

Letter No: GSCL/EHS/2022-23/33

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

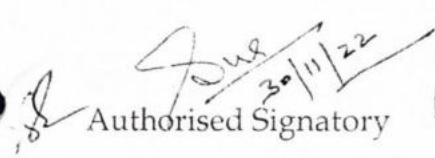
Dear Sir,

With the matter as cited in the subject, we would like to submit the **Half Yearly EC Compliance report for the period 01.04.2022 to 30.09.2022** on Environmental Stipulations for our Cement Plant along with Captive 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.


30/11/22
Authorised Signatory

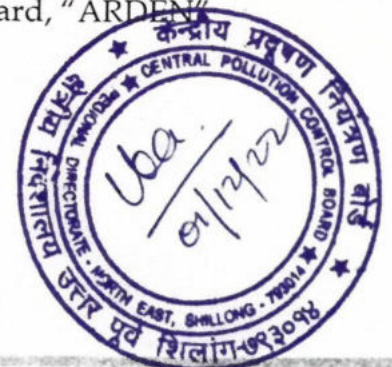


Encl: As mentioned above.

- 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", Lumpyngngad, Shillong, Meghalaya-793014.



Goldstone Cements Limited
CIN No. : U26940ML2007PLC008298



COMPLIANCE REPORT (HALF YEARLY) FROM 1ST APRIL 2022 TO 30TH SEPTEMBER 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. Therefore, with the present installed capacity, very less quantum of hot gases is left. We have engaged an outside agency to carry out the Feasibility Study for installation of WHRB Study and Report is under process.
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 on all roads as shown in <i>Annexure:2b</i> 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 - 800 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 on 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 liter capacity in the west side. <i>(Photograph are enclosed in Annexure:4)</i></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 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 <u>Annexure-5</u>

xiv	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants should be implemented.	All recommendations were considered during the design of plant and machineries and as such all the issues in this regard are complied with.
xv	All the commitments made to the public during the Public Hearing / Public consultation meeting held on 27 th 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>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	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>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 6 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 conform 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 unit with 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 conform 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.
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 <u>Annexure-7</u>
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 equipments approx. 26.01 Cr as capital cost as per list enclosed. We have invested approx. Rs.1.79 Cr amount towards recurring cost (period: 1 st April 2022 - 30 th September 2022) for environment pollution control measures <i>(Details are attached as per Annexure-8)</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><u>(Photographs are enclosed in annexure-9)</u></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 (2021-22) has been submitted in Meghalaya State Pollution Control Board. 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 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]
 30/11/22
Authorized Signatory



Annexure – 1

Environmental Monitoring Reports

o/c

No: GSCL/EHS/2022-23/10

Dated: 10.05.2022

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

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

Dear Sir / Madam,

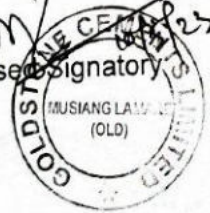
With reference to the subject as cited above, we are herewith submitting
Monthly Environmental Monitoring Reports for the month of **April 2022**.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,
Yours faithfully.

For Goldstone Cements Ltd.


Authorised Signatory of


Encl: Environmental Monitoring Reports - April 2022.



Goldstone Cements Limited
CIN No. : U26940ML2007PLC008298

Report No.: ENV/GSCL/22-23/FE-04/01

Date : 10/05/2022

Order No.: FFE/500001077

Date : 30/03/2022

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	20.04.2022	862	5000
02	Coal Storage Section	20.04.2022	631	2000
03	Limestone Storage Section	21.04.2022	1838	5000
04	Cement Packing Section	21.04.2022	2127	5000

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.

Report No.: ENV/GSCL/22-23/SE-04/05

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-04/05		
02	Date of Sampling	22.04.2022		
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)	13.7		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	13	mg/Nm ³	30

*NA: Not Applicable



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

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Report No.: ENV/GSCL/22-23/SE-04/03
Date : 10/05/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-04/03		
02	Date of Sampling	21.04.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	218		
06	Exit Velocity of Gas (m/sec)	14.6		
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

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-04/02

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-04/02		
02	Date of Sampling	21.04.2022		
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)	11.8		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	21	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	237	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	103	mg/Nm ³	600

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

Report No.: ENV/GSCL/22-23/SE-04/04

Date : 10/04/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-04/04		
02	Date of Sampling	22.04.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	103		
06	Exit Velocity of Gas (m/sec)	5.8		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	38	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	458	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	211	mg/Nm ³	300



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

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Report No.: ENV/GSCL/22-23/SE-04/01

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-04/01		
02	Date of Sampling	21.04.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	181		
06	Exit Velocity of Gas (m/sec)	18.2		
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)	556	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

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/22-23/N-04/01

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

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	
			Leq (dB-A)	Limit (dB-A)	Leq (dB-A)	Limit (dB-A)
1	Near Coal Mill	20.04.2022	63.3	75	58.3	70
2	Near CPP Area	20.04.2022	71.4	75	58.9	70
3	Near Coal Storage Yard	21.04.2022	64.6	75	52.5	70
4	Near Raw Mill	21.04.2022	72.2	75	63.9	70
5	Near Cement Mill	21.04.2022	73.4	75	62.7	70
6	HR & Mine's Office	22.04.2022	58.4	75	48.6	70
7	CPP TG Building	22.04.2022	72.7	75	66.3	70



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/22-23/DW-04/01
Date : 10/05/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-2204/04
Collected On : 22-04-2022

Sample Source : Narmada Sadhan
Received On : 25-04-2022

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	6.75	6.5 – 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	79	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	7.3	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	0.014	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	0.3	45	No Relaxation
19.	Sulfate (as SO ₄), mg/l, Max	ND	200	400
20.	Phenolic Compunds (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 (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/22-23/DW-04/01

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-2204/01

Sample Source : Narmada Sadhan

Sample Type : Drinking Water

Collected On : 22-04-2022

Received On : 25-04-2022

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	59	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	33	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 (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/22-23/WW-04/01

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2204/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 22.04.2022
Sample Received On : 25.04.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.88	5.5 – 9.0
2.	Temperature	°C	23.8	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	33	100
4.	Biochemical Oxygen Demand	mg/l	19	30
5.	Chemical Oxygen Demand	mg/l	148	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	4.4	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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Report No.: ENV/GSCL/22-23/AA-04/01

Date : 10/05/2022

Order No.: FFE/7500001077

Date : 30/03/2022

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)	20.04.2022	28.5	52.3	6.4	8.5
2.	Near CCR (Material Yard)	20.04.2022	32.7	50.6	5.3	9.2
3.	Near Guest House (Yamuna Sadan)	21.04.2022	18.3	33.2	<5.0	<6.0
4.	Residential Colony	21.04.2022	20.4	31.7	<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: 16.06.2022

No: GSCL/EHS/2022-23/14

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

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

Dear Sir / Madam,

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

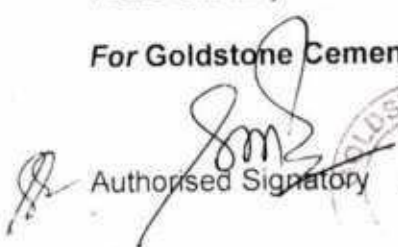
The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully

For Goldstone Cements Ltd.


Authorised Signatory

Encl: Environmental Monitoring Reports - May 2022.



Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

Report No.: ENV/GSCL/22-23/AA-05/01

Order No.: FFE/7500001077

Date : 08/06/2022

Date : 30/03/2022

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)	24.05.2022	27.6	54.5	6.6	8.2
2.	Near CCR (Material Yard)	23.05.2022	30.2	51.6	5.4	8.7
3.	Near Guest House (Yamuna Sadan)	23.05.2022	19.8	30.6	<5.0	<6.0
4.	Residential Colony	24.05.2022	21.3	32.4	<5.0	<6.0

Analysis Protocol: IS 5182




Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/FE-05/01

Date : 08/06/2022

Order No.: FFE/500001077

Date : 30/03/2022

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	23.05.2022	873	5000
02	Coal Storage Section	23.05.2022	626	2000
03	Limestone Storage Section	24.05.2022	1821	5000
04	Cement Packing Section	24.05.2022	2119	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/22-23/SE-05/05

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-05/05		
02	Date of Sampling	24.05.2022		
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)	13.2		
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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Report No.: ENV/GSCL/22-23/SE-05/03

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-05/03		
02	Date of Sampling	23.05.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	220		
06	Exit Velocity of Gas (m/sec)	14.9		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	24	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-05/01

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-05/01		
02	Date of Sampling	23.05.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	55		
06	Exit Velocity of Gas (m/sec)	11.3		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	19	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	231	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	106	mg/Nm ³	600

*NA: Not Applicable




Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-05/04

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-05/04		
02	Date of Sampling	24.05.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	101		
06	Exit Velocity of Gas (m/sec)	5.2		
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)	463	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	217	mg/Nm ³	300

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

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Report No.: ENV/GSCL/22-23/SE-05/02

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-05/02		
02	Date of Sampling	23.05.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	180		
06	Exit Velocity of Gas (m/sec)	19.3		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	22	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	562	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	224	mg/Nm ³	600

*NA: Not Applicable


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/N-05/01

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

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	23.05.2022	61.7	75	56.8	70
2	Near CPP Area	23.05.2022	69.3	75	58.4	70
3	Near Coal Storage Yard	23.05.2022	63.6	75	51.8	70
4	Near Raw Mill	23.05.2022	70.7	75	64.6	70
5	Near Cement Mill	24.05.2022	71.9	75	63.5	70
6	HR & Mine's Office	24.05.2022	60.6	75	51.7	70
7	CPP TG Building	24.05.2022	71.5	75	64.5	70


Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:
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Report No.: ENV/GSCL/22-23/DW-05/01

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-3005/05

Sample Source : Narmada Sadhan

Sample Type : Drinking Water

Collected On : 30-05-2022

Received On : 31-05-2022

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	6.71	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	75	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	32	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	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 Compunds (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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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/22-23/DW-05/01

Date : 08/06/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-3005/01

Sample Source : Narmada Sadhan

Sample Type : Drinking Water

Collected On : 30-05-2022

Received On : 31-05-2022

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	57	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	31	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/22-23/WW-05/01

Order No.: FFE/7500001077

Date : 08/06/2022

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-3005/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 30.05.2022
Sample Received On : 31.05.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.86	5.5 - 9.0
2.	Temperature	°C	23.3	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	35	100
4.	Biochemical Oxygen Demand	mg/l	21	30
5.	Chemical Oxygen Demand	mg/l	146	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	4.1	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


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Report No.: ENV/GSCL/22-23/SW-05/01

Date : 08/06/2022

Order No.: Verbal

Date :

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-3005/01

Sample Source : Plant Nala Upstream

Sample Type : Surface Water

Collected On : 30-05-2022

Received On : 31-05-2022

Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	4	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	25.6	--
4.	pH Value	6.62	6.5 - 8.5
5.	Suspended Solids	33	--
6.	Total Dissolved Solids, mg/l, Max.	147	500
7.	Conductivity, μ S/cm	263	--
8.	Dissolved Oxygen, mg/l, Min.	5.2	--
9.	Biochemical Oxygen Demand, mg/l, Max.	5	--
10.	Chemical Oxygen Demand, mg/l, Max.	33	--
11.	Oil and Grease, mg/l, Max.	<4.0	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2
13.	Total Hardness (as CaCO_3), mg/l, Max.	21	200
14.	Calcium (as Ca), mg/l, Max.	5	75
15.	Magnesium (as Mg), mg/l, Max.	<1	30
16.	Iron (as Fe), mg/l, Max.	0.022	0.3
17.	Ammonical Nitrogen (as N), mg/l, Max.	6	--
18.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	23	--
19.	Free Ammonia (as NH_3), mg/l, Max.	<0.01	--

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SW-05/02
Date : 08/06/2022

Order No.: Verbal
Date :

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-3005/02
Collected On : 30-05-2022

Sample Source : Plant Nala Downstream
Received On : 31-05-2022

Sample Type : Surface Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	4	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	25.6	--
4.	pH Value	6.61	6.5 - 8.5
5.	Suspended Solids	39	--
6.	Total Dissolved Solids, mg/l, Max.	153	500
7.	Conductivity, μ S/cm	267	--
8.	Dissolved Oxygen, mg/l, Min.	5.2	--
9.	Biochemical Oxygen Demand, mg/l, Max.	5	--
10.	Chemical Oxygen Demand, mg/l, Max.	38	--
11.	Oil and Grease, mg/l, Max.	<4.0	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2
13.	Total Hardness (as CaCO ₃), mg/l, Max.	23	200
14.	Calcium (as Ca), mg/l, Max.	4	75
15.	Magnesium (as Mg), mg/l, Max.	<1	30
16.	Iron (as Fe), mg/l, Max.	0.027	0.3
17.	Ammonical Nitrogen (as N), mg/l, Max.	4	--
18.	Total Kjeldahl Nitrogen (as NH ₃), mg/l, Max.	21	--
19.	Free Ammonia (as NH ₃), mg/l, Max.	<0.01	--

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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No: GSCL/EHS/2022-23/18

Dated: 13.07.2022

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

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

Dear Sir / Madam,

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



The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


13/7/22
Authorized Signatory


Encl: Environmental Monitoring Reports - June 2022.



Goldstone Cements Limited
CIN No. : U26940ML2007PLC008298

Report No. : ENV/GSCL/22-23/AA-06/01
Date : 09/07/2022

Order No. : FFE/7500001077
Date : 30/03/2022

Report Issued To: **GOLDSTONE CEMENTS LIMITED**
Village: Musiang 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 (µg/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)	19.06.2022	24.2	43.5	5.6	11.7	13.6	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near CCR (Material Yard)	19.06.2022	25.3	46.2	5.8	12.4	10.4	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near Guest House (Yamuna Sadan)	20.06.2022	20.4	33.4	<5.0	<6.0	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Residential Colony	20.06.2022	18.9	36.8	<5.0	<6.0	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01

Analysis Protocol: IS 5182



Checked By: 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/22-23/FE-06/01
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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	19.06.2022	756	5000
02	Coal Storage Section	19.06.2022	591	2000
03	Limestone Storage Section	20.06.2022	1754	5000
04	Cement Packing Section	20.06.2022	1857	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-06/04
 Date : 08/06/2022

Order No.: FFE/7500001077
 Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-06/04		
02	Date of Sampling	20.06.2022		
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)	13.6		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	Particulate Matter	18	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/22-23/SE-06/01
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-06/01		
02	Date of Sampling	19.06.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	218		
06	Exit Velocity of Gas (m/sec)	14.3		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	Particulate Matter	22	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-06/02
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-06/02		
02	Date of Sampling	19.06.2022		
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)	10.1		
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)	237	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	98	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-06/03
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-06/03		
02	Date of Sampling	19.06.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	103		
06	Exit Velocity of Gas (m/sec)	5.6		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
SL No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	39	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	469	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	212	mg/Nm ³	300
iv.	Mercury (as Hg)	<0.01	mg/Nm ³	0.03



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/N-06/01
 Date : 09/07/2022

Order No.: FFE/7500001077
 Date : 30/03/2022

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	19.06.2022	62.3	75	57.1	70
2	Near CPP Area	19.06.2022	68.4	75	59.6	70
3	Near Coal Storage Yard	20.06.2022	62.6	75	51.2	70
4	Near Raw Mill	20.06.2022	71.8	75	65.4	70
5	Near Cement Mill	20.06.2022	72.2	75	65.6	70
6	HR & Mine's Office	19.06.2022	61.8	75	50.7	70
7	CPP TG Building	21.06.2022	70.5	75	63.1	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/DW-06/01
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-2606/01
Collected On : 26-06-2022

Sample Source : Narmada Sadhan
Received On : 28-06-2022

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	2	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.3	1	5
5.	pH	6.84	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	71	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	8.4	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	0.019	0.3	No Relaxation
15.	Magnesium (as Mg), mg/l, Max	4	30	100
16.	Manganese (as Mn), mg/l, Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/l, Max	ND	5.0	15
18.	Nitrate (as NO ₃), mg/l, Max	0.6	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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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/22-23/DW-06/01
 Date : 09/07/2022

Order No.: FFE/7500001077
 Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/22-23/DW-2606/01
 Collected On : 26-06-2022

Sample Source : Narmada Sadhan
 Received On : 28-06-2022

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	62	200	600
22.	Total Hardness. (as CaCO ₃), mg/l, Max	33	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 (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/22-23/WW-06/01
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2606/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 26.06.2022
Sample Received On : 28.06.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.74	5.5 - 9.0
2.	Temperature	°C	25.8	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	37	100
4.	Biochemical Oxygen Demand	mg/l	19	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	4.9	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	16	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



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Report No.: ENV/GSCL/22-23/SW-06/01
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-2606/01
Collected On : 26-06-2022

Sample Source : Plant Nala Upstream
Received On : 28-06-2022

Sample Type : Surface Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	3	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	25.6	--
4.	pH Value	6.74	6.5 - 8.5
5.	Suspended Solids	31	--
6.	Total Dissolved Solids, mg/l, Max.	153	500
7.	Conductivity, μ S/cm	276	--
8.	Dissolved Oxygen, mg/l, Min.	5.9	--
9.	Biochemical Oxygen Demand, mg/l, Max.	4	--
10.	Chemical Oxygen Demand, mg/l, Max.	30	--
11.	Oil and Grease, mg/l, Max.	<4.0	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2
13.	Total Hardness (as CaCO ₃), mg/l, Max.	26	200
14.	Calcium (as Ca), mg/l, Max.	6	75
15.	Magnesium (as Mg), mg/l, Max.	<1	30
16.	Iron (as Fe), mg/l, Max.	0.029	0.3
17.	Ammonical Nitrogen (as N), mg/l, Max.	5	--
18.	Total Kjeldahl Nitrogen (as NH ₃), mg/l, Max.	24	--
19.	Free Ammonia (as NH ₃), mg/l, Max.	<0.01	--

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SW-06/02
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-2606/02
Collected On : 26-06-2022

Sample Source : Plant Nala Downstream
Received On : 28-06-2022

Sample Type : Surface Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	3	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	25.6	--
4.	pH Value	6.85	6.5 - 8.5
5.	Suspended Solids	41	--
6.	Total Dissolved Solids, mg/l, Max.	166	500
7.	Conductivity, μ S/cm	281	--
8.	Dissolved Oxygen, mg/l, Min.	5.5	--
9.	Biochemical Oxygen Demand, mg/l, Max.	7	--
10.	Chemical Oxygen Demand, mg/l, Max.	42	--
11.	Oil and Grease, mg/l, Max.	<4.0	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2
13.	Total Hardness (as CaCO ₃), mg/l, Max.	28	200
14.	Calcium (as Ca), mg/l, Max.	8	75
15.	Magnesium (as Mg), mg/l, Max.	<1	30
16.	Iron (as Fe), mg/l, Max.	0.034	0.3
17.	Ammonical Nitrogen (as N), mg/l, Max.	6	--
18.	Total Kjeldahl Nitrogen (as NH ₃), mg/l, Max.	28	--
19.	Free Ammonia (as NH ₃), mg/l, Max.	<0.01	--

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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ENVIROCON

Recognised By

Pollution Control Board, Assam

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Ph: 03751-264414, 9435008657, 8876028672
E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified
ISO 45001:2018 Certified

Report No.: ENV/GSCL/22-23/WW-06/04
Date : 09/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2606/04
Sample Type/Source : Waste Water/Boiler Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 26.06.2022
Sample Received On : 28.06.2022
Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Total Suspended Solids	12	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 Baroi, ENVIROCON

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ISO 9001:2015 Certified
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Report No.: ENV/GSCL/22-23/WW-06/03
Date : 09/07/2022

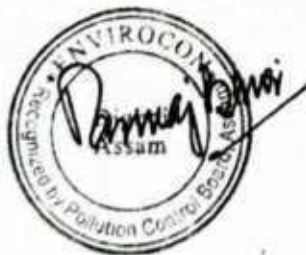
Order No.: FFE/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2606/03
Sample Type/Source : Waste Water/Cooling Tower Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 26.06.2022
Sample Received On : 28.06.2022
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

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Report No.: ENV/GSCL/22-23/WW-06/02
 Date : 09/07/2022

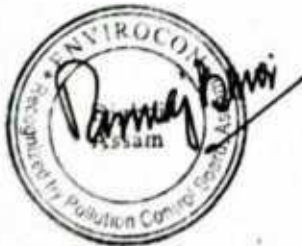
Order No.: FFE/7500001077
 Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2606/02
 Sample Type/Source : Waste Water/Condenser Cooling Point
 Sample Collected By : Representative of ENVIROCON
 Sample Collected On : 26.06.2022
 Sample Received On : 28.06.2022
 Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	pH	6.59	-	6.5 - 8.5
2.	Temperature	25.6	°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

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Report No.: ENV/GSCL/22-23/SE-06/05
Date : 18/07/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-06/05		
02	Date of Sampling	21.06.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill and Kiln		
05	Flue Gas Temperature (°C)	207		
06	Exit Velocity of Gas (m/sec)	17.6		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	15.2	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	471	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	270	mg/Nm ³	600
IV.	Oxygen (as O ₂)	14.6	% V/V	--
V.	Hydrogen Chloride (as HCl)	BDL [MDL: 1.0]	mg/Nm ³	10
VI.	Hydrogen Fluoride (as HF)	BDL [MDL: 0.1]	mg/Nm ³	1
VII.	Mercury (as Hg)	BDL [MDL: 0.01]	mg/Nm ³	0.03
VIII.	Hg and its compounds	BDL [MDL: 0.01]	mg/Nm ³	0.05
IX.	Cd + Tl and their compounds	BDL [MDL: 0.01]	mg/Nm ³	0.05
X.	Sb+As+Pb+Co+Cr+Cu+Mn+Ni+V+ and their compounds	BDL [MDL: 0.01]	mg/Nm ³	0.5
XI.	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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ISO 9001:2015 Certified
ISO 45001:2018 Certified

Report No.: ENV/GNCL/21-22/SE-06/06
Date : 18/07/2022

Order No.: PPE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-06/06		
02	Date of Sampling	21.06.2022		
03	Stack Attached To	Raw Mill and Kiln		
04	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	Total Dioxins and Furans	BDL (MDL: 0.01)	ngTEQ/Nm ³	0.1

BDL: Below Detectable Limit

MDL: Minimum Detectable Limit



Checked By: Mr. Pankaj Baroi, ENVIROCON

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BLACKTIGER
C E M E N T

HILA NA PAOGE

o/c

No: GSCL/EHS/2022-23/20

Dated: 11.08.2022

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

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

Dear Sir / Madam,

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

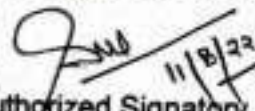
The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


11/8/22
Authorized Signatory



Encl: Environmental Monitoring Reports - July 2022.

Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

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P +91-33-66079604

Factory Office
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Khliehriat, East Jaintia Hills,
Meghalaya - 793207

Sales & Marketing Office
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Arya Chowk, Rehbari, Guwahati, Assam 781008
P +91-361-2607071/72

Report No.: ENV/GSCL/22-23/FE-07/01
Date : 09/08/2022

Order No.: FFK/500001077
Date : 30/03/2022

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Muslang 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	23.07.2022	881	5000
02	Coal Storage Section	23.07.2022	617	2000
03	Limestone Storage Section	24.07.2022	1810	5000
04	Cement Packing Section	24.07.2022	2194	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/N-07/01

Date : 09/08/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report issued To: **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khilehriat, 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	24.07.2022	62.5	75	55.5	70
2	Near CPP Area	24.07.2022	70.3	75	57.8	70
3	Near Coal Storage Yard	24.07.2022	66.7	75	52.6	70
4	Near Raw Mill	23.07.2022	71.2	75	63.6	70
5	Near Orment Mill	23.07.2022	72.4	75	64.7	70
6	HR & Mine's Office	25.07.2022	59.7	75	49.2	70
7	CPP TG Building	25.07.2022	70.7	75	65.4	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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

AMBIENT AIR QUALITY MONITORING RESULTS

JULY - 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	07.07.2022	33.2	44.6	6.2	10.1
Near CCR Material Yard	08.07.2022	No Sampling Due to Rain fall			
Near Guest House (Yamuna Sadan)	09.07.2022	13.9	33.5	<5.0	<6.0
Residential Colony	10.07.2022	15.9	31.4	<5.0	<6.0

Analyzed By



Verified By

AMBIENT AIR QUALITY MONITORING RESULTS

JULY - 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	12.07.2022	36.5	51.3	6.5	10.8
Near CCR Material Yard	13.07.2022	41.2	56.2	7.3	12.8
Near Guest House (Yamuna Sadan)	14.07.2022	21.2	36.5	<5.0	<6.0
Residential Colony	15.07.2022	19.2	32.9	<5.0	<6.0

Analyzed By 



Verified By 

AMBIENT AIR QUALITY MONITORING RESULTS

JULY - 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	19.07.2022	35.6	46.2	7.3	11.8
Near CCR Material Yard	20.07.2022	39.4	52.2	8.6	13.7
Near Guest House (Yamuna Sadan)	22.07.2022	21.6	35.6	<5.0	<6.0
Residential Colony	23.07.2022	No Sampling Due to Rain fall			

Analyzed By 



Verified By 

Report No.: ENV/GSCL/22-23/AA-07/01
 Date : 09/08/2022

Order No.: FFE/7500001077
 Date : 30/03/2022

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 ₂ ($\mu\text{g}/\text{m}^3$)
			60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	25.07.2022	29.3	53.8	6.9	7.8
2.	Near CCR (Material Yard)	24.07.2022	27.7	50.7	5.6	8.2
3.	Near Guest House (Yamuna Sadan)	24.07.2022	21.5	33.7	<5.0	<6.0
4.	Residential Colony	25.07.2022	22.6	31.6	<5.0	<6.0

Analysis Protocol: IS 5182



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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

JULY 2022

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)	
Date of Monitoring	:	06.07.2022	
Stack Velocity of Flue gas	:	21.0m/s	
Stack Temperature	:	445 °K	
Monitoring Period	:	39m	
Flow Rate	:	26.5LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	23.7	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	528.2	1000	(mg/Nm ³)
Nitrogen Oxide (NOX)	338.1	600	(mg/Nm ³)

Analyzed By



Verified By

es 23

Report No.: ENV/GSCL/22-23/SE-07/01
Date : 09/08/2022

Order No.: PFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-07/01		
02	Date of Sampling	24.07.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill (Kiln)		
05	Flue Gas Temperature (°C)	173		
06	Exit Velocity of Gas (m/sec)	20.2		
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)	571	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	227	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Report No.: ENV/GSCL/22-23/SE-07/02
Date : 09/08/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-07/02		
02	Date of Sampling	24.07.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	59		
06	Exit Velocity of Gas (m/sec)	13.1		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	14	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	239	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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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

July-2022

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	06.07.2022	
Stack Velocity of Flue gas	:	13.4 m/s	
Stack Temperature	:	329 °K	
Monitoring Period	:	50m	
Flow Rate	:	19.4 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	25.1	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	419.2	1000	(mg/Nm ³)
Nitrogen Oxide (NOX)	228.4	600	(mg/Nm ³)

Analyzed By



Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

July - 2022

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	09.07.2022	
Stack Velocity of Flue gas	:	11.3 m/s	
Stack Temperature	:	492 °K	
Monitoring Period	:	33m	
Flow Rate	:	24.8 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter,	18.2	30	(mg/Nm ³)


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/SE-07/05
 Date : 09/08/2022

 Order No.: PFE/7500001077
 Date : 30/03/2022

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

01	Test Ref. No.	GSCL/22-23/SE-07/05		
02	Date of Sampling	25.07.2022		
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)	14.5		
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

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SR-07/04
Date : 09/08/2022Order No.: FFE/7500001077
Date : 30/03/2022Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Muxiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200**STACK EMISSION TEST RESULTS**

01	Test Ref. No.	GSCL/22-23/SR-07/04		
02	Date of Sampling	25.07.2022		
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)	13.7		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	12	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

July - 2022

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	11.07.2022	
Stack Velocity of Flue gas	:	13.7m/s	
Stack Temperature	:	346 °K	
Monitoring Period	:	55m	
Flow Rate	:	18.5 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	15.3	30	(mg/Nm ³)


Analyzed By




Verified By

STACK EMISSION MONITORING REPORT

July - 2022

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	11.07.2022	
Stack Velocity of Flue gas	:	8.5 m/s	
Stack Temperature	:	379 °K	
Monitoring Period	:	39m	
Flow Rate	:	26.9 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	38.5	50	(mg/Nm ³)
Sulphur Dioxide (SO ₂)	425.1	600	(mg/Nm ³)
Nitrogen Oxide (NO _x)	219.7	300	(mg/Nm ³)


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/SE-07/03
Date : 09/08/2022Order No.: PFE/7500001077
Date : 30/03/2022Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200**STACK EMISSION TEST RESULTS**

01	Test Ref. No.	GSCL/22-23/SE-07/03		
02	Date of Sampling	24.07.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	101		
06	Exit Velocity of Gas (m/sec)	8.6		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	43	mg/Nm ³	50
II.	Sulphur Dioxide (as SO ₂)	473	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/22-23/DW-07/01
Date : 09/08/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/22-23/DW-3107/01
Collected On : 31-07-2022

Sample Source : Tasata Sadhan
Received On : 02-08-2022

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	2	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	71	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	7.3	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	0.013	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/22-23/DW-07/01
Date : 09/08/2022

Order No.: PFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-3107/01
Collected On : 31-07-2022

Sample Source : Tessta Sadhan
Received On : 02-08-2022

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	55	200	600
22.	Total Hardness, (as CaCO ₃), mg/l, Max	32	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/22-23/WW-07/01
Date : 09/08/2022

Order No.: FFR/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-3107/01
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 31.07.2022
Sample Received On : 02.08.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.81	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	33	100
4.	Biochemical Oxygen Demand	mg/l	22	30
5.	Chemical Oxygen Demand	mg/l	149	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	4.3	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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Report No.: ENV/GSCL/22-23/WW-07/02
Date : 09/08/2022

Order No.:
Date :

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-3107/02
Sample Type/Source : Waste Water (Treated)/CPP N-Pit Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 31.07.2022
Sample Received On : 02.08.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.68	5.5 - 9.0
2.	Temperature	°C	26.1	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	22	100
4.	Biochemical Oxygen Demand	mg/l	23	30
5.	Chemical Oxygen Demand	mg/l	87	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	12	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	42	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/2022-23/25

Dated: 08.09.2022

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

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

Dear Sir / Madam,

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

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


Authorized Signatory 

Encl: Environmental Monitoring Reports - AUGUST 2022.



Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

AMBIENT AIR QUALITY MONITORING RESULTS

August – 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	04.08.2022	34.6	42.8	6.1	9.2
Near CCR Material Yard	05.08.2022	33.9	43.1	5.9	8.6
Near Guest House (Yamuna Sadan)	06.08.2022	12.8	31.9	<5.0	<6.0
Residential Colony	08.08.2022	13.7	32.4	<5.0	<6.0


Analyzed By




Verified By

AMBIENT AIR QUALITY MONITORING RESULTS

August – 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	09.08.2022	37.2	53.2	6.4	11.1
Near CCR Material Yard	10.08.2022	42.1	55.3	6.9	13.1
Near Guest House (Yamuna Sadan)	11.08.2022	22.5	38.4	<5.0	<6.0
Residential Colony	12.08.2022	18.7	33.4	<5.0	<6.0


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/AA-08/01
Date : 02/09/2022

Order No.: FFE/7500001077
Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musiang Lamare (Old), P. O.- Khlehrat, 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)	19.08.2022	81.4	57.2	6.7	7.7
2.	Near CCR (Material Yard)	18.08.2022	29.6	51.4	5.3	7.7
3.	Near Guest House (Yamuna Sodak)	18.08.2022	18.3	32.9	<5.0	<5.0
4.	Residential Colony	19.07.2022	25.8	34.7	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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AMBIENT AIR QUALITY MONITORING RESULTS

August - 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	23.08.2022	36.4	42.6	7.4	12.1
Near CCR Material Yard	24.08.2022	39.7	54.6	7.9	12.5
Near Guest House (Yamuna Sadan)	25.08.2022	23.4	36.7	<5.0	<6.0
Residential Colony	26.08.2022	17.8	35.2	<5.0	<6.0

Analyzed By



Verified By

GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

August 2022

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)-	
Date of Monitoring	:	09. 08. 2022	
Stack Velocity of Flue gas	:	12.0m/s	
Stack Temperature	:	394 °K	
Monitoring Period	:	24.46m	
Flow Rate	:	25.12LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	22.6	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	532.5	1000	(mg/Nm ³)
Nitrogen Oxide (NOX)	340.2	600	(mg/Nm ³)

Analyzed By



Verified By

Regd. Office and Works: Village - Musiang Lamare (Old), Khliehriat, Dist East Jaintia Hills, Meghalaya, Pin-793200
Marketing Office: 5A, 5th Floor, Shine -Tower, 57 Sati Jayamati Road, Arya Chowk, Rahaberi, Guwahati, Assam-781008

Report No.: ENV/GSCL/22-23/SE-08/02
Date : 02/09/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-08/02		
02	Date of Sampling	18.08.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill (Kiln)		
05	Flue Gas Temperature (°C)	176		
06	Exit Velocity of Gas (m/sec)	21.3		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	21	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	579	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	223	mg/Nm ³	600

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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GOLDSTONE CEMENTS LIMITED

CIN: U26340ML2007PLC008298



STACK EMISSION MONITORING REPORT

August 2022

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	09.08.2022	
Stack Velocity of Flue gas	:	11.6 m/s	
Stack Temperature	:	337 °K	
Monitoring Period	:	48.94m	
Flow Rate	:	23.22 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	23.5	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	478.2	1000	(mg/Nm ³)
Nitrogen Oxide (NO _x)	229.2	600	(mg/Nm ³)

Analyzed By



[Signature]
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Report No.: ENV/GSCL/22-23/SE-08/01
Date : 02/09/2022

Order No.: FFE/7100001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-08/01		
02	Date of Sampling	18.08.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	54		
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)
1	Particulate Matter	17	mg/Nm ³	30

*NA: Not Applicable



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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

August 2022

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	10.08.2022	
Stack Velocity of Flue gas	:	12.6 m/s	
Stack Temperature	:	484 °K	
Monitoring Period	:	40m	
Flow Rate	:	21.8 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	17.5	30	(mg/Nm ³)


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Report No.: ENV/GCL/22-23/56-08/05
Date : 02/09/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GCL/22-23/56-08/05		
02	Date of Sampling	19.08.2022		
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)	12.4		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	24	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



STACK EMISSION MONITORING REPORT

August 2022

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	11.08.2022	
Stack Velocity of Flue gas	:	12.7m/s	
Stack Temperature	:	356 °K	
Monitoring Period	:	52m	
Flow Rate	:	16.5 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	16.3	30	(mg/Nm ³)


Analyzed By




Verified By

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Marketing Office: 5A, 5th Floor, Shine - Tower, 57 Sati Jayamati Road, Arya Chowk, Rahaberi, Guwahati, Assam-781008

Report No: ENV/GSCL/22-23/SE-08/04
Date : 02/09/2022

Order No: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-08/04		
02	Date of Sampling	19.08.2022		
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)	13.9		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	Particulate Matter	14	mg/Nm ³	30

*NA: Not Applicable



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STACK EMISSION MONITORING REPORT

August 2022

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	11.08.2022	
Stack Velocity of Flue gas	:	9.8m/s	
Stack Temperature	:	374 °K	
Monitoring Period	:	45m	
Flow Rate	:	21.8LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	36.5	50	(mg/Nm ³)
Sulphur Dioxide (SO ₂)	489	600	(mg/Nm ³)
Nitrogen Oxide (NO _x)	224.3	300	(mg/Nm ³)


Analysed By




Verified By

Report No.: ENV/GSCL/22-23/SE-08/03
Date : 02/09/2022

Order No.: FFE/7506001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-08/03		
02	Date of Sampling	18.06.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	182		
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)	468	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	219	mg/Nm ³	300



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ENVIROCON
Recognised By
Pollution Control Board, Assam

Envirocon Building, L.O.C.L (AOD) New Market
P.O.: Digboi, Dist.: Tinsukia, Assam - 786 171
Ph: 03751-264414, 9435008657, 8876028672
E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified
ISO 45001:2018 Certified

Report No.: ENV/GSCL/22-23/N-08/01
Date : 02/09/2022

Order No.: FFE/7500001077
Date : 30/03/2022

Report issued To : **GOLDSTONE CEMENTS LIMITED**
Village- Musang 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	18.08.2022	64.7	75	56.3	70
2	Near CPP Area	18.08.2022	71.4	75	56.7	70
3	Near Coal Storage Yard	18.08.2022	64.8	75	53.1	70
4	Near Raw Mill	18.08.2022	71.7	75	66.4	70
5	Near Cement Mill	19.08.2022	73.6	75	67.9	70
6	HR & Mine's Office	19.08.2022	57.2	75	48.9	70
7	CPP TG Building	19.08.2022	71.5	75	67.2	70



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Report No.: ENV/GSCL/22-23/FE-08/01
Date : 02/09/2022

Order No.: FFE/500001077
Date : 30/03/2022

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

PROCESS FUGITIVE EMISSION TEST RESULTS

Sl. No.	Locations	Date of Sampling	Results for SPM (ug/m ³)	Limits (ug/m ³)
01	Fly-ash Storage Section	10.08.2022	876	5000
02	Coal Storage Section	10.08.2022	623	2000
03	Limestone Storage Section	19.08.2022	1818	5000
04	Cement Packing Section	19.08.2022	2182	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/WW-08/02
Date : 02/09/2022

Order No.:
Date :

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2209/02
Sample Type/Source : Waste Water (Treated)/C/P N-PH Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 22-09-2022
Sample Received On : 24-09-2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.68	5.5 - 9.0
2.	Temperature	°C	26.7	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	23	100
4.	Biochemical Oxygen Demand	mg/l	22	30
5.	Chemical Oxygen Demand	mg/l	87	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	6.1	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	29	100
10.	Free Ammonia (as NH ₃)	mg/l	+0.01	5.0



Checked By: Mr. Panloj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/WW-08/01
 Date : 02/09/2022

Order No.: FFE/7500001077
 Date : 30/01/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2208/01
 Sample Type/Source : Waste Water (Treated)/EFP Outlet
 Sample Collected By : Representative of ENVIROCON
 Sample Collected On : 22.08.2022
 Sample Received On : 24.08.2022
 Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.76	5.5 - 9.0
2.	Temperature	°C	24.8	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	35	100
4.	Biochemical Oxygen Demand	mg/l	24	30
5.	Chemical Oxygen Demand	mg/l	151	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	6.1	50
9.	Total Kjeldahl Nitrogen (as NH ₄)	mg/l	13	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/DW-08/01
Date : 02/09/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/DW-2208/08
Collected On : 22-08-2022

Sample Source : Annapurna Mess
Received On : 24-08-2022

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	5
4.	Turbidity, NTU, Max	0.2	1	No Relaxation
5.	pH	6.92	6.5 - 8.5	2000
6.	Total Dissolved Solids, mg/L, Max	69	500	0.2
7.	Aluminium (as Al), mg/L, Max	ND	0.03	1.0
8.	Boron (as B), mg/L, Max	ND	0.5	200
9.	Calcium (as Ca), mg/L, Max	29	75	1000
10.	Chloride (as Cl), mg/L, Max	7.1	250	1.5
11.	Copper (as Cu), mg/L, Max	ND	0.05	1.5
12.	Fluorides (as F), mg/L, Max	ND	1.0	1
13.	Free Residual Chlorine, mg/L, Min	ND	0.2	No Relaxation
14.	Iron (as Fe), mg/L, Max	0.011	0.3	100
15.	Magnesium (as Mg), mg/L, Max	2	30	0.3
16.	Manganese (as Mn), mg/L, Max	ND	0.1	15
17.	Zinc (as Zn), mg/L, Max	ND	5.0	No Relaxation
18.	Nitrate (as NO ₃), mg/L, Max	0.2	45	400
19.	Sulfate (as SO ₄), mg/L, Max	ND	200	0.002
20.	Phenolic Compounds (as C ₆ H ₅ OH), mg/L, Max	ND	0.001	-Continued-

*Limits as per IS 10500:2012

Analysis Protocol: IN 3025
ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/DW-08/01
Date : 02/09/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/22-23/DW-2208/01
Collected On : 22-08-2022

Sample Source : Annapurna Mess
Received On : 24-08-2022

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	51	200	600
22.	Total Hardness, (as CaCO ₃), mg/L Max	28	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

*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 Barot, ENVIROCON

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Report No.: ENV/GSCL/22-23/SW-08/01
Date : 06/09/2022

Order No.: FFI/500001077
Date : 30/03/2022

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/2022/SW-2308/01
Collected On : 22-08-2022

Sample Source: Plant Nala Upstream
Received On : 24-08-2022

Sample Type: Surface Water
Collected By: Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 18500:2012)
1.	Colour, Hazen Units, Max.	3	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	27.4	6.5 - 8.5
4.	pH Value	6.68	-
5.	Suspended Solids	27	500
6.	Total Dissolved Solids, mg/l, Max.	132	-
7.	Conductivity, $\mu\text{S/cm}$	231	-
8.	Dissolved Oxygen, mg/l, Min.	4.8	-
9.	Biochemical Oxygen Demand, mg/l, Max.	7	-
10.	Chemical Oxygen Demand, mg/l, Max.	30	-
11.	Oil and Grease, mg/l, Max.	<0.01	0.2
12.	Residual Chlorine, mg/l, Min.	25	200
13.	Total Hardness (as CaCO_3), mg/l, Max.	8	75
14.	Calcium (as Ca), mg/l, Max.	<1	30
15.	Magnesium (as Mg), mg/l, Max.	0.05	0.3
16.	Iron (as Fe), mg/l, Max.	0.2	-
17.	Ammonical Nitrogen (as N), mg/l, Max.	0.1	-
18.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	34	-
19.	Free Ammonia (as NH_3), mg/l, Max.	<0.01	-

Analysis Protocol: IS 3025



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/22-23/SW-08/02
Date : 06/09/2022

Order No.: FFE/500001077
Date : 30/03/2022

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-2208/02
Collected On : 22-08-2022

Sample Source : Plant Nala Downstream
Received On : 24-08-2022

Sample Type : Surface Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	3	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	27.4	-
4.	pH Value	6.72	6.5 - 8.5
5.	Suspended Solids	31	-
6.	Total Dissolved Solids, mg/L Max.	138	500
7.	Conductivity, $\mu\text{S/cm}$	235	-
8.	Dissolved Oxygen, mg/L, Min.	4.9	-
9.	Biochemical Oxygen Demand, mg/L, Max.	5	-
10.	Chemical Oxygen Demand, mg/L, Max.	31	-
11.	Oil and Grease, mg/L Max.	<4.0	-
12.	Residual Chlorine, mg/L, Min.	<0.01	0.2
13.	Total Hardness (as CaCO_3), mg/L, Max.	22	200
14.	Calcium (as Ca), mg/L Max.	6	75
15.	Magnesium (as Mg), mg/L Max.	<1	30
16.	Iron (as Fe), mg/L, Max.	0.07	0.3
17.	Ammonical Nitrogen (as N), mg/L, Max.	7.8	-
18.	Total Kjeldahl Nitrogen (as NH_3), mg/L, Max.	29	-
19.	Free Ammonia (as NH_3), mg/L, Max.	<0.01	-

Analysis Protocol: IS 3025



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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

No: GSCL/EHS/2022-23/30

Dated: 01.11.2022

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

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

Dear Sir / Madam,

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

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully,

For Goldstone Cements Ltd.


Authorized Signatory



Encl: Environmental Monitoring Reports - SEPTEMBER 2022.



Goldstone Cements Limited

CIN No. : U26940ML2007PLC008298

Report No. : ENV/GSCL/22-23/AA-09/01
 Date : 07/10/2022

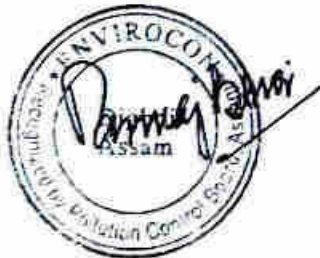
Order No. : FFE/7500001077
 Date : 30/03/2022

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

AMBIENT AIR QUALITY TEST RESULTS

LOCATIONS ↓	Date of Sampling	PM 2.5 (µg/m³)	PM 10 (µg/m³)	SO ₂ (µg/m³)	NO ₂ (µg/m³)	NH ₃ (µg/m³)	CO (mg/m³)	O ₃ (µg/m³)	B(a)P (ng/m³)	C ₆ H ₆ (µg/m³)	Ni (ng/m³)	As (ng/m³)	Pb (µg/m³)
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)	07.09.2022	23.9	41.7	5.9	7.9	12.1	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near CCR (Material Yard)	06.09.2022	26.4	44.9	5.3	8.3	10.4	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near Guest House (Yamuna Sadan)	06.09.2022	21.6	35.3	<5.0	<6.0	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Residential Colony	07.09.2022	19.3	37.1	<5.0	<6.0	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01

Analysis Protocol: IS 5182



Checked By: Pankaj Baroi, ENVIROCON


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AMBIENT AIR QUALITY MONITORING RESULTS**September - 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	12.09.2022	37.2	46.5	5.2	8.9
Near CCR Material Yard	13.09.2022	35.7	44.9	5.8	8.5
Near Guest House (Yamuna Sadan)	14.09.2022	15.3	32.6	<5.0	<6.0
Residential Colony	15.09.2022	16.1	38.7	<5.0	<6.0


 Analyzed By


 Verified By

AMBIENT AIR QUALITY MONITORING RESULTS

September – 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	19.09.2022	39.5	56.2	5.9	10.9
Near CCR Material Yard	20.09.2022	43.9	57.6	5.9	12.5
Near Guest House (Yamuna Sadan)	21.09.2022	44.9	39.4	<5.0	<6.0
Residential Colony	22.09.2022	17.9	35.1	<5.0	<6.0


Analyzed By




Verified By

AMBIENT AIR QUALITY MONITORING RESULTS

September- 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	26.09.2022	39.6	45.1	7.2	11.8
Near CCR Material Yard	27.09.2022	38.4	55.6	7.3	13.2
Near Guest House (Yamuna Sadan)	28.09.2022	25.3	38.2	<5.0	<6.0
Residential Colony	29.09.2022	16.8	36.7	<5.0	<6.0


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/SE-09/05

Date : 31/10/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-09/05		
02	Date of Sampling	06.09.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill and Kiln		
05	Flue Gas Temperature (°C)	188		
06	Exit Velocity of Gas (m/sec)	17.72		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	11.8	mg/Nm ³	30
II.	Sulphur Dioxide (as SO ₂)	414	mg/Nm ³	1000
III.	Oxides of Nitrogen (as NO _x)	198	mg/Nm ³	600
IV.	Oxygen (as O ₂)	12.9	% V/V	-
V.	Hydrogen Chloride (as HCl)	2.4	mg/Nm ³	10
VI.	Hydrogen Fluoride (as HF)	BDL [MDL: 1.0]	mg/Nm ³	1
VII.	Mercury (as Hg)	BDL [MDL: 0.001]	mg/Nm ³	0.03
VIII.	Hg and its compounds	BDL [MDL: 0.001]	mg/Nm ³	0.05
IX.	Cd + Tl and their compounds	BDL [MDL: 0.001]	mg/Nm ³	0.05
X.	Sb+As+Pb+Co+Cr+Cu+Mn+Ni+V+ and their compounds	0.058	mg/Nm ³	0.5

BDL: Below Detectable Limit, MDL: Minimum Detectable Limit



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/22-23/SE-09/06

Date : 31/10/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To: **GOLDSTONE CEMENTS LIMITED**

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-09/06		
02	Date of Sampling	06.09.2022		
03	Stack Attached To	Raw Mill and Kiln		
04	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I	Total Organic Carbon (as TOC)	9.16	mg/Nm ³	10
II	Total Dioxins and Furans	BDL [MDL: 0.01]	ngTEQ/Nm ³	0.1

BDL: Below Detectable Limit, MDL: Minimum Detectable Limit



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GOLDSTONE CEMENTS LIMITED



STACK EMISSION MONITORING REPORT

September 2022

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)
Date of Monitoring	:	21. 09. 2022
Stack Velocity of Flue gas	:	17.0m/s
Stack Temperature	:	412 °K
Monitoring Period	:	37.97m
Flow Rate	:	26.2LPM

Parameters	Results	Standard Limits	Unit
Particulate Matter	27.6	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	548	1000	(mg/Nm ³)
Nitrogen Oxide (NO _X)	286	600	(mg/Nm ³)


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/SE-09/04
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-09/04		
02	Date of Sampling	08.09.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	60		
06	Exit Velocity of Gas (m/sec)	9.9		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	19	mg/Nm ³	30

*NA: Not Applicable



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STACK EMISSION MONITORING REPORTSeptember - 2022

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	21.09.2022	
Stack Velocity of Flue gas	:	9.8 m/s	
Stack Temperature	:	335 °K	
Monitoring Period	:	61.05m	
Flow Rate	:	16.38 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	24.2	30	(mg/Nm ³)
Sulphur Dioxide(SO ₂)	598	1000	(mg/Nm ³)
Nitrogen Oxide (NOX)	225.1	600	(mg/Nm ³)



 Analyzed By



 Verified By

Report No.: ENV/GSCL/22-23/SE-09/01
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-09/01		
02	Date of Sampling	07.09.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	235		
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)
i	Particulate Matter	24	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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STACK EMISSION MONITORING REPORT

September - 2022

Name of Stack & Stack No.	:	Cooler ESP (3)	
Date of Monitoring	:	23.09.2022	
Stack Velocity of Flue gas	:	17.57m/s	
Stack Temperature	:	502 °K	
Monitoring Period	:	50.78m	
Flow Rate	:	21.69 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	19.2	30	(mg/Nm ³)


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/SE-09/01
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-09/03		
02	Date of Sampling	08.09.2022		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	81		
06	Exit Velocity of Gas (m/sec)	11.2		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	15	mg/Nm ³	30

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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STACK EMISSION MONITORING REPORT

September - 2022

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	23.09.2022	
Stack Velocity of Flue gas	:	11.7m/s	
Stack Temperature	:	374 °K	
Monitoring Period	:	112.99m	
Flow Rate	:	8.85 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	18.2	30	(mg/Nm ³)


Analyzed By




Verified By

Report No.: ENV/GSCL/22-23/SE-09/02
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/22-23/SE-09/02		
02	Date of Sampling	07.09.2022		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	101		
06	Exit Velocity of Gas (m/sec)	8.2		
07	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	42	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	473	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	218	mg/Nm ³	300
iv.	Mercury (as Hg)	<0.01	mg/Nm ³	0.03



Checked By: Mr. Pankaj Baroi, ENVIROCON

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STACK EMISSION MONITORING REPORT

September -2022

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	24.09.2022	
Stack Velocity of Flue gas	:	11.2m/s	
Stack Temperature	:	379 °K	
Monitoring Period	:	56 m	
Flow Rate	:	22.4LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	26.3	50	(mg/Nm ³)
Sulphur Dioxide (SO ₂)	465	600	(mg/Nm ³)
Nitrogen Oxide (NO _x)	245.6	300	(mg/Nm ³)


Analysed By




Verified By

Report No.: ENV/GSCL/22-23/N-09/01
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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	06.09.2022	66.7	75	59.3	70
2	Near CPP Area	06.09.2022	70.2	75	62.7	70
3	Near Coal Storage Yard	07.09.2022	63.4	75	54.5	70
4	Near Raw Mill	07.09.2022	72.6	75	66.1	70
5	Near Cement Mill	07.09.2022	71.5	75	64.8	70
6	HR & Mine's Office	08.09.2022	62.6	75	52.4	70
7	CPP TG Building	08.09.2022	69.7	75	65.7	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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

Report No.: ENV/GSCL/22-23/FE-09/01
Date : 07/10/2022

Order No.: FFE/500001077
Date : 30/03/2022

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	06.09.2022	761	5000
02	Coal Storage Section	07.09.2022	587	2000
03	Limestone Storage Section	07.09.2022	1742	5000
04	Cement Packing Section	06.09.2022	1831	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/22-23/WW-09/02
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2009/02
Sample Type/Source : Waste Water (Treated)/CPP N-Pit Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 20.09.2022
Sample Received On : 21.09.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.61	5.5 - 9.0
2.	Temperature	°C	26.4	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	26	100
4.	Biochemical Oxygen Demand	mg/l	18	30
5.	Chemical Oxygen Demand	mg/l	62	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	5.6	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	22	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

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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 (CF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/22-23/DW-09/01
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/22-23/DW-2009/01
Collected On : 20-09-2022

Sample Source : Anapurna Mess
Received On : 21-09-2022

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	6.86	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	73	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	27	75	200
10.	Chloride (as Cl), mg/l, Max	8.1	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	0.017	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	0.4	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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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/22-23/DW-09/01
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

DRINKING WATER ANALYSIS RESULTS

Sample Ref. No.: GSCL/22-23/DW-2009/01
Collected On : 20-09-2022

Sample Source : Anapurna Mess
Received On : 21-09-2022

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	60	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.	Total Chromium, (as Cr), mg/l, Max	ND	0.2	1.0
29.	Anionic Detergents (as MBAS), mg/l	ND	0.01	0.05
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	No Relaxation
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 (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/22-23/SW-09/01

Date : 07/10/2022

Order No.: FFB/7500001077

Date : 30/03/2022

Report Issued To : **GOLDSTONE CEMENTS LIMITED**

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-2009/01

Collected On : 20-09-2022

Sample Source : Plant Nala Upstream

Received On : 21-09-2022

Sample Type : Surface Water

Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	4	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	24.3	--
4.	pH Value	6.71	6.5 - 8.5
5.	Suspended Solids	32	--
6.	Total Dissolved Solids, mg/L Max.	155	500
7.	Conductivity, μ S/cm	271	--
8.	Dissolved Oxygen, mg/L Min.	5.1	--
9.	Biochemical Oxygen Demand, mg/L Max.	5	--
10.	Chemical Oxygen Demand, mg/L Max.	32	--
11.	Oil and Grease, mg/L Max.	<4.0	--
12.	Residual Chlorine, mg/L Min.	<0.01	0.2
13.	Total Hardness (as CaCO ₃), mg/L Max.	24	200
14.	Calcium (as Ca), mg/L Max.	7	75
15.	Magnesium (as Mg), mg/L Max.	<1	30
16.	Iron (as Fe), mg/L Max.	0.027	0.3
17.	Ammonical Nitrogen (as N), mg/L Max.	6	--
18.	Total Kjeldahl Nitrogen (as NH ₃), mg/L Max.	26	--
19.	Free Ammonia (as NH ₃), mg/L Max.	<0.01	--

Analysis Protocol: IS 3025



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/22-23/SW-09/02
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/2022/SW-2009/02
Collected On : 20-09-2022

Sample Source : Plant Nala Downstream
Received On : 21-09-2022

Sample Type : Surface Water
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Limits (IS 10500:2012)
1.	Colour, Hazen Units, Max.	3	5
2.	Odour	Agreeable	Agreeable
3.	Temperature	24.3	--
4.	pH Value	6.83	6.5 - 8.5
5.	Suspended Solids	44	--
6.	Total Dissolved Solids, mg/l, Max.	169	500
7.	Conductivity, μ S/cm	283	--
8.	Dissolved Oxygen, mg/l, Min.	5.3	--
9.	Biochemical Oxygen Demand, mg/l, Max.	6	--
10.	Chemical Oxygen Demand, mg/l, Max.	44	--
11.	Oil and Grease, mg/l, Max.	<4.0	0.2
12.	Residual Chlorine, mg/l, Min.	<0.01	200
13.	Total Hardness (as CaCO ₃), mg/l, Max.	30	75
14.	Calcium (as Ca), mg/l, Max.	9	30
15.	Magnesium (as Mg), mg/l, Max.	<1	0.3
16.	Iron (as Fe), mg/l, Max.	0.032	--
17.	Ammonical Nitrogen (as N), mg/l, Max.	5	--
18.	Total Kjeldahl Nitrogen (as NH ₃), mg/l, Max.	27	--
19.	Free Ammonia (as NH ₃), mg/l, Max.	<0.01	--

Analysis Protocol: IS 3025



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.

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

Report No.: ENV/GSCL/22-23/WW-09/01

Date : 07/10/2022

Order No.: FFE/7500001077

Date : 30/03/2022

Report Issued To: **GOLDSTONE CEMENTS LIMITED**

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2009/01
Sample Type/Source : Waste Water (Treated)/BTP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 20.09.2022
Sample Received On : 21.09.2022
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.72	5.5 - 9.0
2.	Temperature	°C	26.2	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	35	100
4.	Biochemical Oxygen Demand	mg/l	20	30
5.	Chemical Oxygen Demand	mg/l	151	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	4.7	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	17	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.

Report No.: ENV/GSCL/22-23/WW-09/04
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2009/04
Sample Type/Source : Waste Water/Cooling Tower Blow Down
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 20.09.2022
Sample Received On : 21.09.2022
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

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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/22-23/WW-09/05
Date : 07/10/2022

Order No.: FFE/7500001077
Date : 30/03/2022

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/22-23/WW-2009/05
Sample Type/Source : Waste Water/Condenser Cooling Point
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 20.09.2022
Sample Received On : 21.09.2022
Analysis Protocol : IS 3025

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	pH	6.63	--	6.5 - 8.5
2.	Temperature	26.2	°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

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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.

Annexure – 2

Construction of Concrete Roads



Annexure – 2a,2b

Water Sprinkling



Water Sprinkling in roads through Permanent Water Sprinklers



Water Sprinkling through Permanent Water Sprinklers at Limestone Crusher



Water Sprinkling through Permanent Water Sprinklers



Water Sprinkling through Water Tanker In all internal Roads at Plant



**Water Sprinkling through Water Tanker
Inside the coal storage sheds**



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



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



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

Annexure – 3

PUC Certificates

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

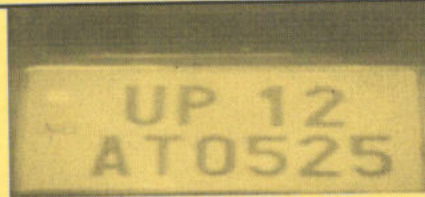
Authorised By :
Government of Uttar Pradesh

Date : **04/06/2022**
Time : **16:44:43 PM**
Validity upto : **03/12/2022**



Certificate SL. No. : UP01200550018955
Registration No. : UP12AT0525
Date of Registration : 14/Aug/2015
Month & Year of Manufacturing : July-2015
Valid Mobile Number : *****4645
Emission Norms : EURO 3
Fuel : DIESEL
PUC Code : UP0120055
GSTIN :
Fees : Rs.100.00(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	2.45	0.85

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

Paryavaran Samiti

Auth. Signatory

[See rules 115 (2)]

Pollution Under Control Certificate

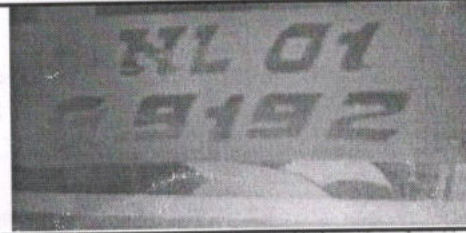
Authorised By :
State Transport Department

Date : 17/07/2022
Time : 10:27:28 AM
Validity upto : 16/01/2023



Certificate SL. No. : TR00100210001386
Registration No. : NL01G9192
Date of Registration : 08/Jun/2011
Month & Year of Manufacturing : May-2011
Valid Mobile Number : *****5675
Emission Norms : BHARAT STAGE III
Fuel : DIESEL
PUC Code : TR0010021
GSTIN :
Fees : Rs.100.00
(GST to be paid extra 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	2.45	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

Tapen Debbarma

RAMKRISHNA
SMOKE TESTING CENTER
Ranirbazar, Tripura (W).

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Assam

Date : **18/06/2022**
Time : **12:14:08 PM**
Validity upto : **17/12/2022**



Certificate SL. No. : AS00100810011795
Registration No. : AS01GC8792
Date of Registration : 30/Apr/2016
Month & Year of Manufacturing : January-2016
Valid Mobile Number : *****1645
Emission Norms : BHARAT STAGE II
Fuel : DIESEL
PUC Code : AS0010081
GSTIN :
Fees : Rs.130.00
(GST to be paid extra 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	
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	2.45	0.32

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

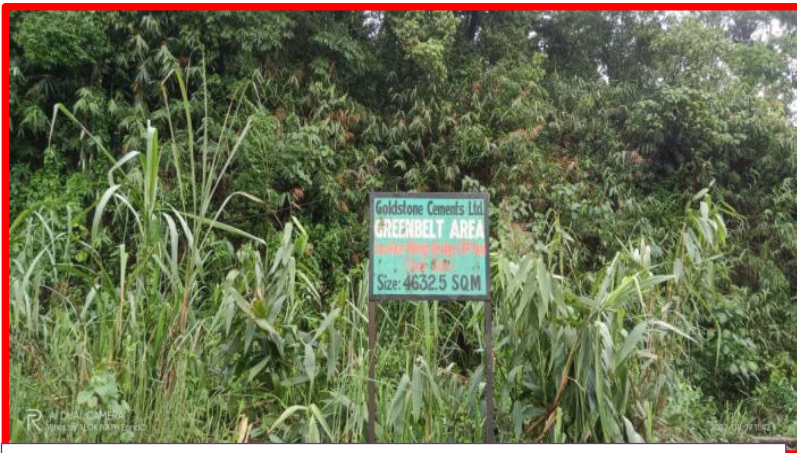
Greenbelt Development



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 EXPENCES

Goldstone Cements Limited

Musiang Lamare (Old), East Jaintia Hills, Khliehriat, Meghalaya-793200

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.)	3.15		
8	Balance amount to be spent and year wise plan as per annexure attached (Rs. In Crs.)	6.46		

Goldstone Cements Limited
Musiang Lamare (Old), East Jaintia Hills, Khliehriat, Meghalaya-793200

CSR Annexure	(Rs. In Lacs)						
	Activity Wise Amount Spent						
Area of CSR Activities	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	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	4.55	8.32
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	9.21	49.25
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	31.50	193.33
Total	18.45	61.65	56.33	54.42	109.97	45.26	314.59
	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

Goldstone Cements Limited.
Musiang Lamare (Old), Khliehriat, Meghalaya.

Details of CSR Expences

Document Date	Type of Expenses	Details of CSR expences	Amount in Local Currency
28-04-2022	Rural Development	Local Basti Motor repair -Moosiang lamare	17,000.00
30-04-2022	Rural Development	Donation Apr-22	9,600.00
30-04-2022	Education	Donation Apr-22	32,000.00
30-04-2022	Education	Donation Apr-22	18,081.00
30-04-2022	Education	Donation Apr-22	800.00
30-04-2022	Rural Development	Donation Apr-22	35,002.00
30-04-2022	Rural Development	Donation Apr-22	1,600.00
09-05-2022	Rural Development	CSR contribution to Chiruphi Village	2,00,000.00
30-04-2022	Education	Salary of Village School teacher Apr-2022.	13,050.00
02-05-2022	Education	Study Material Distribution God Dream (CSR Expences)	25,740.00
31-05-2022	Education	Salary of Village School teacher May-2022.	13,050.00
17-06-2022	Rural Development	CSR Activity - Meghalaya	12,000.00
17-06-2022	Rural Development	CSR Activity - Meghalaya	6,000.00
30-06-2022	Education	Salary of Village school teacher for June'22	13,050.00
27-06-2022	Rural Development	CSR EXPENSES JUNE-22 (SONAPUR)	9,100.00
15-07-2022	Sports and Awareness	Donation for Final Football Match competetin Basti	65,000.00
15-07-2022	Sports and Awareness	CSR contribution to Dorbar Shnog, Welfare & Soprts	2,00,000.00
31-05-2022	Rural Development	Donation for the month of May-22.	57,600.00
31-07-2022	Education	Village Primary School Teacher Fee for July'22	13,050.00
29-08-2022	Education	DONATION FOR THE SCHOOL CONSTRUCTION AT BASTI	3,00,000.00
31-08-2022	Education	Salary of Village School teacher Aug-2022	13,050.00
12-09-2022	Rural Development	Donation paid thr. Mr.Raj Kumar to E.J.N. Council	2,000.00
30-09-2022	Education	CSR expenses salary for sep-22	13,050.00
31-05-2022	Rural Development	Donation expenses remaing portion	10,400.00
30-06-2022	Rural Development	Donation expenses remaing portion	1,60,000.00
31-07-2022	Rural Development	Donation expenses remaing portion	70,640.00
31-07-2022	Rural Development	Reverse entry against sheet-2, Doc-1900002205	-40,000.00
31-08-2022	Rural Development	Donation expenses booking	14,080.00
30-09-2022	Rural Development	Donation expenses booking	90,660.00
TOTAL			13,75,603.00

Annexure – 7

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 – 8

Pollution Control Expenses

Goldstone Cements Ltd.

Musiang Lamare (Old), Meghalaya.

Capital Investment Summary Sheet of Pollution Control Equipments

Upto: 30.09.2022										
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						2016
2	Raw Mill	Raw Mill Bag House								2016
3	Cooler	Clinker Cooler ESP								2016
4	All material transfer points	De dusting Bag Filters	Thermax	60683388						2016
5	CPP	ESP	Rieco							2016
6	Cement Mill	Cement Mill Bag House	Rieco	13878650						2016
7	Coal Mill	Coal Mill bag house	Thermax		40000000	52500000	21000000	10000000		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	Plant	Laboratory Electric Oven & Water Bath	Ferrotek	24795						2022-23
		Commissioning/Supervision		4000000	4000000	52598999.95	21000000	10000000	127599000	
		Total		136547403	(APPROX)	(APPROX)	(APPROX)	(APPROX)	(APPROX)	
A	TOTAL INVESTMENT IN POLLUTION CONTROL EQUIPMENT (APPROX) -				136547403					
B	TOTAL INVESTMENT IN CIVIL/MECHANICAL/TRANSPORTATION OF POLLUTION CONTROL EQUIPMENT (APPROX)								123599000	
TOTAL CAPITAL INVESTMENT IN POLLUTION CONTROL EQUIPMENT APPROX (A+B):									260146403	

Goldstone Cements Limited, Meghalaya.

Recurring Pollution Control Expenditure for 2022-23

			Period: 01.04.2022 to 30.09.2022		
SI No	Date	Particulars	Purchase Order/ Invoice Number	Quantity	Amount
1	30.09.2022	INSULATOR HEATER, PROJECT NO: E200485, MAKE:THERMAX	IA/22-23/0012	2	7,821.00
2	30.09.2022	DRY TYPE PANEL FILTER 4PLY (PURGE AIR FILTER), PROJECT NO: E200485, MAKE:THERMAX	IA/22-23/0012	1	5,393.70
3	30.09.2022	INSULATOR HEATER HOOKUP, PROJECT NO: E200485, MAKE:THERMAX	IA/22-23/0012	12	14,580.00
4	30.09.2022	SUPPORT INSULATOR GASKET, PROJECT NO: E200485, MAKE:THERMAX	IA/22-23/0012	24	1,09,987.20
5	31.08.2022	DATA ACQUISITION MODULE, PART NO: ADAM-4017+, INPUT: MV, V, MA, OUTPUT: RS-485, MAKE: ADVANTECH	KA11390727	12	19,114.38
6	ELECTRICITY EXPENSES FOR RUNNING THE POLLUTION CONTROL EQUIPMENTS at Cement section (April -Sept 2022)				1,21,17,355.09
7	16-06-2022	Plant drainage water collection pond digging	Civil cost (Inhouse work)	72	1,22,400.00
8	22-07-2022	Ash conditioner gear box replacement.	JT/TI/22-23/063 DT : 23.06.22	1	35,000.00
9	16/4,25/6, 21/8/2022	Ash conditioner saddle plates replacement & maint.	saddle plates	108	16,200.00
10	27-06-2022	Flyash silo bagfilters replacement	bagfilter (stock material)	9	5,220.00
11	12-07-2022	ESP internal rapping hammer replacement (spare)		5	2,900.00
12		ESP shock bar repair		3	600.00
13		ESP internal repairing.(manpower cost)			21,662.10
14	22-05-2022	Damaged air lines replacement	40 nb MS ERW pipe 60 mtrs (cpp stock)	60	15,000.00
15	05/08,16/08,17/08/22	3 nos ash vessel with fastners for ESP (Replaced)	SRHE / 2021-22 / 103	3	1,83,540.00
16	12-08-2022	1 nos vessel with fastners for ECO+APH (Replaced)		1	38,760.00
17	29-09-2022	Pneumatic Air On/Off valve replacement	01 nos replaced (stock material)	1	4,200.00
18	05/08,16/08,17/08/22	Metalic bellow replacement	4 nos replaced (stock material)	4	64,636.00
19	April 2022 to Sept 2022	AHP Maintenance.(manpower cost+consumables)			21,910.40
20		Lime stone chips dosing in boiler to reduce SOx & NOx (with operating cost)			90,000.00
21		N-Pit chemical tretment			2,520.00
22	17-09-2022	N-Pit treated water discharge pipe replaced & repair(32NB MS pipe) MT		0.13	8,450.00
23		manpower cost+consumables cost			8,861.12
24	April 2022 to Sept 2022	CPP-Electrical power consumption for ESP & APH (Apr 21 to Sept 21)			25,78,992.36
25	21-Jun-22	Glens Data Transmission AMC	GL/22-23/06/163		58,410.00
26	April - Sept 22	Salaries & Wages for Environmental activities (Env Team & Horticulture Team)			11,50,000.00
27		Dust Suppression through Water Tanker			75,000.00
28		ETP Maintainanance Expences			25,000.00
29		Third party environmental monitoring	7500001077		7,45,760.00
13	30.09.2022	HGLS BOTTOM BAG FILTER 3 NOS V-BELT REPLACED	310000012200		5,782.97
14	26.09.2022	CSP EXTRACTION BF BASE MODIFICATON	310000011976		13,209.94
15	23.09.2022	CSP TOP BF FAN DE BEARING REPLACED	310000011663		17,140.15
16	14.09.2022	COAL MILL BAG HOUSE BAG INSPECTION & REPLACEMENT	310000011132		14,462.31
17	12.09.2022	SURGE BIN BF BAG REPLACEMENT	310000011021		4,519.44
18	11.09.2022	INSPECTION DOON DOOR FABRICATION FOR ESP FAN	310000010975		8,800.42
19	07.08.2022	ESP FAN COUPLING BOLT REPLACEMENT WORK	310000010381		242.84
20	20.07.2022	COAL MILL BAG HOUSE PLATFORM EXTENSION WORK	310000009263		51,587.74
21	11.07.2022	RAW MILL BAG HOUSE BAG INSPECTION AND REPLACEMENT	310000010626		6,237.15
22	15.04.2022	RAW MILL BAG HOUSE RAL-8 DE BEARING REPLACED	310000009890		2,595.56
23	03.06.2022	HGLS BOTTOM BF FAN V BELT REPLACED	310000008811		2,467.45
24	23.04.2022	BLENDING SILO BE BOTTOM BF BAG REPLACEMENT	310000004271		19,443.93
26	April - Sept 22	Manpower utilization for horticulture	3,8,12,14,19,22,31		2,04,012.52
27		Saplings & Tools			21,656.00
Total Recurring Pollution Control Expenditure for 2022-23: (April 22 to September 22)					₹ 1,79,21,431.77

Annexure – 9

Environmental Parameters Display

Environmental Parameters Display Board

ENVIRONMENTAL DATA INFORMATION RELATED TO AIR, WATER AND HW GENERATION

BLACK TIGER CEMENT

1. Name of the Industry/facility with contact details: GOLDSTONE CEMENTS LIMITED, Vill. Muslang 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 : 18.09.2022

3. Consent to Operate and Authorization : No. MPCB/CON-13-2011/Pt-1/2022-2023/97, Validity-30.06.2023

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 quantity and purpose	Type of HW generated (MT/KL) with category as per HW Rules-2016 Year (2021-2022)	QTY of HW generated storage (MT/KL)	QTY of HW Disposed/Utilized in-house (MT/KL)	Mode of treatment and disposal (Co-processing/Utilizing/reuse/incinerator etc.)
1	Cement, Clinker & Power	NA	Used Oil	0.00	0.00	Co-processing incinerator Utilizing
2			Turbine Oil	0.00	0.00	
3			Gear Oil	0.00	0.00	
4			Chemical container	0.00	0.00	

7. Air Emission:

S.No.	Source of Air Pollution	Air Pollution Control System (APCS)		Parameters Monitored w.r.t. Air Pollution		Limits / Standard prescribed by SPCBs / CPC B (mg/Nm ³)
		Stack Height (in meter)	PM (mg/Nm ³)	SO ₂ (mg/Nm ³)	NO _x (mg/Nm ³)	
1	Raw Mill & KILN	Barhouse	40.0	PM-30, SO ₂ -1000 NO _x -600
2	Coal Mill	Barhouse	8.1	
3	Clinker ESP	ESP	45.0	
4	Cement Mill	Barhouse	42.0	
5	CPP	ESP	76.1	

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 (Drain/Sewer/land etc)	Effluents discharge monitoring parameters						
				pH	TSS	BOD	COD	N	TKN	NH ₃
1	Domestic effluent	20 M ³ /day ETP	Out let (mg/l)							
2	DM Plant N Pit	25 M ³ (Holding Capacity)	Out let (mg/l)							

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

Environmental Parameters LED Display Board

Stack	Parameter	Value	Unit
Stack 1 Rawmill	PM	16.17	mg/Nm ³
Stack 2 Coal Mill	PM	70.97	mg/Nm ³
Stack 3 Clinker ESP	PM	22.63	mg/Nm ³
Stack 4 Cement Mill	PM	14.69	mg/Nm ³
Stack 5 CPP	PM	76.1	mg/Nm ³
Stack 6 CPP	NO _x	161.05	mg/Nm ³
Stack 7 CPP	SO ₂	58.75	mg/Nm ³
Stack 8 Rawmill	NO _x	147.7	mg/Nm ³
Stack 9 Rawmill	SO ₂	22.04	mg/Nm ³