperature °C		15.0	
Dry Bulb Temperature °C	31.0	Relative Humidity % RH		14.1	
Date of Sampling	Sample Receipt Date	Analysis Start Date		Analysis End Date	
24/02/2023	25/02/2023	27/02/2023		03/03/2023	
Name Of Instrument	High Volume Combined Sampler	Date Of Calibration		19/10/2022	
Calibration Certificate No.	SSEC/FF/1526	Due Date of Calibration		18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	61.36	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	22.85	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	14.52	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	20.98	
Remark:-					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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TEST REPORT				
Test Report No	GESEC/ST/2022-23/02/639		Report Date	03/03/2023
Sample ID -	GESEC/ST/2022-23/02/639			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
24/02/2023	25/02/2023	27/02/2023	03/03/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 1 (90+20 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	4.73	Pressure	4.00	
Height (m)	75			
Temperature (°C)	130	Velocity (m/s)	7.62	
Gas Volume (Nm ³ /Hr)	357010.44			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	40.13
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	19.20
		Kg/day	-	164.51
Remarks-				
➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM ³ .				
➤ Maharashtra Pollution Control Board (MPCB) Limits: SO ₂ : As per consent.				
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TEST REPORT

Test Report No	GESEC/ST/2022-23/02/640		Report Date	03/03/2023
Sample ID -	GESEC/ST/2022-23/02/640			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
24/02/2023	25/02/2023	27/02/2023	03/03/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 2 (75 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	2.5	Pressure	3.00	
Height (m)	72			
Temperature (°C)	125	Velocity (m/s)	6.56	
Gas Volume (Nm³/Hr)	86912.11			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	38.83
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	15.60
		Kg/day	-	32.54
Remarks-				
> Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/Nm ³ . > Maharashtra Pollution Control Board (MPCB) Limits: SO ₂ : As per consent.				
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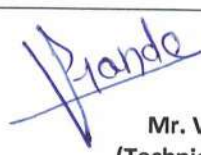
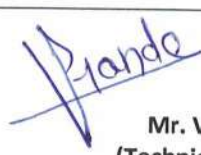
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TEST REPORT				
Test Report No: -	GESEC/ANLM/2022-23/02/641	Report Date	03/03/2023	
Sample ID: -	GESEC/ANLM/2022-23/02/641			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Noise Sample Details				
Type	Ambient Noise			
Sampling done by	GESEC			
Standard method	As Per IS: 9989:2020			
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/02/2023	---	---	---	
Name Of Instrument	Digital Sound Level Meter	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SSEC/ME/266	Due Date of Calibration	16/10/2023	
Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (02:30 P.M.)	Night (10:15 P.M.)	
Near Main Gate	dB(A)	63.8	62.1	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	64.0	61.5	
Near Bagasse Section	dB(A)	66.9	64.2	
Near Sugar Godown	dB(A)	67.1	66.9	
Near Cane Yard	dB(A)	70.1	68.9	
Remark-				
➤ Central Pollution Control Board (CPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time.				
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TEST REPORT

Test Report No: -	GESEC/WNLM/2022-23/02/642		Report Date	03/03/2023
Sample ID: -	GESEC/WNLM/2022-23/02/642			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Work Zone Noise Sample Details				
Type	Work Zone Noise			
Sampling done by	GESEC			
Standard method	As Per IS: 9989:2020			
Date of Sampling	Sample Receipt Date	Analysis Start Date		Analysis End Date
24/02/2023	---	---		---
Name of Instrument	Sound Level Meter	Date of Calibration		07/10/2022
Calibration Certificate No.	SSEC/ME/259	Due Date of Calibration		06/10/2023
Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (03:10 P.M.)	Night (10:55 P.M.)	
Centrifugal Section	dB(A)	80.4	78.2	≤ 90
Turbine Section	dB(A)	80.2	78.4	
Boiler Section	dB(A)	85.1	84.7	
Mill Section	dB(A)	86.4	82.9	
Pan Section	dB(A)	86.8	83.0	
Remark-				
<ul style="list-style-type: none"> ➤ The Factories Act, 1948, has prescribed 90 dB (A) as an upper limit of noise level for 8 hours exposure. ➤ All above results are within Factories Act 1948 Standards. 				



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TEST REPORT

Test Report No: GESEC/WW/2022-23/02/643	Report Date	03/03/2023
Sample ID : GESEC/WW/2022-23/02/643	Sample Details	ETP Inlet
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water
	Volume Of Sample	1 Lit plastic bottle
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	24/02/2023
	Sample Receipt Date	25/02/2023
	Analysis start Date	27/02/2023
	Analysis End Date	03/03/2023

Parameters	Results	Unit	Standard Method
pH	3.00	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	146.59	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	3251.47	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	2896.60	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	1024.95	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	911.34	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	746.93	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	14.00	mg/lit	IS 3025 (Part 39), 2019

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TEST REPORT		
Test Report No: GESEC/WW/2022-23/02/644	Report Date	03/03/2023
Sample ID : GESEC/WW/2022-23/02/644	Sample Details	ETP Outlet
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water
	Volume Of Sample	1 Lit plastic bottle
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	24/02/2023
	Sample Receipt Date	25/02/2023
	Analysis start Date	27/02/2023
	Analysis End Date	03/03/2023

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.52	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	19.45	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	753.21	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	63.98	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	24.10	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	87.44	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4 --	69.86	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019

Remark:

- BDL – Below Detectable Limit.
- All parameters are within the MPCB limit.



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TEST REPORT			
Test Report No: GESEC/WW/2022-23/02/645		Report Date	03/03/2023
Sample ID : GESEC/WW/2022-23/02/645		Sample Details	Factory STP Inlet 50 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	24/02/2023
		Sample Receipt Date	25/02/2023
		Analysis start Date	27/02/2023
		Analysis End Date	03/03/2023
Parameters	Results	Unit	Standard Method
pH	6.10	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	95.62	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1221.89	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	145.07	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	91.64	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	256.71	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	143.95	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark:			
➤ BDL – Below Detectable Limit.			
➤ All parameters are within the MPCB limit.			
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TEST REPORT				
Test Report No: GESEC/WW/2022-23/02/646		Report Date		03/03/2023
Sample ID : GESEC/WW/2022-23/02/646		Sample Details		Factory STP Outlet 50 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		24/02/2023
		Sample Receipt Date		25/02/2023
		Analysis start Date		27/02/2023
		Analysis End Date		03/03/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.62	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	14.71	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	495.62	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	42.10	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	16.97	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	75.42	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	62.05	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
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TEST REPORT			
Test Report No: GESEC/WW/2022-23/02/647		Report Date	03/03/2023
Sample ID : GESEC/WW/2022-23/02/647		Sample Details	Colony STP Inlet 100 KLPD
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	24/02/2023
		Sample Receipt Date	25/02/2023
		Analysis start Date	27/02/2023
		Analysis End Date	03/03/2023
Parameters	Results	Unit	Standard Method
pH	6.01	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	102.65	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1452.98	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	172.63	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	96.52	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	186.77	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	151.34	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark:			
➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit.			
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TEST REPORT

Test Report No: GESEC/WW/2022-23/02/648	Report Date	03/03/2023
Sample ID : GESEC/WW/2022-23/02/648	Sample Details	Colony STP Outlet 100 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water
	Volume Of Sample	1 Lit plastic bottle
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	24/02/2023
	Sample Receipt Date	25/02/2023
	Analysis start Date	27/02/2023
	Analysis End Date	03/03/2023

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.52	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	18.99	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	562.31	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	42.10	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	16.98	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	95.41	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	70.12	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019

Remark:

- BDL – Below Detectable Limit.
- All parameters are within the MPCB limit.



Hande

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(Technical Manager)
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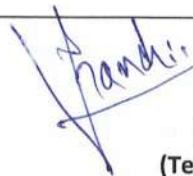
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TEST REPORT				
Test Report No: -	GESEC/WZM/2022-23/02/651		Report Date	03/03/2023
Sample ID: -	GESEC/WZM/2022-23/02/651			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling done by	
Ambient Air	Pan Section		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
11:20 AM.	12:20 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	20.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	39.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
24/02/2023	25/02/2023	27/02/2023	03/03/2023	
Name of Instrument	Handy Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1517	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.529
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.009
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.012
Note:				
<ul style="list-style-type: none"> NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009. 				
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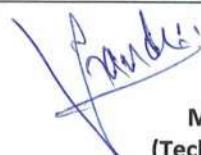
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TEST REPORT

Test Report No: -	GESEC/WZM/2022-23/02/652		Report Date	03/03/2023	
Sample ID: -	GESEC/WZM/2022-23/02/652				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
WORKZONE AIR QUALITY MONITORING RESULTS					
Type	Sampling Location		Sampling was done by		
Ambient Air	Sugar House		GESEC		
Sampling Time					
Start Time	Stop Time		Total Hrs.		
11:30 AM.	12:30 PM.		60 Min		
Metrological Data/Environmental Conditions					
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	20.0		
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	39.0		
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date		
24/02/2023	25/02/2023	27/02/2023	03/03/2023		
Name Of Instrument	Personal Sampler	Date of Calibration	19/10/2022		
Calibration Certificate No.	SSEC/FF/1519	Due Date of Calibration	18/10/2023		
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.391	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.008	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.014	
Note:					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18 th November 2009.					
					
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TEST REPORT


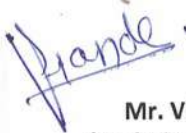
Test Report No: -	GESEC/AAQM/2022-23/03/248		Report Date	20/03/2023	
Sample ID: -	GESEC/AAQM/2022-23/03/248				
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location			Sampling done by	
Ambient Air	Near Main Gate			GESEC	
Sampling Time					
Start Time	Stop Time			Total Hrs.	
10:45 AM.	11:45 AM.			60 Min	
Metrological Data/Environmental Conditions					
Ambient Temperature °C	26.0	Wet Bulb Temperature °C		16.0	
Dry Bulb Temperature °C	26.0	Relative Humidity % RH		34.1	
Date of Sampling	Sample Receipt Date	Analysis Start Date		Analysis End Date	
14/03/2023	16/03/2023	16/03/2023		20/03/2023	
Name of Instrument	High Volume Sampler	Date Of Calibration		19/10/2022	
Calibration Certificate No.	SSEC/FF/1528	Due Date of Calibration		18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	61.86	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	20.90	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	13.75	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	20.40	
Remark					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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TEST REPORT

Test Report No: -	GESEC/AAQM/2022-23/03/249	Report Date	20/03/2023		
Sample ID: -	GESEC/AAQM/2022-23/03/249				
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location			Sampling done by	
Ambient Air	Near ETP			GESEC	
Sampling Time					
Start Time	Stop Time			Total Hrs.	
10:55 AM.	11:55 AM.			60 Min	
Metrological Data/Environmental Conditions					
Ambient Temperature °C	26.0	Wet Bulb Temperature °C		16.0	
Dry Bulb Temperature °C	26.0	Relative Humidity % RH		34.1	
Date of Sampling	Sample Receipt Date	Analysis Start Date		Analysis End Date	
14/03/2023	16/03/2023	16/03/2023		20/03/2023	
Name of Instrument	Respirable Dust Sampler	Date Of Calibration		19/10/2022	
Calibration Certificate No.	SSEC/FF/1525	Due Date of Calibration		18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	58.33	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	17.65	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	11.02	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	16.89	
Remark					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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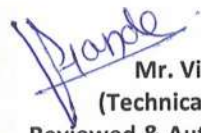
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TEST REPORT

Test Report No. -	GESEC/AAQM/2022-23/03/250		Report Date	20/03/2023	
Sample ID. -	GESEC/AAQM/2022-23/03/250				
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)				
Ambient Air Sample Details					
Type	Sampling Location			Sampling done by	
Ambient Air	Near Cane Yard			GESEC	
Sampling Time					
Start Time	Stop Time			Total Hrs.	
11:10 AM.	12:10 PM.			60 Min	
Metrological Data/Environmental Conditions					
Ambient Temperature °C	27.0	Wet Bulb Temperature °C		16.0	
Dry Bulb Temperature °C	27.0	Relative Humidity % RH		30.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date		Analysis End Date	
14/03/2023	16/03/2023	16/03/2023		20/03/2023	
Name Of Instrument	High Volume Combined Sampler	Date Of Calibration		19/10/2022	
Calibration Certificate No.	SSEC/FF/1526	Due Date of Calibration		18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result	
Particulate Matter (PM ₁₀)	IS:5182 (PART 4):2019	µg/cum	100.00	63.36	
Particulate Matter (PM _{2.5})	IS:5182 (PART 24):2019	µg/cum	60.00	21.86	
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	µg/cum	80.00	15.41	
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	µg/cum	80.00	22.78	
Remark:-					
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.					
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TEST REPORT				
Test Report No	GESEC/ST/2022-23/03/251		Report Date	20/03/2023
Sample ID -	GESEC/ST/2022-23/03/251			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
14/03/2023	16/03/2023	16/03/2023	20/03/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 1 (90+20 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	4.73	Pressure	3.00	
Height (m)	75			
Temperature (°C)	135	Velocity (m/s)	6.64	
Gas Volume (Nm ³ /Hr)	307279.79			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	38.33
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	15.41
		Kg/day	-	113.64
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/NM³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
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TEST REPORT				
Test Report No	GESEC/ST/2022-23/03/252		Report Date	20/03/2023
Sample ID -	GESEC/ST/2022-23/03/252			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
14/03/2023	16/03/2023	16/03/2023	20/03/2023	
Instrument Details				
Name Of Instrument	Stack Monitoring Kit	Date Of Calibration	17/10/2022	
Calibration Certificate No.	SEC/TH/57	Due Date of Calibration	16/10/2023	
Stack Details				
Stack No/ID	Stack Attached to		Sampling done by	
01	Stack 2 (75 TPH)		GESEC	
Shape	Round	Fuel Used	Bagasse	
Diameter/ Dimensions (m)	2.5	Pressure	4.00	
Height (m)	72			
Temperature (°C)	130	Velocity (m/s)	7.62	
Gas Volume (Nm ³ /Hr)	99732.95			
Parameters	Method	Unit	Limit	Result
Suspended Particulate Matter (SPM)	IS 11255 (Part 1) 2019	mg/Nm ³	150	35.63
Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) 2019	mg/Nm ³	-	12.47
		Kg/day	-	29.85
Remarks-				
<ul style="list-style-type: none"> ➤ Maharashtra Pollution Control Board (MPCB) Limits: SPM: 150 mg/Nm³. ➤ Maharashtra Pollution Control Board (MPCB) Limits: SO₂: As per consent. 				
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TEST REPORT

Test Report No: -	GESEC/ANLM/2022-23/03/253	Report Date	20/03/2023
Sample ID: -	GESEC/ANLM/2022-23/03/253		

Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)
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Ambient Noise Sample Details

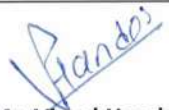
Type	Ambient Noise
Sampling done by	GESEC
Standard method	As Per IS: 9989:2020

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
14/03/2023	--	---	--

Name Of Instrument	Digital Sound Level Meter	Date Of Calibration	17/10/2022
Calibration Certificate No.	SSEC/ME/266	Due Date of Calibration	16/10/2023

Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (01:10 P.M.)	Night (10:30 P.M.)	
Near Main Gate	dB(A)	59.4	57.1	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	63.9	60.5	
Near Bagasse Section	dB(A)	68.2	67.4	
Near Sugar Godown	dB(A)	64.5	62.9	
Near Cane Yard	dB(A)	68.0	66.7	

Remark-
 ➤ Centre Pollution Control Board (CPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time.



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TEST REPORT

Test Report No: -	GESEC/WNLM/2022-23/03/254	Report Date	20/03/2023	
Sample ID: -	GESEC/WNLM/2022-23/03/254			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Work Zone Noise Sample Details				
Type	Work Zone Noise			
Sampling done by	GESEC			
Standard method	As Per IS: 9989:2020			
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
14/03/2023	--	---	--	
Name of Instrument	Sound Level Meter	Date of Calibration	07/10/2022	
Calibration Certificate No.	SSEC/ME/259	Due Date of Calibration	06/10/2023	
Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (02:00 P.M.)	Night (11:15 P.M.)	
Centrifugal Section	dB(A)	78.9	77.0	≤ 90
Turbine Section	dB(A)	85.7	82.2	
Boiler Section	dB(A)	86.0	84.7	
Mill Section	dB(A)	82.5	80.9	
Pan Section	dB(A)	84.3	81.3	
Remark-				
<ul style="list-style-type: none"> > The Factories Act, 1948, has prescribed 90 dB (A) as an upper limit of noise level for 8 hours exposure. > All above results are within Factories Act 1948 Standards. 				





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TEST REPORT			
Test Report No: GESEC/WW/2022-23/03/255	Report Date	20/03/2023	
Sample ID : GESEC/WW/2022-23/03/255	Sample Details	ETP Inlet	
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water	
	Volume Of Sample	1 Lit plastic bottle	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	14/03/2023	
	Sample Receipt Date	16/03/2023	
	Analysis start Date	16/03/2023	
	Analysis End Date	20/03/2023	
Parameters	Results	Unit	Standard Method
pH	3.43	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	164.78	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	3562.91	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	2514.79	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	1136.10	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	725.96	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ⁻	854.77	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	13.00	mg/lit	IS 3025 (Part 39), 2019
 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By			
 ***END OF REPORT***			

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TEST REPORT

Test Report No: GESEC/WW/2022-23/03/256	Report Date	20/03/2023
Sample ID : GESEC/WW/2022-23/03/256	Sample Details	ETP Outlet
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	Type of Sample	Waste Water
	Volume Of Sample	1 Lit plastic bottle
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	14/03/2023
	Sample Receipt Date	16/03/2023
	Analysis start Date	16/03/2023
	Analysis End Date	20/03/2023

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.63	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	19.02	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	632.47	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	68.77	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	25.01	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl-	95.68	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO4 --	76.40	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019

Remark:

- BDL – Below Detectable Limit.
- All parameters are within the MPCB limit.



Hande



Mr. Vinod Hande
(Technical Manager)
Reviewed & Authorized By

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TEST REPORT			
Test Report No: GESEC/WW/2022-23/03/257		Report Date	20/03/2023
Sample ID : GESEC/WW/2022-23/03/257		Sample Details	Factory STP Inlet 50 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	14/03/2023
		Sample Receipt Date	16/03/2023
		Analysis start Date	16/03/2023
		Analysis End Date	20/03/2023
Parameters	Results	Unit	Standard Method
pH	6.26	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	135.74	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1309.87	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	166.98	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	95.74	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	362.10	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	251.47	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark: ➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit.			
		 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	
		END OF REPORT	

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TEST REPORT				
Test Report No: GESEC/WW/2022-23/03/258		Report Date		20/03/2023
Sample ID : GESEC/WW/2022-23/03/258		Sample Details		Factory STP Outlet 50 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		14/03/2023
		Sample Receipt Date		16/03/2023
		Analysis start Date		16/03/2023
		Analysis End Date		20/03/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.58	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	16.71	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	532.40	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	44.63	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	17.94	100	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	87.63	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	58.10	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
➤ BDL – Below Detectable Limit.				
➤ All parameters are within the MPCB limit.				
				 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By

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TEST REPORT			
Test Report No: GESEC/WW/2022-23/03/259		Report Date	20/03/2023
Sample ID : GESEC/WW/2022-23/03/259		Sample Details	Colony STP Inlet 100 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample	Waste Water
		Volume Of Sample	1 Lit plastic bottle
		Sample Status	Sealed
		Sample Collected By	GESEC
		Date of Sample Collection	14/03/2023
		Sample Receipt Date	16/03/2023
		Analysis start Date	16/03/2023
		Analysis End Date	20/03/2023
Parameters	Results	Unit	Standard Method
pH	6.12	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	117.42	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	1356.19	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	191.41	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	102.47	mg/lit	IS 3025 (Part 44), 2019
Chlorides as Cl ⁻	215.96	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	174.50	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	mg/lit	IS 3025 (Part 39), 2019
Remark:			
➤ BDL – Below Detectable Limit.			
➤ All parameters are within the MPCB limit.			
		 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	
		END OF REPORT Consultant Pvt. Ltd.	

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TEST REPORT				
Test Report No: GESEC/WW/2022-23/03/260		Report Date		20/03/2023
Sample ID : GESEC/WW/2022-23/03/260		Sample Details		Colony STP Outlet 100 KLPD
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Type of Sample		Waste Water
		Volume Of Sample		1 Lit plastic bottle
		Sample Status		Sealed
		Sample Collected By		GESEC
		Date of Sample Collection		14/03/2023
		Sample Receipt Date		16/03/2023
		Analysis start Date		16/03/2023
		Analysis End Date		20/03/2023
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.48	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	16.09	100	mg/lit	APHA 2540 D 23 rd ED:2017
Total Dissolved Solids (TDS)	611.84	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	48.73	250	mg/lit	IS 3025 (Part 58) , 2019
Biochemical Oxygen Demand (BOD)	19.50	100	mg/lit	IS 3025 (Part 44) , 2019
Chlorides as Cl ⁻	102.69	600	mg/lit	APHA 4500 Cl- B,23rd Edition, 2017
Sulphates as SO ₄ ²⁻	82.31	1000	mg/lit	APHA 3025 (Part 24) ;2019
Oil & Grease	BDL	10	mg/lit	IS 3025 (Part 39), 2019
Remark:				
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TEST REPORT

Test Report No: -	GESEC/WZM/2022-23/03/261		Report Date	20/03/2023
Sample ID: -	GESEC/WZM/2022-23/03/261			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling done by	
Ambient Air	Pan Section		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
11:20 AM.	12:20 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	32.0	Wet Bulb Temperature °C	12.0	
Dry Bulb Temperature °C	32.0	Relative Humidity % RH	32.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
14/03/2023	16/03/2023	16/03/2023	20/03/2023	
Name of Instrument	Handy Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1517	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.487
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.010
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.013
Note:				
• NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By				

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TEST REPORT

Test Report No: -	GESEC/WZM/2022-23/03/262	Report Date	20/03/2023	
Sample ID: -	GESEC/WZM/2022-23/03/262			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
WORKZONE AIR QUALITY MONITORING RESULTS				
Type	Sampling Location		Sampling was done by	
Ambient Air	Sugar House		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
11:30 AM.	12:30 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	32.0	Wet Bulb Temperature °C	12.0	
Dry Bulb Temperature °C	32.0	Relative Humidity % RH	32.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
14/03/2023	16/03/2023	16/03/2023	20/03/2023	
Name Of Instrument	Personal Sampler	Date of Calibration	19/10/2022	
Calibration Certificate No.	SSEC/FF/1519	Due Date of Calibration	18/10/2023	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM)	IS:5182 (PART 4):2019	mg/m ³	10	0.374
Sulphur Dioxide (SO ₂)	IS:5182 (PART 2):2017	mg/m ³	5	0.007
Oxides of Nitrogen(NO _x)	IS:5182 (PART 6):2018	mg/m ³	6	0.012
Note:				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18 th November 2009.				
				
		 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By		

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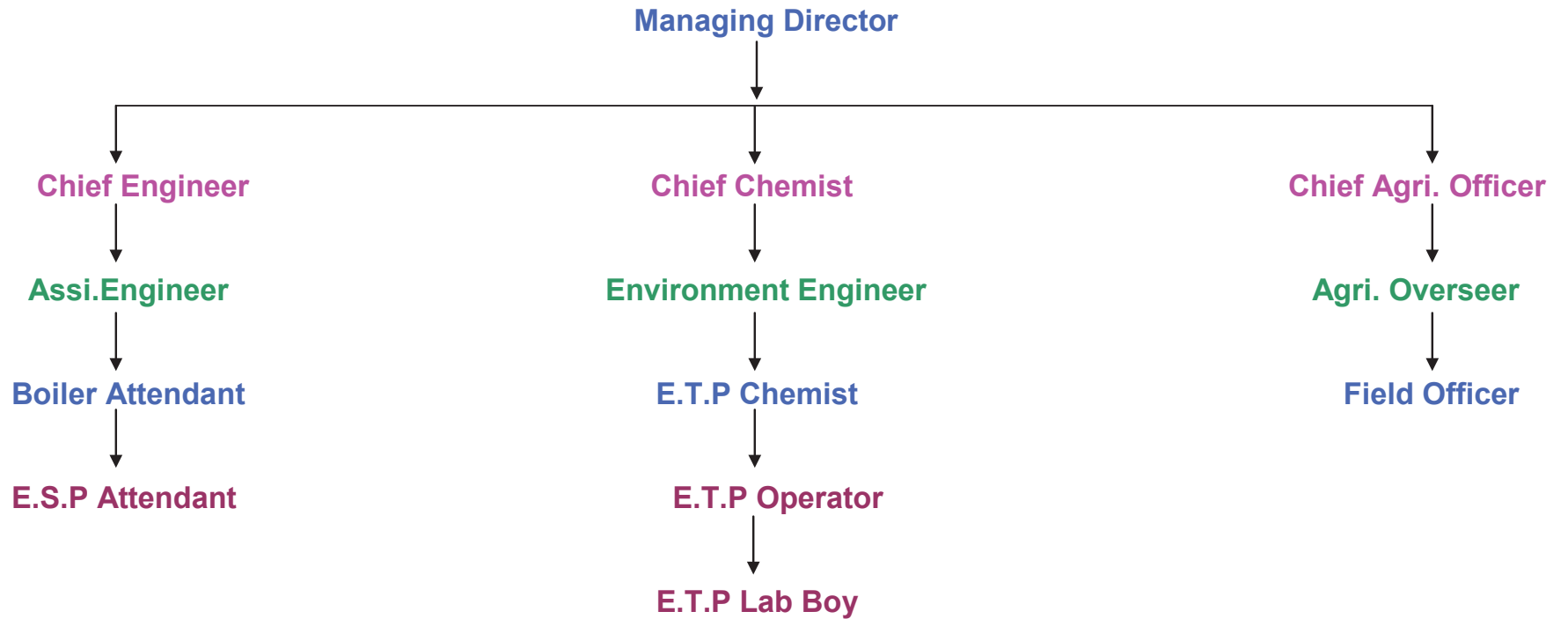
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Annexure – V
Environment Management Cell
(EMC)

Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari

Shri Kallappaanna Awadenagar, Hupari-Yalgud 416 203,
Tal. Hatkanangale, Dist. Kolhapur (Maharashtra)

Environmental Management Cell



Annexure – VI
Photographs of Greenbelt
&
List of plants

Existing Green Belt



Existing Green Belt



Existing Green Belt



Existing Green Belt



Existing Green Belt



KALLAPPANNA AWADE JAWAHAR S.S.S. KARKHANA LTD.,
Hupari -Yalgud, Tal-Hatkanangale, Dist- Kolhapur.(Maharastra)

Date: 12/10/2023

Karkhana site Tree Plantation Details

Sr.No	Particulars	Nos of Tree
A	Fruit Plant	
1.	Coconut	603
2.	Mango	350
3.	Chikku	156
	Total	1109
B	Forest Tree	
1.	Rain Tree	3700
2.	Cassia	1752
3.	Chinch	78
4.	Kadaumb	17
5.	Subabhul	830
6.	Badam	46
7.	Saptparni	32
8.	Chandan	45
9.	Sag	14
10.	Suru	1000
11.	Nimb & Others	3798
12.	Tubobia	12
13.	Palas	14
14.	Gorham Chinch	558
15.	Silver Oak	2000
16.	Spathodia	36
17.	Wad	70
18.	Pimpal	125
19.	Nile Mohar	42
20.	Bahawa	140
21.	Gulmohar	409
22.	Kanchan	133
23.	Nilgiri	3930
24.	Umber	62
25.	Phanas	15
26.	Bel	05
27.	Australian babul	300
30.	Gul bhendi	507
31.	Karanj	2239
32.	Jambhul	100
33.	Paletoforum	250
34.	Bambu	30634
35.	Katesawar	320
	Total	53213

Sr.No	Particulars	Nos of Plant
C	Decorative Tree	
1.	Bottal Palm	90
2.	Ashoka	703
3.	Thuja	10
4.	Ficus	82
5.	Boganwel	1440
6.	Exora	21
7.	Chapha	53
8.	Areka Palm	4316
	Total	6715
D	Flower Tree	
1.	Rose	200
2.	Other Flower Tree	4726
3.	Pots Tree	306
4.	Kaneri	2670
5.	Shankasur	340
	Total	8242

Total Summary of tree plantation-		
A	Fruit Tree	1109
B	Forest Tree	53213
C	Decorative Tree	6715
D	Flower Tree	8242
	Total Tree Plantation	69279


Chief Agri. Officer

KALLAPPANNA AWADE JAWAHAR S.S.S. KARKHANA LTD.,
Hupari -Yalgud, Tal-Hatkanangale, Dist- Kolhapur.(Maharastra)

Date: 12/10/2023

AREAWISE TREE PLANTATION INFORMATION

Sr. No	Survey No.	Place	Area (Acres)
1	1258	Harvesting workers staying yard	22.36
2	315/8,9	Colony area	07.00
3	315/11	Cane yard west side area	4.30
4	315/9,10	Office backside Mango & Rose plantation area	3.00
5	315/10	Stage side area	3.11
6	315/9,925/9	Main Road both sides area	3.13
7	315/14	New Ash Yard	1.13
8	315/14	Hamaal Shed (Eucalyptus.tree plantation)	4.26
9	315/14	Hamaal Shed (Forest Trees)	5.16
10	315/11	Karkhana Main Gate area	0.03
11	315/14	Switch Yard/Bullock Cart yard Area	0.22
12	315/11	Behind Godown No. 13 Area	3.10
13	315/7	Petrol Pump Area	0.05
14	315/8	Bamboo in Compost yard	4.25
15	315/7,8,9	Bene Plot	13.30
16	925/9	Flower Bed	0.11
17	315/9	Guest House, Board Room Area	0.12
18	925/9	Karanj, Chikoo, Mango plantation area	4.02
19	925/9	Near Mhasoba Temple Area	7.00
20	925/9,315/9	Rajrajeshwari Temple to Bene plot roadside plantation (Coconut, Ashok trees)	1.31
21	925/9	Canal side Coconut, Ashok tree	1.08
22	925/9, 315/9	Karkhana outside Gate Cross Bed Area	0.08
23	925/9	Rajrajeshwari Temple Area	2.10
24	925/9	Caneyard to Rajrajeshwari Temple Roadside plantation	1.22
25	925/9	Tractor Yard area	3.06
		Total	98.30


Chief Agri. Officer