

# **KALLAPPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.,**

Hupari-Yalgud 416 203, Tal.: Hatkanangale, Dist.: Kolhapur (Maharashtra)

Phone (0230) 2450402 to 06 E-mail : kprjsssk@gmail.com Website : www.kallappannaawadejawaharsssk.com

Ref. No. MFG/ETP/17143 /2025-2026

Date: - 20/11/2025

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 2025 to September 2025 w.r.t Co-gen Unit of 28.5 MW – **Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.**, 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-Yalgud, Tal.: Hatkanangale, Dist.: Kolhapur, Maharashtra State.

We are submitting a six monthly compliance report for a period of April 2025 to September 2025.

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](mailto:ecompliance-mh@gov.in)  
[Ecompliance-mh@gov.in](mailto:ecompliance-mh@gov.in)
2. Sh. Pratik D. Bharane,  
Scientist 'F'  
Central Pollution Control Board,  
Pune.  
Email – [pratik.cpcb@gov.in](mailto:pratik.cpcb@gov.in)
3. Member Secretary,  
Maharashtra Pollution Control Board,  
Kalpataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floor,  
Opp.Cine Planet,  
Near Sion Circle, Sion (E),  
Mumbai (Maharashtra) - 400 022.  
Email – [ms@mpcb.gov.in](mailto: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](mailto: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.

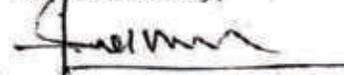
Sir,

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. 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.

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**M/s. Jawahar Shetakari SSKL Expansion of sugar cane Crushing Capacity from 5000 TCD to 7500 TCD & Co-generation from 24MW to 28.5 MW**

**Six Monthly Period (April 2025 to September 2025)**

<b>No</b>	<b>Environmental Clearance Conditions</b>	<b>Compliance towards the Conditions Stipulated</b>
1	<b>Condition No. I</b>	
	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.	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 firefighting 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 dated on <b>26.08.2025</b> . Photographs of Firefighting system, Mock drill, Boiler interlocks is enclosed at <b>Annexure – I</b> .
2	<b>Condition No. II</b>	
	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.	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 <b>29.08.2025</b> is enclosed at <b>Annexure-II</b> .
3	<b>Condition No. III</b>	
	The Project Authority shall prepare the onsite 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	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 latest Mock drill conducted on <b>26.08.2025</b> is enclosed at <b>Annexure III</b> .

No	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	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.	
4	<b>Condition No. IV</b>	
	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.	Not applicable. Since electricity generated is directly fed to MSEB grid.
5	<b>Condition No. V</b>	
	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.	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.
6	<b>Condition No. VI</b>	
	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	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 <b>Annexure –IV</b>

No	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	<p>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>	
7	<b>Condition No. VII</b>	
	<p>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 consultation with MPCB.</p>	<p>No effluent is discharged outside industrial premises. The treated effluent is being recycled and used for gardening in premises. An online continuous 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 <b>Annexure –IV</b>.</p>
8	<b>Condition No. VIII</b>	
	<p>The Project Authority shall regularly and periodically undertake soil testing of land which are being used for the</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</p>

No	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	disposal of the effluent and shall also undertake periodical and regular testing of water sources in the vicinity of the project.	within plant premises and regular monitoring is being carried out.
9	<b>Condition No. IX</b>	
	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.	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 selfmonitoring 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 NABL 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 <b>Annexure - V</b>
10	<b>Condition No. X</b>	
	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.	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 NABL approved laboratory. The report of the same are enclosed at <b>Annexure VI</b> .
11	<b>Condition No. XI</b>	
	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).	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.
12	<b>Condition No. XII</b>	

No	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	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).	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.
13	<b>Condition No. XIII</b>	
	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.	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 <b>Annexure - VII</b> .
14	<b>Condition No. XIV</b>	
	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.	Noted.
15	<b>Condition No. XV</b>	

No	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
	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.	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 69,879 Nos. of trees 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 <b>Annexure VIII</b> .
16	<b>Condition No. XVI</b>	
	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	<b>Condition No. XVII</b>	
	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	<b>Condition No. XVIII</b>	
	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 fire fighting system and Mock drill

Photographs of firefighting arrangements

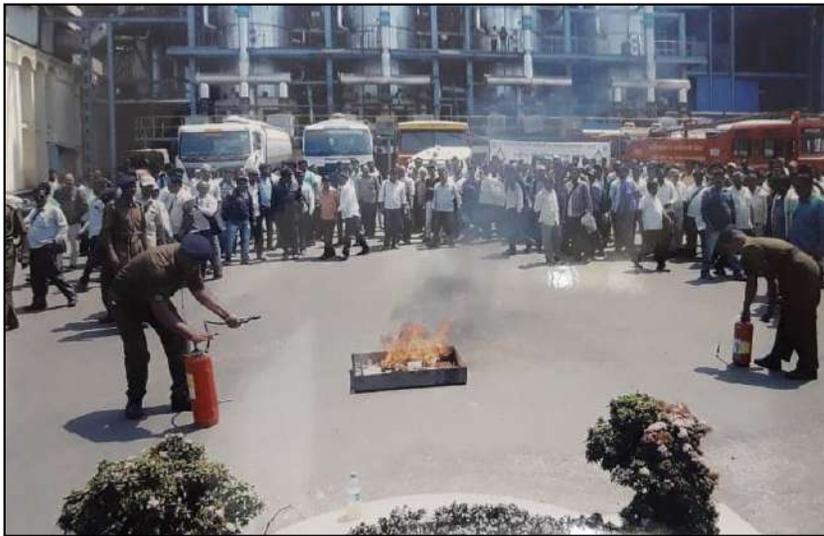


# Photographs of Mock Drill





Photographs of Mock Drills





## **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  $90^{\circ}\text{C}$  or winding temperature greater than  $110^{\circ}\text{C}$  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  $130^{\circ}\text{C}$  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/cm<sup>2</sup> .
- 6) Main steam Temperature 500 °C .
- 7) Main steam pressure greater than 90 kg/cm<sup>2</sup> .
- 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/cm<sup>2</sup>.
- 2) Control oil pressure less than 7.8 kg/cm<sup>2</sup>.
- 3) Oil tank level less than 36.5%.
- 4) Turbine inlet pressure less than 41.5 kg/cm<sup>2</sup>.
- 5) Turbine inlet temperature less than 485 °C.
- 6) Turbine inlet pressure greater than 99 kg/cm<sup>2</sup>.
- 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/cm<sup>2</sup>.
- 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/cm<sup>2</sup> And 99.56 kg/cm<sup>2</sup> 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 523<sup>0</sup> C to 529<sup>0</sup> 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 529<sup>0</sup> C to 543<sup>0</sup> 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 529<sup>0</sup> C to 543<sup>0</sup> 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/cm<sup>2</sup> 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/cm<sup>2</sup> 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/cm<sup>2</sup> 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.

**KALLAPPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.,**

Hupari – Yalgud, 416 203. Tal.: Hatkanangale, Dist.: Kolhapur (Maharashtra)

Phone (0230) 2450402, Fax No. : (0230) 2450401,

E-mail : [kprjssk@gmail.com](mailto:kprjssk@gmail.com)

# **MOCK DRILL REPORT**

**March – 2025**

# KALLAPPANNAWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.,

Hupari – Yalgud, 416 203. Tal.: Hatkanangale, Dist.: Kolhapur (Maharashtra)

Phone (0230) 2450402, Fax No. : (0230) 2450401,

E-mail : [kprjsssk@gmail.com](mailto:kprjsssk@gmail.com)

## MOCK DRILL REPORT.

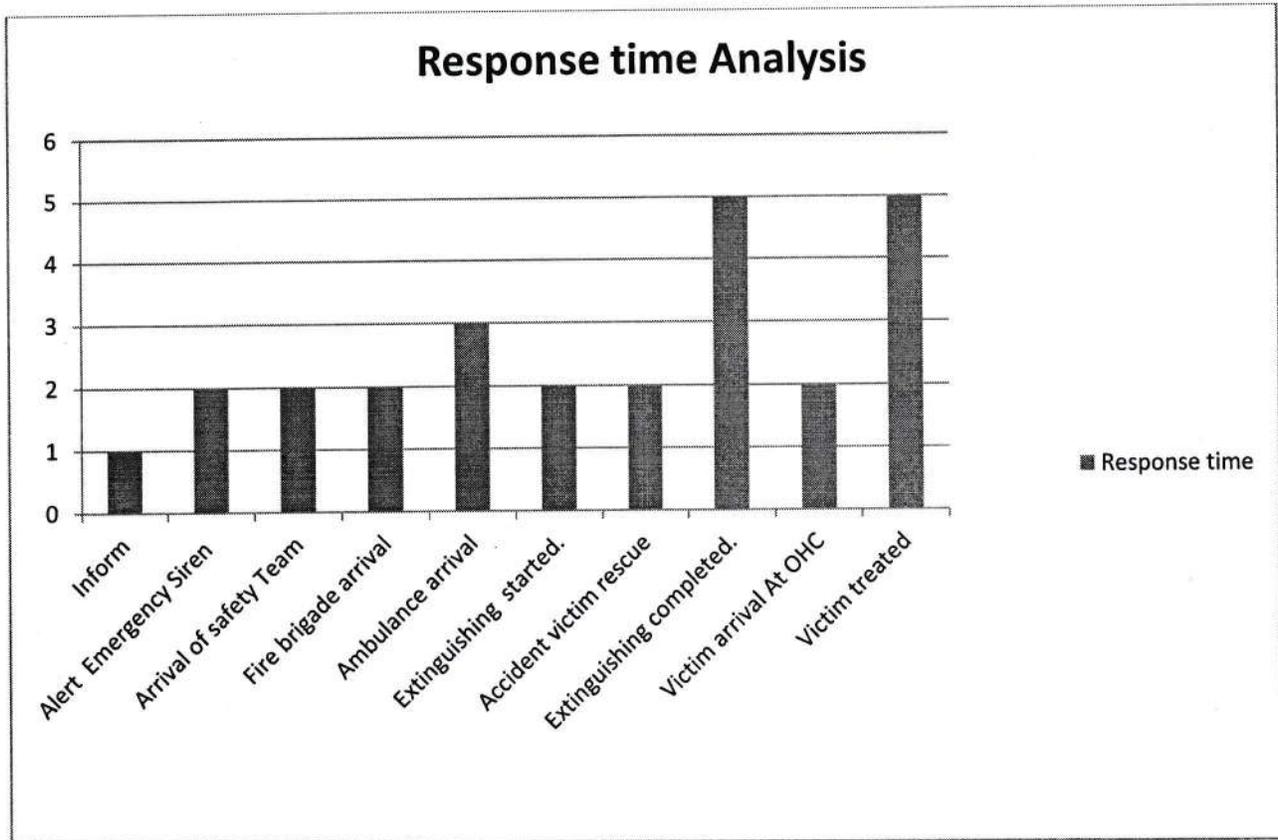
SR.NO	ASPECT	DISCREPTION	
1.	<b>Subject Of Drill</b>	Mock Drill is conducted on the occasion of National Safety Week in which fire drill is conducted and demonstration of fire extinguishing system is carried out along with measurement of response system and other observations.	
2.	<b>Type of Drill</b>	Fire mock drill.	
3.	<b>Conducted By</b>	Safety department & Security department of the factory.	
4.	<b>Scheduled Time</b>	From 10:45 to 11:15 am on dated <u>4<sup>th</sup> March,2025.</u>	
5.	<b>Location</b>	Main Gate – Corridor	
6.	<b>Possible hazards of incident</b>	Social Impact –No any social Impact is there.	
		Property damage - Yes, Property damage may possible.	
		Environmental Impact–Partial environmental Impact.	
		Critical infra impact - No any affect.	
		Process / Business Impact –It may impact process of Factory.	
		Physical harm –Physical harm is possible.	
		Psychological Impact - Partially affected.	
6	<b>Groups &amp; Teams (Security Department)</b>	<b>Team 1 : Fire Fighting Team</b>	
		1. Mr. Hindurav Patil 2. Mr. Tatyasaheb sangavade 3. Mr . Tatyasaheb Patil.	To execute fire extinguishing work on the location of fire incident.
		<b>Team 2 : Fire picket Team</b>	
		1. Mr. Harun Naikwade 2. Mr. Amol Patil 3. Mr. Jalandhar Patil	To surround the affected area of the incident and restrict the entry of man and flammable material from outside to inside the affected area.
		<b>Team 3 : Salvage Team</b>	
		1. Mr. Deepak Chougule. 2. Mr. Avinash Dongle. 3. Mr Ramesh Patil	To Dispose a damaged material and evaluation of material damage due to the fire incident.
<b>Team 4 : Reserve Team</b>			
		1. Mr. Sharad Kamble 2. Mr. Mallappa Khadage 3. Mr. Guatam Kable.	To Help the accident victim to have a further treatment.
7.	<b>Methodologies, techniques &amp; Strategies</b>	Fire fighting team operations.	Rescue team operations
		Fire picket team operations	Reserve team operations.
		Salvage team operations	

	used.		
8.	Name of the volunteers	Total no of Volunteers are participated in Mock drill. Some of them are as below.	
		Mr. Bhauso Dongare	Mr. Jalandhar Patil
		Mr. Sanjay Sheregar	Mr. Avinash kamble
		Mr. Pradip Patil	Mr. Jivandhar Patil
		Mr. Anil Nikam	Mr. Vilas kamble
		Mr. Laxman Lali	
	Mr. Kumar Mane		
9	Equipments, tools , material used	Personal Protective equipments.	Emergency flag
		Sand buckets	Siren
		Fire extinguishers.	Woolen cloth
		Fire Extinguishing vehicle.	Disposal & segregation equipments.
		Ambulance	stretcher

#### QUANTITATIVE TIME STUDY ANALYSIS - :

SR.NO	MAJOR EVENT	TIME OF OCCURANCE	RESPONSE TIME
1	Occurrence of the fire incident at the Main gate corridor.	10:47	-
2	Inform to the Security & Safety department about incident.	10:48	1 Min
3	Alert message to all employee through Emergency Siren	10:50	2 Min
4	Arrival Safety officer along with security team and Fire fighting team.	10:52	2 Min
5	Fire brigade arrives on the location of incident.	10:55	2 Min
6	Ambulance arrives at location of incident.	10:58	3 Min
7	Fire extinguishing work started.	10:57	2 Min
8	Accident victim pick up by rescue team.	11:00	2 Min
9	Fire extinguishing work completed & situation taken under control.	11:00	5 Min
10	Ambulance arrives at medical center of the Factory.	11:02	2 Min
11	Treatment has given to the victim.	11:07	5 Min
12	General instruction given to the employees and supervisors by Factory manager, safety officer, and Security officer.	11:15	-
13	Declaration of successfully completion of mock drill by authorities.	11:18	-

## Discriptive Analysis –



### **Key Insights –**

From the Quantitative time study analysis it is observed that the time taken for the Informing to the key personals, Emergency siren alert, extinguishing starting time and Accident victim rescue time are the fastest in the process of extinguishing. Also the time response of arrival of fire tender and ambulance is also improved slightly which is good measure.

Completion of fire incident operation and taking situation under control takes 5 minutes of response time and treatment of victim takes 5 minutes of time respectively. This time can be further improved by changing the Operational strategy of fire fighting operation.

### Mock drill Assessment sheet

SR. NO	ASSESSMENT CHECKS	NA	YES	NO	REMARK
1	Were all volunteers aware about the potential of the incident to hazard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Yes. They are all aware about it.
2	Was Every rescue team / Crew member aware about their responsibilities in the case of emergency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Responsibilities are specifically assigned to each member.
3	Have employees / members of rescue team well assimilated the methodologies, procedures & strategies employed during the drills?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Employees should clearly understand their role in the fire extinguishing procedure.
4	Was any Physiological problem evidenced among employee/ rescue team member during the drill?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No any Physiological problem was evidenced.
5	Was any Psychological problem evidenced among employee/ rescue team member during the drill?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No any Psychological problem was evidenced.
6	Were all equipments / machines find in place so that they were easily accessible in the case of the emergency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	All Equipmentwas placed at a assigned location.
7	Were all equipments / machines found to work effectively during the drill?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	all equipment /machines are regularly tested and maintained in good condition
8	Is there any need to modify or replace any equipment / machine as per changing requirements of situations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No.
9	Was there any material which can add potential to the hazard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cotton waste was available on the location which is used for cleaning purpose.
10	Was the material properly segregated from the place of hazard to the safe place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Yes. Salvage team done the segregation work.
11	Was there any method / procedure which have to modify/improve/replace as per current necessities and standards in order to improve the effectiveness of system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Rescue team should be follow the assigned work.
12	Was there any defect in the communication system which employed during the emergency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is a time lag in the communication.
13	Is there any possibility of arising unusual conditions during the time of emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No such possibility is there.

**Conclusions & Results -**

1. All the procedure of fire extinguishing is followed as per standard procedure within assigned time limit.
2. No any possibility of arising unusual conditions during the mock drill.
3. Communication system was found effective during the mock drill.
4. All fire fighting equipment are found to be working in good conditions.
5. Inlet line knob of low pressure pump of fire tender found leak.

**Improvement measures -**

1. While the mock drill it is observed that the Inlet knob of the low pressure pump of fire tender is leaked. Leakage is to be attended on time in order to avoid the pressure loss during the fire fighting operations.

**Vikas .S Kavade****(GM Tech & Factory Manager)**

HEALTH RESERVE

FORM - 7

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

Cont. / Unit Name : Employee

Address : Shri Kallappanna, Yalgud, Awade Nagar, Hupari, Hatkanangale, Kolhapur, Maharashtra 416203

Valid From : { 29-08-2025 To 28-08-2026 }



DR. ARVIND MANE  
MBBS DPH AFIH.(MUMBAI)

Certifying Surgeon For Factories  
Kolhapur, District under Govt. Of Maharashtra Factories Rules.

**KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7**

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X,XI,XII,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

**CERTIFYING SURGEON  
DR. ARVIND MANE**

From: { 29-08-2025 To 28-08-2026 }

( Health Register )

**MBBS DPH AFH.(MUMBAI)**

Serial No.	Words No.	Name of Worker	Sex	Age (last birth - day)	Dept of employment of present work	Date of Leaving or Transfer to Other	Discharge	Nature of job or Occupation	Raw Material or by Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	Work, state Period of Suspension with Detailed Reasons	Certified fit to resume duty on with signature of	Unfitness or suspension issued	Signature with Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	7393	Avduth B. Pirai	Male	28		NA	NA			29-08-2025	FIT	NA	NA	NA	15
2	7326	Aavduth A. Shirke	Male	30		NA	NA			29-08-2025	FIT	NA	NA	NA	
3	1913	Aba R. Soudalage	Male	53		NA	NA			29-08-2025	FIT	NA	NA	NA	
4	1469	Abaykumar B. Patil	Male	51		NA	NA			29-08-2025	FIT	NA	NA	NA	
5	7461	Abdul F. Mulla	Male	26		NA	NA			29-08-2025	FIT	NA	NA	NA	
6	6015	Abhay A. Maygonda	Male	37		NA	NA			29-08-2025	FIT	NA	NA	NA	
7	6005	Abhay B. Nandkar	Male	35		NA	NA			29-08-2025	FIT	NA	NA	NA	
8	7610	Abhay D. Shemanewadi	Male	25		NA	NA			29-08-2025	FIT	NA	NA	NA	
9	1771	Abhay Kumar B. Chougale	Male	53		NA	NA			29-08-2025	FIT	NA	NA	NA	
10	593	Abhay Kumar N. Patil	Male	51		NA	NA			29-08-2025	FIT	NA	NA	NA	
11	2312	Abhijeet B. Mane	Male	31		NA	NA			29-08-2025	FIT	NA	NA	NA	
12	2401	Abhijit A. Khanapure	Male	32		NA	NA			29-08-2025	FIT	NA	NA	NA	
13	2398	Abhijit B. Patil	Male	30		NA	NA			29-08-2025	FIT	NA	NA	NA	
14	7276	Abhijit S. Kambale	Male	39		NA	NA			29-08-2025	FIT	NA	NA	NA	
15	1665	Abhijit S. Kumbhar	Male	45		NA	NA			29-08-2025	FIT	NA	NA	NA	
16	7528	Abhimanay E. Nikam	Male	26		NA	NA			29-08-2025	FIT	NA	NA	NA	
17	2402	Abhinandan M. Girmal	Male	33		NA	NA			29-08-2025	FIT	NA	NA	NA	
18	2097	Abhinandan S. Kambale	Male	40		NA	NA			29-08-2025	FIT	NA	NA	NA	
19	7524	Abhinandan T. Chougale	Male	35		NA	NA			29-08-2025	FIT	NA	NA	NA	
20	7296	Abhishek G. Kunnure	Male	26		NA	NA			29-08-2025	FIT	NA	NA	NA	
21	2319	Abhishek L. Desai	Male	30		NA	NA			29-08-2025	FIT	NA	NA	NA	
22	2196	Abhishek R. Patil	Male	31		NA	NA			29-08-2025	FIT	NA	NA	NA	
23	7493	Abhishek S. Ualshakti	Male	30		NA	NA			29-08-2025	FIT	NA	NA	NA	
24	2228	Adagonda K. Takmare	Male	48		NA	NA			29-08-2025	FIT	NA	NA	NA	
25	846	Adam A. Mulla	Male	53		NA	NA			29-08-2025	FIT	NA	NA	NA	
26	7230	Adesh A. Yadav	Male	26		NA	NA			29-08-2025	FIT	NA	NA	NA	
27	1504	Adinath B. Chougale	Male	53		NA	NA			29-08-2025	FIT	NA	NA	NA	
28	7439	Adinath S. Alagunde	Male	24		NA	NA			29-08-2025	FIT	NA	NA	NA	
29	1395	Adinath T. Kumbhar	Male	56		NA	NA			29-08-2025	FIT	NA	NA	NA	
30	7473	Aditya M. Sarnaik	Male	27		NA	NA			29-08-2025	FIT	NA	NA	NA	

शुद्धीकरण प्रमाणपत्र  
श. ACS 15-AM/2016

Serial No.	Works No.	Name of Worker	Sex	Age (Last birth - day)	Dept of employment of present work	6	7	8	9	10	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	work, state Period of suspension with Detailed Reasons	12	13	14	15		
						employment of present work	Date of Leaving or Transfer to Other	Discharge	Nature of job or Occupation	Raw Material or by Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	work, state Period of suspension with Detailed Reasons	12	Certified fit to resume duty on	with signature of	unfitness or suspension issued	Date of Certifying Surgeon	
1	3		4	5							11								
31	631	Ajij G. Dattwade	Male	52			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
32	1484	Ajit A. Magdum	Male	55			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
33	2376	Ajit A. Mane	Male	33			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
34	1861	Ajit A. Patil	Male	50			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
35	2366	Ajit A. Patil	Male	29			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
36	1844	Ajit B. Nirwane	Male	46			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
37	878	Ajit B. Patil	Male	57			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
38	777	Ajit Dhanpal Vasvade	Male	55			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
39	590	Ajit Kumar S. Patil	Male	56			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
40	7412	Ajit R. Bandgar	Male	28			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
41	2260	Ajit S. Patil	Male	34			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
42	1870	Ajmer A. Sanadi	Male	50			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
43	1351	Akabar M. Mokashi	Male	56			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
44	7570	Akash A. Mane	Male	29			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
45	7386	Akash K. Kamate	Male	24			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
46	2338	Akbar B. Farid	Male	32			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
47	7065	Akshay A. Banole	Male	30			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
48	2378	Akshay A. Wadkar	Male	27			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
49	2258	Akshay Anil Sidnale	Male	30			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
50	12003	Akshay Kumar P. Shetake	Male	32			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
51	7577	Akshay R. Shemanewadi	Male	23			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
52	7071	Akshay U. Khot	Male	29			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
53	1868	Allab B. Naikwade	Male	46			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
54	2209	Alluddin Polad	Male	51			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
55	172	Amar B. Dinde	Male	53			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
56	1235	Amar K. Kamble	Male	45			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
57	1832	Amar Patil	Male	46			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
58	1893	Amar S. Patil	Male	45			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
59	2150	Amit A. Chougule	Male	35			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		
60	6002	Amit A. Chougule	Male	38			NA	NA			29-08-2025	FIT		NA	NA	NA	NA		

महाराष्ट्र शासन, कृषि विभाग, मुंबई

35. ACS 15-AM/2016

**KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7**

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X,XI,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

**CERTIFYING SURGEON  
DR. ARVIND MANE**

**From: { 29-08-2025 To 28-08-2026 } ( Health Register ) MBBS DPH AFH.(MUMBAI)**

Serial No.	Works No.	Name of Worker	Sex	Age (Last birth - day)	Depth of present employment	Date of Leaving or Transfer to Other	7	8	9	10	11	12	13	14	15
61	2113	Amit A. Dange	Male	33	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	15
62	6006	Amit A. Khot	Male	35	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
63	7070	Amit P. Subedar	Male	32	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
64	2057	Amit R. Kulkarni	Male	35	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
65	1970	Amit S. Patil	Male	42	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
66	1838	Amijat Khan B. Mokashi	Male	45	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
67	1719	Amol A. Patil	Male	46	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
68	1683	Amol B. Herwade	Male	47	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
69	1355	Amol B. Parmaj	Male	49	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
70	1837	Amol G. Hande	Male	43	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
71	7480	Amol J. Jokare	Male	31	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
72	7108	Amol S. Deshmane	Male	28	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
73	2264	Amol S. Patil	Male	44	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
74	6029	Amol Shivgonda Patil	Male	41	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
75	873	Amrut G. Raval	Male	54	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
76	644	Ananda V. S.	Male	50	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
77	1548	Ananda R. Magdum	Male	52	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
78	1011	Ananda S. Magdum	Male	54	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
79	7486	Aniket G. Nagare	Male	26	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
80	7370	Aniket N. Chauhan	Male	26	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
81	2277	Aniket S. Shinde	Male	32	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
82	7259	Aniket Vijay. Jugle	Male	28	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
83	1709	Anil A. Patil	Male	57	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
85	1412	Anil B. Latthe	Male	58	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
86	1735	Anil B. More	Male	46	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
87	38	Anil B. Shirole	Male	52	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
88	1000	Anil B. Sutar	Male	58	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
89	7400	Anil D. Mane	Male	28	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
90	879	Anil D. Maske	Male	52	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	
91	2247	Anil D. Sutar	Male	37	-	NA	NA	NA	NA	29-08-2025	FIT	NA	NA	NA	

DR. ARVIND MANE  
MBBS DPH AFH (MUMBAI)

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,XI,XII,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

DR. ARVIND MANE

From: { 29-08-2025 To 28-08-2026 }

( Health Register )

MBBS DPH AFH.(MUMBAI)

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
92	1915	Anil G. Koli	Male	57	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
93	819	Anil J. Chougule	Male	56	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
94	1258	Anil J. Giri	Male	48	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
95	688	Anil Natha Jadhav	Male	55	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
96	2314	Anil P. Sarvale	Male	44	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
97	2169	Anil R. Chougule	Male	48	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
98	6014	Anil R. Karave	Male	42	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
99	2352	Anil S. Kamble	Male	39	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
100	1563	Anil S. Mali	Male	58	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
101	1657	Anil V. Khule	Male	56	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
102	1406	Anil Y. Wadd	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
103	7072	Anil Y. Thorvan	Male	29	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
104	474	Anjum J. Makandar	Male	58	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
105	76	Annappa Rama Choudhari	Male	55	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
106	6294	Annaso D. Parit	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
107	1509	Annaso P. Giribuva	Male	51	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
108	1483	Annaso S. Hangande	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
109	239	Annaso T. Janaj	Male	58	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
110	1930	Ansar A. Chilu	Male	45	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
111	7422	Anup S. Dattawade	Male	24	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
112	7542	Anuraj A. Patil	Male	24	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
113	1445	Appalal P. Jamadar	Male	55	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
114	860	Appaso P. Naik	Male	54	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
115	1014	Appaso R. Gawade	Male	56	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
116	1855	Appaso V. Kamble	Male	52	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
117	1240	Aran K. Patil	Male	48	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
118	7311	Arbaj K. Kalawant	Male	26	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
119	7580	Arif C. Inamdar	Male	27	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
120	1723	Arihant K. Patil	Male	55	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
121	7229	Arihant Kumar Bargale	Male	28	-	NA	NA	NA		29-08-2025	FIT	NA	NA	NA	

महाराष्ट्र शासनाचे वैद्यकीय अधिकारी  
 Dr. ACS 15-AM/2016

**KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7**

**CERTIFYING SURGEON  
DR. ARVIND MANE**

**( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X,XI,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)**

**From: { 29-08-2025 To 28-08-2026 } ( Health Register )**

**MBBS DPH AFIH.(MUMBAI)**

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
122	7398	Arihant S. Patil	Male	29	-	NA	NA			29-08-2025	FIT	NA	NA	NA	15
123	6310	Arjun S. Patil	Male	59	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
124	7328	Arman N. Jamadar	Male	42	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
125	2044	Arun A. Arwate	Male	44	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
126	1454	Arun A. Malage	Male	51	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
127	1338	Arun B. Khot	Male	52	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
128	1561	Arun K. Jadhav	Male	55	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
129	1229	Arun K. Patil	Male	50	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
130	7209	Arun S. Jong	Male	29	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
131	1662	Arvind B. Patil	Male	47	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
132	890	Arvind M. Bhandare	Male	37	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
133	1823	Arvind P. Kukade	Male	56	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
135	7096	Ashitosh R. Chougule	Male	27	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
136	637	Ashok D. Mane	Male	59	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
137	1326	Ashok D. Sutar	Male	50	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
138	1227	Ashok E. Khot	Male	53	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
139	885	Ashok G. Chavan	Male	54	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
140	1871	Ashok K. Sutar	Male	30	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
141	1886	Ashok Kumar G. Chougule	Male	48	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
142	2351	Ashok Kumar Khot	Male	31	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
144	630	Ashok Nassori	Male	55	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
145	516	Ashok R. Gaikwad	Male	59	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
146	2020	Asif D. Shaikh	Male	43	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
147	6070	Asif M. Kalavant	Male	35	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
148	595	Aslam G. Tamboole	Male	55	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
149	1802	Aslam U. Mullani	Male	50	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
150	7069	Asutosh A. Nurje	Male	33	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
151	1654	Atish A. Upadhya	Male	46	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
152	570	Avinash B. Aainapure	Male	54	-	NA	NA			29-08-2025	FIT	NA	NA	NA	
153	7119	Avinash D. Chakare	Male	29	-	NA	NA			29-08-2025	FIT	NA	NA	NA	

महाराष्ट्र शासन, मुंबई

म. आ. स. 15-AM/2019

KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X,XI,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

CERTIFYING SURGEON  
DR. ARVIND MANE

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MBBS DPH AFIH.(MUMBAI)

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
154	1765	Avinash D. Suryavanshi	Male	45	-	NA	NA	NA		29-08-2025	FIT	NA	NA	15
155	2217	Avinash Jalandhar Dongale	Male	37	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
156	7591	Avinash M. Khot	Male	25	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
157	2337	Avinash M. Vasavade	Male	30	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
158	2133	Avinash P. Patankar	Male	33	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
159	1749	Avinash U. Kamble	Male	50	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
160	2396	Aviraj Y. Kangane	Male	31	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
161	1341	Ayubkhan H. Jamadar	Male	53	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
162	1478	Biru Rajaram Kavnekar	Male	52	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
163	1594	B. S. Late	Male	56	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
164	6230	Baban B. Desai	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
165	1652	Babasaheb A. Mayyapphavar	Male	51	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
166	1524	Babasaheb A. Patil	Male	51	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
167	1931	Balasaheb B. Benurkar	Male	51	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
168	1868	Babaso A. Sanhi	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
169	1302	Babaso B. Kadarn	Male	54	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
170	2370	Babaso B. Kokaj	Male	39	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
171	342	Babaso B. Rajmane	Male	55	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
172	1494	Babaso I. Patil	Male	56	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
173	1487	Babaso Janaba Yojare	Male	53	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
174	1651	Babaso M. Mangave	Male	54	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
175	1344	Babaso M. Patil	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
176	1753	Babaso R. Khot	Male	45	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
177	1999	Babaso R. Patil	Male	46	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
178	1680	Babaso S. Daigande	Male	49	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
179	992	Baburao A. Kamate	Male	58	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
180	1750	Baburao D. Patil	Male	55	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
181	1598	Baburao V. Patil	Male	59	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
182	7089	Bahubali A. Girmal	Male	32	-	NA	NA	NA		29-08-2025	FIT	NA	NA	
183	1790	Bahubali M. Kaste	Male	45	-	NA	NA	NA		29-08-2025	FIT	NA	NA	

DR. ARVIND MANE  
28.08.2026

**KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7**

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DR. ARVIND MANE**

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
184	2348	Bajirao B. Patil	Male	50		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
185	1453	Bajirao M. Dongale	Male	51		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
186	1742	Balasaheb A. Ningure	Male	53		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
187	509	Balasaheb Appasaheb Tonne	Male	58		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
188	611	Balasaheb Y. Malaba	Male	57		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
189	786	Balaso A. Gotkhinde	Male	50		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
190	2110	Balaso A. Khot	Male	32		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
191	1604	Balaso A. More	Male	49		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
192	2417	Balaso B. Kudache	Male	60		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
193	1752	Balaso B. Mardane	Male	37		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
194	2084	Balaso D. Chougule	Male	50		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
195	245	Balaso J. Sasane	Male	59		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
196	7513	Balaso K. Karyappa	Male	26		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
197	1713	Balaso R. Patil	Male	49		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
198	963	Balaso T. Kumbhojo	Male	59		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
199	1040	Balaso T. Suryawanshi	Male	58		NA	NA	NA		29-08-2025	FIT	NA	NA	NA	
200	984	Balaso V. Naik	Male	50		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
201	1091	Balawant A. Patil	Male	59		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
202	2039	Balgonda D. Patil	Male	38		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
203	1807	Balgonda S. Patil	Male	52		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
204	703	Baliram D. Salunkhe	Male	54		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
205	1659	Balkrishna S. Khot	Male	44		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
206	1037	Balkrushmu K. Chougule	Male	58		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
207	954	Balu S. Mali	Male	58		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
208	868	Banda R. Hegaje	Male	52		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
209	173	Bapu H. Manyalekar	Male	58		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
210	1725	Bapuso D. Vani	Male	52		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
211	1769	Bhagwan V. Panari	Male	45		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
212	1266	Bhalchandra N. Shambushati	Male	54		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	
213	1433	Bharat A. Madbhawe	Male	55		NA	NA	NA		30-08-2025	FIT	NA	NA	NA	

कावेरीय निहाकरिता  
प्राधिकृत प्रमाणकाल्यधिकारक  
क्र. ACS-15-AM/2016

KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
214	1631	Bharat B. Salunkhe	Male	53	-	NA	NA			30-08-2025	FIT	NA	NA	NA	15
215	1845	Bharat D. Magdum	Male	53	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
216	6004	Bharat J. Chougule	Male	46	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
217	7569	Bharat K. Khot	Male	23	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
218	606	Bharat M. Bhagaje	Male	57	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
219	1831	Bharat N. Machhare	Male	47	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
220	2051	Bharat R. Patil	Male	54	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
221	1754	Bharat S. Ghunake	Male	45	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
222	1857	Bharat V. Patil	Male	45	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
223	681	Bhausahab A. Patil	Male	54	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
224	7106	Bhausahab B. Dhanger	Male	26	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
225	35	Bhausahab N. Shendage	Male	56	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
226	1369	Bhauso D. Chougule	Male	58	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
227	230	Bhauso Dongare	Male	55	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
228	7602	Bhimgonda R. Hejage	Male	27	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
229	656	Bhimrao D. Khot	Male	51	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
230	1671	Bhimrao J. Patil	Male	59	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
231	957	Bhimrao M. Jadhav	Male	52	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
232	2066	Bhimrao M. Vajantri	Male	55	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
233	621	Bhimrao S. Parit	Male	53	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
234	852	Bhupal M. Sathe	Male	48	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
235	305	Bingandhola Baittha	Male	55	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
236	7217	Bira R. Dugane	Male	52	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
237	1562	Biru B. Gavade	Male	59	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
238	1312	Biru D. Galatge	Male	50	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
239	1590	Biru S. Mudhale	Male	54	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
240	2045	Bradhman S. Israna	Male	42	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
241	7287	Brishab R. Magdum	Male	26	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
242	6001	Brishav R. Aakkole	Male	38	-	NA	NA			30-08-2025	FIT	NA	NA	NA	
243	1730	Buima P. Kurail	Male	43	-	NA	NA			30-08-2025	FIT	NA	NA	NA	

कावेरि गिरेकरिता  
सावित्रा प्राणिकार्यसंस्थान  
क. ACS 15-AM/2016

KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,XI,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

CERTIFYING SURGEON  
DR. ARVIND MANE

From: { 29-08-2025 To 28-08-2026 }

( Health Register )

MBBS DPH AFIH.(MUMBAI)

Serial No.	Works No.	Name of Worker	Sex	Age (last birth day)	Dept of present work	Date of leaving or Transfer to Other	Transfer of Discharge	Nature of job or Occupation	Raw Material or by Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	work, state Period of Suspension with Detailed Reasons	Certified fit to resume duty on	with signature of unfitness or suspension issued	Signature with Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
972	1232	Sunil R. Patil	Male	55	-	NA	NA			03-09-2025	FIT	NA	NA	NA	
973	880	Sunil S. Herwade	Male	52	-	NA	NA			03-09-2025	FIT	NA	NA	NA	
974	990	Sunil S. Pawar	Male	56	-	NA	NA			03-09-2025	FIT	NA	NA	NA	
975	1569	Sunil S. Shetaker	Male	55	-	NA	NA			03-09-2025	FIT	NA	NA	NA	
976	675	Sunil S. Shinde	Male	55	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
977	469	Sunil V. Kadam	Male	52	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
978	39	Sunil Vinyak Mane	Male	53	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
979	6028	Suraj D. Narwade	Male	33	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
980	6642	Suraj D. Patil	Male	33	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
981	7082	Suraj K. Makandar	Male	29	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
982	7115	Suraj K. Shermnewadi	Male	27	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
983	1978	Suraj M. Kalavant	Male	39	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
984	7508	Suraj N. Kurane	Male	25	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
985	7301	Suraj P. Awate	Male	27	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
986	2361	Suraj S. Ratnade	Male	32	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
987	2170	Suraj Shirdhone	Male	32	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
988	7241	Suraj T. Ingale	Male	28	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
989	435	Suresh A. Desai	Male	56	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
990	387	Suresh B. Hanbar	Male	58	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
991	1402	Suresh B. Pasare	Male	60	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
992	1953	Suresh B. Patil	Male	53	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
993	648	Suresh B. Salokhe	Male	48	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
994	6016	Suresh G. Mane	Male	41	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
995	1260	Suresh J. Parit	Male	52	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
996	687	Suresh K. Chougale	Male	53	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
997	1833	Suresh M. Sulkude	Male	48	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
998	2243	Suresh R. Bhanwade	Male	31	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
999	1426	Suresh S. Koravi	Male	50	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
1000	1821	Suresh S. Powar	Male	46	-	NA	NA			04-09-2025	FIT	NA	NA	NA	
1001	2268	Suresh T. Gourai	Male	51	-	NA	NA			04-09-2025	FIT	NA	NA	NA	

सिद्धार्थ शिंदेकरिता

प्रमाणित मान्यतापत्राधिकारि  
B. ACS 15-AM/2019

Serial No.	Works No.	Name of Worker	Sex	Age (Last birth - day)	Deployed employment of present work	Date of Leaving or Transfer to Other	Transfer of Discharge	Nature of Job or Occupation	Raw Material or by Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	work state Period of suspension with Detailed Reasons	Certified fit to resume duty on with signature of	unfitness or suspension issued	Signature with Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1002	1271	Suryaji N. Patil	Male	48		NA	NA			04-09-2025	FIT	NA	NA	NA	15
1003	652	Suryappa B. Bhanase	Male	50		NA	NA			04-09-2025	FIT	NA	NA	NA	
1004	7224	Sushant A. Patil	Male	31		NA	NA			04-09-2025	FIT	NA	NA	NA	
1005	7522	Sushant B. Girmal	Male	27		NA	NA			04-09-2025	FIT	NA	NA	NA	
1006	7430	Sushant B. Malliade	Male	27		NA	NA			04-09-2025	FIT	NA	NA	NA	
1007	7467	Sushant S. Nagave	Male	26		NA	NA			04-09-2025	FIT	NA	NA	NA	
1008	2335	Sushant S. Patil	Male	36		NA	NA			04-09-2025	FIT	NA	NA	NA	
1009	7294	Sushant S. Sidnak	Male	31		NA	NA			04-09-2025	FIT	NA	NA	NA	
1010	1727	Sushil Kumar S. Upadya	Male	48		NA	NA			04-09-2025	FIT	NA	NA	NA	
1011	2249	Swagat S. Chougule	Male	28		NA	NA			04-09-2025	FIT	NA	NA	NA	
1012	2040	Swapnil B. Chougule	Male	38		NA	NA			04-09-2025	FIT	NA	NA	NA	
1013	2358	Swapnil Baban Kiminge	Male	33		NA	NA			04-09-2025	FIT	NA	NA	NA	
1014	2208	Swapnil V. Khot	Male	33		NA	NA			04-09-2025	FIT	NA	NA	NA	
1015	2368	Tabreje N. Attar	Male	30		NA	NA			04-09-2025	FIT	NA	NA	NA	
1016	1567	Tanaji D. Jog	Male	58		NA	NA			04-09-2025	FIT	NA	NA	NA	
1017	2379	Tanaji G. Jakhale	Male	44		NA	NA			04-09-2025	FIT	NA	NA	NA	
1018	1955	Tanaji P. Bhole	Male	54		NA	NA			04-09-2025	FIT	NA	NA	NA	
1019	1358	Tanaji R. Patil	Male	53		NA	NA			04-09-2025	FIT	NA	NA	NA	
1020	1455	Tanaji S. Fadtare	Male	51		NA	NA			04-09-2025	FIT	NA	NA	NA	
1021	375	Tanaji S. Kamate	Male	58		NA	NA			04-09-2025	FIT	NA	NA	NA	
1022	1394	Tanaji S. Patole	Male	56		NA	NA			04-09-2025	FIT	NA	NA	NA	
1023	1599	Tanaji S. Walage	Male	54		NA	NA			04-09-2025	FIT	NA	NA	NA	
1024	2081	Tatoba J. Kumbhoje	Male	59		NA	NA			04-09-2025	FIT	NA	NA	NA	
1025	2061	Tatyasaheb A. Sangwade	Male	55		NA	NA			04-09-2025	FIT	NA	NA	NA	
1026	967	Tukaram D. Patil	Male	55		NA	NA			04-09-2025	FIT	NA	NA	NA	
1027	1967	Tukaram M. Chavan	Male	42		NA	NA			04-09-2025	FIT	NA	NA	NA	
1028	7300	Tushar B. Patil	Male	26		NA	NA			04-09-2025	FIT	NA	NA	NA	
1029	6038	Tushar S. Nikam	Male	33		NA	NA			04-09-2025	FIT	NA	NA	NA	
1030	2205	Tushar V. Kumbhar	Male	31		NA	NA			04-09-2025	FIT	NA	NA	NA	
1031	396	Uday A. Ainepure	Male	56		NA	NA			04-09-2025	FIT	NA	NA	NA	

DR. ARVIND MANE  
MBBS DPH AFH (MUMBAI)

ACS 15-AW/2019

KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7

CERTIFYING SURGEON  
DR. ARVIND MANE

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X,XI,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

From: { 29-08-2025 To 28-08-2026 } ( Health Register ) MBBS DPH AFIIH.(MUMBAI)

Serial No.	Works No.	Name of Worker	Sex	Age (last birth - day)	Dept of employment of present work	Date of leaving or Transfer to Other	Transfer of Discharge	Nature of job or Occupation	Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	Work state Period of Suspension with Detailed Reasons	Certified fit to resume duty on	With signature of unfitness or suspension issued	Signature with Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1032	733	Uday B. Chougule	Male	55		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	15
1033	937	Uday M. Kadam	Male	59		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1034	1729	Umesh A. Chougule	Male	50		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1035	1278	Umesh B. Mane	Male	49		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1036	1900	Umesh J. Kamble	Male	45		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1037	903	Umesh V. Ajari	Male	52		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1038	2246	Upenra S. Chauhan	Male	52		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1039	737	Usman M. Shaikh	Male	54		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1040	1828	Uttam D. Parit	Male	51		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1041	7450	Uttam J. Nagawkar	Male	26		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1042	2355	Uttam K. Khot	Male	35		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1043	1949	Uttam K. Koli	Male	51		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1044	6067	Uttam M. Koli	Male	41		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1045	1241	Uttam S. Borgave	Male	38		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1046	1583	Uttam S. Mangale	Male	55		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1047	1409	Uttam V. Shete	Male	54		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1048	2128	Vaibhav B. Patil	Male	35		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1049	7357	Vaibhav D. Patil	Male	27		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1050	2281	Vaibhav Ligade	Male	26		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1051	2285	Vaibhav Mane	Male	28		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1052	7252	Vaibhav S. Jog	Male	28		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1053	7404	Vaibhav S. Mirje	Male	27		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1054	7550	Vanikesh S. Mudhale	Male	22		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1055	2367	Vasant D. Patil	Male	48		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1056	1435	Vasant S. Dhule	Male	57		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1057	1766	Veer Kumar B. Aitawade	Male	46		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1058	1051	Vidyasagar D. Gudale	Male	53		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1059	1786	Vijay A. Hasure	Male	50		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1060	1869	Vijay A. Koli	Male	47		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	
1061	1466	Vijay B. Desai	Male	52		NA	NA	NA		04-09-2025	FIT	NA	NA	NA	

DR. ARVIND MANE  
MBBS DPH AFIIH (MUMBAI)  
15-AUG-2010

KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7

CERTIFYING SURGEON  
DR. ARVIND MANE

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X, XI, XIII, XIV, XV, XVII, XVIII & XX to Rule 114)

From: { 29-08-2025 To 28-08-2026 }

( Health Register ) MBBS DPH AFIH. (MUMBAI)

Serial No.	Works No.	Name of Worker	Sex	Age (last birth day)	Dept of employment of present work	Date of Leaving or Transfer to Other	7	8	9	10	11	12	13	14	15
						Transfer to Other	Discharge	Nature of job or Occupation	Raw Material or by Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	work, state Period of Suspension with Detailed Reasons	Certified fit to resume duty or with signature of	unfitness or suspension issued	Signature with Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1062	987	Vijay B. Hande	Male	54		NA	NA			04-09-2025	FIT	NA	NA	NA	
1063	1889	Vijay B. Magdum	Male	48		NA	NA			04-09-2025	FIT	NA	NA	NA	
1064	467	Vijay J. Utture	Male	59		NA	NA			04-09-2025	FIT	NA	NA	NA	
1065	1784	Vijay K. Kamble	Male	50		NA	NA			04-09-2025	FIT	NA	NA	NA	
1066	972	Vijay M. Ghatage	Male	52		NA	NA			04-09-2025	FIT	NA	NA	NA	
1067	2147	Vijay Mane	Male	45		NA	NA			04-09-2025	FIT	NA	NA	NA	
1068	1803	Vijay P. Kane	Male	50		NA	NA			04-09-2025	FIT	NA	NA	NA	
1069	755	Vijay R. Dangare	Male	58		NA	NA			04-09-2025	FIT	NA	NA	NA	
1070	7552	Vijay S. Kumbhar	Male	24		NA	NA			04-09-2025	FIT	NA	NA	NA	
1072	1764	Vijay V. Ketkale	Male	46		NA	NA			04-09-2025	FIT	NA	NA	NA	
1073	1739	Vijaykumar A. Patil	Male	45		NA	NA			04-09-2025	FIT	NA	NA	NA	
1074	7500	Vikas B. Pujari	Male	26		NA	NA			04-09-2025	FIT	NA	NA	NA	
1075	2364	Vikas K. Shrivane	Male	29		NA	NA			04-09-2025	FIT	NA	NA	NA	
1076	2018	Vikas P. Parawate	Male	40		NA	NA			04-09-2025	FIT	NA	NA	NA	
1077	2174	Vikas S. Kavade	Male	45		NA	NA			04-09-2025	FIT	NA	NA	NA	
1078	7413	Vikram B. Hegade	Male	39		NA	NA			04-09-2025	FIT	NA	NA	NA	
1079	906	Vikram D. Jadhav	Male	55		NA	NA			04-09-2025	FIT	NA	NA	NA	
1080	660	Vilas B. Raut	Male	56		NA	NA			04-09-2025	FIT	NA	NA	NA	
1081	1393	Vilas D. Kamble	Male	54		NA	NA			04-09-2025	FIT	NA	NA	NA	
1082	1552	Vilas G. Tayshate	Male	58		NA	NA			04-09-2025	FIT	NA	NA	NA	
1083	2184	Vilas J. Patil	Male	56		NA	NA			04-09-2025	FIT	NA	NA	NA	
1084	1327	Vilas Jadhav	Male	55		NA	NA			04-09-2025	FIT	NA	NA	NA	
1085	1255	Vilas N. Kamble	Male	52		NA	NA			04-09-2025	FIT	NA	NA	NA	
1086	7299	Vinayak B. Pujari	Male	28		NA	NA			04-09-2025	FIT	NA	NA	NA	
1087	7551	Vinayak R. Patil	Male	23		NA	NA			04-09-2025	FIT	NA	NA	NA	
1088	7555	Vinayak S. Khot	Male	24		NA	NA			04-09-2025	FIT	NA	NA	NA	
1090	568	Vinil Kumar B. Chougule	Male	55		NA	NA			04-09-2025	FIT	NA	NA	NA	
1091	1242	Vinod K. Kamble	Male	38		NA	NA			04-09-2025	FIT	NA	NA	NA	
1092	7462	Vinod S. Jog	Male	24		NA	NA			04-09-2025	FIT	NA	NA	NA	
1093	16557	Vinod V. Khot	Male	45		NA	NA			04-09-2025	FIT	NA	NA	NA	

DR. ARVIND MANE

DR. ACS 15-AW/2016

KALLAPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD. FORM NO. 7

CERTIFYING SURGEON  
DR. ARVIND MANE

( See Rule 18 (7) and schedules II,III,IV,VI,VIII,X,XI,XIII,XIV,XV,XVII,XVIII & XX to Rule 114)

From: { 29-08-2025 To 28-08-2026 } ( Health Register ) MBBS DPH AFH. (MUMBAI)

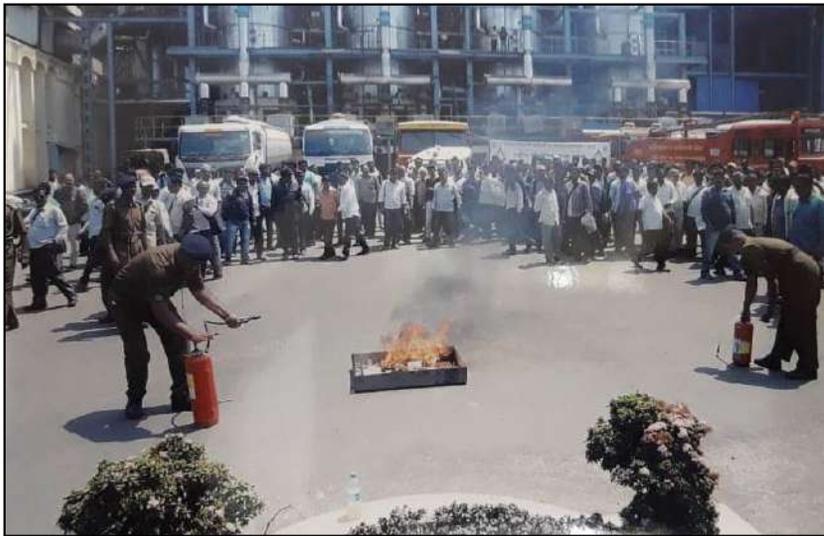
Serial No.	Works No.	Name of Worker	Sex	Age (Last birth - day)	Deployed employment of present work	Date of Leaving or Transfer to Other	7	8	9	10	11	12	13	14	15
						Date of Leaving or Transfer to Other	Discharge	Nature of job or Occupation	Raw Material or by Product Handled	Date of Medical Examination by Certifying Surgeon	Result of Medical Examination	work, state Period of suspension with Detailed Reasons	Certified fit to resume duty on with signature of	unfitness or suspension issued	Signature with Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1094	7280	Vishal A. Chavan	Male	29	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1095	7088	Vishal B. Ualshatti	Male	30	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1096	7257	Vishal J. Kamble	Male	30	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1097	2293	Vishal L. Waghena	Male	31	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1098	7078	Vishal S. Nirmale	Male	28	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1099	7495	Vishal U. Jog	Male	25	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1100	7074	Vishnu N. Khot	Male	28	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1101	1345	Vishnu S. Sathe	Male	50	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1102	7185	Vishwajit V. Kamble	Male	25	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1103	52	Vishwas L. Patil	Male	59	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1104	875	Vithal B. Solankar	Male	55	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1105	943	Vithal G. More	Male	59	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1106	7596	Vitthal K. Patil	Male	26	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1107	2316	Vivek G. Kamble	Male	27	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1108	1836	Vivek S. Kamble	Male	48	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1109	2276	Yashwant K. Jadhav	Male	44	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1110	2416	Yashwant R. Bugade	Male	59	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1111	7576	Yogesh B. Khot	Male	24	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1112	7431	Yogesh J. Katkole	Male	29	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1113	2002	Yogesh L. Waingade	Male	42	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1114	7617	Yogesh S. Siddhgonda	Male	22	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1115	7316	Yogesh S. Sutar	Male	27	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1116	-	Yugandhar L. Patil	Male	25	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1117	6017	Yuvraj A. Bhosale	Male	32	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1118	2029	Yuvraj A. Dhunake	Male	36	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1119	2186	Yuvraj A. Khade	Male	46	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1120	2112	Yuvraj B. Kumbhar	Male	36	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1121	1940	Yuvraj B. Patil	Male	43	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1122	1514	Yuvraj J. Gaikwad	Male	50	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	
1123	622	Yuvraj R. Kumbhar	Male	49	-	NA	NA	NA	04-09-2025	FIT	NA	NA	NA	NA	

महाराष्ट्र शासन, कृषि विभाग, मुंबई  
म. ACS 15-AM/2016

Photographs of firefighting arrangements



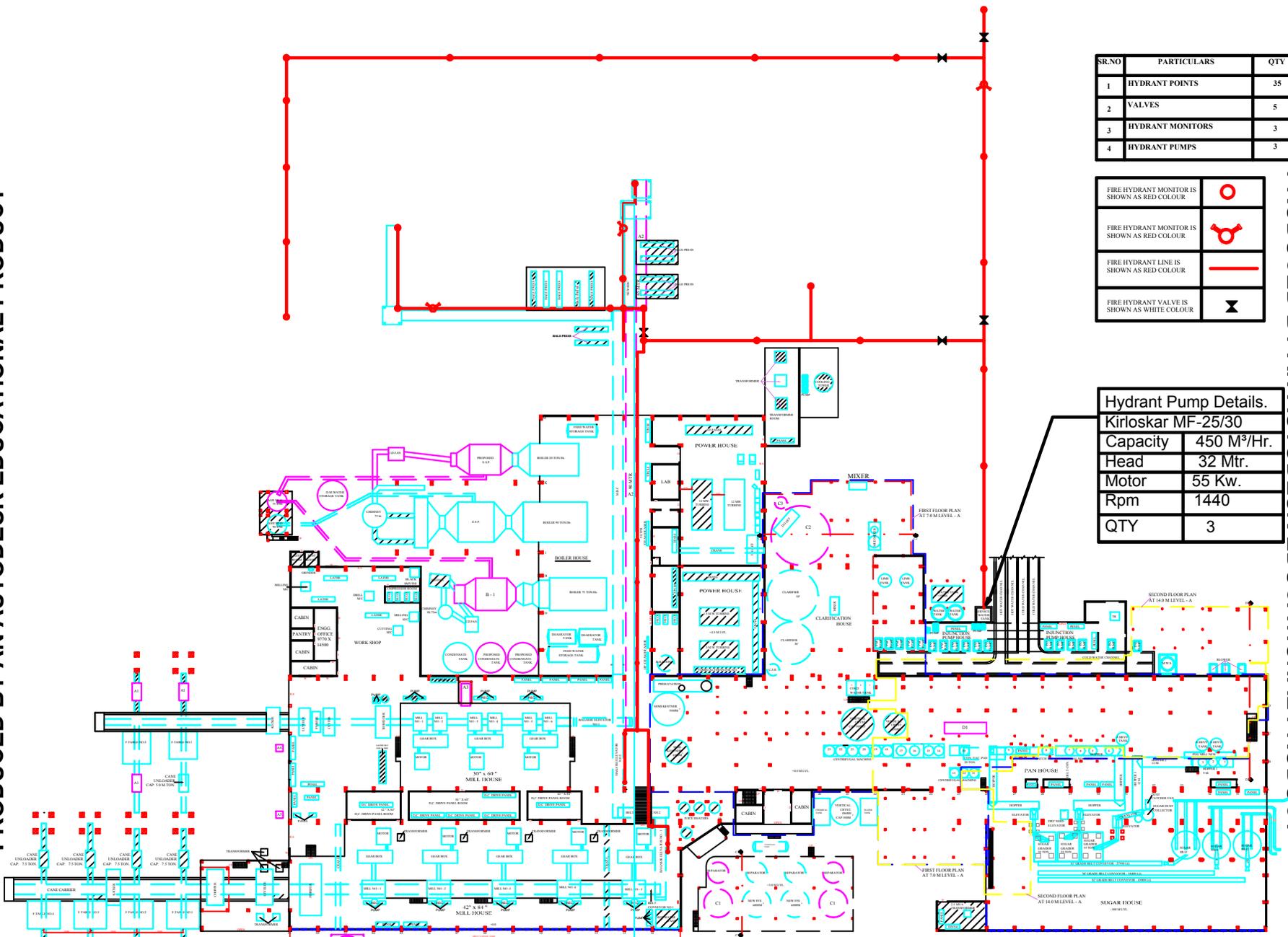
Photographs of Mock Drills



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

FIRE HYDRANT MONITOR IS SHOWN AS RED COLOUR	
FIRE HYDRANT MONITOR IS SHOWN AS RED COLOUR	
FIRE HYDRANT LINE IS SHOWN AS RED COLOUR	
FIRE HYDRANT VALVE IS SHOWN AS WHITE COLOUR	

Hydrant Pump Details.	
Kirloskar MF-25/30	
Capacity	450 M <sup>3</sup> /Hr.
Head	32 Mtr.
Motor	55 Kw.
Rpm	1440
QTY	3



GROUND FLOOR PLAN - A  
SCALE: 1 : 200

JAWAHAR S.S.S.K.LTD.		HUPAKI	
TAL. HATKANANGALE, DIST. KOLHAPUR	STATE: MAHARASHTRA	DATE: 15/07/2019	TIME: 10:00 AM
SCALE: AS SHOWN	TITLE: TENTATIVE ENGINEERING LAY-OUT OF THE FIRE HYDRANT SYSTEM	DWG. NO. MF/SKETCH/21	0

# कल्लाप्पाण्णा आवाडे जवाहर शेतकरी सहकारी साखर कारखाना लि.,

हपरी-यळगूड ४१६ २०३, ता.हातकणंगले, जि.कोल्हापूर (महाराष्ट्र)

फोन नं.(०२३०) २४५०४०२, फॅक्स नं. (०२३०) २४५०४०१

E-mail : [kprjsssk@gmail.com](mailto:kprjsssk@gmail.com)

जा.क्र.:लेबर/ ४९६४/२०२५-२०२६

दिनांक : ०६ सप्टेंबर, २०२५.

प्रती,

मा. सह-संचालकसो,  
औद्योगिक सुरक्षा व आरोग्य संचालनालय,  
रघुकूल, सुभाष रोड,  
शिवाजी उद्यमनगर,  
कोल्हापूर - ४१६ ०१२.  
E-mail : [jddish.kol-mah@gov.in](mailto:jddish.kol-mah@gov.in)

विषय : मॉकड्रिलच्या अहवालाबाबत.

महोदय,

वरील संदर्भीय विषयास अनुसरुन आपल्या कारखान्यातील कारखान्यातील स्टोअर विभागाच्या पूर्वेस असलेल्या दरवाजा जवळ वेलडींगचे काम करत असतांना आग लागलेचे प्रात्यक्षिक दिनांक २६ ऑगष्ट, २०२५ ई. रोजी अपघात व्यवस्थापनेची रंगीत तालीम (मॉकड्रिल) घेणेत आली. सदर अपघात व्यवस्थापन रंगीत तालीमचा (मॉकड्रिल) अहवाल सोबत जोडून पाठवित आहोत. तरी त्याची आपल्या दफ्तरी नोंद घेणेत यावी, ही नम्र विनंती.

कळावे,

आपला विश्वासू,



( विकास शि. कवडे )

जनरल मॅनेजर (टेक्नि.) अॅण्ड फॅक्टरी मॅनेजर

सोबत : मॉकड्रिलचा अहवाल.

**कल्लाप्पाणा आवाडे जवाहर शेतकरी सहकारी साखर कारखाना लि.,**

हुपरी-यळगूड ४१६ २०३, ता.हातकणंगले, जि.कोल्हापूर (महाराष्ट्र)

फोन नं.(०२३०) २४५०४०२, फॅक्स नं. (०२३०) २४५०४०१

E-mail : [kprjssk@gmail.com](mailto:kprjssk@gmail.com)

# मॉकड्रिल रिपोर्ट ऑगस्ट, २०२५



# कल्लाप्पाण्णा आवाडे जवाहर शेतकरी सहकारी साखर कारखाना लि.,

हुपरी-यळगूड ४१६ २०३, ता.हातकणंगले, जि.कोल्हापूर (महाराष्ट्र)

फोन नं.(०२३०) २४५०४०२, फॅक्स नं. (०२३०) २४५०४०१

E-mail : kprjsssk@gmail.com

## मॉकड्रिल रिपोर्ट

अ. नं.	संबंधित बाब	तपशिल																
१.	मॉकड्रिलचा विषय	कारखान्यातील स्टोअर विभागाच्या पूर्वेस असलेल्या दरवाजा जवळ वेल्टींगचे काम करत असतांना आग लागलेचे प्रात्यक्षिक.																
२.	मॉकड्रिलचा प्रकार	फायर ड्रिल																
३.	आयोजक	इंजिनिअरींग व सुरक्षा विभाग																
४.	मॉकड्रिलचे वेळापत्रक	दि.२६-०८-२०२५, वेळ सकाळी ११-१५ ते दु.१२-००																
५.	स्थळ	स्टोअर विभागाच्या बिल्डींग जवळ.																
६.	घटनेचे वर्णन	कारखान्यातील स्टोअर विभागाच्या पूर्व बाजूस असलेल्या दरवाजाजवळ वेल्टींगचे काम चालु असतांना वेल्टींगचे स्पॉट पडून जवळ असलेल्या कॉटन वेस्टच्या ढिगाच्या जवळ आग लागल्याचे घटना घडली. आग लागताच कामाजवळ असलेले वेल्टर श्री. अनिल जयसिंग गिरी व श्री. आप्पासो कांबळे यांनी आरडा-ओरडा चालु केला. त्या ठिकाणी तत्क्षणी आजु-बाजूचे कामगार एकत्रित आले. सदर घटनेची कल्पना त्वरीत सुरक्षा अधिकारी श्री. संजिवन वासमकर व सेफ्टी ऑफीसर श्री. कैवल्य शास्त्री यांना देण्यांत आली. लागलेल्या आगेवर नियंत्रण मिळाविण्यासाठी त्वरीत हालचाली चालु करण्यांत आल्या व इमर्जन्सी कंट्रोल रुममध्ये या संदर्भात सुचना करण्यांत आली. त्यानंतर त्वरीतच इमर्जन्सी रेसक्यु टीम व इतर फायर फायटर टीम यांनी आगेवर नियंत्रण मिळविण्यांत यश मिळविले. प्रात्यक्षिक पूर्ण झालेनंतर श्री. संजिवन वासमकर व श्री. कैवल्य शास्त्री यांचेकडून कामगारांना मार्गदर्शन करण्यांत आले.																
६.	दुर्घटनेचे संभाव्य धोके	<table border="1"><tr><td>सामाजिक परिणाम</td><td>नाही</td></tr><tr><td>मालमत्तेचे नुकसान</td><td>होय.</td></tr><tr><td>पर्यावरणाचे नुकसान</td><td>होय.</td></tr><tr><td>पायाभुत सुविधांचे नुकसान</td><td>होय.</td></tr><tr><td>व्यवसायावरील परिणाम</td><td>होय.</td></tr><tr><td>शारिरीक धोके</td><td>संभाव्य स्वरूपात.</td></tr><tr><td>मानसिक परिणाम</td><td>आहे.</td></tr></table>	सामाजिक परिणाम	नाही	मालमत्तेचे नुकसान	होय.	पर्यावरणाचे नुकसान	होय.	पायाभुत सुविधांचे नुकसान	होय.	व्यवसायावरील परिणाम	होय.	शारिरीक धोके	संभाव्य स्वरूपात.	मानसिक परिणाम	आहे.		
सामाजिक परिणाम	नाही																	
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शारिरीक धोके	संभाव्य स्वरूपात.																	
मानसिक परिणाम	आहे.																	
७.	ग्रुप व टीम	<table border="1"><tr><td>फायर फायटींग टीम :</td><td>श्री. संदीप गुरव</td></tr><tr><td></td><td>श्री. तात्यासाहेब आप्णा सांगवडे</td></tr><tr><td></td><td>श्री. महावीर पुरंदर नेजे</td></tr><tr><td></td><td>श्री. संजिव गणपती निंबाळकर</td></tr><tr><td>फायर पिकेट टीम :</td><td>श्री. कृष्णात आनंदा माळी</td></tr><tr><td></td><td>श्री. दत्तात्रय विष्णु तुरंबे</td></tr><tr><td></td><td>श्री. सचिन आनंदा कांबळे</td></tr><tr><td></td><td>श्री. गंगाधर शामराव आदमाने</td></tr></table>	फायर फायटींग टीम :	श्री. संदीप गुरव		श्री. तात्यासाहेब आप्णा सांगवडे		श्री. महावीर पुरंदर नेजे		श्री. संजिव गणपती निंबाळकर	फायर पिकेट टीम :	श्री. कृष्णात आनंदा माळी		श्री. दत्तात्रय विष्णु तुरंबे		श्री. सचिन आनंदा कांबळे		श्री. गंगाधर शामराव आदमाने
फायर फायटींग टीम :	श्री. संदीप गुरव																	
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	श्री. गंगाधर शामराव आदमाने																	

अ. नं.	संबंधित बाब	तपशिल	
		सालव्हेज टीम :	श्री. दिलीप पांडूरंग सुतार श्री. राजेंद्र पुंडलिक जमदाडे श्री. अमोल सिध्दु पाटील श्री. विजयकुमार रामचंद्र पाटील
		रिझर्व्ह टीम :	श्री. सुभाष धोंडीराम बत्ते श्री. शिवाजी सदु मुधाळे श्री. भरत रामचंद्र पाटील श्री. गौतम धोंडीबा कांबळे
		सुपरवायझर	श्री. संजिवनकुमार वासमकर श्री. हारुन बाळासो नाईवकडी श्री. शरद आण्णाप्पा कांबळे श्री. हिंदुराव निवृत्ती पाटील
८.	वापरलेल्या तंत्र व पध्दती	फायर फायटींग ऑपरेशन्स	रेसक्यु ऑपरेशन्स
		फायर पिकेट ऑपरेशन्स	रिझर्व्ह ऑपरेशन्स
		सालव्हेज ऑपरेशन्स	
९.	सभासदांची नांवे	तानाजी शं. वाळके, प्रकाश संतु पाटील, काकासो स. तिकुटे, सुकूमर खंडू कांबळे, आदिनाथ चौगुले, विशाल भा. वलशेडी, अर्जुन मा. भातमारे, सचिन महावीर आकुर्डे, संदीप संभाजी चोपडे, सचिन अ. बरगाले, कल्पेश कृ. कापसे	
१०.	वापरलेले इक्विमेंट्स, टुल्स व मटेरियल	वैयक्तिक सुरक्षा उपकरणे	अपातकालीन ध्वज
		सॅण्ड बकेट	सायरन
		आग्निशमन यंत्र	लोकरीचे कापड
		आग्निशामक वाहन	विल्हेवाट लावण्यासाठी व मटेरियल वेगळे करण्यासाठी वापरात येणारी यंत्रसामुग्री
		रुग्णवाहिका	

**घटनेसंदर्भात वेळेचे परिमाणात्मक विश्लेषण :**

अ. क्र.	घटनाक्रम	घटनेची वेळ	प्रतिसादाचा कालावधी
१.	दुर्घटना घडलेची वेळ	११-१५ वा.	
२.	सुरक्षा विभागाला दुर्घटना घडलेल्याचे कळविले	११-१७ वा.	२ मिनिट
३.	सायरन वाजवून सर्व कामगारांना दुर्घनेविषयी सावधतेचा ईशारा दिला	११-१९ वा	२ मिनिट
४.	सेफ्टी ऑफिसर सुरक्षा विभागातील कर्मचाऱ्यांसह घटना स्थळी पोहोचले	११-२३ वा.	४ मिनिट
५.	फायर ब्रिगेड घटनास्थळी पोहोचले	११-२७ वा.	४ मिनिट
६.	रुग्णवाहिका घटना स्थळी पोहोचली	११-३० वा.	७ मिनिट
७.	आग विझविण्याचे काम सुरु झाले	११-२९ वा.	२ मिनिट
८.	दुर्घटना पिडीताला रेसक्यु टीमने सुरक्षित बाहेर काढले.	११-३३ वा.	३ मिनिट

अ. क्र.	घटनाक्रम	घटनेची वेळ	प्रतिसादाचा कालावधी
९.	आग विजविण्याचे काम पूर्ण झाले व परिस्थिती नियंत्रणात आली.	११-३५ वा.	६ मिनिट
१०.	रुग्णवाहिका पिडीताला घेऊन कारखान्याच्या रुग्णालयात घेऊन पोहोचली	११-३६ वा.	३ मिनिट
११.	पिडीताला योग्य ते उपचार देणेत आले	११-४२ वा.	६ मिनिट
१२.	सर्व कर्मचाऱ्यांना सुरक्षिततेविषयी सुचना व योग्य ते मार्गदर्शन करण्यांत आले	११-५२ वा.	१० मिनिट
१३.	मॉकड्रिल पूर्ण झाल्याची घोषणा अधिकृत अधिकाऱ्यांच्याकडून करण्यांत आली	१२-०० वा.	८ मिनिट

**मॉकड्रिल मुल्यांकन पत्रिका :**

अ. क्र.	मुल्यांकनाचे मुद्दे	NA	YES	NO	शेरा
१.	सर्व सहभागी झालेल्या कर्मचाऱ्यांना घटनेच्या संभाव्य धोक्याविषयी कल्पना होती का ?		✓		--
२.	प्रत्येक संघातील सहभागी सभासदांना घटनेविषयीच्या त्यांच्या जबाबदारीची पूर्व कल्पना होती का ?		✓		--
३.	सर्व कर्मचारी व सभासद यांना घटनेच्या दरम्यान वापरावयाच्या सुरक्षिततेच्या पध्दती व तंत्र यांची माहिती पूर्वीपासून दिली होती का ?		✓		--
४.	घटनेच्या दरम्यान सुरक्षा विभागातील कोणत्याही कर्मचाऱ्यांमध्ये शारिरीक त्रुटी आढळून आली आहे का ?			✓	--
५.	घटनेच्या दरम्यान सुरक्षा विभागातील कोणत्याही कर्मचाऱ्यांमध्ये मानसिक त्रुटी आढळून आली आहे का ?			✓	--
६.	सर्व उपकरणे व सुरक्षा साधणे हे घटनेच्या वेळेस त्यांच्या योग्य ठिकाणी उपलब्ध झाले का ?		✓		
७.	सर्व उपकरणे व सुरक्षा साधणे हे व्यवस्थित काम करत होते का ?		✓		--
८.	एखाद्या सुरक्षा उपकरणामध्ये अथवा साधनांमध्ये बदल करावयाची गरज आहे का ?			✓	--
९.	घटना स्थळी असे कोणते मटेरियल होते का ज्यामुळे धोक्याची तिवर्ता वाढू शकेल		✓		आग लागलेल्या ठिकाणी स्टोअरमधील विविध कन्ड्युमेबल मटेरियल होते, परंतु साल्वेज टीमने सदरचे मटेरियल वेळेत सुरक्षित ठिकाणी बाजूला करून घेतले.

अ. क्र.	मुल्यांकनाचे मुद्दे	NA	YES	NO	शेरा
१०.	अशा प्रकारचे मटेरियल घटना स्थळा पासून दूर सुरक्षिततेच्या ठिकाणी वेगळे करुन ठेवण्यांत आले का ?		✓		होय
११.	घटनेच्या दरम्यान अमलात आणलेली अशी कोणती पध्दती आहे का ज्यामध्ये कालानुरूप व परिस्थितीप्रमाणे बदल करावयची गरज आहे ?			✓	--
१२.	संदेश व दळणवळणाच्या कोणत्याही पध्दतीमध्ये त्रुटी जाणवली आहे का ?			✓	--
१३.	संबंधित घटनेमध्ये कोणत्याही प्रकारचे असामान्य अपातकालीन परिस्थिती उद्भवण्याची शक्यता आहे का ?	✓			--
१४.	अशा पध्दतीची असामान्य अपातकालीन शक्यता लक्षात घेऊन त्या पध्दतीचे नियोजन करण्यांत आले आहे का ?	✓			--

**निरीक्षण व अनुमान :**

- १) आग लागलेल्या ठिकाणी कर्टींग व वेल्डींगचे काम करण्यापूर्वी सभोवतालच्या परिसरातील कॉटन वेस्ट व इतर घन कचरा स्वच्छ करुन कामाच्या ठिकाणापासून दूर करणे गरजेचे आहे.
- २) वेल्डींगचे अथवा कर्टींगचे काम चालू करण्यापूर्वी सुरक्षिततेच्या दृष्टीने सदरचा परिसर पाण्याने भिजवून घेणे आवश्यक आहे.
- ३) रुग्णवाहिकेपर्यंत रुग्णाला घेऊन जाण्यासाठी स्ट्रेचरचा वापर करण्यांत आला नाही.

**करावयाचे सुधारात्मक उपाय :**

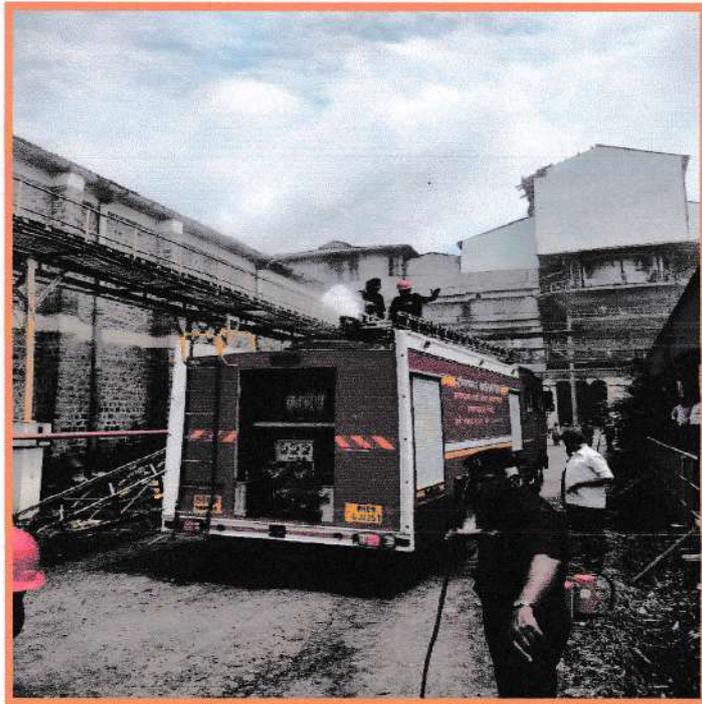
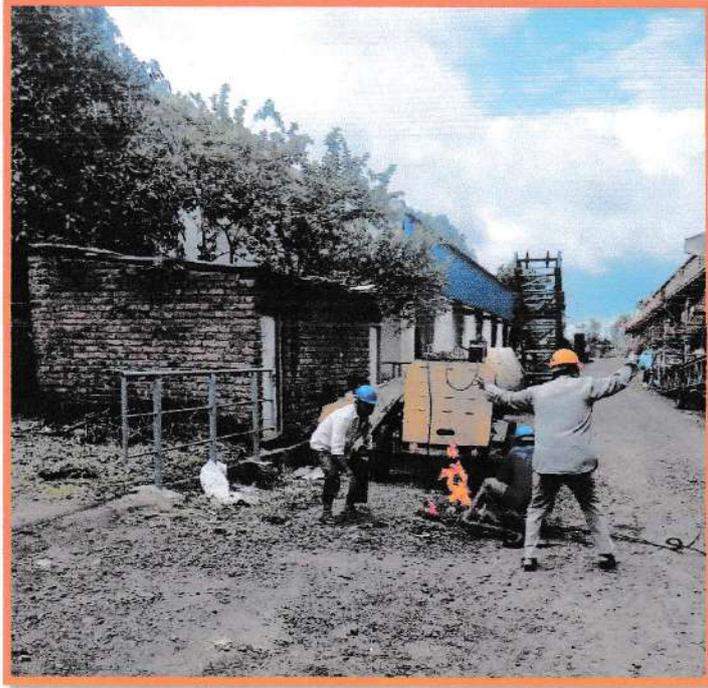
- १) वेल्डींगचे अथवा कर्टींगचे काम चालू करण्यापूर्वी होस पाईपच्या मदतीने किंवा फायर टेंडरच्या मदतीने सदरचा परिसर पाण्याने भिजवून घेणे व कोणत्याही ठिकाणी स्पार्क पडून आग लागणार नाही याची दक्षता घेणे.
- २) वेल्डींगचे अथवा कर्टींगचे काम चालू करण्यापूर्वी सदर परिसराची सुरक्षिततेच्या दृष्टीने योग्य ती स्वच्छता करुन घेण्यासाठी चेक लिस्ट तयार करणे व त्याप्रमाणे कामाची अंमलबजावणी होते किंवा नाही याची पडताळणी करणे गरजेचे आहे.
- ३) कोणत्याही रुग्णाला रुग्णवाहिकेपर्यंत पोहोचविण्यासाठी स्ट्रेचरचा वापर करणे बंधनकारक आहे.

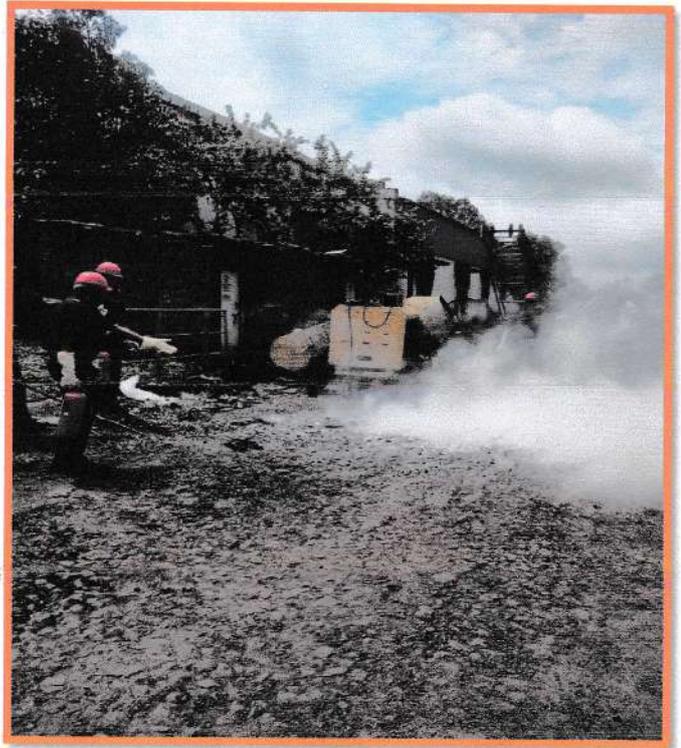
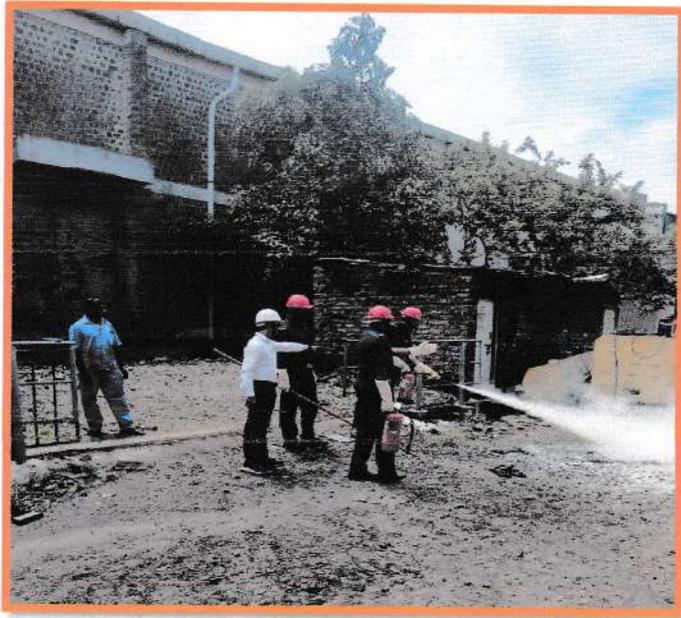
दिनांक : २६-०८-२०२५

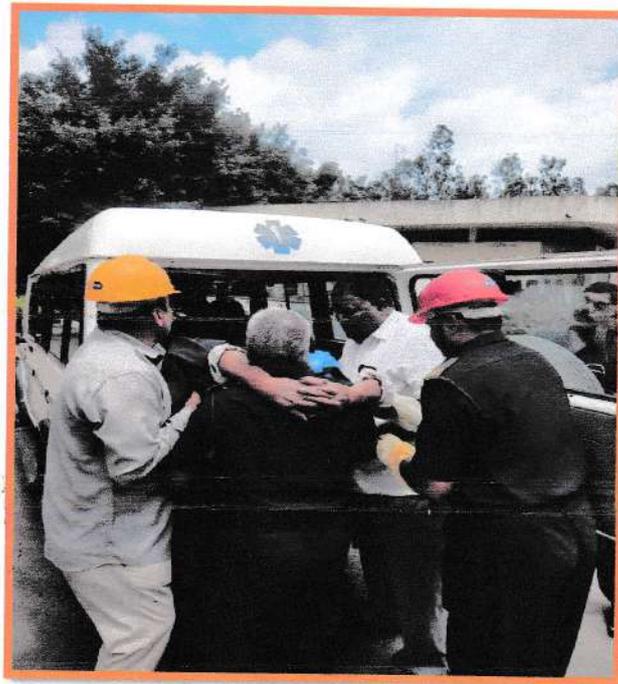
वेळ : दु.२-०० वा.

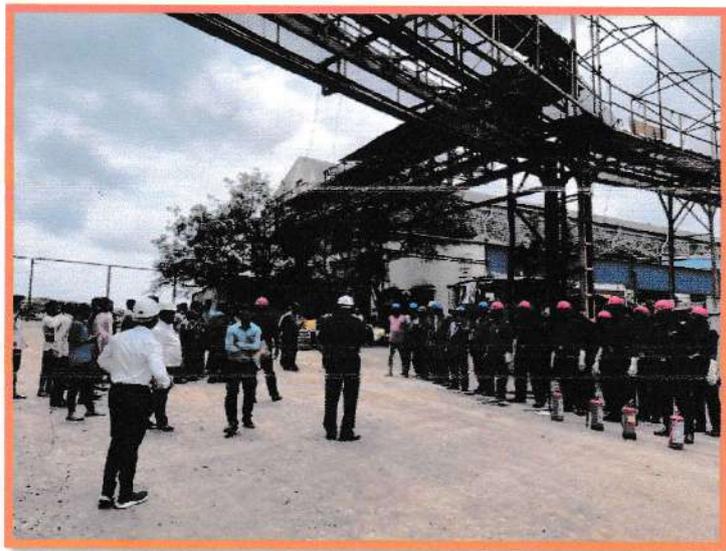
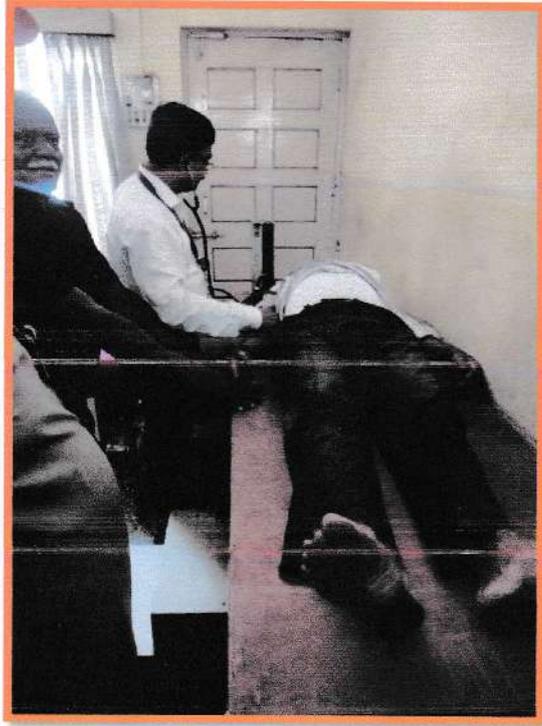
  
अनिल क. वलशेट्टी  
मॅनेजर (एच.आर.)

  
विकास शि. कवडे  
जनरल मॅनेजर (टेक्नि.) अँड फॅक्टर मॅनेजर

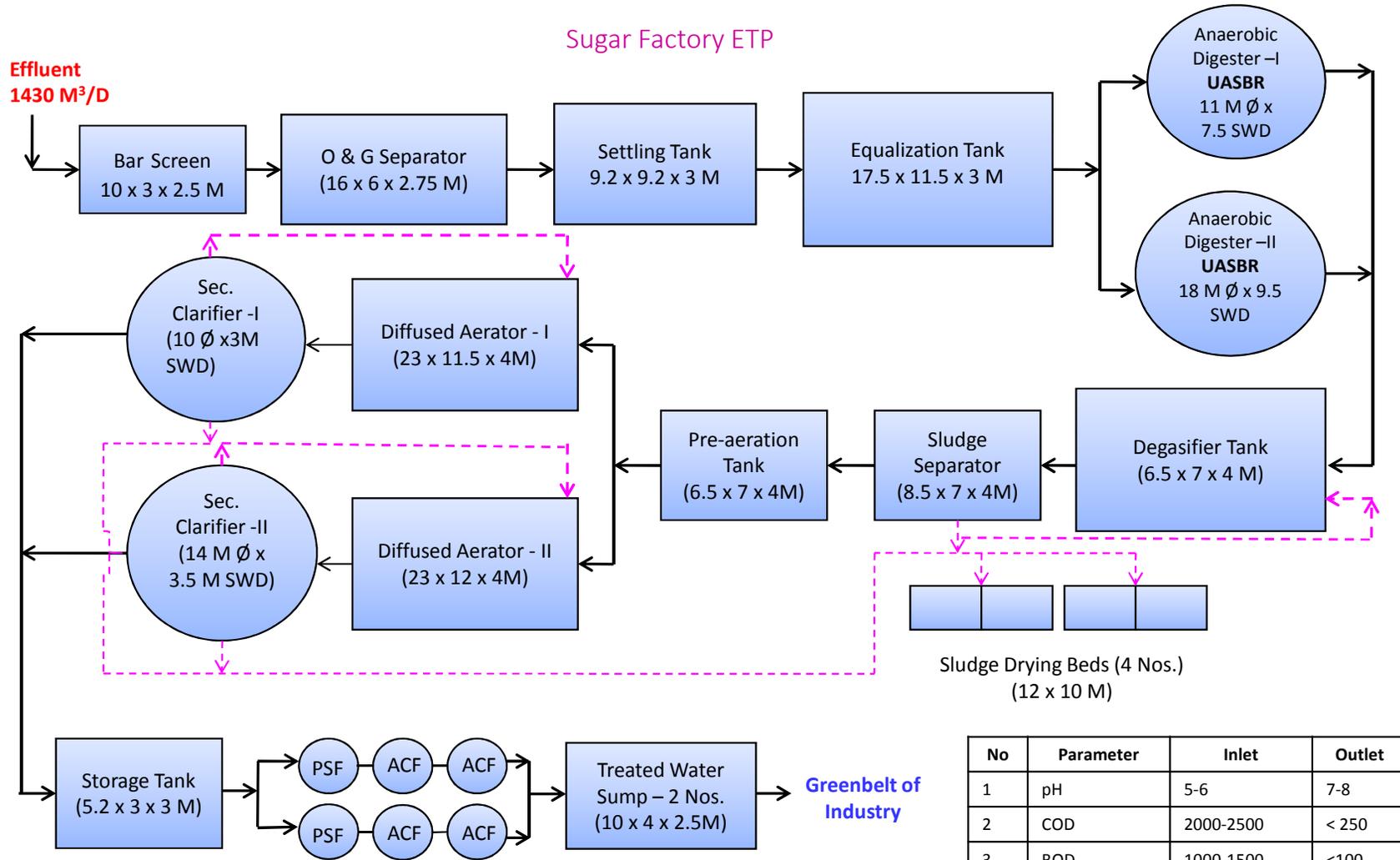








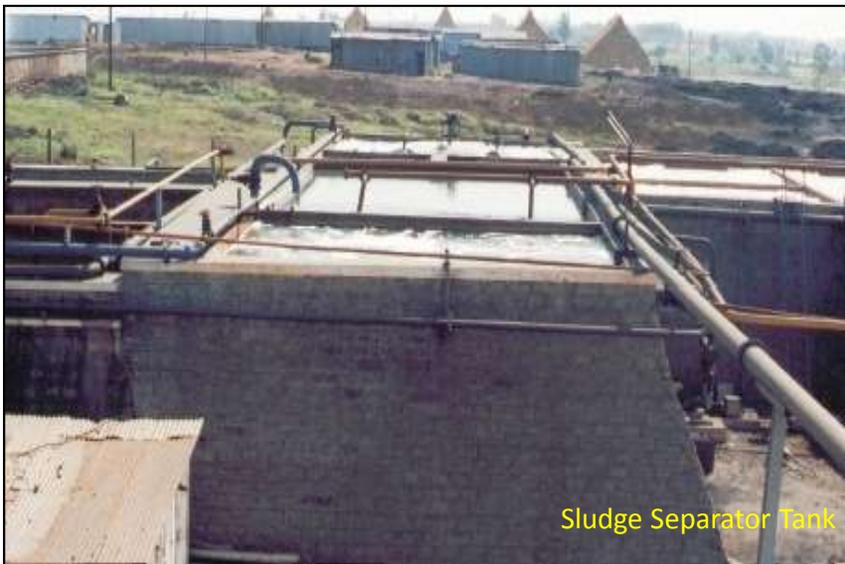
# Annexure IV - Photographs of ETP and STP.



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)

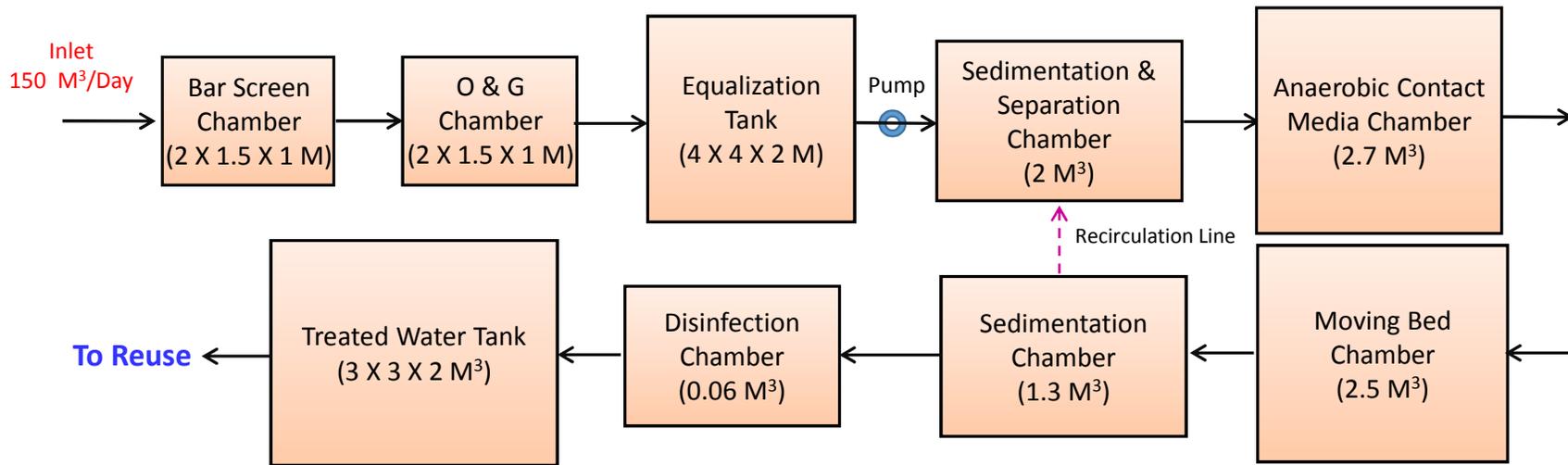


OCMS (Analyzer)



Flow Meter on Treated Effluent Pipe

## Sewage Treatment Plant

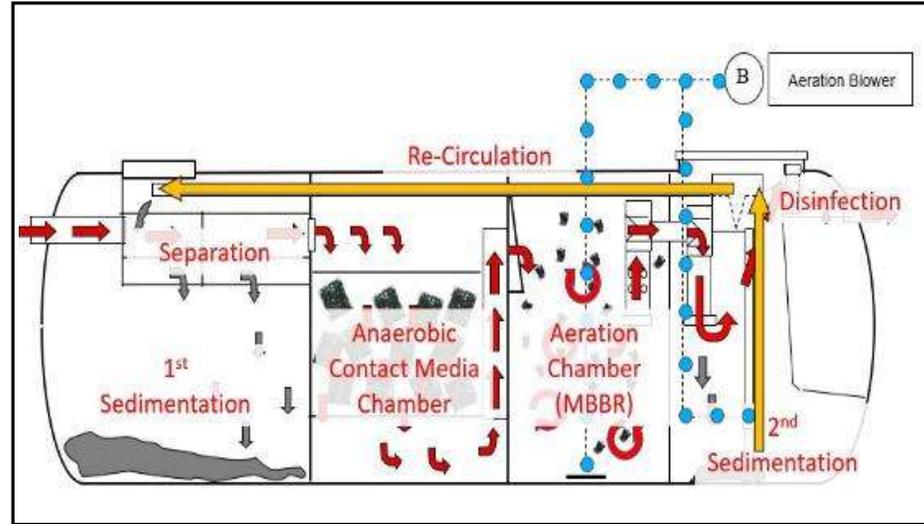


No	Parameter	Unit	Inlet	Outlet
1	pH	---	6.0 – 8.5	6.0 – 8.5
2	COD	mg/lit	400 – 500	< 50
3	BOD	mg/lit	250 – 300	< 10
4	TSS	mg/lit	150 - 250	< 30
5	O & G	mg/lit	20 - 30	< 10

- 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 <sup>nd</sup> Sedimentation Chamber is recirculated to the 1 <sup>st</sup> Sedimentation Chamber.

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

## Photographs of STP



Online Monitoring System



Boiler Ash Handling System



## OCMS for Sugar Factory ETP



OCMS (Analyzer)



OCMS (Sensor)

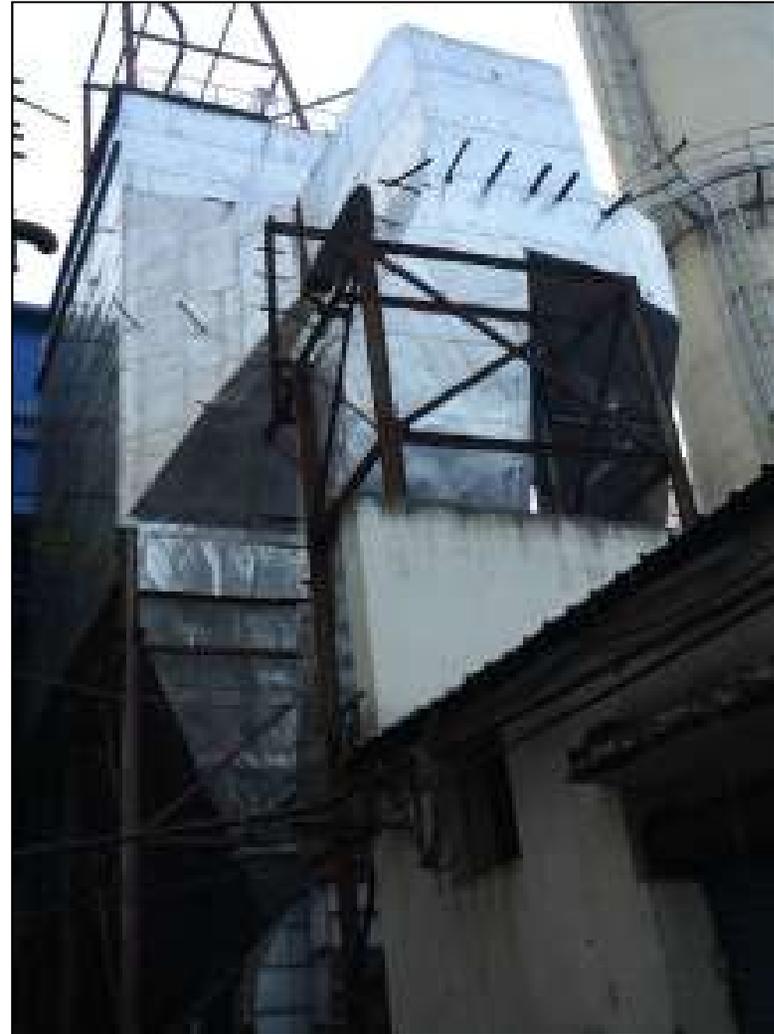


Flow Meter on Treated Effluent Pipe

ESP for 20 & 90 TPH Boiler Capacity



ESP for 75 TPH Boiler Capacity



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

TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/12/1424		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/12/1424			
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.	
04:00 PM.	05:00 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	18.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	36.8	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name of Instrument	Fine Dust Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 24/GESEC/Lab/Inst/70	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	68.23
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	31.55
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	15.98
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	26.54
<b>Remark</b>				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

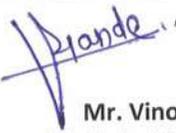
\*\*\*END OF REPORT\*\*\*

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

TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/12/1425		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/12/1425			
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.	
04:15 PM.	05:15 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	18.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	36.8	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L2/GESEC/Lab/Inst/73	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	62.36
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	27.41
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	14.59
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	18.77
<b>Remark</b>				
➤ 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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ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/12/1426	Report Date	02/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/12/1426			
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.		
04:30 PM.	05:30 PM.	60 Min		
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	42.1	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name Of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L1/GESEC/Lab/Inst/74	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	69.33
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	33.65
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	15.11
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	28.47
<b>Remark:-</b>				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		

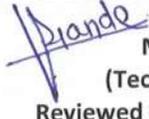
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-25/12/1427		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/WZM/2024-25/12/1427			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
04:45 PM.	05:45 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	29.0	Wet Bulb Temperature °C	20.0	
Dry Bulb Temperature °C	29.0	Relative Humidity % RH	43.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220412/GESEC/LAB/INST/100	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.682
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.010
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.016
<b>Note:</b>				
➤ Limits: As per the Second Schedule of Factories Act /OSHA TWA				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		

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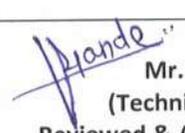


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ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-25/12/1428		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/WZM/2024-25/12/1428			
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.	
05:00 PM.	06:00 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	39.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name Of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220413/GESEC/LAB/INST/101	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.635
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.008
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.013
<b>Note:</b>				
➤ Limits: As per Second Schedule of Factories Act /OSHA TWA.				
				
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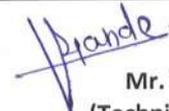
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/12/1429		Report Date	02/01/2025
Sample ID -	GESEC/PRO/ST/2024-25/12/1429			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	08/10/2024	
Calibration Certificate No.	5919/GESEC/LAB/INST/33	Due Date of Calibration	07/10/2025	
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	4.0	
Height (m)		75		
Temperature ( °C)	130	Velocity (m/s)	7.62	
Gas Volume (Nm <sup>3</sup> /Hr)		356424.38		
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	48.22
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	15.63
		Kg/day	-	133.70
<b>Remarks-</b>				
➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/NM <sup>3</sup> .				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

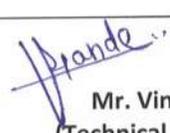
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/12/1430		Report Date	02/01/2025
Sample ID -	GESEC/PRO/ST/2024-25/12/1430			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	03/08/2024	
Calibration Certificate No.	231018/GESEC/LAB/INST/89	Due Date of Calibration	02/08/2025	
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	3.5	
Height (m)	72			
Temperature ( °C)	125	Velocity (m/s)	6.52	
Gas Volume (Nm <sup>3</sup> /Hr)	93721.70			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	45.70
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	12.95
		Kg/day	-	29.13
<b>Remarks-</b>				
➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/Nm <sup>3</sup> .				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/476	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/476			
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	Upwind Village (Talandage)	GESEC		
Sampling Time				
Start Time	Stop Time	Total Hrs.		
08:00 AM.	09:00 AM.	60 Min		
Metrological Data/Environmental Conditions				
Ambient Temperature °C	16.0	Wet Bulb Temperature °C	12.0	
Dry Bulb Temperature °C	16.0	Relative Humidity % RH	62.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Dust Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 24/GESEC/Lab/Inst/70	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 11	µg/cum	100.00	55.16
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 15	µg/cum	60.00	21.80
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 01	µg/cum	80.00	06.25
Oxides of Nitrogen (NO <sub>x</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 07	µg/cum	80.00	14.77
<b>Remark</b>				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		

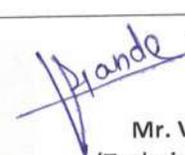
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/477		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/477			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Downwind Village (Jagamwadi)		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
08:45 AM.	09:45 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	18.0	Wet Bulb Temperature °C	12.0	
Dry Bulb Temperature °C	18.0	Relative Humidity % RH	48.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L2/GESEC/Lab/Inst/73	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	58.33
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	24.10
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	07.02
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	16.35
<b>Remark</b>				
➤ 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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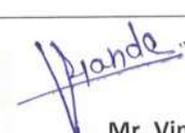


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Sample ID: -	GESEC/PRO/AAQM/2024-25/01/478			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	GLC Village (Rendal)		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
09:35 AM.	10:35 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	20.0	Wet Bulb Temperature °C	13.0	
Dry Bulb Temperature °C	20.0	Relative Humidity % RH	44.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L1/GESEC/Lab/Inst/74	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	59.13
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	25.09
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	07.45
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	16.91
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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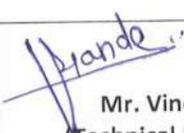


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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/479		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/479			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
10:00 AM.	11:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	21.0	Wet Bulb Temperature °C	14.0	
Dry Bulb Temperature °C	21.0	Relative Humidity % RH	45.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/76/ GESEC/Lab/Inst/76	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	64.23
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	27.48
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	13.25
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	22.10
<b>Remark</b>				
➤ 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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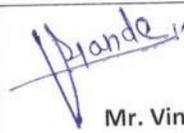
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/480		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/480			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
10:15 AM.	11:15 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	21.0	Wet Bulb Temperature °C	14.0	
Dry Bulb Temperature °C	21.0	Relative Humidity % RH	45.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/77/ GESEC/Lab/Inst/77	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	60.33
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	25.10
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	12.98
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	18.62
<b>Remark</b>				
➤ 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/2024-25/01/481	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/481			
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.	
10:40 AM.	11:40 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	23.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	23.0	Relative Humidity % RH	41.6	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name Of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/78/ GESEC/Lab/Inst/78	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	67.16
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	30.97
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	13.22
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	26.64
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/WZM/2024-25/01/482	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/WZM/2024-25/01/482			
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.	
11:00 AM.	12:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	34.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220412/GESEC/LAB/INST/100	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.782
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.009
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.015
<b>Note:</b>				
➤ Limits: As per the Second Schedule of Factories Act /OSHA TWA				
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-25/01/483		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/WZM/2024-25/01/483			
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.	
11:20 AM.	12:20 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	31.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	31.0	Relative Humidity % RH	31.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name Of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220413/GESEC/LAB/INST/101	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.580
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.007
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.012
<b>Note:</b>				
➤ Limits: As per Second Schedule of Factories Act /OSHA TWA.				
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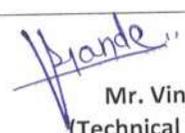


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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/01/484	Report Date	21/01/2025	
Sample ID -	GESEC/PRO/ST/2024-25/01/484			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	08/10/2024	
Calibration Certificate No.	5919/GESEC/LAB/INST/33	Due Date of Calibration	07/10/2025	
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	3.75	
Height (m)	75			
Temperature ( °C)	135	Velocity (m/s)	7.43	
Gas Volume (Nm <sup>3</sup> /Hr)	342985.28			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	45.78
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	13.60
		Kg/day	-	111.95
Remarks- ➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/NM <sup>3</sup> .				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	

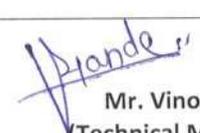


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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/01/485	Report Date	21/01/2025	
Sample ID -	GESEC/PRO/ST/2024-25/01/485			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	03/08/2024	
Calibration Certificate No.	231018/GESEC/LAB/INST/89	Due Date of Calibration	02/08/2025	
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	3.10	
Height (m)	72			
Temperature ( °C)	130	Velocity (m/s)	6.71	
Gas Volume (Nm <sup>3</sup> /Hr)	87654.86			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	41.95
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	11.26
		Kg/day	-	23.71
<b>Remarks-</b> ➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/Nm <sup>3</sup> .				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	

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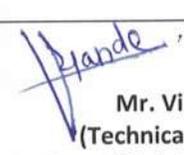


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TEST REPORT				
Test Report No. -	GESEC/PRO/AAQM/2024-2025/02/174		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/AAQM/2024-2025/02/174			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
09:30 AM.	10:30 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	24.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	24.0	Relative Humidity % RH	36.9	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/76/ GESEC/Lab/Inst/76	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	62.23
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	26.11
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	12.95
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	20.78
<b>Remark</b>				
➤ 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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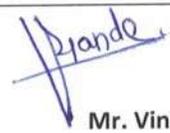
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-2025/02/175		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/AAQM/2024-2025/02/175			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
09:45 AM.	10:45 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	24.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	24.0	Relative Humidity % RH	36.9	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/77/ GESEC/Lab/Inst/77	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	59.63
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	23.50
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	10.19
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	16.87
<b>Remark</b>				
➤ 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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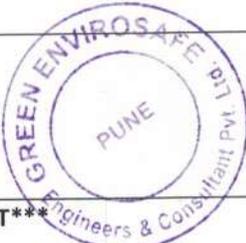
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-2025/02/176		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/AAQM/2024-2025/02/176			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
10:00 AM.	11:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	25.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	25.0	Relative Humidity % RH	32.6	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name Of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/78/ GESEC/Lab/Inst/78	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	64.83
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	29.47
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	13.00
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	23.65
<b>Remark:-</b> ➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-2025/02/177		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/WZM/2024-2025/02/177			
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.	
10:15 AM.	11:15 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	17.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	31.7	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220412/GESEC/LAB/INST/100	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.650
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.008
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.013
<b>Note:</b>				
➤ Limits: As per the Second Schedule of Factories Act /OSHA TWA				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	

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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-2025/02/178		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/WZM/2024-2025/02/178			
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.	
10:30 AM.	11:30 AM.		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	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name Of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220413/GESEC/LAB/INST/101	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.701
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.008
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.013
<b>Note:</b>				
➤ Limits: As per Second Schedule of Factories Act /OSHA TWA.				
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-2025/02/179	Report Date	17.02.2025	
Sample ID -	GESEC/PRO/ST/2024-2025/02/179			
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	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	08/10/2024	
Calibration Certificate No.	5919/GESEC/LAB/INST/33	Due Date of Calibration	07/10/2025	
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	3.50	
Height (m)		75		
Temperature ( °C)	141	Velocity (m/s)	7.23	
Gas Volume (Nm <sup>3</sup> /Hr)	328945.37			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	41.05
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	12.37
		Kg/day	-	97.66
<b>Remarks-</b>				
<ul style="list-style-type: none"> <li>➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/NM<sup>3</sup>.</li> <li>➤ Maharashtra Pollution Control Board (MPCB) Limits: SO<sub>2</sub>: As per consent.</li> </ul>				
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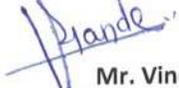
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-2025/02/180	Report Date	17.02.2025	
Sample ID -	GESEC/PRO/ST/2024-2025/02/180			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	03/08/2024	
Calibration Certificate No.	231018/GESEC/LAB/INST/89	Due Date of Calibration	02/08/2025	
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)	2.50	Pressure	3.00	
Height (m)	72			
Temperature ( °C)	134	Velocity (m/s)	6.63	
Gas Volume (Nm <sup>3</sup> /Hr)	85804.70			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	39.65
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	10.10
		Kg/day	-	20.80
<b>Remarks-</b>				
<ul style="list-style-type: none"> <li>➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/Nm<sup>3</sup>.</li> <li>➤ Maharashtra Pollution Control Board (MPCB) Limits: SO<sub>2</sub>: As per consent.</li> </ul>				
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**TEST REPORT**

Test Report No: -	GESEC/PRO/ANLM/2024-2025/02/181	Report Date	17.02.2025
Sample ID: -	GESEC/PRO/ANLM/2024-2025/02/181		

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	GESEC/LAB/NLM/ST/31

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
11.02.2025	11.02.2025	11.02.2025	11.02.2025

Name Of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024
Calibration Certificate No.	GESEC/LAB/INST/29	Due Date of Calibration	15/02/2025

Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (12:45 P.M.)	Night (10:20 P.M.)	
Near Main Gate	dB(A)	64.5	61.9	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	58.6	56.0	
Near Bagasse Section	dB(A)	60.2	58.7	
Near Sugar Godown	dB(A)	59.1	57.2	
Near Cane Yard	dB(A)	66.0	63.8	

**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*  
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(Technical Manager)  
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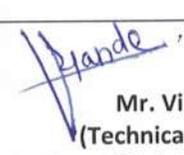
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TEST REPORT				
Test Report No. -	GESEC/PRO/AAQM/2024-2025/02/174		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/AAQM/2024-2025/02/174			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
09:30 AM.	10:30 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	24.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	24.0	Relative Humidity % RH	36.9	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/76/ GESEC/Lab/Inst/76	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	62.23
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	26.11
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	12.95
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	20.78
<b>Remark</b>				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
			 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By	

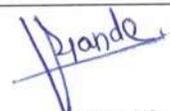
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-2025/02/175		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/AAQM/2024-2025/02/175			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Near ETP		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
09:45 AM.	10:45 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	24.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	24.0	Relative Humidity % RH	36.9	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/77/ GESEC/Lab/Inst/77	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	59.63
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	23.50
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	10.19
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	16.87
<b>Remark</b>				
➤ 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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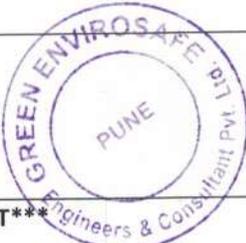
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-2025/02/176		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/AAQM/2024-2025/02/176			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
10:00 AM.	11:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	25.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	25.0	Relative Humidity % RH	32.6	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name Of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/78/ GESEC/Lab/Inst/78	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	64.83
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	29.47
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	13.00
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	23.65
<b>Remark:-</b> ➤ 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/2024-2025/02/177		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/WZM/2024-2025/02/177			
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.	
10:15 AM.	11:15 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	17.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	31.7	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220412/GESEC/LAB/INST/100	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.650
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.008
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.013
<b>Note:</b>				
➤ Limits: As per the Second Schedule of Factories Act /OSHA TWA				
			 Mr. Vinod Hande (Technical Manager) Reviewed & Authorized By	

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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-2025/02/178		Report Date	17.02.2025
Sample ID: -	GESEC/PRO/WZM/2024-2025/02/178			
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.	
10:30 AM.	11:30 AM.		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	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Name Of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220413/GESEC/LAB/INST/101	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.701
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.008
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.013
<b>Note:</b>	Limits: As per Second Schedule of Factories Act /OSHA TWA.			
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-2025/02/179	Report Date	17.02.2025	
Sample ID -	GESEC/PRO/ST/2024-2025/02/179			
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	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	08/10/2024	
Calibration Certificate No.	5919/GESEC/LAB/INST/33	Due Date of Calibration	07/10/2025	
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	3.50	
Height (m)	75			
Temperature ( °C)	141	Velocity (m/s)	7.23	
Gas Volume (Nm <sup>3</sup> /Hr)	328945.37			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	41.05
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	12.37
		Kg/day	-	97.66
<b>Remarks-</b>				
➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/NM <sup>3</sup> .				
➤ Maharashtra Pollution Control Board (MPCB) Limits: SO <sub>2</sub> : As per consent.				
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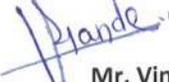
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-2025/02/180	Report Date	17.02.2025	
Sample ID -	GESEC/PRO/ST/2024-2025/02/180			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
11.02.2025	12.02.2025	12.02.2025	17.02.2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	03/08/2024	
Calibration Certificate No.	231018/GESEC/LAB/INST/89	Due Date of Calibration	02/08/2025	
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)	2.50	Pressure	3.00	
Height (m)	72			
Temperature ( °C)	134	Velocity (m/s)	6.63	
Gas Volume (Nm <sup>3</sup> /Hr)	85804.70			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	39.65
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	10.10
		Kg/day	-	20.80
<b>Remarks-</b>				
<ul style="list-style-type: none"> <li>➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/Nm<sup>3</sup>.</li> <li>➤ Maharashtra Pollution Control Board (MPCB) Limits: SO<sub>2</sub>: As per consent.</li> </ul>				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

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**TEST REPORT**

Test Report No: -	GESEC/PRO/ANLM/2024-2025/02/181	Report Date	17.02.2025
Sample ID: -	GESEC/PRO/ANLM/2024-2025/02/181		

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	GESEC/LAB/NLM/ST/31

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
11.02.2025	11.02.2025	11.02.2025	11.02.2025

Name Of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024
Calibration Certificate No.	GESEC/LAB/INST/29	Due Date of Calibration	15/02/2025

Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (12:45 P.M.)	Night (10:20 P.M.)	
Near Main Gate	dB(A)	64.5	61.9	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	58.6	56.0	
Near Bagasse Section	dB(A)	60.2	58.7	
Near Sugar Godown	dB(A)	59.1	57.2	
Near Cane Yard	dB(A)	66.0	63.8	

**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)  
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**TEST REPORT**

Test Report No: -	GESEC/PRO/WNLM/2024-2025/02/182	Report Date	17.02.2025
Sample ID: -	GESEC/PRO/WNLM/2024-2025/02/182		

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	GESEC/LAB/NLM/ST/31

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
11.02.2025	11.02.2025	11.02.2025	11.02.2025

Name of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024
Calibration Certificate No.	GH2482296/GESEC/LAB/INST/59	Due Date of Calibration	15/02/2025

Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (01:45 P.M.)	Night (11:15 P.M.)	
Centrifugal Section	dB(A)	72.4	71.7	≤ 90
Turbine Section	dB(A)	71.0	69.8	
Boiler Section	dB(A)	75.1	73.2	
Mill Section	dB(A)	76.9	73.0	
Pan Section	dB(A)	70.6	69.1	

**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/2024-2025/02/183	Report Date	17.02.2025	
Sample ID : GESEC/PRO/WW/2024-2025/02/183	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	11.02.2025	
	Sample Receipt Date	12.02.2025	
	Analysis start Date	12.02.2025	
	Analysis End Date	17.02.2025	
Parameters	Results	Unit	Standard Method
pH	3.27	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	194.58	mg/lit	APHA 2540 D 23 <sup>rd</sup> Edition:2017
Total Dissolved Solids (TDS)	2651.34	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	3187.05	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	1060.75	mg/lit	USEPA NERL 405.1
Chlorides as Cl-	562.10	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	401.93	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	16.00	mg/lit	APHA 5520 D 24 th Edition:2023
			
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TEST REPORT		
Test Report No: GESEC/PRO/WW/2024-2025/02/184	Report Date	17.02.2025
Sample ID : GESEC/PRO/WW/2024-2025/02/184	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	11.02.2025
	Sample Receipt Date	12.02.2025
	Analysis start Date	12.02.2025
	Analysis End Date	17.02.2025

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.59	6.5-8.5	--	APHA 4500 H+,B 23rd Edition.2017
Suspended Solids (SS)	43.01	100	mg/lit	APHA 2540 D 23 <sup>rd</sup> Edition:2017
Total Dissolved Solids (TDS)	1079.5	2100	mg/lit	APHA 2540,C,23rd Edition, 2017
Chemical Oxygen Demand (COD)	64.17	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	23.00	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl-	169.35	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO4 --	114.67	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023

**Remark:**

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



*Handwritten signature of Mr. Vinod Hande*

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

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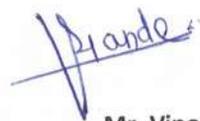
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**TEST REPORT**

<b>Test Report No: GESEC/PRO/WW/2024-2025/02/185</b>		<b>Report Date</b>	17.02.2025
<b>Sample ID : GESEC/PRO/WW/2024-2025/02/185</b>		<b>Sample Details</b>	Factory STP Inlet 50 KLPD
<b>Name &amp; Address of the Customer:</b> M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	<b>Type of Sample</b>	Waste Water	
	<b>Volume Of Sample</b>	1 Lit plastic bottle	
	<b>Sample Status</b>	Sealed	
	<b>Sample Collected By</b>	GESEC	
	<b>Date of Sample Collection</b>	11.02.2025	
	<b>Sample Receipt Date</b>	12.02.2025	
	<b>Analysis start Date</b>	12.02.2025	
	<b>Analysis End Date</b>	17.02.2025	
<b>Parameters</b>	<b>Results</b>	<b>Unit</b>	<b>Standard Method</b>
pH	6.13	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	216.39	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	1147.02	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	230.92	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	102.69	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	369.57	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	241.08	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>			
➤ BDL – Below Detectable Limit.			
➤ All parameters are within the MPCB limit.			
		 <b>Mr. Vinod Hande</b> <b>(Technical Manager)</b> <b>Reviewed &amp; Authorized By</b>	

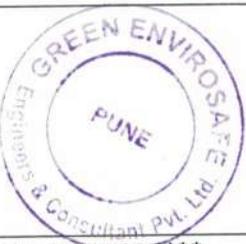
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TEST REPORT				
Test Report No: GESEC/PRO/WW/2024-2025/02/186		Report Date		17.02.2025
Sample ID : GESEC/PRO/WW/2024-2025/02/186		Sample Details		Factory STP Outlet 50 KLPD
<b>Name &amp; Address of the Customer:</b> M/s. Kallappa Anna Awade Jawahar 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		11.02.2025
		Sample Receipt Date		12.02.2025
		Analysis start Date		12.02.2025
		Analysis End Date		17.02.2025
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.59	6.5-8.5	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	19.63	100	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	725.88	2100	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	47.16	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	16.02	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	185.36	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	160.70	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>				
➤ BDL – Below Detectable Limit.				
➤ All parameters are within the MPCB limit.				
			 <b>Mr. Vinod Hande</b> (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/WW/2024-2025/02/187		Report Date	17.02.2025
Sample ID : GESEC/PRO/WW/2024-2025/02/187		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	11.02.2025
		Sample Receipt Date	12.02.2025
		Analysis start Date	12.02.2025
		Analysis End Date	17.02.2025
Parameters	Results	Unit	Standard Method
pH	6.25	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	196.25	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	1056.47	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	202.96	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	95.11	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	352.47	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	221.79	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>			
➤ BDL – Below Detectable Limit.			
➤ All parameters are within the MPCB limit.			
			
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By	

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TEST REPORT				
Test Report No: GESEC/PRO/WW/2024-2025/02/188		Report Date		17.02.2025
Sample ID : GESEC/PRO/WW/2024-2025/02/188		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		11.02.2025
		Sample Receipt Date		12.02.2025
		Analysis start Date		12.02.2025
		Analysis End Date		17.02.2025
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.48	6.5-8.5	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	15.64	100	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	699.01	2100	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	42.37	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	15.94	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	174.68	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	135.49	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>				
➤ BDL – Below Detectable Limit.				
➤ All parameters are within the MPCB limit.				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

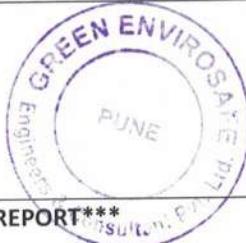
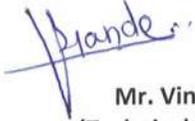
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TEST REPORT				
Test Report No – GESEC/PRO/DW/2024-2025/02/189	Date of Reporting	17.02.2025		
Sample ID - GESEC/PRO/DW/2024-2025/02/189	Sample Details	Drinking Water (Laboratory)		
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra).	Type of Sample	Water		
	Volume Of Sample	2 Lit		
	Sample Status	Sealed		
	Sample Collected By	GESEC		
	Date of Sample Collection	11.02.2025		
	Date of Sample received in lab	12.02.2025		
	Analysis start Date	12.02.2025		
	Analysis End Date	17.02.2025		
WATER ANALYSIS REPORT				
Parameter	Result	Limits as per IS 10500:2012	Unit(s)	Standard Method
Physical Parameter				
Turbidity	<0.1	<1	NTU	APHA 2130 B24 th Edition:2023
TDS	105.69	<500	mg/lit	APHA 2540 C 24 th Edition:2023
Chemical Parameter				
pH	7.58	6.5 to 8.5	--	APHA 4500 H+ B 24 <sup>th</sup> Ed: 2023
Total Hardness	56.80	<200	mg/lit	APHA 2340 C 24 <sup>th</sup> Ed: 2023
Total Alkalinity	43.81	<200	mg/lit	APHA 2320 B 24 <sup>th</sup> Ed: 2023
Sulphate	3.66	<200	mg/lit	APHA 4500-SO4 - E 24 <sup>th</sup> Ed: 2023
Residual Chlorine	BDL	<0.2	mg/lit	EPA 334.0,
Chloride	10.47	<250	mg/lit	APHA 4500-Cl-B 24 <sup>th</sup> Ed: 2023
Calcium (as Ca)	15.95	<75	mg/lit	APHA 3500-Ca B 24 <sup>th</sup> Ed: 2023
Magnesium (as Mg)	4.12	<30	mg/lit	IS 3025 (Part 46):2023
Elemental Analysis				
Iron as Fe	<0.1	<0.3	mg/lit	EPA200.7
Microbiological Parameter				
Total Coliform	Absent	Absent	/100ml	APHA 9222, J, 24th Ed. 2023
<i>E. coli.</i>	Absent	Absent	/100ml	APHA 9222, J, 24th Ed. 2023
<b>Remark(s):</b>				
➤ All the above results are well within the MPCB Limit.				
➤ The above water sample is completed with the required limit as per 10500:2012 for above tested parameters.				
			 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By	

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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/476	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/476			
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	Upwind Village (Talandage)	GESEC		
Sampling Time				
Start Time	Stop Time	Total Hrs.		
08:00 AM.	09:00 AM.	60 Min		
Metrological Data/Environmental Conditions				
Ambient Temperature °C	16.0	Wet Bulb Temperature °C	12.0	
Dry Bulb Temperature °C	16.0	Relative Humidity % RH	62.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Dust Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 24/GESEC/Lab/Inst/70	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 11	µg/cum	100.00	55.16
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 15	µg/cum	60.00	21.80
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 01	µg/cum	80.00	06.25
Oxides of Nitrogen (NO <sub>x</sub> )	CPCB Guidelines, Volume I, 36/2012-13, Page no. 07	µg/cum	80.00	14.77
<b>Remark</b>				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		

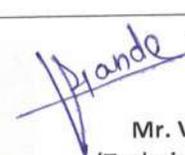
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/477		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/477			
Name & Address of the Customer	M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location		Sampling done by	
Ambient Air	Downwind Village (Jagamwadi)		GESEC	
Sampling Time				
Start Time	Stop Time		Total Hrs.	
08:45 AM.	09:45 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	18.0	Wet Bulb Temperature °C	12.0	
Dry Bulb Temperature °C	18.0	Relative Humidity % RH	48.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L2/GESEC/Lab/Inst/73	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	58.33
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	24.10
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	07.02
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	16.35
<b>Remark</b>				
➤ 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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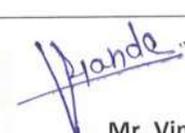


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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/478	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/478			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Ambient Air Sample Details				
Type	Sampling Location	Sampling done by		
Ambient Air	GLC Village (Rendal)	GESEC		
Sampling Time				
Start Time	Stop Time	Total Hrs.		
09:35 AM.	10:35 AM.	60 Min		
Metrological Data/Environmental Conditions				
Ambient Temperature °C	20.0	Wet Bulb Temperature °C	13.0	
Dry Bulb Temperature °C	20.0	Relative Humidity % RH	44.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L1/GESEC/Lab/Inst/74	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	59.13
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	25.09
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	07.45
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	16.91
<b>Remark</b>				
➤ 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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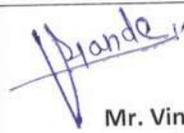
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/479		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/479		Sample Date	
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
10:00 AM.	11:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	21.0	Wet Bulb Temperature °C	14.0	
Dry Bulb Temperature °C	21.0	Relative Humidity % RH	45.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/76/ GESEC/Lab/Inst/76	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	64.23
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	27.48
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	13.25
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	22.10
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/2024-25/01/480	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/480			
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.		
10:15 AM.	11:15 AM.	60 Min		
Metrological Data/Environmental Conditions				
Ambient Temperature °C	21.0	Wet Bulb Temperature °C	14.0	
Dry Bulb Temperature °C	21.0	Relative Humidity % RH	45.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/77/ GESEC/Lab/Inst/77	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	60.33
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	25.10
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	12.98
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	18.62
<b>Remark</b>				
➤ NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B – 29016 / 20 / 90 / PCI – I, New Delhi, the 18th November 2009.				
		 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By		

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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/01/481	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/AAQM/2024-25/01/481			
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		Total Hrs.		
Start Time	Stop Time	60 Min		
10:40 AM.	11:40 AM.			
Metrological Data/Environmental Conditions				
Ambient Temperature °C	23.0	Wet Bulb Temperature °C	15.0	
Dry Bulb Temperature °C	23.0	Relative Humidity % RH	41.6	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name Of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 2021-22/78/ GESEC/Lab/Inst/78	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	67.16
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	30.97
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	13.22
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	26.64
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/WZM/2024-25/01/482	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/WZM/2024-25/01/482			
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.	
11:00 AM.	12:00 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	30.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	30.0	Relative Humidity % RH	34.4	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220412/GESEC/LAB/INST/100	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.782
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.009
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.015
<b>Note:</b>				
➤ Limits: As per the Second Schedule of Factories Act /OSHA TWA				
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-25/01/483		Report Date	21/01/2025
Sample ID: -	GESEC/PRO/WZM/2024-25/01/483			
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.	
11:20 AM.	12:20 AM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	31.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	31.0	Relative Humidity % RH	31.0	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Name Of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220413/GESEC/LAB/INST/101	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.580
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.007
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.012
<b>Note:</b>				
➤ Limits: As per Second Schedule of Factories Act /OSHA TWA.				
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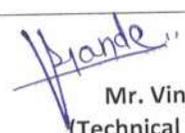


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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/01/484	Report Date	21/01/2025	
Sample ID -	GESEC/PRO/ST/2024-25/01/484			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	08/10/2024	
Calibration Certificate No.	5919/GESEC/LAB/INST/33	Due Date of Calibration	07/10/2025	
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	3.75	
Height (m)	75			
Temperature ( °C)	135	Velocity (m/s)	7.43	
Gas Volume (Nm <sup>3</sup> /Hr)	342985.28			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	45.78
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	13.60
		Kg/day	-	111.95
Remarks- ➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/NM <sup>3</sup> .				
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/01/485	Report Date	21/01/2025	
Sample ID -	GESEC/PRO/ST/2024-25/01/485			
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	
15/01/2025	16/01/2025	16/01/2025	21/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	03/08/2024	
Calibration Certificate No.	231018/GESEC/LAB/INST/89	Due Date of Calibration	02/08/2025	
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	3.10	
Height (m)	72			
Temperature ( °C)	130	Velocity (m/s)	6.71	
Gas Volume (Nm <sup>3</sup> /Hr)	87654.86			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	41.95
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	11.26
		Kg/day	-	23.71
<b>Remarks-</b> ➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/Nm <sup>3</sup> .				
				
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**TEST REPORT**

Test Report No: -	GESEC/PRO/ANLM/2024-25/01/486	Report Date	21/01/2025
Sample ID: -	GESEC/PRO/ANLM/2024-25/01/486		

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	GESEC/LAB/NLM/ST/31

Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date
15/01/2025	15/01/2025	15/01/2025	15/01/2025

Name Of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024
Calibration Certificate No.	GESEC/LAB/INST/29	Due Date of Calibration	15/02/2025

Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (01:30 P.M.)	Night (10:10 P.M.)	
Near Main Gate	dB(A)	62.9	59.0	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	60.4	57.1	
Near Bagasse Section	dB(A)	61.8	56.7	
Near Sugar Godown	dB(A)	60.5	57.1	
Near Cane Yard	dB(A)	63.8	60.9	

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/2024-25/01/487	Report Date	21/01/2025	
Sample ID: -	GESEC/PRO/WNLM/2024-25/01/487			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
<b>Work Zone Noise Sample Details</b>				
Type	Work Zone Noise			
Sampling done by	GESEC			
Standard method	GESEC/LAB/NLM/ST/31			
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
15/01/2025	15/01/2025	15/01/2025	15/01/2025	
Name of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024	
Calibration Certificate No.	GH2482296/GESEC/LAB/INST/59	Due Date of Calibration	15/02/2025	
Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (02:30 P.M.)	Night (10:50 P.M.)	
Centrifugal Section	dB(A)	70.2	68.7	≤ 90
Turbine Section	dB(A)	71.8	69.0	
Boiler Section	dB(A)	72.9	70.5	
Mill Section	dB(A)	74.7	71.9	
Pan Section	dB(A)	73.6	69.8	
<b>Remark-</b>				
<ul style="list-style-type: none"> <li>➤ The Factories Act, 1948, has prescribed 90 dB (A) as an upper limit of noise level for 8 hours exposure.</li> <li>➤ All above results are within Factories Act 1948 Standards.</li> </ul>				

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TEST REPORT			
Test Report No: GESEC/PRO/WW/2024-25/01/488	Report Date	21/01/2025	
Sample ID : GESEC/PRO/WW/2024-25/01/488	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	15/01/2025	
	Sample Receipt Date	16/01/2025	
	Analysis start Date	16/01/2025	
	Analysis End Date	21/01/2025	
Parameters	Results	Unit	Standard Method
pH	3.44	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	165.20	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	3741.96	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	2965.11	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	1248.95	mg/lit	USEPA NERL 405.1
Chlorides as Cl-	677.10	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>-</sup>	589.40	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	14.00	mg/lit	APHA 5520 D 24 th Edition:2023
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**TEST REPORT**

Test Report No: GESEC/PRO/WW/2024-25/01/489	Report Date	21/01/2025
Sample ID : GESEC/PRO/WW/2024-25/01/489	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	15/01/2025
	Sample Receipt Date	16/01/2025
	Analysis start Date	16/01/2025
	Analysis End Date	21/01/2025

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.42	6.5-8.5	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	39.63	100	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	1245.78	2100	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	69.10	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	25.88	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl-	184.63	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO4 --	125.40	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023

**Remark:**

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

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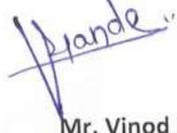
Mr. Vinod Hande  
(Technical Manager)  
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TEST REPORT			
Test Report No: GESEC/PRO/WW/2024-25/01/490		Report Date	
Sample ID : GESEC/PRO/WW/2024-25/01/490		21/01/2025	
Name & Address of the Customer: M/s. Kallappa Anna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)		Sample Details	
		Factory STP Inlet 50 KLPD	
		Type of Sample	
		Waste Water	
		Volume Of Sample	
		1 Lit plastic bottle	
		Sample Status	
		Sealed	
		Sample Collected By	
Date of Sample Collection		15/01/2025	
Sample Receipt Date		16/01/2025	
Analysis start Date		16/01/2025	
Analysis End Date		21/01/2025	
Parameters	Results	Unit	Standard Method
pH	6.25	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	136.70	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	852.11	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	148.26	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	87.07	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	289.50	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>-</sup>	145.20	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>			
➤ BDL – Below Detectable Limit.			
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**TEST REPORT**

Test Report No: GESEC/PRO/WW/2024-25/01/491	Report Date	21/01/2025
Sample ID : GESEC/PRO/WW/2024-25/01/491	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	15/01/2025
	Sample Receipt Date	16/01/2025
	Analysis start Date	16/01/2025
	Analysis End Date	21/01/2025

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.44	6.5-8.5	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	16.89	100	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	542.10	2100	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	39.65	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	17.82	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	125.96	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>-</sup>	93.77	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023

**Remark:**

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



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TEST REPORT			
Test Report No: GESEC/PRO/WW/2024-25/01/492	Report Date	21/01/2025	
Sample ID : GESEC/PRO/WW/2024-25/01/492	Sample Details	Colony STP Inlet 100 KLDP	
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	15/01/2025	
	Sample Receipt Date	16/01/2025	
	Analysis start Date	16/01/2025	
	Analysis End Date	21/01/2025	
Parameters	Results	Unit	Standard Method
pH	6.35	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	165.20	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	1069.37	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	174.65	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	83.01	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	169.52	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	147.80	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b> > BDL – Below Detectable Limit.			
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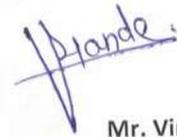
**TEST REPORT**

Test Report No: GESEC/PRO/WW/2024-25/01/493	Report Date	21/01/2025
Sample ID : GESEC/PRO/WW/2024-25/01/493	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	15/01/2025
	Sample Receipt Date	16/01/2025
	Analysis start Date	16/01/2025
	Analysis End Date	21/01/2025

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.52	6.5-8.5	--	APHA 4500 H+,B, 24 <sup>th</sup> Edition: 2023
Suspended Solids (SS)	19.45	100	mg/lit	APHA 2540, D, 24 <sup>th</sup> Edition: 2023
Total Dissolved Solids (TDS)	613.03	2100	mg/lit	APHA 2540,C, 24 <sup>th</sup> Edition: 2023
Chemical Oxygen Demand (COD)	45.07	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	18.96	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	143.02	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	63.85	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023

**Remark:**

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


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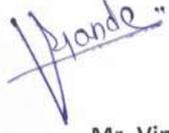

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TEST REPORT			
Test Report No: GESEC/PRO/SW/2024-25/01/494	Report Date	21/01/2025	
Sample ID: GESEC/PRO/SW/2024-25/01/494	Sample Details	ETP Sludge Sample	
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra).	Type of Sample	Solid	
	Volume Of Sample	1 KG Plastic Bag	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	15/01/2025	
	Sample Receipt Date	16/01/2025	
	Analysis start Date	16/01/2025	
	Analysis End Date	21/01/2025	
Parameters	Results	Unit	Standard Method
pH	8.66	--	IS 10158-2019
Total Solids	85.10	%	GESEC /SOP/A-01
Total Volatile Solids	20.75	%	IS 3025 10158 : 2019
Moisture Content	14.87	%	CPCB Manual LATS/16/2003-2004,Ch.4,4.7.2Page no.34
Organic Carbon	6.95	%	IS 3025 10158 : 2019
Calcium	9523.10	mg/kg	ICARDA-Methods of soil, Plant and water analysis, Page No. 113-116:2013
Magnesium	4152.37	mg/kg	ICARDA-Methods of soil, Plant and water analysis, Page No. 113-116:2013
Potassium as K	7413.95	mg/kg	USEPA / SW 846/ 6010 C, Rev 3,feb 2007
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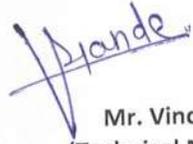
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TEST REPORT			
Test Report No: GESEC/PRO/SO/2024-25/01/495	Report Date	21/01/2025	
Sample ID : GESEC/PRO/SO/2024-25/01/495	Sample Details	Soil	
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra).	Type of Sample	Solid	
	Volume Of Sample	1 KG Plastic Bag	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	15/01/2025	
	Sample Receipt Date	16/01/2025	
	Analysis start Date	16/01/2025	
	Analysis End Date	21/01/2025	
Parameters	Results	Unit	Standard Method
Nitrogen (N)	186.20	Kg/ha	ICARDA-Methods of soil, Plant and water analysis, Page No. 87-89:2013
Available Phosphorous (P)	27.14	Kg/ha	ISRIC, Page No.14-1:2002
Available Potassium	156.87	Kg/ha	Food and Agriculture Organization Sec III,8-1,Page no115
Organic Carbon	0.40	%	ICARDA-Methods of soil, Plant and water analysis, Page No. 74 :2013
Organic Matter	0.69	%	ICARDA-Methods of soil, Plant and water analysis, Page No. 74:2013
Water Soluble Chloride (Cl <sup>-</sup> )	185.20	mg/kg	Soil Analysis a laboratory manual PK Behera Page no.54 & 55
Water Soluble Sulphate (SO <sub>4</sub> )	146.93	mg/kg	ICARDA -3rd Edition methods of soil, plant, and water analysis: A manual for the West Asia and North Africa region page no.120-121:2013
Sodium Absorption Ratio	1.27	-----	Food and agriculture organization of the United nation Page no14:2016
			
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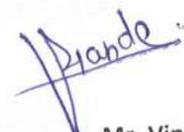
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TEST REPORT			
Test Report No: GESEC/PRO/SW/2024-25/01/496	Report Date	21/01/2025	
Sample ID : GESEC/PRO/SW/2024-25/01/496	Sample Details	Ash Sample	
Name & Address of the Customer: M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra).	Type of Sample	Solid	
	Volume Of Sample	1 KG Plastic Bag	
	Sample Status	Sealed	
	Sample Collected By	GESEC	
	Date of Sample Collection	15/01/2025	
	Sample Receipt Date	16/01/2025	
	Analysis start Date	16/01/2025	
	Analysis End Date	21/01/2025	
Parameters	Results	Unit	Standard Method
Moisture Contain	3.12	%	IS 9235:2019
Total Solid	94.87	%	GESEC /SOP/A-01
Total Volatile Solid	8.45	%	IS 3025 10158 2019
Iron	1.63	mg/kg	GESEC/LAB/SOP/ICP-OES/05
Lead	BDL	mg/kg	GESEC/LAB/SOP/ICP-OES/05
Total Phosphate (as P <sub>2</sub> O <sub>5</sub> )	369.20	mg/kg	ISRIC, Page No.14-1:2002
Total Nitrogen (as N)	0.15	%	ICARDA-Methods of soil, Plant and water analysis, Page No. 87-89:2013
Zinc	136.20	mg/kg	GESEC/LAB/SOP/ICP-OES/05
Remark(s): ➤ BDL – Below Detectable Limit.			
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TEST REPORT				
Test Report No: GESEC/PRO/SW/2024-25/01/497	Report Date	21/01/2025		
Sample ID : GESEC/PRO/SW/2024-25/01/497	Sample Details	Lime		
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	Solid		
	Volume Of Sample	1 KG Plastic Bag		
	Sample Status	Sealed		
	Sample Collected By	GESEC		
	Date of Sample Collection	15/01/2025		
	Sample Receipt Date	16/01/2025		
	Analysis start Date	16/01/2025		
	Analysis End Date	21/01/2025		
	Parameters	Results	Unit	Standard Method
Moisture Contain	65.20	%	IS 9235:2019	
Total Solid	36.93	%	IS 712,1984	
Total Volatile Solid	7.88	%	IS 712,1984	
Iron	0.77	mg/kg	GESEC/LAB/SOP/ICP-OES/05	
Lead	BDL	mg/kg	GESEC/LAB/SOP/ICP-OES/05	
Total Phosphate (as P <sub>2</sub> O <sub>5</sub> )	119.63	mg/kg	ISRIC, Page No.14-1:2002	
Total Nitrogen (as N)	0.46	%	ICARDA-Methods of soil, Plant and water analysis, Page No. 87-89:2013	
Zinc	74.01	mg/kg	GESEC/LAB/SOP/ICP-OES/05	
<b>Remark(s):</b>				
➤ BDL – Below Detectable Limit.				
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TEST REPORT		
Test Report No: GESEC/PRO/SW/2024-25/01/498	Report Date	21/01/2025
Sample ID : GESEC/PRO/SW/2024-25/01/498	Sample Details	Press Mud
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	Solid
	Volume Of Sample	1 KG Plastic Bag
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	15/01/2025
	Sample Receipt Date	16/01/2025
	Analysis Start Date	16/01/2025
	Analysis End Date	21/01/2025

Parameters	Results	Unit	Standard Method
pH	7.69	--	IS 10158-2019
Organic Carbon	9.00	%	FCO,A-vii,1985
Moisture Content	41.27	%	IS 9235:2019
Residual Ash	0.45	%	GESEC /SOP/COM-8-2
C/N Ratio	13.06	--	FCO,A-X,1985
Nitrogen as N	72.10	mg/kg	FCO,A-vii,1985
Phosphorous as P	18.63	mg/kg	FCO,A-viii,1985
Potassium as K	45.78	mg/kg	FCO,A-ix,1985



*Hande*

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TEST REPORT		
Test Report No – GESEC/PRO/DW/2024-25/01/499	Date of Reporting	21/01/2025
Sample ID - GESEC/PRO/DW/2024-25/01/499	Sample Details	Drinking Water (Laboratory)
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	Water
	Volume Of Sample	2 Lit
	Sample Status	Sealed
	Sample Collected By	GESEC
	Date of Sample Collection	15/01/2025
	Date of Sample received in lab	16/01/2025
	Analysis start Date	16/01/2025
	Analysis End Date	21/01/2025

WATER ANALYSIS REPORT				
Parameter	Result	Limits as per IS 10500:2012	Unit(s)	Standard Method
<b>Physical Parameter</b>				
Turbidity	<0.1	<1	NTU	APHA 2130 B24 th Edition:2023
TDS	92.01	<500	mg/lit	APHA 2540 C 24 th Edition:2023
<b>Chemical Parameter</b>				
pH	7.75	6.5 to 8.5	--	APHA 4500 H+ B 24 <sup>th</sup> Ed: 2023
Total Hardness	43.38	<200	mg/lit	APHA 2340 C 24 <sup>th</sup> Ed: 2023
Total Alkalinity	30.10	<200	mg/lit	APHA 2320 B 24 <sup>th</sup> Ed: 2023
Sulphate	2.68	<200	mg/lit	APHA 4500-SO4 - E 24 <sup>th</sup> Ed: 2023
Residual Chlorine	BDL	<0.2	mg/lit	EPA 334.0,
Chloride	8.77	<250	mg/lit	APHA 4500-Cl-B 24 <sup>th</sup> Ed: 2023
Calcium (as Ca)	12.34	<75	mg/lit	APHA 3500-Ca B 24 <sup>th</sup> Ed: 2023
Magnesium (as Mg)	3.05	<30	mg/lit	IS 3025 (Part 46):2023
<b>Elemental Analysis</b>				
Iron as Fe	<0.1	<0.3	mg/lit	EPA200.7
<b>Microbiological Parameter</b>				
Total Coliform	Absent	Absent	/100ml	APHA 9222, J, 24th Ed. 2023
<i>E. coli.</i>	Absent	Absent	/100ml	APHA 9222, J, 24th Ed. 2023

**Remark(s):**  
➤ The above water sample is completed with the required limit as per 10500:2012 for above tested parameters only.



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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/12/1424		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/12/1424			
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.	
04:00 PM.	05:00 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	18.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	36.8	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name of Instrument	Fine Dust Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	FDS 24/GESEC/Lab/Inst/70	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	68.23
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	31.55
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	15.98
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	26.54
<b>Remark</b>				
➤ 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/2024-25/12/1425		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/12/1425			
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.	
04:15 PM.	05:15 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	18.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	36.8	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L2/GESEC/Lab/Inst/73	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	62.36
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	27.41
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	14.59
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	18.77
<b>Remark</b>				
➤ 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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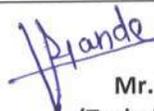
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TEST REPORT				
Test Report No: -	GESEC/PRO/AAQM/2024-25/12/1426		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/AAQM/2024-25/12/1426			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
04:30 PM.	05:30 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	28.0	Wet Bulb Temperature °C	19.0	
Dry Bulb Temperature °C	28.0	Relative Humidity % RH	42.1	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name Of Instrument	Fine Particulate Sampler	Date Of Calibration	26/04/2024	
Calibration Certificate No.	107L1/GESEC/Lab/Inst/74	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	NAAQ Standards	Result
Particulate Matter (PM <sub>10</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 11	µg/cum	100.00	69.33
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 15	µg/cum	60.00	33.65
Sulphur Dioxide (SO <sub>2</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 01	µg/cum	80.00	15.11
Oxides of Nitrogen(NO <sub>x</sub> )	CPCB Guidelines, Volume I ,36/2012-13, Page no. 07	µg/cum	80.00	28.47
<b>Remark:-</b>				
➤ 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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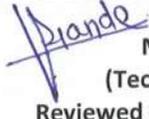
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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-25/12/1427		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/WZM/2024-25/12/1427			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
04:45 PM.	05:45 PM.		60 Min	
Metrological Data/Environmental Conditions				
Ambient Temperature °C	29.0	Wet Bulb Temperature °C	20.0	
Dry Bulb Temperature °C	29.0	Relative Humidity % RH	43.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220412/GESEC/LAB/INST/100	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.682
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.010
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.016
<b>Note:</b>				
➤ Limits: As per the Second Schedule of Factories Act /OSHA TWA				
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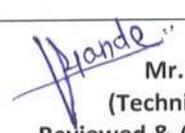


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TEST REPORT				
Test Report No: -	GESEC/PRO/WZM/2024-25/12/1428		Report Date	02/01/2025
Sample ID: -	GESEC/PRO/WZM/2024-25/12/1428			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, 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.	
05:00 PM.	06:00 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	39.3	
Date of Sampling	Sample Receipt Date	Analysis Start Date	Analysis End Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Name Of Instrument	Handy sampler	Date of Calibration	26/04/2024	
Calibration Certificate No.	220413/GESEC/LAB/INST/101	Due Date of Calibration	25/04/2025	
Parameters	Method	Unit	Limits	Result
Particulate Matter (PM)	GESEC/LAB/SOP/WZM/30	mg/m <sup>3</sup>	10	0.635
Sulphur Dioxide (SO <sub>2</sub> )	GESEC/LAB/SOP/WZM/28	mg/m <sup>3</sup>	5	0.008
Oxides of Nitrogen(NO <sub>x</sub> )	GESEC/LAB/SOP/WZM/29	mg/m <sup>3</sup>	6	0.013
<b>Note:</b>				
➤ Limits: As per Second Schedule of Factories Act /OSHA TWA.				
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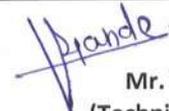
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/12/1429	Report Date	02/01/2025	
Sample ID -	GESEC/PRO/ST/2024-25/12/1429			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	08/10/2024	
Calibration Certificate No.	5919/GESEC/LAB/INST/33	Due Date of Calibration	07/10/2025	
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	4.0	
Height (m)	75			
Temperature ( °C)	130	Velocity (m/s)	7.62	
Gas Volume (Nm <sup>3</sup> /Hr)	356424.38			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	48.22
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	15.63
		Kg/day	-	133.70
<b>Remarks-</b>				
➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/NM <sup>3</sup> .				
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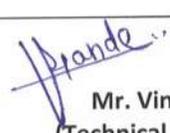
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TEST REPORT				
Test Report No	GESEC/PRO/ST/2024-25/12/1430		Report Date	02/01/2025
Sample ID -	GESEC/PRO/ST/2024-25/12/1430			
Name & Address of the Customer	M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)			
Sample Details				
Sample collection Date	Sample receipt Date	Analysis start Date	Analysis complete Date	
25/12/2024	26/12/2024	26/12/2024	02/01/2025	
Instrument Details				
Name Of Instrument	Stack Sampler	Date Of Calibration	03/08/2024	
Calibration Certificate No.	231018/GESEC/LAB/INST/89	Due Date of Calibration	02/08/2025	
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	3.5	
Height (m)	72			
Temperature ( °C)	125	Velocity (m/s)	6.52	
Gas Volume (Nm <sup>3</sup> /Hr)	93721.70			
Parameters	Method	Unit	Limit	Result
Total Particulate Matter (TPM)	EPA METHOD 17: 2017	mg/Nm <sup>3</sup>	150	45.70
Sulphur Dioxide (SO <sub>2</sub> )	EPA METHOD 06: 2017	mg/Nm <sup>3</sup>	-	12.95
		Kg/day	-	29.13
<b>Remarks-</b>				
➤ Maharashtra Pollution Control Board (MPCB) Limits: TPM: 150 mg/Nm <sup>3</sup> .				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

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TEST REPORT				
Test Report No: -	GESEC/PRO/ANLM/2024-25/12/1431	Report Date	02/01/2025	
Sample ID: -	GESEC/PRO/ANLM/2024-25/12/1431			
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	
25/12/2024	25/12/2024	25/12/2024	25/12/2024	
Name Of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024	
Calibration Certificate No.	GESEC/LAB/INST/29	Due Date of Calibration	15/02/2025	
Test Location	Unit	Average Noise Level Readings		CPCB Standards dB(A)
		Day (07:00 P.M.)	Night (01:00 A.M.)	
Near Main Gate	dB(A)	60.4	54.2	During Day time = 75 dB (A) During Night time= 70 dB(A)
Near ETP	dB(A)	68.2	67.1	
Near Bagasse Section	dB(A)	62.6	59.8	
Near Sugar Godown	dB(A)	64.1	61.7	
Near Cane Yard	dB(A)	71.3	67.0	
<b>Remark-</b>				
➤ 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.				
				 <b>Mr. Vinod Hande</b> (Technical Manager) Reviewed & Authorized By

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**TEST REPORT**

Test Report No: -	GESEC/PRO/WNLM/2024-25/12/1432	Report Date	02/01/2025
Sample ID: -	GESEC/PRO/WNLM/2024-25/12/1432		

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
25/12/2024	25/12/2024	25/12/2024	25/12/2024

Name of Instrument	Sound Level Meter	Date Of Calibration	16/02/2024
Calibration Certificate No.	GH2482296/GESEC/LAB/INST/59	Due Date of Calibration	15/02/2025

Test Location	Unit	Average Noise Level Readings		The Factories Act 1948, standards
		Day (08:00 P.M.)	Night (01:40 A.M.)	
Centrifugal Section	dB(A)	68.5	66.2	≤ 90
Turbine Section	dB(A)	69.4	67.9	
Boiler Section	dB(A)	61.1	58.6	
Mill Section	dB(A)	64.7	60.5	
Pan Section	dB(A)	70.1	66.8	

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.



*Handwritten Signature*  
 Mr. Vinod Hande  
 (Technical Manager)  
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**TEST REPORT**

Test Report No: GESEC/PRO/WW/2024-25/12/1433	Report Date	02/01/2025
Sample ID : GESEC/PRO/WW/2024-25/12/1433	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	25/12/2024
	Sample Receipt Date	26/12/2024
	Analysis start Date	26/12/2024
	Analysis End Date	02/01/2025

Parameters	Results	Unit	Standard Method
pH	3.77	--	APHA 4500 H+ B 24 th Edition:2023
Suspended Solids (SS)	174.68	mg/lit	APHA 2540 D 24 th Edition:2023
Total Dissolved Solids (TDS)	4012.39	mg/lit	APHA 2540 C 24 th Edition:2023
Chemical Oxygen Demand (COD)	3851.47	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	1456.98	mg/lit	USEPA NERL 405.1
Chlorides as Cl-	721.04	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	632.88	mg/lit	APHA 4500-SO <sub>4</sub> E 24 th Edition:2023
Oil & Grease	16.00	mg/lit	APHA 5520 D 24 th Edition:2023



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**TEST REPORT**

<b>Test Report No: GESEC/PRO/WW/2024-25/12/1434</b>	<b>Report Date</b>	02/01/2025
<b>Sample ID : GESEC/PRO/WW/2024-25/12/1434</b>	<b>Sample Details</b>	ETP Outlet
<b>Name &amp; Address of the Customer:</b> M/s. Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari-Yalgud, Tal: Hatkanangale, Dist: Kolhapur (Maharashtra)	<b>Type of Sample</b>	Waste Water
	<b>Volume Of Sample</b>	1 Lit plastic bottle
	<b>Sample Status</b>	Sealed
	<b>Sample Collected By</b>	GESEC
	<b>Date of Sample Collection</b>	25/12/2024
	<b>Sample Receipt Date</b>	26/12/2024
	<b>Analysis start Date</b>	26/12/2024
	<b>Analysis End Date</b>	02/01/2025

Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.66	6.5-8.5	--	APHA 4500 H+ B 24 th Edition:2023
Suspended Solids (SS)	45.81	100	mg/lit	APHA 2540 D 24 th Edition:2023
Total Dissolved Solids (TDS)	1305.14	2100	mg/lit	APHA 2540 C 24 th Edition:2023
Chemical Oxygen Demand (COD)	77.69	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	28.41	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl-	196.30	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO4 --	147.88	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023

**Remark:**

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



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

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TEST REPORT			
Test Report No: GESEC/PRO/WW/2024-25/12/1435		Report Date	02/01/2025
Sample ID : GESEC/PRO/WW/2024-25/12/1435		Sample Details	Factory STP Inlet 50 KLPD
<b>Name &amp; Address of the Customer:</b> 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	25/12/2024
		Sample Receipt Date	26/12/2024
		Analysis start Date	26/12/2024
		Analysis End Date	02/01/2025
Parameters	Results	Unit	Standard Method
pH	6.19	--	APHA 4500 H+ B 24 th Edition:2023
Suspended Solids (SS)	145.20	mg/lit	APHA 2540 D 24 th Edition:2023
Total Dissolved Solids (TDS)	1102.68	mg/lit	APHA 2540 C 24 th Edition:2023
Chemical Oxygen Demand (COD)	152.04	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	96.31	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	387.93	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	174.55	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>			
➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit.			
			
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TEST REPORT					
Test Report No: GESEC/PRO/WW/2024-25/12/1436		Report Date		02/01/2025	
Sample ID : GESEC/PRO/WW/2024-25/12/1436		Sample Details		Factory STP Outlet 50 KLPD	
<b>Name &amp; Address of the Customer:</b> 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		25/12/2024	
		Sample Receipt Date		26/12/2024	
		Analysis start Date		26/12/2024	
		Analysis End Date		02/01/2025	
Parameters	Results	MPCB LIMIT	Unit	Standard Method	
pH	7.59	6.5-8.5	--	APHA 4500 H+ B 24 th Edition:2023	
Suspended Solids (SS)	17.61	100	mg/lit	APHA 2540 D 24 th Edition:2023	
Total Dissolved Solids (TDS)	685.20	2100	mg/lit	APHA 2540 C 24 th Edition:2023	
Chemical Oxygen Demand (COD)	42.60	250	mg/lit	USEPA 410.1	
Biochemical Oxygen Demand (BOD)	18.77	100	mg/lit	USEPA NERL 405.1	
Chlorides as Cl <sup>-</sup>	147.63	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023	
Sulphates as SO <sub>4</sub> <sup>-</sup>	105.09	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023	
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023	
<b>Remark:</b>					
➤ BDL – Below Detectable Limit. ➤ All parameters are within the MPCB limit.					
					
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TEST REPORT			
Test Report No: GESEC/PRO/WW/2024-25/12/1437		Report Date	02/01/2025
Sample ID : GESEC/PRO/WW/2024-25/12/1437		Sample Details	Colony STP Inlet 100 KLPD
<b>Name &amp; Address of the Customer:</b> 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	25/12/2024
		Sample Receipt Date	26/12/2024
		Analysis start Date	26/12/2024
		Analysis End Date	02/01/2025
Parameters	Results	Unit	Standard Method
pH	6.42	--	APHA 4500 H+ B 24 th Edition:2023
Suspended Solids (SS)	159.63	mg/lit	APHA 2540 D 24 th Edition:2023
Total Dissolved Solids (TDS)	1320.57	mg/lit	APHA 2540 C 24 th Edition:2023
Chemical Oxygen Demand (COD)	163.20	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	95.78	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	263.14	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	159.63	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b> > BDL – Below Detectable Limit. > All parameters are within the MPCB limit.			
			
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TEST REPORT				
Test Report No: GESEC/PRO/WW/2024-25/12/1438		Report Date		02/01/2025
Sample ID : GESEC/PRO/WW/2024-25/12/1438		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		25/12/2024
		Sample Receipt Date		26/12/2024
		Analysis start Date		26/12/2024
		Analysis End Date		02/01/2025
Parameters	Results	MPCB LIMIT	Unit	Standard Method
pH	7.72	6.5-8.5	--	APHA 4500 H+ B 24 th Edition:2023
Suspended Solids (SS)	18.69	100	mg/lit	APHA 2540 D 24 th Edition:2023
Total Dissolved Solids (TDS)	502.36	2100	mg/lit	APHA 2540 C 24 th Edition:2023
Chemical Oxygen Demand (COD)	37.40	250	mg/lit	USEPA 410.1
Biochemical Oxygen Demand (BOD)	13.95	100	mg/lit	USEPA NERL 405.1
Chlorides as Cl <sup>-</sup>	95.20	600	mg/lit	APHA 4500-Cl-B 24 th Edition:2023
Sulphates as SO <sub>4</sub> <sup>2-</sup>	87.41	1000	mg/lit	APHA 4500-SO4 E 24 th Edition:2023
Oil & Grease	BDL	10	mg/lit	APHA 5520 D 24 th Edition:2023
<b>Remark:</b>				
➤ BDL – Below Detectable Limit.				
➤ All parameters are within the MPCB limit.				
				 <b>Mr. Vinod Hande</b> <b>(Technical Manager)</b> <b>Reviewed &amp; Authorized By</b>

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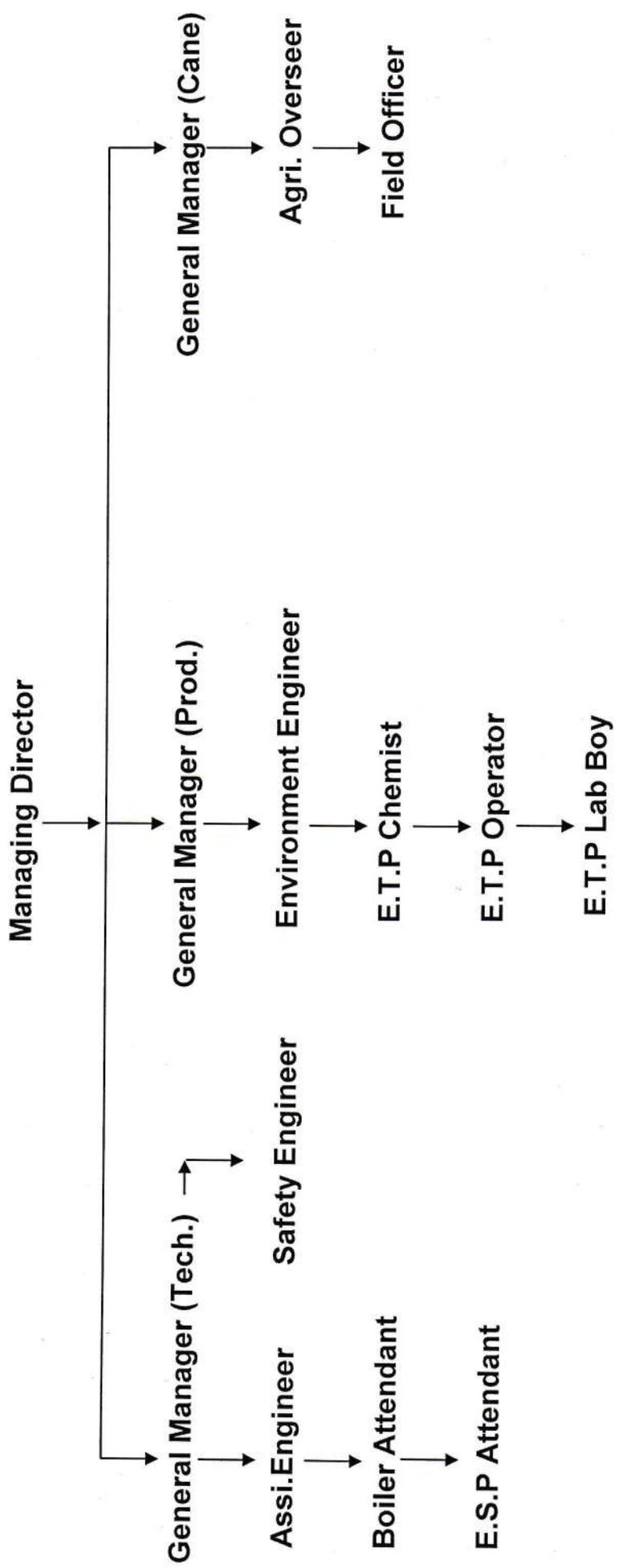
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**Kallappanna Awade Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari**  
Shri Kallappanna Awadenagar, Hupari-Yalgud 416 203,  
Tal. Hatkanangale, Dist. Kolhapur (Maharashtra)

**Environmental Management Cell**



Existing Green Belt



Existing Green Belt



Existing Green Belt



Existing Green Belt



Existing Green Belt



**KALLAPPANNA AWADE JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD.,**  
Hupari -Yalgud,416203, Tal-Hatkanangale, Dist- Kolhapur.(Maharastra)

Date: 30/09/2025

**Karkhana site Tree Plantation Details**

Sr.No	Particulars	Nos of Tree
<b>A</b>	<b>Fruit Plant</b>	
1.	Coconut	603
2.	Mango	350
3.	Chikku	156
	<b>Total</b>	<b>1109</b>
<b>B</b>	<b>Forest Tree</b>	
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 sag	300
30.	Gul bhendi	507
31.	Karanj	2869
32.	Jambhul	100
33.	Paletoforum	250
34.	Bambu	30634
35.	Katesawar	320
	<b>Total</b>	<b>53843</b>

Sr.No	Particulars	Nos of Plant
<b>C</b>	<b>Decorative Tree</b>	
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
9.	Konokarpus	925
	<b>Total</b>	<b>7640</b>
<b>D</b>	<b>Flower Tree</b>	
1.	Rose	200
2.	Other Flower Tree	4726
3.	Pots Tree	306
4.	Kaneri	2670
5.	Shankasur	340
	<b>Total</b>	<b>8242</b>

<b>Total Summary of tree plantation-</b>		
A	Fruit Tree	1109
B	Forest Tree	53843
C	Decorative Tree	7640
D	Flower Tree	8242
	<b>Total Tree Plantation</b>	<b>70834</b>

A Brief Report on  
**GREEN COVER ASSESSMENT**  
through

**Canopy Mapping and Tree Census Study**  
Of

**Jawahar Shetakari Sahakari Sakhar Karkhana Ltd. (JSSSKL) ,**  
Shri Kallappa Anna Awadenagar, Hupari - Yalgud, Tal.: Hatkanangale, Dist.: Kolhapur, MS.



Prepared By



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## Preamble

Green Cover is nothing but the above ground biomass in the form of vegetation at any area. Trees are amongst the most significant element of any landscape, both due to biomass and diversity and are important sinks for atmospheric carbon i.e., carbon dioxide, since 50% of their standing biomass is carbon itself. Industrial advancement has resulted in the emission of carbon in the ecosystem and there is an urgent need to address environmental issues related to them. Therefore, green belts are recommended for containment of air pollution in human environment, especially in Industrial and urban areas. Green belt as a back-up to technological pollution abatement measures, could substantially reduce pollution hazard; where green plants form a surface capable of sorbing air pollutants and forming sinks for pollutants. Leaves with their vast area in a tree crown, sorbs pollutants on their surface and often incorporate in metabolic stream, thus effectively reduce their concentrations in the ambient air and the air gets purified. Plants grown in such a way as to function as pollutant sinks especially carbon sequesters, are collectively referred to as green belts.

Tree Crown or Canopy, is the proportion of the area covered by the vertical projection of the tree crowns. In biology, the canopy is the aboveground portion of a tree, plant or crop, formed by the collection of individual crowns. Canopy cover is the layer formed by the branches and crowns of plants or trees. The cover can be continuous, as in primary forests, or discontinuous; with gaps, as in orchards. Canopy cover is measured as the proportion of a fixed area of the ground covered by tree crowns. The canopy cover will be determined by the tree species, as they have different crown sizes, shapes, and heights.

Early observations of canopies were made from the ground using binoculars or by examining fallen material. In some cases, unconventional methods such as chairs suspended on vines or hot-air dirigibles were used. Further, adapted mountaineering gear, has made canopy observation significantly easier and more accurate, allowed for longer and more collaborative work, and broadened the scope of canopy study. Now, the modern technology and instruments has made the measurements in the field easy and are affordable, portable, and handheld. There are many methods to measure canopy cover and accurate mapping and monitoring canopy cover using Drone Survey data is the best alternative way for satellite data. Drone photography and digital analysis uses the fisheye lens approach and

produces the most accurate measurements. It is suitable for tree level measurements of crown architecture, dimensions and density. Canopy cover density classes maps are the area-based parameter where the percentage of canopy cover of trees were computed based on the crown area of trees within the industrial plot area.

In most cases, field measurements by 'Tree Census' are needed for testing and validating all remote sensing methods and it is the only way to define more accurate vertical projection of a tree. Tree Census technique includes individual count of a tree and documentation of the basal area through girth or diameter at breast level, tree height and canopy diameter along with the species name. Carbon sequestration estimation is the main purpose of the measurement of green cover. With the help of statistical models and respective ratios and conversion factors, one can derive the biomass of a tree, current sequestered carbon and future potential, which is the main purpose to develop a green belt around any industrial complex. A plant, by habit, having woody stem or trunk with minimum girth of 10 cm at chest level and has a height of 2 m above the ground level. For better preservation, protection and plantation of trees, a census of trees should be carried out once in every five years in urban areas and apparently it should be more frequent in case of industrial areas.

Green Cover Measurement through Canopy Mapping & Tree Census acts as an indicator of following factors for both natural as well as cultivated vegetation.

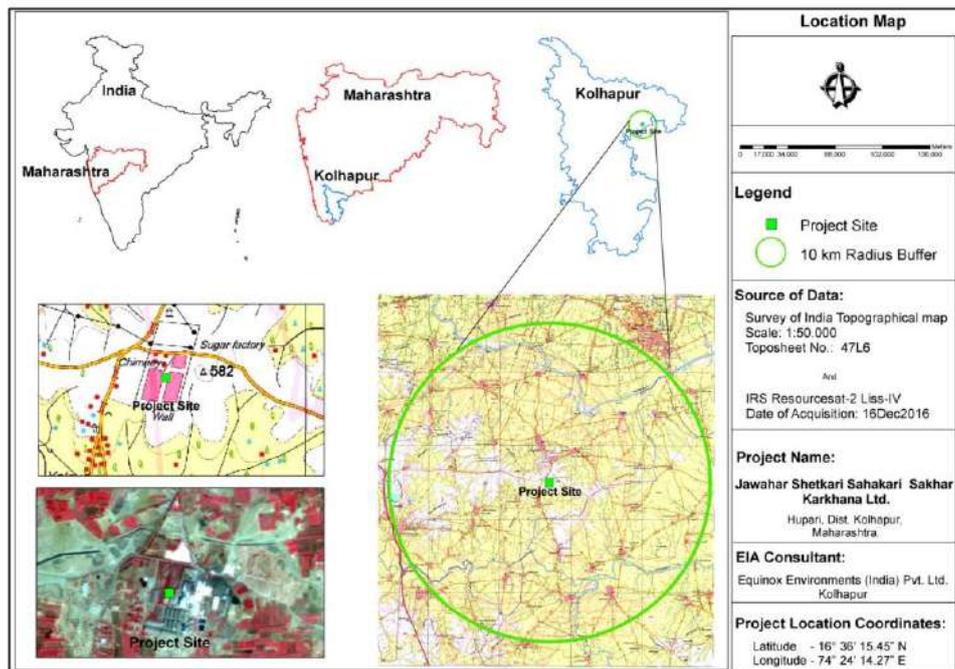
- The green cover is dependent on the health of a tree, vegetation diversity, nutrition, water access, soil characteristics, diseases, pest infestations and stress.
- The efficiency of fertilization, irrigation, and pruning methods affect the canopy cover and biomass of tree, so its measurement sheds light on these factors as well.
- Canopy cover is also used to study the effects of pollution hazards, fire & microclimate.

The present report is a brief summarisation of a 'Green Cover Assessment' of industrial campus of **M/s. Jawahar Shetakari Sahakari Sakhar Karkhana Ltd. (JSSSKL), Kolhapur**, through 'Canopy Mapping and Tree Census' study. The key purpose of this study is to estimate the current status of existing greenbelt, which will help to plan the proposed greenbelt development and its comprehensive management program.

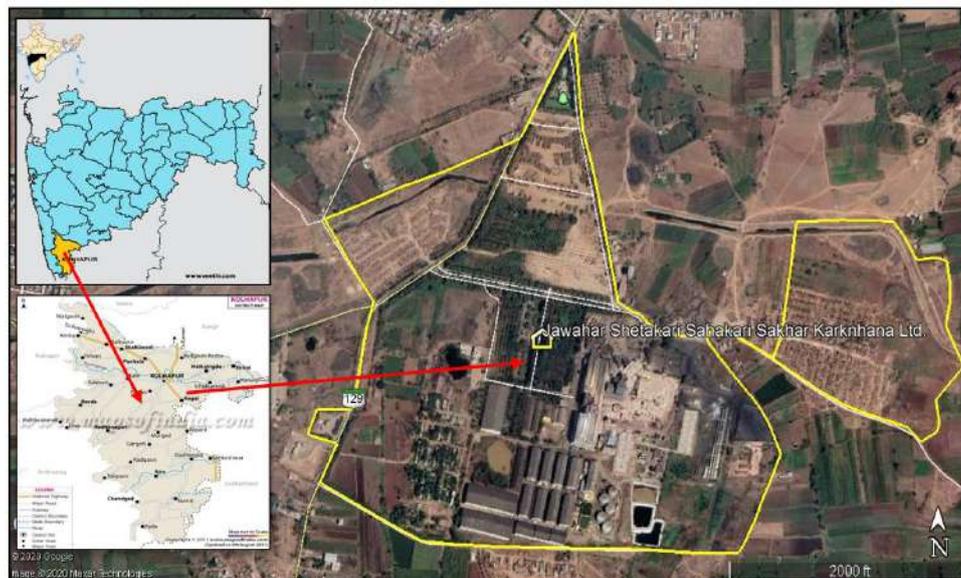
## Material & Methodology

**Study Area:** The project site of M/s Jawahar Shetkari Sahakari Sakhar Karkhana Limited (JSSSKL), is located at Shri Kallappa Awade nagar, Hupari-Yalgud, Tal.-Hatkanangale, Dist.-Kolhapur, Maharashtra. It is around 30 km from Kolhapur city. It is an industrial complex of sugar factory with capacity 16,000 TPD, 28.5 MW Co-gen plant and proposed 100 KLPD Distillery. The total area of the industry is 99.57 Ha. Geographical location of the site is 74°24'14.27" E longitude and 16°36'15.45"N latitude and 587 M above MSL.

**Fig 1 Location Map of the JSSSKL**



**Fig 2 Google Earth Map of the JSSSKL**



**Methodology:** Aerial imagery provides spectral (colour) information that allows trees to be distinguished from objects such as buildings and roads. Initially, a GIS base map and shapefile were prepared using the KML and plot layout of the industry. This map is used to set the Area of Interest (AOI) for the drone survey so it gives clarity and accuracy at the time of field work.

DJI's advanced technology Drone 'KAMBILL-DJI-INSPIRE-1 - Remotely Controlled Aircraft with X3 Camera' was used for the survey. The camera of the drone can take composite image with three bands along with digital elevation details and laser cloud points. Multispectral imaging sensors captures red, green, and blue (RGB) spectral information which is useful for image classification and to estimate vegetation canopy cover. The drone survey was carried out on 8<sup>th</sup> August 2023. The drone can fly at a constant level up to the height of 150 m. Since the chimney height is about 80 m, the drone survey was carried out at a constant level of 100 m above ground level. Differential GPS system 'KAM-DGPS Base Station' was fitted at centre of plot area and the geographical coordinates of the area was obtained. Coordinates of the DGPS point are - Latitude: 16° 36' 20.03" N, Longitude: 74° 24' 12.86" E and Ground level: 587.8 m w.r.t MSL.

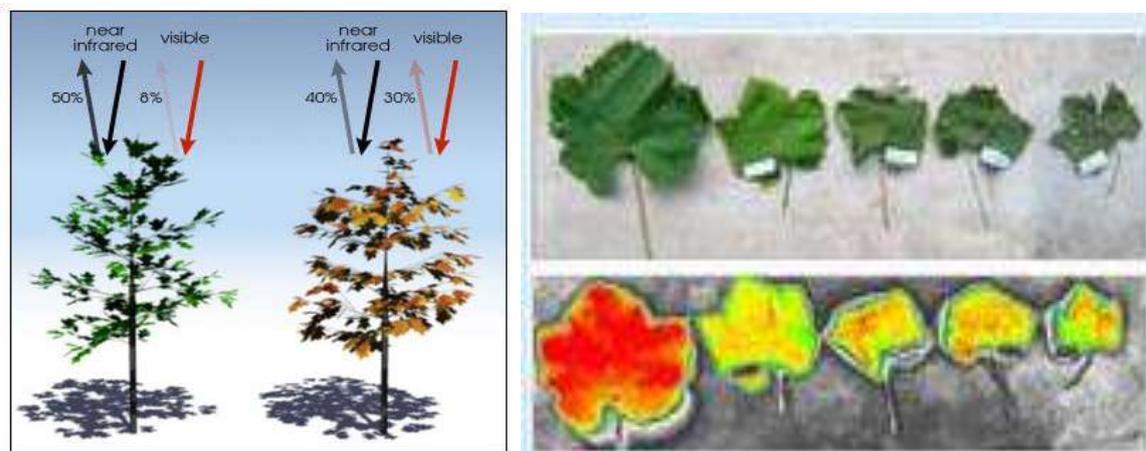
**Fig 3 The Image of the Drone and DGPS used for the Canopy Survey**



The data captured by the drone was downloaded, checked for clarity and accuracy and further processed using Pix4D software. An ortho-mosaic image was created using the drone data. A Digital Elevation Model was produced using ArcGIS software. ArcGIS generates Canopy map using the above processed data. Classification process and area computation of the canopy image was done using ERDAS software.

Standard 'Normalized Difference Vegetation Index (NDVI) technique' is used to measure the vegetation cover at study area. The difference between near-infrared (which vegetation strongly reflects) and red light (which vegetation absorbs) quantifies the vegetation cover. NDVI uses the NIR and red channels in its formulation. Normally, Healthy vegetation (chlorophyll) reflects more near-infrared (NIR) and green light compared to other wavelengths, but it absorbs more red and blue light. If you have low reflectance (or low values) in the red channel and high reflectance in the NIR channel, this will yield a high NDVI value and vice versa. When you have high NDVI values, you have healthier vegetation. When you have low NDVI, you have less or no vegetation.

**Fig 4 High and Low Reflectance of NIR and VR Lights**

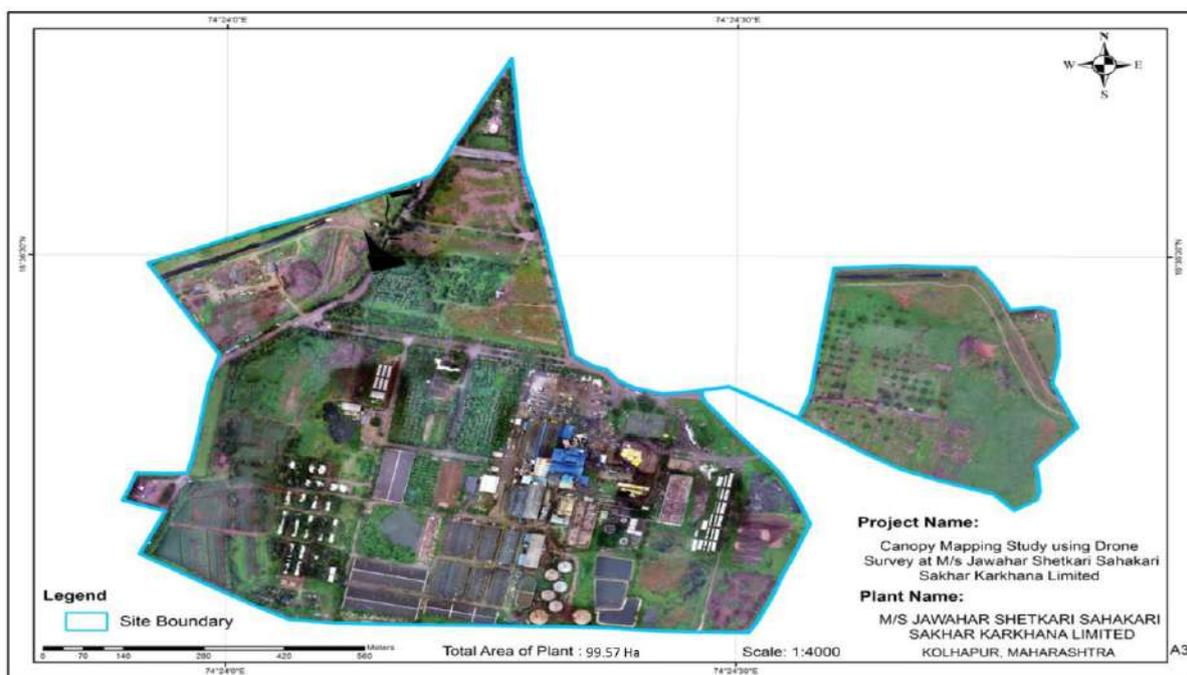


Since trees and shrubs can appear spectrally similar or be obscured by shadow, tree census was carried out to enhance the accuracy of tree mapping, providing more precise data including tree count, size, and species distribution. Attempt was made to count all the possible trees from the study area. Some inaccessible locations on project site were surveyed by using strategic representative belt transects and the data was extrapolated to the areas where it was not possible to reach. Most of the tree species encountered were identified on field on the basis of their morphological characters - shape, size, arrangement, texture, odour and colour of bark, leaves, flower and fruit. The Height and Girth of tree gives the volume of the tree. By using specific wood density and ratio factors for carbon and oxygen, total biomass, carbon stock, sequestered carbon and released oxygen by these trees were calculated.

## Observations & Results

Ortho-Rectified Composite Image of industry plant area was created with three bands, i.e., Red, Blue and Green. The composite image shows very clear patterns of green belt area along with the industrial plant buildings, grass lands and open areas. When you receive an unrectified image, there is distortion across the image caused by distortions from the sensor and the earth's terrain. After imagery has been orthorectified, it can be used within a GIS software and can be accurately overlaid with other data layers.

**Fig 5 Ortho-Rectified Composite Image of the JSSSKL**

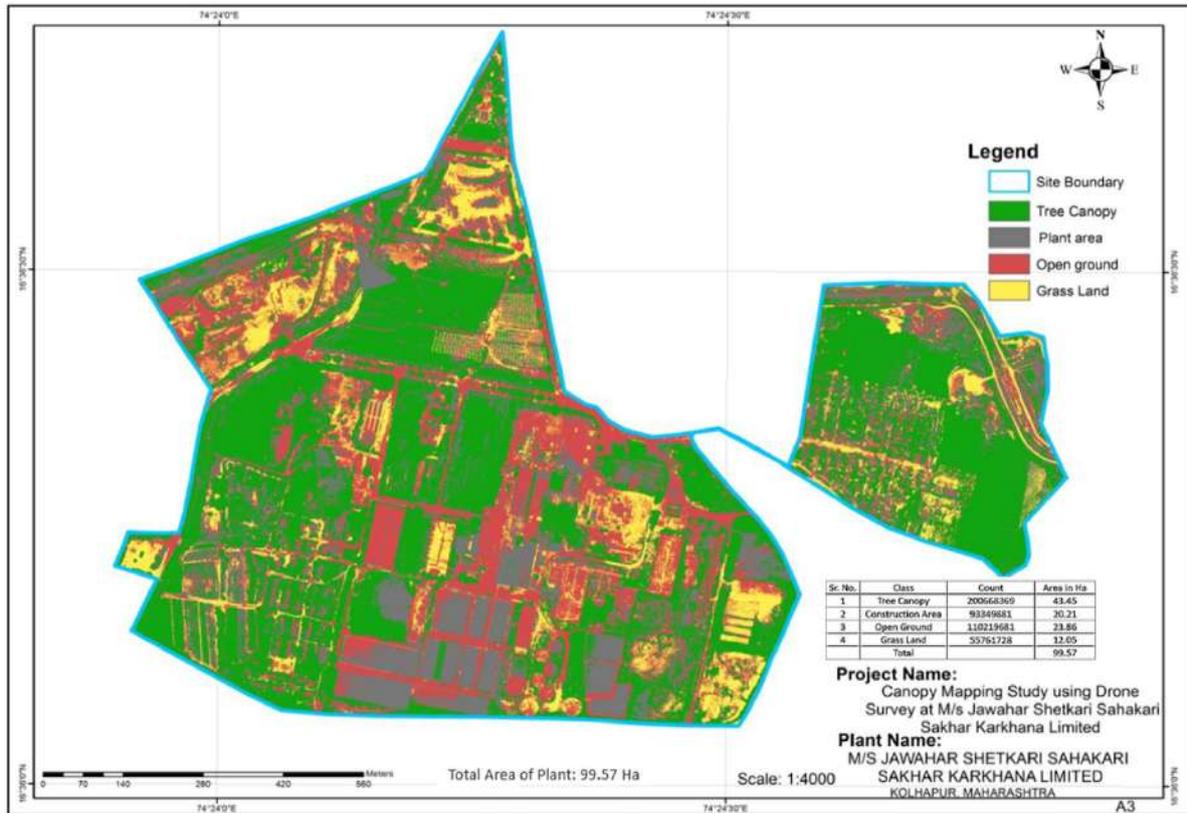


The image has been processed to apply corrections for optical distortions from the sensor system, and apparent changes in the position of ground objects caused by the perspective of the sensor view angle and ground terrain. This ortho-rectified composite image is accurately georeferenced and further used to generate the canopy map of the area. The NDVI technique was systematically adopted to create the vegetation canopy map from the ortho rectified composite image.

Although there are several vegetation indices, one of the most widely used is the Normalized Difference Vegetation Index (NDVI). Areas of barren rock, sand, or snow usually show very low NDVI values (for example, 0.1 or less). Sparse vegetation such as shrubs and

grasslands or senescing crops may result in moderate NDVI values (approximately 0.2 to 0.5). High NDVI values (approximately 0.6 to 0.9) correspond to dense vegetation.

**Fig 6 Canopy Map with Classification Area details of the JSSSKL**



The above canopy map shows four types of classes: 1) Tree canopy area, 2) Plant area, 3) Open Ground and 4) Grass land. The index count and area of each class were computed in GIS software.

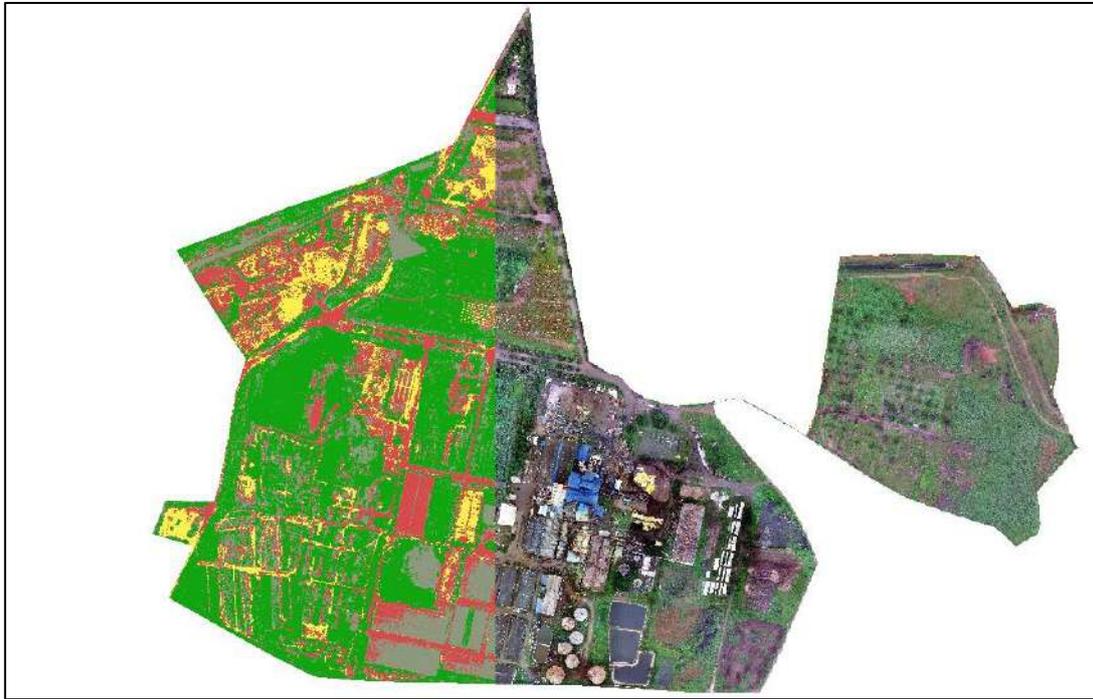
**Table 1 Index Count and Area of the Four Classes by NDVI Technique**

Sr. No.	Class	Count	Area in Ha
1	Tree Canopy	200668369	43.45
2	Construction Area	93349881	20.21
3	Open Ground	110219681	23.86
4	Grass Land	55761728	12.05
	<b>Total</b>		<b>99.57</b>

The table shows that out of the total area of 99.57 Ha of the four classes, tree canopy is 43.45 Ha, construction area is 20.21 Ha, open ground is 23.86 Ha and grass land is 12.05 Ha.

Therefore, the percentage of tree cover is 43.64%. The canopy map was validated with the composite image and found to be accurate as shown below.

**Fig 7 The Image Validation of the Canopy Map of JSSSKL**



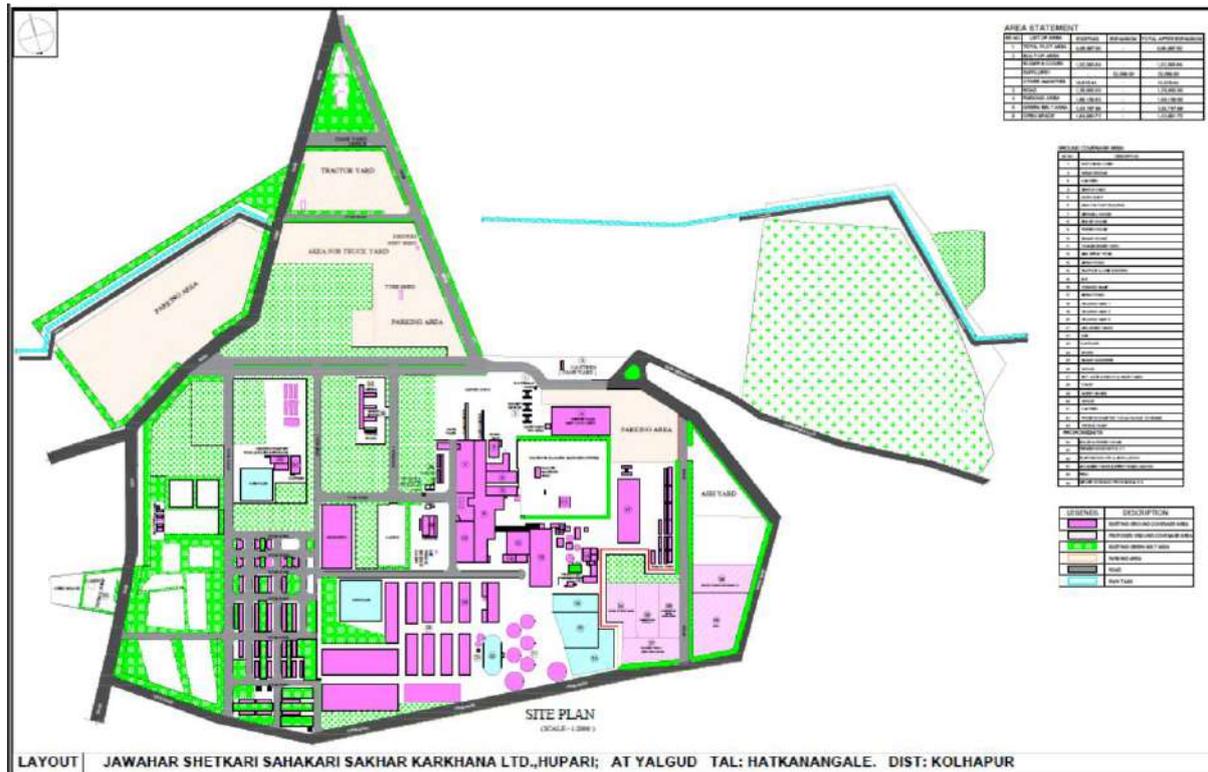
Grass lands are not included in the tree canopy area. The trees include in the above-mentioned canopy area are from height 1 m to 20 m. four groups were made as per the height of the trees and canopy area of each group is calculated.

**Table 2 Height wise canopy area of the trees in JSSSKL**

Height of Tree in M	Canopy Area of Trees in Sq. M	Proportion with Total Canopy Area
1 m to 5 m	44,890	10%
5 m to 10 m	79,299	18%
10 m to 15 m	1,63,800	38%
15 m to 20 m	1,46,461	34%
<b>Total</b>	<b>4,34,450 Sqm</b>	<b>100%</b>

The table shows that major proportion of the canopy area is of good height which indicates that the green belt developed at industry is in healthy condition. Here, some shrubs and bushes were also encompassed in the canopy cover. The tree census data further elaborates the status of the existing green belt at JSSSKL.

**Fig 8 Plot Layout of the integrated complex of JSSSKL**



The total plot area of 99.57 Ha was surveyed for the green cover inventory. Total 69,279 numbers of trees with more than 10 cm girth and height more than 4 ft have been enumerated. About 41 species have been identified during the census. It shows a rich diversity on the project complex.

**Total biomass:** Biomass, in ecology, is the mass of living biological organisms in a given area or ecosystem at a given time. Biomass can refer to species biomass, which is the mass of one or more species, or to community biomass, which is the mass of all species in the community. It can include microorganisms, plants or animals. The mass can be expressed as the average mass per unit area, or as the total mass in the community. 43,606.5 tons of total biomass of woody vegetation have been recorded, during the current tree census.

**Carbon stock:** Forests and trees act as natural carbon stores, but this carbon is released when the trees are felled and the area deforested. The amount of carbon stored within an area of land varies according to the type of vegetation cover. 747.74 tons of total carbon stock is present at the project complex.

**Carbon Sequestration (C. S.):** Carbon sequestration describes long-term storage of carbon dioxide or other forms of carbon to either mitigate or defer global warming and avoid dangerous

climate change. It has been proposed as a way to slow the atmospheric and marine accumulation of greenhouse gases, which are released by burning fossil fuels. Vegetation carbon pool having the potential of 560 Pg (Pg: Petagram= billion ton) of carbon storage globally. In the current study the focus is given on the assessment of existing carbon stock stored in JSSSKL in the form of woody vegetation by enumerating every tree species. Overall, 80017.80 tons of CO<sub>2</sub> has captured and stored by the woody plants present in the industry complex. A single tree consumes 0.0218 tons of CO<sub>2</sub> approximately annually consequently, as the campus possess 69,279 mature woody plants 1510.28 tons of CO<sub>2</sub> is consumed yearly by all woody vegetation on the industry complex.

**Oxygen released:** Woody vegetation in JSSSKL complex has released 2,13,647.53 tons of oxygen in their lifetime till date. Released oxygen is directly proportional to CO<sub>2</sub> sequestrate in the ratio of 32/12 thus it is supposed to release 5,70,438.90 kg of oxygen annually. It is assumed that a single tree supports oxygen demand of two people for their life. Thus, the 69,279-woody vegetation in college campus are supporting people around the campus.