

Integrated HSEQR Consulting Engineers, Scientists & Trainers (Recognised By Ministry of Environment, Forest and Climate Change, New Delhi Under EPA 1986) (No. Q - 1508 / 32 / 2007 - CPW)

(ISO 9001, 14001 & OHSAS 18001 Certified Organisation)

### Report No:-GCI/V/Lab/EM-SP/20-21/Nov-00/0008

Date: 28.11.2020

## **ANALYSIS REPORT**

Client Details		Sample Details		
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.	Sample Code	GCI/EC/20/ST1	
	Kundal, Tal-Palus, Dist-Sangali	Stack attached to	As In Table	
Address	416309.	Location	Sugar Plant Boiler I	
		Sampling Instrument	Stack Monitoring Kit	
Sampling Done By	SAITECH, Kolhapur	Date of Sampling	23.11.2020	
Analysis Starts on	24.11.2020	Sampling Method	Isokinetic Sampling, IS:11255,PART-1,2,3	
Analysis Completion On	28.11.2020	Sample Received Date	24.11.2020	

#### STACK MONITORING ANALYSIS RESULTS

Sr. No.	Description	11 11	Results		Defense a Malhad
	Description	Unit	Boiler I	MPCB Limits	Reference Method
1.	Material of Stack	-	Concrete		
2.	Type of Stack	-	Round		
3.	Stack Height	mtr.	60		
4.	Stack Dimensions	mtr.	3.5		
5.	Differential Pressure	mmWG	1.7		
6.	Stack Area	m <sup>2</sup>	9.622		
7.	Temperature of Flue Gas	°K	413		
8.	Velocity of Flue Gas	m/s	5.0		
9.	Volumetric Flow of Flue Gas	Nm <sup>3</sup> /hr	127444.3		
10.	Total Particulate matter (TPM)	mg/Nm <sup>3</sup>	86.6	<150	IS 11255: Part 1
11.	Sulfur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	0.8		IS 11255: Part 2
12.	Sulfur Dioxide (SO <sub>2</sub> )	Kg/D	2.44		IS 11255: Part 2



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## ANALYSIS REPORT

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Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.	Sample Code	GCI/EC/20/AA1	
	Kundal, Tal-Palus,Dist-Sangali	Dist-Sangali Location	Sugar Plant Area	
Address	416309.	Date of Sampling	23.11.2020	
Sampling Done By	Saitech, Kolhapur	Date of Sample Received	24.11.2020	
Analysis Starts On	24.11.2020	Sampling Instrument	RDS, FPS	
Analysis Completion On	28.11.2020	Sampling Method	IS 5182 : Part 5 : 1975	

### AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1	Particulate Matter (PM10)	µg/m³	49.3	100	IS 5182 : Part 23 : 2006
2	Particulate Matter (PM <sub>2.5</sub> )	µg/m³	15.8	60	NAAQS Guidelines
3	Sulphur dioxide (SO <sub>2</sub> )	µg/m³	20.2	80	IS 5182 : Part 2 : 2001
4	Oxides of Nitrogen (NO <sub>x</sub> )	µg/m³	22.6	80	IS 5182 : Part 6 : 2006
5	Carbon Monoxide CO	mg/m <sup>3</sup>	BDL	2.0	IS 5182 : Part 10 : 1999
6	Ozone as O3	µg/m³	BDL	100	NAAQS Guidelines
7	Lead as Pb	µg/m³	BDL	1.0	NAAQS Guidelines
8	Nickel as Ni	ng/m <sup>3</sup>	BDL	20	NAAQS Guidelines
9	Arsenic as As	ng/m <sup>3</sup>	BDL	6.0	NAAQS Guidelines
10	Ammonia as NH3	µg/m <sup>3</sup>	BDL	400	NAAQS Guidelines
11	Benzene , C6H6	µg/m <sup>3</sup>	BDL	5.0	IS 5182 (Part 11):2006
12	Benzo (a) Pyrene(Bap)	ng/m <sup>3</sup>	BDL	1.0	Gas Chromatography



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## **ANALYSIS REPORT**

Client details		Sample Details		
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.	Sample Code	GCI/EC/20/AA3	
Kundal, Tal-Palus, Dist-Sangali		Location	Near Main Gate	
Address	416309.	Date of Sampling	23.11.2020	
Sampling Done By	Saitech, Kolhapur	Date of Sample Received	24.11.2020	
Analysis Starts On	24.11.2020	Sampling Instrument	RDS, FPS	
Analysis Completion On	28.11.2020	Sampling Method	IS 5182 : Part 5 : 1975	

### AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1	Particulate Matter (PM10)	µg/m³	56.7	100	IS 5182 : Part 23 : 2006
2	Particulate Matter (PM <sub>2.5</sub> )	µg/m³	17.5	60	NAAQS Guidelines
3	Sulphur dioxide (SO2)	µg/m³	21.6	80	IS 5182 : Part 2 : 2001
4	Oxides of Nitrogen (NOx)	µg/m³	24.2	80	IS 5182 : Part 6 : 2006
5	Carbon Monoxide CO	mg/m <sup>3</sup>	BDL	2.0	IS 5182 : Part 10 : 1999
6	Ozone as O3	µg/m³	BDL	100	NAAQS Guidelines
7	Lead as Pb	µg/m³	BDL	1.0	NAAQS Guidelines
8	Nickel as Ni	ng/m <sup>3</sup>	BDL	20	NAAQS Guidelines
9	Arsenic as As	ng/m <sup>3</sup>	BDL	6.0	NAAQS Guidelines
10	Ammonia as NH₃	µg/m³	BDL	400	NAAQS Guidelines
11	Benzene , C6H6	µg/m³	BDL	5.0	IS 5182 (Part 11):2006
12	Benzo (a) Pyrene(Bap)	ng/m <sup>3</sup>	BDL	1.0	Gas Chromatography



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## **ANALYSIS REPORT**

Client details		Sample Details		
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.	Sample Code	GCI/EC/20/AA4	
	Kundal, Tal-Palus, Dist-Sangali	Location	Soil Lab Terace	
Address	416309.	Date of Sampling	23.11.2020	
Sampling Done By	Saitech, Kolhapur	Date of Sample Received	24.11.2020	
Analysis Starts On	24.11.2020	Sampling Instrument	RDS, FPS	
Analysis Completion On	28.11.2020	Sampling Method	IS 5182 : Part 5 : 1975	

### AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1	Particulate Matter (PM10)	µg/m³	40.5	100	IS 5182 : Part 23 : 2006
2	Particulate Matter (PM <sub>2.5</sub> )	µg/m³	13.2	60	NAAQS Guidelines
3	Sulphur dioxide (SO2)	µg/m³	14.7	80	IS 5182 : Part 2 : 2001
4	Oxides of Nitrogen (NOx)	µg/m³	16.3	80	IS 5182 : Part 6 : 2006
5	Carbon Monoxide CO	mg/m <sup>3</sup>	BDL	2.0	IS 5182 : Part 10 : 1999
6	Ozone as O3	µg/m³	BDL	100	NAAQS Guidelines
7	Lead as Pb	µg/m³	BDL	1.0	NAAQS Guidelines
8	Nickel as Ni	ng/m <sup>3</sup>	BDL	20	NAAQS Guidelines
9	Arsenic as As	ng/m <sup>3</sup>	BDL	6.0	NAAQS Guidelines
10	Ammonia as NH3	µg/m³	BDL	400	NAAQS Guidelines
11	Benzene , C6H6	µg/m³	BDL	5.0	IS 5182 (Part 11):2006
12	Benzo (a) Pyrene(Bap)	ng/m <sup>3</sup>	BDL	1.0	Gas Chromatography



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## **ANALYSIS REPORT**

Client details		Sample Details		
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.	Sample Code	GCI/EC/20/AA5	
Kundal, Tal-Palus,Dist-Sangali		Location	Near C-Type Colony	
Address	416309.	Date of Sampling	23.11.2020	
Sampling Done By	Saitech, Kolhapur	Date of Sample Received	24.11.2020	
Analysis Starts On	24.11.2020	Sampling Instrument	RDS, FPS	
Analysis Completion On	28.11.2020	Sampling Method	IS 5182 : Part 5 : 1975	

### AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS) amended 2009	Reference Method
1	Particulate Matter (PM10)	µg/m³	42.4	100	IS 5182 : Part 23 : 2006
2	Particulate Matter (PM <sub>2.5</sub> )	µg/m³	12.9	60	NAAQS Guidelines
3	Sulphur dioxide (SO2)	µg/m³	14.1	80	IS 5182 : Part 2 : 2001
4	Oxides of Nitrogen (NOx)	µg/m³	16.0	80	IS 5182 : Part 6 : 2006
5	Carbon Monoxide CO	mg/m <sup>3</sup>	BDL	2.0	IS 5182 : Part 10 : 1999
6	Ozone as O3	µg/m³	BDL	100	NAAQS Guidelines
7	Lead as Pb	µg/m³	BDL	1.0	NAAQS Guidelines
8	Nickel as Ni	ng/m <sup>3</sup>	BDL	20	NAAQS Guidelines
9	Arsenic as As	ng/m <sup>3</sup>	BDL	6.0	NAAQS Guidelines
10	Ammonia as NH3	µg/m³	BDL	400	NAAQS Guidelines
11	Benzene , C6H6	µg/m³	BDL	5.0	IS 5182 (Part 11):2006
12	Benzo (a) Pyrene(Bap)	ng/m <sup>3</sup>	BDL	1.0	Gas Chromatography



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# ANALYSIS REPORT

Client Details Sample Details				
Name		iagrani Dr. G. D. S. S. K. Ltd.	Sample Code	GCI/EC/20/N1 to N10
	Kundal, Tal-Palus, Dist-Sangali		Location	As per table
	416309.		Quantity	NA
Address			Date of Measurement	23.11.2020
		Sampling Instrument	Sound level meter (LT/SL -4030)	
Measurement Done By Saitech, Kolhapur		Sampling Method	LT/SL -4030 inst. Manual	

## **NOISE MONITORING RESULTS**

			Re	esults
Sr. No.	Location Name	Units	Day Time	Night Time
1	Near Main Gate	dB (A)	64.8	57.8
2	Near on Lab Terrace	dB (A)	56.2	43.5
3	Near ETP	dB (A)	58.7	56.2
4	Mill House	dB (A)	73.2	71.6
5	Sugar House	dB (A)	71.7	68.3
6	Switch Yard	dB (A)	68.4	67.4
7	Boiling house	dB (A)	72.6	69.2
8	C Type Colony	dB (A)	49.5	40.8
9	Near Administratoin Office	dB (A)	55.2	43.3

Limits: Maharashtra pollution Control Board has prescribed 75dB (A) as an upper limit of noise level during day time and 70dB (A) during night time.



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# ANALYSIS REPORT

Client's Details			Sample Details	
Name	M/s. Krantiagro S. K. Ltd.	ani Dr. G. D. Bapu Lad S.	Sample code	GCI/EC/20/WW1
Address	Kundal, Tal-Palus, Dist-Sangali 416309.		Location	Untreated Effluent
			Date of Sampling	23.11.2020
Sampling Done by SAITECH, Kolhapur		Quantity	2 lit.	
Analysis Start on 24.11.2020		Sampling Method		
Analysis C	Analysis Completion on 28.11.2020		Sample Received Date	24.11.2020

### WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameter	Unit	Results
1	РН	-	7.8
2	Total Suspended Solids (TSS)	mg/l	646
3	Total Dissolved Solids (TDS)	mg/l	853
4	Biochemical Oxygen Demand (BOD) @ 3 days 27°C	mg/l	1887
5	Chemical Oxygen Demand (COD)	mg/l	3723
6	Oil & Grease	mg/l	4.0
7	Chloride as Cl	mg/l	135
8	Sulphate as SO4	mg/l	127

BDL =Below Detectable Limit DL =Detectable Limi



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## ANALYSIS REPORT

Client's Details			Sample Details	
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.		Sample code	GCI/EC/20/WW2
Address	Kundal, Tal-Palus,Dist-Sangali 416309.		Location	Treated Effluent
			Date of Sampling	23.11.2020
Sampling Done by SAITECH, Kolhapur		Quantity	2 lit.	
Analysis Start on 24.11.2020		24.11.2020	Sampling Method	
Analysis Completion on 28.11.2020		Sample Received Date	24.11.2020	

## WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameter	Unit	Results	Limits
1	рН	-	7.7	5.5-9.0
2	Total Suspended Solids (TSS)	mg/l	54	100
3	Total Dissolved Solids (TDS)	mg/l	357	2100
4	Biochemical Oxygen Demand (BOD) @ 3 days 27ºC	mg/l	56	100
5	Chemical Oxygen Demand (COD)	mg/l	130	250
6	Oil & Grease	mg/l	ND	10
7	Chloride as Cl	mg/l	78	600
8	Sulphate as SO4	mg/l	86	1000

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ANALYSIS REPORT

Date: 28.11.2020

Client's Details			Sample Details		
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.		Sample code	GCI/EC/20/WW3	
Address	Kundal, Tal-Palus, Dist-Sangali 416309.		Location	Spray Pond Overflow	
Addless			Date of Sampling	23.11.2020	
Sampling Done by SAITECH, Kolhapur		Quantity	2 lit.		
Analysis Start on 24.11.2020		24.11.2020	Sampling Method		
Analysis C	Analysis Completion on 28.11.2020		Sample Received Date	24.11.2020	

### WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameter	Unit	Results
1	рН	-	6.8
2	Total Suspended Solids (TSS)	mg/l	90
3	Total Dissolved Solids (TDS)	mg/l	822
4	Biochemical Oxygen Demand (BOD) @ 3 days 27°C	mg/l	47
5	Chemical Oxygen Demand (COD)	mg/l	233
6	Oil & Grease	mg/l	ND
7	Chloride as Cl	mg/l	121
8	Sulphate as SO4	mg/l	113

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Client's Details			Sample Details		
Name	M/s. Krantiagrani Dr. G. D. Bapu Lad S. S. K. Ltd.		Sample code	GCI/EC/20/WW4	
Address	Kundal, Tal-Palus, Dist-Sangali 416309.		Location	Condensate Water	
			Date of Sampling	23.11.2020	
Sampling Done by SAITECH, Kolhapur		Quantity	2 lit.		
Analysis Start on 24.11.2020		Sampling Method			
Analysis Completion on 28.11.2020		Sample Received Date	24.11.2020		

### WASTE WATER ANALYSIS RESULTS

Sr. No.	Parameter	Unit	Results
1	РН	-	8.1
2	Total Suspended Solids (TSS)	mg/l	ND
3	Total Dissolved Solids (TDS)	mg/l	113
4	Biochemical Oxygen Demand (BOD) @ 3 days 27°C	mg/l	46
5	Chemical Oxygen Demand (COD)	mg/l	210
6	Oil & Grease	mg/l	ND
7	Chloride as Cl	mg/l	45
8	Sulphate as SO4	mg/l	ND

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