

Dated: 30.05.2022

Letter No: GSCL/EHS/2022-23/12

To,
The Ministry of Environment & Forests & Climate Change,
North Eastern Regional Office (NEZ),
Law-u-sib, Lumbatngen, Near MTC Workshop,
Near NTC Workshop, Shillong, Meghalaya-793021.

Sub: Six Monthly Compliance of Environment Clearance Letter of
M/s. Goldstone Cements Ltd, Vill: Musiang Lamare (old), Khliehriat, East Jaintia
Hills, Meghalaya-793200

Ref: Environment Clearance letter No:- J-11011/851/2008-IA II(I) dated 30.09.2010

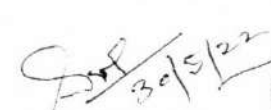
Dear Sir,


With the matter as cited in the subject, we would like to submit the **Half Yearly EC Compliance report for the period 01.10.2021 to 31.03.2022** on Environmental Stipulations for our Cement Plant along with Captive Thermal Power Plant located at Vill: Musiang Lamare (old), Khliehriat, Dist : East Jaintia Hills, Meghalaya -793200.

All annexures are enclosed as mentioned in compliance report for your kind reference.

Thanking You,

Yours faithfully
For Goldstone Cements Ltd.


30/5/22
Authorised Signatory



Encl: As mentioned above.



- CC: 1. Regional Director, Central Pollution Control Board, Regional Directorate-North East, Lower Motinagar, Shillong, Meghalaya-793014.
2. Member Secretary, Meghalaya State pollution Control Board, "ARDEN" Lumpyngnagad, Shillong, Meghalaya-793014.

Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

Letter No: GSCL/EHS/2022-23/12

Dated: 30.05.2022

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Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298



**COMPLIANCE REPORT (HALF YEARLY) FROM 1st OCTOBER 2021 TO 31st MARCH 2022
ON ENVIRONMENTAL STIPULATIONS OF M/S. GOLDSTONE CEMENTS LTD –
ENVIRONMENTAL CLEARANCE VIDE MOEF LETTER NO. J-11011/851/2008-IA II (I), DATED 30.09.2010.**

SL No.	Facility	Total Capacity as per EC	Total installed capacity as on date	Percentage of capacity installed against total capacity as per EC
1	Clinker Kiln	1.65 MTPA	0.56 MTPA	34 %
2	Cement Grinding Facility	2.54 MTPA	0.88 MTPA	34 %
3	Captive Power Plant FBC	2 X 20 MW	10 MW	25 %

SL. NO	CONDITIONS	COMPLIANCE
	A. SPECIFIC CONDITIONS	
i	Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, limit of SPM shall be controlled within 50 mg/Nm ³ by installing adequate air pollution Control system. Electrostatic precipitators (ESP) to clinker cooler, bag house raw mill/kiln and bag filters to coal mill and cement mill. Low NOx burners should be provided to control NOx emissions.	<ul style="list-style-type: none"> •The Continuous Stack Monitor (Opacity Meters) is in working condition and online data is being transferred to CPCB & MSPCB. •ESP (Electrostatic Precipitators) for Clinker cooler, Bag house/Bag filters for Raw Mill / Coal Mill & other pollution control equipments were already installed in plant to keep PM below 30 mg/Nm³ in Cement Plant stacks and 50 mg/Nm³ in Captive Power Plant stack as per our consent guideline.
ii	Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB). A feasibility report shall be prepared and submitted to the ministry and its Regional office at Shillong within 03 months from the date of issue of the letter.	Against EC Approved capacity of 1.65 MTPA of Clinker Kiln, we have installed only 0.56 MTPA of Clinker Kiln which is only 34% of approved EC capacity. Kiln capacity being low, hot gases generated from the existing Kiln are required for drying the moisture in raw mill & cement mill. Similarly, waste heat of Kiln is largely utilized in raw mill, coal mill and clinker cooler. Therefore, with the present installed capacity, very less quantum of hot gases are left. However, we are planning to undertake a feasibility study of the existing system for installation of WHRB. We will submit the report of study in due course of time.
iii	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November 2009 shall be followed.	The same is being followed during operation of plant. Ambient air quality monitoring is being done as per standards. Ambient air quality parameters are found to be within the limit for all the parameters. <i>(Details attached in Annexure-1)</i>

iv	<p>Secondary fugitive emission shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of practice issued by the CPCB in this regard should be followed.</p>	<p>All material transfer points are provided with Bag filters to control fugitive emission. Construction of concrete roads is under progress in the plant. <i>(Photographs are enclosed in Annexure:2)</i></p> <p>Dust suppression is being done through water sprinklers installed in limestone crusher and plant roads. <i>(Photographs are enclosed in Annexure:2a)</i></p> <p>Full time water tanker is being deployed in the plant for water sprinkling in all roads as shown in <i>Annexure:2b</i></p> <p>Guideline / Code of practice issued by the CPCB is being followed during operation of plant. Regular monitoring for control of secondary fugitive emission under prescribed limit is being done. <i>(Details attached in Annexure-1)</i></p>
v	<p>Effort shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be over loaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.</p>	<p>Raw Material and end products are transported keeping in consideration that surrounding environment and agriculture land is protected. There is separate designated parking space for truck parking. All the raw materials including fly ash is being transported in the closed containers within load capacity.</p> <p>It is ensured that without valid PUC no vehicle is allowed in plant premises. Few certificates are enclosed for your reference. <i>(Details attached in Annexure-3)</i></p>
vi	<p>Total water requirement for cement and captive power plant shall not exceed 2,370 m³ / day. All the treated wastewater shall be recycled and reused in the process and / or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'Zero' discharge should be adopted.</p>	<p>Total water requirement for Cement and Captive Power Plant at 2370 M³ / Day was assessed based upon total EC approved capacity. However, the actual installed capacity of Clinker Kiln & Cement Grinding is still at as 34% only of EC approved capacity. Similarly, actual installed capacity of Captive Power Plant is 25% of EC approved capacity. Hence, the proportionate water requirement is close to 700 M³ (approx.) / per day only, which is much lower than 2370 M³ / day assessed on EC approved capacity of production. Since the total water requirement itself is much lower that is 700 M³ / Day and therefore, the quantum of treated waste water is also reduced. To handle this lower quantum of waste water, plant has been designed as per close circuit arrangements for cooling water. Company has adopted "ZERO discharge" of waste water. All the treated wastewater is reused in the process and for dust suppression in roads.</p>
vii	<p>Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.</p>	<p>We have constructed a reservoir of 1 lac liters capacity in the west side. <i>(Photograph are enclosed in Annexure:4)</i></p> <p>Another water reservoir is under construction.</p>



viii	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional office at Shillong, SPCB and CPCB.	We are not generating any process effluent as the process water required for the cooling of bearing in cement plant is given treatment of cooling and sedimentation and entirely recycled. Effluent from DM plant is treated in a neutralization pit and treated water is reused entirely for dust suppression on haul roads. Regular monitoring is carried out of influent & effluent surface, sub-surface and treated waste water test results meet the norms prescribed by SPCB and same is submitted in SPCB & CPCB. <i>(Details attached in Annexure-1)</i>
ix	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / re-processors only.	All the dust collected through pollution control equipment is either raw material or cement dust. Those are collected and recycled in a closed loop. Spent oil is incinerated in our KILN and batteries are sold to authorized recyclers.
x	All the fly ash shall be utilized as per fly ash Notification, 1999 subsequently amended in 2003. Effort shall be made to use fly ash maximum in making Pozzolana Portland Cement (PPC).	Fly ash generated in our captive power plant is completely used in manufacturing of Pozzolana Portland Cement (PPC)
xi	Effort shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.	Low grade limestone / Dolomite Stones are blended with high quality grade limestone. Fly ash generated in CPP is used in manufacturing of Pozzolana Portland Cement (PPC). We are manufacturing more of PPC over OPC.
xii	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.	The generation of high calorific hazardous waste inside our plant is very insignificant except a very small quantity of used lubricants and the same is incinerated in our Clinker Kiln.
xiii	As proposed, green belt shall be developed in at least 33% area in around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.	Against EC Approved Capacity of 1.65 MTPA of Clinker Kiln, 2.54 MTPA of Cement Grinding Facility and 40 MW of Captive Power Plant, the present installed capacity as mentioned above is only 34% of approved EC Capacity in case of Clinker Kiln and Cement Grinding and 25% in case of Captive Power Plant. Our Plant area of Land is 51.411 Ha and as per stipulated condition in EC we have to develop 33% area in and around the cement plant. However, with much lower installed capacity as compared to EC Approved capacity, we have 15.858 Ha of green belt since inception. 0.507 ha was further developed. Thus against 33% of required green belt development 31.83% area of total plant land is already covered under green belt. Balance and required plantation shall be done in phase manner. Few photographs are attached herewith and marked as <i>Annexure-5</i>



xiv	<p>All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants should be implemented.</p>	<p>All recommendations were considered during the design of plant and machineries and as such all the issues in this regard are complied with.</p>
xv	<p>All the commitments made to the public during the Public Hearing / Public consultation meeting held on 27th November 2009 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional office at Shillong.</p>	<p>All of the points of public hearing have been addressed and complied.</p> <p>Company has given preference to local people for employment in company.</p> <p>Company has conducted social development activities in nearby vicinity areas as health facilities, ambulance facilities, water facilities, free and subsidized cements for constructing the roads, churches, schools, community halls, cultural programmes and etc.</p>
xvi	<p>At least 5% of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.</p>	<p>We have commenced commercial production during FY 2016 and have been incurring losses till FY 17-18. In very competitive marketing scenario and ever-increasing input costs of Raw material, fuel (HSD & coal) and other materials & services, we could somehow manage to keep the industry up and running with the objective that 1500 families dependent directly or indirectly on this project could survive. You are kindly aware that we are a new unit with only 5 years of existence since the commencement of commercial operations. The unit faced almost 2 years of pandemic time. However, under such conditions also our efforts were to keep the operations of plant as less impacted as could have been possible during the unfortunate pandemic period so that we are able to meet the fixed expenditure of salary, wages & welfare of employees. We are pleased to report that despite all challenges with two loss making years followed by two pandemic years, during total 5 years of life cycle of the unit till now post commercial operations, we could finally survive. During these trying times also, we have been carrying out welfare activities in the area of assisting the village school, contribution for COVID 19 PM care fund, contribution for COVID 19 Meghalaya CM care fund, distribution of Covid kits, contribution to local village areas & Elakas, providing assistance & support to villagers in rural housing development. Attached please find the expenditure incurred till now in the area of CSR and our further plan in line with stipulated EC condition marked <u>Annexure-6</u>.</p>

xvi i	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Phase-1 of Project has already been completed. During Phase-1 project, all such facilities were ensured. Whenever next phase of project will commence in future, same shall again be adhered to.
B. GENERAL CONDITIONS		
i	The project authorities must strictly adhere to the stipulations made by the Meghalaya State Pollution Control Board and the State Government.	Stipulations mandated in the CTO are being adhered to.
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	No expansion or modifications beyond EC approved capacity shall be undertaken without prior approval of MoEF.
iii	The gaseous emissions from various process units shall confirm to the load / mass based standards notified by this Ministry on 19 th May, 1993 and standards prescribed from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	Our newly commissioned unit with more sophisticated technologies is able to meet with the new standards of emission for cement industries, including load-based standards.
iv	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Shillong and the SPCB/CPCB once in six months.	Four numbers of Ambient Air Quality Monitoring Stations have been established with consultation of Meghalaya State Pollution Control Board. Monthly monitoring of ambient air quality is being carried out in four locations. Online emission monitoring system is installed in all the major stacks. Data on ambient air quality and stack emission are submitted to MOEF&CC, CPCB and MSPCB once in six months. <i>(Details are attached in Annexure-1)</i>
v	Industrial waste water shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December 1993 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.	Treated wastewater from DM plant is used entirely in dust suppression measures. Process water requires for cooling of bearings in the cement plant and it is cooled, treated and recycled fully.



vi	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Care has been taken during project planning and ordering of equipment. Noise level is monitored and being found within the prescribed limit. <i>(Details are attached in Annexure-1)</i>
vii	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance of our workers is conducted as per Factories Act. A health care center is already available in our Plant Campus. Trained staff and Doctor are available with essential medicines for health surveillance on regular basis. <i>(Health Checkup Reports are attached in Annexure-7)</i>
viii	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	We have already constructed the roof top rainwater ground water recharge system in CPP TG Building & Colony buildings area. Rainwater harvesting system from the roof tops is also available in CPP water reservoir. Photographs area attached and marked <i>Annexure-8</i>
ix	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	We are working on the implementation of the conditions given in EIA/EMP. We are sponsoring for community development programmes. We are providing the drinking water facility in nearby village. Health camps & eye check up camps are conducted in surrounding villages. We are providing free medicines, free ambulance services to local community.
x	As proposed, Rs 25 Crores and Rs 1.80 Crores shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of environment & Forests as well as the state government. An implementing all the conditions stipulated herein shall be submitted to the Regional office of the Ministry at Shillong. The Funds so provided shall not be diverted for any other purpose.	Exhaustive environmental protection measures have been taken by installing following equipments approx. 26.01 Cr as capital cost. We have invested approx. Rs. 4.07 Cr amount towards recurring cost (period: 1 st April 2021-31 st March 2022) for environment pollution control measures <i>(Details are attached as per Annexure-9)</i>
xi	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Has been implemented. Copy was already submitted to the MOEF &CC.

xii	<p>The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Shillong. The respective Zonal office of CPCB and the SPCB. The criteria pollutant levels namely; PM 10, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters. Indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.</p>	<p>Environmental Parameters display board and LED Display board have been provided near company main gate.</p> <p style="text-align: right;"><i>(Photographs are enclosed in annexure-10)</i></p> <p>The EC and Six Monthly EC compliance reports are uploaded in our company website http://gscl.blacktigerso.com/</p>
xiii	<p>The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional office of MOEF, the respective Zonal office of CPCB and the SPCB. The Regional office of this Ministry at Shillong / CPCB /SPCB shall monitor the stipulated conditions.</p>	<p>Being Complied</p>
xiv	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional office of the MOEF at Shillong by e-mail.</p>	<p>Being complied.</p> <p>Form-V (2020-21) has been submitted in Meghalaya State Pollution Control Board & Regional Office of MOEF. Same is also uploaded in our company website http://gscl.blacktigerso.com/</p>
xv	<p>The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Shillong.</p>	<p>Same was implemented at the time of Phase-1 Project. Phase-1 project has been partially completed.</p>



xvi	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Project Phase-I has been partially completed complying with stipulated condition.
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Amendment in Environmental Clearance conditions related sourcing of coal for the Thermal Power Plants in the State of Meghalaya in pursuant to the proceeding of the Committee Constituted by Hon'ble NGT held on 25.03.2019 -reg. Office Order No: J-13015/ 17/2019-IA.1(T) Dated: 16.09.2019.		
SL. NO	CONDITIONS	COMPLIANCE
i	Local coal source from Meghalaya State shall not be used for operation of power plant unless the Coal mine in Meghalaya has a valid mining lease and approved Mine Plan under Mines and Minerals (Development and Regulation) Act, 1957 & its amendments and connected Regulations. In addition, the Coal Mine from the State of Meghalaya shall also have valid Environmental Clearance (leases with more than 5 ha under EIA Notification, 1994; leases with more than equal to 5 ha under EIA Notification, 2006 up to 15.01.2016; all coal mining leases irrespective of lease area from 15.01.2016 onwards).	Being complied
ii	The Project Proponent shall submit the source of the coal mine, its location, along with boundary co-ordinates of lease, quantity of coal transported along with the mode of transportation, copies of valid mining lease, approved mine plan and Environmental Clearance to the Ministry and its Regional Office before sourcing the coal from Meghalaya State. Further, this information is to be updated and submitted along with the Six Monthly EC compliance report to the Ministry and its Regional Office.	No coal is being sourced from the state of Meghalaya.



Amendment in Environmental Clearance conditions for prevention of Acid Mine Drainage (AMD) by virtue of the recommendation of NGT Committee in the matter of threat to life arising out of Coal Mining in South Garo Hills District vs State of Meghalaya & Ors in OA No. 110(THC)/2012, OA No. 73/2014, OA No. 13/2014, OA No. 186/2014 and OA No. 287/2017 etc. -reg. F. Order No: J-11011/851/2008-IA. II(I) Dated: 16.10.2020.

SL. NO	CONDITIONS	COMPLIANCE
i	Storage areas / stockpiles for coal in the unit shall be covered and shall have impervious flooring. Garland drains shall be provided around the storage area / Stockpiles to arrest the seepage water from coal yard. The seepage water thus collected shall be treated to meet industry specific / general discharge norms for water quality as applicable. "In this regard, the compliance status shall be furnished to the Regional Office periodically along with the six monthly compliance report.	We have already started construction of Impervious flooring, garland drains surrounding the coal shed and neutralization pit have been taken in plan for construction and we shall submit the progress in due course.

For Goldstone Cements Limited

[Handwritten Signature]
 30/5/22
Authorized Signatory



Annexure – 1

Environmental Monitoring Reports

No: GSCL/EHS/2021-22/18

Dated: 12.11.2021

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
Arden, Lumpynggad,
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports-OCTOBER-2021

Dear Sir / Madam,

With reference to the subject as cited above, we are herewith submitting Monthly Environmental Monitoring Reports for the month of OCTOBER-2021.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


Authorised Signatory



Encl: Test Reports

Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

AMBIENT AIR QUALITY MONITORING RESULTS
OCTOBER – 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	04.10.2021	30.4	41.8	8.0	14.5
Near CCR Material Yard	05.10.2021	34.6	45.2	10.6	16.1
Near Guest House (Yamuna Sadan)	06.10.2021	17.2	29.8	<5.0	<6.0
Residential Colony	07.10.2021	20.5	31.1	<5.0	<6.0


 Analysed By


 Verified By

AMBIENT AIR QUALITY MONITORING RESULTS
OCTOBER - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	11.10.2021	26.1	38.8	7.3	14.5
Near CCR Material Yard	12.10.2021	30.1	44.6	9.0	16.1
Near Guest House (Yamuna Sadan)	13.10.2021	15.7	27.8	<5.0	<6.0
Residential Colony	14.10.2021	18.2	29.1	<5.0	<6.0


 Analysed By


 Verified By

Report No.: ENV/GSCL/21-22/AA-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	Location(s) ↓	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPF (Water Reservoir)	18.10.2021	29.7	52.9	6.1	11.2
2.	Near CCR (Material Yard)	18.10.2021	32.6	57.4	6.4	12.7
3.	Near Guest House (Yamuna Sadan)	19.10.2021	13.7	32.8	<5.0	<6.0
4.	Residential Colony	19.10.2021	17.3	32.4	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
1. Results reported are valid at the time of and under the prevailing conditions of measurement.
 2. Results refer only to the particular parameters tested.
 3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



AMBIENT AIR QUALITY MONITORING RESULTS

OCTOBER - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	26.10.2021	31.4	42.7	7.6	11.8
Near CCR Material Yard	27.10.2021	39.5	47.8	9.7	15.1
Near Guest House (Yamuna Sadan)	28.10.2021	14.9	28.3	<5.0	<6.0
Residential Colony	29.10.2021	17.5	35.5	<5.0	<6.0


Analysed By


Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

OCTOBER - 2021

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)		
Date of Monitoring	:	05.10.2021		
Stack Velocity of Flue gas	:	20.8 m/s		
Stack Temperature	:	466 °K		
Monitoring Period	:	40 m		
Flow Rate	:	25.2 LPM		
Parameters	Results	Standard Limits	Unit	
Particulate Matter	19.0	30	(mg/Nm ³)	
Sulphur Dioxide(SO ₂)	434.9	1000	(mg/Nm ³)	
Nitrogen Oxide (NO _x)	265.2	600	(mg/Nm ³)	


Analysed By


Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

OCTOBER - 2021

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	06.10.2021	
Stack Velocity of Flue gas	:	10.6 m/s	
Stack Temperature	:	323 °K	
Monitoring Period	:	54 m	
Flow Rate	:	18.6 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	22.1	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	336.4	1000	(mg/Nm ³)
Nitrogen Oxide (NOX)	111.7	600	(mg/Nm ³)


Analysed By


Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

OCTOBER - 2021

Name of Stack & Stack No.	:	Cooler ESP(3)		
Date of Monitoring	:	07.10.2021		
Stack Velocity of Flue gas	:	11.3 m/s		
Stack Temperature	:	498 °K		
Monitoring Period	:	35 m		
Flow Rate	:	28.8 LPM		
Parameters	Results	Standard Limits	Unit	
Particulate Matter	19.3	30	(mg/Nm ³)	


Analysed By


Verified By

GOLDSTONE CEMENTS LIMITED


CIN: U26940ML2007PLC008298



STCK EMISSION MONITORING REPORT

OCTOBER - 2021

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	08.10.2021	
Stack Velocity of Flue gas	:	11.7 m/s	
Stack Temperature	:	342 °K	
Monitoring Period	:	52 m	
Flow Rate	:	19.3 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	18.8	30	(mg/Nm ³)


Analysed By


Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

OCTOBER - 2021

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	09.10.2021	
Stack Velocity of Flue gas	:	9.2 m/s	
Stack Temperature	:	384 °K	
Monitoring Period	:	33 m	
Flow Rate	:	30.5 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	36.0	50	(mg/Nm ³)
Sulphur Dioxide (SO ₂)	451.3	600	(mg/Nm ³)
Nitrogen Oxide (NO _X)	195.4	300	(mg/Nm ³)


Analysed By


Verified By

Report No.: ENV/GSCL/21-22/SE-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-10/01		
02	Date of Sampling	18.10.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	63		
06	Exit Velocity of Gas (m/sec)	14.1		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	Particulate Matter	16	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
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Report No.: ENV/GSCL/21-22/SE-10/02
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-10/02		
02	Date of Sampling	18.10.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	219		
06	Exit Velocity of Gas (m/sec)	16.9		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	21	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-10/03
Date : 08/11/2021

Order No. SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-10/03		
02	Date of Sampling	18.10.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	52		
06	Exit Velocity of Gas (m/sec)	10.9		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	19	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	223	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	99	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-10/04
 Date : 08/11/2021

Order No.: SOGM/00343/20-21
 Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
 Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-10/04		
02	Date of Sampling	19.10.2021		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	92		
06	Exit Velocity of Gas (m/sec)	8.9		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	31	mg/Nm ³	50
II.	Sulphur Dioxide (as SO ₂)	492	mg/Nm ³	600
III.	Oxides of Nitrogen (as NO _x)	213	mg/Nm ³	300



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-10/05

Date : 08/11/2021

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-10/05		
02	Date of Sampling	19.10.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	172		
06	Exit Velocity of Gas (m/sec)	12.7		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(x)	Result(x)	Unit(x)	Limit(x)
I.	Particulate Matter	22	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	465	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	228	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/FE-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

PROCESS FUGITIVE EMISSION TEST RESULTS

Sl. No.	Locations	Date of Sampling	Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
01	Fly-ash Storage Section	18.10.2021	822	5000
02	Coal Storage Section	18.10.2021	611	2000
03	Limestone Storage Section	19.10.2021	1786	5000
04	Cement Packing Section	19.10.2021	2116	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/N-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Mustang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day time		Night Time	
			L_{eq} (dB-A)	Limit (dB-A)	L_{eq} (dB-A)	Limit (dB-A)
1	Near Coal Mill	18.10.2021	64.1	75	60.3	70
2	Near CPP Area	18.10.2021	68.3	75	55.6	70
3	Near Coal Storage Yard	18.10.2021	58.6	75	51.3	70
4	Near Raw Mill	19.10.2021	70.5	75	62.7	70
5	Near Cement Mill	19.10.2021	71.6	75	62.8	70
6	HR & Mine's Office	20.10.2021	62.3	75	51.3	70
7	CPP TG Building	20.10.2021	72.6	75	62.5	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.:- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/DW-2010/01
Collected On : 20-10-2021

Sample Source : Narmada Sadhan
Received On : 23-10-2021

Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.3	1	5
5.	pH	6.83	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/L Max	94	500	2000
7.	Aluminium (as Al), mg/L Max.	ND	0.03	0.2
8.	Boron (as B), mg/L, Max.	ND	0.5	1.0
9.	Calcium (as Ca), mg/L, Max	30	75	200
10.	Chloride (as Cl), mg/L, Max	7.5	250	1000
11.	Copper (as Cu), mg/L Max	ND	0.05	1.5
12.	Fluorides (as F), mg/L, Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/L, Min	ND	0.2	1
14.	Iron (as Fe), mg/L, Max	0.011	0.3	No Relaxation
15.	Magnesium (as Mg), mg/L, Max	4.1	30	100
16.	Manganese (as Mn), mg/L, Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/L, Max	ND	5.0	15
18.	Nitrate (as NO ₃), mg/L, Max	0.63	45	No Relaxation
19.	Sulfate (as SO ₄), mg/L, Max	ND	200	400
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/L Max.	ND	0.001	0.002
				-Continued-

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/DW-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/DW-2010/01
Collected On : 20-10-2021

Sample Source : Narmada Sadhan
Received On : 23-10-2021

Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
21.	Total Alkalinity(as CaCO ₃) , mg/l, Max	74	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	33	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.03	No Relaxation
24.	Cyanide (as CN), mg/l, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
29.	Anionic Detergents (as MBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
32.	Faecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
--End of Report--				

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/WW-10/01
Date : 08/11/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-2010/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 20.10.2021
Sample Received On : 23.10.2021
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.82	5.5 - 9.0
2.	Temperature	°C	24.2	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	29	100
4.	Biochemical Oxygen Demand	mg/l	21	30
5.	Chemical Oxygen Demand	mg/l	147	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	4.2	50
9.	Total Kjeldahl Nitrogen (as NH ₄)	mg/l	11	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

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No: GSCL/EHS/2021-22/21

Dated: 10.12.2021

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
Arden, Lumpynggad,
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports-NOVEMBER-2021

Dear Sir / Madam,

With reference to the subject as cited above, we are herewith submitting **Monthly Environmental Monitoring Reports** for the month of **NOVEMBER-2021**

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully.

For Goldstone Cements Ltd.


Authorised Signatory




Encl: Test Reports

Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

AMBIENT AIR QUALITY MONITORING RESULTS

NOVEMBER – 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	01.11.2021	33.7	48.6	7.3	11.2
Near CCR Material Yard	02.11.2021	38.7	54.0	7.7	12.7
Near Guest House (Yamuna Sadan)	03.11.2021	23.4	32.8	<5.0	<6.0
Residential Colony	04.11.2021	27.9	37.5	<5.0	<6.0


Analysed By


Verified By

AMBIENT AIR QUALITY MONITORING RESULTS

NOVEMBER - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	08.11.2021	36.7	53.4	5.9	10.2
Near CCR Material Yard	09.11.2021	39.2	59.6	8.3	11.4
Near Guest House (Yamuna Sadan)	10.11.2021	22.8	34.1	<5.0	<6.0
Residential Colony	11.11.2021	26.6	37.1	<5.0	<6.0



Analysed By



Verified By

AMBIENT AIR QUALITY MONITORING RESULTS

NOVEMBER - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	15.11.2021	32.7	51.2	6.9	10.4
Near CCR Material Yard	16.11.2021	35.3	55.1	7.9	10.9
Near Guest House (Yamuna Sadan)	17.11.2021	20.8	30.9	<5.0	<6.0
Residential Colony	18.11.2021	23.1	36.9	<5.0	<6.0


Analysed By




Verified By

Report No.: ENV/GSCL/21-22/AA-11/01
Date : 08/12/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	Location(s) ↓	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	29.11.2021	30.1	51.8	6.7	10.0
2.	Near CCB (Material Yard)	29.11.2021	31.5	55.6	5.9	11.1
3.	Near Guest House (Yamina Sadan)	30.11.2021	14.7	33.9	<5.0	<6.0
4.	Residential Colony	30.11.2021	19.6	34.4	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/FE-11/01
Date : 08/12/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

PROCESS FUGITIVE EMISSION TEST RESULTS

Sl. No.	Locations	Date of Sampling	Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
01	Fly-ash Storage Section	29.11.2021	835	5000
02	Coal Storage Section	29.11.2021	627	2000
03	Limestone Storage Section	30.11.2021	1805	5000
04	Cement Packing Section	30.11.2021	2154	5000

Analysis Protocol: IS 5182



Checked by: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-11/01

Date : 08/12/2021

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 791200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-11/01		
02	Date of Sampling	29.11.2021		
03	Material of Construction	M.S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	67		
06	Exit Velocity of Gas (m/sec)	14.8		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	14	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-11/02

Date : 08/12/2021

Order No.: SOGM/00143/20-21

Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-11/02		
02	Date of Sampling	29.11.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	221		
06	Exit Velocity of Gas (m/sec)	16.4		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	LimR(s)
1	Particulate Matter	26	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pancaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-11/03

Date : 08/12/2021

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old), P. O.-> Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-11/03		
02	Date of Sampling	29.11.2021		
03	Material of Construction	M.S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature [°C]	53		
06	Exit Velocity of Gas (m/sec)	11.2		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
S. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	24	mg/m ³	30
ii.	Sulphur Dioxide (as SO ₂)	257	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	115	mg/Nm ³	600

*NA: Not Applicable

Checked By: Mr. Pankaj Barua, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-11/04

Date : 08/12/2021

Order No.: SOGM/00347/20-21

Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khilichriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-11/04		
02	Date of Sampling	30.11.2021		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	104		
06	Exit Velocity of Gas (m/sec)	9.4		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	43	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	512	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	215	mg/Nm ³	300



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-11/05
Date : 08/12/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehria, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-11/05		
02	Date of Sampling	28.11.2021		
03	Material of Construction	M.S		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	175		
06	Exit Velocity of Gas (m/sec)	13.4		
07	Type of Fuel Used	NA*		
* Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	26	mg/m ³	30
ii.	Sulphur Dioxide (as SO ₂)	512	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	236	mg/m ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/N-11/01
Date : 08/12/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Mustang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(x)	Date of Measurement	Day time		Night Time	
			L_{eq} (dB-A)	Limit (dB-A)	L_{eq} (dB-A)	Limit (dB-A)
1	Near Coal Mill	28.11.2021	63.9	75	59.2	70
2	Near CPP Area	28.11.2021	70.2	75	57.4	70
3	Near Coal Storage Yard	28.11.2021	60.4	75	52.4	70
4	Near Raw Mill	29.11.2021	71.8	75	61.5	70
5	Near Cement Mill	29.11.2021	72.8	75	61.5	70
6	HR & Mine's Office	29.11.2021	63.5	75	52.5	70
7	CPP TG Building	30.11.2021	71.4	75	64.7	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-11/01
Date : 08/12/2021

Order No.: SOGM/00543/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/21-22/DW-0112/01
Collected On : 01-12-2021

Sample Source : Narmada Sathan
Received On : 04-12-2021

Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.2	1	5
5.	pH	6.85	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	87	500	2000
7.	Aluminium (as Al), mg/l, Max	ND	0.03	0.2
8.	Boron (as B), mg/l, Max	ND	0.5	1.0
9.	Calcium (as Ca), mg/l, Max	33	75	200
10.	Chloride (as Cl), mg/l, Max	7.9	250	1000
11.	Copper (as Cu), mg/l, Max	ND	0.05	1.5
12.	Fluorides (as F), mg/l, Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/l, Min	ND	0.2	1
14.	Iron (as Fe), mg/l, Max	0.016	0.3	No Relaxation
15.	Magnesium (as Mg), mg/l, Max	4	30	100
16.	Manganese (as Mn), mg/l, Max	ND	0.1	0.2
17.	Zinc (as Zn), mg/l, Max	ND	5.0	15
18.	Nitrate (as NO ₃), mg/l, Max	0.5	42	No Relaxation
19.	Sulfate (as SO ₄), mg/l, Max	ND	200	400
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/l, Max	ND	0.001	0.002
				-Continued-

*Limits as per IS 10500:2012

Analysis Protocol: # 3021
ND: Not Detected



Checked by: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/DW-11/01
Date : 08/12/2021

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/21-22/DW-0112/01 Sample Source: Narmada Sadhan Sample Type: Drinking Water
Collected On : 01-12-2021 Received On : 04-12-2021 Collected By : Envirocon Representatives

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
21.	Total Alkalinity(as CaCO ₃) , mg/l, Max	61	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	38	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.003	No Relaxation
24.	Cyanide (as CN), mg/l, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
29.	Anionic Detergents (as MBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	*Total Chromium, (as Cr), mg/l, Max.	ND	0.05	No Relaxation
32.	Paecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
				-End of Report-

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/WW-11/01

Date : 08/12/2021

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Village- Muaiang Lamare (Old), P. O.:- Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-0112/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 01.12.2021
Sample Received On : 04.12.2021
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.91	5.5 - 9.0
2.	Temperature	°C	24.6	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	31	100
4.	Biochemical Oxygen Demand	mg/l	23	30
5.	Chemical Oxygen Demand	mg/l	152	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	4.9	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	11	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

No: GSCL/EHS/2021-22/22

Dated: 31.01.2022

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
Arden, Lumpynggad,
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - DECEMBER 2021.

Dear Sir / Madam,

With reference to the subject as cited above, we are herewith submitting Monthly Environmental Monitoring Reports for the month of DECEMBER 2021.

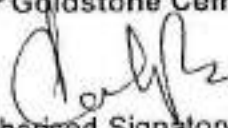
The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully.

For Goldstone Cements Ltd.


Authorised Signatory



Encl: Test Reports



Goldstone Cements Limited

CIN No. : U26940HL2007PLC008298

AMBIENT AIR QUALITY MONITORING RESULTS

DECEMBER – 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	06.12.2021	32.1	43.9	6.1	10.1
Near CCR Material Yard	07.12.2021	37.1	53.9	8.7	12.8
Near Guest House (Yamuna Sadan)	08.12.2021	14.8	34.5	<5.0	<6.0
Residential Colony	09.12.2021	16.8	30.3	<5.0	<6.0


Analysed By


Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



AMBIENT AIR QUALITY MONITORING RESULTS

DECEMBER - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	13.12.2021	37.7	50.3	6.7	11.9
Near CCR Material Yard	14.12.2021	40.8	58.2	7.9	13.9
Near Guest House (Yamuna Sadan)	15.12.2021	20.1	37.9	<5.0	<6.0
Residential Colony	16.12.2021	18.9	33.7	<5.0	<6.0


Analysed By




Verified By

Report No.: ENV/CSCL/21-22/AA-12/01
Date : 08/01/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village: Mustang Lamare (Old); PO: Khliehriat, Meghalaya- 793200

AMBIENT AIR QUALITY TEST RESULTS

LOCATIONS ↓	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	NH ₃ (µg/m ³)	CO (mg/m ³)	O ₃ (µg/m ³)	B(a)P (ng/m ³)	C ₆ H ₆ (µg/m ³)	NI (ng/m ³)	As (ng/m ³)	Pb (µg/m ³)
LIMITS →	-	60 (24 hrs. Average)	100 (24 hrs. Average)	80 (24 hrs. Average)	80 (24 hrs. Average)	400 (24 hrs. Average)	4.0 (1 hr. Average)	180 (1 hr. Average)	1.0 (Annual Average)	5.0 (Annual Average)	20 (Annual Average)	6.0 (Annual Average)	1.0 (24 hrs. Average)
Near CPP (Water Reservoir)	20.12.2021	24.2	41.3	5.2	10.1	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near CCR (Material Yard)	20.12.2021	28.9	50.2	5.6	8.3	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near Guest House (Yamuna Sadan)	21.12.2021	16.7	29.8	<5.0	<6.0	<5.0	0.021	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Residential Colony	21.12.2021	20.4	32.5	<5.0	<6.0	<5.0	0.048	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLCC08298



AMBIENT AIR QUALITY MONITORING RESULTS

DECEMBER - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	27.12.2021	36.1	47.0	7.4	12.6
Near CCR Material Yard	28.12.2021	39.7	51.8	8.5	14.7
Near Guest House (Yamuna Sadan)	29.12.2021	22.5	35.3	<5.0	<6.0
Residential Colony	30.12.2021	17.6	38.2	<5.0	<6.0


Analysed By




Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

DECEMBER - 2021

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)	
Date of Monitoring	:	06.12.2021	
Stack Velocity of Flue gas	:	21.0 m/s	
Stack Temperature	:	448 °K	
Monitoring Period	:	38 m	
Flow Rate	:	26.6 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	218	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	533.3	1000	(mg/Nm ³)
Nitrogen Oxide (NO _x)	335.0	600	(mg/Nm ³)


Analysed By




Verified By

Report No.: ENV/GSCL/21-22/SE-12/06
 Date : 28/01/2022

 Order No.: SOGM/00343/20-21
 Date : 15/03/2021

 Report issued To: **GOLDSTONE CEMENTS LIMITED**
 Vill: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-12/06		
02	Date of Sampling	19.12.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	192		
06	Exit Velocity of Gas (m/sec)	15.99		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	25	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	426	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	215	mg/Nm ³	600
iv.	Carbon Monoxide (as CO)	<0.2	% V/V	1.0 Max.
v.	Carbon Dioxide (as CO ₂)	13.8	%	--
vi.	Oxygen (as O ₂)	5.2	% V/V	--
vii.	Hydrogen Chloride (as HCl)	BDL [MDL: 0.1]	mg/Nm ³	10
viii.	Hydrogen Fluoride (as HF)	BDL [MDL: 0.1]	mg/Nm ³	1
ix.	Mercury (as Hg)	BDL [MDL: 0.01]	mg/Nm ³	0.05
x.	Lead (as Pb)	BDL [MDL: 0.1]	mg/Nm ³	--
xi.	Chromium (as Cr)	BDL [MDL: 0.1]	mg/Nm ³	--
xii.	Nickel (as Ni)	BDL [MDL: 0.1]	mg/Nm ³	--
xiii.	Cadmium (as Cd)	BDL [MDL: 0.1]	mg/Nm ³	--
xiv.	Thallium (as Tl)	BDL [MDL: 0.1]	mg/Nm ³	--
xv.	Antimony (as Sb)	BDL [MDL: 0.1]	mg/Nm ³	--
xvi.	Cobalt (as Co)	BDL [MDL: 0.1]	mg/Nm ³	--
xvii.	Arsenic (as As)	BDL [MDL: 0.1]	mg/Nm ³	--
xviii.	Copper (as Cu)	BDL [MDL: 0.1]	mg/Nm ³	--
xix.	Manganese (as Mn)	BDL [MDL: 0.1]	mg/Nm ³	--
xx.	Vanadium (as V)	BDL [MDL: 0.1]	mg/Nm ³	--
xxi.	Total Organic Carbon (as TOC)	BDL [MDL: 0.1]	mg/Nm ³	10

BDL: Below Detectable Limit

MDL: Minimum Detectable Limit



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-12/05
Date : 28/01/2022Order No.: SOGM/00343/20-21
Date : 15/03/2021Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Vill.: Muslang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200**STACK EMISSION TEST RESULTS**

01	Test Ref. No.	GSCL/21-22/SE-12/05		
02	Date of Sampling	18.12.2021		
03	Stack Attached To	Raw Mill		
04	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	Total Dioxina and Furans	<0.01	ngTEQ/Nm ³	0.1



Checked By: Mr. Pankaj Baroi, ENVIROCON

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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLD008298



STACK EMISSION MONITORING REPORT

DECEMBER - 2021

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	07.12.2021	
Stack Velocity of Flue gas	:	11.2 m/s	
Stack Temperature	:	329 °K	
Monitoring Period	:	52 m	
Flow Rate	:	19.3 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	24.3	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	418.5	1000	(mg/Nm ³)
Nitrogen Oxide (NOX)	223.3	600	(mg/Nm ³)




Analysed By


Verified By

**ENVIROCON***Recognised By***Pollution Control Board, Assam**

Envirocon Building, I.O.C.L (AOD) New Market

P.O.: Digboi, Dist.: Tinaiwida, Assam - 786 171

Ph: 03751-264414, 9435008857, 8576028872

E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified
ISO 45001:2018 Certified

Report No.: ENV/GSCL/21-22/SE-12/04

Date : 08/01/2022

Order No: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**

Vill: Muslang Lamare (Old), P. O.: Khilichriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-12/04		
02	Date of Sampling	21.12.2021		
03	Material of Construction	M.S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	62		
06	Exit Velocity of Gas (m/sec)	11.4		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	21	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	378	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	210	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Barot, ENVIROCON

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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLCC08298



STACK EMISSION MONITORING REPORT

DECEMBER - 2021

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	08.12.2021	
Stack Velocity of Flue gas	:	11.5 m/s	
Stack Temperature	:	496 °K	
Monitoring Period	:	34 m	
Flow Rate	:	29.6 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	18.9	30	(mg/Nm ³)


Analysed By




Verified By

Report No.: ENV/GSCL/21-22/SE-12/03
Date : 09/01/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Vill: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-12/03		
02	Date of Sampling	21.12.2021		
03	Material of Construction	M.S.		
04	Stack Attached To	Cooler S. S. P.		
05	Flue Gas Temperature (°C)	218		
06	Exit Velocity of Gas (m/sec)	12.6		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	Particulate Matter	19	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Barua, ENVIROCON

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STCK EMISSION MONITORING REPORT

DECEMBER - 2021

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	09.12.2021	
Stack Velocity of Flue gas	:	11.4 m/s	
Stack Temperature	:	342 °K	
Monitoring Period	:	53 m	
Flow Rate	:	18.8 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	15.9	30	(mg/Nm ³)


Analysed By


Verified By

Report No.: ENV/GSCL/21-22/SE-12/01
Date: 10/01/2022

Order No.: SOGM/00043/20-21
Date: 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-12/01		
02	Date of Sampling	20.12.2021		
03	Material of Construction	M.S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	64		
06	Exit Velocity of Gas (m/sec)	12.2		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	Particulate Matter	11	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), HDT, Hydraulic Testing, Chartered Engineer Services etc.

STACK EMISSION MONITORING REPORT

DECEMBER - 2021

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	10.12.2021	
Stack Velocity of Flue gas	:	7.7 m/s	
Stack Temperature	:	376 °K	
Monitoring Period	:	38 m	
Flow Rate	:	26 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	39.6	50	(mg/Nm ³)
Sulphur Dioxide (SO ₂)	393.8	600	(mg/Nm ³)
Nitrogen Oxide (NO _X)	125.6	300	(mg/Nm ³)




Analysed By



Verified By

Report No: ENV/GSCL/21-22/SE-12/02
Date : 06/01/2022

Order No: SOGH/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
Vill: Muslang Lamare (Old), P. O: Khillehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-12/02		
02	Date of Sampling	20.12.2021		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	102		
06	Exit Velocity of Gas (m/sec)	7.7		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	39	mg/Nm ³	50
II.	Sulphur Dioxide (as SO ₂)	439	mg/Nm ³	600
III.	Oxides of Nitrogen (as NO _x)	264	mg/Nm ³	300
iv.	Mercury (as Hg)	0.009	mg/Nm ³	0.05



Checked By: Mr. Pankaj Barua, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-12/01
Date : 08/01/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Vill.: Mustang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/21-22/DW-2212/01
Collected On : 22-12-2021

Sample Source: Barnada Sachan
Received On : 26-12-2021

Sample Type: Drinking Water
Collected By: Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.18	1	5
5.	pH	6.83	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	88	500	2000
7.	Aluminium (as Al), mg/l, Max	ND	0.33	0.2
8.	Boron (as B), mg/l, Max	ND	0.5	1.0
9.	Calcium (as Ca), mg/l, Max	24	75	200
10.	Chloride (as Cl), mg/l, Max	6.3	250	1000
11.	Copper (as Cu), mg/l, Max	ND	0.05	1.5
12.	Fluorides (as F), mg/l, Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/l, Min	ND	0.2	1
14.	Iron (as Fe), mg/l, Max	0.021	0.3	No Relaxation
15.	Magnesium (as Mg), mg/l, Max	3	30	100
16.	Manganese (as Mn), mg/l, Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/l, Max	ND	5.0	15
18.	Zinc (as Zn), mg/l, Max	0.4	45	No Relaxation
19.	Nitrate (as NO ₃), mg/l, Max	ND	200	400
20.	Sulfate (as SO ₄), mg/l, Max	ND	0.001	0.002
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/l, Max	ND		-Continued-

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected



Checked By: Mr. Pankaj Boroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-12/01
Date : 08/01/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
VIII: Maslang Lamare (Old), P. O: Khliehriat, Meghalaya-793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/21-22/DW-2212/01
Collected On : 22-12-2021

Sample Source: Narnada Sathan
Received On : 26-12-2021

Sample Type: Drinking Water
Collected By: Envirocon Representative

S. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* In the Absence of Alternate Source
21.	Total Alkalinity(as CaCO ₃) , mg/l, Max	52	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	26	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.003	No Relaxation
24.	Cyanide (as CN), mg/L, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max.	ND	0.05	No Relaxation
29.	Anionic Detergents (as NBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
32.	Faecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
				-End of Report-

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No: ENV/GSCL/21-22/WW-12/01
Date : 08/01/2022

Order No: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
VIII, Mustang Lamare (Old), P. O: Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-2212/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 22.12.2021
Sample Received On : 26.12.2021
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.77	5.5 - 9.0
2.	Temperature	°C	24.3	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	18	100
4.	Biochemical Oxygen Demand	mg/l	19	30
5.	Chemical Oxygen Demand	mg/l	93	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	3.1	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	16	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked by: Mr. Panjab, ENVIROCON

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ENVIROCON

Recognised By
Pollution Control Board, Assam

Envirocon Building, I.O.C.L (AOD) New Market
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E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified
ISO 45001:2018 Certified

Report No.: ENV/GSCL/21-22/WW-12/02
Date : 08/01/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
VIII., Muslang Lamare (Old), P. O.: Khliehriat, Meghalaya- 791200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-2212/02
Sample Type/Source : Waste Water/Boller Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 22.12.2021
Sample Received On : 26.12.2021
Analysis Protocol : IS 3023

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Total Suspended Solids	20.1	mg/l	100
2.	Oil & Grease	<0.1	mg/l	20
3.	Copper	<0.01	mg/l	1.0
4.	Iron	<0.01	mg/l	1.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

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ISO 9001:2015 Certified
ISO 45001:2018 Certified

Report No.: ENV/GSCL/21-22/WW-12/03

Date : 08/01/2022

Order No.: SOGM/00343/20-21

Date : 15/01/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Vill: Muslang Lamare (Old), P. O.: Khlichriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-2212/03
Sample Type/Source : Waste Water/Cooling Tower Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 22.12.2021
Sample Received On : 26.12.2021
Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Residual Free Chlorine	<0.01	mg/l	0.5
2.	Zinc	<0.01	mg/l	1.0
3.	Total Chromium	<0.01	mg/l	0.2
4.	Phosphate	<0.01	mg/l	5.0



Checked By: Mr. Pankaj Barua, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), HDT, Hydraulic Testing, Chartered Engineer Services etc.

No: GSCL/EHS/2021-22/24

Dated: 14.02.2022

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
Arden, Lumpynggad,
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - JANUARY 2022.

Dear Sir / Madam,

With reference to the subject as cited above, we are herewith submitting **Monthly Environmental Monitoring Reports** for the month of **JANUARY 2022**.


The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


Authorised Signatory



Encl: Test Reports

Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

Report No.: ENV/GSCL/21-22/FE-01/01
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.:- Khliehriat, Meghalaya- 793200

PROCESS FUGITIVE EMISSION TEST RESULTS

Sl. No.	Locations	Date of Sampling	Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
01	Fly-ash Storage Section	13.01.2022	842	5000
02	Coal Storage Section	13.01.2022	637	2000
03	Limestone Storage Section	14.01.2022	1812	5000
04	Cement Packing Section	14.01.2022	2149	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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AMBIENT AIR QUALITY MONITORING RESULTS

JANUARY – 2022

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	03.01.2022	32.2	37.8	6.1	13.2
Near CCR Material Yard	04.01.2022	36.7	44.8	9.2	14.1
Near Guest House (Yamuna Sadan)	05.01.2022	19.3	27.4	<5.0	<6.0
Residential Colony	06.01.2022	17.9	33.9	<5.0	<6.0



Analysed By



Verified By

Report No.: ENV/GSCL/21-22/AA-01/01
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-> Khliehriat, Meghalaya- 793200

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	Location(s) ↓	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	14.01.2022	28.6	52.3	6.9	10.1
2.	Near CCR (Material Yard)	14.01.2022	32.4	54.6	5.2	10.7
3.	Near Guest House (Yamuna Sadan)	15.01.2022	16.7	31.7	<5.0	<6.0
4.	Residential Colony	15.01.2022	20.8	32.4	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



AMBIENT AIR QUALITY MONITORING RESULTS

JANUARY - 2022

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	17.01.2022	34.8	39.4	6.3	12.4
Near CCR Material Yard	18.01.2022	37.1	46.6	8.4	13.4
Near Guest House (Yamuna Sadan)	19.01.2022	15.0	24.5	<5.0	<6.0
Residential Colony	20.01.2022	18.1	31.6	<5.0	<6.0


Analysed By


Verified By

AMBIENT AIR QUALITY MONITORING RESULTS
JANUARY - 2022

Stations Name	Date of Monitoring	Parameters Results			
		PM _{2.5}	PM ₁₀	SO ₂	NO ₂
		Limit 60 µg/m ³	Limit 100 µg/m ³	Limit 80 µg/m ³	Limit 80 µg/m ³
Near CPP Water Reservoir	24.01.2022	29.3	38.1	7.1	13.0
Near CCR Material Yard	25.01.2022	31.0	43.7	8.0	14.7
Near Guest House (Yamuna Sadan)	26.01.2022	15.6	25.2	<5.0	<6.0
Residential Colony	27.01.2022	14.2	28.8	<5.0	<6.0



 Analysed By



 Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

JANUARY - 2022

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)	
Date of Monitoring	:	03.01.2022	
Stack Velocity of Flue gas	:	20.3 m/s	
Stack Temperature	:	443 °K	
Monitoring Period	:	39 m	
Flow Rate	:	25.9 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	20.0	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	508.7	1000	(mg/Nm ³)
Nitrogen Oxide (NO _x)	376.9	600	(mg/Nm ³)


Analysed By


Verified By

Report No.: ENV/GSCL/21-22/SE-01/05
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-01/05		
02	Date of Sampling	14.01.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	173		
06	Exit Velocity of Gas (m/sec)	17.8		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	24	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	521	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	232	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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STACK EMISSION MONITORING REPORT

JANUARY - 2022

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	03.01.2022	
Stack Velocity of Flue gas	:	14.2 m/s	
Stack Temperature	:	337 °K	
Monitoring Period	:	42 m	
Flow Rate	:	23.8 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	17.0	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	451.3	1000	(mg/Nm ³)
Nitrogen Oxide (NO _X)	237.3	600	(mg/Nm ³)


Analysed By
Verified By

Report No.: ENV/GSCL/21-22/SE-01/01
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-01/01		
02	Date of Sampling	13.01.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	51		
06	Exit Velocity of Gas (m/sec)	12.5		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	21	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	263	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	117	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLCO08298



STACK EMISSION MONITORING REPORT

JANUARY - 2022

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	04.01.2022	
Stack Velocity of Flue gas	:	11.1 m/s	
Stack Temperature	:	493 °K	
Monitoring Period	:	35 m	
Flow Rate	:	28.8 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	15.1	30	(mg/Nm ³)


Analysed By


Verified By

Report No.: ENV/GSCL/21-22/SE-01/03
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-01/03		
02	Date of Sampling	13.01.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	219		
06	Exit Velocity of Gas (m/sec)	15.3		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	23	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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STCK EMISSION MONITORING REPORT

JANUARY - 2022

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	04.01.2022	
Stack Velocity of Flue gas	:	11.6 m/s	
Stack Temperature	:	345 °K	
Monitoring Period	:	52 m	
Flow Rate	:	19.1 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	14.7	30	(mg/Nm ³)


Analysed By


Verified By

Report No.: ENV/GSCL/21-22/SE-01/02
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-01/02		
02	Date of Sampling	13.01.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	64		
06	Exit Velocity of Gas (m/sec)	14.7		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	Particulate Matter	12	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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STACK EMISSION MONITORING REPORT

JANUARY - 2022

Name of Stack & Stack No.	:	CPP (5)
Date of Monitoring	:	05.01.2022
Stack Velocity of Flue gas	:	8.0 m/s
Stack Temperature	:	376 °K
Monitoring Period	:	25 m
Flow Rate	:	27 LPM

Parameters	Results	Standard Limits	Unit
Particulate Matter	36.4	50	(mg/Nm ³)
Sulphur Dioxide (SO ₂)	410.3	600	(mg/Nm ³)
Nitrogen Oxide (NO _X)	153.5	300	(mg/Nm ³)


Analysed By


Verified By

Report No.: ENV/GSCL/21-22/SE-01/04
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-01/04		
02	Date of Sampling	14.01.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	106		
06	Exit Velocity of Gas (m/sec)	7.9		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	39	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	498	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	221	mg/Nm ³	300



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/N-01/01
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day time		Night Time	
			L_{eq} (dB-A)	Limit (dB-A)	L_{eq} (dB-A)	Limit (dB-A)
1	Near Coal Mill	13.01.2022	62.7	75	58.3	70
2	Near CPP Area	13.01.2022	71.6	75	56.9	70
3	Near Coal Storage Yard	14.01.2022	62.4	75	51.6	70
4	Near Raw Mill	13.01.2022	72.8	75	63.7	70
5	Near Cement Mill	14.01.2022	73.7	75	62.4	70
6	HR & Mine's Office	14.01.2022	61.5	75	50.4	70
7	CPP TG Building	15.01.2022	72.4	75	65.8	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-01/01
Date : 08/01/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/DW-1501/01
Collected On : 15-01-2022

Sample Source : Narmada Sadhan
Received On : 18-01-2022

Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.3	1	5
5.	pH	6.82	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	85	500	2000
7.	Aluminium (as Al), mg/l, Max.	ND	0.03	0.2
8.	Boron (as B), mg/l, Max.	ND	0.5	1.0
9.	Calcium (as Ca), mg/l, Max	31	75	200
10.	Chloride (as Cl), mg/l, Max	7.7	250	1000
11.	Copper (as Cu), mg/l, Max	ND	0.05	1.5
12.	Fluorides (as F), mg/l, Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/l, Min	ND	0.2	1
14.	Iron (as Fe), mg/l, Max	0.014	0.3	No Relaxation
15.	Magnesium (as Mg), mg/l, Max	3	30	100
16.	Manganese (as Mn), mg/l, Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/l, Max	ND	5.0	15
18.	Nitrate (as NO ₃), mg/l, Max	0.3	45	No Relaxation
19.	Sulfate (as SO ₄), mg/l, Max	ND	200	400
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/l, Max.	ND	0.001	0.002
				-Continued-

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-01/01
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/DW-1501/01
Collected On : 15-01-2022

Sample Source : Narmada Sadhan
Received On : 18-01-2022

Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
21.	Total Alkalinity(as CaCO ₃), mg/l, Max	59	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	35	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.003	No Relaxation
24.	Cyanide (as CN), mg/l, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
29.	Anionic Detergents (as MBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
32.	Faecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
				--End of Report--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/WW-01/01
Date : 08/02/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-1501/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 15.01.2022
Sample Received On : 18.01.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.89	5.5 - 9.0
2.	Temperature	°C	23.2	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	33	100
4.	Biochemical Oxygen Demand	mg/l	21	30
5.	Chemical Oxygen Demand	mg/l	159	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	4.6	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	12	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

No: GSCL/EHS/2021-22/29

Dated: 15.03.2022

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
Arden, Lumpynggad,
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - FEBRUARY 2022.

Dear Sir / Madam,

With reference to the subject as cited above, we are herewith submitting
Monthly Environmental Monitoring Reports for the month of FEBRUARY 2022.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.

Authorised Signatory



Encl: Test Reports



Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

Report No.: ENV/GSCL/21-22/FE-02/01

Date : 09/03/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

PROCESS FUGITIVE EMISSION TEST RESULTS

Sl. No.	Locations	Date of Sampling	Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
01	Fly-ash Storage Section	17.02.2022	857	5000
02	Coal Storage Section	18.02.2022	626	2000
03	Limestone Storage Section	17.02.2022	1843	5000
04	Cement Parking Section	18.02.2022	2134	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-02/01
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Mustang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200.

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-02/01		
02	Date of Sampling	17.02.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	62		
06	Exit Velocity of Gas (m/sec)	13.5		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	16	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-02/03
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-02/03		
02	Date of Sampling	18.02.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	223		
06	Exit Velocity of Gas (m/sec)	15.7		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	21	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-02/02
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-02/02		
02	Date of Sampling	17.02.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	53		
06	Exit Velocity of Gas (m/sec)	12.4		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	19	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	247	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	108	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-02/05
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.:- Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-02/05		
02	Date of Sampling	18.02.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	102		
06	Exit Velocity of Gas (m/sec)	6.3		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	41	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	467	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	216	mg/Nm ³	300



Checked By: Mr. Pankaj Baroo, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
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Report No.: ENV/GSCL/21-22/SE-02/04
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-02/04		
02	Date of Sampling	18.02.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	179		
06	Exit Velocity of Gas (m/sec)	18.5		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	22	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	548	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	236	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/N-02/01
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day time		Night Time	
			L_{eq} (dB-A)	Limit (dB-A)	L_{eq} (dB-A)	Limit (dB-A)
1	Near Coal Mill	17.02.2022	64.6	75	59.2	70
2	Near CPP Area	18.02.2022	72.8	75	58.4	70
3	Near Coal Storage Yard	18.02.2022	65.2	75	53.6	70
4	Near Raw Mill	19.02.2022	73.1	75	64.8	70
5	Near Cement Mill	17.02.2022	72.7	75	62.2	70
6	HR & Mine's Office	17.02.2022	59.6	75	48.3	70
7	CPP TG Building	19.02.2022	73.6	75	67.4	70



Checked By: Mr. Pankaj Barua, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-02/01
 Date : 09/03/2022

 Order No.: SOGM/00343/20-21
 Date : 15/03/2021

 Report Issued To : **GOLDSTONE CEMENTS LIMITED**
 Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

 Sample Ref. No. : GSCL/21-22/DW-1902/02
 Collected On : 19-02-2022

 Sample Source : Narmada Sadhan
 Received On : 23-02-2022

 Sample Type : Drinking Water
 Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.2	1	5
5.	pH	6.78	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/L Max	82	500	2000
7.	Aluminium (as Al), mg/L Max	ND	0.03	0.2
8.	Boron (as B), mg/L Max	ND	0.5	1.0
9.	Calcium (as Ca), mg/L Max	29	75	200
10.	Chloride (as Cl), mg/L Max	7.1	250	1000
11.	Copper (as Cu), mg/L Max	ND	0.05	1.5
12.	Fluorides (as F), mg/L Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/L, Min	ND	0.2	1
14.	Iron (as Fe), mg/L, Max	0.012	0.3	No Relaxation
15.	Magnesium (as Mg), mg/L Max	2	30	100
16.	Manganese (as Mn), mg/L Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/L Max	ND	5.0	15
18.	Nitrate (as NO ₃), mg/L Max	0.4	45	No Relaxation
19.	Sulfate (as SO ₄), mg/L Max	ND	200	400
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/L Max	ND	0.001	0.002
				-Continued-

*Limits as per IS 10500:2012

 Analysis Protocol: IS 3025
 ND: Not Detected


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/DW-02/01
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/21-22/DW-1902/01
Collected On : 19-02-2022

Sample Source : Narmada Sadhan
Received On : 23-02-2022

Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* In the Absence of Alternate Source
21.	Total Alkalinity(as CaCO ₃) , mg/l, Max	57	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	35	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.003	No Relaxation
24.	Cyanide (as CN), mg/l, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
29.	Anionic Detergents (as MBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
32.	Faecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
				-End of Report-

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/WW-02/01
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.:- Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-1902/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 19.02.2022
Sample Received On : 23.02.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.92	5.5 - 9.0
2.	Temperature	°C	22.6	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	31	100
4.	Biochemical Oxygen Demand	mg/l	20	30
5.	Chemical Oxygen Demand	mg/l	153	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	4.2	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	11	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Barot, ENVIROCON

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Associate Services: Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/AA-02/01
Date : 09/03/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	Location(s) ↓ Limit(s) →	Date of Sampling	PM 2.5 ($\mu\text{g}/\text{m}^3$)	PM 10 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)
			60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	17.02.2022	27.3	51.4	6.2	9.4
2.	Near CCR (Material Yard)	18.02.2022	31.6	52.6	5.6	9.7
3.	Near Guest House (Yamuna Sadan)	18.02.2022	17.0	32.7	<5.0	<6.0
4.	Residential Colony	17.02.2022	19.5	30.3	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Dated: 30.04.2022

No: GSCL/EHS/2022-23/03

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
Arden, Lumpynggad,
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - March 2022.

Dear Sir / Madam,

With reference to the subject as cited above, we are herewith submitting
Monthly Environmental Monitoring Reports for the month of **March 2022**.

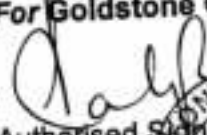
The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


Authorised Signatory



Encl: Test Reports



Goldstone Cements Limited
CIN No. : U26940ML2007PLC008298

Report No.: ENV/GSCL/21-22/SE-03/05
Date : 30/04/2022

Order No.: SOGM/00343/20-21
Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-03/05		
02	Date of Sampling	29.03.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	187		
06	Exit Velocity of Gas (m/sec)	13.6		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	28.6	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	413	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	229	mg/Nm ³	600
iv.	Carbon Monoxide (as CO)	<0.2	% V/V	1.0 Max.
v.	Carbon Dioxide (as CO ₂)	6.93	%	--
vi.	Oxygen (as O ₂)	13.0	% V/V	--
vii.	Hydrogen Chloride (as HCl)	BDL [MDL: 1.0]	mg/Nm ³	10
viii.	Hydrogen Fluoride (as HF)	BDL [MDL: 0.1]	mg/Nm ³	1
ix.	Mercury (as Hg)	BDL [MDL: 0.003]	mg/Nm ³	0.03
x.	Lead (as Pb)	BDL [MDL: 0.005]	mg/Nm ³	--
xi.	Chromium (as Cr)	BDL [MDL: 0.005]	mg/Nm ³	--
xii.	Nickel (as Ni)	BDL [MDL: 0.005]	mg/Nm ³	--
xiii.	Cadmium (as Cd)	BDL [MDL: 0.005]	mg/Nm ³	--
xiv.	Thallium (as Tl)	BDL [MDL: 0.005]	mg/Nm ³	--
xv.	Antimony (as Sb)	BDL [MDL: 0.005]	mg/Nm ³	--
xvi.	Cobalt (as Co)	BDL [MDL: 0.005]	mg/Nm ³	--
xvii.	Arsenic (as As)	BDL [MDL: 0.0005]	mg/Nm ³	--
xviii.	Copper (as Cu)	BDL [MDL: 0.005]	mg/Nm ³	--
xix.	Manganese (as Mn)	BDL [MDL: 0.005]	mg/Nm ³	--
xx.	Vanadium (as V)	BDL [MDL: 0.005]	mg/Nm ³	--
xxi.	Total Organic Carbon (as TOC)	BDL [MDL: 0.1]	mg/Nm ³	10

BDL: Below Detectable Limit

MDL: Minimum Detectable Limit



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-03/05

Date : 30/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-12/05		
02	Date of Sampling	29.03.2022		
03	Stack Attached To	Raw Mill		
04	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Total Dioxins and Furans	<0.01	ngTEQ/Nm ³	0.1



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

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Report No.: ENV/GSCL/21-22/AA-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2023

 Report Issued To: **GOLDSTONE CEMENTS LIMITED**

Village: Musiang Lamare (Old), PO: Khilchhriat, Meghalaya- 793200

AMBIENT AIR QUALITY TEST RESULTS

LOCATIONS ↓	Date of Sampling	PM 2.5 (µg/m ³) (24 hrs. Average)	PM 10 (µg/m ³) (24 hrs. Average)	SO ₂ (µg/m ³) (24 hrs. Average)	NO ₂ (µg/m ³) (24 hrs. Average)	NH ₃ (µg/m ³) (24 hrs. Average)	CO (mg/m ³) (1 hr. Average)	O ₃ (µg/m ³) (1 hr. Average)	B(a)P (ng/m ³) (Annual Average)	C ₆ H ₆ (µg/m ³) (Annual Average)	NI (ng/m ³) (Annual Average)	As (ng/m ³) (Annual Average)	Pb (µg/m ³) (24 hrs. Average)
LIMITS →	-	60	100	80	80	400	4.0	180	1.0	5.0	20	6.0	1.0
Near CPP (Water Reservoir)	30.03.2022	22.6	39.6	5.7	8.6	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near CCR (Material Yard)	30.03.2022	26.5	48.4	5.3	7.1	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near Guest House (Yamuna Sadan)	31.03.2022	15.3	27.6	<5.0	<6.0	<5.0	0.019	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Residential Colony	31.03.2022	19.7	31.9	<5.0	<6.0	<5.0	0.039	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01

Checked By: Mr. Pankaj Barua


NOTE: 1. Results reported are valid at the time and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

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Report No.: ENV/GSCL/21-22/FE-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**

Vill: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

PROCESS FUGITIVE EMISSION TEST RESULTS

Sl. No.	Locations	Date of Sampling	Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
01	Fly-ash Storage Section	30.03.2022	893	5000
02	Coal Storage Section	31.03.2022	467	2000
03	Limestone Storage Section	31.03.2022	1724	5000
04	Cement Packing Section	30.03.2022	1802	5000

Analysis Protocol: IS 5182




Checked By: Mr. Pankaj Barua, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-03/01		
02	Date of Sampling	29.03.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	61		
06	Exit Velocity of Gas (m/sec)	11.8		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	Particulate Matter	13	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs**Associate Services:** Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/SE-03/03

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-03/03		
02	Date of Sampling	29.03.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	221		
06	Exit Velocity of Gas (m/sec)	9.7		
07	Type of Fuel Used:	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	Particulate Matter	21	mg/Nm ³	30

*NA: Not Applicable




Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/SE-03/02

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-03/02		
02	Date of Sampling	29.03.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	57		
06	Exit Velocity of Gas (m/sec)	12.7		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	19	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	362	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	216	mg/Nm ³	600

*NA: Not Applicable


Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Report No.: ENV/GSCL/21-22/SE-03/04

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Mustang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/21-22/SE-03/04		
02	Date of Sampling	30.03.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	104		
06	Exit Velocity of Gas (m/sec)	7.9		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	41	mg/Nm ³	50
II.	Sulphur Dioxide (as SO ₂)	453	mg/Nm ³	600
III.	Oxides of Nitrogen (as NO _x)	211	mg/Nm ³	300
IV.	Mercury (as Hg)	0.007	mg/Nm ³	0.05



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/N-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day time		Night Time	
			L_{eq} (dB-A)	Limit (dB-A)	L_{eq} (dB-A)	Limit (dB-A)
1	Near Coal Mill	29.03.2022	68.7	75	63.4	70
2	Near CPP Area	31.03.2022	67.9	75	56.5	70
3	Near Coal Storage Yard	30.03.2022	62.4	75	53.9	70
4	Near Raw Mill	30.03.2022	71.6	75	63.8	70
5	Near Cement Mill	30.03.2022	72.3	75	61.2	70
6	HR & Mine's Office	29.03.2022	64.8	75	57.5	70
7	CPP TG Building	31.03.2022	67.3	75	57.3	70




Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
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 3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi - 786171, Assam.

Report No.: ENV/GSCL/21-22/DW-03/01
Date : 10/04/2022Order No.: SOGM/00343/20-21
Date : 15/03/2021Report issued To : **GOLDSTONE CEMENTS LIMITED**
Vill: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200**DRINKING WATER ANALYSIS RESULTS**Sample Ref. No. : GSCL/21-22/DW-3103/01
Collected On : 31-03-2022Sample Source : Narmada Sadhan
Received On : 02-04-2022Sample Type : Drinking Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.2	1	5
5.	pH	6.91	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	84	500	2000
7.	Aluminium (as Al), mg/l, Max	ND	0.03	0.2
8.	Boron (as B), mg/l, Max	ND	0.5	1.0
9.	Calcium (as Ca), mg/l, Max	19	75	200
10.	Chloride (as Cl), mg/l, Max	6.6	250	1000
11.	Copper (as Cu), mg/l, Max	ND	0.05	1.5
12.	Fluorides (as F), mg/l, Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/l, Min	ND	0.2	1
14.	Iron (as Fe), mg/l, Max	0.015	0.3	No Relaxation
15.	Magnesium (as Mg), mg/l, Max	1	30	100
16.	Manganese (as Mn), mg/l, Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/l, Max	ND	5.0	15
18.	Nitrate (as NO ₃), mg/l, Max	0.2	45	No Relaxation
19.	Sulfate (as SO ₄), mg/l, Max	ND	200	400
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/l, Max	ND	0.001	0.002
				--Continued--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025
ND: Not Detected

Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
1. Results reported are valid at the time of and under the prevailing conditions of measurement.
 2. Results refer only to the particular parameters tested.
 3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi - 786171, Assam.

Report No.: ENV/GSCL/21-22/DW-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/DW-3103/01

Sample Source : Narmada Sadhan

Sample Type : Drinking Water

Collected On : 31-03-2022

Received On : 02-04-2022

Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
21.	Total Alkalinity(as CaCO ₃), mg/l, Max	49	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	23	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.003	No Relaxation
24.	Cyanide (as CN), mg/l, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
29.	Anionic Detergents (as MBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
32.	Faecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
				--End of Report--

*Limits as per IS-10500:2012

Analysis Protocol: IS 3025

ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.
Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/21-22/WW-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamsare (Old), P. O.: Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-3103/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 31.03.2022
Sample Received On : 02.04.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.75	5.5 - 9.0
2.	Temperature	°C	24.1	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	19	100
4.	Biochemical Oxygen Demand	mg/l	21	30
5.	Chemical Oxygen Demand	mg/l	89	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	3.3	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	14	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Report No.: ENV/GSCL/21-22/WW-03/02

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-3103/02
Sample Type/Source : Waste Water/Boiler Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 31.03.2022
Sample Received On : 02.04.2022
Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Total Suspended Solids	8.3	mg/l	100
2.	Oil & Grease	<4.0	mg/l	20
3.	Copper	<0.001	mg/l	1.0
4.	Iron	<0.001	mg/l	1.0




Checked By: Mr. Pankaj Barua

NOTE:

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3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi - 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/WW-03/03

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WW-3103/03
Sample Type/Source : Waste Water/Cooling Tower Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 31.03.2022
Sample Received On : 02.04.2022
Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Residual Free Chlorine	<0.01	mg/l	0.5
2.	Zinc	<0.01	mg/l	1.0
3.	Total Chromium	<0.001	mg/l	0.2
4.	Phosphate	<0.01	mg/l	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.
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Report No.: ENV/GSCL/21-22/WQ-03/01

Date : 10/04/2022

Order No.: SOGM/00343/20-21

Date : 15/03/2021

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

Vill.: Musiang Lamare (Old), P. O.: Khliehriat, Meghalaya- 793200

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/21-22/WQ-3103/01
Sample Type/Source : Waste Water/Condenser Cooling Point
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 31.03.2022
Sample Received On : 02.04.2022
Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	pH	6.87	--	6.5 - 8.5
2.	Temperature	24.3	°C	Not more than 5°C higher than the intake water temperature
3.	Residual Free Chlorine	<0.01	mg/l	0.5


Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Annexure – 2

Construction of Concrete Roads





Annexure – 2a,2b

Water Sprinkling



**Water Sprinkling through Permanent Water Sprinklers
at Limestone Crusher**



**Water Sprinkling through Permanent Water Sprinklers at
Transportation Roads**



**Water Sprinkling through Permanent Water Sprinklers
at internal Road at CPP**



**Water Sprinkling through Water Tanker
In all internal Roads at Plant**

Annexure – 3

PUC Certificates

POLLUTION TESTING STATION

LADTHALABOH, JAINTIA HILLS

Name of Licence Holder:-
M/s JASPER I SLONG
Ladthalaboh, Jaintia Hills
Jowai - 793150



LICENCE NO. Com/Trans/74/2004/5
DATE OF ISSUE :- 21ST March, 2005

Book No. **69**

SI No. **6931**

Date 16-12-2021

SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No ML 11 3100 is tested for emission level and reading is as under.

Type of Vehicle other than agriculture tractors	Notified Standard of Maximum smoke density			Actual Reading	
	Light absorption co-efficient	Hatidye Units	Bosch Unit	Light absorption co-efficient	Hatidye Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture. or	3.25	75	5.2		36.11
2. Free acceleration	2.45	65	5.2		

Certified that the vehicle meets the emission standard fixed under Rule 115 (2) of the Central Motor Vehicles Rules 1989. This Certificate is valid 15-06-2022

Com/ Trans/PTS (JIS)/44/2005/74,dated: 17.05.2017

Authorised Signature
Seal of the Testing Station
Pollution Testing Station
Ladthalaboh, Jowai, Meghalaya

POLLUTION TESTING STATION

LADTHALABOH, JAINTIA HILLS

Name of Licence Holder:-
M/s JASPER I SLONG
Ladthalaboh, Jaintia Hills
Jowai - 793150



LICENCE NO. Com/Trans/74/2004/5
DATE OF ISSUE :- 21ST March, 2005

Book No. **69**

SI No. **6937**

Date 16-12-2021

SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No MK 11 3246 is tested for emission level and reading is as under.

Type of Vehicle other than agriculture tractors	Notified Standard of Maximum smoke density			Actual Reading	
	Light absorption co-efficient	Hatidye Units	Bosch Unit	Light absorption co-efficient	Hatidye Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture. or	3.25	75	5.2		33.16
2. Free acceleration	2.45	65	5.2		

Certified that the vehicle meets the emission standard fixed under Rule 115 (2) of the Central Motor Vehicles Rules 1989. This Certificate is valid 15-06-2022

Com/ Trans/PTS (JIS)/44/2005/74, dated: 17.05.2017

Authorised Signature
Seal of the Testing Station
Pollution Testing
Ladthalaboh, Jowai, Meghalaya

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Uttar Pradesh

Date : 04/08/2021
Time : 15:58:19 PM
Validity upto : 03/08/2022



Certificate SL. No. : UP02200400001772
Registration No. : PB65AV7188
Date of Registration : 22/Jul/2019
Month & Year of Manufacturing : May-2019
Valid Mobile Number : *****1111
Emission Norms : BHARAT STAGE IV
Fuel : DIESEL
PUC Code : UP0220040
GSTIN :
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	1.62	1.28

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://vahan.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
(Optional for State)
60mm x 20 mm

विज्ञान पर्यावरण
सेवा सुविधा

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Uttar Pradesh

Date : **14/02/2022**
Time : **14:06:23 PM**
Validity upto : **13/02/2023**



Certificate SL. No. : UP08400110001129
Registration No. : UP84T9044
Date of Registration : 14/Feb/2020
Month & Year of Manufacturing : October-2019
Valid Mobile Number : *****2285
Emission Norms : BHARAT STAGE IV
Fuel : DIESEL
PUC Code : UP0840011
GSTIN :
Fees : (GST as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	1.62	1.01

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://vahan.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Annexure – 4

Water Reservoir



Annexure – 5

Greenbelt Development



Green Belt Area (Truck Parking Area):14376.5



Green Belt Area (Magazine Area): 11131.5 SQM



**Green Belt Area (Weigh Bridge to CPP East Side):
4632 SQM**



**Green Belt Area (HSD Pump & Sr. Guest House East
Side): 25148 SQM**

Annexure – 6

CSR Plan & Expenditures

CSR Plan				
Sl.	Particulars	Clinker Kiln (MTPA)	Cement Grinding (MTPA)	Captive Power Plant (MW)
1	EC Approved Capacity	1.65	2.54	40
2	Present Installed Capacity	0.56	0.88	10
3	Percentage of Capacity Installed against EC Approved Capacity	33.9%	34.6%	25.0%
4	Total Cost of the project as per EC with full capacity (Rs. In Crores)	565.00		
5	Proportionate Cost of the project for installed capacity at 34% (Rs. In Crores)	192.10		
6	Amount required to be earmarked towards CSR @ 5% as per specific condition xvi (Rs. in Crs.)	9.61		
7	Amount already spent as per annexure attached (Rs. In Crs.)	3.01		
8	Balance amount to be spent and year wise plan as per annexure attached (Rs. In Crs.)	6.60		

CSR Annexure	(Rs. In Lacs)					
	Activity Wise Amount Spent					
Area of CSR Activities	2017-18	2018-19	2019-20	2020-21	2021-22	Total
Health & Sanitation	0.00	0.00	0.15	9.93	0.00	10.09
Education	0.14	0.50	1.15	0.84	1.14	3.77
Emergency Relief	0.00	0.00	11.11	0.00	0.00	11.11
Rural development	3.60	10.95	11.51	7.19	6.79	40.04
Community Development	2.23	0.00	0.00	0.00	40.25	42.48
Rural Housing	12.48	50.20	32.40	36.45	61.79	193.33
Total	18.45	61.65	56.33	54.42	109.97	300.83
	Yearly Plan for CSR					
	2022-23	2023-24	2024-25	2025-26	2026-27	Total
Health & Sanitation	10.00	12.50	15.00	17.50	20.00	75.00
Education	10.00	15.00	15.00	15.00	20.00	75.00
Emergency Relief	10.00	15.00	15.00	17.50	17.50	75.00
Rural development	15.00	17.50	17.50	20.00	25.00	95.00
Community Development	5.00	5.00	7.50	7.50	10.00	35.00
Rural Housing	50.00	55.00	60.00	65.00	75.00	305.00
Total	100.00	120.00	130.00	142.50	167.50	660.00

Annexure -7

Occupational Health Surveillance

304

DR. JULIUS KHONGLAH
MBBS (GMC)
Redg. No: 23973

Patient Name

Manoj Bihash

Date

18/12/21

Age

32

Gender

M

QC.

Nil.

BP:

109/55

Pulse:

88

Height:

169

Weight:

60

O/E:

I - 181cm - 10 - 10 - 10

Chest

C/S

C/S

C/S

P/A:

Sft, BSD

TOUCHING LIVES

Next appointment on:

Patient Name

Manoj Ghosh

Date

18/12/21

Age

32

Gender

M

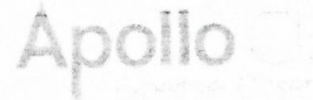
*Vh < 6/6
6/6*

Color Vh - Normal.



Next appointment on:

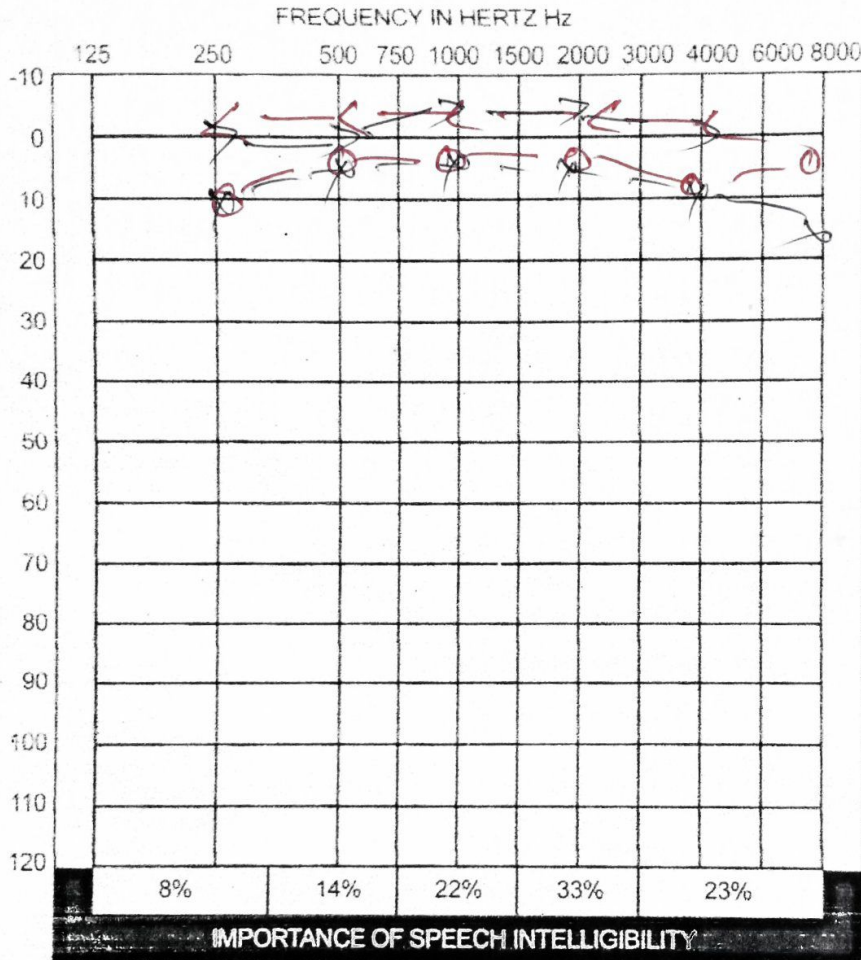
AUDIOGRAM



Doctor / Audiologist

Name: Mangj Ghosh Age 32 Sex M

Address: _____ Date _____



HEARING LEVEL IN DECIBELS (ANSI) 1988

- NORMAL/MINIMAL HEARING LOSS**
Ability to understand speech
 - MILD HEARING LOSS**
No significant difficulty with faint speech
 - MODERATE HEARING LOSS**
Difficulty only with faint speech
Amplification needed
 - MODERATELY SEVERE HEARING LOSS**
Frequent difficulty with normal speech
 - SEVERE HEARING LOSS**
Frequent difficulty with loud speech
Understand only shouted or amplified speech
 - PROFOUND HEARING LOSS**
May not understand every amplified speech
- <Value List Missing>

SPEECH RESULT				
Speech Reception Threshold (SRT)	Most Comfortable Level (MOL)	Un Comfortable Level (UOL)	Word Discrimination Percentage	Discrimination Level (dB)
Right				
Left				
Binaural				
Unaided Boundfield				
Aided Boundfield				

AUDIOGRAM KEY											
	L	R	NRL	NRR		L	R	NRL	NRR		
Air Condition	X	O	X ↘	O ↘	Bone Conduction Forehead	V	V	V ↘	V ↘		
Air Condition Masked	□	△	□ ↘	△ ↘	Bone Conduction Forehead Mask	⌈	⌈	⌈ ↘	⌈ ↘		
Bone Conduction	>	<	⋈	⋈	Threshold of Discomfort Pure	●	●	● ↘	● ↘		
Bone Conduction Masked]	[⌋ ↘	⌋ ↘							

COMMENTS

normal by.

318

Patient Name: Manoj Ghosh
Age / Sex: 32 Y/ M
Ref. by: SELF

MR No: FG UW.0000104947
Bill Date: 18-Dec-2021

CHEST (PA VIEW)

Lung fields do not reveal any active parenchymal lesion.

Pleural angles are clear and domes of the diaphragm are of normal contour.

Cardio-thoracic ratio is within normal limits.

Hilar shadows are normal.

Bony thorax is intact.

Soft tissue shadows are normal.

- RADIOGRAPH IS ESSENTIALLY WITHIN NORMAL LIMITS.



Dr. Sandeepan Nath
Consultant Radiologist



309

Patient Name : Mr. Manoj Ghosh
UHID/MR No. : FGUW.0000104947
Visit Date : 18-12-2021
Sample Collected on : 19-12-2021
Ref Doctor : SELF
Emp/Auth/TPA ID : 304
Sponsor Name : GOLD STONE CEMENT LTD.

Age / Gender : 32 Y/Male
OP Visit No : FGUWOP010582
Reported on : 27-12-2021
Specimen : Sputum
Pres Doctor :

DEPARTMENT OF LABORATORY MEDICINE

AFB SPUTUM

Result: Sample quantity inadequate for processing. Please repeat test with early morning sputum sample if clinically indicated.

End of the report

Results are to be correlated clinically

Lab Technician / Technologist
Rupen_Das


Dr AUBREEN R KHAN
MD Microbiologist



304

PROFORMA FOR MEDICAL FITNESS CERTIFICATE

It is certified that Shri /Smt /Miss..... MANOJ GHOSH
employed with **GOLDSTONE CEMENTS LIMITED** has been examined* by me on 18/12/24.
Based on the medical examination conducted He / She is fit to work in the above mentioned
establishment.



Name and signature of
Registered medical
Practitioner

***Medical Examination be conducted**

A) Physical examination

1. Height, Weight, Blood Pressure, Body Mass Index (BMI)
2. Skin assessment

B) Chest and TB (Dangerous Atmosphere)

1. X-ray chest PA
2. Sputum

C) Lung Assessment (Airborne Dust)

1. Spirometry (PFT)

D) Hearing Assessment (Noise & Vibration)

1. Audiometry

E) Eye Examination

1. Vision Check & Color Blindness



237

DR. JULIUS KHONGLAH
MBBS (GMC)
Redg. No: 23973

Patient Name

Nikku Acharyer

Date

18/12/21

Age

35

Gender

M

C/C :

Nil

O/E :

I-P-ly-10-10-10

Chest

C/S

C/S

P/A : S/P, B/S ⊕

BP:

113/61

Pulse:

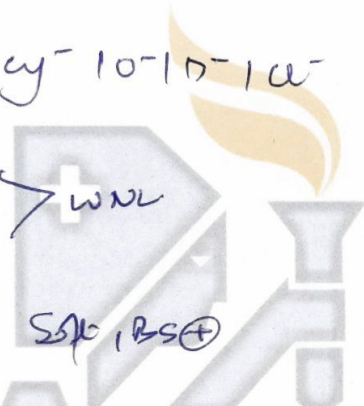
79

Height:

171

Weight:

70


Apollo

Review S/S.



TOUCHING LIVES

Next appointment on:

Patient Name

Nikhil Acharjee

Date

18/12/24

Age

35

Gender

M

Vu < $\frac{6}{6P}$
 $\frac{6}{6P}$

Color Vu - Normal.



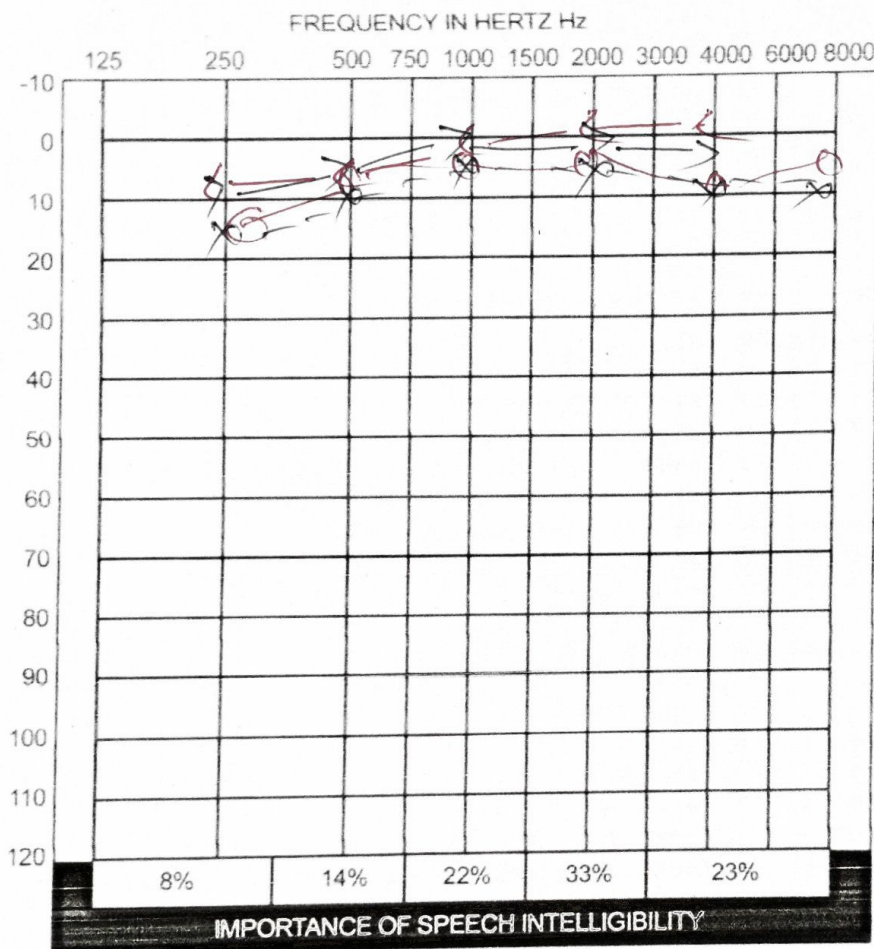
Next appointment on:

AUDIOGRAM

Doctor / Audiologist

Name: Nikhil Deharjee Age 35 y Sex M

Address: _____ Date _____



HEARING LEVEL IN DECIBELS (ANSI) 1989

- NORMAL / MINIMAL HEARING LOSS**
Ability to understand speech
 - MILD HEARING LOSS**
No significant difficulty with faint speech
 - MODERATE HEARING LOSS**
Difficulty only with faint speech
Amplification needed
 - MODERATELY SEVERE HEARING LOSS**
Frequent difficulty with normal speech
 - SEVERE HEARING LOSS**
Frequent difficulty with loud speech
Understand only shouted or amplified speech
 - PROFOUND HEARING LOSS**
May not understand every amplified speech
- <Value List Missing>

SPEECH RESULT				
Speech Reception Threshold (SRT)	Most Comfortable Level (MOL)	Un Comfortable Level (UOL)	Word Discrimination Percentage	Discrimination Level (dB)
Right				
Left				
Binaural				
Unaided Boundfield				
Aided Boundfield				

AUDIOGRAM KEY									
	L	R	NRL	NRR		L	R	NRL	NRR
Air Condition	X	O	X↘	O↘	Bone Conduction Forehead	V	V	V↘	V↘
Air Condition Masked	□	△	□↘	△↘	Bone Conduction Forehead Mask	⌈	⌈	⌈↘	⌈↘
Bone Conduction	>	<	>↘	<↘	Threshold of Discomfort Pure	●	●	●↘	●↘
Bone Conduction Masked]	[]	[

COMMENTS

Bil. normal hgy.

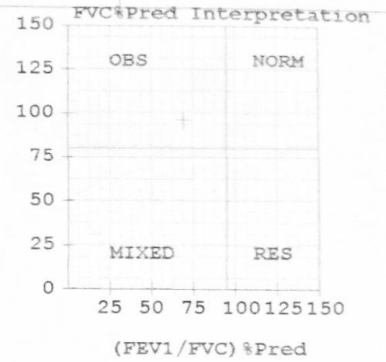
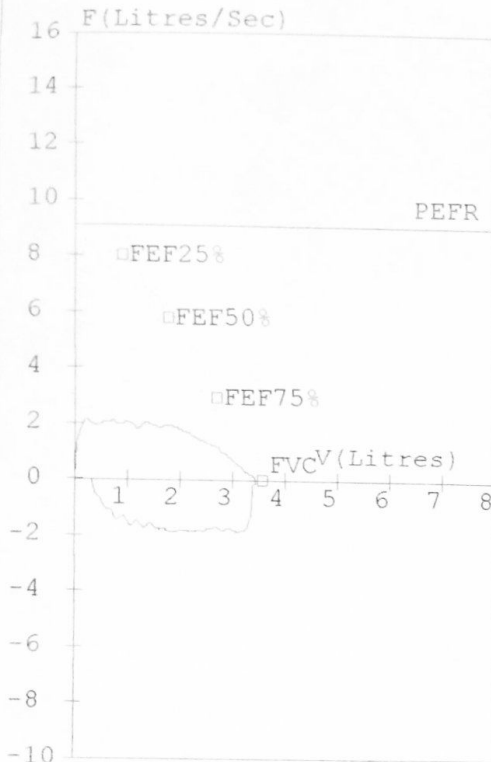
237

APOLLO CLINIC

Bora Service, Ulubari, Guwahati

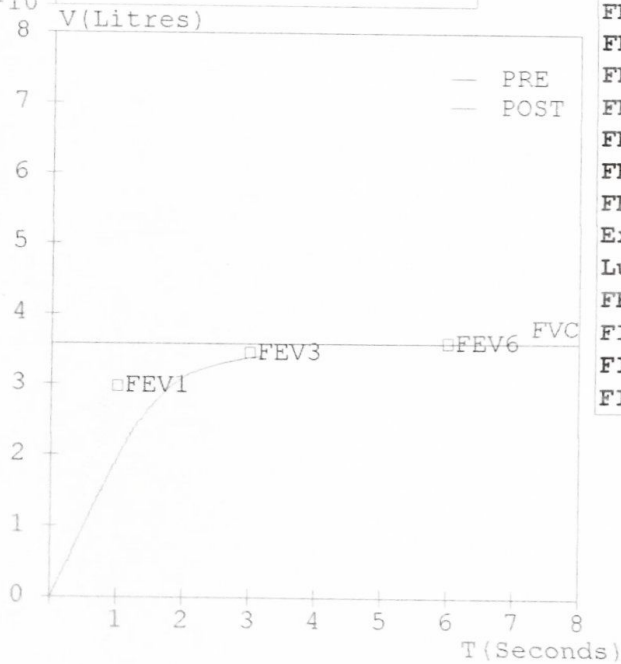
Patient: MR. NIKHU ACHARJEE
Refd. By:
Pred.Eqns: RECORDERS
Date : 18-Dec-2021 09:55 AM

Age : 35 Years Gender : Male
Height : 171 Cms Smoker : No
Weight : 70 Kgs Eth. Corr: 100
ID: BT237 Temp :



Spirometry (FVC Results)

Parameter	Pred	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC (L)	03.57	03.41	096	-----	---	---
FEV1 (L)	02.98	01.97	066	-----	---	---
FEV1/FVC (%)	83.47	57.77	069	-----	---	---
FEF25-75 (L/s)	04.18	01.76	042	-----	---	---
PEFR (L/s)	09.10	02.10	023	-----	---	---
FIVC (L)	-----	03.11	---	-----	---	---
FEV.5 (L)	-----	01.01	---	-----	---	---
FEV3 (L)	03.46	03.38	098	-----	---	---
PIFR (L/s)	-----	01.86	---	-----	---	---
FEF75-85 (L/s)	-----	01.05	---	-----	---	---
FEF.2-1.2 (L/s)	07.28	01.98	027	-----	---	---
FEF 25% (L/s)	08.02	01.96	024	-----	---	---
FEF 50% (L/s)	05.80	01.90	033	-----	---	---
FEF 75% (L/s)	02.94	01.28	044	-----	---	---
FEV.5/FVC (%)	-----	29.62	---	-----	---	---
FEV3/FVC (%)	96.92	99.12	102	-----	---	---
FET (Sec)	-----	03.33	---	-----	---	---
ExplTime (Sec)	-----	00.12	---	-----	---	---
Lung Age (Yrs)	035	047	134	-----	---	---
FEV6 (L)	03.57	-----	---	-----	---	---
FIF25% (L/s)	-----	01.72	---	-----	---	---
FIF50% (L/s)	-----	01.83	---	-----	---	---
FIF75% (L/s)	-----	01.57	---	-----	---	---



Pre Medication Report Indicates
Early Small Airway Obstruction as FEF 25-75 %Pred or PEFR %Pred < 70
Moderate Obstruction as (FEV1/FVC) %Pred < 84 and FVC %Pred > 80



238

Patient Name : Mr. Nikhu Acharjee
UHID/MR No. : FGUW.0000104579
Visit Date : 18-12-2021
Sample Collected on : 19-12-2021
Ref Doctor : SELF
Emp/Auth/TPA ID : 237
Sponsor Name : GOLD STONE CEMENT LTD.

Age / Gender : 35 Y/Male
OP Visit No : FGUWOP010515
Reported on : 27-12-2021
Specimen : Sputum
Pres Doctor :

DEPARTMENT OF LABORATORY MEDICINE

AFB SPUTUM

Result: No Acid fast bacilli seen in the smear examined.

End of the report

Results are to be correlated clinically

Lab Technician / Technologist
Rupen_Das


Dr AUBREEN R KHAN
MD Microbiologist



Patient Name: Nikhu Acharjee
Age / Sex: 35 Y/ M
Ref. by: SELF

MR No: FG UW.0000104579
Bill Date: 18-Dec-2021

CHEST (PA VIEW)

Lung fields do not reveal any active parenchymal lesion.
Pleural angles are clear and domes of the diaphragm are of normal contour.
Cardio-thoracic ratio is within normal limits.
Hilar shadows are normal.
Bony thorax is intact.
Soft tissue shadows are normal.

- RADIOGRAPH IS ESSENTIALLY WITHIN NORMAL LIMITS.


Apollo
HOSPITALS
TOUCHING LIVES


Dr. Sandeepan Nath
Consultant Radiologist

We wish you years of uninterrupted good health

For Home Blood Collection Call : 94356-23456, 94356-23456

- Please bring the bill to collect the reports
- please check the bill & your balance before leaving the counter. No dispute will be entertained afterwards.
- Management is not responsible for the reports not collected within 3 months from the date of investigation.
- Report Delivery Time : 6:00 pm to 8:00 pm on same day & 12:00 noon to 3:00 pm from next day & on sunday between : 2:00 pm to 4:00 pm



PROFORMA FOR MEDICAL FITNESS CERTIFICATE

It is certified that Shri /Smt /Miss.....NIKHIL CHAKRABORTY.....
employed with **GOLDSTONE CEMENTS LIMITED** has been examined* by me on 18/12/19.
Based on the medical examination conducted He / She is fit to work in the above mentioned
establishment.



Name and signature of
Registered medical
Practitioner

***Medical Examination be conducted**

A) Physical examination

1. Height, Weight, Blood Pressure, Body Mass Index (BMI)
2. Skin assessment

B) Chest and TB (Dangerous Atmosphere)

1. X-ray chest PA
2. Sputum

C) Lung Assessment (Airborne Dust)

1. Spirometry (PFT)

D) Hearing Assessment (Noise & Vibration)

1. Audiometry

E) Eye Examination

1. Vision Check & Color Blindness



Annexure – 8

Rainwater Harvesting & Ground water recharge system



Rooftop rainwater collection and harvesting system at CPP water reservoir



Rooftop rainwater collection and harvesting system at CPP water reservoir



Rooftop rainwater collection and ground recharge system at CPP



Rainwater collection and ground recharge system at Guest House (Brahmaputra Sadan)

Annexure – 9

Pollution Control Expenses

Goldstone Cements Ltd.

Musiang Lamare (Old), Meghalaya.

Capital Investment Summary Sheet of Pollution Control Equipments

Sl.No	Location	Particulars	Supplier	Equipment	Mechanical	Civil	Electrical & Instrument	Transportation (Equipment, steel, Electricals, miscellaneous)	Total	Installed Date			
1	Primary Crusher & Secondary crusher	Bag Filters	Himen viro	4396200	40000000	52500000	21000000	10000000		2016			
2	Raw Mill	Raw Mill Bag House	Thermax	60683388									2016
3	Cooler	Clinker Cooler ESP											2016
4	All material transfer points	De dusting Bag Filters											2016
5	CPP	ESP	Rieco									2016	
6	Cement Mill	Cement Mill Bag House	Rieco	13878650								2016	
7	Coal Mill	Coal Mill bag house	Thermax									2016	
8	Packing House	Packing House Bag house	Flsmidth	3982307								2016	
9	Packing plant	Bag Filter + Fans	Thyssenkrupp	2294403								2016	
10	Raw Mill Bag House Cemet Mill bag house Clinker cooler	Fans for : (i) Raw Mill Bag House (ii) Cement Mill Bag House (iii) Clinker cooler ESP	airochem Flaktindia Solyvent-Flakt	5131605									2016
11		Missellaneous + Others	Flexocon/L&T	2280695									2016
12	All Stacks	SOX/NOX analyser and opacity meters etc	Forbes Marshall	3348688									2017
13	Coal Mill	DATA NORAMALISATION, DATA CONTROLLER, TEMPERETURE SENSOR, PRESSURE AND FLOW METER	NEVCO ENGINEERS PVT LTD.	500497					2019				
14	Plant	STACK MONITORING KIT	Envirotech	124490					2019				
15	Plant	Burial Pit & Sharp Pit		98999.95					2020				
16	Plant	Hazardous waste storage Shed		230642.05					2019				
17	Plant	LED DISPLAY BOARD	ADDSOFT	377600					2020				
18	Plant	AMBIENT AIR Quality MONITORING SET	Envirotech	362175					2020				
19	CPP	New coal shed(Mechanical, Civil, Materials)		19712197					2021				
20	CPP	CPP Chemical shed (For storage of chemicals)		150000					2020				
21	CPP	Instalation of Dust suppression system by using of N-pit water		34673					2021				
22	Plant	Construction of Concrete road		3593564					2021				
23	Plant	RCC Septic tank for CCR		288531									
24	Plant	EHS Lab		34596					2021				
25	Plant	Coal Shed Extension at Cement Plant (In front of Store)		9885804					2020				
26	Plant	Clinker Loading Shed		719349					2020				
27	Plant	CPP Coal Shed garland RCC drain work		413555					2021-22				
28		Commissioning/Supervision		4000000	40000000	52598999.95	21000000	10000000	127599000				
		Total		136522608	(APPROX)	(APPROX)	(APPROX)	(APPROX)	(APPROX)				

A TOTAL INVESTMENT IN POLLUTION CONTROL EQUIPMENT (APPROX) - **136522608**

B TOTAL INVESTMENT IN CIVIL/MECHANICAL/TRANSPORTATION OF POLLUTION CONTROL EQUIPMENT (APPROX) **123599000**

TOTAL CAPITAL INVESTMENT IN POLLUTION CONTROL EQUIPMENT APPROX (A+B): 260121608

Goldstone Cements Limited, Meghalaya.

Recurring Pollution Control Expenditure for 2021-22

Period: 01.04.2021 to 31.03.2022

Sl No	Date	Particulars	Purchase Order/ Invoice Number	Quantity	Amount
1	30.09.2021	Procurement of E&I materials for Emission controlling & Monitoring Equipment accessories (ESP, Bag Filters, Opacity meters, Sox & Nox Analysers)	271600029658, 271600030238 STA/GCL/11092102, SIKOL22022121 STA/GCL/11012204, 552506533		1209507.94
2	31.03.2022	ELECTRICITY EXPENSES FOR RUNNING THE POLLUTION CONTROL EQUIPMENTS in Cement Unit			25102471.85
3	23.06.2021	Glens Data Transmission AMC	GL/21-22/06/178		58410.00
4	31.03.2022	Salaries & Wages for Environmental activities (EHS Team & Horticulture Team)			2855000.00
5	28.02.2022	Annual Health Check UP of Workmen	TAC/Feb-22/402		300000.00
6	31.03.2022	Dust Suppression through Water Tanker			150000.00
7	31.03.2022	ETP Maintainanance Expences			25000.00
8	31.03.2022	Third party environmental monitoring	7500000031		1228800.00
9	12.04.2021	Coal mill baghouse(149*4265)	35	20	19803.52
10	01.05.2021	Coal mill baghouse(149*4265)	35	610	604007.36
11	02.09.2021	Fine coal bin bag filter(160*2550)	76	9	3421.46
12	11.11.2021	FILTER BAG 149 MM DIA X 2455 MM LG for CEMENT MILL	MPLFBT1220273	10	1,780.00
13	05.01.2022	FILTER BAG 149 MM DIA X 2455 MM LG for CEMENT MILL	MPLFBT1220273	20	3,560.00
14	05.01.2022	FILTER BAG 149 MM DIA X 2455 MM LG for CEMENT MILL	MPLFBT1220273	20	3,560.00
15	01.03.2022	BAG FILTER 160MM DIA X 4550MM LG. for CEMENT MILL		114	169,860.00
16	01.03.2022	FILTER BAG POLYESTER 160 X 4550MM for CEMENT MILL	MPL172	54	29,862.00
17	31.03.2022	FILTER BAG 149MM DIA X 3665MM LG.for CEMENT MILL	MPLFBT1220272	60	19,550.17
18	17.01.2022	FILTER BAG 149MM DIA X 3665MM LG.for CEMENT MILL	MPLFBT1220272	100	32,680.09
19	17.01.2022	FILTER BAG 149MM DIA X 3665MM LG.for CEMENT MILL	MPLFBT1220272	100	32,680.09
20	01.03.2022	FILTER BAGS-149MM DIA X4265MM LG for Raw Mill	GBA/21-22/053	630	623,810.88
21	30.03.2022	BAG FILTER BAG 160 X2250 MM LONG for Raw Mill		3	1,140.49
22	27.10.2021	GD SCREEN NO 1 FOR COOLER ESP INLET	1732	1	300000
23	27.10.2021	GD SCREEN NO 2 FOR COOLER ESP INLET	1732	1	300000
24	27.10.2021	GD SCREEN NO 3 FOR COOLER ESP INLET	1732	1	300000
25	27.10.2021	HARDWARE FOR FIXING ESP INTERNALS	1733	1	9077
26	27.10.2021	Collecting electrode for Cooler ESP	1733	21	125806.8
27	27.10.2021	Emitting Electrode for Cooler ESP	1733	25	65808.25
28	29.10.2021	UTECH SERVICE ENGINEEER	1747	1	118000
29	19.11.2021	THERMAX SERVICE ENGINEER	271600030838	1	168000
30	20.11.2021	Emitting Electrode for Cooler ESP erection & commissioning	KM-080/21-22	1	942,980.00
31	01.03.2022	BAG FILTER 149MM DIA X 7060MM LG.for Raw Mill		250	862,825.50
32	10.11.2021	BAG FILTER 149MM DIA X 7060MM LG for Raw Mill.		40	142,038.66
33	13.12.2021	BAG FILTER 149MM DIA X 7060MM LG.for Raw Mill		120	426,115.97
34	31.03.2022	FILTER BAG 149MM DIA X 3665MM LG.for Raw Mill	MPLFBT1220272	130	42,358.70
35	31.03.2022	FILTER BAG 149MM DIA X 3665MM LG. for Raw Mill	MPLFBT1220272	60	19,550.17
36	30.09.2021	CPP- N-Pit Maintenance expences & N-PIT PUMP MPP 120	MPC/583/20-21		40950.00
37	30.09.2021	CPP-Fly ash Silo & ash conditioner mainatanance			15160.00
38	30.09.2021	CPP-DT Card change in SPM analyser			40000.00
39	Shutdown Oct 21	COLLECTING ELECTRODES STRAIGHTENING	WO requisition 00051	120	194400.00
40		DISCHARGE ELECTRODES STRAIGHTENING	WO requisition 00051	250	90000.00
41		GD SCREEN ANVIL REPAIR	WO requisition 00051	4	8100.00
42		ESP ACCESS DOOR REPAIR	WO requisition 00051	5	19125.00
43		ESP BYPASS DUCT DISMANTLING	WO requisition 00051	1	81000.00
44		ESP BYPASS DUCT DAMPER OPENING SEALING BY 5 MM MS LATE	WO requisition 00051	2	9000.00
45	30.11.2021	REPLACEMENT OF ESP COLLECTING ELECTRODES	C-9117/01/21-22	30	84000.00
46	30.11.2021	REPLACEMENT OF SHOCK BAR	C-9117/01/21-22	56	89600.00
47	30.11.2021	REPLACEMENT OF CE, DE AND GD RAPPING SHAFT	C-9117/01/21-22	1	140000.00
48	30.11.2021	REPAIR OF ESP I/L CONE LEAKAGE	C-9117/01/21-22	1	40000.00
49	30.09.2021	WATER SPRINKLER	ITPL/20-21/292	10	9600.00
50	30.09.2021	CPP-Electrical power consumption for ESP & APH (Apr 21 to Sept 21)			2340000.00
51	31.03.2022	CPP-Electrical power consumption for ESP & APH (Oct 21 to Mar 22)			1270822.00
Total Recurring Pollution Control Expenditure for 2021-22: (April 21 to March 22)					40769223.90

Annexure-10

Environmental Parameters Display

Environmental Parameters Display Board

ENVIRONMENTAL DATA INFORMATION RELATED TO AIR, WATER AND HW GENERATION



1. Name of the Industry/facility with contact details : GOLDSTONE CEMENTS LIMITED, VIII. Musiang Lamare (Old) Khliehriat, East Jaintia Hills, Meghalaya-793210
(as per the Consent to Establish/Operate) Mr. Vishal Jain (MD) 0361-2607071/72

2. Date of update of display : 17.03.2022

3. Consent to Operate and Authorization : No.MPCB/CON-13-2011/Pt-1/2021-2022/94, Validity-30.06.2022

4. Hazardous waste Authorization : No.MPCB/ATH-45-2017/Pt-1/2018-2019/3, Validity- 31.07.2023

5. Operational status : Operational ✓ / Non-Operational

6. Production Details

S.No.	Product Manufactured (including Recycling /Utilization)	Used Hazardous Chemicals with quantity and purpose	Type of HW generated (MT/KL) with category as per HW Rules-2016 Year - (2020-2021)	QTY.of HW generated storage (MT/ KL)	QTY.of HW Disposed/Utilized inhouse(MT/KL)	Mode of treatment and disposal (Co-processing, /Utilizing/reuse/incinerator etc.)
1	Cement, Clinker & Power	NA	Used Oil 1.987 KL	Fly Ash --	1.987	Co-processing incinerator Utilizing
Turbine Oil 0.098 KL			Bed Ash --	0.098		
Gear Oil 0.196 KL			Chemical Container 16 nos	13 nos	0.199	
				25nos		

7. Air Emission :

S.No.	Source of Air Pollution	Air Pollution Control System (APCS)		Parameters Monitored w.e.t. Air Pollution		
		Stack Height (in meter)	PM (mg/Nm ³)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	Limits/Standard prescribed by SPCBs/CPCB (mg/Nm ³)
1	Raw Mill & KILN	Baghouse	40.0	26	512	236
2	Coal Mill	Baghouse	8.1	20	378	210
3	Cooler ESP	ESP	45.0	19	-	-
4	Cement Mill	Baghouse	42.0	11	-	-
5	CPP	ESP	76.1	39	459	209

8. OCEMS Connectivity details (Date of installation: 14.09/2017 and Operational Status: Operational ✓ / Non-Operational)

8. Effluent Discharge :

S.No.	Source of Effluent discharge with Qty.	Treatment method	Mode of Disposal of treatment (rain/sewer/land etc)	Effluents discharge monitoring parameters							
				pH	TSS	BOD	COD	N	TKN	NH ₃	
1	Domestic effluent	20 M ³ /day EPT	rust suppression & gardening	Out let(mg/l)	6.77	16	18	92	39	16	<0.01
2	DM Plant N Pit	36 m ³ /day	rust suppression & gardening	Out let(mg/l)	6.85	201	<0.01	20.8	<0.1	<0.01	Iron

OCEMS Connectivity details (Date of installation and Operational status): NA

Environmental Parameters LED Display Board

