BEFORE THE NATIONAL GREEN TRIBUNAL-SOUTHERN BENCH

O.A No. 195 Of 2016

Tandur Citizens Welfare Society …Applicant

Vs

Govt. of Telengana
rep. by its Secretary and Ors. …Respondents

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Certified that the above are true copies of the originals.

Dated at Chennai on thisthe. Day of June, 2020

COUNSEL FOR 12TH RESPONDENT

Consent For Operation
(CFO-Air,Water)

Consent No. AW-309279
Valid upto: 30/06/2023

2

Karnataka State Pollution Control Board
Parisara Bhavana,No.49, Church Street,Bengaluru-560001
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Industry Colour: RED Industry Scale: LARGE

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Combined Consent Order No. AW-309279 **PCB ID:** 10452 **Date:** 22/12/2018

Combined consent for discharge of effluents under the Water (Prevention and Control of Pollution) Act , 1974 and emission under the Air (Prevention and Control of Pollution)Act , 1981

Ref: 1. Application filed by the applicant/organization on 17/09/2018

2.Inspection of the Industry/organization/by RO, on 17/09/2018

3.Proceedings of the CCM dated 26/09/2018 ,held on 20/09/2018

Consent is hereby granted to the Occupier under Section 25(4) of the Water (Prevention & Control of Pollution) Act, 1974 (herein referred to as the Water Act) & Section 21 of Air (Prevention & Control of Pollution) Act, 1981, (herein referred to as the Air Act) and the Rules and Orders made there under and authorized the Occupier to operate /carryout industry/activity & to make discharge of the effluents & emissions confirming to the stipulated standards from the premises mentioned below and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

Location:

Name of the Industry: Kalburagi Cement Pvt Ltd Formerly Vicat Sagar Cement Ltd

Address: -, Chatrasala

Industrial Area: Not In I.A, Chatrasala ,

Taluk: Chincholi, District: Gulbarga

CONDITIONS:

a) Discharge of effluents under the Water Act:

Sr	Water Code	WC(KLD)	WWG(KLD)	Remark
1	Domestic Purpose	240.000	200.000	For Staff Colony: Waste water -domestic ueses is treated in STP & used for Green belt (water source:River and Borewell)
2	Manufacturing Processes	850.000	0.000	Cement Manufacturing (3.60 MTPA) - Water souce: Borewell+river water

b) Discharge of Air emissions under the Air Act from the following stacks etc.

Sl. No.	Description of chimney/outlet	Limits specified refer schedule
The details of Sources, control equipments and its specification, type of fuel,constituents to be controlled in emissions etc. are detailed in Annexure-II.		

The consent for operation is granted considering the following activities/Products;

Sr	Product Name	Applied Qty/Month	Unit
1	cement	0.3000	MMT
2	clinker	0.2292	MMT
3	power generation	0.000	MWH
4	power generation-whrs	0.000	MWH

This consent is valid for the period from 17/09/2018 **to** 30/06/2023

To,

Kalburagi Cement Pvt Ltd Formerly Vicat Sagar Cement Ltd

COPY TO:

The Environmental Officer, KSPCB, Regional Office Gulburga for information and necessary action.

2. Master Register.
3. Case file.

Consent Fee paid : Rs. 2000000

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SCHEDULE

TERMS AND CONDITIONS

A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

1. The discharge from the premises of the occupier shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.

2(a). The sewage/domestic effluent shall be treated in septic tank and with soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be as per IS 2470 Part-I & Part-II.

2(b). The treated sewage effluent discharged shall conform to the standards specified in Annexure-I.

3(a). The trade effluent generated in the industry shall be treated in the ETP and treated effluent shall confirm to the standards stipulated by the Board in Annexure-I

3(b). The trade effluent shall be handed over to CETP and maintain logbook of effluent generated & sent every day.

4. The applicant shall install flow measuring/recording devices to record the discharge quantity and maintain the record.

5. The applicant shall not change or alter either the quality or the quantity or the place of discharge or temperature or the point of discharge without the previous consent/ permission of the Board.

6. The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises. Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.

7. The daily quantity of domestic effluent and trade effluent from the industry shall not exceed the limits as indicated in this consent order:

8. The applicant shall discharge the effluents only to the place mentioned in the Consent order and discharge of treated/untreated outside the premises is not permitted.

B. EMISSIONS:

1. The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in **Annexure-II** where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.The tolerance limits of the constituents forming the emissions in each of the stacks shall not exceed the limits laid down in Annexure-II.

2. The applicant shall provide port holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.

3. The applicant shall upgrade/modify/replace the control equipment with prior permission of the Board.

C.MONITORING & REPORTING:

1. The applicant shall get the samples of effluents & emissions collected and get them analyzed once a month/either by in house monitoring laboratory or through EP approved laboratories for the parameters as Indicated in Annexure I & II.

2. The applicant shall maintain log books to reflect the working condition of pollution control systems and also self monitoring results and keep it open for inspection.

D. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:

1.The applicant shall segregate solid waste from Hazardous Waste, Municipal Solid Waste and store it properly till treatment/disposal without causing pollution to the surrounding Environment.

2.The solid waste generated shall be handled & disposed by scientific method without causing eye sore to the general public and to the surrounding environment.

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E. NOISE POLLUTION CONTROL:

1. The applicant shall ensure that the ambient noise levels within its premises shall not exceed the limits i.e 75 dB(A) Leq during day time and 70 dB(A) Leq during night time as specified in under the Air (Prevention and Control of Pollution) Act, 1981.

F. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUDARY MOVEMENT)Rules2016:

The applicant shall comply with the provisions of the Hazardous and other Wastes (Management & Transboundry Movement) Rules 2016.

G. GENERAL CONDITIONS:

1. The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises.

2. The applicant shall promptly comply with all orders and instructions issued by the Board from time to time or any other officers of the Board duly authorized in this behalf.

3. The applicant shall set-up Environmental Cell comprising of qualified and competent personnel for complying with the conditions specified.

4. The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent.

5. The applicant shall forthwith keep the Board informed of any accidental discharge of emissions/effluents into the atmosphere in excess of the standards laid down by the Board. The applicant shall also take corrective steps to mitigate the impact.

6. The applicant shall provide alternate power supply sufficient to operate all Pollution control equipments.

7. The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow measuring points should made easily approachable.

8. The applicant shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.

9. The applicant his heirs, legal representatives or assignee shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.

10. The applicant shall make an application for consent for subsequent period at least 45 days before expiry of this consent.

11. The applicant shall develop and maintain adequate green belt all around the periphery.

12. The applicant shall provide rain water harvesting system and shall provide proper storm water management system.

13. This consent is issued without prejudice to any Court Cases pending in any Hon'ble Court

14. The applicant shall furnish the Environmental statement for every financial year ending with 31st March in Form-V as per Environment (Protection) Rules, 1986. The statement shall be furnished before the end of September.

15. The applicant shall display flow diagram of the pollution control system near the pollution contol system/s.

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NOTE:

The Conditions II(2(a) 3(b)) mentioned in the schedule are not applicable.

Additional Conditions:

The applicant shall comply with additional terms & Conditions stipulated in Annexure I, II & III enclosed here with. The Combine Consent issued vide No AWH-300981 dated 17/09/2016 data stands withdrawn & cancelled on issue of this Consent Order

Chim.No.	Chimney attached to	Capacity/ KVA Rating	Minimum chimney height to be provided above ground level (in Mts)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Fuel	Air pollution Control equipment to be installed,in addition to chimney height as per col.(4)	Date of which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	Fugitive Emission	Flyash silo 2-CPP-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
2	Fugitive Emission	Fly sh silo 2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
3	Fugitive Emission	Flyash handling 1-CPP	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
4	Fugitive Emission	Flyash handling 2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
5	Fugitive Emission	Fly ash silo 1-CPP	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
6	Fugitive Emission	LS crusher CPP-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
7	Boiler	Boiler ESP-2-CEMS Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,600,300	COA	ESP	Before commissioning.
8	Boiler	Boiler ESP-1-CEMS Instld	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	50,600,300	COA	ESP	Before commissioning.
9	Fugitive Emission	Abv daystorage hopper-Pr	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
10	Fugitive Emission	Screen Building 1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
11	Fugitive Emission	Coal crusher 2-Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.

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12	Fugitive Emission	Fine coal bin 2-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
13	Coal Mill	Coal mill 2 - CEMS Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
14	Fugitive Emission		0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
15	Convey or Belt	Belt conveyor TT15.1-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
16	Fugitive Emission	Packer 5 axillaries	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
17	Fugitive Emission	Packer 5	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
18	Fugitive Emission	Packer 4 axillaries	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
19	Fugitive Emission	Packer 4	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
20	Fugitive Emission	Packer 3 axillaries	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM			Before commissioning.
21	Fugitive Emission	Packer 3	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
22	Fugitive Emission	Fly ash bin 2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
23	Fugitive Emission	Fine prod.conv.sys.3-Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
24	Fugitive Emission	Fly ash bin bottom 3 -Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
25	Fugitive Emission	Cement mi ext.circuit_pro	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
26	Fugitive Emission	Fly ash bin bottom 2 -Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
27	Cement Mill	Cement mill 3-CEMS Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
28	Fugitive Emission	Abv additive hopper2-Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
29	Fugitive Emission	Abv gypsum hopper 2 -Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
30	Fugitive Emission	Abv clinker hopper 2 -Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
31	Fugitive Emission	Clinker tunnel 3.2 Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
32	Fugitive Emission	Clinker tunnel 2.2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.

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33	Fugitive Emission	Clinker tunnel 1.2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
34	Fugitive Emission	Bypass clke tanktop2-Prpo	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
35	Fugitive Emission	Clinker tanktop 2 -Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
36	Fugitive Emission	At clinker crusher2 -Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
37	Fugitive Emission	Preheater bucketelev2-Pro	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
38	Fugitive Emission	Kilnfeed building 2-Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
39	Cooler Exit	Cooler ESP 2-CEMS Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		ESP	Before commissioning.
40	Fugitive Emission	Top blending silo 2-Prosd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
41	Fugitive Emission	Belt conveyor TT13.2-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
42	Fugitive Emission	Belt conveyor TT11.2-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
43	Fugitive Emission	Belt conveyor TT12.2-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
44	Fugitive Emission	Belt conveyor TT10.2-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
45	Fugitive Emission	Belt conveyor TT9.2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
46	Fugitive Emission	Belt conveyor TT8.2-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
47	Fugitive Emission	Belt conveyor TT13.1-Props	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
48	Fugitive Emission	BeltconveyorTT12.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
49	Fugitive Emission	BeltconveyorTT11.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
50	Conveyor Belt	BeltconveyorTT10.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
51	Conveyor Belt	Belt conveyor TT9.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.

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52	Conveyor Belt	Belt conveyor TT8.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
53	Raw Mill Kiln	RABH 2-Proposed	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM, SOx,NOx		BGH	Before commissioning.
54	Fugitive Emission	AbvcorrectedLShopper2Prop	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
55	Fugitive Emission	AbovemixedLSHopper2Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL	Before commissioning.
56	Conveyor Belt	Belt conveyor TT2.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		DUS	Before commissioning.
57	Conveyor Belt	Belt conveyor TT1.1-Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		DUS	Before commissioning.
58	Jaw Crusher -2	LimeStone crusher2 -Propsd	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL,DUS	Before commissioning.
59	Fugitive Emission	Fine coal bin 1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
60	Fugitive Emission	Above additive hopper 2	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
61	Fugitive Emission	Above slag hopper 2	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
62	Fugitive Emission	Above additive hopper 1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
63	Fugitive Emission	Above slag hopper 1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
64	Fugitive Emission	Above raw coal hopper	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
65	Fugitive Emission	Coal crusher 1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
66	Fugitive Emission	Above dump hopper	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
67	Fugitive Emission	At wagon tippler	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
68	Fugitive Emission	Packer 2 auxillaries	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
69	Fugitive Emission	Packer 2	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
70	Fugitive Emission	Packer 1 axillaries	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
71	Fugitive Emission	Packer 1	30	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
72	Fugitive Emission	At silo top	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
73	Fugitive Emission	Fly ash bin	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.

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74	Fugitive Emission	At silo bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
75	Fugitive Emission	Below bulk loading spout2	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
76	Fugitive Emission	Below bulk loading spout1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
77	Fugitive Emission	Below silo 4 bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
78	Fugitive Emission	Below silo 3 bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
79	Fugitive Emission	Below silo 2 bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
80	Fugitive Emission	Below silo 1 bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
81	Fugitive Emission	cement mill external circ	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
82	Fugitive Emission	fine product conveying sy	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
83	Fugitive Emission	Fly ash bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
84	Fugitive Emission	Cement storage extraction	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
85	Fugitive Emission	Above cement silo 4	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
86	Fugitive Emission	Above cement silo 3	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
87	Fugitive Emission	Above cement silo 2	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
88	Fugitive Emission	Above cement silo 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
89	Fugitive Emission	Fine product conveying sy	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
90	Fugitive Emission	Fly ash bin bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
91	Fugitive Emission	Gypsum & additive hopper	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
92	Fugitive Emission	Clinker and slag hopper	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
93	Fugitive Emission	Above additive hopper	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
94	Fugitive Emission	Above Gypsum hopper	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
95	Fugitive Emission	Above clinker hopper	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.

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96	Fugitive Emission	Clinker tunnel 3	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
97	Fugitive Emission	Clinker tunnel 2	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
98	Fugitive Emission	Clinker tunnel 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
99	Fugitive Emission	Bypass clinker tank top1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
100	Fugitive Emission	Clinker tank top 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
101	Fugitive Emission	At clinker crusher 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
102	Fugitive Emission	Preheater bucketelevator1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
103	Fugitive Emission	Kiln feed building 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
104	Fugitive Emission	Blending silo bottom	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
105	Fugitive Emission	Top blending silo 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
106	Fugitive Emission	Above iron/laterite hoppe	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
107	Fugitive Emission	Above boxite hopper	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
108	Conveyor Belt	Abv corrected LS hopper 1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
109	Conveyor Belt	Belt Conveyor TT 22	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
110	Conveyor Belt	Belt Conveyor TT 21	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
111	Conveyor Belt	Belt Conveyor TT 20	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
112	Conveyor Belt	Belt Conveyor TT 19	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
113	Conveyor Belt	Belt Conveyor TT 18	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
114	Conveyor Belt	Belt Conveyor TT 17	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
115	Conveyor Belt	Belt Conveyor TT 16	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
116	Conveyor Belt	Belt Conveyor TT 15	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
117	Conveyor Belt	Belt Conveyor TT 14	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
118	Conveyor Belt	Belt Conveyor TT 13	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.

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119	Convey or Belt	Belt Conveyo r TT 12	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
120	Convey or Belt	Belt Conveyo r TT 11	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
121	Convey or Belt	Belt Conveyo r TT 10	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
122	Convey or Belt	Belt Conveyo r TT 9	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
123	Convey or Belt	Belt Conveyo r TT 8	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
124	Convey or Belt	Belt Conveyo r TT 7	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
125	Convey or Belt	Belt Conveyo r TT 6	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
126	Convey or Belt	Belt Conveyo r TT 5	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate Matter		FIL	Before commissioning.
127	Convey or Belt	Belt Conveyo r TT 4	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate Matter		FIL	Before commissioning.
128	Convey or Belt	Belt Conveyo r TT 3	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
129	Fugitive Emissio n	Above mixed L S Hopper 1	20	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		DUS	Before commissioning.
130	Convey or Belt	Belt Conveyo r TT 2	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
131	Fugitive Emissio n	Belt conveyor TT 1	15	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
132	Jaw Crusher -1	LS crusher 1 - Propose d	0	PM(mg/NM3),SO2 (PPM),NOx(PPM)	PM		FIL,DUS	Before commissioning.
133	Cement Mill	Cement mill 2- CEMS instd	78	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
134	Cement Mill	Cement mill 1- CEMS instd	78	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
135	Cooler Exit	Cooler ESP 1- CEMS Instd.	40	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		ESP	Before commissioning.
136	Coal Mill	Coal mill 1 - CEMS Instd	63	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		FIL	Before commissioning.
137	Raw Mill Kiln	RABH 1- CEMS Installed	80	PM(mg/NM3),SO2 (PPM),NOx(PPM)	Particulate matter		BGH	Before commissioning.

Note:

FIL : Bag Filter

ESP : E.S.P

FIL : Bag Filter

FIL : Bag Filter

:

FIL : Bag Filter

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Industry Colour: RED Industry Scale: LARGE

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ESP	: E.S.P
BGH	: Bag House
DUS	: Dust Collector
FIL,DUS	: Bag Filter
DUS	: Dust Collector
FIL,DUS	: Bag Filter

Note:

1. The Noise levels within the premises shall not exceed 75 dB (A) leq during day time and 70 dB(A) leq during night time respectively.

2. The DG set shall be provided with acoustic measures as per SI.No.94 in Schedule-I of Environment (Protection)Rules.

3. There shall be no smell or odour nuisance from the industry.

LOCATION OF SAMPLING PORTHOLES, PLATFORMS, ELECTRICAL OUTLET.

1. Location of Portholes and approach platform:

   Portholes shall be provided for all chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to atleast eight times the stack or duct diameters downstream and two diameters upstream from source of low disturbance such as a Bend, Expansion, Construction Valve, Fitting or Visible Flame for rectangular stacks, the equivalent diameter can be calculated from the following equation.

$$\text{Equivalent Diameter} = \frac{2\,(\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 100 mm dia". Arrangements should be made so that the porthole is closed firmly during the non sampling period

3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point of 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.

4. The ladder shall be provided with adequate safety features so as to approach the monitoring location with ease.

For and on behalf of the
Karnataka State Pollution Control Board

Environment Management

23 March, 2020

Contents

Key Design Specifications for APC's

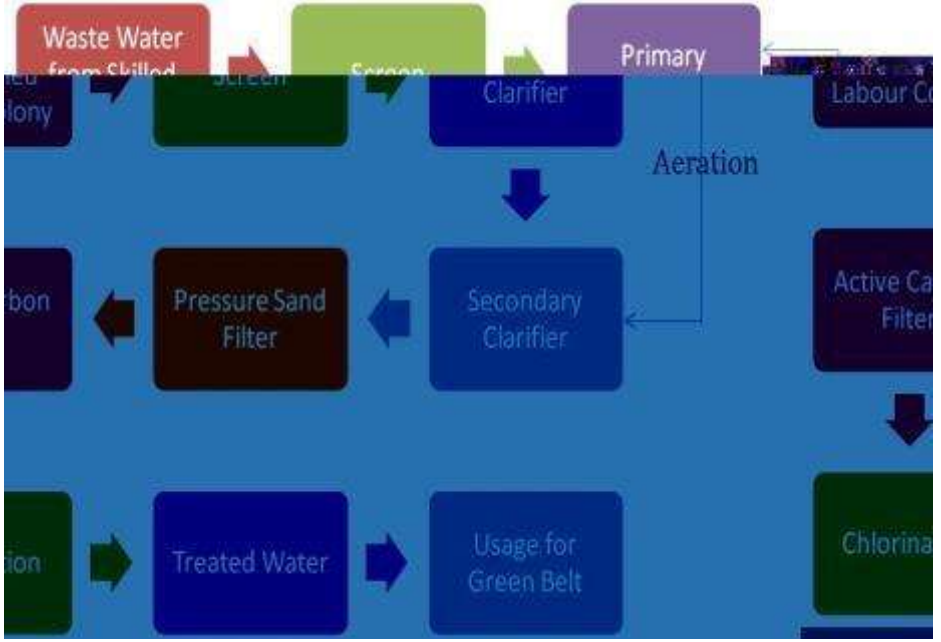
Application	APC	Gas Volume (m3/hr)	Outlet Dust Load (mg/nm3)
Lime Stone Crusher	Bag Filter	70000	20
Kiln/Raw Mill	Reverse Air Bag House	1217000	20
Clinker Cooler	ESP	1019520	30
Coal Mill	Bag Filter	201360	20
Cement Mill	Bag Filter	70000	20
Boiler Exhaust	ESP	268200	50

State-of-Art pollution control equipments have been installed to reduce emission levels well below the statutory standards

Water Pollution Control Equipment

1. Sewage Treatment Plant

Installed Capacity : 300 KLD
Location : Staff Colony
Purpose : To process waste water from Staff colony
Installation status : Installed and commissioned



* STP is designed to treat sewage water as per GSR – 422 standards

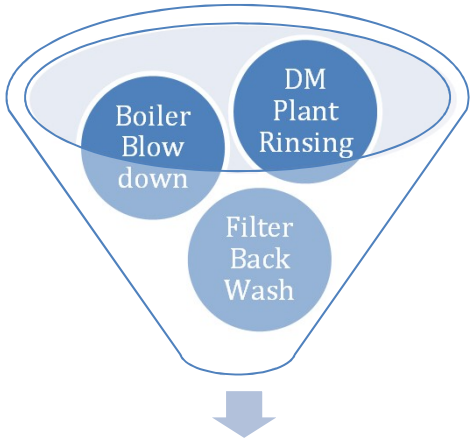
Water Pollution Control Equipment

2. Effluent Treatment Plant

Location : CPP

Purpose : To Process effluent waste water

* ETP is designed to treat effluent water as per GSR – 422 standards

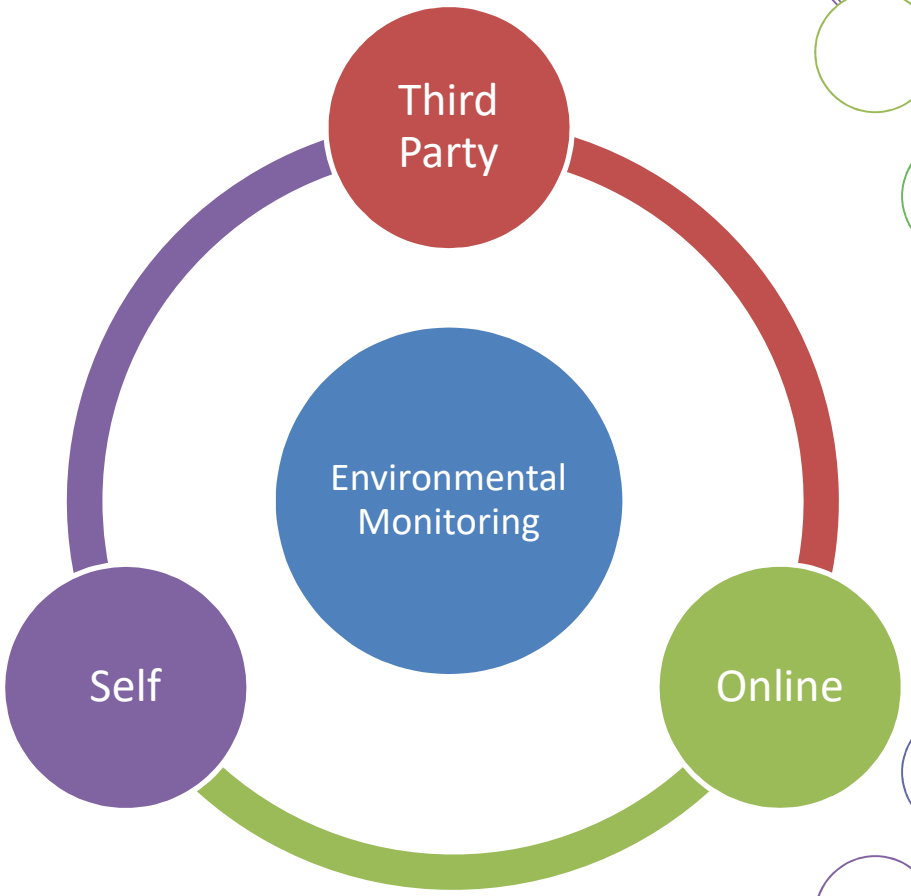


Neutralization Pit

Used for Dust Suppression Systems in plant

Contents

Environmental Monitoring



- Ambient Air Quality Monitoring
- Ambient Noise level monitoring
- Water Quality Monitoring
- **Stack Monitoring**
- Soil Quality Monitoring
- **Fugitive Emission Monitoring**
- **Work place Monitoring**

Environemental Monitoring

As per conditions stipulated by MOEF, KSPCB and CPCB, Environmental Monitoring plan for Operational phase is implemented from **February 2013**

Environmental Monitoring Mechanism

The company has adopted THREE WAY Environmental Monitoring Mechanism

1, Third Party Monitoring:
By engaging KSPCB approved third party for Environmental Monitoring

2. Self Monitoring:
By establishing Environmental Laboratory for monitoring of Environmental Parameters

3. Online Monitoring System:
Continuous Monitoring system for Stacks emissions, Effluent water and Ambient Air Quality and online data connectivity to CPCB and KSPCB server

Third party monitoring

We have deployed M/s Global Enviro, Bellary as a third party for Environmental monitoring.

Third party monitoring parameters:

a. Ambient Air Quality	– At 6 Locations/Month
b. Ambient Noise Levels	– At 7 Locations/Month
c. Fugitive Emission	- At 5 Locations/Month
d. Dust Fall Rate	- At 5 Locations/Month
e. Stack Monitoring	- At 7 Stacks/Month
f. Ground Water Quality	- At 4 Locations/Quarterly
g. Surface Water	- At 2 Locations/Quarterly
h. Drinking Water	- At 3 Locations/Quarterly
i. Waste Water	- At 2 Locations /Monthly
j. Effluent Water	- At 1 location/Month
k. Fugitive Emission	- At 10 Locations/Monthly
l. Soil Quality	- At 2 Locations/ Quarterly

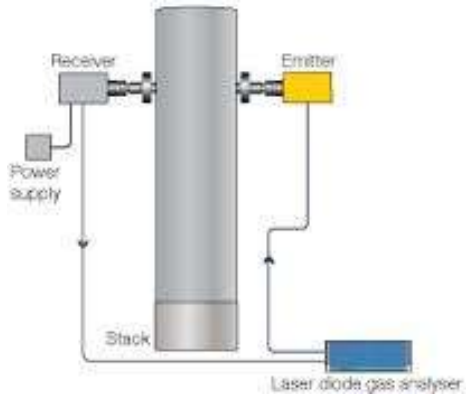
Self monitoring

1) Ambient Air Quality (PM 10, PM 2.5) - At 6 locations
2) Ambient Noise levels - At 7 Locations
3) Work place noise levels - At 10 Locations

Online monitoring

A) Continuous Emission Monitoring System For:

1. RABH/Kiln Bag House
2. Coal Mill Bag Filter
3. Clinker Cooler ESP
4. Cement Mill 1 Bag Filter
5. Cement Mill 2 Bag Filter



B) Online Ambient Air Quality Monitoring System :

1. One Online Ambient Air Quality Monitoring System is installed at Main Gate

C) Online Effluent Quality Monitoring System:

Effluent Water Quality Monitoring System is installed at CPP

D) Weather Monitoring System:

Weather Monitoring System is installed at Administration Office

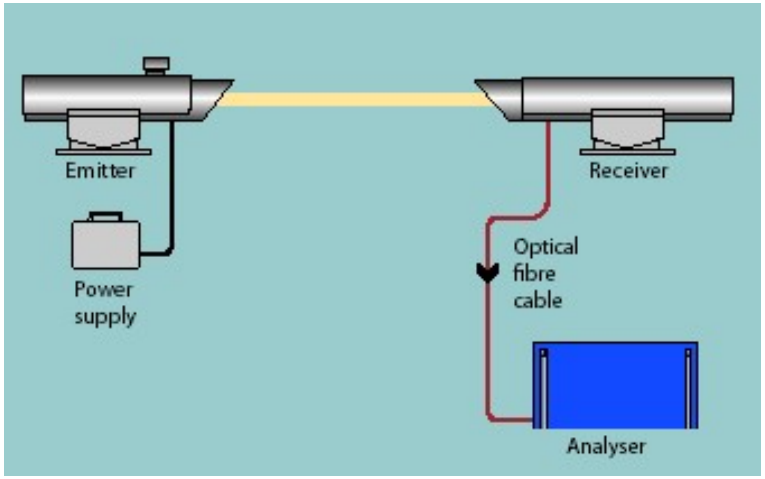
E) Online connectivity of monitoring data to CPCB and KSPCB server:

The company has installed online monitoring data connectivity system to CPCB and KSPCB server on 29th June 2015

Online Ambient Air Quality Monitoring

Online AAQM Instrument which records real time values of

A) PM 10
B) PM 2.5
C) SOx
D) NOx
E) Ozone



Weather Monitoring

Weather Monitoring:

Continuous Weather Monitoring Instrument which records real time values of

A) Temperature
B) Relative Humidity
C) Wind Speed
D) Wind direction
E) Rain fall

Online Effluent Water Quality Monitoring

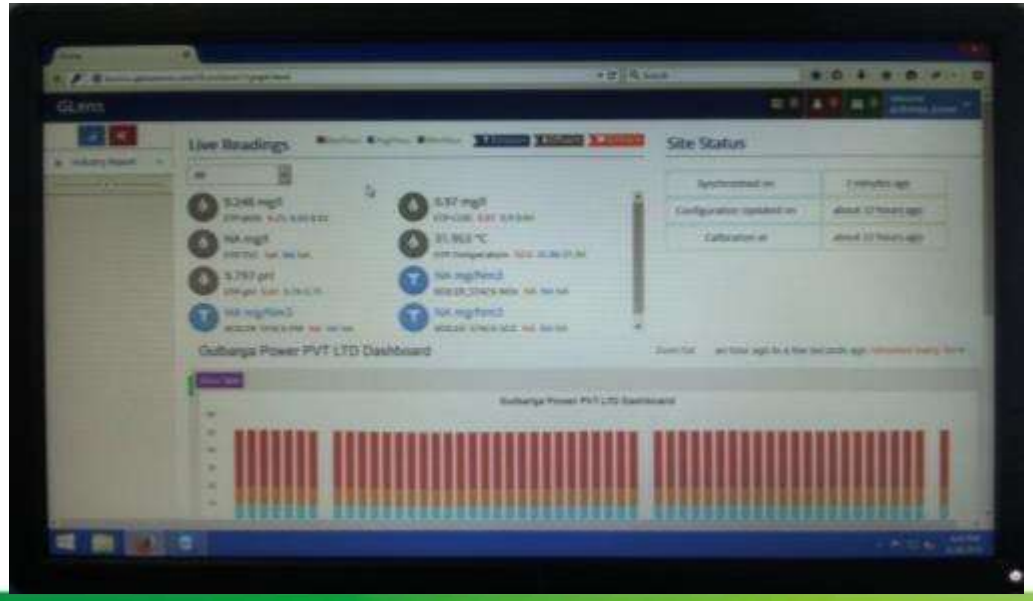
Effluent Water Quality Monitoring System is installed at Gulbarga Power Pvt Ltd. The monitoring Parameters includes:

1. pH
2. Temperature
3. BOD
4. COD
5. TSS

Online Data Connectivity to CPCB and KSPCB Server

Online Data connectivity of Environmental Monitoring is established with CPCB and KSPCB server to view real time parameters of

1. Ambient Air Quality
2. Stack Emissions
3. Effluent Water Quality



New Initiatives & Developments – 2019-20

Environment Monitoring systems and online status

Everything going to be on-line

S No	Parameter	Online Availability	Remark
1	Stack emissions from	Yes	Continuous Emission Monitoring System (CEMS) were linked with CPCB server on 29th June 2016
a	RABH	Yes	
b	Coal Mill	Yes	
c	Cooler	Yes	
d	Cement Mill 1	Yes	
e	Cement Mill 2	Yes	
f	Boiler	-	
2	Ambient Air Quality – Station No. 1	Yes	OAAQM data connectivity done on 29th June 2016
3	Ambient Air Quality – Station No. 2	No	Installed
4	Effluent water Quality	Yes	OEWQM data connectivity done on 29th June 2016
5	Sewage Water Quality	No	Installed
6	Weather Monitoring	No	Installed, Will be linked with OAAQM
7	Water Consumption	No	Planned
8	SMS alerts for emission levels, weather and water consumption	No	Planned

Contents

Environmental Initiatives

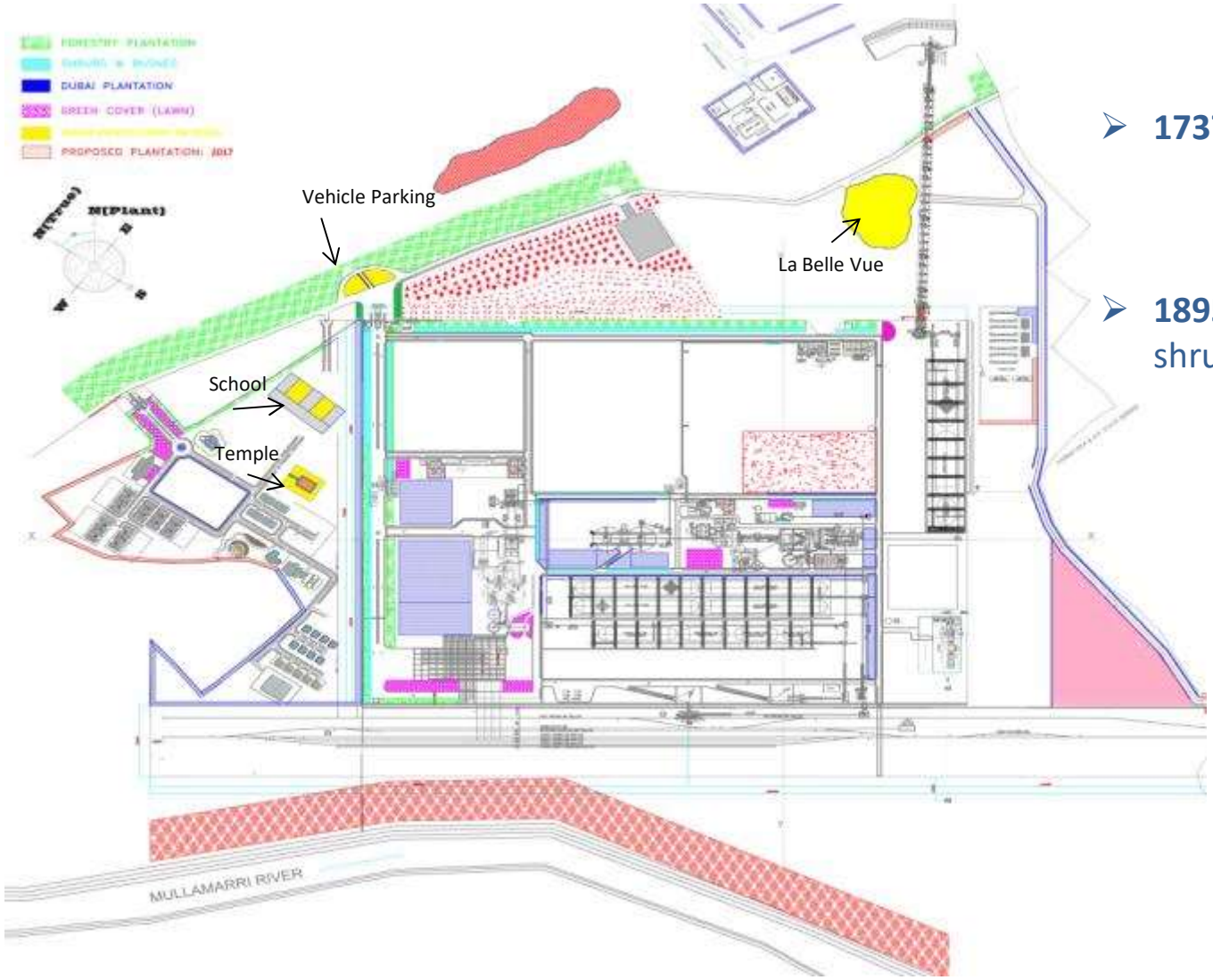
Go Green to Breath Clean

- **Kalburgi Cement Private Ltd: Green belt –Statutory Requirement**
  - **52% of area should be under Green Belt i.e.,**
    - **688574 M^2 of Green belt with 173743 trees**

% Area covered under Green Belt	52.78%
Area Under Green Belt	688574 M2
No. of Trees	173743
Green Cover	221573 Ft2
No. of Shrubs and Herbs	187560

Environmental Initiatives

Go Green to Breath Clean



HIGHLIGHTS

- **173743** Trees of 43 Species
  - 25 local Species
  - 18 others Species
- **189560** small bushes and shrubs of 93 species
  - 41 local species
  - 52 other ornamental species

Green Belt Development

GREEN BELT DEVELOPMENT- KALBURGI CEMENT PRIVATE LIMITED					
Sr. No	Particular	Area (Sq. M)	Required Green Belt area (Sq. M)	Remark	% of Area coverd under Green Belt
1	Cement Plant	692000	228360	Considered 33% Green Belt area	52.78
2	Power plant - GPPL	88000	29040	Considered 33% Green Belt area	
3	Staff Colony	190920	63004	Considered 33% Green Belt area	
Total (Cement Plant, Power Plant and Staff colony)		**970920**	**320404**		
1	**Mines**	**4467700**	**207300**	Being a mineral zone the area considered for green belt is along the mining lease boundary, Haul Raod and over burden dump areas.	

GREEN BELT AREA COVERED AND PLANTATION DETAILS							
Sl No	Particulars	Area (Sq. M)	Required Green Belt area (Sq. M)	Identified Area (Sq. M)	Requirement of tress as per CPCB Guideline	Area coved (SqM) as on July 2013 to 2019	No. of trees planted as on July 2013 to 2019
1	Green Belt Area of Cement Plant, Power Plant, workers colony and Staff colony	**970920**	**320404**	**382889**	**80101**	**512464**	**134858**
2	Green Belt Area of Lime stone mines	**4467700**	**207300**	**253285**	**23031**	**176110**	**38885**
Total		**5438620**	**527704**	**636174**	**103132**	**688574**	**173743**

Green Belt Development

GREEN BELT DEVELOPMENT PLAN - 2011 to 2017

YEAR 2011

Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2011	Road No 1	6525	725	Gulmohar, Pongamia, Pelt form, Cassia	Completed	08.08.2011	87%
2		Road No. 7	4104	2180	Gulmohar, Pongamia, Pelt form, Cassia,	Completed	29.10.2011	
Total for year 2011			**10629**	**2905**				

YEAR 2012

Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2012	Mines Safe Zone (Along the road From Mines Crusher to Chatrasala Village)	60000	8500	Gulmohar, Pongamia, Peltoform, Cassia	Completed	21.08.2012	95%
2		Road No 1 (Along boundary wall)	8700	1500	Conocarpus (Dubai Tree)	Completed	30.11.2012	
3		Road No 1 (Along Walkway)	1800	900	Conocarpus (Dubai Tree)	Completed	27.08.2012	
4		Near Raw mill	9100	4200	Conocarpus (Dubai Tree)	Completed	24.07.2102	
5		Near Clinker Silo	1500	1500	Conocarpus (Dubai Tree)	Completed	16.10.2012	
Total for year 2012			**81100**	**16600**				

Green Belt Development

YEAR 2013								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2013	Along Haul Road - Mines	6400	1800	Conocarpus (Dubai Tree)	Completed	23.08.2013	96%
2		Service Road along East boundary	14400	3900	Conocarpus (Dubai Tree)	Completed	07.09.2013	
3		Staff colony play ground	6000	1200	Conocarpus (Dubai Tree)	Completed	12.10.2013	
4		Road No 10	800	300	Conocarpus (Dubai Tree)	Completed	14.10.2013	
5		Along Road no 6	4000	1800	Conocarpus (Dubai Tree)	Completed	30.10.2013	
6		Along CCR to Cement Mill road	780	460	Conocarpus (Dubai Tree)	Completed	22.09.2013	
7		Along Staff colony Boundary Wall	29500	6883	Conocarpus (Dubai Tree), Gulmohar,	Completed	27.11.2013	
8		Staff colony cricket ground	2000	1000	Conocarpus (Dubai Tree)	Completed	30.09.2013	
9		Staff colony gate	7500	600	Conocarpus (Dubai Tree)	Completed	28.08.2013	
10		Skilled colony near STP	4000	1750	Conocarpus (Dubai Tree)	Completed	18.08.2013	
11		Admin building to Feed hopper building	30000	3750	Conocarpus (Dubai Tree)	Completed	05.10.2013	
12		Road no 7	4800	1800	Conocarpus (Dubai Tree)	Completed	21.09.2013	
13		Road no 8	3000	600	Conocarpus (Dubai Tree)	Completed	20.11.2013	
14		Road no. 3 and 4	2000	1300	Conocarpus (Dubai Tree)	Completed	22.11.2013	
15		Road No. 9	5500	2000	Conocarpus (Dubai Tree)	Completed	24.11.2013	
16		Road no 13	2800	650	Conocarpus (Dubai Tree), Gulmohar,	Completed	23.11.2013	
17		Road 10, Cement silo to Road 1, Packing plant	34000	8500	Conocarpus (Dubai Tree)	Completed	18.09.2013	
18		Along Boundary wall of GPPL	8000	4000	Conocarpus (Dubai Tree), Gulmohar,	Completed	13.08.2013	
Total for year 2013			**165480**	**42293**				

YEAR 2014								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2014	Backside of LS Crusher - Mines East Boundary	11250	1875	Conocarpus, Neem, Bougainvellea	Completed	22.06.2014	93%
2		Towards Chatrasala Village - Mines West Boundary	20000	3450	Neem, Pongamia, Subabhul	Completed	27.06.2014	
3		From Plant Gate to Karankote (Along the BT Road)	7000	1750	Conocarpus, Neem, Subabhul	Completed	14.07.2014	
4		Road No 12 Both Side	13200	4900	Conocarpus, Gadichodi	Completed	12.08.2014	
5		Road No 7 - Plant Side	6000	750	Conocarpus, Gadichodi	Completed	22.08.2014	
6		Inside GPPL	72000	18000	Conocarpus, Neem, Bougainvellea	Completed	25.08.2014	
7		Out side of GPPL Gate	34000	3800	Conocarpus, Gadichodi	Completed	25.08.2014	
8		Near Ely ash silo	6000	1050	Conocarpus	Completed	10.09.2014	
Total for year 2014			**169450**	**35575**				

Green Belt Development

YEAR 2015								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2015	Road no. 6	14000	5950	Conocarpus, Neem, Bougainvellea, Gadichodi	Completed	27.03.2015	94%
2		Road 7 - Plant Side	7200	6470	Conocarpus, Neem, Bougainvellea,	Completed	30.03.2015	
3		Filter water area	1680	800	Conocarpus, Cisalpenia, Bougainvellea,	Completed	31.05.2015	
		Main Gate Parking	3350	1750	Conocarpus, Neem, Bougainvellea,	Completed	30.06.2015	
4		Along the Railway track and service road from Plant to Karankote	50000	7950	Neem, Teak, Gulmohar, Pongamia, Bougainvellea	Completed	30.07.2015	
5		Mines Entrance	1860	980	Conocarpus	Completed	30.08.2015	
6		Mines Garage inside plantation	3200	320	Conocarpus	Completed	30.08.2015	
7		Mines out side Hill Plantation	7200	3600	Conocarpus	Completed	30.09.2016	
8		Top of Hill	30000	3500	Neem, Teak, Gulmohar, Pongamia,	Completed	30.12.2015	
Total for year 2015			**118490**	**31320**				

YEAR 2016								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2016	Hill Top and Hill side edges	15000	7750	Neem, Teak, Gulmohar, Pongamia,	Completed	25.01.2016	95%
2		Water fall	1000	700	Neem, Teak, Gulmohar, Pongamia,	Completed	20.02.2016	
3		Staff colony temple	3125	700	Neem, Teak, Gulmohar, Pongamia,	Completed	30.06.2016	
4		School building	1600	1200	Bamboo, Ereca Plam	Completed	30.10.2016	
5		Mines main road	1800	850	Conocarpus, Neem, Bougainvellea,	Completed	30.10.2016	
Total for year 2016			**22525**	**11200**				

YEAR 2017								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2017	Main Gate to Truck Parking Both side	8000	2800	Conocarpus, Gulmohar, Bougainvellea,	Completed	25.06.2017	96%
2		Truck parking compound wall	2500	1500	Conocarpus, Gulmohar, Bougainvellea,	Completed	20.06.2017	
3		School Building compound wall	2000	2100	Conocarpus, Gulmohar	Completed	12.06.2017	
4		Railway track side - Tandur road	36000	7000	Conocarpus, Gulmohar	In probress	30.07.2017	
5		Fruit Garden	20000	550	Guava, Mango, Jamun, Custurd apple	In probress	01.08.2017	
Till 2017			**68500**	**13950**				
TOTAL PLANTATION (FROM 2011 TO 2017)			**636174**	**153843**				

Green Belt Development

YEAR 2018								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2018	Mines View point	600	200	Conocarpus, Gulmohar,	Completed	25.03.2018	94%
2		Mines service road	4000	560	Conocarpus, Gulmohar,	Completed	05.06.2018	
3		Chatrasala Mining lease boundary	1400	140	Forestry plants, Millingtonia,	Completed	31.12.2018	
4		Staff colony - C block to B block road side	5600	1200	Conocarpus, Gulmohar	Completed	30.11.2018	
Till December 2018			11600	2100				
TOTAL PLANTATION (FROM 2011 TO 2018)			647774	156193				

YEAR 2019								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2019	Mines Crusher Area	5800	1550	Conocarpus,Teak,	Completed	22.08.2019	94%
2		Mines Dump Area	5200	1440	Conocarpus, Teak, Kanuga,	Completed	24.08.2019	
3		Mines Service Road & office, Garage	2500	1810	Conocarpus, Bougainvellea, Spider	Completed	31.08.2019	
4		Truck Parking	2100	1400	Pandanas, Spider Lilly, Bougainvellea,	Completed	08.09.2019	
5		Road No1	5200	3950	Acalypha Red & Green, Spider Lilly, Golden Duranta, Pandanas	Completed	16.09.2019	
6		Road No8 (Store)	2500	1900	Acalypha Red & Green, Pandanas,	Completed	20.09.2019	
7		Cafateria front side area	400	520	Conocarpus, Teak, Kanuga,	Completed		
8		Tandur Road	3100	1800	Conocarpus	Completed	18.08.2019	
9		Hill Top	1300	700	Bougainvellea, Fountain grass (Red &	Completed	12.08.2019	
10		CPP Service Road Both Side	1800	750	Bougainvellea,	Completed	10.08.2019	
11		Kanakote to Jewanagi Road	6000	580	Teak, Neam, Fruit trees	Planned		
12		CPP Turning Road Side Development	4200	550	Teak, Neam, Fruit trees	Completed	27.10.2019	
13		CCR	700	600	Areca Palm, Golden Duranta, Spathyphyllum, Zamia, Alocasia,	Completed	28.09.2019	
Till December 2019			40800	17550				
TOTAL PLANTATION (FROM 2011 TO 2019)			688574	173743				

Nursery development

We have established our own nursery. This will help us to propagate and develop many species of trees, bushes for future green belt and will considerably reduce the cost

Water Fountain – Nearby Packing Plant

Lake view – Beside Packing Plant

Greenery developed on stabilized mines over burden

Greenery developed on stabilized mines over burden

Forestry Plantation






Plantation at Staff Colony






Plantation at Plant site


Main Gate Entrance


Parking at Main Gate


Parking at Main Gate


Canteen Garden


7 Street Canteen


Road No 7


Road No 7


Road No 7


Road No 7


Ladies Rest Room


Road No 7


Road No 6


Road No 6


Road No 6


Road No 6


Road No 12


Road No12


Packing Plant Garden


Packing Plant Garden


Packing Plant Garden


Road No 1


Road No 1


Road No 1


Road No 10


Road No 10


Weigh Bridge


Administration Building

KALBURGI CEMENT

Sarsika Lake

Sarsika Lake

Mines: Environment Management

Mines Green Belt Development (2014-2019)

Environment Management

Eco friendly Equipment's :

Drilling: The best Drill equipment(SANDVIK DP1500i) having wet & Dust collector system.

Adopted Eco friendly Blasting techniques like Non Electrical Detonators initiation system to minimize the Noise, Ground Vibrations, Fly rock.

Dumpers & Loading Equipment’s EURO IV version i.e. non pollution series.

Water spraying System - Mines

Water Sprinkling system on haul road for dust suppression

Water Sprinkling system Unloading point – Crusher for dust suppression

Environment Management

Plantation near crusher

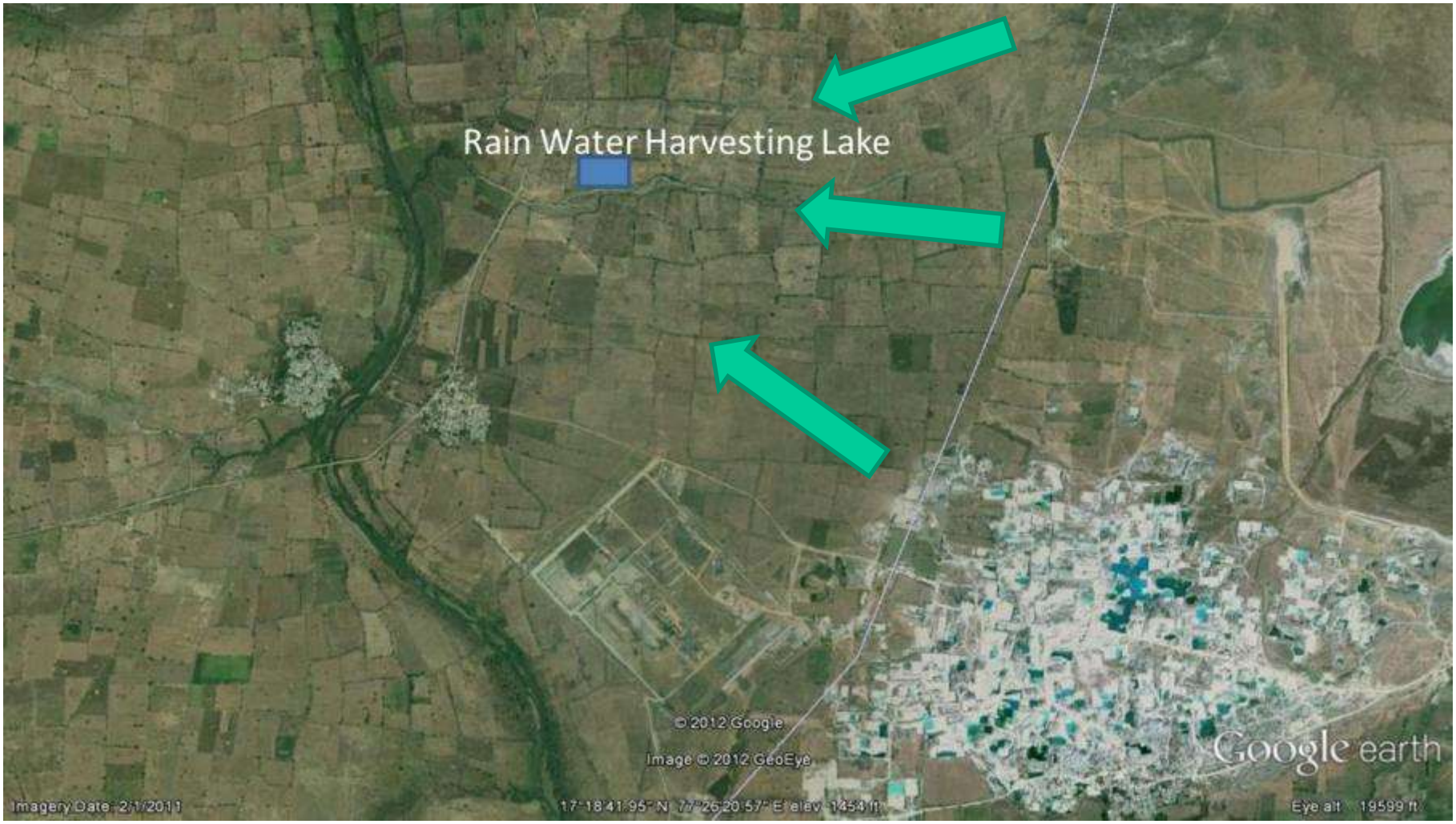
Plantation along the Public Road

Top Soil Unloading along the mine boundary for future plantation.

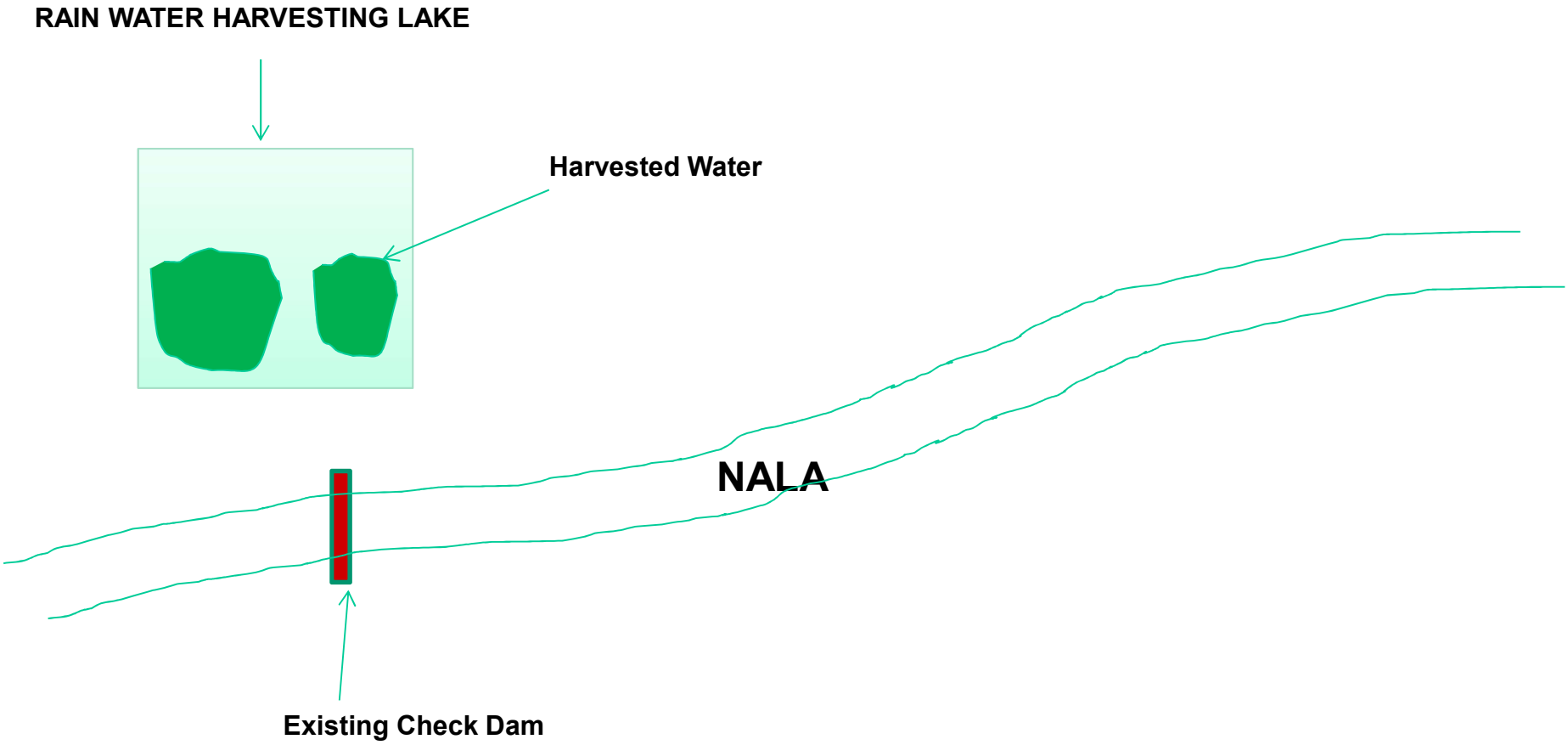
Fully Covered crushed Limestone

Contents

Rain Water Harvesting Plan - KCPL



RWH Lake


RAIN WATER HARVESTING LAKE
Harvested Water
NALA
Existing Check Dam

RWH Lake in Mines Area Underway

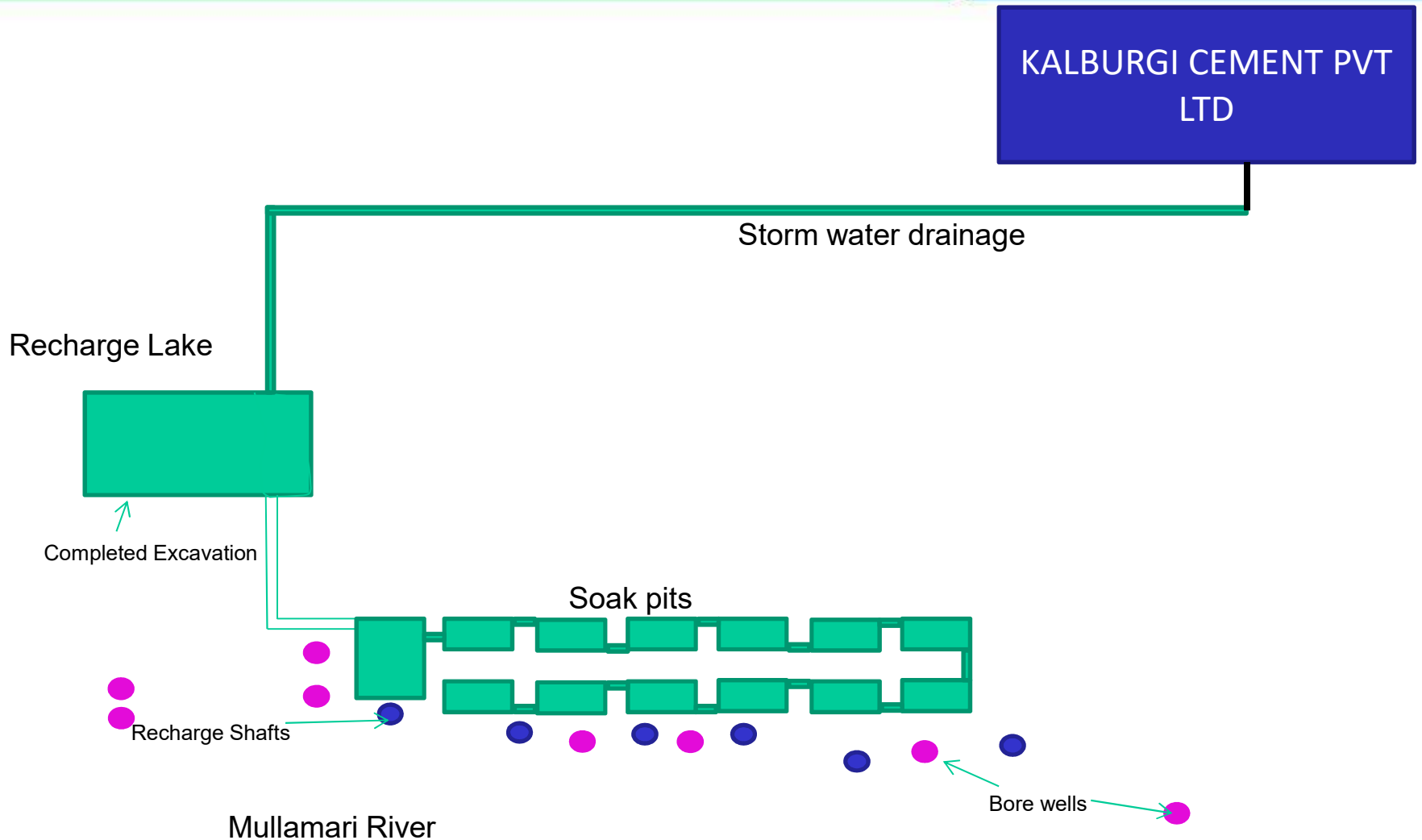
GWR – Actions and Implementation

- **Ground Water Recharge Lake (GWR):**
  - A recharge lake (90m X 40m X 6m) is constructed. The storm water from plant and colony will flow to this pit and will recharge the bore wells.

- **Recharge Shafts:**
  - Seven recharge shafts are drilled at identified locations. The locations are nearby the bank of Mullamari river. This will increase ground water availability.

- **Soak pits:**
  - 180 soak pits of size 6m X 6m X 3m are constructed around the recharge shafts in order to optimize groundwater recharging.

Ground Water Recharge System



KALBURGI CEMENT

THANK YOU!!!

Real Time Data Acquisition And Monitoring

Site Name: Kalburgi Cement Pvt Ltd

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	MAIN_GATE-PM2.5(ug/m3)	MAIN_GATE-PM10(ug/m3)
Prescribed Standards	0 - 60	0 - 100
Maximum Data	65.53	102.74
Minimum Data	27.52	38.23
Geometric Mean	43.81	68.3
Median	44.24	69.07
Standard Deviation	9.9	15.26
Maximum Value At Time	2020-02-29 00:00:00	2020-02-20 00:00:00
Minimum Value At Time	2020-02-22 00:00:00	2020-02-11 00:00:00
Valid Data Points	29	29
Total Data Points	29	29
Data Availability %	100.0%	100.0%

SL No.	Time	MAIN_GATE-PM2.5(ug/m3)	MAIN_GATE-PM10(ug/m3)
1	2020-02-01 00:00:00	56.00	73.65
2	2020-02-02 00:00:00	53.48	65.37
3	2020-02-03 00:00:00	33.34	63.60
4	2020-02-04 00:00:00	45.14	56.52
5	2020-02-05 00:00:00	49.81	51.05
6	2020-02-06 00:00:00	33.04	73.71

7	2020-02-07 00:00:00	46.31	86.66
8	2020-02-08 00:00:00	45.66	69.07
9	2020-02-09 00:00:00	30.72	51.57

SL No.	Time	MAIN_GATE-PM2.5(ug/m3)	MAIN_GATE-PM10(ug/m3)
10	2020-02-10 00:00:00	40.52	42.46
11	2020-02-11 00:00:00	28.84	38.23
12	2020-02-12 00:00:00	43.67	48.53
13	2020-02-13 00:00:00	38.70	57.18
14	2020-02-14 00:00:00	54.25	66.30
15	2020-02-15 00:00:00	48.27	87.52
16	2020-02-16 00:00:00	54.37	86.99
17	2020-02-17 00:00:00	36.87	79.79
18	2020-02-18 00:00:00	61.50	79.65
19	2020-02-19 00:00:00	41.14	88.86
20	2020-02-20 00:00:00	51.96	102.74
21	2020-02-21 00:00:00	50.17	66.66
22	2020-02-22 00:00:00	27.52	49.36

23	2020-02-23 00:00:00	44.24	57.98
24	2020-02-24 00:00:00	30.39	76.42
25	2020-02-25 00:00:00	40.45	79.75
26	2020-02-26 00:00:00	33.86	67.05
27	2020-02-27 00:00:00	47.23	72.32
28	2020-02-28 00:00:00	37.53	70.49
29	2020-02-29 00:00:00	65.53	71.15

Report Details: kcpl | 2020-03-23 10:15:08 | Average Report

Real Time Data Acquisition And Monitoring

Site Name: Kalburgi Cement Pvt Ltd

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	Stack_75_Cement_MILL1-PM(mg/Nm3)
Prescribed Standards	0 - 50
Maximum Data	21.67
Minimum Data	19.33
Geometric Mean	20.77
Median	20.84
Standard Deviation	0.57
Maximum Value At Time	2020-02-14 00:00:00
Minimum Value At Time	2020-02-05 00:00:00
Valid Data Points	28
Total Data Points	29
Data Availability %	96.55%

	Time	Stack_75_Cement_MILL1-PM(mg/Nm3)
Sl No.		
1	2020-02-01 00:00:00	19.95
2	2020-02-02 00:00:00	20.58
3	2020-02-03 00:00:00	20.57
4	2020-02-04 00:00:00	20.23
5	2020-02-05 00:00:00	19.33
6	2020-02-06 00:00:00	19.79
7	2020-02-07 00:00:00	19.70
8	2020-02-08 00:00:00	21.03
9	2020-02-09 00:00:00	21.11
10	2020-02-10 00:00:00	20.59
11	2020-02-11 00:00:00	21.29
12	2020-02-12 00:00:00	21.25
13	2020-02-13 00:00:00	20.45
14	2020-02-14 00:00:00	21.67

Sl No.	Time	Stack_75_Cement_MILL1-PM(mg/Nm3)
15	2020-02-15 00:00:00	21.65
16	2020-02-16 00:00:00	20.67
17	2020-02-17 00:00:00	21.28
18	2020-02-18 00:00:00	20.78
19	2020-02-19 00:00:00	21.11
20	2020-02-20 00:00:00	20.99
21	2020-02-21 00:00:00	21.44
22	2020-02-22 00:00:00	20.92
23	2020-02-23 00:00:00	NA
24	2020-02-24 00:00:00	20.91
25	2020-02-25 00:00:00	20.82
26	2020-02-26 00:00:00	21.12
27	2020-02-27 00:00:00	20.64
28	2020-02-28 00:00:00	20.87
29	2020-02-29 00:00:00	20.78

Report Details: kcpl | 2020-03-23 10:13:23 | Average Report

Real Time Data Acquisition And Monitoring

Site Name: Kalburgi Cement Pvt Ltd

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	Stack_76_Cement_MILL2-PM(mg/Nm3)
Prescribed Standards	0 - 50
Maximum Data	15.68
Minimum Data	12.17
Geometric Mean	14.76
Median	14.86
Standard Deviation	0.7
Maximum Value At Time	2020-02-11 00:00:00
Minimum Value At Time	2020-02-07 00:00:00
Valid Data Points	24
Total Data Points	29
Data Availability %	82.76%

	Time	Stack_76_Cement_MILL2-PM(mg/Nm3)
Sl No.		
1	2020-02-01 00:00:00	14.32
2	2020-02-02 00:00:00	14.36
3	2020-02-03 00:00:00	14.42
4	2020-02-04 00:00:00	NA
5	2020-02-05 00:00:00	NA
6	2020-02-06 00:00:00	NA
7	2020-02-07 00:00:00	12.17
8	2020-02-08 00:00:00	NA
9	2020-02-09 00:00:00	15.00
10	2020-02-10 00:00:00	15.60
11	2020-02-11 00:00:00	15.68
12	2020-02-12 00:00:00	15.01
13	2020-02-13 00:00:00	15.02
14	2020-02-14 00:00:00	14.81

	Time	Stack_76_Cement_MILL2-PM(mg/Nm3)
Sl No.		
15	2020-02-15 00:00:00	14.38
16	2020-02-16 00:00:00	14.23
17	2020-02-17 00:00:00	14.42
18	2020-02-18 00:00:00	15.40
19	2020-02-19 00:00:00	15.24
20	2020-02-20 00:00:00	14.46
21	2020-02-21 00:00:00	15.54
22	2020-02-22 00:00:00	15.22
23	2020-02-23 00:00:00	NA
24	2020-02-24 00:00:00	14.91
25	2020-02-25 00:00:00	14.76
26	2020-02-26 00:00:00	15.01
27	2020-02-27 00:00:00	14.96
28	2020-02-28 00:00:00	14.73
29	2020-02-29 00:00:00	14.69

Report Details: kcpl | 2020-03-23 10:12:59 | Average Report

Real Time Data Acquisition And Monitoring

Site Name: Kalburgi Cement Pvt Ltd

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	Stack_78_COAL_mill-PM(mg/Nm3)
Prescribed Standards	0 - 50
Maximum Data	20.72
Minimum Data	0.1
Geometric Mean	17.17
Median	19.14
Standard Deviation	4.39
Maximum Value At Time	2020-02-22 00:00:00
Minimum Value At Time	2020-02-12 00:00:00
Valid Data Points	28
Total Data Points	29
Data Availability %	96.55%

	Time	Stack_78_COAL_mill-PM(mg/Nm3)
Sl No.		
1	2020-02-01 00:00:00	16.82
2	2020-02-02 00:00:00	17.39
3	2020-02-03 00:00:00	15.98
4	2020-02-04 00:00:00	15.52
5	2020-02-05 00:00:00	14.78
6	2020-02-06 00:00:00	13.87
7	2020-02-07 00:00:00	17.61
8	2020-02-08 00:00:00	19.10
9	2020-02-09 00:00:00	20.18
10	2020-02-10 00:00:00	19.89
11	2020-02-11 00:00:00	17.48
12	2020-02-12 00:00:00	0.10
13	2020-02-13 00:00:00	6.01
14	2020-02-14 00:00:00	19.22

Sl No.	Time	Stack_78_COAL_mill-PM(mg/Nm3)
15	2020-02-15 00:00:00	19.24
16	2020-02-16 00:00:00	18.99
17	2020-02-17 00:00:00	19.18
18	2020-02-18 00:00:00	19.23
19	2020-02-19 00:00:00	19.21
20	2020-02-20 00:00:00	19.17
21	2020-02-21 00:00:00	17.58
22	2020-02-22 00:00:00	20.72
23	2020-02-23 00:00:00	NA
24	2020-02-24 00:00:00	19.25
25	2020-02-25 00:00:00	19.17
26	2020-02-26 00:00:00	19.17
27	2020-02-27 00:00:00	19.17
28	2020-02-28 00:00:00	19.60
29	2020-02-29 00:00:00	17.01

Real Time Data Acquisition And Monitoring

Site Name: Kalburgi Cement Pvt Ltd

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	Stack_77_COOLER-PM(mg/Nm3)
Prescribed Standards	0 - 50
Maximum Data	13.7
Minimum Data	8.7
Geometric Mean	12.2
Median	12.46
Standard Deviation	1.06
Maximum Value At Time	2020-02-09 00:00:00
Minimum Value At Time	2020-02-12 00:00:00
Valid Data Points	28
Total Data Points	29
Data Availability %	96.55%

	Time	Stack_77_COOLER-PM(mg/Nm3)
Sl No.		
1	2020-02-01 00:00:00	13.02
2	2020-02-02 00:00:00	12.01
3	2020-02-03 00:00:00	11.66
4	2020-02-04 00:00:00	11.36
5	2020-02-05 00:00:00	11.88
6	2020-02-06 00:00:00	12.43
7	2020-02-07 00:00:00	12.92
8	2020-02-08 00:00:00	12.99
9	2020-02-09 00:00:00	13.70
10	2020-02-10 00:00:00	12.67
11	2020-02-11 00:00:00	12.60
12	2020-02-12 00:00:00	8.70
13	2020-02-13 00:00:00	9.07
14	2020-02-14 00:00:00	12.39

Sl No.	Time	Stack_77_COOLER-PM(mg/Nm3)
15	2020-02-15 00:00:00	13.17
16	2020-02-16 00:00:00	12.57
17	2020-02-17 00:00:00	12.52
18	2020-02-18 00:00:00	12.68
19	2020-02-19 00:00:00	12.55
20	2020-02-20 00:00:00	12.71
21	2020-02-21 00:00:00	11.96
22	2020-02-22 00:00:00	12.92
23	2020-02-23 00:00:00	NA
24	2020-02-24 00:00:00	12.50
25	2020-02-25 00:00:00	12.32
26	2020-02-26 00:00:00	11.95
27	2020-02-27 00:00:00	12.12
28	2020-02-28 00:00:00	12.02
29	2020-02-29 00:00:00	12.32

Real Time Data Acquisition And Monitoring

Site Name: Kalburgi Cement Pvt Ltd

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	Stack_79_RABH-NOx(mg/Nm3)	Stack_79_RABH-PM(mg/Nm3)	Stack_79_RABH-SO2(mg/Nm3)
Prescribed Standards	0 - 600	0 - 30	0 - 100
Maximum Data	268.07	18.56	0.81
Minimum Data	82.58	9.18	0.61
Geometric Mean	151.94	17.14	0.67
Median	95.22	17.87	0.68
Standard Deviation	73.68	2.06	0.04
Maximum Value At Time	2020-02-21 00:00:00	2020-02-29 00:00:00	2020-02-29 00:00:00
Minimum Value At Time	2020-02-01 00:00:00	2020-02-12 00:00:00	2020-02-14 00:00:00
Valid Data Points	22	28	22
Total Data Points	29	29	29
Data Availability %	75.86%	96.55%	75.86%

Sl No.	Time	Stack_79_RABH-NOx(mg/Nm3)	Stack_79_RABH-PM(mg/Nm3)	Stack_79_RABH-SO2(mg/Nm3)
1	2020-02-01 00:00:00	82.58	18.26	0.68
2	2020-02-02 00:00:00	83.46	17.08	0.68
3	2020-02-03 00:00:00	83.78	16.29	0.69
4	2020-02-04 00:00:00	85.37	15.63	0.70
5	2020-02-05 00:00:00	85.83	16.17	0.69
6	2020-02-06 00:00:00	178.07	16.36	0.69
7	2020-02-07 00:00:00	244.50	17.94	0.69
8	2020-02-08 00:00:00	243.54	18.27	0.67
9	2020-02-09 00:00:00	229.41	18.06	0.68
10	2020-02-10 00:00:00	235.42	18.05	0.68
11	2020-02-11 00:00:00	224.87	17.70	0.69

Sl No.	Time	Stack_79_RABH-NOx(mg/Nm3)	Stack_79_RABH-PM(mg/Nm3)	Stack_79_RABH-SO2(mg/Nm3)
12	2020-02-12 00:00:00	86.09	9.18	0.72
13	2020-02-13 00:00:00	91.39	11.60	0.71
14	2020-02-14 00:00:00	95.00	17.47	0.61
15	2020-02-15 00:00:00	94.16	18.15	0.62
16	2020-02-16 00:00:00	94.03	18.26	0.64
17	2020-02-17 00:00:00	94.22	18.08	0.64
18	2020-02-18 00:00:00	95.44	18.02	0.63
19	2020-02-19 00:00:00	162.16	18.05	0.63
20	2020-02-20 00:00:00	260.15	18.04	0.63
21	2020-02-21 00:00:00	268.07	17.81	0.62
22	2020-02-22 00:00:00	NA	17.81	NA
23	2020-02-23 00:00:00	NA	NA	NA
24	2020-02-24 00:00:00	NA	17.87	NA
25	2020-02-25 00:00:00	NA	17.86	NA
26	2020-02-26 00:00:00	NA	17.87	NA
27	2020-02-27 00:00:00	NA	17.87	NA
28	2020-02-28 00:00:00	NA	17.71	NA
29	2020-02-29 00:00:00	225.08	18.56	0.81

Real Time Data Acquisition And Monitoring

Site Name: Gulbarga Power Pvt. Ltd.

Report: Average Report

From Date: 2020-02-01 00:00 To Date: 2020-02-29 00:00

Description	BOILER_STACK-NOx(mg/Nm3)	BOILER_STACK-PM(mg/Nm3)	BOILER_STACK-SO2(mg/Nm3)
Prescribed Standards	0 -	0 - 50	0 -
Maximum Data	163.26	41.22	528.97
Minimum Data	114.19	34.08	220.16
Geometric Mean	136.71	37.99	461.56
Median	140.25	38.33	484.41
Standard Deviation	12.44	1.92	68.55
Maximum Value At Time	2020-02-20 00:00:00	2020-02-02 00:00:00	2020-02-19 00:00:00
Minimum Value At Time	2020-02-14 00:00:00	2020-02-20 00:00:00	2020-02-04 00:00:00
Valid Data Points	29	29	29
Total Data Points	29	29	29
Data Availability %	100.0%	100.0%	100.0%

Sl No.	Time	BOILER_STACK-NOx(mg/Nm3)	BOILER_STACK-PM(mg/Nm3)	BOILER_STACK-SO2(mg/Nm3)
1	2020-02-01 00:00:00	116.63	39.85	513.54
2	2020-02-02 00:00:00	119.37	41.22	430.15
3	2020-02-03 00:00:00	138.01	36.65	391.39
4	2020-02-04 00:00:00	131.85	39.64	220.16
5	2020-02-05 00:00:00	123.10	37.63	323.96
6	2020-02-06 00:00:00	121.12	35.86	347.49
7	2020-02-07 00:00:00	131.52	34.13	484.41
8	2020-02-08 00:00:00	134.63	37.46	511.29
9	2020-02-09 00:00:00	152.80	40.19	486.02
10	2020-02-10 00:00:00	147.99	39.83	497.54
11	2020-02-11 00:00:00	148.68	39.16	479.62

Sl No.	Time	BOILER_STACK-NOx(mg/Nm3)	BOILER_STACK-PM(mg/Nm3)	BOILER_STACK-SO2(mg/Nm3)
12	2020-02-12 00:00:00	140.25	38.47	375.67
13	2020-02-13 00:00:00	140.89	38.88	471.60
14	2020-02-14 00:00:00	114.19	39.31	525.25
15	2020-02-15 00:00:00	129.27	38.33	506.28
16	2020-02-16 00:00:00	131.56	38.76	486.22
17	2020-02-17 00:00:00	140.71	38.76	480.83
18	2020-02-18 00:00:00	116.54	36.53	499.11
19	2020-02-19 00:00:00	142.03	38.65	528.97
20	2020-02-20 00:00:00	163.26	34.08	470.53
21	2020-02-21 00:00:00	145.95	35.77	501.22
22	2020-02-22 00:00:00	126.14	35.62	453.71
23	2020-02-23 00:00:00	142.29	36.80	473.99
24	2020-02-24 00:00:00	145.56	35.93	495.88
25	2020-02-25 00:00:00	142.54	37.67	469.80
26	2020-02-26 00:00:00	133.34	37.44	495.63
27	2020-02-27 00:00:00	147.96	37.45	493.07
28	2020-02-28 00:00:00	141.40	41.16	503.35
29	2020-02-29 00:00:00	155.07	40.48	468.46

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Certificate No.: TC-5323

GEMS-LD/TF/11/01
Date: 22.02.2020
ANNEXURE-1

Analysis Report of Ambient Air Quality Monitoring

1.	Name of the Customer/Address	M/s. Kalburgi Cement Private limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist, Karnataka.
2.	Customer Reference	7500003115/28.02.2019
3.	Sample Description	Ambient Air Quality monitoring
4.	Sample Collected By	GLOBAL Environment & Mining Services
5.	Particulars of Sample Collected	RDS Sampler & Fine Particulate Sampler
6.	Duration of the Monitoring	24 Hours Sampling
7.	Location of Monitoring	A1 to A3.
8.	Sample Code	GEMS/KCPL/AAQM/2020/2820,2821,2822
9.	Report Number	**ULR-TC532320000000657F**

Result

PARAMETERS	Date of Monitoring	12.02.20	12.02.20	12.02.20	Unit	NAAQ Standard	Reference Method
	AAQM Station Code	A - 1	A - 2	A - 3			
	Particulate Matter (PM_{10})	75.16	61.37	52.97	µg/m3	100	IS 5182 (Part 23): 2006 (RA 2017)
	Particulate Matter ($PM_{2.5}$)	12.00	16.69	28.38	µg/m3	60	USEPA 2001
	Sulphur dioxide as SO_2	9.51	8.49	13.92	µg/m3	80	IS 5182 (Part 2): 2001 (RA 2017)
	Nitrogen dioxide as NO_2	10.37	8.99	15.21	µg/m3	80	IS 5182 (Part 6): 2006 (RA 2017)
	Ozone as O_3	<1.0	8.84	6.95	µg/m3	100	GEMS/SOP/84 (As per CPCB Manual)
	Ammonia as NH_3	BDL	5.49	9.50	µg/m3	400	GEMS/SOP/85 (As per CPCB Manual)
	Lead as Pb	<0.001	<0.001	<0.001	µg/m3	1	IS 5182 (Part 22): 2004 (RA 2014)
	Carbon Monoxide as CO*	BDL	BDL	BDL	mg/m3	2	Vasthi CO Analyser
	Benzene as C_6H_6	BDL	BDL	BDL	µg/m3	5	IS 5182 (Part XI) 2006 (RA 2017)
	Benzo(a) Pyrene as BaP	BDL	BDL	BDL	ng/m3	1	IS 5182 (Part XII) 2006 (RA 2017)
	Arsenic as As	<0.001	<0.001	<0.001	ng/m3	6	GEMS/SOP/87 (As per CPCB Manual)
	Nickel as Ni	<0.001	<0.001	<0.001	ng/m3	20	GEMS/SOP/87 (As per CPCB Manual)

****End of Report****

Note :

A - 1	-	**Near KCPL Guest House**	**A - 3**	-	**Near STP (KCPL - Skilled Labour Colony)**
A - 2	-	**Near Open well 1**	**BDL**	-	**Below Detectable Limit**

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

Global Environment Services HOSPET

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Certificate No.: TC-5323

GEMS-LD/TF/11/01
Date: 22.02.2020
ANNEXURE-2

Analysis Report of Ambient Air Quality Monitoring

1.	Name of the Customer/Address	M/s. Kalburgi Cement Private limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2.	Customer Reference	7500003115/28.02.2019
3.	Sample Description	Ambient Air Quality monitoring
4.	Sample Collected By	GLOBAL Environment & Mining Services
5.	Particulars of Sample Collected	RDS Sampler & Fine Particulate Sampler
6.	Duration of the Monitoring	24 Hours Sampling
7.	Location of Monitoring	A4 to A6.
8.	Sample Code	GEMS/KCPL/AAQM/2020/2823,2824 & 2825
9.	Report Number	**ULR-TC532320000000658F**

Result

PARAMETERS	Date of Monitoring	13.02.20	13.02.20	13.02.20	Unit	NAAQ Standard	Reference Method
	AAQM Station Code	A - 4	A - 5	A - 6			
	Particulate Matter (PM_{10})	48.47	73.61	53.75	µg/m3	100	IS 5182 (Part 23): 2006 (RA 2017)
	Particulate Matter ($PM_{2.5}$)	11.08	25.92	12.67	µg/m3	60	USEPA 2001
	Sulphur dioxide as SO_2	7.81	11.21	14.26	µg/m3	80	IS 5182 (Part 2): 2001 (RA 2017)
	Nitrogen dioxide as NO_2	9.33	12.79	15.90	µg/m3	80	IS 5182 (Part 6): 2006 (RA 2017)
	Ozone as O_3	BDL	BDL	<1.0	µg/m3	100	GEMS/SOP/84 (As per CPCB Manual)
	Ammonia as NH_3	3.40	2.62	3.30	µg/m3	400	GEMS/SOP/85 (As per CPCB Manual)
	Lead as Pb	<0.001	<0.001	<0.001	µg/m3	1	IS 5182 (Part 22): 2004 (RA 2014)
	Carbon Monoxide as CO*	BDL	BDL	BDL	mg/m3	2	Vasthi CO Analyser
	Benzene as C_6H_6	BDL	BDL	BDL	µg/m3	5	IS 5182 (Part XI) 2006 (RA 2017)
	Benzo(a) Pyrene as BaP	BDL	BDL	BDL	ng/m3	1	IS 5182 (Part XI) 2006 (RA 2017)
	Arsenic as As	<0.001	<0.001	<0.001	ng/m3	6	GEMS/SOP/87 (As per CPCB Manual)
	Nickel as Ni	<0.001	<0.001	<0.001	ng/m3	20	GEMS/SOP/87 (As per CPCB Manual)

****End of Report****

Note :

A - 4 - **Near Kharchkhed Village**
A - 5 - **Near Chatrasala Village**
A - 6 - **Near Open well 2**
BDL - **Below Detectable Limit**

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

Global Environment & Mining Services HOSPET

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Certificate No.: TC-5323

GEMS-LD/TF/11/01
Date: 22.02.2020
ANNEXURE-1

Analysis Report of Ambient Air Quality Monitoring

1.	Name of the Customer/Address	M/s. Kalburgi Cement Private limited Chatrasala Village, Chincholi Taluka Kalaburgi Dist ,Karnataka
2.	Customer Reference	7500003115/28.02.2019
3.	Sample Description	**Ambient Air Quality Monitoring (Chatrasala Mines)**
4.	Sample Collected By	GLOBAL Environment & Mining Services
5.	Particulars of Sample Collected	Combined Sampler - 241
6.	Duration of the Monitoring	24 Hours Sampling
7.	Location of Monitoring	A1 to A4.
8.	Sample Code	GEMS/KCPL/AAQM/2020/2831,2832,2833& 2834
9.	Report Number	**ULR-TC532320000000664F**

Result

PARAMETERS	Date of Monitoring	12.02.20	12.02.20	12.02.20	13.02.20	Unit	NAAQ Standard	Reference Method
	AAQM Station Code	A – 1	A – 2	A – 3	A – 4			
	Particulate Matter (PM_{10})	82.07	77.40	93.61	91.43	µg/m3	100	IS 5182 (Part 23): 2006 (RA 2017)
	Particulate Matter ($PM_{2.5}$)	16.38	18.37	46.25	42.04	µg/m3	60	USEPA 2001
	Sulphur dioxide as SO_2	14.60	20.71	18.34	15.62	µg/m3	80	IS 5182 (Part 2): 2001 (RA 2017)
	Nitrogen dioxide as NO_2	19.01	22.12	20.39	16.25	µg/m3	80	IS 5182 (Part 6): 2006 (RA 2017)
	Carbon Monoxide as CO*	BDL	BDL	BDL	BDL	mg/m3	2	Vasthi CO Analyser

****End of Report****

Note :

A – 1	-	**Near Drilling Site**	**A – 3**	-	**Near Haulage Road**
A – 2	-	**Near Loading Site**	**A- 4**	-	**Un Loading (at Crusher Hopper)**
BDL	-	**Below Detectable Limit**			

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy.Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

Global Environment & Mining Services * HOSPET

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GEMS-LD/TF/11/01
Date: 22.02.2020
ANNEXURE-2

Analysis Report of Ambient Air Quality Monitoring

1.	Name of the Customer/Address	M/s. Kalburgi Cement Private limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2.	Customer Reference	7500003115/28.02.2019
3.	Sample Description	**Ambient Air Quality monitoring (Kharchkhed Mines)**
4.	Sample Collected By	GLOBAL Environment & Mining Services
5.	Particulars of Sample Collected	Combined Sampler -241
6.	Duration of the Monitoring	24 Hours Sampling
7.	Location of Monitoring	A1 to A3.
8.	Sample Code	GEMS/KCPL/AAQM/2020/2857,2858 & 2859
9.	Report Number	**ULR-TC532320000000674F**

Result

PARAMETERS	Date of Monitoring	14.02.20	14.02.20	14.02.20	Unit	NAAQ Standard	Reference Method
	AAQM Station Code	A - 1	A - 2	A – 3			
	Particulate Matter (PM_{10})	67.02	74.11	63.13	µg/m3	100	IS 5182 (Part 23): 2006 (RA 2017)
	Particulate Matter ($PM_{2.5}$)	18.01	15.37	21.76	µg/m3	60	USEPA 2001
	Sulphur dioxide as SO_2	10.53	12.22	12.90	µg/m3	80	IS 5182 (Part 2): 2001 (RA 2017)
	Nitrogen dioxide as NO_2	13.83	15.21	14.52	µg/m3	80	IS 5182 (Part 6): 2006 (RA 2017)
	Carbon Monoxide as CO*	BDL	BDL	BDL	mg/m3	2	Vasthi CO Analyser

End of Report

Note :

A - 1	-	**Near Drilling Site**	**A - 3**	-	**Near Haulage Road**
A - 2	-	**Near Loading Site**	**BDL**	-	**Below Detectable Limit**

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy.Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

Global Environment & Mining Services * HOSPET

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Certificate No.: TC-5323

GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-3

Analysis Report of Stack Emission

1	Name of the Customer/Address	M/s. Kalburgi Cement Private Limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	11.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**Coal Mill Baghouse**
6	Duration of Monitoring	1 hour 12 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2829
8	Report Number	**ULR-TC532320000000662F**

Stack Details

1	Stack attached to	**Coal Mill Bag house**
2	Stack Height (mtr)	**63**
3	Stack Diameter (mtr)	**2.12**

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**69**	^{0}C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**8.11**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**103072**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**91318**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**26.70**	mg/Nm^3	IS 11255 (Part 01)	**30.0**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K. Ramakrishna Reddy
Technical Manager

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GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-4

Analysis Report of Stack Emission

1	Name of the Customer/Address	M/s. Kalburgi Cement Private Limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	16.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**Clinker Cooler ESP Stack**
6	Duration of Monitoring	38.0 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2837
8	Report Number	**ULR-TC532320000000666F**

Stack Details

1	Stack attached to	Clinker Cooler ESP
2	Stack Height (mtr)	40
3	Stack Diameter (mtr)	4.25

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**195**	^0C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**9.66**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**493405**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**323665**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**23.5**	mg/Nm^3	IS 11255 (Part 01)	**30.0**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

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GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-5

Analysis Report of Stack Emission

1	Name of the Customer/Address	M/s. Kalburgi Cement Private Limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	11.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**Cement Mill - I Bag filter**
6	Duration of Monitoring	1 Hour 17 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2843
9	Report Number	**ULR-TC532320000000670F**

Stack Details

1	Stack attached to	**Cement Mill - I Bagfilter**
2	Stack Height (mtr)	**77.5**
3	Stack Diameter (mtr)	**3.20**

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**109**	^{0}C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**3.90**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**112931**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**89281**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**11.30**	mg/Nm^3	IS 11255 (Part 01)	**30.0**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

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Certificate No.: TC-5323

GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-6

Analysis Report of Stack Emission

1	Name of the Customer/Address	M/s. Kalburgi Cement Private Limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist , Karnataka.
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	11.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**Cement Mill - II Bag filter**
6	Duration of Monitoring	1 Hour 17 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2844
9	Report Number	**ULR-TC532320000000671F**

Stack Details

1	Stack attached to	Cement Mill - II Bag filter
2	Stack Height (mtr)	77.5
3	Stack Diameter (mtr)	3.20

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**90**	^0C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**3.64**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**105402**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**87400**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**7.40**	mg/Nm^3	IS 11255 (Part 01)	**30.0**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

Note:
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GEMS
NABET Accreditated

GLOBAL Environment & Mining Services
(Analytical Laboratory, Consulting Engineers, Mine designers, Geologist & Surveyors.)
3rd Main Road, Basaveswara Badavane, **HOSPET – 583201**,
Dist., Bellary (Karnataka). Ph: +91-8394 229433 & 295018
E-mail: gems_hpt@yahoo.com & gemslab.hpt@gmail.com. Website:www.globalmining.in

Certificate No.: TC-5323

GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-7

Analysis Report of Stack Emission

1	Name of the Customer/Address	**M/s. Kalburgi Cement Private Limited** Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	16.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**RABH/Kiln Stack**
6	Duration of Monitoring	43.0 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2830
9	Report Number	**ULR-TC532320000000663F**

Stack Details

1	Stack attached to	RABH/Kiln
2	Stack Height (mtr)	80
3	Stack Diameter (mtr)	5.4

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**98**	^{0}C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**6.73**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**554947**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**456223**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**16.40**	mg/Nm^3	IS 11255 (Part 01)	**30.0**
6	Sulphur Dioxide	**65.78**	mg/Nm^3	IS 11255 (Part 02)	**100**
7	Nitrogen Dioxide	**16.40**	mg/Nm^3	IS 11255 (Part 07)	**600**
8	Carbon Monoxide	**4.0**	ppm	Flue Gas Analyser	-
9	Carbon Dioxide	**2.0**	%	Flue Gas Analyser	-
10	Mercury*	**<0.001**	mg/Nm^3	AAS Method	**0.03**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

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Certificate No.: TC-5323

GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-8

Analysis Report of Stack Emission

1	Name of the Customer/Address	**M/s. Gulbarga Power Private Limited** Chatrasala Village, Chincholi Taluka, Kalaburgi Dist ,Karnataka
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	16.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**ESP- Boiler 130 TPH (Gulbarga Power Private Limited) GPPL**
6	Duration of Monitoring	54.0 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2838
8	Report Number	**ULR-TC532320000000667F**

Stack Details

1	Stack attached to	Boiler - 130 TPH
2	Stack Height (mtr)	80.0
3	Stack Diameter (mtr)	3.0

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**133**	^{0}C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**5.90**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**150156**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**112062**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**24.2**	mg/Nm^3	IS 11255 (Part 01)	**50.0**
6	Sulphur Dioxide	**470.47**	mg/Nm^3	IS 11255 (Part 02)	**600**
7	Nitrogen Dioxide	**133.25**	mg/Nm^3	IS 11255 (Part 07)	**300**
8	Carbon Monoxide	**23**	ppm	Flue Gas Analyser	-
9	Carbon Dioxide	**11.85**	%	Flue Gas Analyser	-
10	Mercury*	**<0.001**	mg/Nm^3	AAS Method	**0.03**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy. Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

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Certificate No.: TC-5323

GEMS-LD/TF/10/01
Date: 22.02.2020
ANNEXURE-4

Analysis Report of Stack Emission

1	Name of the Customer/Address	M/s. Kalburgi Cement Private Limited Chatrasala Village, Chincholi Taluka, Kalaburgi Dist, Karnataka.
2	Customer Reference	7500003115/28.02.2019
3	Date of Sampling	12.02.2020
4	Sample Type	Stack Monitoring
5	Sampling Location	**Lime Stone Crusher Stack**
6	Duration of Monitoring	1 hour 12 Minutes
7	Sample Code	GEMS/KCPL/SE/2020/2828
8	Report Number	**ULR-TC532320000000661F**

Stack Details

1	Stack attached to	Limestone Crusher Baghouse
2	Stack Height (mtr)	20
3	Stack Diameter (mtr)	1.6

Emission Details

Sl. No.	Parameters	Result	Unit	Method	Permissible Limit
1	Stack Temperature	**49**	^{0}C	IS-11255(Part 01)	-
2	Velocity of Flue Gas	**7.91**	m/sec	IS-11255(Part 01)	-
3	Gas flow rate at Stack Condition*	**57262**	m^3/hr	IS-11255(Part 03)	-
4	Gas flow rate at NTP*	**53883**	Nm^3/hr	IS-11255(Part 03)	-
5	Particulate Matter	**25.7**	mg/Nm^3	IS 11255 (Part 01)	**30.0**

****End of Report****

Analysed By
J. M. Thippeswamy
Chemist

Verified By
S. Shameem Banu
Dy.Manager

Authorised Signatory
K.Ramakrishna Reddy
Technical Manager

Global Environment & Mining Services HOSPET

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Contents

Environmental Initiatives

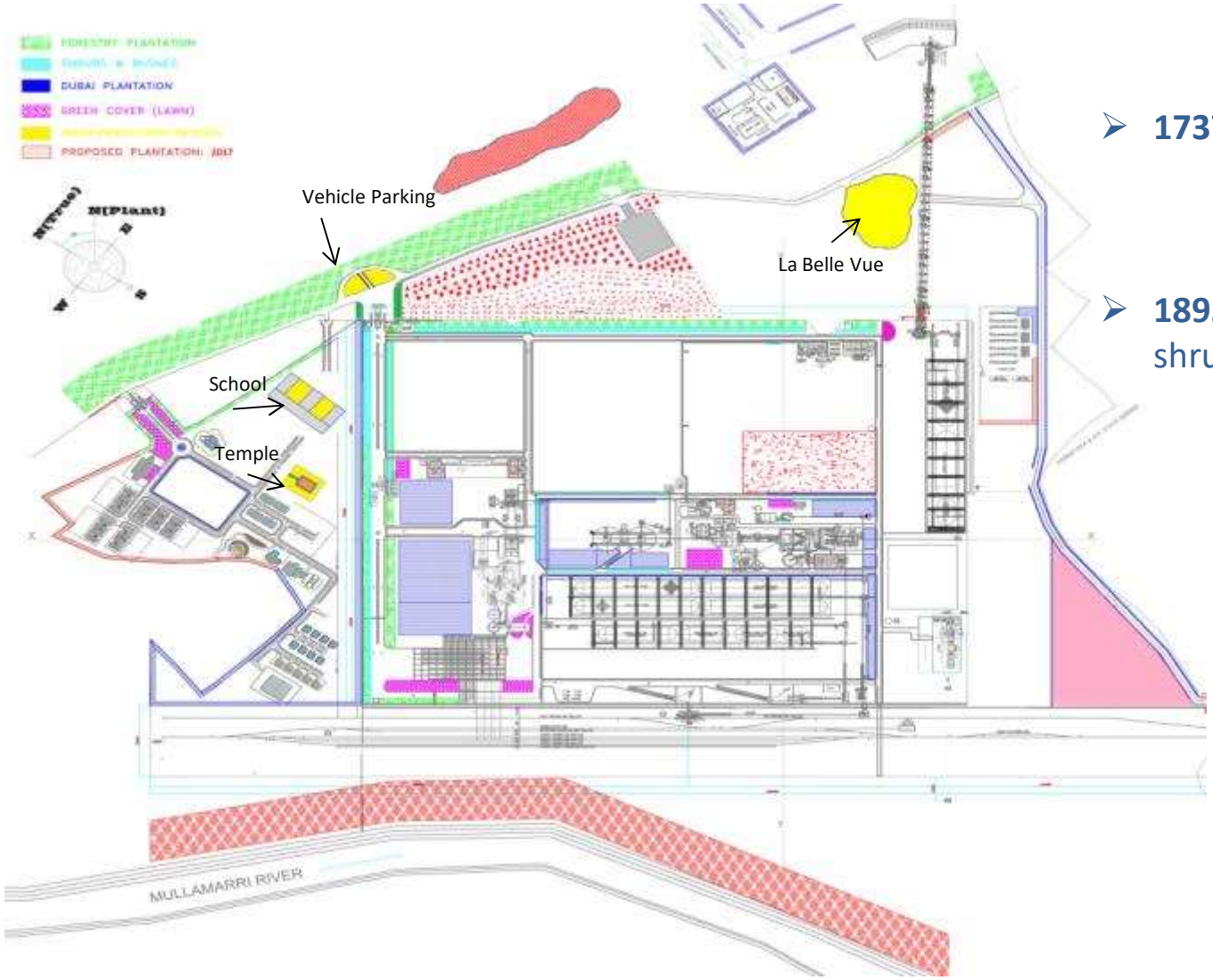
Go Green to Breath Clean

- **Kalburgi Cement Private Ltd: Green belt –Statutory Requirement**
  - **52% of area should be under Green Belt i.e.,**
    - **688574 M^2 of Green belt with 173743 trees**

% Area covered under Green Belt	52.78%
Area Under Green Belt	688574 M2
No. of Trees	173743
Green Cover	221573 Ft2
No. of Shrubs and Herbs	187560

Environmental Initiatives

Go Green to Breath Clean



HIGHLIGHTS

- **173743** Trees of 43 Species
  - 25 local Species
  - 18 others Species
- **189560** small bushes and shrubs of 93 species
  - 41 local species
  - 52 other ornamental species

Green Belt Development

GREEN BELT DEVELOPMENT- KALBURGI CEMENT PRIVATE LIMITED					
Sr. No	Particular	Area (Sq. M)	Required Green Belt area (Sq. M)	Remark	% of Area coverd under Green Belt
1	Cement Plant	692000	228360	Considered 33% Green Belt area	52.78
2	Power plant - GPPL	88000	29040	Considered 33% Green Belt area	
3	Staff Colony	190920	63004	Considered 33% Green Belt area	
Total (Cement Plant, Power Plant and Staff colony)		**970920**	**320404**		
1	**Mines**	**4467700**	**207300**	Being a mineral zone the area considered for green belt is along the mining lease boundary, Haul Raod and over burden dump areas.	

GREEN BELT AREA COVERED AND PLANTATION DETAILS							
Sl No	Particulars	Area (Sq. M)	Required Green Belt area (Sq. M)	Identified Area (Sq. M)	Requirement of tress as per CPCB Guideline	Area coved (SqM) as on July 2013 to 2019	No. of trees planted as on July 2013 to 2019
1	Green Belt Area of Cement Plant, Power Plant, workers colony and Staff colony	**970920**	**320404**	**382889**	**80101**	**512464**	**134858**
2	Green Belt Area of Lime stone mines	**4467700**	**207300**	**253285**	**23031**	**176110**	**38885**
Total		**5438620**	**527704**	**636174**	**103132**	**688574**	**173743**

Green Belt Development

GREEN BELT DEVELOPMENT PLAN - 2011 to 2017

YEAR 2011

Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2011	Road No 1	6525	725	Gulmohar, Pongamia, Pelt form, Cassia	Completed	08.08.2011	87%
2		Road No. 7	4104	2180	Gulmohar, Pongamia, Pelt form, Cassia,	Completed	29.10.2011	
Total for year 2011			**10629**	**2905**				

YEAR 2012

Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2012	Mines Safe Zone (Along the road From Mines Crusher to Chatrasala Village)	60000	8500	Gulmohar, Pongamia, Peltoform, Cassia	Completed	21.08.2012	95%
2		Road No 1 (Along boundary wall)	8700	1500	Conocarpus (Dubai Tree)	Completed	30.11.2012	
3		Road No 1 (Along Walkway)	1800	900	Conocarpus (Dubai Tree)	Completed	27.08.2012	
4		Near Raw mill	9100	4200	Conocarpus (Dubai Tree)	Completed	24.07.2102	
5		Near Clinker Silo	1500	1500	Conocarpus (Dubai Tree)	Completed	16.10.2012	
Total for year 2012			**81100**	**16600**				

Green Belt Development

YEAR 2013								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2013	Along Haul Road - Mines	6400	1800	Conocarpus (Dubai Tree)	Completed	23.08.2013	96%
2		Service Road along East boundary	14400	3900	Conocarpus (Dubai Tree)	Completed	07.09.2013	
3		Staff colony play ground	6000	1200	Conocarpus (Dubai Tree)	Completed	12.10.2013	
4		Road No 10	800	300	Conocarpus (Dubai Tree)	Completed	14.10.2013	
5		Along Road no 6	4000	1800	Conocarpus (Dubai Tree)	Completed	30.10.2013	
6		Along CCR to Cement Mill road	780	460	Conocarpus (Dubai Tree)	Completed	22.09.2013	
7		Along Staff colony Boundary Wall	29500	6883	Conocarpus (Dubai Tree), Gulmohar,	Completed	27.11.2013	
8		Staff colony cricket ground	2000	1000	Conocarpus (Dubai Tree)	Completed	30.09.2013	
9		Staff colony gate	7500	600	Conocarpus (Dubai Tree)	Completed	28.08.2013	
10		Skilled colony near STP	4000	1750	Conocarpus (Dubai Tree)	Completed	18.08.2013	
11		Admin building to Feed hopper building	30000	3750	Conocarpus (Dubai Tree)	Completed	05.10.2013	
12		Road no 7	4800	1800	Conocarpus (Dubai Tree)	Completed	21.09.2013	
13		Road no 8	3000	600	Conocarpus (Dubai Tree)	Completed	20.11.2013	
14		Road no. 3 and 4	2000	1300	Conocarpus (Dubai Tree)	Completed	22.11.2013	
15		Road No. 9	5500	2000	Conocarpus (Dubai Tree)	Completed	24.11.2013	
16		Road no 13	2800	650	Conocarpus (Dubai Tree), Gulmohar,	Completed	23.11.2013	
17		Road 10, Cement silo to Road 1, Packing plant	34000	8500	Conocarpus (Dubai Tree)	Completed	18.09.2013	
18		Along Boundary wall of GPPL	8000	4000	Conocarpus (Dubai Tree), Gulmohar,	Completed	13.08.2013	
Total for year 2013			**165480**	**42293**				

YEAR 2014								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2014	Backside of LS Crusher - Mines East Boundary	11250	1875	Conocarpus, Neem, Bougainvellea	Completed	22.06.2014	93%
2		Towards Chatrasala Village - Mines West Boundary	20000	3450	Neem, Pongamia, Subabhul	Completed	27.06.2014	
3		From Plant Gate to Karankote (Along the BT Road)	7000	1750	Conocarpus, Neem, Subabhul	Completed	14.07.2014	
4		Road No 12 Both Side	13200	4900	Conocarpus, Gadichodi	Completed	12.08.2014	
5		Road No 7 - Plant Side	6000	750	Conocarpus, Gadichodi	Completed	22.08.2014	
6		Inside GPPL	72000	18000	Conocarpus, Neem, Bougainvellea	Completed	25.08.2014	
7		Out side of GPPL Gate	34000	3800	Conocarpus, Gadichodi	Completed	25.08.2014	
8		Near Ely ash silo	6000	1050	Conocarpus	Completed	10.09.2014	
Total for year 2014			**169450**	**35575**				

Green Belt Development

YEAR 2015								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2015	Road no. 6	14000	5950	Conocarpus, Neem, Bougainvellea, Gadichodi	Completed	27.03.2015	94%
2		Road 7 - Plant Side	7200	6470	Conocarpus, Neem, Bougainvellea,	Completed	30.03.2015	
3		Filter water area	1680	800	Conocarpus, Cisalpenia, Bougainvellea,	Completed	31.05.2015	
		Main Gate Parking	3350	1750	Conocarpus, Neem, Bougainvellea,	Completed	30.06.2015	
4		Along the Railway track and service road from Plant to Karankote	50000	7950	Neem, Teak, Gulmohar, Pongamia, Bougainvellea	Completed	30.07.2015	
5		Mines Entrance	1860	980	Conocarpus	Completed	30.08.2015	
6		Mines Garage inside plantation	3200	320	Conocarpus	Completed	30.08.2015	
7		Mines out side Hill Plantation	7200	3600	Conocarpus	Completed	30.09.2016	
8		Top of Hill	30000	3500	Neem, Teak, Gulmohar, Pongamia,	Completed	30.12.2015	
Total for year 2015			**118490**	**31320**				

YEAR 2016								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2016	Hill Top and Hill side edges	15000	7750	Neem, Teak, Gulmohar, Pongamia,	Completed	25.01.2016	95%
2		Water fall	1000	700	Neem, Teak, Gulmohar, Pongamia,	Completed	20.02.2016	
3		Staff colony temple	3125	700	Neem, Teak, Gulmohar, Pongamia,	Completed	30.06.2016	
4		School building	1600	1200	Bamboo, Ereca Plam	Completed	30.10.2016	
5		Mines main road	1800	850	Conocarpus, Neem, Bougainvellea,	Completed	30.10.2016	
Total for year 2016			**22525**	**11200**				

YEAR 2017								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2017	Main Gate to Truck Parking Both side	8000	2800	Conocarpus, Gulmohar, Bougainvellea,	Completed	25.06.2017	96%
2		Truck parking compound wall	2500	1500	Conocarpus, Gulmohar, Bougainvellea,	Completed	20.06.2017	
3		School Building compound wall	2000	2100	Conocarpus, Gulmohar	Completed	12.06.2017	
4		Railway track side - Tandur road	36000	7000	Conocarpus, Gulmohar	In probress	30.07.2017	
5		Fruit Garden	20000	550	Guava, Mango, Jamun, Custurd apple	In probress	01.08.2017	
Till 2017			**68500**	**13950**				
TOTAL PLANTATION (FROM 2011 TO 2017)			**636174**	**153843**				

Green Belt Development

YEAR 2018								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2018	Mines View point	600	200	Conocarpus, Gulmohar,	Completed	25.03.2018	94%
2		Mines service road	4000	560	Conocarpus, Gulmohar,	Completed	05.06.2018	
3		Chatrasala Mining lease boundary	1400	140	Forestry plants, Millingtonia,	Completed	31.12.2018	
4		Staff colony - C block to B block road side	5600	1200	Conocarpus, Gulmohar	Completed	30.11.2018	
Till December 2018			11600	2100				
TOTAL PLANTATION (FROM 2011 TO 2018)			647774	156193				

YEAR 2019								
Sr. No	Year of Planning	Area/Location	Approx. Area (Sq. M)	No. of Plant sampling	Name of Plant Species	Present Status	Date	Survival Rate
1	2019	Mines Crusher Area	5800	1550	Conocarpus,Teak,	Completed	22.08.2019	94%
2		Mines Dump Area	5200	1440	Conocarpus, Teak, Kanuga,	Completed	24.08.2019	
3		Mines Service Road & office, Garage	2500	1810	Conocarpus, Bougainvellea, Spider	Completed	31.08.2019	
4		Truck Parking	2100	1400	Pandanas, Spider Lilly, Bougainvellea,	Completed	08.09.2019	
5		Road No1	5200	3950	Acalypha Red & Green, Spider Lilly, Golden Duranta, Pandanas	Completed	16.09.2019	
6		Road No8 (Store)	2500	1900	Acalypha Red & Green, Pandanas,	Completed	20.09.2019	
7		Cafateria front side area	400	520	Conocarpus, Teak, Kanuga,	Completed		
8		Tandur Road	3100	1800	Conocarpus	Completed	18.08.2019	
9		Hill Top	1300	700	Bougainvellea, Fountain grass (Red &	Completed	12.08.2019	
10		CPP Service Road Both Side	1800	750	Bougainvellea,	Completed	10.08.2019	
11		Kanakote to Jewanagi Road	6000	580	Teak, Neam, Fruit trees	Planned		
12		CPP Turning Road Side Development	4200	550	Teak, Neam, Fruit trees	Completed	27.10.2019	
13		CCR	700	600	Areca Palm, Golden Duranta, Spathyphyllum, Zamia, Alocasia,	Completed	28.09.2019	
Till December 2019			40800	17550				
TOTAL PLANTATION (FROM 2011 TO 2019)			688574	173743				

Nursery development

We have established our own nursery. This will help us to propagate and develop many species of trees, bushes for future green belt and will considerably reduce the cost

Water Fountain – Nearby Packing Plant

Lake view – Beside Packing Plant

Greenery developed on stabilized mines over burden

Greenery developed on stabilized mines over burden

Forestry Plantation






Plantation at Staff Colony






Plantation at Plant site

Main Gate Entrance

Parking at Main Gate

Parking at Main Gate


Canteen Garden


7 Street Canteen


Road No 7


Road No 7


Road No 7


Road No 7


Ladies Rest Room


Road No 7


Road No 6


Road No 6


Road No 6


Road No 6


Road No 12


Road No12


Packing Plant Garden


Packing Plant Garden


Packing Plant Garden


Road No 1


Road No 1


Road No 1


Road No 10


Road No 10


Weigh Bridge


Administration Building

Sarsika Lake

Sarsika Lake

Mines: Environment Management

Mines Green Belt Development (2014-2019)

Environment Management

Eco friendly Equipment's :

Drilling: The best Drill equipment(SANDVIK DP1500i) having wet & Dust collector system.

Adopted Eco friendly Blasting techniques like Non Electrical Detonators initiation system to minimize the Noise, Ground Vibrations, Fly rock.

Dumpers & Loading Equipment’s EURO IV version i.e. non pollution series.

Water spraying System - Mines

Water Sprinkling system on haul road for dust suppression

Water Sprinkling system Unloading point – Crusher for dust suppression

Environment Management

Plantation near crusher

Plantation along the Public Road

Top Soil Unloading along the mine boundary for future plantation.

Fully Covered crushed Limestone

COVERED VEHICLE OF CEMENT BAG

BEFORE THE NATIONAL GREEN TRIBUNAL-SOUTHERN BENCH

O.A No. 195 Of 2016

Tandur Citizens Welfare Society
...
Applicant

Vs

Govt. of Telengana
rep. by its Secretary and Ors.
...
Respondents

TYPED SET OF DOCUMENTS FILED BY 12TH RESPONDENT

COUNSEL FOR THE 12TH RESPONDENT