

No: GSCL/EHS/2020-21/6

Dated: 10.06.2020

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

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

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



Dear Sir,

With the matter as cited in the subject, we would like to submit the **Half Yearly EC Compliance report for the period 01.10.2019 to 31.03.2020** on Environmental Stipulations for our Cement Plant along with Captive Thermal Power plant located at Vill: Musiang Lamare (old), Khliehriat, Dist :East Jaintia Hills, Meghalaya -793200.

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

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd

  
Authorised Signatory  


Encl: As mentioned above

CC: 1. Regional Director, Central Pollution Control Board, Regional Directorate-North East, Lower Motinagar, Shillong-793014.

2. Member Secretary, Meghalaya State pollution Control Board, "ARDEN"  
Lumpynggad, Shillong-793014, Meghalaya.

**Goldstone Cements Limited**

CIN No. : U26940ML2007PLC008298

**Corporate Office**

510, 5th Floor, Diamond Heritage,  
16, Strand Road, Kolkata - 700001  
P +91-33-66079604

**Factory Office**

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

**Sales & Marketing Office**

5A, 5th Floor, Shine Towers, 57 Sati Jaymati Road  
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COMPLIANCE REPORT (HALF YEARLY) from 1 <sup>st</sup> OCTOBER 2019 to 31 <sup>st</sup> MARCH 2020 ON ENVIRONMENTAL STIPULATIONS FOR CEMENT PLANT ( CLINKER, 1.65 MTPA; CEMENT, 2.0 MTPA ) ALONG WITH CAPTIVE THERMAL POWER PLANT ( 2 x 20 MW) AT VILL MUSIANG LAMARE (OLD), P.O.KHLIEHRIAT , DIST. EAST JAINTIA HILLS, MEGHALAYA 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	CONDITIONS	COMPLIANCE
<b>A. SPECIFIC CONDITIONS</b>		
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 <sup>3</sup> 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"> <li>•The Continuous Stack Monitor (Opacity Meters) is in working condition and online data is being transferred to CPCB &amp; MSPCB.</li> <li>•ESP (Electrostatic Precipitators) for Clinker cooler, Bag house/Bag filters for Raw Mill / Coal Mill &amp; other pollution control equipments were already installed in plant to keep SPM below 30 mg/Nm<sup>3</sup> in Cement Plant stacks and 50 mg/Nm<sup>3</sup> in Captive Power Plant stack as per our consent guideline.</li> </ul>
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.	<p>Hot gases generated from kiln are required for drying out moisture in Raw Mill and Fuel. Hence Kiln waste heat is being utilized partially in Raw Mill and partially in Coal Mill to meet our operational requirement. Some heat is lost in clinker cooler.</p> <p>Moreover, in our case the installed capacity of kiln is only 1700 TPD and after utilization of hot gases in Raw mill and Coal mill, the remaining quantum of waste heat is not sufficient for setting up WHRB.</p> <p>We have also explored the Cement plants in the near vicinity and none of them have installed Waste Heat Recovery Plant.</p>
iii	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November 2009 shall be followed.	The same is being followed during operation of plant. Ambient air quality monitoring is being done through Third party (Recognized laboratory). Ambient air quality parameters are found to be within the limit for all the parameters. <i>(Details attached in Annexure-1)</i>
iv	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>All material transfer points are provided with Bag filters to control fugitive emission.</p> <p>Construction of concrete roads is under progress in the plant. <i>(Photographs are enclosed in Annexure:2)</i></p> <p>Water sprinklers installed in limestone crusher and coal area and plant roads. <i>(Photographs are enclosed in Annexure:2a,2b,2c)</i></p> <p>Full time water tanker has been deployed in the plant as shown in <i>Annexure:2d</i></p> <p>Guideline / Code of practice issued by the CPCB is being followed during operation of plant. Regular monitoring for control of secondary fugitive emission under prescribed limit is being done. <i>(Details attached in Annexure-1)</i></p>

v	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.	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.  It is ensured that without valid PUC no vehicle is allowed in plant premises. Few certificates enclosed for your reference. <i>(Details attached in Annexure-3)</i>
vi	Total water requirement for cement and captive power plant shall not exceed 2,370 m <sup>3</sup> / 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.	Total water requirement is much below the stipulated limit of 2,370 m <sup>3</sup> / day as our Plant has been designed as per close circuit arrangements for cooling water. Company has adopted "ZERO discharge" of waste water.
vii	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.	We have constructed a reservoir of 1 lac liters capacity in the west side; however 14 lac liters capacity reservoir is planned. <i>(Photographs are enclosed Annexure: 4&amp; 4a)</i>
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.	The stream is a seasonal stream. During rainy season, water quality is being Monitored. <i>(Reports are enclosed in Annexure:5)</i> 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.
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.
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 lime time. 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.	We do not have significant quantum of high calorific hazardous waste except very insignificant quantity of Lubricating Oil and the same is disposed off as per defined rules in this regard.
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.	The green belt plan to achieve 33 % area coverage is already finalized. Coverage in major area has been in place. Plantation in balance area is under progress. Plantation of Native species is being done in consultation of DFO. Recently a mass plantation of around 2500 saplings was made on 9 <sup>th</sup> Sept 2019. 30% area is already under greenbelt.  Balance and required plantation shall be done in phase manner. <i>(Greenbelt development Drawing is enclosed in Annexure :6)</i>
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 <sup>th</sup> 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.	All of the points of public hearing have been addressed and complied.  Company has given preference to local people for employment in company.  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.
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.	Company has conducted CSR 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.
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.	Company has already constructed workers accommodations with all necessary infrastructure and facilities such as Fuel for cooking, Toilets & Bathrooms, safe drinking water, medical health care etc.
<b>B. GENERAL CONDITIONS</b>		
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 CTE and 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.	There will be no expansion or modifications beyond permissions already granted without prior approval of MoEF.
iii	The gaseous emissions from various process units shall confirm to the load / mass based standards notified by this Ministry on 19 <sup>th</sup> May, 1993 and standards prescribed from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	Our newly commissioned unit with more sophisticated technologies is able to meet with the new standards of emission for cement industries, including load based standards.
iv	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO <sub>2</sub> and NO <sub>x</sub> 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.	At present, monthly monitoring of ambient air quality is being carried out with the help of recognized laboratory. 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 as per Annexure-1)</i>
v	Industrial waste water shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> 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 bearing in the cement plant are 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 as per 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 to our workers has been done as per factory act and few reports are enclosed. <i>(Details are attached as per Annexure-7)</i> However, the health care center is already available in our Plant Campus. Trained staff and visiting doctor appointed with essential medicine 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 constructed a reservoir of 1 lac liters capacity in the west side; however 14 lac liters capacity reservoir construction is under progress. <i>(Photographs are enclosed in Annexure: 4&amp;4a)</i>

ix	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	We are working on the implementation of the conditions given in EIA/EMP.  We are sponsoring for community development programmes. We are providing the drinking water facility in nearby village.  We are providing free medicines, free ambulance services to local community.
X	As proposed, Rs 25 Crores and Rs 1.80 Crores shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of environment & Forests as well as the state government. An implementing all the conditions stipulated herein shall be submitted to the Regional office of the Ministry at Shillong .The Funds so provided shall not be diverted for any other purpose	Exhaustive environmental protection measures have been taken by installing following equipments apprx 22.49 Cr as capital cost. <ul style="list-style-type: none"> <li>• ESP and bag houses are installed.</li> <li>• Material transfer points bag filters installed to control fugitive dust</li> <li>• Sox &amp; NOx analyzer and opacity meters have been installed to monitor the emission and data transmission to CPCB server.</li> </ul> We have invested approx Rs. 3.71 Cr amount towards recurring cost for environment pollution control measures.  <i>(Details are enclosed in 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	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, SO <sub>2</sub> , NO <sub>x</sub> (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.	Environmental Parameters display board and LED Display board have been provided near company main gate.  <i>(Photograph is enclosed in annexure-9 &amp; 9a)</i>  The EC and six monthly EC compliance reports are shown in our company website <a href="http://gscl.blacktigerso.com/">http://gscl.blacktigerso.com/</a>
xiii	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.	Being Complied



xiv	The environmental statement for each financial year ending 31 <sup>st</sup> 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.	Being complied
xv	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 <a href="http://envfor.nic.in">http://envfor.nic.in</a> . 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.	Has been implemented.
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.	Followed the norms and land development work completed accordingly.

**Amendment in Environmental Clearance conditions related sourcing of coal for the Thermal Power Plants in the State of Meghalaya in pursuant to the proceeding of the Committee Constituted by Hon'ble NGT held on 25.03.2019 -reg. Office Order No: J-13015/ 17/2019-IA.I(T) Dated: 16.09.2019.**

SL. NO	CONDITIONS	COMPLIANCE
i	Local coal source from Meghalaya State shall not be used for operation of power plant unless the Coal mine in Meghalaya has a valid mining lease and approved Mine Plan under Mines and Minerals (Development and Regulation) Act, 1957 & its amendments and connected Regulations. In addition, the Coal Mine from the State of Meghalaya shall also have valid Environmental Clearance (leases with more than 5 ha under EIA Notification, 1994; leases with more than equal to 5 ha	Being complied



	under EIA Notification, 2006 up to 15.01.2016; all coal mining leases irrespective of lease area from 15.01.2016 onwards).	
ii	The Project Proponent shall submit the source of the coal mine, its location, along with boundary co-ordinates of lease, quantity of coal transported along with the mode of transportation, copies of valid mining lease, approved mine plan and Environmental Clearance to the Ministry and its Regional Office before sourcing the coal from Meghalaya State. Further, this information is to be updated and submitted along with the Six Monthly EC compliance report to the Ministry and its Regional Office.	Being complied

For Goldstone cements Ltd.

*[Handwritten Signature]*  
 Authorized Signatory





**Annexure – 1**  
**Environmental**  
**Monitoring Reports**

Report No.: ENV/GSCL/AAQ/OCT/19-20/01  
Date : 05/11/2019

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**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	PM 10	NO <sub>2</sub>	SO <sub>2</sub>
			(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Limit(s) →			60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP	28.10.2019	25.6	52.8	15.8	7.2
2.	Near Secondary Crusher	28.10.2019	27.5	58.4	13.4	7.6
3.	Near Fly Ash Shed	29.10.2019	24.4	55.5	10.2	7.4
4.	Near Temple	29.10.2019	16.4	34.4	ND	ND

ND: Not Detected

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi

*Pankaj Baroi*  


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, Digboi Stores Building, New Market, Digboi - 786 171, Assam.

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

Report No. : ENV/GSCL/DW/OCT/19-20/01  
Date : 05/11/2019

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### DRINKING WATER ANALYSIS RESULTS

Sample Type : Drinking Water  
Collected By : Jointly by Envirocon & Client

Sample Source : Canteen  
Collected On : 28.10.2019

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.077	1.0
5.	pH	7.2	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	88.4	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	25	75
10.	Chloride (as Cl), mg/l, Max	2.4	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	0.016	0.3
15.	Magnesium (as Mg), mg/l, Max	2.5	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	25	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	68	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	17.2	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

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/NLM/OCT/19-20/01  
Date : 05/11/2019

Order No. : SOML/00013/19-20  
Date : 13/04/2019

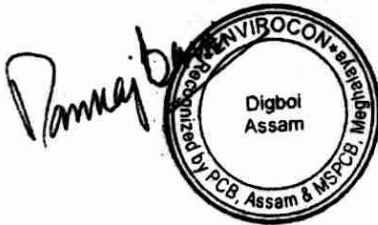
**GOLDSTONE CEMENTS LIMITED**

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

**NOISE LEVEL MEASUREMENT RESULTS**

Measurement Date: 28.10.2019

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	73	75	66	70
2	Near CPP Area	64	75	60	70
3	Near Limestone Storage Yard	66	75	59	70
4	Near Coal Storage Yard	63	75	57	70
5	Near Raw Mill	74	75	67	70
6	Near Cement Mill	73	75	65	70
7	Near Administrative Building	64	75	52	70
8	Power House	72	75	68	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/ETP/OCT/19-20/01  
Date : 05/11/2019

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**

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

**ETP WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 28.10.2019

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.7	5.5 - 9.0
02	Temperature	°C	25	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	8.7	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	19	30
05	Chemical Oxygen Demand	mg/l	65	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	7.2	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	17.6	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

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/AAQ/NOV/19-20/01  
 Date : 27/11/2019

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**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 ( $\mu\text{g}/\text{m}^3$ )	PM 10 ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP	16.11.2019	26.8	54.5	16.7	7.7
2.	Near Secondary Crusher	16.11.2019	28.3	57.6	14.2	7.2
3.	Near Fly Ash Shed	17.11.2019	25.6	53.3	12.9	6.9
4.	Near Temple	17.11.2019	15.8	35.3	ND	ND

ND: Not Detected

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi

*Pankaj Baroi*  


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/DW/NOV/19-20/01  
 Date : 27/11/2019

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

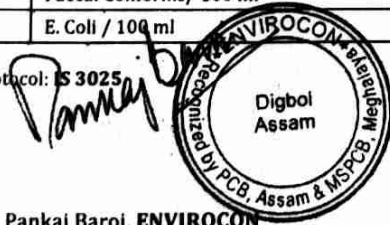
### DRINKING WATER ANALYSIS RESULTS

Sample Type : Drinking Water  
 Collected By : Jointly by Envirocon & Client  
 Sample Source : Canteen  
 Collected On : 18.11.2019

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.053	1.0
5.	pH	6.9	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	92.6	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	26	75
10.	Chloride (as Cl), mg/l, Max	4.9	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	0.019	0.3
15.	Magnesium (as Mg), mg/l, Max	3.8	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	45	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	54	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	14.3	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/NLM/NOV/19-20/01  
 Date : 27/11/2019

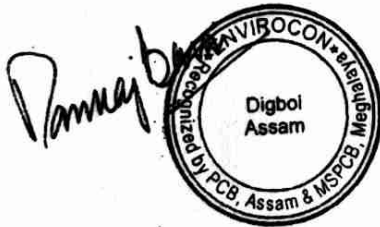
Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

### NOISE LEVEL MEASUREMENT RESULTS

Measurement Date: 18.11.2019

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	74	75	64	70
2	Near CPP Area	66	75	62	70
3	Near Limestone Storage Yard	64	75	56	70
4	Near Coal Storage Yard	62	75	55	70
5	Near Raw Mill	73	75	65	70
6	Near Cement Mill	72	75	66	70
7	Near Administrative Building	62	75	54	70
8	Power House	73	75	67	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/FE/NOV/19-20/01  
 Date : 27/11/2019

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
17.11.2019	Fly-ash Storage Section	1446	5000
17.11.2019	Coal Storage Section	755	2000
18.11.2019	Limestone Storage Section	1563	5000
18.11.2019	Cement Packing Section	1839	5000

Sampled & Analysed by: ENVIROCON, Digboi



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/ETP/NOV/19-20/01  
 Date : 27/11/2019

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

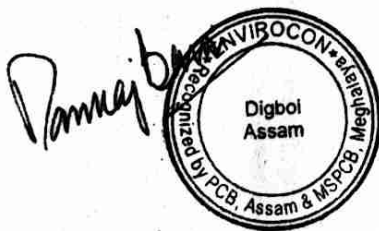
**ETP WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
 Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
 Collected On: 18.11.2019

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.6	5.5 – 9.0
02	Temperature	°C	24.2	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	9.5	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	21	30
05	Chemical Oxygen Demand	mg/l	69	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	7.7	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	16.8	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/AAQ/DEC/19-20/01  
Date : 06/01/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**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 <sup>3</sup> )	PM 10 (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NH <sub>3</sub> (µg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	O <sub>3</sub> (µg/m <sup>3</sup> )	B(a)P (ng/m <sup>3</sup> )	C <sub>6</sub> H <sub>6</sub> (µg/m <sup>3</sup> )	NI (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Pb (µg/m <sup>3</sup> )
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	17.12.2019	27.6	52.8	15.2	9.7	18.2	0.043	4.2	<0.1	<0.01	<0.01	<0.01	<0.01
Near Secondary Crusher	17.12.2019	31.4	59.7	11.6	7.3	10.9	0.032	3.5	<0.1	<0.01	<0.01	<0.01	<0.01
Near Fly Ash Shed	18.12.2019	24.2	44.6	10.3	5.9	13.6	0.039	3.1	<0.1	<0.01	<0.01	<0.01	<0.01
Near Temple	18.12.2019	16.3	37.8	ND	ND	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01

Analysis Protocol: IS 5182  
ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/DEC/19-20/01  
Date : 06/01/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

## GOLDSTONE CEMENTS LIMITED

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

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/19-20/01		
02	Date of Sampling	17.12.2019		
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)	13.2		
07	Type of Fuel Used	Kiln Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	20.2	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	783.6	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	381.2	mg/Nm <sup>3</sup>	600



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/DEC/19-20/02  
Date : 06/01/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

## STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/19-20/02		
02	Date of Sampling	17.12.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	62		
06	Exit Velocity of Gas (m/sec)	10.6		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	22.3	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	653.7	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	390.1	mg/Nm <sup>3</sup>	600

\*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/DEC/19-20/03  
Date : 06/01/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

## STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/19-20/03		
02	Date of Sampling	18.12.2019		
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)	14.2		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	18.7	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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# ENVIROCON

Recognised By  
PCB, Assam & MSPCB, Meghalaya

Digboi Stores Building, New Market  
Digboi, Assam - 786 171  
Ph: 03751-264414, 9436008657, 8878028672  
E-mail: envirocon@rediffmail.com  
Website: www.envirocon.net.in



Report No.: ENV/GSCL/SE/DEC/19-20/05

Date : 06/01/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

## GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.- Khliehriat

Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/19-20/05		
02	Date of Sampling	18.12.2019		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	89		
06	Exit Velocity of Gas (m/sec)	9.4		
07	Type of Fuel Used	Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	31.8	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	497.5	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	200.6	mg/Nm <sup>3</sup>	300



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/DEC/19-20/04

Date : 06/01/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

## GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.: - Khliehriat

Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/19-20/04		
02	Date of Sampling	19.12.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	60		
06	Exit Velocity of Gas (m/sec)	12.9		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	17.7	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No. : ENV/GSCL/DW/DEC/19-20/01  
 Date : 06/01/2020

Order No. : SOML/00013/19-20  
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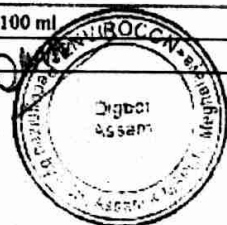
**GOLDSTONE CEMENTS LIMITED**  
 Village- Mussang Lamare (Old)  
 P. O.- Khlehriat  
 Meghalaya- 793200

**DRINKING WATER ANALYSIS RESULTS**

Sample Type : Drinking Water  
 Sample Source : Canteen  
 Collected By : Jointly by Envirocon & Client  
 Collected On : 19.12.2019

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.13	1.0
5.	pH	6.8	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	88.6	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	26	75
10.	Chloride (as Cl), mg/l, Max	5.9	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	0.015	0.3
15.	Magnesium (as Mg), mg/l, Max	3.1	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	36	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	72	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	15.2	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Aromatic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol IS 3025



ND: Not Detected

Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/FE/DEC/19-20/01  
Date : 06/01/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**

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

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
17.12.2019	Fly-ash Storage Section	1446	5000
17.12.2019	Coal Storage Section	755	2000
18.12.2019	Limestone Storage Section	1563	5000
18.12.2019	Cement Packing Section	1839	5000

Sampled & Analysed by: ENVIROCON, Digboi



Checked By: Mr. Pankaj Baroi, ENVIROCON

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# ENVIROCON

Recognised By  
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Ph: 03751-264414, 9435008657, 8876028672  
E-mail: envirocon@rediffmail.com  
Website: www.envirocon.net.in



Report No.: ENV/GSCL/NLM/DEC/19-20/01  
Date : 06/01/2020

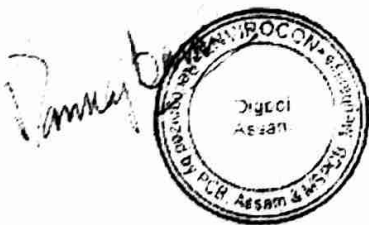
Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

## NOISE LEVEL MEASUREMENT RESULTS

Measurement Date: 18.12.2019

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	72	75	65	70
2	Near CPP Area	64	75	60	70
3	Near Limestone Storage Yard	63	75	58	70
4	Near Coal Storage Yard	60	75	56	70
5	Near Raw Mill	72	75	63	70
6	Near Cement Mill	70	75	66	70
7	Near Administrative Building	63	75	52	70
8	Power House	74	75	68	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/ETP/DEC/19-20/01  
Date : 06/01/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

### ETP WATER ANALYSIS RESULTS

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 19.12.2019

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.6	5.5 - 9.0
02	Temperature	°C	19.2	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	9.5	100
04	Biochemical Oxygen Demand (3 Days @ 27°C)	mg/l	21	30
05	Chemical Oxygen Demand	mg/l	79	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	7.7	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	16.8	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/AAQ/JAN/19-20/01  
 Date : 01/02/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**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 ( $\mu\text{g}/\text{m}^3$ )	PM 10 ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP	21.01.2020	26.4	54.3	19.2	6.8
2.	Near Secondary Crusher	21.01.2020	31.6	59.4	16.7	7.2
3.	Near Fly Ash Shed	22.01.2020	27.4	52.5	12.7	6.5
4.	Near Temple	23.01.2020	18.4	37.4	ND	ND

ND: Not Detected

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/JAN/19-20/01  
Date : 01/02/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

### GOLDSTONE CEMENTS LIMITED

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

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/19-20/01		
02	Date of Sampling	21.01.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	186		
06	Exit Velocity of Gas (m/sec)	14.2		
07	Type of Fuel Used	Kiln Coal		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	15.4	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	440.5	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	190.05	mg/Nm <sup>3</sup>	600

*Pankaj Baroi*

Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/JAN/19-20/02

Date : 01/02/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

### GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.:- Khliehriat

Meghalaya- 793200

## STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/19-20/02		
02	Date of Sampling	21.01.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	66		
06	Exit Velocity of Gas (m/sec)	11.4		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	22.6	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	442.2	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	218.3	mg/Nm <sup>3</sup>	600

\*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/JAN/19-20/03  
Date : 01/02/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**

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

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/19-20/03		
02	Date of Sampling	22.01.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	217		
06	Exit Velocity of Gas (m/sec)	13.7		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	19.8	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/JAN/19-20/05

Date : 01/02/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

### GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.:- Khliehriat

Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/19-20/05		
02	Date of Sampling	23.01.2020		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	87		
06	Exit Velocity of Gas (m/sec)	10.2		
07	Type of Fuel Used	Coal		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	33.7	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	360.04	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	220.68	mg/Nm <sup>3</sup>	300



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/JAN/19-20/04

Date : 01/02/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

## GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

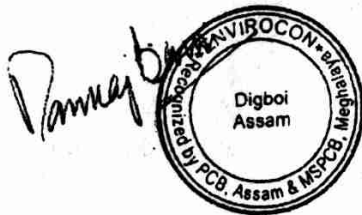
P. O.: Khliehriat

Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/19-20/04		
02	Date of Sampling	23.01.2020		
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)	12.5		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	18.4	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/DW/JAN/19-20/01  
Date : 01/02/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

### DRINKING WATER ANALYSIS RESULTS

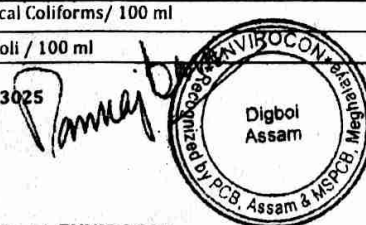
Sample Type : Drinking Water  
Collected By : Jointly by Envirocon & Client

Sample Source : Canteen  
Collected On : 23.01.2020

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.14	1.0
5.	pH	6.9	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	93.4	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	25	75
10.	Chloride (as Cl), mg/l, Max	6.2	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	0.026	0.3
15.	Magnesium (as Mg), mg/l, Max	3.5	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	35	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	72	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	12.8	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/FE/JAN/19-20/01

Date : 01/02/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

## GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.: Khliehriat

Meghalaya- 793200

### PROCESS FUGITIVE EMISSION TEST RESULTS

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
21.01.2020	Fly-ash Storage Section	1569	5000
21.01.2020	Coal Storage Section	845	2000
22.01.2020	Limestone Storage Section	1677	5000
23.01.2020	Cement Packing Section	1762	5000

Sampled & Analysed by: ENVIROCON, Digboi



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/NLM/JAN/19-20/01  
 Date : 01/02/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**

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

**NOISE LEVEL MEASUREMENT RESULTS**

Measurement Date: 22.01.2020

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	70	75	67	70
2	Near CPP Area	62	75	57	70
3	Near Limestone Storage Yard	68	75	60	70
4	Near Coal Storage Yard	64	75	58	70
5	Near Raw Mill	71	75	66	70
6	Near Cement Mill	72	75	68	70
7	Near Administrative Building	60	75	50	70
8	Power House	73	75	67	70

*Pankaj Baroi*  


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/ETP/JAN/19-20/01  
Date : 01/02/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**

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

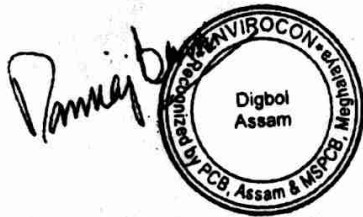
**ETP WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 23.01.2020

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.8	5.5 - 9.0
02	Temperature	°C	18.2	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	8.6	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	24	30
05	Chemical Oxygen Demand	mg/l	79	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	7.2	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	15.9	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

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/AAQ/FEB/19-20/01  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**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/m³)	PM 10 (µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	16.02.2020	28.4	52.6	6.9	17.8
2.	Near CCR (Material Yard)	16.02.2020	32.7	55.2	6.4	18.1
3.	Near Guest House (Yamuna Sadan)	17.02.2020	26.9	44.2	ND	5.2
4.	Residential Colony	18.02.2020	19.3	35.7	ND	4.3

ND: Not Detected

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi

*Pankaj Baroi*  


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/FEB/19-20/01  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/19-20/01		
02	Date of Sampling	16.02.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	182		
06	Exit Velocity of Gas (m/sec)	14.9		
07	Type of Fuel Used	Kiln Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	17.4	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	435.79	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	211.27	mg/Nm <sup>3</sup>	600

*Pankaj Barol*  


Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/SE/FEB/19-20/02  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/19-20/02		
02	Date of Sampling	17.02.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	58		
06	Exit Velocity of Gas (m/sec)	12.3		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	21.8	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	451.83	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	202.78	mg/Nm <sup>3</sup>	600

\*NA: Not Applicable

*Pankaj Barol*  


Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/SE/FEB/19-20/03  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/19-20/03		
02	Date of Sampling	17.02.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	234		
06	Exit Velocity of Gas (m/sec)	14.2		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	PM- Particulate Matter	19.3	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable

*Pankaj Barol*  


Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/SE/FEB/19-20/05  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/19-20/05		
02	Date of Sampling	18.02.2020		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	97		
06	Exit Velocity of Gas (m/sec)	11.2		
07	Type of Fuel Used	Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	31.5	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	365.42	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	210.57	mg/Nm <sup>3</sup>	300

*Pankaj Baroi*  


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/SE/FEB/19-20/04  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/19-20/04		
02	Date of Sampling	18.02.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	60		
06	Exit Velocity of Gas (m/sec)	13.2		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	18.6	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable

*Pankaj Baroi*  


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/DW/FEB/19-20/01  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

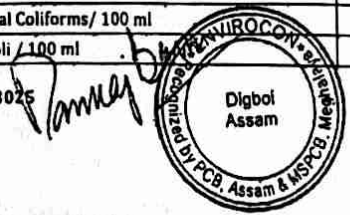
**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**DRINKING WATER ANALYSIS RESULTS**

Sample Type : Drinking Water  
 Collected By : Jointly by Envirocon & Client  
 Sample Source : Canteen  
 Collected On : 18.02.2020

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.26	1.0
5.	pH	6.7	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	112	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	33	75
10.	Chloride (as Cl), mg/l, Max	6.8	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	0.033	0.3
15.	Magnesium (as Mg), mg/l, Max	3.9	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	45	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	69	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	11.7	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025



ND: Not Detected

Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/FE/FEB/19-20/01  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
16.02.2020	Fly-ash Storage Section	1688	5000
17.02.2020	Coal Storage Section	855	2000
17.02.2020	Limestone Storage Section	1560	5000
18.02.2020	Cement Packing Section	1709	5000

Sampled & Analysed by: ENVIROCON, Digboi

*Pankaj Barol*  


Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/NLM/FEB/19-20/01  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**NOISE LEVEL MEASUREMENT RESULTS**

Measurement Date: 16.02.2020

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	73	75	68	70
2	Near CPP Area	62	75	54	70
3	Near Limestone Storage Yard	70	75	63	70
4	Near Coal Storage Yard	69	75	61	70
5	Near Raw Mill	71	75	67	70
6	Near Cement Mill	73	75	68	70
7	Near Administrative Building	60	75	58	70
8	Power House	74	75	67	70

*Pankaj Barol*  


Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/ETP/FEB/19-20/01

Date : 04/03/2020

Order No. : SOML/00013/19-20

Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**

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

**ETP WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 18.02.2020

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.7	5.5 - 9.0
02	Temperature	°C	22.4	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	7.7	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	24	30
05	Chemical Oxygen Demand	mg/l	82	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	6.8	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	16.3	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

Analysis Protocol: IS 3025

*Pankaj Barol*  


Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/PW/FEB/19-20/01  
Date : 04/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

### PROCESS WATER ANALYSIS RESULTS

Sample Type : Waste Water  
Sample Source : Condenser Cooling Point

Collected By: Jointly by Envirocon & Client  
Collected On: 18.02.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	pH	6.6	--	6.5 - 8.5
2.	Temperature	20.6	°C	Not more than 5°C higher than the intake water temperature
3.	Residual Free Chlorine	<0.01	mg/l	0.5

*Pankaj Baroi*  


Checked By: Mr. Pankaj Baroi, ENVIROCON

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# ENVIROCON

Recognised By  
PCB, Assam & MSPCB, Meghalaya

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Digboi, Assam - 786 171  
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Report No.: ENV/GSCL/PW/FEB/19-20/02  
Date : 04/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

## WASTE WATER ANALYSIS RESULTS

Sample Type : Waste Water  
Sample Source : Boiler Blow Down

Collected By: Jointly by Envirocon & Client  
Collected On: 18.02.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Total Suspended Solids	21.4	mg/l	100
2.	Oil & Grease	<0.1	mg/l	20
3.	Copper	<0.01	mg/l	1.0
4.	Iron	<0.01	mg/l	1.0

*Pankaj Barol*

Checked By: Mr. Pankaj Barol, ENVIROCON

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Report No.: ENV/GSCL/PW/FEB/19-20/03  
 Date : 04/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200


**WASTE WATER ANALYSIS RESULTS**

Sample Type : Waste Water  
 Sample Source : Cooling Tower Blow Down

Collected By: Jointly by Envirocon & Client  
 Collected On: 18.02.2020

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

*Pankaj Baroi*



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/AAQ/MAR/19-20/01  
Date : 19/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**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 <sup>3</sup> )	PM 10 (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )	NH <sub>3</sub> (µg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	O <sub>3</sub> (µg/m <sup>3</sup> )	B(a)P (ng/m <sup>3</sup> )	C <sub>6</sub> H <sub>6</sub> (µg/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Pb (µg/m <sup>3</sup> )
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)	05.03.2020	23.1	42.7	4.1	13.6	14.2	ND	4.6	ND	ND	ND	ND	ND
Near CCR (Material Yard)	05.03.2020	27.8	48.1	4.6	13.9	13.2	ND	4.1	ND	ND	ND	ND	ND
Near Guest House (Yamuna Sadan)	06.03.2020	17.2	35.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Residential Colony	06.03.2020	18.1	37.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analysis Protocol: IS 5182  
ND: Not Detected



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, Digboi Stores Building, New Market, Digboi - 786171, Assam.

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

Report No. : ENV/GSCL/DW/MAR/19-20/01  
Date : 19/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

**DRINKING WATER ANALYSIS RESULTS**

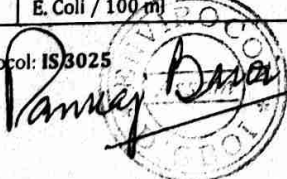
Sample Type : Drinking Water  
Collected By : Jointly by Envirocon & Client

Sample Source : Canteen  
Collected On : 06.03.2020

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.13	1.0
5.	pH	6.9	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	131	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	38	75
10.	Chloride (as Cl), mg/l, Max	7.1	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	<0.01	0.3
15.	Magnesium (as Mg), mg/l, Max	3.3	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	49	200
21.	Total Alkalinity(as CaCO <sub>3</sub> ), mg/l, Max	78	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	16	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected



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/SE/MAR/19-20/01  
Date : 19/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/MAR/19-20/01		
02	Date of Sampling	05.03.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	182		
06	Exit Velocity of Gas (m/sec)	12.8		
07	Type of Fuel Used	Kiln Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	13.4	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	392.7	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	262.7	mg/Nm <sup>3</sup>	600



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/SE/MAR/19-20/02  
Date : 19/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/MAR/19-20/02		
02	Date of Sampling	05.03.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	58		
06	Exit Velocity of Gas (m/sec)	12.7		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	16.7	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	361.4	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	244.8	mg/Nm <sup>3</sup>	600

\*NA: Not Applicable


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/SE/MAR/19-20/03  
 Date : 19/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/MAR/19-20/03		
02	Date of Sampling	05.03.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	212		
06	Exit Velocity of Gas (m/sec)	16.3		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	16.8	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/SE/MAR/19-20/04  
 Date : 19/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/MAR/19-20/04		
02	Date of Sampling	06.03.2020		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (oC)	85		
06	Exit Velocity of Gas (m/sec)	8.9		
07	Type of Fuel Used	Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	26.8	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	361.7	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	181.3	mg/Nm <sup>3</sup>	300
iv.	Mercury (as Hg)	<0.01	mg/Nm <sup>3</sup>	0.05


Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/SE/MAR/19-20/05  
 Date : 19/03/2020

 Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/MAR/19-20/05		
02	Date of Sampling	06.03.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (oC)	60		
06	Exit Velocity of Gas (m/sec)	12.9		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	17.7	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/NLM/MAR/19-20/01  
 Date : 19/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

### NOISE LEVEL MEASUREMENT RESULTS

Measurement Date: 05.03.2020

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	67	75	62	70
2	Near CPP Area	59	75	56	70
3	Near Limestone Storage Yard	56	75	52	70
4	Near Coal Storage Yard	58	75	53	70
5	Near Raw Mill	70	75	62	70
6	Near Cement Mill	67	75	61	70
7	Near Administrative Building	61	75	53	70
8	Power House	69	75	65	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/FE/MAR/19-20/01  
 Date : 19/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
05.03.2020	Fly-ash Storage Section	862	5000
05.03.2020	Coal Storage Section	436	2000
06.03.2020	Limestone Storage Section	1761	5000
06.03.2020	Cement Packing Section	1647	5000

Sampled & Analysed by: ENVIROCON, Digboi



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/ETP/MAR/19-20/01  
Date : 19/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

### ETP WATER ANALYSIS RESULTS

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 06.03.2020

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.8	5.5 - 9.0
02	Temperature	°C	25.6	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	10.4	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	17	30
05	Chemical Oxygen Demand	mg/l	65	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	3.9	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	10.8	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/PW/MAR/19-20/01  
 Date : 19/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

### PROCESS WATER ANALYSIS RESULTS

Sample Type : Waste Water  
 Sample Source : Condenser Cooling Point

Collected By: Jointly by Envirocon & Client  
 Collected On: 06.03.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	pH	6.6	--	6.5 - 8.5
2.	Temperature	25.4	°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/PW/MAR/19-20/02  
 Date : 19/03/2020

Order No. : SOML/00013/19-20  
 Date : 13/04/2019

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

### WASTE WATER ANALYSIS RESULTS

Sample Type : Waste Water  
 Sample Source : Boiler Blow Down

Collected By: Jointly by Envirocon & Client  
 Collected On: 06.03.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Total Suspended Solids	16.2	mg/l	100
2.	Oil & Grease	<0.1	mg/l	20
3.	Copper	<0.01	mg/l	1.0
4.	Iron	<0.01	mg/l	1.0




Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No. : ENV/GSCL/PW/MAR/19-20/03  
Date : 19/03/2020

Order No. : SOML/00013/19-20  
Date : 13/04/2019

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

### WASTE WATER ANALYSIS RESULTS

Sample Type : Waste Water  
Sample Source : Cooling Tower Blow Down

Collected By: Jointly by Envirocon & Client  
Collected On: 06.03.2020

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




Checked By: Mr. Pankaj Baroi, ENVIROCON

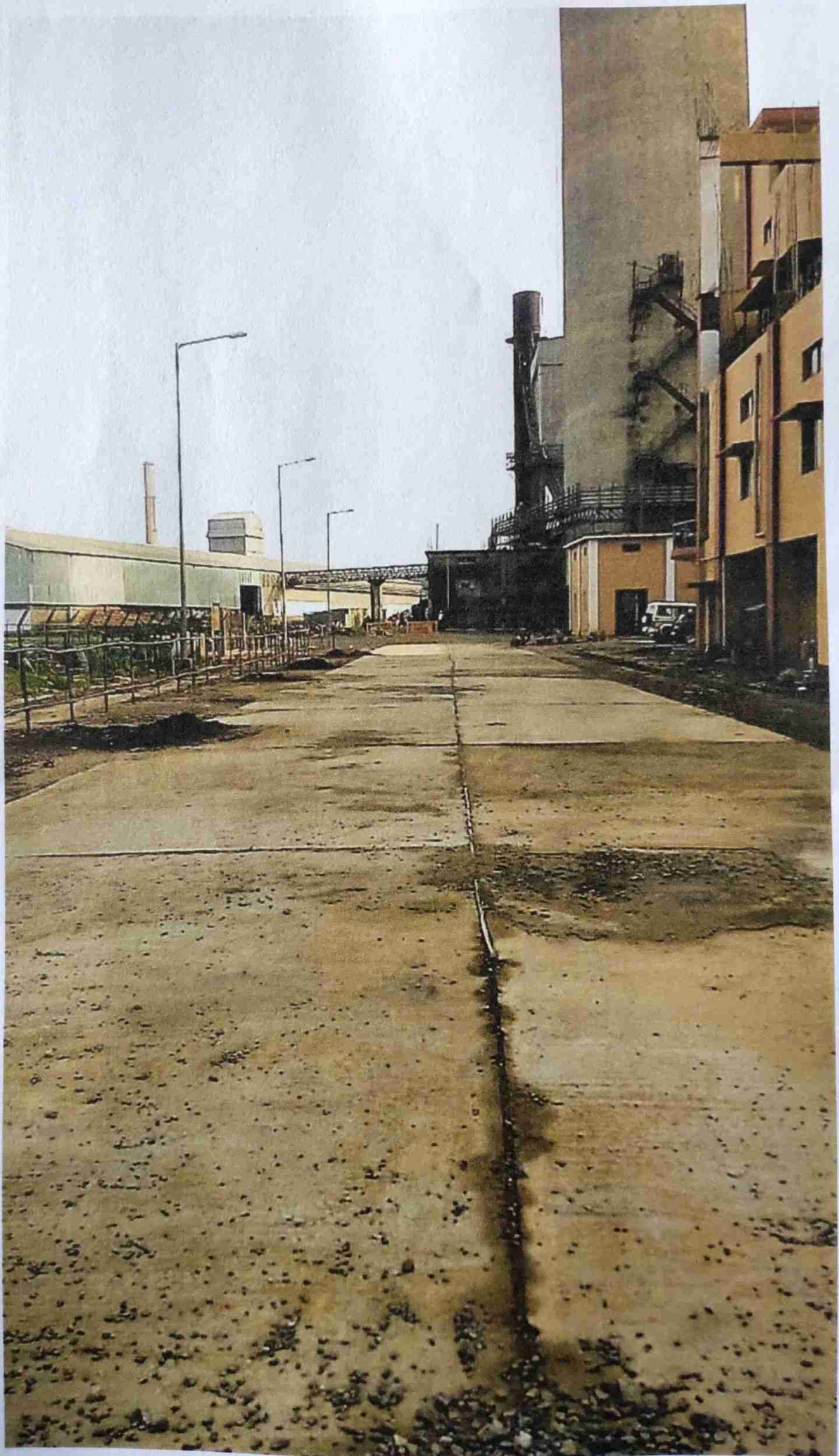
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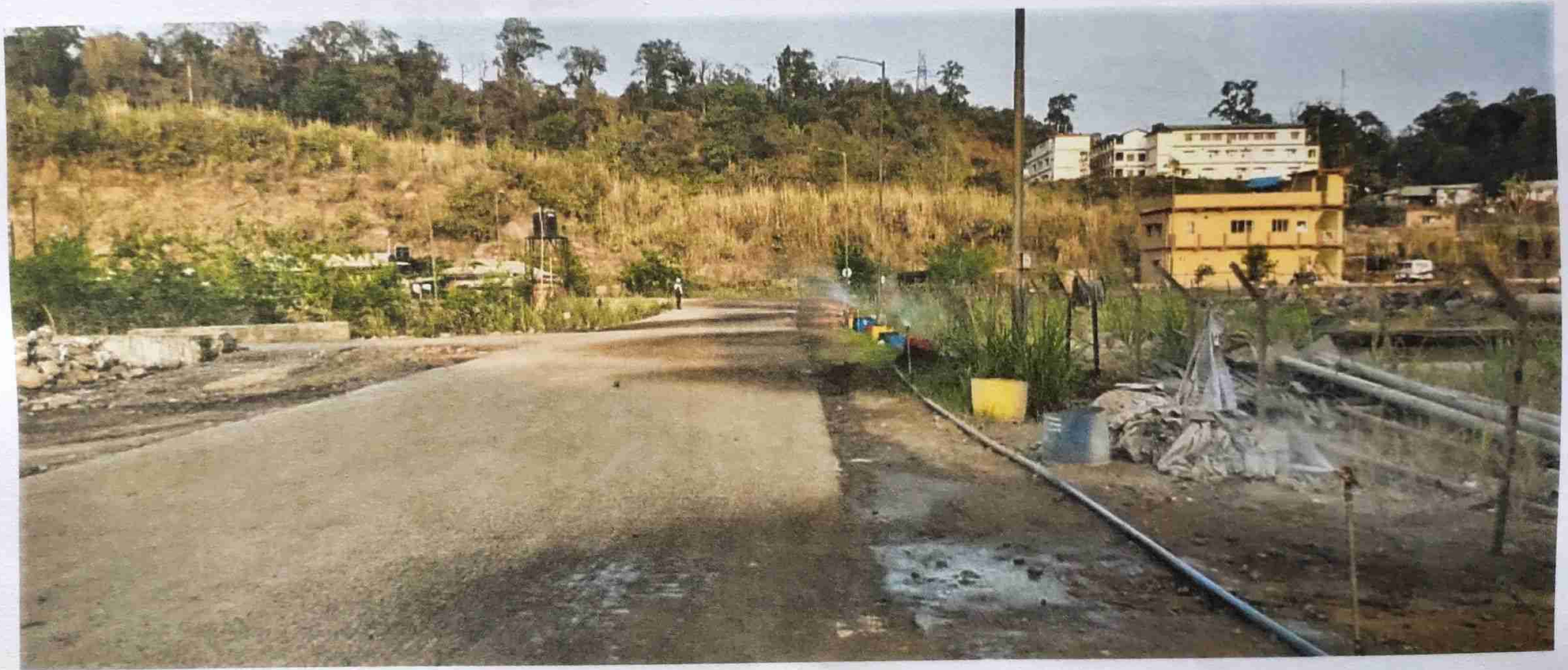
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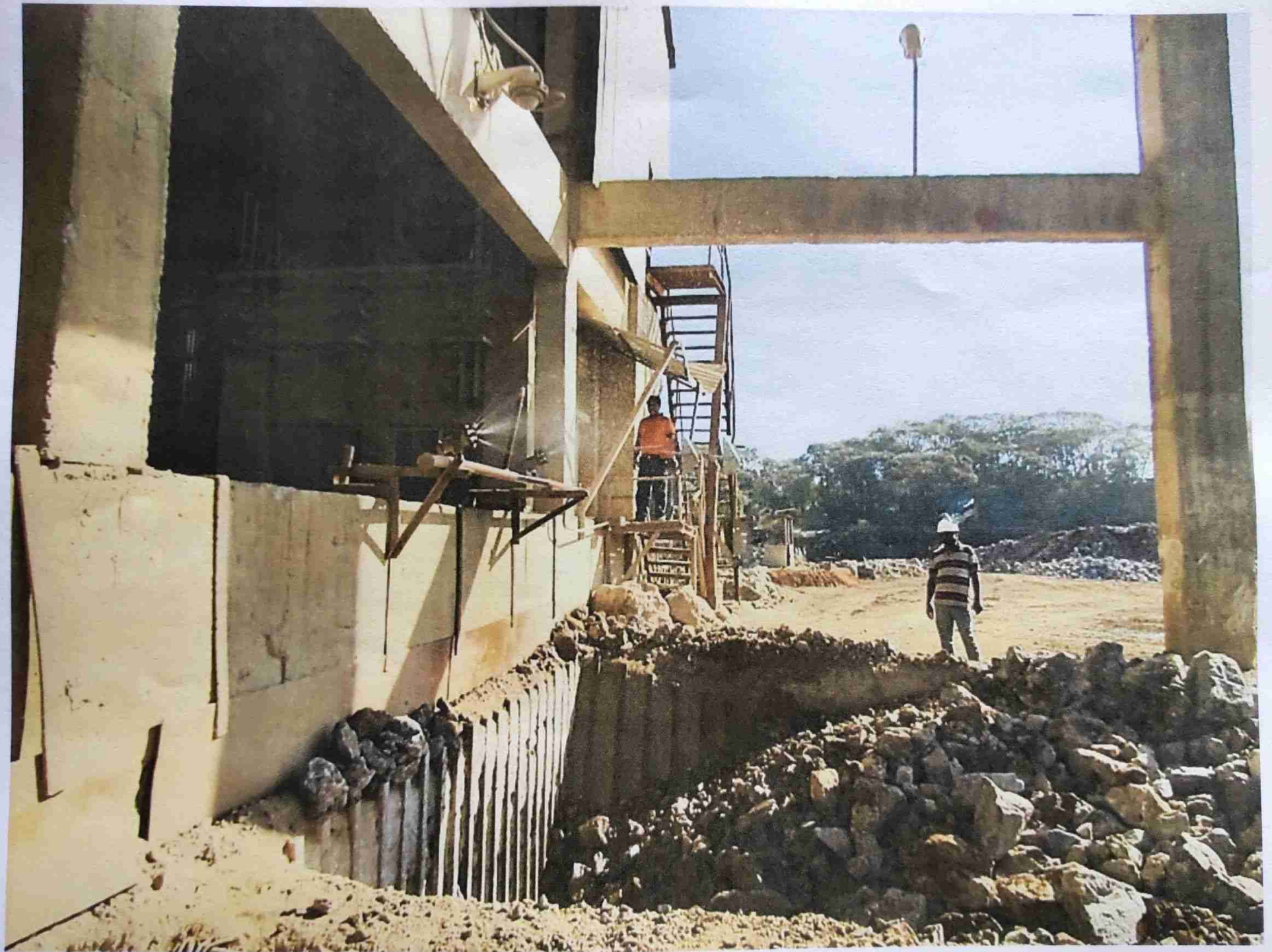
**Annexure – 2**  
**Construction of  
Concrete Roads**

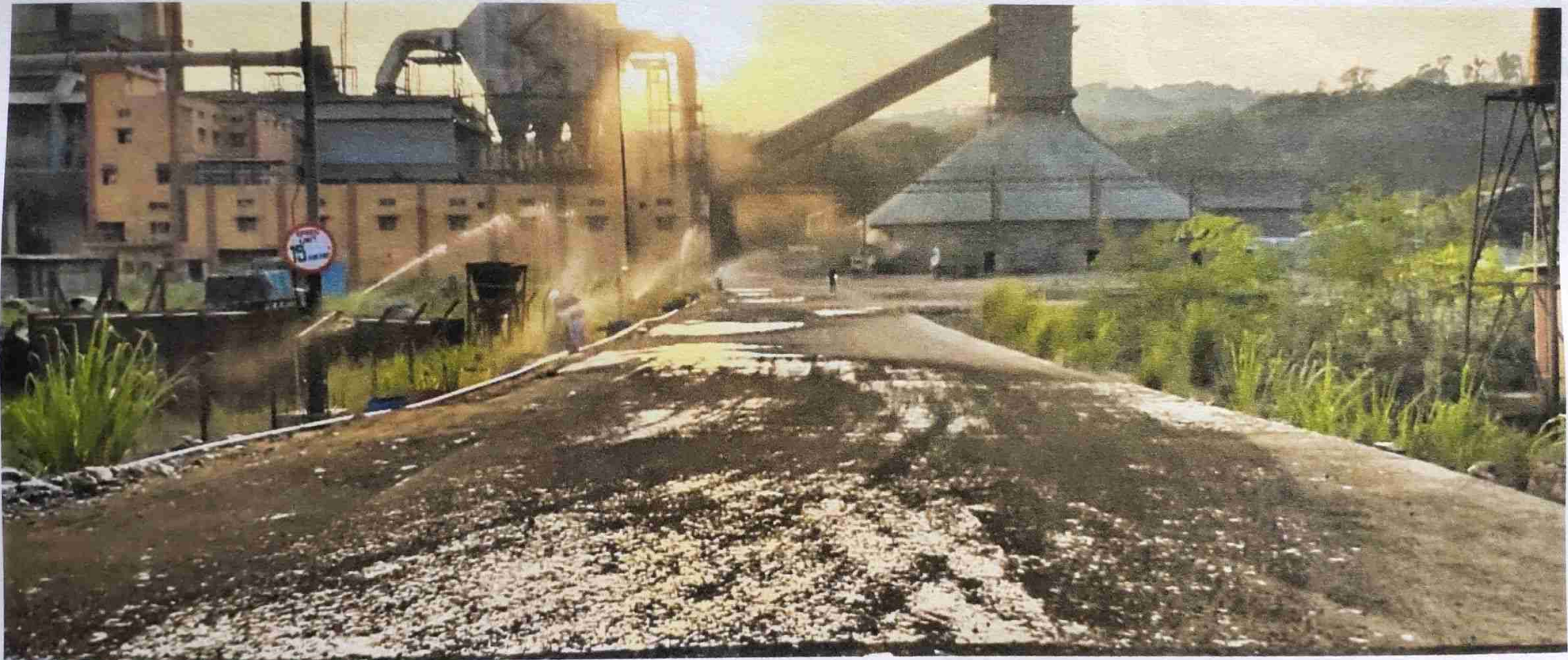




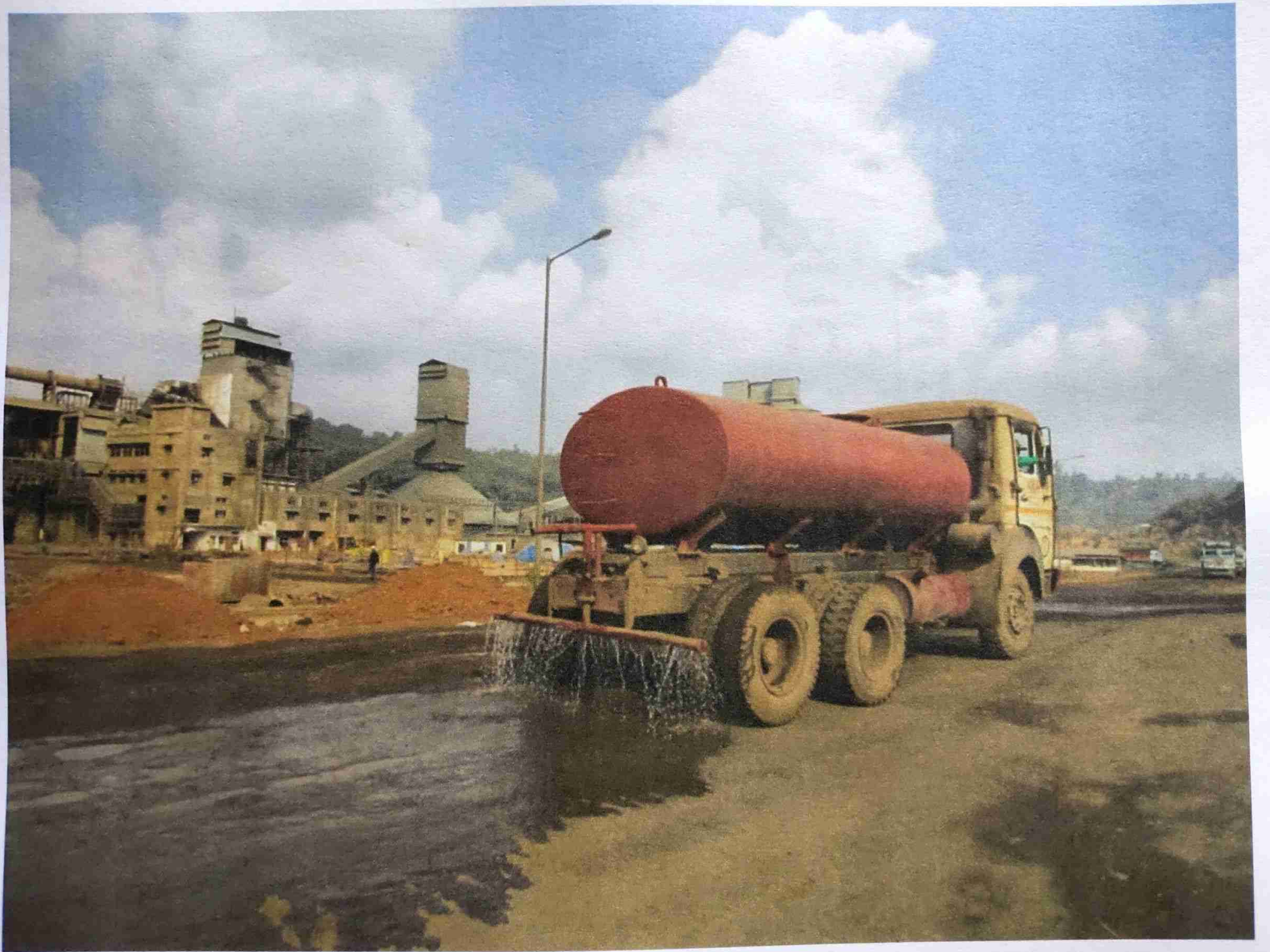
# **Annexure – 2a,2b,2c,2d**

## **Water Sprinkling**











# **Annexure – 3**

## **PUC Certificates**

VALID IN ALL OVER INDIA  
 प्रदूषण नियंत्रित प्रमाणपत्र  
 POLLUTION UNDER CONTROL CERTIFICATE  
 अधिकृत परिवहन आयुक्त, हरियाणा

Authorised by : TRANSPORT COMMISSIONER, HARYANA

मुक्त त्वरण विधि द्वारा निर्धारित धुआँ घातकत्व सीमा : 65 HSU  
 Prescribed Smoke Density/Kimil at Free Accleration: 2.45 (1/M)

संख्या  
S. No.

प्रमाणपत्र संख्या  
PUCC No. HR/118

वाहन पंजी. संख्या BR.01.GE.698 अनुसार है।  
 Vehicle Reg.. No..

प्रमाणित किया जाता है कि इस  
 वाहन का CO उत्सर्जन स्तर के  
 मो.वा. अधिनियम 1989 के नियम  
 115(2) में निर्धारित स्तर के

मेक TATA  
 Make

मॉडल 31.18  
 Model

वर्ग TRUCK  
 Category

वर्ष 2017  
 Year

ईंधन DIESEL  
 Fule

दिनांक 02/12/2019  
 Date

समय 07.49.AM  
 Time

यदि आपको कोई शिकायत है,  
 तो कृपया सचिव, प्रादेशिक  
 परिवहन प्राधिकरण, फरीदाबाद  
 (हरियाणा) को लिखें।

In case of any comment/  
 complaint please write to  
 Secretar Regional Transport  
 Port Authority, Faridabad  
 (Haryana)

A.K.T. POLLUTION SERVICE CENTRE SWASTIK  
 FILLING STATION G.T. ROAD BEHROLA (PALWAL)  
 हस्ताक्षरकर्ता  
 Authorised Signature :

नाम  
 Name :

000 000 000 000  
 AVD 768 5342

NO	RPM MIN	RPM MAX	KM..	HSU..
1	730	5134	1.92	56.3 62
2	810	5600	1.97	57.0 62
3	780	5320	2.07	59.0 62
4	800	5500	2.00	57.7 62
5	770	5200	2.01	57.5 62
			2.00	57.3

अधिकृत केन्द्र कोड

Authorised Centre Code :

D 0 4 0

A.K.T. POLLUTION SERVICE CENTRE  
 SWASTIK FILLING STATION, G.T. Road, Behrola (Palwal)

वैधता  
 Valid Upto

01/06/2020

# POLLUTION UNDER CONTROL CERTIFICATE

Authorised By: PURNEA  
Transport Commissionerate, Bihar

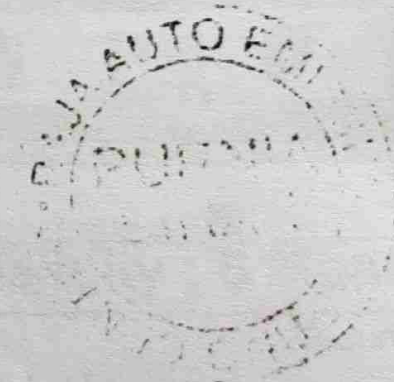


TEST RESULT : PASS  
VALID TILL: 09/Oct/2020

DIESEL DRIVEN VEHICLES  
Certified that the vehicle conforms to the standards  
prescribed under rule 115(2) of CMV Rules 1989

Certificate Sl. No.: BR01100100000109  
Registration No.: BR01GG4466  
Owner Name: RAJU KUMAR  
Chassis No.: MAT466621J5B04389  
Engine No.: 81B84451416  
Class of Vehicle: Goods Carrier  
Make: TATA MOTORS LTD  
Model: 28467456000R  
Vehicle Category: HEAVY GOODS  
VEHICLE  
Date of Registration: 20/Mar/2018  
Emission Norms: BHARAT STAGE IV  
Fuel: DIESEL  
Date of Testing: 10/Oct/2019  
PUC Equipment: Airvisor Technologies  
Manufacturer Name: Pvt Ltd  
PUC Equipment  
Manufacturer Model: AVS-100  
Name

FUEL	Light Absorption Coefficient (Permissible Limit)	Measured Value
DIESEL	1.67	1.01774



# COMPUTERISED POLLUTION UNDER CONTROL CERTIFICATE

All India Valid

Serial No.

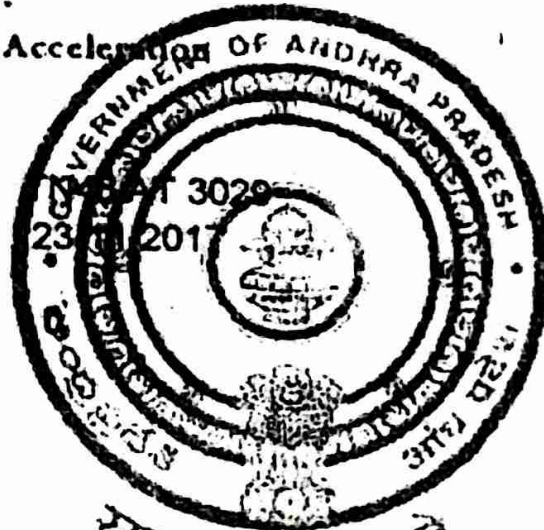
Rule 115(2) Of C.M.V.Rules 1989  
AUTHORISED by Transport Department, Govt. of A.P.

LD # 3000222  
Vehicle Registration No. :  
Year of Registration :  
Odometer Reading :  
Test Results : Free Acceleration

Type of Vehicle :  
Make : 4W  
Model :  
ASHOKA  
GOODS

Fuel : DIESEL  
Date :  
Time : 24-Dec-2019

Photograph of the Vehicle



3.5  
4500

सत्यमेव जयते  
1.2  
2160  
1.21



emission : K-Value : 45 1/m (Opacity : 65%) Certified that this Vehicles K - Mean and  
S value Conforms to the standards prescribed under Rule 115(2) of CMV Rules 1989.

Grade A  
**Validity : 6 Months**

23-Jun-2020

Valid Upto:

*[Signature]*  
Authorised Signature

Transport Department, Rajasthan



# प्रदूषण नियंत्रण प्रमाण पत्र

## POLLUTION UNDER CONTROL CERTIFICATE

[Approved by Department of Transport, Government of Rajasthan, Jaipur]

परिवहन विभाग राजस्थान सरकार से मान्यता प्राप्त

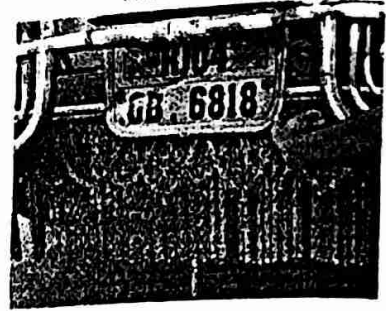
पत्र क्र. 113/2019-पुनः 10861

6206499

Pucc No :	D126RJ37109399
Vehicle No :	RJ04GB6818
Customer Name :	hoti khan
Customer Mobile :	9001149727
Year of Regn :	10-01-2018
Type of Vehicle :	TRUCK
Make :	Tata Motors
Model :	3118
Test Date :	28-11-2019
Time :	03:28:35 PM
Valid Up To :	27-11-2020
Center Name :	Vinayak Pollution Checking Center
Center Address :	Didwana
Licence No :	RJ37-125/126
Test Result :	Pass

VALID IN ALL INDIA

Photo of Vehicle

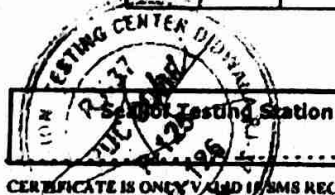


Flushing Cycle			
Avg RPM	Min	RPM Max	Temp
825		2990	0

Sr. No.	RPM Min	RPM Max	Km	HSU%	Temp
1	825	3575	0.653	24.4	000.0
2	825	2459	0.709	26.2	000.0
3	825	2445	1.108	37.8	000.0
Mean			0.823	29.4	

Prescribed Limit for Diesel vehicle	1/m(Light Absorption Co-efficient)	Hartridge Units (HSU)%
Free Acceleration BS II & III	2.45	65
Free Acceleration BS IV	1.62	50

Validity Six Months for Bharat Stage III or below and one year for Bharat Stage IV vehicles.



Get Certificate renewed within the expiry date.

Testing Station

Testing Station Code

D126RJ37

CERTIFICATE IS ONLY VALID IF SMS RECEIVED FROM REILTRANSPORT DEPT. KINDLY DESTROY THE INVALID CERTIFICATE.

Transport Dept, Govt. of Rajasthan

Transport Dept, Govt. of Rajasthan



Veh Reg No : RJ04GB6818  
 PUC No. : D126RJ37109399  
 Valid up to : 27-11-2020  
 Scan QR Code to Validate



Veh Reg No : RJ04GB6818  
 PUC No. : D126RJ37109399  
 Valid up to : 27-11-2020



# **Annexure – 4**

## **Water Reservoir**



**STREAM  
WATER RESERVOIR  
CAPACITY-1.0 Lac Liters**





# Annexure – 5

Report No.: ENV/GSCL/SW/SEPT/19-20/01  
 Date : 03/10/2019

Order No. : SOGM/00103/19-20  
 Date : 26/08/2019

**GOLDSTONE CEMENTS LIMITED**

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

**SURFACE WATER ANALYSIS RESULTS**

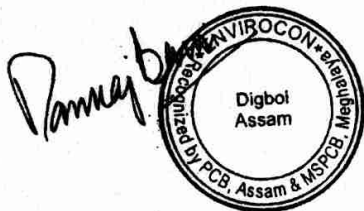
Sample Type : Surface Water  
 Sample Source : Plant Nala Downstream

Collected By : Jointly by Envirocon & Client  
 Collected On : 13.09.2019

Sl. No.	Parameter(s)	Result(s)	Unit(s)
1.	pH	6.7	--
2.	Temperature	22.5	°C
3.	Biochemical Oxygen Demand (3 days at 27°C)	5	mg/L
4.	Chemical Oxygen Demand	28	mg/L
5.	Oil & Grease	<0.1	mg/L
6.	Total Dissolved Solids	121.7	mg/L
7.	Total Suspended Solids	64	mg/L
8.	Chloride	4.1	mg/L
9.	Total Residual Chlorine	ND	mg/L
10.	Ammonical Nitrogen (as N)	0.61	mg/L
11.	Free Ammonia (as NH <sub>3</sub> )	<0.01	mg/L
12.	Total Kjeldahl Nitrogen (as N)	4.1	mg/L
13.	Sulphate	19	mg/L
14.	Iron (as Fe)	<0.01	mg/L
15.	Copper (as Cu)	<0.01	mg/L
16.	Zinc (as Zn)	ND	mg/L
17.	Nickel (as Ni)	ND	mg/L
18.	Fluoride (as F)	<0.01	mg/L
19.	E Coli	Absent	MNP/100 ml

Analysis Protocol: IS 3025

ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, Digboi Stores Building, New Market, Digboi - 786171, Assam.

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

Report No.: ENV/GSCL/SW/SEPT/19-20/02  
Date : 03/10/2019

Order No. : SOGM/00103/19-20  
Date : 26/08/2019

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

### SURFACE WATER ANALYSIS RESULTS

Sample Type : Surface Water  
Sample Source : Plant Nala upstream

Collected By : Jointly by Envirocon & Client  
Collected On : 29.07.2019

Sl. No.	Parameter(s)	Result(s)	Unit(s)
1.	pH	6.7	--
2.	Temperature	22.5	°C
3.	Biochemical Oxygen Demand (3 days at 27°C)	5	mg/L
4.	Chemical Oxygen Demand	31	mg/L
5.	Oil & Grease	<0.1	mg/L
6.	Total Dissolved Solids	124.6	mg/L
7.	Total Suspended Solids	69	mg/L
8.	Chloride	4.2	mg/L
9.	Total Residual Chlorine	ND	mg/L
10.	Ammonical Nitrogen (as N)	0.64	mg/L
11.	Free Ammonia (as NH <sub>3</sub> )	<0.01	mg/L
12.	Total Kjeldahl Nitrogen (as N)	4.3	mg/L
13.	Sulphate	21	mg/L
14.	Iron (as Fe)	<0.01	mg/L
15.	Copper (as Cu)	<0.01	mg/L
16.	Zinc (as Zn)	ND	mg/L
17.	Nickel (as Ni)	ND	mg/L
18.	Fluoride (as F)	<0.01	mg/L
19.	E Coli	Absent	MNP/100 ml

Analysis Protocol: IS 3025

ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

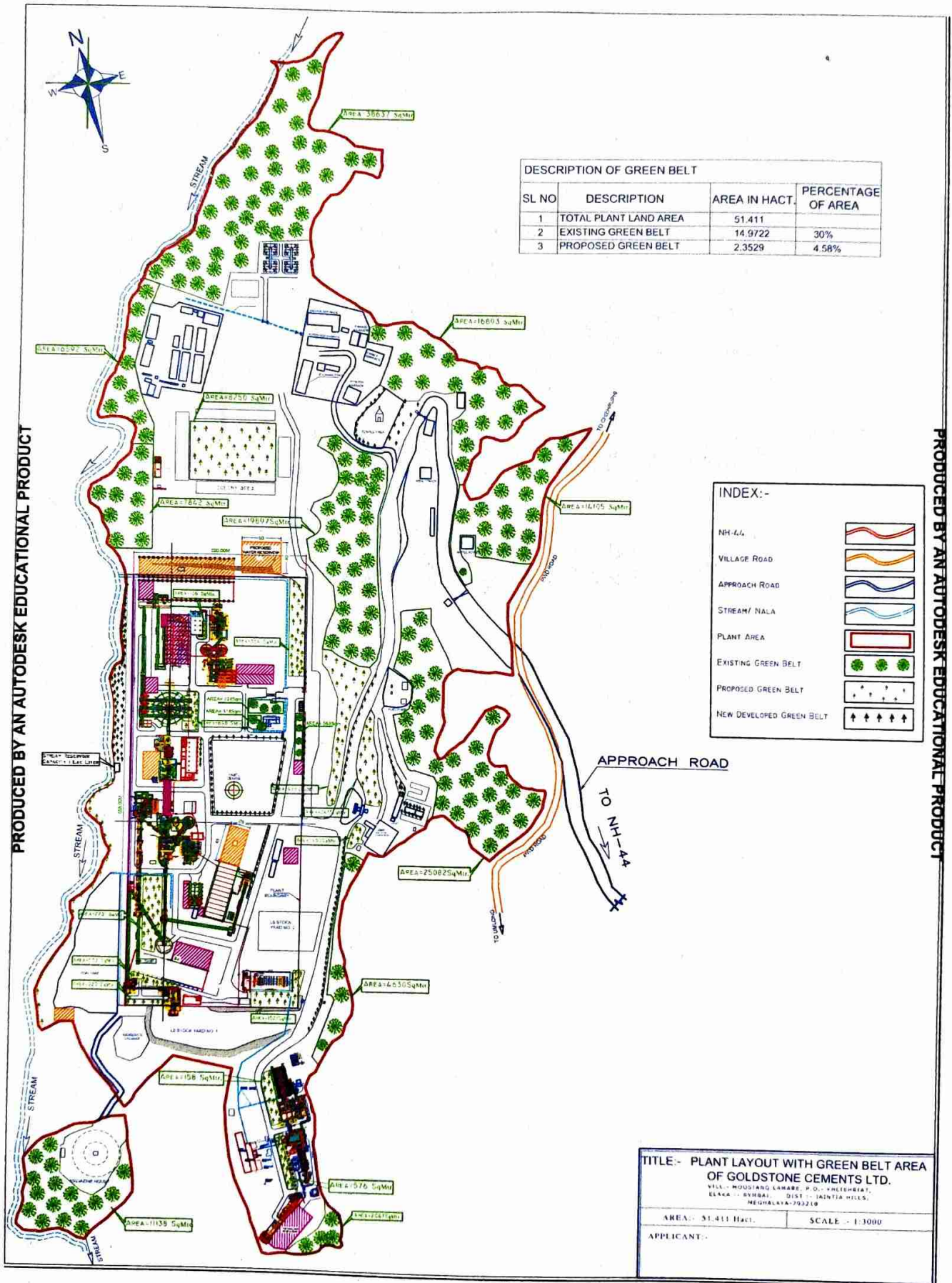
1. Results reported are valid at the time of and under the prevailing conditions of measurement.
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**Core Services:** Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs  
**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.



## **Annexure – 6**

# **Greenbelt Development**



PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

# **Annexure – 7**

## **Occupational Health Surveillance**

258

Patient Name **Gobinda Nomosudra**

Date **28-8-19**

Age **29** Gender **M.**

Rec Nardom 500

Sos. d/f

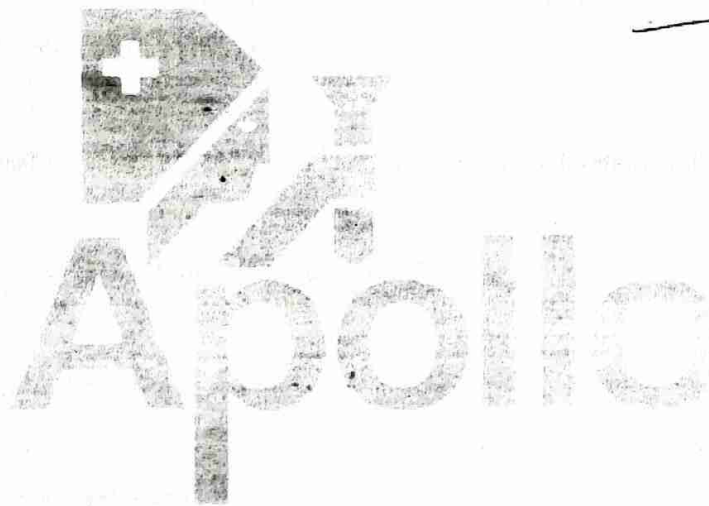
BP =  $\frac{115}{71}$

WT = 73

Ht = 169.

ID = B261

M S



Next appointment on:



Name: Gobinda Nomoludra

Age: 29

Gender / Sex: M

Phone No. ....

MR No. ....

**HISTORY**

1. Do you have history of fever? (Yes / No), If Yes, kindly mention duration in days.

.....

2. Any history of night sweats? (Yes / No) No

.....

3. History of persistent cough? (Yes / No), If Yes, kindly mention duration in days.

.....

4. History of coughing up of blood? (Yes / No) No

.....

5. History of fatigue? (Yes / No) No

.....

6. History of loss of weight? (Yes / No) No

.....

7. Past history of Tuberculosis? (Yes / No) No

.....

8. History of Tuberculosis in close family member? (Yes / No) No

.....

**Apollo Clinic**

Kanchan Rd, Ulubari, Guwahati, Assam 781005, Ph: 90856 12000, 98641 12000  
Siddha Point, Opposite Marwari Hospital, Athgaon, Guwahati, Assam 781001, Ph: 90856 19000  
[www.apolloclinicguwahati.com](http://www.apolloclinicguwahati.com)

Patient Name Govindar Nomasudra

Date 28/8/19

Age 29 Gender M

C/O - Regular check-up

DVA(BE) \_\_\_\_\_ 6/6P

MS(BE) \_\_\_\_\_ NB

Review after 1 year

Ⓜ \_\_\_\_\_

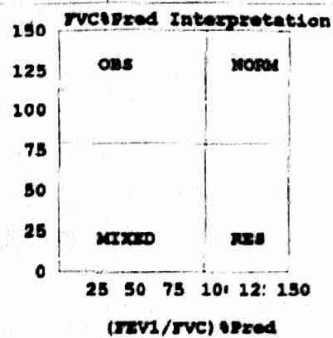
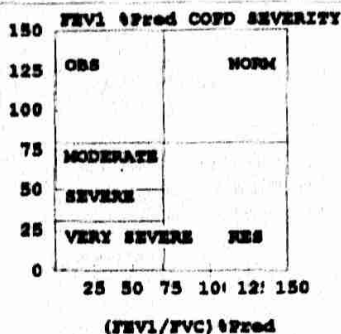
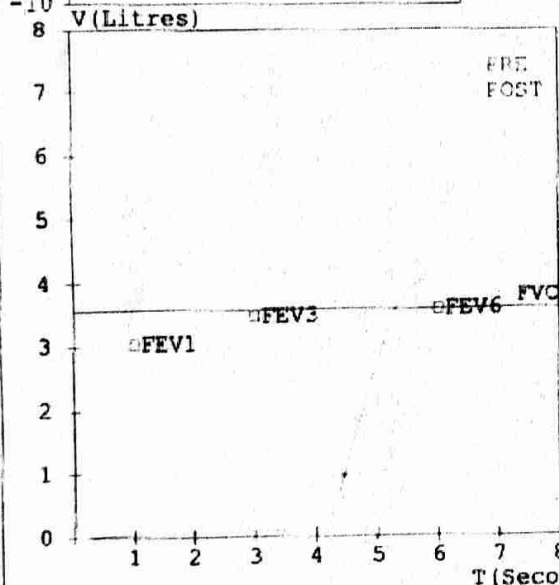
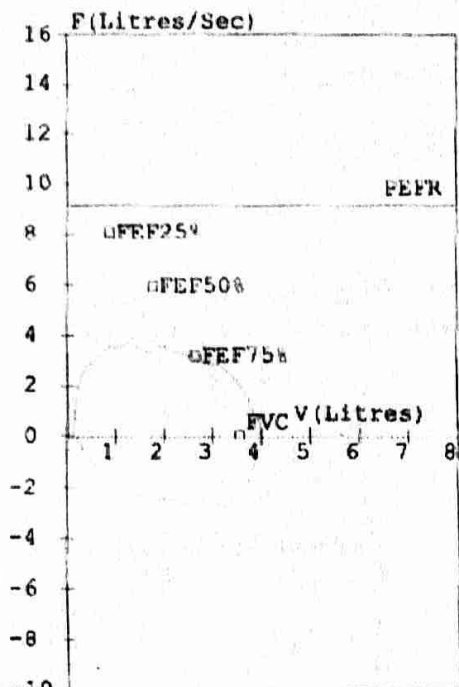
Next appointment on:

# RECORDERS & MEDICARE SYSTEMS Apollo Clinic

181/5, Phase-I, Industrial Area, Chandigarh-160002 Expertise. Closer to you.

Patient: GOBINDA NOMOSUDRA  
 Refd. By:  
 Pred. Eqns: RECORDERS  
 Date : 28-Aug-2019 04:30 PM

Age : 29 Years Gender : Male  
 Height : 169 Cms Smoker : No  
 Weight : 73 Kgs Eth. Corr: 100  
 ID: B261 Temp :



### Spirometry (FVC Results)

Parameter	Pred	M. Pre	%Pred	M. Post	%Pred	%Imp
FVC (L)	03.55	04.02	113	---	---	---
FEV1 (L)	03.02	00.07	002	---	---	---
FEV1/FVC (%)	85.07	01.74	002	---	---	---
FEF25-75 (L/s)	04.42	03.29	074	---	---	---
PEFR (L/s)	09.16	03.64	040	---	---	---
FIVC (L)	---	03.81	---	---	---	---
FEV.5 (L)	---	00.05	---	---	---	---
FEV3 (L)	03.45	00.09	003	---	---	---
PIF3 (L/s)	---	02.74	---	---	---	---
FEF75-85 (L/s)	---	02.55	---	---	---	---
FEF.2-1.2 (L/s)	07.59	02.97	039	---	---	---
FEF 25% (L/s)	08.06	03.52	044	---	---	---
FEF 50% (L/s)	05.92	03.50	059	---	---	---
FEF 75% (L/s)	03.16	02.80	089	---	---	---
FEV.5/FVC (%)	---	01.24	---	---	---	---
FEV3/FVC (%)	97.18	02.24	002	---	---	---
FET (Sec)	---	05.72	---	---	---	---
ExptTime (Sec)	---	00.07	---	---	---	---
Lung Age (Yrs)	029	057	197	---	---	---
FEV6 (L)	03.55	04.02	113	---	---	---
PIF25% (L/s)	---	02.74	---	---	---	---
PIF50% (L/s)	---	02.51	---	---	---	---
PIF75% (L/s)	---	02.36	---	---	---	---

#### Pre Test COPD Severity

Very Severe stage COPD as FEV1\_FVC < 70% and 0% <= FEV1 <= 30%

*Slow Start otherwise Normal Spirometry.*

#### Pre Medication Report Indicates

Early Small Airway Obstruction as FEF 25-75 %Pred or PEFR %Pred < 70  
 Severe Obstruction as (FEV1/FVC)%Pred < 65 and FVC%Pred > 80

R.K. Life Services Pvt Ltd. (CIN. No : U85110AS2002PTC006987)

Apollo Clinic  
 Chandigarh Road, Opp. Baha Service,  
 G S Road, Guwahati- 781007  
 Phone : (0361) 248 1473 - 74  
 E-mail : guwahati@theapolloclinic.com

Apollo Clinic  
 Chandigarh Road  
 Aithgaon, Opp. Marwari Hospital  
 Phone : 9085619000(M)  
 www.apolloclinic.com



Home Based Collection & Delivery of reports  
 986412000 / 94356 23456

Accredited as per ISO - 15189 : 2012 - NABL Standards  
 1ST NABL ACCREDITED LABORATORY IN ASSAM

**Patient Name** : Mr. Gobinda Nomosudra  
**UHID/MR No.** : FGUW.0000030267  
**Visit Date** : 30-08-2019 18:08  
**Sample Collected on** : 31-08-2019 14:08  
**Ref Doctor** : SELF  
**Package Name** : GOLD STONE MEDICAL AMC - WORKERS - GUW  
**Emp/Auth/TPA ID** : 258  
**Sponsor Name** : GOLD STONE CEMENTS LTD

**Age / Gender** : 29Y/Male  
**OP Visit No** : FGUWOPV40690  
**Reported on** : 14-09-2019 14:42  
**Specimen** : Serum  
**Pres Doctor:** :

**DEPARTMENT OF LABORATORY MEDICINE**

TEST NAME	RESULT	BIOLOGICAL REFERENCE INTERVALS	UNITS
AFB STAIN (ZN) / SMEAR EXAM - SPUTUM	No Acid fast bacilli seen in the smear examined.		
AFB STAIN (ZN) / SMEAR EXAM - SPUTUM	End of the report		

*Results are to be correlated clinically*

Lab Technician / Technologist  
 Rupen\_Das

  
 Dr Aubreen R Khan  
 MD Microbiologist



# AUDIOGRAM

# Apollo

Doctor / Audiologist

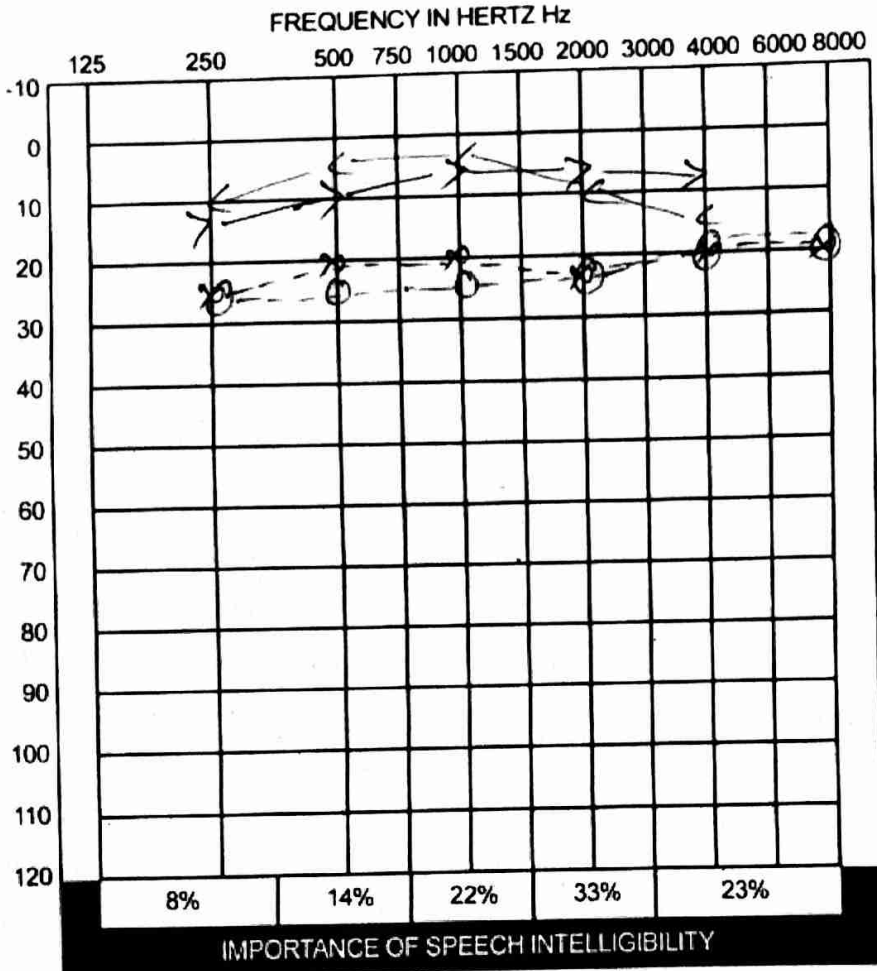
Name: Gabinda - Nomosudra

Age 29

Sex M

Address: \_\_\_\_\_

Date 28-8-19



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

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

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

**COMMENTS**

*normal hq. sensitivity*

Name : Gobinda Nansabra  
Referred By : self  
Patient's Id : 203  
Procedure : X-Ray Chest (PA view)

Age : 29 Yrs Sex: male  
Date: 11-Oct-2019

**Poor quality skiagram**

No active parenchymal lesion seen in the visible lung fields.

Cardio-thoracic ratio is within normal limit.

Aorta is normal.

Both the pleural area appear clear.

Visible bony thorax appear intact.

  
Dr Sandipan Nath

Consultant Sonologist (Radiodiagnosis)

*This is a professional report based on imaging findings only, correlate with other relevant investigations. This report is not for medico-legal purpose (In case of any discrepancy due to machine error or typing error, please get it rectified immediately)*



# **Annexure – 8**

## **Pollution Control Expences**

**Goldstone Cements Limited, Meghalaya.**  
**Recurring Pollution Control Expenditure for 2019-20**

upto Date: 31.03.2020

Sl No	Date	Particulars	Purchase Order/Invoice Number	Quantity	Amount
1	06.04.2019	FILTER BAG 149MM Dia X 3665 MM LG	GMLS/00011/19-20	500 bags	227150.00
2	10.06.2019	Filter Bags Cage	GMLS/00389/19-20	250 nos	813492.00
3		Filter Bags Cage		200 nos	
4	04.07.2019	Bag Filter Bag 160 X 2250 MM long	GMLS/00484/19-20	30 nos	11760.00
5	23.04.2019	ESP Mechanical Spare Parts	GMLS/00025/19-20		1740368.00
6	29.04.2019	ESP Mechanical Spare Parts	GMLS/00116/19-20		306174.00
7	29.04.2019	ESP Mechanical Maintanance expences	SOML/00006/19-20		914500.00
8		Mechanical work Filter bags & cages replacement in Raw mill Bag house	SOML/00244/18-19		383500.00
9	30-11-2019	FILTER BAG 149MM DIA X 3665MM LG.	GMLS/01037/19-20	1000 bags	352800.00
10	28-02-2020	BAG FILTER 149MM DIA X 7060MM LG.	GMLS/01496/19-20	250 bags	1091500.00
11	03-10-2019	FILTER BAGS 144 X 2000MM (PNF)	GMLS/00838/19-20	28 bags	16189.60
12	03-10-2019	FILTER BAGS 144 X 2000MM (PNF)	GMLS/00838/19-20	28 bags	16189.60
13	31.03.2020	Greenbelt Development(Trees, Wages of horticulture staffs+equipments for land preaparation and water sprinkling)			430720.00
14	31.03.2020	Third party environmental monitoring	SOML/00013/19-20		1034742.00
15	31.03.2020	Salaries and wages for Environmental activities			2576000.00
16	31.03.2020	Construction of Concrete road	70,52,55,62,79,80,81,54,67/2019-20		3198521.10
17	31.03.2020	Dust Suppression			150000.00
18	15.07.2019	Glens data transmission AMC	SOGM/00064/19-20		58410.00
19	31.08.2019	Annual Health Check UP of Workmen	TAC/Aug-19/083		300000.00
20	31.03.2020	ETP maintanance expences			50000.00
21	31.03.2020	N-Pit maintanance Expences	17,18,61,81		204582.97
22	31.03.2020	Procurement of Environmental stack monitoring accessories			106929.00
23	15.06.2019	Water Flow meter	GMLS/00419/19-20		45400.00
24	31.03.2020	Installation Of Water sprinklers in roadsides			129969.90
25	Jun-19	World Environmental Week celebration expences			20081.00
26	31.03.2020	CPP Polllution control equipments maintanance expences			708670.39
27	31.03.2020	CPP Polllution control equipments running electricity expences			55053.90
28	17.09.2019	Single Phase 120 kV(P)/600 mA Transformer for ESP	PI 19-20-HVR-7404	1	404448.54
29	31.03.2020	Electricity expences for running the Pollution control equipments in Cement plant units			21764384.00
		<b>Toal</b>			<b>37111536.00</b>



**Goldstone Cements Limited, Meghalaya.**  
**Recurring Pollution Control Expenditure for 2019-20**

upto Date: 31.03.2020

SI No	Date	Particulars	Purchase Order/Invoice Number	Quantity	Amount
1	06.04.2019	FILTER BAG 149MM Dia X 3665 MM LG	GMLS/00011/19-20	500 bags	227150.00
2	10.06.2019	Filter Bags Cage	GMLS/00389/19-20	250 nos	813492.00
3		Filter Bags Cage		200 nos	
4	04.07.2019	Bag Filter Bag 160 X 2250 MM long	GMLS/00484/19-20	30 nos	11760.00
5	23.04.2019	ESP Mechanical Spare Parts	GMLS/00025/19-20		1740368.00
6	29.04.2019	ESP Mechanical Spare Parts	GMLS/00116/19-20		306174.00
7	29.04.2019	ESP Mechanical Maintainance expences	SOML/00006/19-20		914500.00
8		Mechanical work Filter bags & cages replacement in Raw mill Bag house	SOML/00244/18-19		383500.00
9	30-11-2019	FILTER BAG 149MM DIA X 3665MM LG.	GMLS/01037/19-20	1000 bags	352800.00
10	28-02-2020	BAG FILTER 149MM DIA X 7060MM LG.	GMLS/01496/19-20	250 bags	1091500.00
11	03-10-2019	FILTER BAGS 144 X 2000MM (PNF)	GMLS/00838/19-20	28 bags	16189.60
12	03-10-2019	FILTER BAGS 144 X 2000MM (PNF)	GMLS/00838/19-20	28 bags	16189.60
13	31.03.2020	Greenbelt Development(Trees, Wages of horticulture staffs+equipments for land preparation and water sprinkling)			430720.00
14	31.03.2020	Third party environmental monitoring	SOML/00013/19-20		1034742.00
15	31.03.2020	Salaries and wages for Environmental activities			2576000.00
16	31.03.2020	Construction of Concrete road	70,52,55,62,79,80,81,54,67/2019-20		3198521.10
17	31.03.2020	Dust Suppression			150000.00
18	31.03.2020	Dust Suppression	SOGM/00064/19-20		58410.00
19	15.07.2019	Glens data transmission AMC	TAC/Aug-19/083		300000.00
20	31.08.2019	Annual Health Check UP of Workmen			50000.00
21	31.03.2020	ETP maintance expences	17,18,61,81		204582.97
22	31.03.2020	N-Pit maintainance Expences			106929.00
23	31.03.2020	Procurement of Environmental stack monitoring accessories			45400.00
24	31.03.2020	Water Flow meter	GMLS/00419/19-20		129969.90
25	15.06.2019	Installation Of Water sprinklers in roadsides			20081.00
26	31.03.2020	World Environmental Week celebration expences			708670.39
27	31.03.2020	CPP Pollution control equipments maintanance expences			55053.90
28	31.03.2020	CPP Pollution control equipments running electricity expences	PI 19-20-HVR-7404	1	404448.54
29	17.09.2019	Single Phase 120 kV(P)/600 mA Transformer for ESP			21764384.00
29	31.03.2020	Electricity expences for running the Pollution control equipments in Cement plant units			
		<b>Toal</b>			<b>37111536.00</b>

# **Annexure – 9**

# **Environmental Display**

# ENVIRONMENTAL DATA INFORMATION



CONSENT NO. MSPCB/CON-13-2011/2018-2019/57, dtd. 06.08.2018, H.W. AUTHORIZATION NO. MSPCB/ATH-45/2017/2018/2019/3 dtd. 06.08.2018

DATE: 12/08/2021

EMISSION RESULTS (mg/nm <sup>3</sup> )						AAQ RESULTS (ug/m <sup>3</sup> )					DRINKING WATER			HAZARDOUS WASTE GENERATION				
PARAMETERS	RAW MILL	COAL MILL	ESP	CEMENT MILL	STANDARD LIMIT (mg/nm <sup>3</sup> )	CPP	STANDARD LIMIT (mg/nm <sup>3</sup> )	PARAMETERS	NEAR TEMPLE	NEAR PRIMARY CRUSHER	NEAR FLY ASH YARD	NEAR CPP	STANDARD LIMIT	PARAMETERS	RESULTS (mg/l)	STANDARD LIMIT (mg/l)	TYPE OF WASTE	QUANTITY / YEAR (MT/ KL)
SPM					30.00		50.00	PM 2.5	18.4	17.6	21.4	20.0	60.00	pH	6.5	6.5 - 8.5	Used Oil	1.32
SO <sub>2</sub>					1000.00		600.00	PM 10	37.4	35.4	57.5	50.00	Turbidity	0.75	1			
NO <sub>x</sub>					600.00		300.00	NO	10.0	10.2	12.1	10.00	TDS	100.0	500			
								SO <sub>2</sub>	10.0	7.2	6.5	10.00	AT	ND	0.03			
PROCESS FUGITIVE EMISSION			TREATED WATER			NOISE RESULTS dB(A)					Boron		ND	0.5			Fly Ash	2298.4
LOCATIONS		RESULTS	STANDARD LIMIT	PARAMETERS	RESULTS (mg/l)	STANDARD LIMIT (mg/l)	LOCATIONS		DAY	NIGHT	STANDARD LIMIT	Ca	25	75			Bed Ash	7204.7
Fly Ash Storage Section		2123	5000	pH	6.8	6.5-9.0	Near Coal Mill		78	67	75	Mg	1.5	30			Gear Oil	0.168
				Temp	46.2	5	Near CPP		47	47	75	Cl	6.2	2.50				
				TSS	8.6	100	Near LS Crusher		68	60	75	F	ND	1				
Coal Storage Storage		828	2000	BOD	24	30	Near Administrative Building		60	50	75	RFC	ND	0.2			Turbine Oil	0.128
				COD	73	250	Near Raw Mill		78	66	75	Fe	0.01	0.3				
				O & G	0.1	10	Near Cement Mill		78	68	75	NO3	10.0	45				
Lime Storage Section		1637	5000	N	13.1	50	Near Coal Yard		64	58	75	SO4	35.0	200			Chemical Container	112
				TRC	10.03	1	Near Power House		78	67	75	Alkalinity	72.0	200				
				TKN	15.9	100						Total Chloride	ND	10 Max				
Cement Packing Section		2164	5000	NH <sub>3</sub>	0.01	5						E Coli / 100ml	ND	Absent				

**COOLER ESP STACK**  
**EMISSION MARCH -2020**



Parameters	Results	Limits (cpcb)
PM	16.8	30 (mg/Nm <sup>3</sup> )
SO <sub>2</sub>	ND	1000 (mg/Nm <sup>3</sup> )
NO <sub>x</sub>	ND	600 (mg/Nm <sup>3</sup> )

