



HCCL/MSPCB/19-20/03

Date: 18th Dec 2019

To,
The Member Secretary,
Meghalaya State Pollution Control Board
ARDEN Lumpyngngad
Shillong (Meghalaya) -793014

Subject: Reports on Ambient air quality test results, Stack Emission Test Results & Waste Water Analysis for the month of Nov 2019

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of Nov 2019 for the following test results:

<u>Sl No.</u>	<u>Test Results</u>	<u>Purpose</u>
1	Ambient air quality	-
2	Stack Emission	B.F of Crusher
3	Stack Emission	R.A.B.H
4	Stack Emission	Coal Mill
5	Stack Emission	Cooler E.S.P
6	Stack Emission	Cement Mill
7	Stack Emission	Packing House
8	Waste Water Analysis Result	Treated STP Water

Thanking you,

For Hills Cement Company Ltd
HILLS CEMENT CO. LTD.


Authorised Signatory

Copy To: - The Joint Director (S), Ministry of Environment, Forest & Climate Change
NE Regional Office, Lumbatngen, Shillong 793021 for information

HILLS CEMENT COMPANY LTD.

CIN-U26942ML2003 PLC007295, Website - www.tajcement.com

CORPORATE OFFICE : "SHIVAM COMPLEX", Bharalumukh, A.T. Road, Guwahati-781009, Ph. : (0361) 2735552, 2735527, E-mail : hr@hccl.in, info@hccl.in, headoffice@tajcement.com
REGISTERED OFFICE & WORKS : Village : Mynkree, 116 KM Stone, N.H.-44, Sub Div.: Khliehriat, Dist.: Jaintia Hills, Meghalaya-793200, Ph.: 03655-215864, E-mail : hillsproject@gmail.com





HCCL/MSPCB/19-20/03

Date: 18th Dec 2019

To,
The Member Secretary,
Meghalaya State Pollution Control Board
ARDEN Lumpyngngad
Shillong (Meghalaya) - 793014

Subject: Reports on Ambient air quality test results, Stack Emission Test Results & Waste Water Analysis for the month of Nov 2019

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of Nov 2019 for the following test results:

Sl No.	Test Results	Purpose
1	Ambient air quality	-
2	Stack Emission	B.F of Crusher
3	Stack Emission	R.A.B.H
4	Stack Emission	Coal Mill
5	Stack Emission	Cooler E.S.P
6	Stack Emission	Cement Mill
7	Stack Emission	Packing House
8	Waste Water Analysis Result	Treated STP Water

Thanking you,
For **Hills Cement Company Ltd.**
HILLS CEMENT CO. LTD.


Authorised Signatory

Copy To: **The Joint Director (S), Ministry of Environment, Forest & Climate Change**
NE Regional Office, Lumbatngen, Shillong 793021 for information



HILLS CEMENT COMPANY LTD.

CIN-U26942ML2003PLC007295, Website - www.tajcement.com

CORPORATE OFFICE: "SHIVAM COMPLEX", Bharalumukh, A.T. Road, Guwahati-781009, Ph.: (0361) 2735552, 2735527, E-mail: hr@hcd.in, info@hcd.in, headoffice@tajcement.com
REGISTERED OFFICE & WORKS: Village: Mynkree, 116 KM Stone, N.H. 44, Sub Div.: Khliehriat, Dist.: Jaintia Hills, Meghalaya-793200, Ph.: 03655-215864, E-mail: hillsproject@gmail.com

Report No.: ENV/HCCCL/AAQ/NOV/19-20/01

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya
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 ₂ ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	In-front of Guest House	14.11.2019	20.3	34.6	BDL	BDL
2.	Near Crusher Area	14.11.2019	29.4	58.7	5.5	BDL
3.	In- Front of Compressor House (Cement Mill)	15.11.2019	25.2	54.5	6.7	BDL
4.	Near Mines	15.11.2019	30.7	73.3	9.3	BDL

Analysis Protocol: IS 5182

BDL: Below Detectable Level


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/HCLL/SE/NOV/19-20/01

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/11-01		
02	Date of Sampling	14.11.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	B. F. of Crusher		
05	Stack Diameter (Meter)	1.0		
06	Flue Gas Temperature (°C)	34		
07	Exit Velocity of Gas (m/sec)	5.2		
08	Flow Rate (Nm³/hr)	14273		
09	Type of Fuel Used	NA*		
10	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	23.4	mg/Nm³	30

*NA: Not Applicable



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

NOTE:

- Results reported are valid at the time of and under the prevailing conditions of measurement.
- Results refer only to the particular parameters tested.
- 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/HCCL/SE/NOV/19-20/02

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/11-02		
02	Date of Sampling	14.11.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	R.A.B.H.		
05	Stack Diameter (Meter)	3.0		
06	Flue Gas Temperature (°C)	189		
07	Exit Velocity of Gas (m/sec)	19.5		
08	Flow Rate (Nm³/hr)	320111		
09	Type of Fuel Used	NA*		
10	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter (as PM)	25.8	mg/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	694.8	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	362.4	mg/Nm³	800

*NA: Not Applicable




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/HCLL/SE/NOV/19-20/03

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/11-03		
02	Date of Sampling	14.11.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	55		
07	Exit Velocity of Gas (m/sec)	15.6		
08	Flow Rate (Nm³/hr)	57714		
09	Type of Fuel Used	Coal		
10	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	24.3	mg/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	667.2	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	372.5	mg/Nm³	800



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/HCLL/SE/NOV/19-20/04

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/11-04		
02	Date of Sampling	15.11.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E.S.P.		
05	Stack Diameter (Meter)	2.8		
06	Flue Gas Temperature (°C)	226		
07	Exit Velocity of Gas (m/sec)	17.5		
08	Flow Rate (Nm³/hr)	231696		
09	Type of Fuel Used	NA*		
10	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	22.2	mg/Nm³	30

*NA: Not Applicable



Pankaj Baroi
Digboi
Assam

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

Report No.: ENV/HCLL/SE/NOV/19-20/05

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/11-05		
02	Date of Sampling	15.11.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	66		
07	Exit Velocity of Gas (m/sec)	15.2		
08	Flow Rate (Nm³/hr)	54409		
09	Type of Fuel Used	NA*		
10	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	23.4	mg/Nm³	30

*NA: Not Applicable



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/HCLL/SE/NOV/19-20/06

Date : 30/11/2019

W. O. No. : Nil

Date : 11/03/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya
STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/11-06		
02	Date of Sampling	15.11.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Packing House		
05	Stack Diameter (Meter)	0.8		
06	Flue Gas Temperature (°C)	30		
07	Exit Velocity of Gas (m/sec)	12.8		
08	Flow Rate (Nm³/hr)	22783		
09	Type of Fuel Used	NA*		
10	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	23.6	mg/Nm³	30

*NA: Not Applicable


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/HCL/STP/NOV/19-20/01

Date : 30/11/2019

W. O. No. : Nil

Date : 26/09/2019

M/s HILLS CEMENT COMPANY LIMITED

Village: Mynkree, 116 KM Stone, NH-44

Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

WASTE WATER ANALYSIS RESULTS

Sample Type : STP Treated Water
Sample Source : STP Outlet

Collected By : Jointly by Envirocon & Client
Collected On : 15.11.2019

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limit (CPCB Norms)
1.	pH	--	6.8	5.5 - 9.0
2.	Temperature	°C	23.6	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	21.4	100
4.	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	15	30
5.	Chemical Oxygen Demand	mg/l	59	250
6.	Oil & Grease	mg/l	<0.1	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	5.2	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	14.1	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0

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.