

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Reference No.	SCML/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/AAQM/MONTHLY/2021-22/23		Month: Nov'21		
Location of Sampling: Vishwakarma Colony		GPS Coordinate: 25°10'46"N 92°23'17"E 552 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m³)	PM _{2.5} (µg/m³)	SO ₂ (µg/m³)	NO ₂ (µg/m³)
02-11-2021	49.53	33.36	13.49	16.17
04-11-2021	47.78	32.21	15.11	17.17
08-11-2021	46.47	31.01	11.31	13.83
11-11-2021	45.26	29.95	10.45	12.95
16-11-2021	46.23	30.60	11.10	13.60
18-11-2021	46.89	31.58	12.08	14.58
22-11-2021	47.24	29.95	10.45	12.95
25-11-2021	46.23	30.60	11.10	13.60
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m³)	60 (µg/m³)	80 (µg/m³)	80 (µg/m³)

Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.



Analysed by



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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Reference No.	SCML/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/AAQM/MONTHLY/2021-22/24				Month: Nov'21
Location of Sampling: Near Pump House		GPS Coordinate: 25°10'42"N 92°23'32"E 919 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02-11-2021	54.20	36.12	15.35	18.91
04-11-2021	54.62	36.39	16.10	19.03
08-11-2021	51.68	34.46	13.69	18.68
11-11-2021	53.53	35.68	12.36	16.72
16-11-2021	55.44	36.93	14.97	17.82
18-11-2021	53.98	35.94	15.84	18.75
22-11-2021	51.07	34.02	13.46	18.40
25-11-2021	52.90	35.23	12.15	16.46
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)

Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.



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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Reference No.	SCML/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/AAQM/MONTHLY/2021-22/25				Month: Nov'21
Location of Sampling: Near STP		GPS Coordinate: 25°10'49"N 92°23'58"E 947 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
03-11-2021	49.48	32.23	16.41	22.63
05-11-2021	47.01	30.64	15.76	21.67
09-11-2021	45.15	28.94	14.22	20.07
12-11-2021	44.17	27.96	13.25	19.09
15-11-2021	46.43	29.25	17.37	22.64
19-11-2021	48.30	30.95	18.94	24.27
24-11-2021	50.00	28.01	17.00	22.00
26-11-2021	51.20	28.70	19.10	23.20
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)

Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.



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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				Reference No.	SCML/Env/F-02
					Issue No.	1
	STACK EMISSION MONITORING ANALYSIS REPORT				Date of Issue	01.05.2019
					Revision No.	5
					Date of Rev.	01.06.2021
Report No: SCML/Env/Stack/Monthly/2021-22/55					Month: November'21	
<u>Analysis Result</u>						
A. General Information About Stack						
1	Stack Identification No	S-1	S-2	S-3	S-4	S-5
2	Stack Connected to	LS Crusher	Add Crusher	Kiln/Raw Mill	Coal Mill	Coller
3	Material of Construction (Stack/Duct)	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
4	Shape of duct	Circular	Circular	Circular	Circular	Circular
5	Whether duct is provided with permanent platform & ladder	Yes	Yes	Yes	Yes	Yes
B. Physical characteristic of stack						
1	Stack Height from ground level (meter)	24.2	21.0	70.0	59.5	50.0
2	Duct diameter at sampling point (meter)	1.6	1.2	5.8	1.8	4.0
3	Sampling height point from ground level (meter)	-	-	23.15	10.38	-
4	Cross sectional area of Duct/Stack (m ²)	2.01	1.13	26.41	2.54	12.56
C. Pollution Control Device						
1	Details of pollution control device attached to stack	Bag Filter	Bag Filter	Reverse Air Bag House	Bag Filter	ESP
D. Result of Sampling & Analysis of Gaseous Emission						
1	Date of Sampling	02-11-2021	06-11-2021	18-11-2021	22-11-2021	25-11-2021
2	Ambient Temp (°C)	25.0°C	25.0°C	25.0°C	25.4°C	25.0°C
3	Stack Gas Temp (°C)	48	55	49	46	59
4	Exit Velocity of Gas (m/sec.)	12.24	12.59	12.96	11.41	12.11
5	Flow Rate (Nm ³ / sec.)	0.29	0.28	0.30	0.25	0.27
6	Quantity of Emission (Nm ³ / Hr)	76984.81	43696.13	1077120.83	91494.50	462371.84
7	Concentration of PM (mg/Nm ³)	16.02	18.71	21.37	18.83	20.31
8	Concentration of SO ₂ (mg/Nm ³)	-	-	627.23	-	-
9	Concentration of NO _x (mg/Nm ³)	-	-	401.23	-	-
10	Oxygen (O ₂) (%)	9.16	8.87	9.01	8.65	9.13
E. Remarks						
Standard						
PM - 30 mg/Nm³		SO₂ - 1000 mg/Nm³		NO_x - 800 mg/Nm³		
<i>Particulate Matter (PM), Sulphur di-oxide (SO₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP), Limestone (LS), Additive (Add)</i>						
 Analysis by		 Checked by		 Authorized Signatory		

 STAR CEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Document No.	SCML/EHS/Env/F-04
		Date of Issued	01-05-2019
		Revision No.	2
	FUGITIVE EMISSION MONITORING REPORT	Revision Date	01-01-2021

Ref: SCML/Env/Fugitive/Monthly/2021-22/008

Month - Nov'21

Date	Location	Fugitive Emission Results	Limit
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)
17.11.2021	Coal Storage Section	1268	2000
17.11.2021	Limestone Storage Section	1371	5000
17.11.2021	Clinker Loading Section	1544	2000


Analyzed By


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	STAR CEMENT MEGHALAYA LIMITED		Reference No.	SCML/EHS/F-04
	Lumshnong, Meghalaya		Issue No.	1
	WATER TESTING REPORT		Date of Issue:	24.08.2013
			Revision No.	3
			Date of Rev.	01.06.2019

Report No. - 08	Date of sample collection: - 06.11.2021
	Date of Analysis: 06.11.2021 to 09.11.2021

Sr.No.	Parameter	Unit	STP Inlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014
1	pH	-	7.70	-
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	54.34	-
5	Total Hardness as CaCO ₃	mg/L	145.15	-
6	Suspended Solids	mg/L	75.12	-
7	Total Dissolve Solids	mg/L	253	-
8	Chemical Oxygen Demand	mg/L	256	-
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	138.2	-
10	Oil & Grease	mg/L	7.4	-
11	Temperature	° C	24.3	-
12	Conductivity	μS/cm	420.67	-



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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference No.	SCML/EHS/F-04
		Issue No.	1
	WATER TESTING REPORT	Date of Issue:	24.08.2013
		Revision No.	3
		Date of Rev.	01.06.2019

Report No. - 08				Date of sample collection: - 06.11.2021 Date of Analysis: 06.11.2021 to 09.11.2021
Sr.No.	Parameter	Unit	STP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014
1	pH	-	7.81	5.5 to 9.0
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	53.00	-
5	Total Hardness as CaCO ₃	mg/L	148.50	-
6	Suspended Solids	mg/L	8.3	100
7	Total Dissolve Solids	mg/L	252	-
8	Chemical Oxygen Demand	mg/L	37.1	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	8.8	30
10	Oil & Grease	mg/L	< 3.0	10
11	Temperature	° C	26.5	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	µS/cm	415.2	-


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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference No.	SCL/EHS/F-04
		Issue No.	1
	WATER TESTING REPORT	Date of Issue:	24.08.2013
		Revision No.	3
		Date of Rev.	01.06.2019

Report No. - 03	Date of sample collection: - 06.11.2021 Date of Analysis: 06.11.2021 to 09.11.2021
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Sr.No.	Parameter	Unit	ETP Inlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014
1	pH	-	7.12	-
2	Suspended Solids	mg/L	75	-
3	Total Dissolve Solids	mg/L	758	-
4	Chemical Oxygen Demand	mg/L	761.0	-
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	59.0	-
6	Oil & Grease	mg/L	124.0	-
7	Dissolved Oxygen	mg/L	2.7	-
8	Temperature	° C	23.0	-


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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference No.	SCL/EHS/F-04
		Issue No.	1
	WATER TESTING REPORT	Date of Issue:	24.08.2013
		Revision No.	3
		Date of Rev.	01.06.2019

Report No. - 08

Date of sample collection: - 06.11.2021
Date of Analysis: 06.11.2021 to 09.11.2021

Sr.No.	Parameter	Unit	ETP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014
1	pH	-	7.6	5.5 to 9.0
2	Suspended Solids	mg/L	16	100
3	Total Dissolve Solids	mg/L	732	-
4	Chemical Oxygen Demand	mg/L	27.1	250
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	3.8	30
6	Oil & Grease	mg/L	2	10
7	Dissolved Oxygen	mg/L	6.1	-
8	Temperature	° C	26.4	Shall not exceed 5.0°C above the receiving water temperature



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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference No.	SCL/EHS/F-04
		Issue No.	1
	WATER TESTING REPORT	Date of Issue:	24.08.2013
		Revision No.	3
		Date of Rev.	01.06.2019

Report No. -08

Date of sample collection: - 10.11.2021

Date of Analysis: 10.11.2021 to 13.11.2021

Sr.No.	Parameter	Unit	Nala Inlet	Nala Outlet	Standards norms as per IS 2296
1	pH	-	7.96	7.73	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	300
3	Odour	-	Unobjectionable	Unobjectionable	Unobjectionable
4	Chloride	mg/L	5.43	5.98	-
5	Total Hardness as CaCO ₃	mg/L	145.11	147.71	300
6	Suspended Solids	mg/L	12	11.3	-
7	Total Dissolve Solids	mg/L	84	78.9	500
8	Chemical Oxygen Demand	mg/L	ND	ND	-
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	2.0
10	Oil & Grease	mg/L	ND	ND	-
11	Temperature	° C	25.32	26.28	-
12	Conductivity	μS/cm	323.62	324	-



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