

GODAVARI BIOREFINERIES LTD., (SUGAR & CO-GEN DIVISION) SAMEERWADI – 587 316



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING MARCH – 2021





GBL/SMR/QA&E/ KSPCB/ 2021 -22/ 64/

To,
The Member Secretary
Karnataka State Pollution Control Board
49, Parisara Bhavan,
4th & 5th floor, Church Street,
BANGALURU

Godavari Biorefineries Ltd

Sugar & Co-gen Division Date: 16.09.2021

Through: Regional Environmental Officer, KSPCB Bagalkot

Sub: Submission of Environmental Statement for the financial year ending March-2021.

Respected Sir,

With reference to above subject, we are herewith submitting the Environmental Statement for the financial year ending 31st March, 2021 for our Sugar and Cogeneration division in duplicate.

Kindly acknowledge the receipt of the same.

Thanking you

Yours Faithfully For Godavari Biorefineries Limited

B R Bakshi

Executive Director

CC: GM (Co-gen).

W.

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಿಕ ಮಂಡಳಿ ಪ್ರಾದೇಶಕ ಕಳ್ಳಲಿ, ಜನ್ನಲಕೋಟ

Works: P O Sameerwadi, Tal Mudhol, Dist Bagalkot, Karnataka State - 587 316. INDIA Tel: (91-08350) 260046/ 47/ 48 Fax: (91-08350) 260037 Gram: "SUGAR MILLS" Sameerwadi

Regd. Office: Somaiya Bhavan, 45/47, Mahatma Gandhi Road, Fort, Mumbai - 400 001 INDIA. Tel: (91-22) 2204 8272 / 2285 8430 Fax: (91-22) 2204 7297 www.somaiya.com



FORM - V

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31 ST MARCH - 2021

PART - A

1) Name and address of the Occupier of the Industry operation or process

B R Bakshi, Executive Director

Godavari Biorefineries Ltd; SAMEERWADI - 587316

Dist: Bagalkot

2) Production Capacity:

15000 TCD - Sugar Cane

3) Date of last statement submitted

.

09 September, 2020

3.3.1111100

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1972

4) Year of Establishment

PART - B

i) (a) WATER CONSUMPTION (Cu.M./day)

Source	During the Previous financial Year 2019-20	During the Current financial Year 2020-21
Process	27.589	39.918
Cooling	10.969	9.966
Domestic	150.000	137.671
TOTAL	188.558	187.555

(b) Water Consumption per unit of out-put.

Name of Product	Water consumption per unit of products		
*	(Cu.M./MT of product)		
	During the Previous financial	During the Current financial	
	Year 2019-20	Year 2020-21	
Sugar - Cooling + Process	0.088	0.108	
Domestic	0.427	0.338	

ii) RAW MATERIALS CONSUMPTION:

Name of Raw Material	Name of Product	(Kgs/Qtl of Sugar produced)	
		During the Previous financial year 2019-20	During the Current financial year 2020-21
1. Sugar cane	Sugar	1191.556	1347.812
Bagasse used as fuel Lime		44.098	38.020
a) Process	ž	0.815	0.703
b) E.T.P. + Spray		0.349	0.301
4. Orthophosphoric Acid		0.074	0.064
5. Sulphur		0.272	0.234
6. Lubricants (Lts/qtl)		0.035	0.030

By - Products	Kgs/Qtl of S	Kgs/Qtl of Sugar produced		
	During the Previous financial year 2019-20	During the Current financial year 2020-21		
I. Molasses	45.643	58.219		
II. Bagasse	338.458	379.720		
III. Press - Mud	53.692	58.137		

- 1. It can be seen from the above figures that the use of water for various purposes has been marginally lower due to centralized collecting system and is reclaimed. Further the higher per ton consumption is because of lower yeald and diversion of B-heavy molasse to distillery
- 2. Excess condensate is collected and cooled in a cooling tower and used as make up water, about 750-800 Cu.Mtr. per day is recycled.there by reducing demand on fresh water.
- 3. The water quantity is measured by water meters (3 Nos. provided) & one Mag' flow meter is for effluent measurement.

Thus, there is intensive recycling and re-use of hot condensate for process use and cooled condensate for make up, there by reducing demand of fresh water and minimisation of waste water.

PART-C POLLUTANTS DISCHARGED TO ENVIRONMENT/UNIT OF OUT PUT. (Parameters as specified in the consent issued)

	Pollutants	Quantity of pulluants discharged	Concentration of pollutants discharged	Percentage of variation to prescribed standards
-		(mass/day)	(kg/day)	with reasons
8) Waste water	About 84 Ltrs. Per MT of Cane crushed .	Seprately enclosed	All the parameters are meeting the standards and ETP is in operation.
b) Air	Below 150 mg/Nm3	Seprately enclosed	No variation as per Central pollution controll board's standards for bagasse fired boilers.
С) Noise	Below 70 db during day Below 60 db during night		within norms prescribed by CPCB

Remarks:

- 1. The quality of waste water discharged is well within the norms prescribed by the KSPCB
- 2. The ambient air quality and stack emission level are within the norms of K.S.P.C.B. for all the air pollution sources. The prescribed chimney height and Air pollution control equipments have been provided.
- 3. The capacity of ETP is 2500 CUM /per day. UASB reactor outlet is further treated in ASP / Extended aeration ETP after clarification, filtered in MB filter. Then disposed off on land for irrigation.

PART - D

HAZARDOUS WASTE

(As specified under Hazardous Waste/Management and Handling Rules, 1989)

	Total Quantity (Kgs)		
Hazardous Waste	During the Previous financial year 2019-20	During the Current financial year 2020-21	
a) From Process	NIL	NIL	
b) From Pollution control facilities	NIL	NIL	
c) D.G.Set Engine oil	Nil	0.14	

The oil is collected from DG sets is stored in closed barrels at Hazardous Waste storage Yard and used for cane carrier, belt conveyers lubrication

PART - E

SOLID WASTES

	During the previous	During the Current
Parameters	financial year 2019-20	financial year 2020-21
	Total quanti	ty in Tonnes
a) From process		
(By-products)		
i) Bagasse	433628.885	564264.32
ii) Press - Mud	68789.5	86391.32
iii)Ash	1410.33	1171.39
b) From pollution control		
'facilities	NIL	NIL
c) Quantity recycled or		
re-utilised within the unit		
i) Bagasse		
- Bagasse for boilers	56497.37	45141.60
- Sold	NIL	NIL
ii) Press-Mud	68789.5	86391.32
iii) Ash - Disposed	1410.33	1171.39
* contains 55-65% moisture	× ×	
iii) Ash - Disposed		

PART - F

Please specify the characteristics (in terms of quantum) of hazardous as well as solid wastes and indicate disposal practice for both these categories of waste.

D.G. set oil is mixed with bagasse and burnt in boilers.

By-products (Solids): Characteristics of Bagasse & Press-Mud.

SI.No.	Parameter	Bagasse	Press-Mud
1	рН	7.4 - 7.7	6.5 - 7.1
2	Nitrogen %	0.1 - 0.3	1.03 - 1.48
3	Phosphorous %	0.2 - 0.3	2.3 - 3.1
4	Potassium %	0.05 - 0.07	0.52 - 0.88
5	Organic Carbon %	35.0 - 45.0	34.5.0 - 43.0

Bagasse is used as fuel in boilers.

Press-mud is sold to distillery division for making biocompost.

Ash is used for land filling, brick manufacturing and Biocompost.

PART - G

Impact of pollution control (abatement) measures taken on conservation of natural resources and consequently on the cost of production.

The treated effluent is utilised on land for irrigation purpose. The farmers also using treated effluent are benefited due to availability of nutrients in the waste. There is good return to the farmers by the way of recycling nutrients, and suppliment their irrigation requirements when no water is available.

There is no significant impact on the cost of production.

PART - H

Additional measures/investment proposals for Environmental Protection including abatement of pollution and prevention of pollution.

We have done the maintenance of ETP plant and overhauling of all equipments and water lines involving a cost of 46.04 lakhs.

We were used new bacterial culture supplied by M/S Fermento Biotech Pvt Ltd. Which gave improved results even under shock load that involved culture cost of 0.45 lakhs.

The sugar factory effluent is treated in the well maintained effluent treatment plant. The sugar factory effluent is taken to holding tank after grit & oil seperation units. after U.A.S.B. reactor. Then effluent is treated in two stages aeration treatment plant. (ASP). The treated effluent is used for irrigation purpose only.

The plantation has been taken up extensively for Green Belt development from beginning and new planting is done every year around the factory and ETP. The cumulative plantaion in our complex is about 126 acres and maintainig healthy biodiversity.

PART - I

Any other particulars for improving the quality of Environment.

Please refer to the " Environmental Statement in Brief " ENVIRONMENTAL STATEMENT IN BRIEF

Name of the Factory

Godavari Biorefineries Ltd; SAMEERWADI - 587316.

Tal: Mudhol, Dist: Bagalkot.

Units of Effluent treatment plant :

(Sugar Division)

Screen, grit separator, Oil Skimmer, Oil & Grease traps,V-Notch, Equalisation tank & holding tanks (2 Nos) digester with buffer tank (02 Nos), aeration tanks (3Nos) & 102.5 H.P.aeration facility, settling tanks (3Nos), sludge pumps, sludge drying beds 750 M², dual media filter tank,holding tank with pumps pipelines etc...

- Q. 1 Whether water quantity measurement are made by installing water meter?
 - R Yes, Water meters are fully installed at all intake points. Water quantity is recorded as per meter readings
- Q.2. Whether untreated, treated effluent samples from the different unit process are analysed regularly?
 - R Factory has installed online effluent monitoring system as per CPCB direction. And it is connected to CPCB server

 Untreated and treated effluent samples analysed once in a month by MoEF recognized lab Factory has taken stringent steps to reduce effluent at source & to recycle the waste water for imbibition purpose, effluent and spray pond water is used for boiler ash quenching and quantity of effluent during this year came to 1211 Cu Mtr.per day.
- Q. 3. Whether the soil and ground water samples are tested regularly? Where the effluent is used for irrigation. Similarly, wheather upstream and down stream quality of river is tested regularly?
 - R Soil and well water analysis is done, treated effluent is used for irrigation and river water analysis not applicable.
- Q. 4 Whether stack monitoring arrangements have been made? and if so, wheather monitoring is done as per consent condition?

R Yes.

Q. 5. Whether ambient air quality and sound level measurements are carried out as per the consent conditions?

R Yes.

- Q.6. Briefly describe the safety precautions undertaken in the industry to prevent accidents including fire accidents?
- R. i) Safety belts, Gas masks and ear plugs are provided and safety measures are followed to prevent accident.
 - ii) Fire extinguisher like soda ash, dry powder and foam type are installed at the different stations in the factory.
 - iii) Fire buckets with sand are provided.
 - iv) Fire fighter is always kept ready.
- Q.7 If the expansion / modification is made, whether the consent from pollution control board and Environmental clearence is obtained? If so, furnish the details.
 - R Expansion from 7500 T.C.D. to 15000 TCD is already completed, and consent from KSPC Board is obtainted regularly.
- Q.8. What is the capital investment of pollution control measures since the inception of the plant and also mention the details of operational and maintenance costs?
 - R i) Capital Cost

Rs.365.00 lakhs

ii) Operational & maintenance cost per anum Rs.46.04 lakhs.

Q.9. Whether the Environmental Management cell is established in industry?

R Yes. Director (Works)	1 No
General Manager (QA & E)	1 No
Sr. Manager (Env)	1 No
Dy. Manager (WTP)	1 No.
Sr.Safety Officer	1 No.
Chemists	3 Nos.
Safety Supervisor	1 No
Laboratory attendents	2 Nos.
Laboratory space	150 Sq.ft.
Approximate expenditure for setting up	Rs. 6.5 lakhs.
the laboratory	

GODAVARI BIOREFINERIES LIMITED.

Sr. Manager (Env)

GM (QA & E)

Executive Director

APPROXIMATE COST OF EQUIPMENTS AND OTHER LABORATORY ACCESSORIES PURCHASED FOR ETP WORKS

1. Balance, Electronic, top loading	8000.00
2. B.O.D. incubator	50000.00
3. Centrifuge	15000.00
4. COD reflux unit	5000.00
5. Conductivity meter	7000.00
6. Distillation plant	3000.00
7. Drying oven	15000.00
8. Kjeldahl's Assembly	8500.00
9. Magnetic Stirrer	4000.00
10. Microscope	12000.00
11. Muffle Furnace	5000.00
12. pH Meter	8000.00
13. Silica Crucibles	6000.00
14. Refrigerator	12000.00
15. Spectrophotometer	250000.00
16 Hot Air oven	20000.00
17. Fume Hood	200000.00
<u>Others</u>	
a) Chemicals	20000.00
b) Glass Wares	25000.00
c) Contingencies	30000.00

The factory has already appointed the staff as per pattern and the cogen unit has procured high volume sampler for ambient Air quality and stack monitoring kit. Laboratory facilities are available for wastewater testing. Monthly water samples, stack and ambient air samples are analysed by Dr. Subbarao's Environmental Center, Sangli.



Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.
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NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT				
	FACK EMISSIONS			
Report Ref. No. SEC/Sugar/Stack-1/TZ/11-20				
Report Date	09 December 2020			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]			
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	27 November 2020			
Start Time of commencement of Sampling	11:00 am			
End Date of commencement of Sampling	27 November 20 2. 0			
End Time of commencement of Sampling	11:30 am			
Retention period of the reminant sample	30 days			
PARTI	CULARS OF STACK			
Stack attached to boiler	37.5 TPH			
Stack Diameter	1.98 m			
Stack Height	42.59 m			
Stack Temperature	133°C			
Stack Velocity of Flue Gases	9.5 m/s			
Type of Fuel	Bagasse			

POLLUTION PARAMETER RESULTS					
Parameter	Units	Results	Limits	Method Used	
Particulate Matter (PM)	mg/Nm ³	109	150	IS 11255m(Part 1): 1985, Reaffirmed 2003	
SO ₂	mg/Nm³	47	100	IS-11255 (Part 2): 1985 Reaffirmed 2009	
NOx	mg/Nm3	23	50	IS-11255 (Part 7): 2005 Reaffirmed 2012	

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	TEST REPORT			
STACK EMISSIONS				
Report Ref. No.	SEC/Sugar/Stack-5/TZ/11-20			
Report Date	09 December 2020			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]			
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	27 November 2020			
Start Time of commencement of Sampling	11:00 am			
End Date of commencement of Sampling	27 November 2020			
End Time of commencement of Sampling	11:30 am			
Retention period of the reminant sample	30 days			
PARTI	CULARS OF STACK			
Stack attached to boiler	37.5 TPH			
Stack Diameter	1.98 m			
Stack Height	35.86 m			
Stack Temperature	126°C			
Stack Velocity of Flue Gases	9.1 m/s			
Type of Fuel	Bagasse			

POLLUTION PARAMETER RESULTS					
Parameter	Units	Results	Limits	Method Used	
Particulate Matter (PM)	mg/Nm³	102	150	IS 11255m(Part 1): 1985, Reaffirmed 2003	
SO ₂	mg/Nm³	45	100	IS-11255 (Part 2): 1985 Reaffirmed 2009	
Note: The test report of	mg/Nm3	21	50	IS-11255 (Part 7): 2005 Reaffirmed 2012	

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TEST REPORT				
STACK EMISSIONS				
Report Ref. No.	SEC/Sugar/Stack-1/UT/12-20			
Report Date	15 January 2021			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]			
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	30 December 2020			
Start Time of commencement of Sampling	10:00 am			
End Date of commencement of Sampling	30 December 2020			
End Time of commencement of Sampling	10:30 am			
Retention period of the reminant sample	30 days			
PARTI	CULARS OF STACK			
Stack attached to boiler	37.5 TPH			
Stack Diameter	1.98 m			
Stack Height	42.59 m			
Stack Temperature	131°C			
Stack Velocity of Flue Gases	9.3 m/s			
Type of Fuel	Bagasse			

POLLUTION PARAMETER RESULTS				
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm³	95	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm³	39	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NOx mg/Nm3 20 50 IS-11255 (Part 7): 2005 Reaffirmed 2012				
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	TEST DEPOST			
ST	TEST REPORT			
Report Ref. No.				
Report Date	SEC/Sugar/Stack-5/UT/12-20			
Name of industry	15 January 2021			
Address	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]			
	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	30 December 2020			
Start Time of commencement of Sampling	10:00 am			
End Date of commencement of Sampling	30 December 20			
End Time of commencement of Sampling	10:30 am			
Retention period of the reminant sample	30 days			
PARTI	CULARS OF STACK			
Stack attached to boiler	37.5 TPH			
Stack Diameter	1.98 m			
Stack Height	35.86 m			
Stack Temperature	129°C			
Stack Velocity of Flue Gases	9.0 m/s			
Type of Fuel	Bagasse			

POLLUTION PARAMETER RESULTS					
Parameter	Units	Results	Limits	Method Used	
Particulate Matter (PM)	mg/Nm³	98	150	IS 11255m(Part 1): 1985, Reaffirmed 2003	
SO_2	mg/Nm³	40	100	IS-11255 (Part 2): 1985 Reaffirmed 2009	
NOx	mg/Nm3	20	50	IS-11255 (Part 7): 2005 Reaffirmed 2012	
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	TEST REPORT	
ST	ACK EMISSIONS	
Report Ref. No. SEC/Sugar/Stack-1/VK/01-21		
Report Date	10 February 2021	
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]	
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	
Start Date of commencement of Sampling	25 January 2021	
Start Time of commencement of Sampling	09:30 am	
End Date of commencement of Sampling	25 January 2021	
End Time of commencement of Sampling	10:00 am	
Retention period of the reminant sample	30 days	
PARTIC	CULARS OF STACK	
Stack attached to boiler	37.5 TPH	
Stack Diameter	1.98 m	
Stack Height	42.59 m	
Stack Temperature	128°C	
Stack Velocity of Flue Gases	9.4 m/s	
Type of Fuel	Bagasse	

POLLUTION PARAMETER RESULTS				
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	97	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm³	40	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NOx	mg/Nm3	21	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

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	TEST REPORT ACK EMISSIONS
Report Ref. No.	SEC/Sugar/Stack-5/WB/02-21
Report Date	05 March 2021
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.
Start Date of commencement of Sampling	26 February 2021
Start Time of commencement of Sampling	10:30 am
End Date of commencement of Sampling	26 February2021
End Time of commencement of Sampling	11:00 am
Retention period of the remnant sample	30 days
PARTIC	CULARS OF STACK
Stack attached to boiler	37.5 TPH
Stack Diameter	1.98 m
Stack Height	35.86 m
Stack Temperature	118°C
Stack Velocity of Flue Gases	8.1 m/s
Type of Fuel	Bagasse

POLLUTION PARAMETER RESULTS				
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm³	106	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO_2	mg/Nm³	48	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NOx	mg/Nm3	24	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

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Manager





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NABL Quality Assurance Laboratory Accredition	Certificate No.	TC - 6121	valid upto 09-08-2019
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AMBIENT AIR QUALITY REPORT				
Report Ref. No.: SEC/AA-TZ/11-20	End of Analysis : 07 December 2020			
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 09 December 2020			
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : TZ			
Date of Collection / Sampling : 27 November 2020	Nature of Sample: Ambient Air			
Date of Receipt: 28 November 2020	Sample Collected By: SEC Lab			

			Direction		PM ₁₀ (μg/m ³)	PM _{2.5} (μg/m ³)	SO ₂ (μg/m ³)	NO _χ (μg/m³)
Sr.	Sampling	Wind Direction	& Distance	Limits	< 100μg/m ³	< 60μg/m³	< 80μg/m³	< 80μg/m³
	Station		from	Method	IS 5182	SEC/QAL/SOP/	IS 5182	IS 5182
		·	stack	of	(Part 23):	AIR/PM2.5/03	(Part 2):	(Part 6):
				Testing	2006	7.1171 1012.5/03	2001	2006
1.	Near Sugar Main Gate	Easterly	SW, 645 meters		71	32	10.00	12.00

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QCI - NABET Accredited ETA Consultant Organization - Certificate No.
NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,
NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

REPORT
End of Analysis : 12 January 2021
Report Date: 15 January 2021
Lab ID/Sample Ref. No. : UT
Nature of Sample: Ambient Air
Sample Collected By: SEC Lab

				T	T		,	
	-		Direction		PM ₁₀ (μg/m ³)	PM _{2.5} (μg/m ³)	SO ₂ (μg/m ³)	NO _χ (μg/m³)
Sr.	Sampling	Wind	& Distance	Limits	< 100μg/m³	< 60μg/m³	< 80μg/m³	< 80μg/m³
	Station	J. 2011011	from	Method	IS 5182	SEC/OAL/SOD/	IS 5182	IS 5182
		7	stack	of	(Part 23):	SEC/QAL/SOP/	(Part 2):	(Part 6):
				Testing	2006	AIR/PM2.5/03	2001	2006
1.	Near Sugar	Easterly	SW, 645					
1.	Main Gate		meters		70	30	10.00	12.00
T 2.	Near Mahadev	Easterly	S, 1482					
۷.	Temple	Lasterry	meters	,	54	21	06.00	08.00

Analyzed By





Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.

Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493,

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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

AMBIENT AIR QUALITY REPORT					
Report Ref. No.: SEC/AA-VK/01-21	End of Analysis : 08 February 2021				
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 10 February 2021				
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: AA-VK				
Date of Collection / Sampling: 25 January 2021	Nature of Sample: Ambient Air				
Date of Receipt: 26 January 2021	Sample Collected By: SEC Lab				

7		e en en en	Direction		PM ₁₀ (μg/m ³)	PM _{2.5} (μg/m ³)	SO ₂ (μg/m ³)	NO _X (µg/m³)
Sr.	Sampling	Wind Direction	& Distance	Limits	< 100μg/m ³	< 60µg/m³	< 80μg/m³	< 80μg/m ³
	Station	Direction	from	Method	IS 5182	SEC/QAL/SOP/	IS 5182	IS 5182
		* .	stack	of	(Part 23):	AIR/PM2.5/03	(Part 2):	(Part 6):
			2.7	Testing	2006	AIN/PIVI2.5/05	2001	2006
1.	Near Sugar Main Gate	Easterly	SW, 645 meters		69	30	08.00	10.00

Analyzed By





Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.
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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

AMBIENT AIR QUALITY REPORT				
Report Ref. No.: SEC/AA-WB/02-21	End of Analysis : 09 March 2021			
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 15 March 2021			
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : AA-WB			
Date of Collection / Sampling: 25 February 2021	Nature of Sample: Ambient Air			
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab			

			Direction		PM ₁₀ (μg/m³)	PM _{2.5} (μg/m ³)	SO ₂ (μg/m ³)	NO _X (μg/m³)
Sr.	Sampling	Wind Direction	& Distance	Limits	< 100μg/m ³	< 60μg/m³	< 80μg/m³	< 80μg/m ³
NO.	Station	Direction	from	Method	IS 5182	SEC/QAL/SOP/	IS 5182	IS 5182
		* ,	stack	of	(Part 23):	AIR/PM2.5/03	(Part 2):	(Part 6):
				Testing	2006	AIR/PIVI2.5/03	2001	2006
1.	Near Sugar Main Gate	Easterly	SW, 645 meters		71	30	10.00	12.00

Analyzed By



13. Sulsan



Dr. SUBBARAO'S ENVIRONMENT CENTER

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E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com
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NOISE LEVEL MEASUREMI	ENT REPORT
Report Ref. No.: SEC/NL-VK/01-21	End of Analysis: 08 February 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 10 February 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: NL-VK
Date of Collection / Sampling: 25 January 2021	Nature of Sample: Noise Level
Date of Receipt: 26 January 2021	Sample Collected By: SEC Lab

Sr.	I and C II C - I		= 2j. 020 Eas	
No.	Location of recording Sound level	Standard Limit dB (A) Leq	Time	dB (A) Leq
y 1.	Main Gate	75	Day	58.2
		70	Night	49.5
2.	Weigh Bridge	75	Day	65.1
		70	Night	60.4
3.	Cane Cutter	75	Day	68.1
	****	70	Night	64.8
4.	Mill House	75	Day	70.8
-		70	Night	67.3
5.	Boiler House	75	Day	71.7
		70	Night	68.1
6.	Sugar Bagging House	75	Day	69.6
		70	Night	66.5
7.	General Office	75	Day	53.7
		70	Night	42.0
8.	Guest House	55	Day	50.8
	·	45	Night	41.2

Analyzed By





B. Sulla No

Authorized Signatory Technical Manager/ Quality Manager

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415. Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493, E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com QCI - NABET Accredited ETA Consultant Organization - Certificate No. NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019, NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT	
Report Ref. No.: SEC/W-TZ/11-20	End of Analysis: 07 December 2020
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 08 December 2020
Address: A/p. Sameerwadi – 587316, (Tg) Mudhol, (Dst) Bagalkot	Lab ID/Sample Ref. No. : TZ1
Date of Collection / Sampling : 28 November 2020	Nature of Sample: Water
Date of Receipt: 28 November 2020	Sample Collected By: SEC Lab
Date of Analysis: 29 November 2020	Sample Quantity: 1 lit
Name of Sample : Sugar ETP Inlet	1 2 10

Sr. No.	Test Parameter	Result	Unit	Test Method
1	рН	5.10		IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	1508	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	630	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	2390	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	192	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl ⁻	349	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	210	mg/l	IS:3025 (P-24) 1986
8	Oil & Grease	10	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli. 4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***



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TEST REPORT	
Report Ref. No.: SEC/W-UT/12-20	End of Analysis 121
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	End of Analysis: 12 January 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Report Date: 15 January 2021
Date of Collection / Sampling : 31 December 2020	Lab ID/Sample Ref. No.: UT1
Date of Receipt: 01 January 2021	Nature of Sample: Water
Date of Analysis 01 Language 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 January 2021	Sample Quantity: 1 lit
Name of Sample : Sugar ETP Inlet	Fro Quantity . 1 III

Sr. No.			1		
Sr. No.	Test Parameter	Result	Unit	Test Method	
1	pH	6.69		IS:3025 (P-11) 1983	
2	Chemical Oxygen Demand	1594	mg/l	IS:3025 (P-58) 2006	
3	B.O.D. (3 days at 27°C)	650	mg/l	IS:3025 (P-44) 1993	
4	Total Dissolved Solids	2180	mg/l	IS:3025(P-16)1984	
5	Total Suspended Solids	172	mg/l	IS:3025 (P-17) 1984	
6	Chloride as Cl ⁻	330	mg/l	IS:3025 (P-32) 1988	
7	Sulphate as SO ₄	226	mg/l	IS:3025 (P-24) 1986	
8	Oil & Grease	10	mg/l	IS:3025 (P-39) 1991	
Remar	·ks:		7	(RA 2003)	

Thanking you,

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory. 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.





Dr. SUBBARAO'S ENVIRONMENT CENTER

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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

B: Sulballe

Authorized Signatory
Technical Manager/ Quality Manager

TEST REPORT	
Report Ref. No.: SEC/W-VK/01-21	End of Analysis: 08 February 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 10 February 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: VK1
Date of Collection / Sampling: 26 January 2021	Nature of Sample: Water
Date of Receipt: 26 January 2021	Sample Collected By: SEC Lab
Date of Analysis: 27 January 2021	Sample Quantity: 1 lit
Name of Sample : Sugar ETP Inlet	

	Sr. No.	Test Parameter	Result	Unit	Test Method
	1	pH	6.84	-	IS:3025 (P-11) 1983
	2	Chemical Oxygen Demand	1830	mg/l	IS:3025 (P-58) 2006
	3	B.O.D. (3 days at 27°C)	710	mg/l	IS:3025 (P-44) 1993
	4	Total Dissolved Solids	2240	mg/l	IS:3025(P-16)1984
	5	Total Suspended Solids	180	mg/l	IS:3025 (P-17) 1984
	6	Chloride as Cl	292	mg/l	IS:3025 (P-32) 1988
	7	Sulphate as SO ₄	208	mg/l	IS:3025 (P-24) 1986
1	8	Oil & Grease	10	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,



Note:

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

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QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021.

3. Sample is not drawn by Dr. Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***

PAN NO. AAMFD6620P ■ ISO 9001:2008, OSHAS 18001:2007 CERTIFIED ■ REGISTRATION NO. PN00000996

GSTIN: 27AAMFD6620P1ZW ■ TAN: KLPD02394A



Dr. SUBBARAO'S ENVIRONMENT CENTER

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NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

B Sulle Ao

Authorized Signatory
Technical Manager/ Quality Manager

TEST REPORT	
Report Ref. No.: SEC/W-WB/02-21	End of Analysis : 09 March 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 15 March 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: WB1
Date of Collection / Sampling: 27 February 2021	Nature of Sample: Water
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 March 2021	Sample Quantity: 1 lit
Name of Sample : Sugar ETP Inlet	

1		T		
Sr. No.	Test Parameter	Result	Unit	Test Method
1	pН	5.92		IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	1965	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	750	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	2410	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	190	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl	317	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	210	mg/l	IS:3025 (P-24) 1986
8	Oil & Grease	10	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr. Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***

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PAN NO. AAMFD6620P ■ ISO 9001:2008, OSHAS 18001:2007 CERTIFIED ■ REGISTRATION NO. PN00000996
GSTIN: 27AAMFD6620P1ZW ■ TAN: KLPD02394A



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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

Authorized Signatory Technical Manager/ Quality Manager

TEST REPORT	:
Report Ref. No.: SEC/W-TZ/11-20 Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	End of Analysis : 07 December 2020
Address: A/p. Sameerwadi – 587316, (Tg) Mudhol (Dst) Bagalkot	Report Date: 08 December 2020 Lab ID/Sample Ref. No.: TZ2
Date of Collection / Sampling : 28 November 2020 Date of Receipt : 28 November 2020	Nature of Sample: Water
Date of Analysis: 29 November 2020 Name of Sample : Sugar ETP Outlet	Sample Collected By: SEC Lab Sample Quantity: 1 lit

Sr. No.	Test Parameter	Result	Unit	Standards	Test Method
1	pH	7.72		5.5-8.5	IS:3025 (P-11) 1983
. 2	Chemical Oxygen Demand	121	mg/l	250	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	45	mg/l	100	IS:3025 (P-44) 1993
4	Total Dissolved Solids	540	mg/l	2100	IS:3025(P-16)1984
5	Total Suspended Solids	51	mg/l	100	IS:3025 (P-17) 1984
6	Chloride as Cl	138	mg/l	600	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	96	mg/l	1000	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	10	IS:3025 (P-24) 1986 IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,



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2. The test result shall not be reproduced except in full, without written approval of the laboratory. 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***



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***END of Test Report ***

TEST REPORT	
Report Ref. No.: SEC/W-UT/12-20 Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	End of Analysis: 12 January 2021
Address. A/p. Sameerwadi – 587316. (Tg) Mudhol (Dst) Bagalliot	Report Date: 15 January 2021 Lab ID/Sample Ref. No.: UT2
Date of Collection / Sampling: 31 December 2020 Date of Receipt: 01 January 2021	Nature of Sample: Water
Date of Analysis: 01 January 2021	Sample Collected By: SEC Lab
Name of Sample : Sugar ETP Outlet	Sample Quantity: 1 lit

Test Parameter	Result	Unit	Standards	Test Method
pH	8.05	_	5.5-8.5	IS:3025 (P-11) 1983
Chemical Oxygen Demand	125	mg/l	250	IS:3025 (P-58) 2006
B.O.D. (3 days at 27°C)	45	mg/l	100	IS:3025 (P-44) 1993
Total Dissolved Solids	510	mg/l	2100	IS:3025(P-16)1984
Total Suspended Solids	47	mg/l		
Chloride as Cl	118			IS:3025 (P-17) 1984
Sulphate as SO ₄	70		-	IS:3025 (P-32) 1988
Oil & Grease	ND			IS:3025 (P-24) 1986 IS:3025 (P-39) 1991
	pH Chemical Oxygen Demand B.O.D. (3 days at 27°C) Total Dissolved Solids Total Suspended Solids Chloride as Cl ⁻ Sulphate as SO ₄	pH 8.05 Chemical Oxygen Demand 125 B.O.D. (3 days at 27°C) 45 Total Dissolved Solids 510 Total Suspended Solids 47 Chloride as Cl 118 Sulphate as SO ₄ 70	pH 8.05 - Chemical Oxygen Demand 125 mg/l B.O.D. (3 days at 27°C) 45 mg/l Total Dissolved Solids 510 mg/l Total Suspended Solids 47 mg/l Chloride as Cl 118 mg/l Sulphate as SO ₄ 70 mg/l	pH 8.05 - 5.5-8.5 Chemical Oxygen Demand 125 mg/l 250 B.O.D. (3 days at 27°C) 45 mg/l 100 Total Dissolved Solids 510 mg/l 2100 Total Suspended Solids 47 mg/l 100 Chloride as Cl 118 mg/l 600 Sulphate as SO ₄ 70 mg/l 1000

Remarks:

Thanking you, Analysed By

Note:

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory. 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.





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End of Analysis : 08 February 2021
Report Date: 10 February 2021
Lab ID/Sample Ref. No. : VK2
Nature of Sample: Water
Sample Collected By: SEC Lab
Sample Quantity: 1 lit

Sr. No.	Test Parameter	Result	Unit	Standards	Test Method
1	рН	7.64	-	5.5-8.5	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	138	mg/l	250	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	46	mg/l	100	IS:3025 (P-44) 1993
4	Total Dissolved Solids	520	mg/l	2100	IS:3025(P-16)1984
5	Total Suspended Solids	48	mg/l	100	IS:3025 (P-17) 1984
6	Chloride as Cl	134	mg/l	600	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	98	mg/l	1000	IS:3025 (P-24) 1986
8 .	Oil & Grease	ND	mg/l	10	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



Bisveale Authorized Signatory Technical Manager/ Quality Manager

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr. Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***

QCI - NABET Accredited ETA Consultant Organization Certificate No. NABET/EIA/1922/RA0159 valid upto June 12, 2022. QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021



Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.

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NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT	
Report Ref. No.: SEC/W-WB/02-21	End of Analysis: 09 March 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 15 March 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: WB2
Date of Collection / Sampling: 27 February 2021	Nature of Sample: Water
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 March 2021	Sample Quantity: 1 lit
Name of Sample : Sugar ETP Outlet	

Sr. No.	Test Parameter	Result	Unit	Standards	Test Method
1	рН	7.45	_	5.5-8.5	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	126	mg/l	250	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	45	mg/l	100	IS:3025 (P-44) 1993
4	Total Dissolved Solids	510	mg/l	2100	IS:3025(P-16)1984
5	Total Suspended Solids	46	mg/l	100	IS:3025 (P-17) 1984
6	Chloride as Cl	121	mg/l	600	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	102	mg/l	1000	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	10	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



B sulgar

Authorized Signatory
Technical Manager/ Quality Manager

Note:

- 1. The result pertains only for the sample tested.
- 2. The test result shall not be reproduced except in full, without written approval of the laboratory.
- 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.
- 4. Retention period for the reminant shall be 30 days.
- 5. ND- Not Detected.

***END of Test Report ***

QCI - NABET Accredited ETA Consultant Organization Certificate No. NABET/EIA/1922/RA0159 valid upto June 12, 2022. QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021.



"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415. Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493, E-mail: bssubbarao@yahoo.com/bssharat@yahoo.com/bsnagjyoti@yahoo.com QCI - NABET Accredited ETA Consultant Organization - Certificate No. NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

End of Analysis: 07 December 2020
Report Date : 08 December 2020
Lab ID/Sample Ref. No. : TZ3
Nature of Sample: Water
Sample Collected By: SEC Lab
Sample Quantity: 1 lit

Location: Borewell Water [Nagappa Satyappa Banai]

Sr.			ppa Satyappa Ballajj	IC.2207	
No.		Unit	Result	IS:2296 Standards	Test Method
1	*Color	Hazen	< 5		IS:3025 (P-4) 1983
2	*Odor		Agreeable		IS:3025 (P-5) 1983
3	pH		7.17	6.5 – 8.5	IS:3025 (P-11) 1983
4	Turbidity	NTU	0.1		IS:3025 (P-10) 1984
5	Total Alkalinity (as CaCO ₃)	mg/l	160		IS:3025 (P-23) 1986
6	Chemical Oxygen Demand	mg/l	32		IS:3025 (P-58) 2006
7	B.O.D. (3day's at 27°C)	mg/l	< 4		IS:3025 (P-44) 1993
8	Total Dissolved Solids	mg/l	610	2100	IS:3025 (P-16) 1984
9	Chlorides (as Cl)	mg/l	124	600	IS:3025 (P-16) 1984 IS:3025 (P-32) 1988
10	Hardness (as CaCO ₃)	mg/l	608		IS:2025 (P-32) 1988
11	Calcium (as Ca)	mg/l	141		IS:3025 (P-21) 1983
12	Magnesium (as Mg)	mg/l	62		IS:3025 (P-40) 1991
13	Sodium (as Na)	mg/l	135.1		IS:3025 (P-46) 1994
14	Potassium (as K)	mg/l	5.8		IS:3025 (P-45) 1993
15	% Na (Max)	%	32.35	60	IS:3025 (P-45) 1993
16	Sodium Absorption Ratio		2.38	26	By Calculation
17	Residual Sodium Carbonate	meq/l	-9.01	2.5	By Calculation
18	Electrical Conductivity	μmhos/cm	1030		By Calculation
	Remarks:	pilitios/ CIII	1030	2250	IS:3025 (P-14) 1984

Remarks:

Thanking you,

Note:

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

6. * -- Parameter not under NABL scope

B. Sulla M Authorized Signatory Technical Manager/ Quality Manager

***END of Test Report ***



"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415. Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493, E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com QCI - NABET Accredited ETA Consultant Organization - Certificate No. NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT	
Report Ref. No. : SEC/W-UT/12-20	End of Analysis . 121
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	End of Analysis : 12 January 2021 Report Date : 15 January 2021
Address: A/p. Sameerwadi – 587316, (Tg) Mudhol, (Dst) Bagalkot	Lab ID/Sample Ref. No.: UT3
Date of Collection / Sampling: 31 December 2020	Nature of Sample: Water
Date of Receipt: 01 January 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 January 2021	Sample Quantity: 1 lit
Name of Sample & Location: Borewell Water [Shivling Bassappa Banail	Sample Quality: 1 lit

Sr.	- Location. Borewe	.	C = manappa sanajj	T 70 00	
No.	Test Parameter	Unit	Result	IS:2296 Standards	Test Method
1	*Color	Hazen	< 5		IS:3025 (P-4) 1983
2	*Odor	- L	Agreeable		
3	pH		7.26	6.5 – 8.5	IS:3025 (P-5) 1983
4	Turbidity	NTU	0.1	0.5 - 6.5	IS:3025 (P-11) 1983
5	Total Alkalinity (as CaCO ₃)	mg/l	178	-	IS:3025 (P-10) 1984
6	Chemical Oxygen Demand	mg/l	35		IS:3025 (P-23) 1986
7	B.O.D. (3day's at 27°C)	mg/l			IS:3025 (P-58) 2006
8	Total Dissolved Solids	mg/l	< 4	2100	IS:3025 (P-44) 1993
9	Chlorides (as Cl)		670	2100	IS:3025 (P-16) 1984
10	Hardness (as CaCO ₃)	mg/l	134	600	IS:3025 (P-32) 1988
11	Calcium (as Ca)	mg/l	690		IS:3025 (P-21) 1983
12	Magnesium (as Mg)	mg/l	188	"	IS:3025 (P-40) 1991
13	Sodium (as Na)	mg/l	54		IS:3025 (P-46) 1994
14	Potassium (as K)	mg/l	96.6		IS:3025 (P-45) 1993
15		mg/l	8.9		IS:3025 (P-45) 1993
	% Na (Max)	%	23.01	60	By Calculation
16	Sodium Absorption Ratio		1.59	26	By Calculation
17	Residual Sodium Carbonate	meq/l	-10.34	2.5	By Calculation
	Electrical Conductivity	μmhos/cm	1240	2250	By Calculation
	Remarks:	1 1 1 1 1	-2.0	2230	IS:3025 (P-14) 1984

Thanking you, Analysed By

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

6. * -- Parameter not under NABL scope





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TEST REPORT	e
Report Ref. No. : SEC/W-VK/01-21	End of Analysis : 08 February 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 10 February 2021
Address: A/p. Sameerwadi – 587316, (Tg) Mudhol, (Dst) Bagalkot	Lab ID/Sample Ref. No.: VK3
Date of Collection / Sampling: 26 January 2021	Nature of Sample: Water
Date of Receipt: 26 January 2021 Date of Analysis: 27 January 2021	Sample Collected By: SEC Lab
Name of Sample & Location: Borewell Water [Hanmant Avanna Noils]	Sample Quantity: 1 lit

- C	de sample de Location. Bolewei	. state! [Hailill	ant Ayaapaa Naikj		
Sr.	Test Parameter	Unit	Result	IS:2296 Standards	Test Method
1	*Color	Hazen	< 5		IS:3025 (P-4) 1983
2	*Odor		Agreeable		IS:3025 (P-5) 1983
3	pH	- 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	8.18	6.5 - 8.5	IS:2025 (P-3) 1983
4	Turbidity	NTU	0.2	0.5 0.5	IS:3025 (P-11) 1983
5	Total Alkalinity (as CaCO ₃)	mg/l	160		IS:3025 (P-10) 1984
6	Chemical Oxygen Demand	mg/l	29		IS:3025 (P-23) 1986
7	B.O.D. (3day's at 27°C)	mg/l	< 4		IS:3025 (P-58) 2006
8	Total Dissolved Solids	mg/l	470	2100	IS:3025 (P-44) 1993
9	Chlorides (as Cl)	mg/l	112	2100	IS:3025 (P-16) 1984
10	Hardness (as CaCO ₃)	mg/l	400	600	IS:3025 (P-32) 1988
11	Calcium (as Ca)	mg/l		for size	IS:3025 (P-21) 1983
12	Magnesium (as Mg)		132		IS:3025 (P-40) 1991
13	Sodium (as Na)	mg/l	20		IS:3025 (P-46) 1994
14	Potassium (as K)	mg/l	82.1		IS:3025 (P-45) 1993
15	% Na (Max)	mg/l	4.9		IS:3025 (P-45) 1993
16	Sodium Absorption Ratio	%	29.93	60	By Calculation
17	Residual Sodium Carbonate		1.75	26	By Calculation
18		meq/l	-5.06	2.5	By Calculation
10	Electrical Conductivity Remarks:	μmhos/cm	681	2250	IS:3025 (P-14) 1984

Remarks:

Thanking you, Analysed By

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory. 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

6. * -- Parameter not under NABL scope

B. Sulvel.

Authorized Signatory Technical Manager/ Quality Manager

***END of Test Report ***

QCI - NABET Accredited ETA Consultant Organization Certificate No. NABET/EIA/1922/RA0159 valid upto June 12, 2022. QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021.

PAN NO. AAMFD6620P ■ ISO 9001:2008, OSHAS 18001:2007 CERTIFIED ■ REGISTRATION NO. PN00000996 GSTIN: 27AAMFD6620P1ZW ■ TAN: KLPD02394A



"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415. Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493, E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com QCI - NABET Accredited ETA Consultant Organization - Certificate No. NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

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B. Sulla No

Authorized Signatory Technical Manager/ Quality Manager

TEST REPORT	
Report Ref. No.: SEC/W-WB/02-21	End of Analysis: 09 March 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 15 March 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: WB3
Date of Collection / Sampling: 27 February 2021	Nature of Sample: Water
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 March 2021	Sample Quantity: 1 lit
Name of Sample & Location: Borewell Water [Nagappa Satyappa Banai]	

	of Sample & Location. Boleweil	Tracer [reagap	pa satyappa sanajj	V 1	
Sr.	Test Parameter	Unit	Result	IS:2296 Standards	Test Method
1	*Color	Hazen	< 5		IS:3025 (P-4) 1983
-2	*Odor		Agreeable	-	IS:3025 (P-5) 1983
3	рН		7.35	6.5 - 8.5	IS:3025 (P-11) 1983
4	Turbidity	NTU	0.1	-	IS:3025 (P-10) 1984
5	Total Alkalinity (as CaCO ₃)	mg/l	170	-	IS:3025 (P-23) 1986
6	Chemical Oxygen Demand	mg/l	29		IS:3025 (P-58) 2006
7	B.O.D. (3day's at 27°C)	mg/l	< 4		IS:3025 (P-44) 1993
8	Total Dissolved Solids	mg/l	590	2100	IS:3025 (P-16) 1984
9	Chlorides (as Cl)	mg/l	152	600	IS:3025 (P-32) 1988
10	Hardness (as CaCO ₃)	mg/l	503		IS:3025 (P-21) 1983
11	Calcium (as Ca)	mg/l	116		IS:3025 (P-40) 1991
12	Magnesium (as Mg)	mg/l	52	- pc	IS:3025 (P-46) 1994
13	Sodium (as Na)	mg/l	112.5		IS:3025 (P-45) 1993
14	Potassium (as K)	mg/l	4.1		IS:3025 (P-45) 1993
15	% Na (Max)	%	32.47	60	By Calculation
16	Sodium Absorption Ratio		2.18	26	By Calculation
17	Residual Sodium Carbonate	meq/l	-6.73	2.5	By Calculation
18	Electrical Conductivity	μmhos/cm	980	2250	IS:3025 (P-14) 1984

Remarks:

Thanking you

Analysed By

1. The result pertains only for the sample tested.

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3. Sample is not drawn by Dr. Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

6. * -- Parameter not under NABL scope

***END of Test Report ***

QCI - NABET Accredited ETA Consultant Organization Certificate No. NABET/EIA/1922/RA0159 valid upto June 12, 2022.

QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021.



Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.

Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493,

E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com

QCI - NABET Accredited ETA Consultant Organization - Certificate No.

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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

End of Analysis: 07 December 2020
Report Date: 08 December 2020
Lab ID/Sample Ref. No.: TZ4
Nature of Sample: Soil
Sample Collected By: SEC Lab
Sample Quantity: 1 kg

Sr. No.	Test Parameter	Unit	Result	Test Method (Testing Manual of Soil, Ministry of Agriculture, Govt. of India-2011)
1	рН		9.25	PP - 77-78
2	Conductivity	mmhos/cm	0.370	PP - 81-82
3	Mineralizable Nitrogen	%	0.0032	PP - 89-91
4	Available Phosphorus	Kg/ha	44	PP - 96-98
5	Available Potassium	Kg/ha	810	PP - 99-100
6	Organic Carbon	%	0.69	PP - 84-85
7	Calcium (as Ca)	%	2.12	PP - 103-104
8	Magnesium (as Mg)	%	0.16	PP - 104-105

Remarks:

Thanking you,

Analysed By

Note:

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

SEC TO A THE

Authorized Signatory
Technical Manager/ Quality Manager

***END of Test Report ***



"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415. Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493, E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com QCI - NABET Accredited ETA Consultant Organization - Certificate No. NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

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***END of Test Report ***

TEST REPORT	
Report Ref. No.: SEC/S-UT/12-20	End of Analysis 42
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	End of Analysis: 12 January 2021
Address: A/n Comment Goddwarf Bioreimeries Ltd. [Sugar Unit]	Report Date: 15 January 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: UT4
Date of Collection / Sampling : 31 December 2020	
Date of Receipt: 01 January 2021	Nature of Sample: Soil
Date CA 1 : Of January 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 January 2021	Sample Overtity 41
Name of Sample & Location, Caller	Sample Quantity: 1 kg
Name of Sample & Location: Soil [Factory Coconut Farm]	

Sr. No.	Test Parameter	Unit	Result	Test Method (Testing Manual of Soil, Ministry of Agriculture,		
1	pH		9.21	Govt. of India-2011)		
2	Conductivity	mmhos/cm		PP – 77-78		
3	Mineralizable Nitrogen		0.390	PP - 81-82		
1		%	0.0035	PP - 89-91		
4	Available Phosphorus	Kg/ha	47	PP - 96-98		
5	Available Potassium	Kg/ha				
6	Organic Carbon		870	PP – 99-100		
		%	0.63	PP - 84-85		
7	Calcium (as Ca)	%	2.37			
8	Magnesium (as Mg)	%		PP – 103-104		
	(us ivig)	/0	0.21	PP - 104-105		

Remarks:

Thanking you,

Analysed By

Note:

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory. 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

Authorized Signatory Technical Manager/ Quality Manager



***END of Test Report ***



"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415. Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493, E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com QCI - NABET Accredited ETA Consultant Organization - Certificate No. NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT	63
Report Ref. No.: SEC/S-VK/01-21	T 1 C
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	End of Analysis: 08 February 2021
Address: A/n Samoarundi: 507046 (Turking Ltd. [Sugar Unit]	Report Date: 10 February 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: VK4
Date of Collection / Sampling : 26 January 2021	
Date of Receipt: 26 January 2021	Nature of Sample: Soil
Date of Analysis: 27 January 2021	Sample Collected By: SEC Lab
	Sample Quantity: 1 kg
Name of Sample & Location: Soil [Factory Coconut Farm]	

Sr. No.	Test Parameter	Unit	Result	Test Method (Testing Manual of Soil, Ministry of Agriculture,
1	pH		0.16	Govt. of India-2011)
2	Conductivity	mmhos/cm	9.16	PP - 77-78
3	Mineralizable Nitrogen		0.410	PP - 81-82
4		%	0.0038	PP - 89-91
	Available Phosphorus	Kg/ha	45	PP - 96-98
5	Available Potassium	Kg/ha	790	
6	Organic Carbon	%		PP – 99-100
7	Calcium (as Ca)		0.65	PP - 84-85
,		%	2.31	PP - 103-104
8	Magnesium (as Mg)	%	0.24	
	A STATE OF THE STA		0.24	PP - 104-105

Remarks:

Thanking you,

Analysed By

B Sulende **Authorized Signatory** Technical Manager/ Quality Manager

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***

QCI - NABET Accredited ETA Consultant Organization Certificate No. NABET/EIA/1922/RA0159 valid upto June 12, 2022. QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021.



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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT	
Report Ref. No.: SEC/S-WB/02-21	End of Analysis : 09 March 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date: 15 March 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: WB4
Date of Collection / Sampling : 27 February 2021	Nature of Sample: Soil
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab
Date of Analysis: 01 March 2021	Sample Quantity: 1 kg
Name of Sample & Location: Soil [Factory Coconut Farm]	

Sr. No.	Test Parameter	Unit	Result	Test Method (Testing Manual of Soil, Ministry of Agriculture, Govt. of India-2011)
1	pH		9.12	PP - 77-78
2	Conductivity	mmhos/cm	0.370	PP - 81-82
3	Mineralizable Nitrogen	%	0.0043	PP - 89-91
4	Available Phosphorus	Kg/ha	47	PP - 96-98
5	Available Potassium	Kg/ha	810	PP - 99-100
6	Organic Carbon	%	0.64	PP - 84-85
7	Calcium (as Ca)	%	2.26	PP - 103-104
8	Magnesium (as Mg)	%	0.21	PP - 104-105

Remarks:

Thanking you

Analysed By



B Sulla Le **Authorized Signatory** Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr. Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***

QCI - NABET Accredited ETA Consultant Organization Certificate No. NABET/EIA/1922/RA0159 valid upto June 12, 2022. QCI - NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2021.

		GODAVARI E	BIOREFINERIES LIM	ITED	
		SA	MEERWADI		
	ONLIN	NE REPORT FOR	THE MONTH NOV	EMBER-2020	
Date (DD-MM-Y	Y ETP-BOD-	(rETP-pH-(pH)	ETP-Flow-(m3/h)	ETP-COD-(mg/I)	ETP-TSS-(mg/l)
12-11-20	31.99	8.59	23.41	93.7	22.55
13-11-20	15.12	8.4	24.12	44.28	22.01
14-11-20	12.48	7.57	24.74	36.56	20.98
15-11-20	12.85	7.6	31.3	37.66	31.4
16-11-20	14.99	7.63	37.71	43.87	47.04
17-11-20	10.24	7.62	40.58	29.98	37.68
18-11-20	23	7.58	36.2	67.34	20.11
19-11-20	63.26	7.58	34.3	185.25	37.66
20-11-20	39.93	7.57	17.53	116.93	47.34
21-11-20	12.02	7.52	7.4	35.2	26.59
22-11-20	6.15	7.59	33.57	18.04	40.82
23-11-20	29.15	7.61	35.51	77.98	46.07
24-11-20	56.32	7.63	33.58	144.94	26.67
25-11-20	46.75	7.65	14.59	120.32	23.82
26-11-20	38.73	7.69	32.42	99.68	27.23
27-11-20	32.05	7.68	36.63	82.48	26.54
28-11-20	33.15	7.78	34.09	85.32	14.38
29-11-20	39.89	7.8	34.78	102.67	14.58
30-11-20	40.44	7.77	35.75	104.08	20.67
Avg	29.4	7.73	29.91	80.33	29.17
Max	63.26	8.59	40.58	185.25	47.34
Min	6.15	7.52	7.4	18.04	14.38



		GODAVARI RIC	REFINERIES LIN	IITED	
			1EERWADI	III LU	
	ONLINE		HE MONTH DEC	FMRFR-2020	
Date (DD-MM-Y	YVETP-BOD-(n	ETP-pH-(pH)	ETP-Flow-(m3/	h FTP-COD-(mg	/ ETP-TSS-(mg/l)
01-12-20	39.93	7.69	32.12	102.77	20.6
02-12-20	51.55	7.69	36.42	132.67	17.34
03-12-20	35.21	7.7	32.14	90.62	17.87
04-12-20	28.81	7.69	35.88	74.15	27.53
05-12-20	40.07	7.69	40.08	103.12	31.65
06-12-20	34.57	7.69	36.09	88.96	51.85
07-12-20	24.4	7.68	38.28	62.79	21.48
08-12-20	23.04	7.66	43.63	61.29	21.45
09-12-20	22.7	7.63	46.34	84.54	31.12
10-12-20	21.29	7.61	42.8	79.28	31.55
11-12-20	20.69	7.61	47.23	77.04	17.45
12-12-20	20.87	7.63	47.43	77.73	14.15
13-12-20	20.6	7.65	48.81	76.71	18.22
14-12-20	21.08	7.64	49.5	78.52	19.15
15-12-20	32.04	7.63	51.63	119.3	14.78
16-12-20	37.65	7.63	48.77	140.22	13.77
17-12-20	27.33	7.61	47.9	101.8	14.48
18-12-20	42.88	7.59	51.29	159.71	14.54
19-12-20	27.15	7.58	54.83	101.12	14.16
20-12-20	16.17	7.58	44.83	60.25	10.91
21-12-20	20.36	7.6	39.75	75.77	12.79
22-12-20	23	7.6	59.2	87.98	15.06
23-12-20	27.49	7.58	54.69	108.45	15.07
24-12-20	30.62	7.56	41.6	120.79	14.23
25-12-20	31.14	7.55	50.54	122.85	16.93
26-12-20	35.75	7.53	53.3	140.99	18.97
27-12-20	39.74	7.49	57.53	156.75	12.28
28-12-20	43.38	7.44	63.71	171.03	7.31
29-12-20	44.02	7.45	63.11	173.63	8.7
30-12-20	38.46	7.45	58.06	151.69	6.88
31-12-20	39.6	7.44	54.7	156.22	5.67
Avg	31.02	7.6	47.49	107.7	18
Max	51.55	7.7	63.71	173.63	51.85
Min	16.17	7.44	32.12	60.2	5.67

(M. N. Janson) Sr. Manjon (Env)

			N .		
		GODAVARI BIC	REFINERIES LI	MITED	·
			1EERWADI		
	ONLINE	REPORT FOR	THE MONTH JA	ANUARY-2021	
Date (DD-MM-)	YY ETP-BOD-(m	ETP-pH-(pH)	ETP-Flow-(m	3/h ETP-COD-(m	ng/ ETP-TSS-(mg/l)
01-01-21	41.29	7.44	48.06	162.85	8.45
02-01-21	41.77	7.45	47.89	164.74	18.88
03-01-21	32.52	7.45	44.45	128.38	13.62
04-01-21	34.88	7.39	53.68	137.58	5.47
05-01-21	34.81	7.52	50.42	137.31	10.34
06-01-21	32.98	7.79	54.92	130.08	15.28
07-01-21	35.81	7.79	60.56	141.25	11.62
08-01-21	37.61	7.78	58.1	148.36	10.17
09-01-21	41.24	7.82	52.58	162.68	13.95
10-01-21	40.29	7.83	55.9	158.91	17.55
11-01-21	39.67	7.86	41.54	156.48	15.01
12-01-21	33.69	7.86	30.58	132.97	11.87
13-01-21	23.02	7.88	33.64	117.63	12.38
14-01-21	28.62	7.89	36.96	169.15	12.83
15-01-21	33.07	7.91	42.66	159.15	14.14
16-01-21	36.14	7.92	58.01	173.91	13.77
17-01-21	27.43	7.93	68.03	132	14.94
18-01-21	33.13	7.81	67.12	159.46	16.82
19-01-21	45.29	7.77	59.23	146.57	20.93
20-01-21	54.86	7.79	64.75	140.57	20.51
21-01-21	69.66	7.82	61.29	178.44	18.05
22-01-21	68.57	7.86	59.46	175.71	25.71
23-01-21	55.75	7.87	60.07	142.86	27.79
24-01-21	54.35	7.89	64.24	139.28	28.22
25-01-21	47.13	7.89	66.03	120.77	36.62
26-01-21	40.37	7.88	67.17	103.44	30.91
27-01-21	37.75	7.91	65.08	96.73	33.23
28-01-21	38.7	7.94	62.43	99.18	30.72
29-01-21	39.72	7.93	60.29	101.78	17.45
30-01-21	38.75	7.94	61.11	99.29	23.53
31-01-21	43.24	7.93	62.71	110.81	44.02
Avg	40.71	7.8	55.45	139.62	19.19
Max	69.66	7.94	68.03	178.44	44.02
Min	23.02	7.39	30.58	96.73	5.47

(M W 20mpm)

		ODAVADI DIO	DEELLEDIES		
			REFINERIES LIM	IITED	
	ONLINE		EERWADI		
Date (DD-MM V)	VETD BOD /	WEFORT FOR TH	HE MONTH FEB	RUARY-2021	
01-02-21	20.4	(IETP-pH-(pH)		h ETP-COD-(mg/	ETP-TSS-(mg/l)
02-02-21	39.1	7.95	61.45	100.18	88.56
	38.33	7.96	62.54	98.22	154.99
03-02-21	37.6	7.96	58.36	96.35	25.45
04-02-21	40.45	8	43.86	103.65	27.85
05-02-21	36.91	7.98	54.41	94.59	23.45
06-02-21	42.91	7.96	56.06	109.96	22.51
07-02-21	61.53	7.99	36.44	157.66	27.56
08-02-21	53.74	7.97	24.92	137.7	32.63
09-02-21	28.18	7.95	27.88	72.21	37.54
10-02-21	29.9	7.95	27.19	76.62	43.66
11-02-21	34.68	7.93	28.45	129.21	42.22
12-02-21	37	7.94	31.16	181.32	42.88
13-02-21	39.76	7.96	34.16	194.83	48.06
14-02-21	17.29	7.92	34.27	84.74	46.91
15-02-21	19.2	7.93	29.37	94.06	47.52
16-02-21	26.7	7.92	28.25	130.83	46.96
17-02-21	22.31	7.93	23.88	109.3	53.49
18-02-21	25.23	7.91	31.24	123.64	47.95
19-02-21	23.7	7.95	35.77	116.12	65.57
20-02-21	19.37	7.95	33.14	94.89	54.74
21-02-21	20.76	7.94	31.98	101.7	41.34
22-02-21	21.81	7.77	22.89	106.86	34.24
23-02-21	18.63	7.58	21.65	91.3	37.86
24-02-21	16.23	7.63	30.33	79.52	50.67
25-02-21	13.92	7.68	31.28	68.22	44
26-02-21	12.44	7.73	32.77	60.97	21.25
27-02-21	12.15	7.73	35.25	59.56	15.31
28-02-21	10.7	7.79	34.94	52.49	16.77
Avg	28.59	7.89	35.85	104.52	44.36
Max	61.53	8	62.54	194.83	154.99
Min	10.7	7.58	21.65	52.49	154.99
				32.73	13.51

Colombian Con M. Janson

Sameerwadi-587316, Dist. Bagalkot

Report of analysis of treated effluent showing performance of the treatment plant for the month of November 2020

Sample Collected On Sample Tested On : 12.11.2020 : 12.11.2020

By the Laboratories : Godavari Biorefineries Ltd

		4		* *	
	6 7 8 8 Note: 1	9 ω 4 ν	1		Sr
and unpleasant odour as per practica	Chlorides (as Cl) mg/lit Chlorides (as Cl) mg/lit Sulphates (as S04) Mg/lit Pesticides Dissolved Solids All efforts should be made to remove colour	Suspended solids – mg/lit pH value BOD(5 days at 20 deg C) mg/lit	Colour & odour	granted under section 25/26 of the water (prevention & control of the pollution) Act 1974	Polluting Parameters as mentioned in the conditions imported under the consent
and unpleasant odour as per	Max 10 Max 350 Max 1000 Absent Max 2100	Max 100 Max 6 to 8.5 Max 100	3	As per consent conditions	Maximum Permissible Limits or range allowed
r practica	Nii 152 78 -	48 8.39	4	per report	Concentration of the
			5	the plant perfor	On which date there was On which date
		O		under performance was	On which date

Sr. Manager (Environment)

General Manager (QA & E) Date

Address

Signature of Consumer 02/.12.2020

Godavari Biorefineries Ltd, Sameerwadi-587316

Dt. Bagalkot

Sameerwadi-587316, Dist. Bagalkot

Report of analysis of treated effluent showing performance of the treatment plant for the month of December 2020

Sample Collected On Sample Tested On : 22.12.2020 : 22.12.2020

By the Laboratories : Godavari Biorefineries Ltd

	Note:	9	∞ ¬	16	Q 1	<u></u>	2 2	· —			INC	Sr
and unpleasant odour as per practica	All efforts should be made to remove all	Dissolved Solids	Sulphates (as S04) Mg/lit Pesticides	Chlorides (as Cl) mg/lit	Oil & grease Mg/lit	pH value	Suspended solids – mg/lit	Colour & odour	2	(prevention & control of the pollution) Act 1974	granted under section 25/26 of the water	Polluting Parameters as mentioned in the
and unpleasant odour as pe	Max 2100	Absent	Max 1000	Max 350	Max 100	Max 6 to 8.5	Max 100	See note	w.	conditions	Limits or range allowed	Maximum Permissible
r practica	2090	1	62	I NI	42	8 28	56	4		per report	range of parameters as	Concentration of the
								5		the plant	break down or failure of under	On which data the
								6		performance was noticed	On which date under	

Sr. Manager (Environment)

General Manager (QA & E) Date

Address

Sighature of Consumer

Godavari Biorefineries Ltd, Sameerwadi-587316

Dt. Bagalkot

Sameerwadi-587316, Dist. Bagalkot

Report of analysis of treated effluent showing performance of the treatment plant for the month of January 2021

Sample Collected On Sample Tested On : 19.01.2021 : 19.01.2021

By the Laboratories : Godavari Biorefineries Ltd

	Note 9 8 7 6 5 4 3 2	<u> </u>	-	No Sr
and unpleasant odour as per practical	Suspended solids – mg/lit pH value BOD(5 days at 20 deg C) mg/lit Oil & grease Mg/lit Chlorides (as Cl) mg/lit Sulphates (as S04) Mg/lit Pesticides Dissolved Solids	Colour & odour	2	Polluting Parameters as mentioned in the conditions imported under the consent granted under section 25/26 of the water (prevention & control of the pollution) Act 1974
r and unpleasant odour as ne	Max 100 Max 6 to 8.5 Max 100 Max 100 Max 10 Max 350 Max 1000 Absent Max 2100	Con mate	u	Maximum Permissible Limits or range allowed As per consent conditions
er practica	36 7.83 48 Nii 152 56	4		Concentration of the range of parameters as per report
		5		On which date there was on which date break down or failure of under the plant performance we noticed
		6		On which date under performance was noticed

ant odout as per practica

Sr. Manager (Environment)

monday

General Manager (QA & E) Date

Signature of Consumer 03.02.2021

Godavari Biorefineries Ltd, Sameerwadi-587316

Dt. Bagalkot

Address

Sameerwadi-587316, Dist. Bagalkot

Report of analysis of treated effluent showing performance of the treatment plant for the month of February 2021

Sample Collected On Sample Tested On : 20.02.2021 : 20.02.2021

By the Laboratories : Godavari Biorefineries Ltd

	Note: 1) <u>1</u>		Sr No
a record and unpleasant odour as per practical	pH value BOD(5 days at 20 deg C) mg/lit Oil & grease Mg/lit Chlorides (as Cl) mg/lit Sulphates (as S04) Mg/lit Pesticides Dissolved Solids	Colour & odour	2	Polluting Parameters as mentioned in the conditions imported under the consent granted under section 25/26 of the water (prevention & control of the pollution) Act 1974
and unpleasant odour as pe	Max 100 Max 6 to 8.5 Max 100 Max 10 Max 350 Max 1000 Absent Max 2100	See note		Maximum Permissible Limits or range allowed As per consent conditions
r practica	47 7.98 45 Nii 118 70	1	<i>A</i>	Concentration of the range of parameters as per report
		5		On which date there was on which date break down or failure of under the plant performance we noticed
		6		On which date under performance was noticed

ar as per practica

Sr. Manager (Environment)

mound

General Manager (QA & E) Date

Address

Godavari Biorefineries Ltd, Signature of Consumer 02.03.2021

Sameerwadi-587316 Dt. Bagalkot

FORM - V

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31 ST MARCH - 2021

PART - A

1) Name and address of the Occupier of the Industry operation or process

B R Bakshi, Executive Director

Godavari Biorefineries Ltd;

SAMEERWADI - 587316

Dist: Bagalkot

2) Production Capacity:

45.56 MW - Power

3) Date of last statement submitted

09 September, 2020

4) Year of Establishment :

:

09.04.2002 / 07.01.2011

1) (a) Water Consumption (Cu.M./day)

Source	During the Previous financial	During the Current financial
5	Year 2019-20	Year 2020-21
Process	454.02	483.18
Cooling	788.210	579.190
Domestic	2.460	2.260
TOTAL	1244.690	1064.630

b) Water Consumption per unit of out-put:

Name of	f Product	Water consumption per unit of product output			
	(Cu.M./MWh)				
		During the Previous financial	During the Current financial		
		year 2019 - 20	year 2020 - 21		
Power	Cooling + Process	3.04	2.54		
	Domestic	0.006	0.005		

2) Raw Materials Consumption:

		Consumption of raw material per unit of out-pu (Kgs/MWh of Power produced)			
Name of Raw Material	Name of Product	During the previous financial year 2019-20	During the Current financial year 2020-21		
1. Bagasse used as fuel	POWER	2739.42	2779.25		
2.TSP		0.0032	0.0028		
3.Hydrazine Hydrate		0.0056	0.0041		
4.PH Booster		0.0048	0.0045		
5.Hydrochloric acid		1.1580	1.3428		
6.Caustic Lye		0.6109	0.7222		
7.Non ferric Alum		0.0730	0.0165		
8.Lubricants (Lts/MWh)		0.0140	0.0218		

PART-C

Pollutants discharged to environment/unit of out-put.

(Parameters as specified in the consent issued)

	(Parameters as specified in the consent issued)						
Г		Quantity of pollutants	Concentration of	Percentage of variation from			
	Pollutants	discharged	pollutants in discharges	prescribed standards with			
	8	(mass/day)	(mass/volume)	reasons			
a	Waste Water	Below 3.5 Ltrs. per	Separately enclosed	All the parameters are			
		unit generated	*	meeting the standards			
				and ETP is in operation.			
b	Air	do	do	within norms prescribed			
	,		·	by CPCB			
		e		6			
C	Noise	do	do	within norms prescribed			
			v v	by CPCB			
			,				

Remarks:

- The quality of waste water discharged is well within the norms prescribed by t by the K. S. P. C. B. The analysis reports are enclosed for the month of January 2021 & February 2021.
- 2. The ambient air quality level and stack emission level are within the norms of K.S.P.C.B.The prescribed chimney height and air pollution control equipments have been provided.

The analysis reports are enclosed for the month of January 2021 & February 2021.

PART - D

Hazardous Wastes

(As specified under Hazardous Waste/Management and Handling Rules, 1989)

Hazardous Waste	Total Quantity (Kgs)	Total Quantity (Kgs)		
	During the previous	During the Current		
	financial year 2019-20	financial year 2020-21		
a) From Process	NIL	NIL		
b) From Pollution control facilities	NIL	NIL		
c) D.G.Set Engine oil	NIL	NIL		

PART - E

SOLID WASTES

	Total quantity in Tonnes			
Particulars	During the previous	During the Current		
	financial year 2019-20	financial year 2020-21		
a) From Process				
i)Ash	4087.93	4236.7849		
b) From pollution control facilities				
c) (1) Quantity recycled or	Yes	Yes		
re-utilised within the unit		,		
(2) Sold	NIL	NIL		
(3) Disposed	4087.93	4236.7849		

PART - F

Please specify the characteristics (in terms of quantum) of hazardous as well as solid wastes and indicate disposal practice for both these categories of waste. No Hazardous Waste is Generated. Ash is used for land filling.

PART - G

Impact of pollution control (abatement) measures taken on conservation of natural resources and consequently on the cost of production.

The treated effluent is used for energy plantations

There is no significant impact on the cost of production.

PART - H

Additional measures/investment proposal for Environmental Protection including abatement of pollution and prevention of pollution.

Maintainence of the ETP is carried out at the Cost of Rs.4.0 Lakh

The Cogen effluent is treated in the well maintained Effluent treatment plant.

The effluent from Sludge Sump is pumped to the ETP Clarifier. For any Suspended solids, Polyelectrolyte & alum dosing is being done at Clarifier.

The treated effluent is used for irrigation & green belt development purpose.

The plantation has been taken up extensively for Green Belt development from beginning and new planting is done every year around the factory and ETP.

ESP'S Operation & Maintainence will be carried at the Cost of 60 Lakhs

Cost incurred for Environmental monitoring and Management is 2.2 lakh.

Cost incurred for Solid waste disposal 5.0 Lakh.

PARTI

Any other particulars for improving the quality of Environment.

Please refer to the " Environmental Statement in Brief "

ENVIRONMENTAL STATEMENT IN BRIEF

Name of the Factory

Godavari Biorefineries Ltd (Cogen)

SAMEERWADI - 587316. Tal: Mudhol, Dist: Bagalkot.

Units of Effluent treatment plant :

Aeration tank, Clarifier, Treated water tank, Sludge Sump,

Sludge Sump, Transfer pump, Sludge Drying Beds

- Q. 1. Whether water quantity measurement are made by installing water meter?
- R. Yes, Water meters are installed. Water quantity is estimated as per water meter readings.
- Q.2. Whether treated effluent samples are analysed regularly?
- R. Yes, Treated effluent samples are analysed on daily basis.
- Q.3. Whether upstream and down stream quality of river is tested regularly?
- R. River water analysis is regularly carried out.
- Q.4. Whether stack monitoring arrangements have been made? And if so, whether Monitoring is done as per consent conditions?
- R. Yes.
- Q.5. Whether ambient air quality and sound level measurements are carried out as per the consent conditions?
- R. Yes.

- Q.6. Briefly describe the safety precautions undertaken in the industry to prevent accidents including fire accidents?
- R. i) Safety belts, Gas masks are kept in tool room.
 - ii) Fire extinguisher like soda ash, dry powder and foam type are installed at the power house.
 - iii) Fire buckets with sand are provided.
 - iv) Fire fighter is always kept ready.
 - v) Safety showers are reconditioned and provided at hazards chemical handling area.
- Q.7. If the expansion/Modification is made, whether the consent from pollution control board and Environmental clearence is obtained? If so, furnish the details.
- R. Consent from KSPCB is regularly obtained
- Q.8. What is the capital investment of pollution control measures since the inception of the plant and also mention the details of operational and maintenance costs?
- R. Capital Cost

Rs.555.00 lakhs

Operational & maintenance cost per annum.

Rs.60.0 lakhs

- Q.9. Whether the Environmental Management cell is established in industry?
- R. The Environment Management cell is already exists in Sugar unit. So cogen is also under same Environment Management Cell.

General manager (Co-gen)

Executive Director

APPROXIMATE COST OF EQUIPMENTS AND OTHER LABORATORY ACCESSORIES PURCHASED

1. Electronic Balance	50000.00
2. Stack monitoring kit	50000.00
3. High volume Sampler	60000.00
4. Conductivity meter	36000.00
5. Drying oven	28000.00
6. Magnetic Stirrer	4000.00
7. Muffle Furnace	35000.00
8. pH Meter	36000.00
9. Silica Crucibles	6000.00
10. Spectrophotometer	450000.00
11. COD Reflux condenser	15000.00
12. Noise Meter	25000.00
13.IR moisture meter	25000.00

Others

a)	Chemicals	125000.00
b)	Glass Wares	25000.00
c)	Contingencies	30000.00

Laboratory facilities are available for waste water testing. Monthly water samples, stack and ambient air samples are analysed by Self & additionally by DR Subbaro's. Environment Center Sangli.



Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.
Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493,
E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com
QCI - NABET Accredited ETA Consultant Organization - Certificate No.
NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

	TEST REPORT			
STACK EMISSIONS				
Report Ref. No.	SEC/Cogen/Stack-1/VJ/01-21			
Report Date	10 February 2021			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]			
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	25 January 2021			
Start Time of commencement of Sampling	03:00 pm			
End Date of commencement of Sampling	25 January 2021			
End Time of commencement of Sampling	03:30 pm			
Retention period of the reminant sample	30 days			
	CULARS OF STACK			
Stack attached to boiler	130 TPH			
Stack Diameter	3.00 m			
Stack Height	70 m			
Stack Temperature	112°C			
Stack Velocity of Flue Gases	10.1 m/s			
Type of Fuel	Bagasse			

POLLUTION PARAMETER RESULTS						
Parameter	Units	Results	Limits	Method Used		
Particulate Matter (PM)	mg/Nm ³	107	150	IS 11255m(Part 1): 1985, Reaffirmed 2003		
SO ₂	mg/Nm³	52	100	IS-11255 (Part 2): 1985 Reaffirmed 2009		
NOx	mg/Nm3	25	.50	IS-11255 (Part 7): 2005 Reaffirmed 2012		

Note: The test report shall not be reproduced except in full without written approval of the laboratory.







Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.

Phone: Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493,

E-mail: bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com

QCI - NABET Accredited ETA Consultant Organization - Certificate No.

NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

*	TEST REPORT			
STACK EMISSIONS				
Report Ref. No.	SEC/Cogen/Stack-2/VJ/01-21			
Report Date	10 February 2021			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]			
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	25 January 2021			
Start Time of commencement of Sampling	04:00 pm			
End Date of commencement of Sampling	25 January 2021			
End Time of commencement of Sampling	04:30 pm			
Retention period of the reminant sample	30 days			
PARTI	CULARS OF STACK			
Stack attached to boiler	120 TPH			
Stack Diameter	3.00 m			
Stack Height	70 m			
Stack Temperature	121°C			
Stack Velocity of Flue Gases	10.0 m/s			
Type of Fuel	Bagasse			

POLLUTION PARAMETER RESULTS						
Parameter	Units	Results	Limits	Method Used		
Particulate Matter (PM)	mg/Nm ³	98	150	IS 11255m(Part 1): 1985, Reaffirmed 2003		
SO_2	mg/Nm³	45	100	IS-11255 (Part 2): 1985 Reaffirmed 2009		
Nox The Acet	mg/Nm3	22	50	IS-11255 (Part 7): 2005 Reaffirmed 2012		

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Analyzed By





Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.

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NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019,

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

AMBIENT AIR QUALITY REPORT				
Report Ref. No.: SEC/AA-VJ/01-21	End of Analysis: 08 February 2021			
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]	Report Date: 10 February 2021			
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : VJ-AA			
Date of Collection / Sampling: 25 January 2021	Nature of Sample: Ambient Air			
Date of Receipt: 26 January 2021	Sample Collected By: SEC Lab			

		×	Direction		PM ₁₀	PM _{2.5}	SO ₂	NO _X	
			&		(μg/m³)	(μg/m³)	(μg/m³)	$(\mu g/m^3)$	
Sr.	Sampling	Wind	Distance	Limits	$< 100 \mu g/m^3$	< 60μg/m ³	< 80μg/m ³	< 80μg/m ³	
No.		Direction	* 2 0	Method	IS 5182	SEC/OAL/SOR/	IS 5182	IS 5182	
	Station	from	f	from	of	(Part 23):	SEC/QAL/SOP/	(Part 2):	(Part 6):
	stack	Testing	2006	AIR/PM2.5/03	2001	2006			
1.	Near	Easterly	Ε,		70				
1.	Switch Yard		145 meters		70	28	10.00	12.00	

Analyzed By





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NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT	
Report Ref. No.: SEC/W-VJ/01-21	End of Analysis : 08 February 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]	Report Date: 10 February 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: VJ1
Date of Collection / Sampling : 26 January 2021	Nature of Sample: Water
Date of Receipt: 26 January 2021 Date of Analysis: 27 January 2020	Sample Collected By: SEC Lab
Name of Sample : Co-gen ETP Outlet	Sample Quantity: 1 lit

Sr. No.	Test Parameter	Result	Unit	Test Method
1	pH	7.74	- ,	IS:3025 (P-11) 1983
2 ,	Chemical Oxygen Demand	139	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	52	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	540	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	56	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl	154	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	135	mg/l	IS:3025 (P-24) 1986
8 Remar	Oil & Grease	ND	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



Authorized Signatory Technical Manager/ Quality Manager

1. The result pertains only for the sample tested.

2. The test result shall not be reproduced except in full, without written approval of the laboratory.

3. Sample is not drawn by Dr. Subbrao's Environment Centre, Sangli.

4. Retention period for the reminant shall be 30 days.

5. ND- Not Detected.

***END of Test Report ***

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	TEST REPORT ACK EMISSIONS	
Report Ref. No. SEC/Cogen/Stack-1/WA/02-21		
Report Date	05 March 2021	
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]	
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	
Start Date of commencement of Sampling	27 February 2021	
Start Time of commencement of Sampling	04:20 pm	
End Date of commencement of Sampling 27 February 2021		
End Time of commencement of Sampling	04:50 pm	
Retention period of the reminant sample	30 days	
PARTIC	CULARS OF STACK	
Stack attached to boiler	130 TPH	
Stack Diameter	3.00 m	
Stack Height 70 m		
Stack Temperature	112°C	
Stack Velocity of Flue Gases	9.8 m/s	
Type of Fuel	Bagasse	

	POLLU	TION PARAMETE	R RESULTS	
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm³	108	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO_2	mg/Nm ³	56	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NOx Notes The test several	mg/Nm3	24	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

Note: The test report shall not be reproduced except in full without written approval of the laboratory.

Analyzed By

Manage

B. Sullow **Authorized Signatory** Technical Manager/ Quality



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_	TEST REPORT ACK EMISSIONS	
Report Ref. No.	SEC/Cogen/Stack-2/WA/02-21	
Report Date	05 March 2021	
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]	
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	
Start Date of commencement of Sampling	28 February 2021	
Start Time of commencement of Sampling 02:05 pm		
End Date of commencement of Sampling	28 February 2021	
End Time of commencement of Sampling	02:35 pm	
Retention period of the reminant sample	30 days	
PARTIC	CULARS OF STACK	
Stack attached to boiler	120 TPH	
Stack Diameter	3.00 m	
Stack Height	70 m	
Stack Temperature	118°C	
Stack Velocity of Flue Gases	10.1m/s	
Type of Fuel	Bagasse	

	POLLU'	TION PARAMETE	ER RESULTS	
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm³	106	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO_2	mg/Nm ³	52	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NOx	mg/Nm3	22	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

Note: The test report shall not be reproduced except in full without written approval of the laboratory.

Analyzed By

Buthorized Signatory Technical Manager/ Quality





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AMBIENT AIR QUALITY	REPORT
Report Ref. No.: SEC/AA-WA/02-21	End of Analysis : 09 March 2021
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]	Report Date: 15 March 2021
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: WA-AA
Date of Collection / Sampling : 25 February 2021	Nature of Sample: Ambient Air
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab

			Direction		PM ₁₀	PM _{2.5}	SO ₂	NO _X
			&		$(\mu g/m^3)$	(µg/m³)	$(\mu g/m^3)$	(μg/m³)
Sr.	Sampling	Wind		Limits	$< 100 \mu g/m^3$	< 60μg/m ³	< 80μg/m ³	< 80μg/m ³
No.		Direction	Distance	Method	IS 5182		IS 5182	IS 5182
	Station		from	of	(Part 23):	SEC/QAL/SOP/	(Part 2):	(Part 6):
		*	stack	Testing	2006	AIR/PM2.5/03	2001	2006
1.	Near Switch Yard	Easterly	E, 145 meters		73	30	12.00	15.00



B. Sulla le



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TEST REPORT		
Report Ref. No.: SEC/W-WA/02-21	End of Analysis: 09 March 2021	
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]	Report Date: 15 March 2021	
Address: A/p. Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No.: WA1	
Date of Collection / Sampling : 27 February 2021	Nature of Sample: Water	
Date of Receipt: 27 February 2021	Sample Collected By: SEC Lab	
Date of Analysis: 01 March 2021	Sample Quantity: 1 lit	
Name of Sample : Co-gen ETP Outlet		

Sr. No.	Test Parameter	Result	Unit	Test Method
1	рН	7.52	-	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	124	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	51	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	510	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	53	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl	186	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	110	mg/l	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,





B. Sulla Le

Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.

- 2. The test result shall not be reproduced except in full, without written approval of the laboratory.
- 3. Sample is not drawn by Dr.Subbrao's Environment Centre, Sangli.
- 4. Retention period for the reminant shall be 30 days.
- 5. ND- Not Detected.

***END of Test Report ***

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	Name of the Industry :1 x 24 MW Godavari Biorofina	Cogen Power Plant
SI.no	Godavari Biorefine	ries I td
1	Report SI.No.	
2	Stack Attached to	Results
3	Date of Sampling	09(2020-21)
4	Dimensions of Stack	130 TPH Boiler
5	C/S area of Stack (As1)	06.01.2021
6	C/S area of sampling Location (As1)	Height - 70 mt, Ø = 3.0 mt
7	Manometer Reading (k) in mm	7.06 m2
8	Stack Temperature Ts=° C+ 273	7.06 m2
9 1	Weter Temperature Tm =° C+ 273	$4.2(\Delta P = 4.2 \times 0.8 = 3.36)$
0 1	/elocity of fluo gas //	125+ 273 = 398° K
1 7	/elocity of flue gas Vs = C √ K X Ts	30+273-20201
	lozzle diameter	0.175\sqrt{3.36X} 398= 6.399 mt / Sec
		0.761
-	/S area of Nozzle An (m2)	3/8" = 0.375 inches
1 10		7 13 × 10-5
· R	ate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60	$7.13 \times 10^{-5} \times 6.399 \times 0.761 \times 10^{3} \times 10^{$
Vo	Priod of Sampling in Minutes Output Display $q = An \times Vs \times Tm / Ts \times 1000 \times 60$	60=30.00 x 10 ³ x
AC	Juille of Sample in Item	60=20.83
IVU	nume of Sample in ma	15Minutes 1
1 1 1 1	IMPIE NO	20.83 x15 = 312.45lts
Fin	ial weight of Thimble in grams (W1)	0.3124
	al Weight of Thimble in grams (W1) - W1	CO GEN - 09
		4.01
Rat	M mg/Nm3	4.04
Act	e of Emission Nm3/Hr	0.03
1421	x Vs x 3600 x 298 /Ts	96.03

	Name of the Industry :1 x 21.56 M	W Cogon Davis	
SI.no	Oudvall Dinretina	rice I to	
1			
2	Report St.No.	Results	
3	Stack Attached to	10(2020-21)	
4	Date of Sampling	120 TPH Boiler	
5	Dimensions of Stack	06.01.2021	
6	C/S area of Stack (As1)	Height - 70 mt, Ø = 3.0 mt	
7	C/S area of sampling Location (As1)	7.06 m2	
8	Interiorneter Reading (k) in mm	7.06 m2	
9	Stack Temperature Ts=° C+ 272	$4.01(\Delta P = 4.01 \times 0.8 = 3.208)$	
10	Invieter Temperature Tm =° C+ 272	140+ 273 = 413 ° K	
11	Velocity of flue gas $V_S = C \sqrt{K} \sqrt{T_S}$	29+ 273 =302° K	
12	11117 18	0.175√3.208 X 413= 6.18 mt / Sec	
	Nozzle diameter	0.731	
13	C/S area of Nozzle An (m2)	3/8" = 0.375 inches	
		7.13×10^{-5}	
14	Rate of Sampling (I PM) STATE	7.10 X 10	
15	Rate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60 Period of Sampling in Minutes	7 13 × 10 ⁻⁵ × 6 10 × 0 = 2	
16	Volume of Sample in Itrs.	$7.13 \times 10^{-5} \times 6.18 \times 0.731 \times 10^{3} \times 60 = 19$	
17	Volume of Sample in m3	15Minutes	
10	I nimple No	19.32 x15 = 289.8 lts	
19 1	nitial weight of Thimble in green (1)	0.2898	
	mai veight of Inimple in grant (1879)	CO GEN - 10	
	441	4.016	
2 8	SPM mg / Nm3	4.05	
3 R	Rate of Emission Nm3/Hr	0.034	
A	s1 x Vs x 3600 x 298 /Ts	117.32	

-	Name of the Industry :1 x 24 MW	Cogen Power Plant
SI.no	Godavari Bioretiner	ies I td
1	Parameters	
2	Report SI.No.	Results
3	Stack Attached to	11(2020-21)
-	Date of Sampling	130 TPH Boiler
5	Dimensions of Stack	21.01.2021
	C/S area of Stack (As1)	Height - 70 mt, \emptyset = 3.0 mt
	C/S area of sampling Location (As1)	7.06 m2
/	Wanometer Reading (k) in mm	7.06 m2
0	Stack Temperature Ts=° C+ 272	$4.2(\Delta P = 4.2 \times 0.8 = 3.36)$
9 1	Meter Temperature Tm =° C+ 273	125+ 273 = 398° K
10	velocity of flue gas $Vs = C \sqrt{K} Y T_c$	30+ 273 =303° K
	m/Is	0.175√3.36X 398= 6.399 mt / Sec
	lozzle diameter	0.761
3 (C/S area of Nozzle An (m2)	3/8" = 0.375 inches
	(-1100)	7.13 x 10 ⁻⁵
4 R	ate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60	$7.13 \times 10^{-5} \times 6.399 \times 0.761 \times 10^{3} \times 10^{-5} \times 10$
5 P	eriod of Sampling in Minutes	60=20.83
3 V	olume of Sample in Itrs.	
Ve	plume of Sample in m3	15Minutes
3 111	nimble No	20.83 x15 = 312.45lts
Ini	tial weight of Thimble in grams (MA)	0.3124
11 11	ial vielgitt of Thimble in grame (1846)	CO GEN - 11
8 8 4	2 - 001	4.01
SP	M mg/ Nm3	4.03
Ra	te of Emission Nm3/Hr	0.02
As	1 x Vs x 3600 x 298 /Ts	64.02

G. Suryaptakash Rao GM Cogen

Name of the Industry :1 x 21.56 MV Godavari Biorefiner 1 Report SI.No. 2 Stack Attached to 3 Date of Sampling 4 Dimensions of Stack 5 C/S area of Stack (As1) 6 C/S area of sampling Location (As1) 7 Manometer Reading (k) in mm 8 Stack Temperature Ts=° C+ 273 9 Meter Temperature Tm =° C+ 273 10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2) 14 Rate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60	Results 12(2020-21) 120 TPH Boiler 21.01.2021 Height - 70 mt, Ø = 3.0 mt 7.06 m2 7.06 m2 4.01(ΔP =4.01x 0.8 = 3.208) 140+ 273 = 413 ° K 29+ 273 =302° K 0.175√3.208 X 413= 6.18 mt / Sec 0.731 3/8" = 0.375 inches
1 Report SI.No. 2 Stack Attached to 3 Date of Sampling 4 Dimensions of Stack 5 C/S area of Stack (As1) 6 C/S area of sampling Location (As1) 7 Manometer Reading (k) in mm 8 Stack Temperature Ts=° C+ 273 9 Meter Temperature Tm =° C+ 273 10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2)	Results $12(2020-21)$ 120 TPH Boiler $21.01.2021$ $Height - 70 \text{ mt, } \emptyset = 3.0 \text{ mt}$ 7.06 m2 $4.01(\Delta P = 4.01 \times 0.8 = 3.208)$ $140+273 = 413 ^{\circ}\text{ K}$ $29+273 = 302 ^{\circ}\text{ K}$ $0.175\sqrt{3.208} \text{ X } 413 = 6.18 \text{ mt } / \text{ Sec}$ 0.731
2 Stack Attached to 3 Date of Sampling 4 Dimensions of Stack 5 C/S area of Stack (As1) 6 C/S area of sampling Location (As1) 7 Manometer Reading (k) in mm 8 Stack Temperature Ts=° C+ 273 9 Meter Temperature Tm = ° C+ 273 10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2)	Results $12(2020-21)$ 120 TPH Boiler $21.01.2021$ $Height - 70 \text{ mt, } \emptyset = 3.0 \text{ mt}$ 7.06 m2 7.06 m2 $4.01(\Delta P = 4.01 \times 0.8 = 3.208)$ $140+273 = 413 \text{ ° K}$ $29+273 = 302 \text{ ° K}$ $0.175\sqrt{3.208} \times 413 = 6.18 \text{ mt / Sec}$ 0.731
3 Date of Sampling 4 Dimensions of Stack 5 C/S area of Stack (As1) 6 C/S area of sampling Location (As1) 7 Manometer Reading (k) in mm 8 Stack Temperature Ts=° C+ 273 9 Meter Temperature Tm =° C+ 273 10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2)	12(2020-21) 120 TPH Boiler 21.01.2021 Height - 70 mt, Ø = 3.0 mt 7.06 m2 7.06 m2 4.01(ΔP =4.01x 0.8 = 3.208) 140+ 273 = 413 ° K 29+ 273 =302° K 0.175 $\sqrt{3}$.208 X 413= 6.18 mt / Sec
4 Dimensions of Stack 5 C/S area of Stack (As1) 6 C/S area of sampling Location (As1) 7 Manometer Reading (k) in mm 8 Stack Temperature Ts=° C+ 273 9 Meter Temperature Tm =° C+ 273 10 Velocity of flue gas Vs = C√KXTs 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2)	120 TPH Boiler 21.01.2021 Height - 70 mt, \emptyset = 3.0 mt 7.06 m2 7.06 m2 4.01(ΔP =4.01x 0.8 = 3.208) 140+ 273 = 413 ° K 29+ 273 =302° K 0.175 $\sqrt{3}$.208 X 413= 6.18 mt / Sec
Dimensions of Stack C/S area of Stack (As1) C/S area of sampling Location (As1) Manometer Reading (k) in mm Stack Temperature Ts=° C+ 273 Meter Temperature Tm = ° C+ 273 Velocity of flue gas Vs = C √ K X Ts Tm / Ts Nozzle diameter C/S area of Nozzle An (m2)	21.01.2021 Height - 70 mt, \emptyset = 3.0 mt 7.06 m2 7.06 m2 4.01(ΔP = 4.01x 0.8 = 3.208) 140+ 273 = 413 ° K 29+ 273 = 302 ° K 0.175 $\sqrt{3}$.208 X 413= 6.18 mt / Sec
C/S area of Stack (As1) C/S area of sampling Location (As1) Manometer Reading (k) in mm Stack Temperature Ts=° C+ 273 Meter Temperature Tm =° C+ 273 Velocity of flue gas Vs = C√K X Ts Tm / Ts Nozzle diameter C/S area of Nozzle An (m2)	21.01.2021 Height - 70 mt, \emptyset = 3.0 mt 7.06 m2 7.06 m2 4.01(ΔP =4.01x 0.8 = 3.208) 140+ 273 = 413 ° K 29+ 273 =302° K 0.175 $\sqrt{3}$.208 X 413= 6.18 mt / Sec
Manometer Reading (k) in mm Stack Temperature Ts=° C+ 273 Meter Temperature Tm =° C+ 273 Velocity of flue gas Vs = C √ K X Ts Tm / Ts Nozzle diameter Rate of Sampling (LDM)	Height - 70 mt, \emptyset = 3.0 mt 7.06 m2 7.06 m2 4.01(ΔP = 4.01x 0.8 = 3.208) 140+ 273 = 413 ° K 29+ 273 = 302 ° K 0.175 $\sqrt{3}$.208 X 413= 6.18 mt / Sec
8 Stack Temperature Ts=° C+ 273 9 Meter Temperature Tm =° C+ 273 10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2)	7.06 m2 7.06 m2 4.01($\Delta P = 4.01 \times 0.8 = 3.208$) 140+ 273 = 413 ° K 29+ 273 = 302 ° K 0.175 $\sqrt{3.208}$ X 413= 6.18 mt / Sec
9 Meter Temperature Ts=° C+ 273 10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2) 14 Rate of Sampling (L DM)	7.06 m2 $4.01(\Delta P = 4.01 \times 0.8 = 3.208)$ $140 + 273 = 413 \degree K$ $29 + 273 = 302 \degree K$ $0.175\sqrt{3.208} \times 413 = 6.18 \text{ mt / Sec}$ 0.731
10 Velocity of flue gas Vs = C √ K X Ts 11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2) 14 Rate of Sampling (L DM)	$4.01(\Delta P = 4.01 \times 0.8 = 3.208)$ $140+273 = 413 \circ K$ $29+273 = 302 \circ K$ $0.175\sqrt{3.208} \times 413 = 6.18 \text{ mt / Sec}$ 0.731
11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2) Rate of Sampling (LDM)	0.175√3.208 X 413= 6.18 mt / Sec
11 Tm / Ts 12 Nozzle diameter 13 C/S area of Nozzle An (m2) Rate of Sampling (LDM)	29+ 273 =302° K 0.175√3.208 X 413= 6.18 mt / Sec 0.731
12 Nozzle diameter 13 C/S area of Nozzle An (m2) 14 Rate of Sampling (LDM)	0.7731 0.7731 0.7731
13 C/S area of Nozzle An (m2) 14 Rate of Sampling (LDM)	0.7.31
14 Rate of Sampling (LDM)	0.7.31
14 Rate of Sampling (LDM)	3/8" = 0.275
Rate of Sampling (LPM) g = An x Vo x Tru 4 =	570 - 0.375 Inches
15 Discording (LPM) a = An VVa Va Va	7.13 x 10 ⁻⁵
I Period of C	
15 Period of Sampling in Minutes Volume of Sampling in Minutes	$7.13 \times 10^{-5} \times 6.18 \times 0.731 \times 10^{3} \times 60 = 19.3$
Troidille Ol Samplo in It.	450 x 0.731 x 10 ³ x 60=19.3
Ty oldille of Sample in mo	
o Hilliple No	19.32 x15 = 289.8 lts
I middly Welling Of Thins.	0.2898
	CO GEN - 12
	4.017
2 SPM mg / Nm3	4.05
3	0.033
As1 x Vs x 3600 x 298 /Ts	113.87
-500 X 230 / IS	. 10.07

G. Suryaprakash Rao GM-/Cogen

FOR THE MONTH JANUARY-2021

SPM ANALYSIS REPORT	
Sampling station	
Period	Near Switch Yard
Direction/Distance	10.00 am to 10.00 am
Date of analysis	S.E to N.W/100 mts
Duration	01.01.2021
RESULTS	24.00 Hrs
Initial weight of the filter paper (wi)	
Final weight of the filter paper (wf)	2.01
Difference in weight (grams)	2.45
Average air flow m3/hr	0.44
Ambient temperature degree centigrade	1.17
CALCULATION:	26
PM in mg/Nm3	
PM in micro gram/Nm3	0.26116
Present diamitalia	261.16

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FOR THE MONTH JANUARY-2021

SPM ANALYSIS REPORT	11UAR 1 - 2021
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	06.01.2021
Duration	24.00 Hrs
RESULTS	Z-T-OU IIIS
Initial weight of the filter paper (wi)	2.02
Final weight of the filter paper (wf)	2.45
Difference in weight (grams)	0.43
Average air flow m3/hr	1.17
Ambient temperature degree centigrade	27
CALCULATION:	21
SPM in mg/Nm3	0.25522
SPM in micro gram/Nm3	0.25522 255.22

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FOR THE MONTH JANUARY-2021

SPM ANALYSIS REPORT	
Sampling station	Noon Cristal V
Period	Near Switch Yard
Direction/Distance	10.00 am to 10.00 am
Date of analysis	S.E to N.W/100 mts
Duration	13.01.2021
RESULTS	24.00 Hrs
Initial weight of the filter paper (wi)	201
Final weight of the filter paper (wf)	2.01
Difference in weight (grams)	2.49
Average air flow m3/hr	0.48
Ambient temperature degree centigrade	1.17
CALCULATION:	27
PM in mg/Nm3	
PM in micro gram/Nm3	0.28490
O TABLE V	284.90

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FOR THE MONTH JANUARY-2021

SPM ANALYSIS REPORT	2.021
Sampling station	
Period	Near Switch Yard
Direction/Distance	09.00 am to 09.00 am
Date of analysis	S.E to N.W/100 mts
Duration	20.01.2021
RESULTS	24.00 Hrs
nitial weight of the filter paper (wi)	
Final weight of the filter paper (wf)	2.01
Difference in weight (grams)	2.49
verage air flow m3/hr	0.48
mbient temperature degree centigrade	1.17
ALCULATION:	28
PM in mg/Nm3	\$
PM in micro gram/Nm3	0.28490
PY SETTIN I ATTENTY	284.90

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FOR THE MONTH JANUARY-2021

SPM ANALYSIS REPORT	
Sampling station	
Period	Near Switch Yard
Direction/Distance	09.00 am to 09.00 am
Date of analysis	S.E to N.W/100 mts
Duration Duration	29.01.2021
RESULTS	24.00 Hrs
Initial weight of the filter paper (wi)	
Final weight of the filter paper (wf)	2.01
Difference in weight (grams)	2.55
Average air flow m3/hr	0.54
mbient temperature degree centigrade	1.16
ALCULATION:	28
PM in mg/Nm3	
PM in micro gram/Nm3	0.32328
Micro Gram/Idill)	323.28

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45.56 MW CO- GENERATION POWER PLANT, GBL SAMEERWADI SOUND LEVEL MONITORING REPORTS FOR THE MONTH OF JANUARY - 2021

Date:10.02.2021

S.NO	DATE			
	DATE	STATION	DAY TIME (dB)	NIGHT TIME (dB)
1	04.01.2021	Near Switch yard		INTERIOR (GB)
2	13.01.2021			65
3		Near Switch yard	70	60
3	21.01.2021	Near turbine hall	70	
4	30.01.2021			60
	-, 0 60 5	Near turbine hall	70	60

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11 = 5	Name of the Industry :1 x 24 MW (Godavari Biorefineri	oold,
1	Report Sl.No.	Results
2	Stack Attached to	13(2020-21)
3	Date of Sampling	130 TPH Boiler
4	Dimensions of Stack	04.02.2021
5	C/S area of Stack (As1)	Height - 70 mt, \emptyset = 3.0 mt
6	C/S area of sampling Location (Act)	7.06 m2
_	Wallometer Reading (k) in mm	7.06 m2
0	Stack Temperature Ts=° C+ 272	$4.2(\Delta P = 4.2 \times 0.8 = 3.36)$
9 1	Meter Temperature Tm =° C+ 273	125+ 273 = 398° K
10	velocity of flue gas $V_S = C \sqrt{K \times T_S}$	30+ 273 =303° K
11	m/Is	0.175√3.36X 398= 6.399 mt / Sec
2 1	Nozzle diameter	0.761
	C/S area of Nozzle An (m2)	3/8" = 0.375 inches
	THE THE PARTY OF T	7.13 x 10 ⁻⁵
4 R	lote of O	7.13 X 10
5 P	eriod of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60	$7.13 \times 10^{-5} \times 6.399 \times 0.761 \times 10^{3} \times 10^{-5} \times 10$
		60=20.83
7 V	olume of Sample in Itrs.	15Minutes
	olume of Sample in m3	20.83 x15 = 312.45lts
	nimble No.	0.3124
Fi	itial weight of Thimble in grams (W1)	CO GEN - 13
	idi vvelgili of I nimble in grama (14/0)	4.01
100	Z - VV I	4.04
-	PM mg/ Nm3	0.03
	nte of Emission Nm3/Hr 1 x Vs x 3600 x 298 /Ts	96.03

	Name of the Industry :1 x 21.56 MV	V Cogen Power Diam
SI.no	Godavari Bioretiner	ies I td
1	Report SI.No.	
2	Stock Attack to	Results
3	Stack Attached to	14(2020-21)
4	Date of Sampling	120 TPH Boiler
5	Dimensions of Stack	04.02.2021
6	C/S area of Stack (As1)	Height - 70 mt, Ø = 3.0 mt
7	C/S area of sampling Location (As1)	7.06 m2
8	Manometer Reading (k) in mm	7.06 m2
9	Stack Temperature Ts=° C+ 273	$4.01(\Delta P = 4.01 \times 0.8 = 3.208)$
10	Meter Temperature Tm =° C+ 273	140+ 273 = 413 ° K
11	Velocity of flue gas $V_S = C_1 \sqrt{K \times T_S}$	29+ 273 =302° K
-	IIII/IS	0.175√3.208 X 413= 6.18 mt / Sec
12	Nozzle diameter	0.731
13	C/S area of Nozzle An (m2)	3/8" = 0.375 inches
		7.13 x 10 ⁻⁵
14	Rate of Sampling (LDM)	
15	Rate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60 Period of Sampling in Minutes	$7.13 \times 10^{-5} \times 6.18 \times 0.731 \times 10^{3} \times 60 = 19.3$
-	Volume of Sample in Itrs.	15Minut
17	Volume of Sample in m3	15Minutes
18	Thimble No.	19.32 x15 = 289.8 lts
19	Initial weight of This Luci	0.2898
20	Initial weight of Thimble in grams (W1)	CO GEN - 14
21	Final Weight of Thimble in grams (W1) W2 - W1	4.013
	SPM mg / Nm3	4.04
	Rate of Emission Nm3/Hr	0.027
P	As1 x Vs x 3600 x 298 /Ts	93.17

G 2 3 2021

	Name of the Industry :1 x 24 MW Co	gen Power Plant ,
	Godavari Biorefineries	
Sl.no	Parameters	Results
1	Report SI.No.	15(2020-21)
2	Stack Attached to	130 TPH Boiler
3	Date of Sampling	20.02.2021
4	Dimensions of Stack	Height - 70 mt, Ø = 3.0 mt
5	C/S area of Stack (As1)	7.06 m2
6	C/S area of sampling Location (As1)	7.06 m2
7	Manometer Reading (k) in mm	$4.2(\Delta P = 4.2 \times 0.8 = 3.36)$
8	Stack Temperature Ts=° C+ 273	125+ 273 = 398° K
9	Meter Temperature Tm = C+ 273	30+ 273 =303° K
10	Velocity of flue gas Vs = C √ K X Ts	0.175√3.36X 398= 6.399 mt / Sec
11	Tm / Ts	0.761
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle An (m2)	7.13 x 10 ⁻⁵
		$7.13 \times 10^{-5} \times 6.399 \times 0.761 \times 10^{3} \times$
14	Rate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60	60=20.83
15	Period of Sampling in Minutes	15Minutes
16	Volume of Sample in ltrs.	20.83 x15 = 312.45lts
17	Volume of Sample in m3	0.3124
18	Thimble No.	CO GEN - 15
19	Initial weight of Thimble in grams (W1)	4.01
20	Final Weight of Thimble in grams (W2)	4.035
21	W2 - W1	0.025
22	SPM mg/ Nm3	80.03
23	Rate of Emission Nm3/Hr	
	As1 x Vs x 3600 x 298 /Ts	

6-13/2021

G. Suryaprakash Rao GM- Cogen

	Name of the Industry :1 x 21.56 MV	N Cogon D
Sl.no	Godavari Biorefine	rice Ltd.
1	Parameters Parameters	ies Ltd.
2	Interport St. No.	Results
3	Stack Attached to	16(2020-21)
4	Date of Sampling	120 TPH Boiler
5	Dimensions of Stack	20.02.2021
-	C/S area of Stack (As1)	Height - 70 mt, Ø = 3.0 mt
6	C/S area of sampling Location (As1)	7.06 m2
7	Imanometer Reading (k) in mm	7.06 m2
8	Stack Temperature Te-° C L 272	$4.01(\Delta P = 4.01 \times 0.8 = 3.208)$
9	Interest l'emperature Tm =° C+ 272	140+ 273 = 413 ° K
10	velocity of flue gas Vs = C VKYT	29+ 273 =302° K
11	[1117 IS	0.175√3.208 X 413= 6.18 mt / Sec
12	Nozzle diameter	0.731
13	C/S area of Nozzle An (m2)	3/8" = 0.375 inches
	50 7 (III / III Z)	
14	Data de	7.13 x 10 ⁻⁵
-	Rate of Sampling (LPM) q = An x Vs x Tm / Ts x 1000 x 60	
16	Period of Sampling in Minutes	$7.13 \times 10^{-5} \times 6.18 \times 0.731 \times 10^{3} \times 60 = 19$
10	volume of Sample in Itre	15Minutes
1/	Volume of Sample in m3	19.32 x15 = 289.8 lts
0	nimble No	0.2898
9 1	nitial weight of Thimble in grams (W1)	CO GEN - 16
-	mai vicigit of Inimple in grame (14/0)	4.011
- 1	A 7 - A 4 1	4.04
2 S	PM mg / Nm3	0.029
3 R	ate of Emission Nm3/Hr	100.07
	s1 x Vs x 3600 x 298 /Ts	100.07

2/3/2021

45.56 MW CO- GENERATION POWER PLANT, GBL SAMEERWADI SOUND LEVEL MONITORING REPORTS FOR THE MONTH OF FEBRUARY - 2021

Date:2.03.2021

S.NO	DATE			
1		STATION	DAY TIME (dB)	NIGHT TIME (dB)
1	02.02.2021	Near Switch yard		LATOHI ITWE (QB)
2	13.02.2021		, 0	65
3	21.02.2021	Near Switch yard	70	60
1		Near turbine hall	65	
4	27.02.2021	Near turbine hall		55
		a. onto han	65	60

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FOR THE MONTH FEBRUARY-2021

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	09.00 am to 09.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	01.02.2021
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.01
Final weight of the filter paper (wf)	2.54
Difference in weight (grams)	0.53
Average air flow m3/hr	1.17
Ambient temperature degree centigrade	31
CALCULATION:	
SPM in mg/Nm3	0.31458
SPM in micro gram/Nm3	314.58

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2/3/2021

FOR THE MONTH FERRILARY 2021

SPM ANALYSIS REPORT		
Sampling station	N. G.	
Period	Near Switch Yard	
Direction/Distance	10.00 am to 10.00 am	
Date of analysis	S.E to N.W/100 mts	
	06.02.2021	
Duration RESULTS	24.00 Hrs	
Initial weight of the filter paper (wi)		
Final weight of the filter paper (wf)	2.01	
Difference in weight (grams)	2.44	
Average air flow m3/hr	0.43	
Ambient temperature degree centigrade	1.17	
CALCULATION:	30	
PM in mg/Nm3		
PM in micro gram/Nm3	0.25522	
Milet o gram/IVIII)	255.22	

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FOR THE MONTH FEBRUARY-2021

FOR THE MONTH FE	2021	
Sampling station		
Period	Near Switch Yard	
Direction/Distance	10.00 am to 10.00 am	
Date of analysis	S.E to N.W/100 mts	
Duration	13.02.2021	
RESULTS	24.00 Hrs	
Initial weight of the filter paper (wi)		
Final weight of the filter paper (wf)	2	
Difference in weight (grams)	2.42	
Average air flow m3/hr	0.42	
Ambient temperature degree centigrade	1.17	
CALCULATION:	30	
PM in mg/Nm3		
PM in micro gram/Nm3	0.24929	
	249,29	

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2/3/2021

FOR THE MONTH FEBRUARY-2021

SPM ANALYSIS REPORT		
Sampling station	N. G.	
Period	Near Switch Yard	
Direction/Distance	10.00 am to 10.00 am	
Date of analysis	S.E to N.W/100 mts	
Duration	18.02.2021	
RESULTS	24.00 Hrs	
Initial weight of the filter paper (wi)		
Final weight of the filter paper (wf)	2	
Difference in weight (grams)	2.45	
Average air flow m3/hr	0.45	
Ambient temperature degree centigrade	1.17	
CALCULATION:	29	
PM in mg/Nm3		
PM in micro gram/Nm3	0.26709	
1 III III III o gram/Nm3	267.09	

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GP:2/3/2/

FOR THE MONTH FERRILARY-2021

SPM ANALYSIS REPORT		
Sampling station	Near Switch Yard	
Period	10.00 am to 10.00 am	
Direction/Distance	S.E to N.W/100 mts	
Date of analysis	25.02.2021	
Duration	24.00 Hrs	
RESULTS	2 1100 1115	
Initial weight of the filter paper (wi)	2.04	
Final weight of the filter paper (wf)	2.45	
Difference in weight (grams)	0.41	
Average air flow m3/hr	1.17	
Ambient temperature degree centigrade	30	
CALCULATION:	30	
SPM in mg/Nm3	0.24335	
SPM in micro gram/Nm3	243.35	

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