

The logo for Shiva Cement Limited, featuring the word "SHIVA" in white capital letters on a red rectangular background.

CIN L26942OR1985PLC001567

SHIVA CEMENT LIMITED

PLOT NO. YY-5
CIVIL TOWNSHIP
7&B AREA, ROURKELA
ODISHA, INDIA PIN - 769004

SCL/6000-09/2020-21-07

04.02.2021

To
The Member Secretary
State Pollution Control Board, Odisha
(Department of Forest & Environment, Govt. of Odisha)
Paribesh Bhawan, A/118, Nilakantha Nagar,
Unit-VIII, Bhubaneswar-751 012

Sub: Environment Monitoring Reports for the month of January-2021.

Dear Sir,

Please find attached herewith the Environment Monitoring Report for the month of January-2021.

Thanking you

Yours Faithfully
For Shiva Cement Limited

A handwritten signature in black ink, appearing to read "Anil Mishra".

(Anil Mishra)
Unit Head

Encl : As above

Copy to:
The Regional Officer
OSPCB, Rourkela

**ENVIRONMENTAL MONITORING REPORT
FOR THE MONTH OF JANUARY
2021**

At the request of:

M/S. SHIVA CEMENT LIMITED
Teleghana, P.o. – Kutra, Dist.- Sundardarh
(Odisha)

Conducted By:



M/s. MITRA S.K. PRIVATE LIMITED

At/Po – Barbil
Dist.- : Keonjhar, (Odisha)
Pin - 758035.

A&P.O. : BARBIL, Ward No - 6
 Dist : Keonjhar, Odisha - 758035
 CIN : U51909WB1966PTC023037

T : 06767-275209, 94370-75269
 E : barb@mitrask.co.in

Ref. No. BBL/ENV/2336

DATE: 01/02/2021

ANALYSIS REPORT OF AMBIENT AIR

Name of the Mines : M/s. SHIVA CEMENT LIMITED

Address : Teleghana, Kutra, Dist. Sundargarh (Odisha)

Sl. No.	Date of Monitoring	Location	Concentration of Pollutants				
			PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)
1	21/23.01.2021	Main Gate	65.3	36.8	7.4	22.4	0.37
2	21/23.01.2021	Office Building	75.6	42.4	7.2	21.8	0.31
3	21/23.01.2021	Kiln Area.	81.2	45.3	7.8	23.6	0.38
Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality			100	60	80	80	2
Sampling and Analysis done according to			IS: 5182 (Part-23)-1999	USEPA CFR-40, Part-50, Appendix-L	IS: 5182 (Part-2)-2001	IS: 5182 (Part-6)-2006	IS 5182 : Part.10-1999
Barometric pressure (mm of Hg):748			Temperature °C: 10-28		Climatic condition: Clear & Sunny		

Checked by:-




For Mitra S. K. Private Limited

Authorised Signatory

At/P.O. : BARBIL Ward No - 6
Dist : Keonjhar, Odisha - 758035
CIN : U51909WB1956PTC023037

T : 06767-275209, 94370-75269
E : bsrbil@mitrask.co.in

Ref. No. BBL/ENV/2337

DATE: 01/02/2021

CERTIFICATE OF NOISE MONITORING

Name of the Mines : M/s. SHIVA CEMENT LIMITED


Address : Teleghana, Kutra, Dist. Sundargarh (Odisha)

SL. NO.	Monitoring Location	Date Monitoring	Noise Level in dB (A)		
			Ld	Ln	Ldn
1.	Crusher	22/23.01.2021	68.9	56.7	62.2
2.	Raw Mill	22/23.01.2021	67.1	54.3	58.2
3.	Coal mill	22/23.01.2021	67.5	54.6	58.8
4.	Cement Mill	22/23.01.2021	66.6	57.9	62.1
5.	Main Gate	22/23.01.2021	56.8	45.2	51.3
6.	Colony	22/23.01.2021	50.7	38.5	43.2

Note : Day Time : 6.00 AM -10.00 PM, Night Time: 10.00PM- 6.00AM


.. AMBIENT AIR QUALITY STANDARDS IN RESPECT OF NOISE AS PER CPCB GUIDELINES

AREA CODE	CATEGORY OF AREA / ZONE	LIMITS IN dB (A)	
		DAY TIME	NIGHT TIME
A	INDUSTRIAL AREA	75	70
B	COMMERCIAL AREA	65	55
C	RESIDENTIAL AREA	55	45
D	SILENE ZONE	50	40

Checked by:- 



For Mitra S. K. Private Limited


Authorised Signatory

A/P.O. : BARBIL Ward No - 6
 Dist : Keonjhar, Odisha - 758035
 CN : U51909WB1956PTC023037

T : 06767-275209, 94370-75269
 E : berbil@mitrask.co.in

Ref.No.BBL/ENV/2333

Date: 01.02.2021

ANALYSIS REPORT OF FLUE GAS		
Name of the industry	: M/s. SHIVA CEMENT LIMITED	
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date & time of sampling	: 22/01/2021 AT 04.30 PM	
A. General information about stack		
1 Stack connected to	: Rotary Kiln	
2 Emission due to	: Burning of Clinker	
3 Material of construction of Stack	: MS	
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform & Ladder	: Yes	
6 Generation Capacity	: ---	
B. Physical characteristics of stack		
1 Height of the stack from ground level	: 45.0 m	
2 Diameter of the stack at sampling point	: 1.25 m	
3 Height of the sampling point from Ground Level	: 33 m	
4 Area of Stack	: 1.2277m ²	
C. Analysis/Characteristic of stack		
1 Fuel used	Coal	2. Fuel consumption : 3MT/Hrs
D. Results of sampling & analysis of gaseous emission		
	Result	Method
1 Temperature of emission (°C)	: 136	EPA Part 2
2 Barometric pressure (mm of Hg)	: 748	EPA Part 2
3 Velocity of gas (m/sec)	: 12.82	EPA Part 2
4 Quantity of gas flow (Nm ³ /hr.)	: 38969	EPA Part 2
5 Concentration of Carbonmonoxide(%)	: <0.2	USEPA 18 -25/09/1996
6 Concentration of Carbon dioxide(%)	: 8.2	IS 13270:1992,Ref:2009
7 Concentration of Sulphur dioxide (mg/Nm ³)	: 44.3	GC
8 Concentration of Nitrogen dioxide (mg/Nm ³)	: 23.6	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm ³)	: 27.2	EPA Part-5
E. Pollution control device		
Details of pollution control devices attached with the stack	: Bag Filter	

Checked by:-




For Mitra S. K. Private Limited

Authorised Signatory

A/P.O. : BARBIL Ward No - 6
 Dist. : Keonjhar, Odisha - 758035
 CN : U51909WB1958PTC023037

T : 06767-275203, 94370-75269
 E : barbil@mitrask.co.in

Ref.No.BBL/ENV/2334


Date: 01.02.2021

ANALYSIS REPORT OF FLUE GAS	
Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Date & time of sampling	: 22/01/2021 AT 05.00 PM
A. General information about stack	
1 Stack connected to	: Raw Mill Bag Filter
2 Emission due to	: Raw Mix Grinding
3 Material of construction of Stack	: MS
4 Shape of Stack	: Circular
5 Stack is provided with permanent platform & Ladder	: Yes
6 Generation Capacity	: ---
B. Physical characteristics of stack	
1 Height of the stack from ground level	: 45.0 m
2 Diameter of the stack at sampling point	: 1.05 m
3 Height of the sampling point from Ground Level	: 34 m
4 Area of Stack	: 8662 m ²
C. Analysis/Characteristic of stack	
1 Fuel used : Kiln Hot Gas	2. Fuel consumption : ---
D. Results of sampling & analysis of gaseous emission	
	Result Method
1 Temperature of emission (°C)	: 45 EPA Part 2
2 Barometric pressure (mm of Hg)	: 748 EPA Part 2
3 Velocity of gas (m/sec)	: 13.4 EPA Part 2
4 Quantity of gas flow (Nm ³ /hr.)	: 36344 EPA Part 2
5 Concentration of Carbonmonoxide(%)	: <0.2 USEPA 18 -25/09/1996
6 Concentration of Carbon dioxide(%)	: 1.4 IS 13270:1992,Ref:2009
7 Concentration of Sulphur dioxide (mg/Nm ³)	: 11.3 GC
8 Concentration of Nitrogen dioxide (mg/Nm ³)	: 6.2 EPA Part-7
9 Concentration of Particulate Matters (mg/Nm ³)	: 22.6 EPA Part-5
E. Pollution control device	
Details of pollution control devices attached with the stack	: Bag Filter

Checked by:-




For Mitra S. K. Private Limited


 Authorised Signatory

Mitra S. K. Private Limited



A.P.O. : BARBIL Ward No - 5
 Dist : Keonjhar, Odisha - 758035
 CIN : U51909WB1956PTC023037
 T : 06767-275209, 94370-75289
 E : barbil@mitrask.co.in

Ref.No.BBL/ENV/2335

Date: 01.02.2021

ANALYSIS REPORT OF FLUE GAS

Name of the industry	: M/s. SHIVA CEMENT LIMITED	
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date & time of sampling	: 22/12/2020 AT 03.30PM	
A. General information about stack		
1 Stack connected to	: Coal Mill Bag Filter	
2 Emission due to	: Coal Grinding	
3 Material of construction of Stack	: MS	
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform & Ladder	: Yes	
6 Generation Capacity	: ---	
B. Physical characteristics of stack		
1 Height of the stack from ground level	: 31.0 m	
2 Diameter of the stack at sampling point	: 0.68 m	
3 Height of the sampling point from Ground Level	: 24 m	
4 Area of Stack	: 0.3633 m ²	
C. Analysis/Characteristic of stack		
1 Fuel used	: Kiln Hot Gas	2. Fuel consumption : ---
D. Results of sampling & analysis of gaseous emission		
	Result	Method
1 Temperature of emission (°C)	: 39	EPA Part 2
2 Barometric pressure (mm of Hg)	: 749	EPA Part 2
3 Velocity of gas (m/sec)	: 19.04	EPA Part 2
4 Quantity of gas flow (Nm ³ /hr.)	: 15728.0	EPA Part 2
5 Concentration of Particulate Matters (mg/Nm ³)	: 25.8	EPA Part-5
E. Pollution control device		
Details of pollution control devices attached with the stack	: Bag Filter	

Checked by:



For Mitra S. K. Private Limited

Authorised Signatory

A/P.O. : BARSIL Ward No - 6
 Dist. : Keonjhar, Odisha - 758005
 CIN : U51900WB1066PTC023037

T : 06767-275209, 94370-75289
 E : barsil@mitrask.co.in

Ref.No.BBL/ENV/2332

Date: 27.01.2021

ANALYSIS REPORT OF FLUE GAS		
Name of the industry	: M/s. SHIVA CEMENT LIMITED	
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date & time of sampling	: 22/01/2021 AT 11.40 AM	
A. General information about stack		
1 Stack connected to	: Cement Mill Bag Filter	
2 Emission due to	: Grinding Process	
3 Material of construction of Stack	: MS	
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform & Ladder	: Yes	
6 Generation Capacity	: ---	
B. Physical characteristics of stack		
1 Height of the stack from ground level	: 33.0 m	
2 Diameter of the stack at sampling point	: 1.0 m	
3 Height of the sampling point from Ground Level	: 25m	
4 Area of Stack	: 0.7857 m ²	
C. Analysis/Characteristic of stack		
1 Fuel used	: ---	2. Fuel consumption : ---
D. Results of sampling & analysis of gaseous emission		
	Result	Method
1 Temperature of emission (°C)	: 34	EPA Part 2
2 Barometric pressure (mm of Hg)	: 749	EPA Part 2
3 Velocity of gas (m/sec)	: 5.31	EPA Part 2
4 Quantity of gas flow (Nm ³ /hr.)	: 14096	EPA Part 2
8 Concentration of Particulate Matters (mg/Nm ³)	: 23.8	EPA Part-5
E. Pollution control device		
Details of pollution control devices attached with the stack	: Bag Filter	

Checked by:




For Mitra S. K. Private Limited

Authorised Signatory

Ad.P.O. : BARBIL Ward No - 6
Dist : Keonjhar, Odisha - 758035
CIN : U51909WB1955PTC023037

T : 06767-275209, 94370-75269

E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2338

DATE: 01/02/2021

CERTIFICATE OF ANALYSIS

Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Sampling Location	: Bore well Water Plant Site
Date of sampling	: 22/01/2021

MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 - 1991

Sl No.	Test Parameters	Norms as per IS:10500-1991	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coll MPN/10	Not Detected	Not Detected

CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 - 1991

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-1991		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	25	<1.0
2	Odour	---	Unobjectionable	---	Unobjectionable
3	pH at 26°C	---	6.5-8.5	No Relaxation	6.52
4	Turbidity	NTU	5	10	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	52.0
6	Aluminium (as Al)	mg/l	0.03	0.2	<0.01
7	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	<0.02
8	Boron (as B)	mg/l	1.0	5.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	8.2
10	Chloride (as Cl)	mg/l	250	1000	14.4
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride (as F)	mg/l	1.0	1.5	<0.1
13	Free Residual Chlorine	mg/l	0.2(Min)	---	<0.1
14	Iron (as Fe)	mg/l	0.3	1.0	<0.05
15	Magnesium (as Mg)	mg/l	30	100	2.42
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO ₃)	mg/l	45	100	2.8
18	Phenolic Compounds (as C ₆ H ₅ OH)	mg/l	0.001	0.002	<0.001
19	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.005
20	Sulphate (as SO ₄)	mg/l	200	400	4.6
21	Alkalinity (as CaCO ₃)	mg/l	200	600	22.2
22	Total Hardness (as CaCO ₃)	mg/l	300	600	30.4
23	Cadmium (as Cd)	mg/l	0.01	No Relaxation	<0.001
24	Cyanide (as CN)	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb)	mg/l	0.05	No Relaxation	<0.005
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001
27	Arsenic(as As)	mg/l	0.05	No Relaxation	<0.01
28	Zinc (as Zn)	mg/l	5.0	15.0	<0.02
29	Hexavalent Chromium (as Cr+6)	mg/l	0.05	No Relaxation	<0.01
30	Pesticide	mg/l	---	---	<0.0001
31	Polly nuclear Aromatic hydrocarbon	mg/l	---	---	<0.005

Checked by :




For Mitra S.K. Private Limited

Authorised Signatory

A/P.O. : BARBIL, Ward No - 8
Dist. : Keonjhar, Odisha - 758036
CIN : U51909WB1956PTC023037

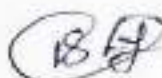
T : 06767-275269, 94370-75269
E : barbil@mitrask.com
Ref. No. BBL/ENV/2339

Date: 01/02/2021


GROUND WATER LEVEL MONITORING

Name of the industry:	M/s. SHIVA CEMENT LIMITED	
Address:	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date of Monitoring	Location	Water Level below (in meters)
23.01.2021	Bore well at Plant Site	9.8

Checked by:-



For Mitra S. K. Private Limited


Authorised Signatory