

HCIL(NGH)-ENV-F-101/2021/

The Member Secretary
M.P. Pollution Control Board
Paryavaran Parishar,
E-5, Arera Colony, Bhopal – 462016

Diamond Cements

Prop: HeidelbergCement India Limited
 CIN: L26942HR1958FLC042301

Village and P. O. Narsingarh
 District Damoh, M.P. 470 675,
 India

Phone +91-07601-241301, 02 & 05
 Fax +91-07601-241235

Jan 04, 2021**Sub.: Monthly Environmental Monitoring Reports for Jan 2021**

Sir,

Please find enclosed herewith the Environmental Monitoring Report of the following for the month of **Jan- 2021**

S. No.	Name of Plant / Mines	Monitoring Details
1.	Clinkerisation Unit, Narsingarh (including WHRPP)	Ambient Air Quality Monitoring including Ambient Noise Monitoring, Stack Monitoring, Work Environment, STP Water Quality Analysis Report, ETP Water Quality Analysis Report, Performance of ESPs & Bag Houses, Energy meter reading, Online monitoring data of CAAQMS.
2.	Grinding Unit, Imlai	Ambient Air Quality Monitoring including Ambient Noise Monitoring, Stack Monitoring, Work Environment, STP Water Quality Analysis Report, Performance of Bag Houses, Energy meter reading and Online monitoring data of CAAQMS.
3.	Lime Stone Mines, Patharia	Ambient Air Quality Monitoring including Ambient Noise Monitoring, Work zone Noise, Stack Monitoring, Work Environment, Waste water Quality Analysis Reports, and Mine Pit water Analysis Report, Online monitoring data of CAAQMS.

This is submitted for your kind perusal please.

Thanking you,

Yours faithfully,
 For Diamond Cements
 (Prop.: HeidelbergCement India Ltd.)



Sandeep Kumar Tiwari
 Manager – Environment

Encl: as above

CC: The Zonal Officer (Central),

Central Pollution Control Board, E-5, Link Rd Number 3, Ekant Park, Arera Colony, Bhopal, Madhya Pradesh 462016

CC: The Regional Officer

MP Pollution Control Board, Deen Dayal Nagar, Housing Board Colony, Sagar (MP)

CC: Sr. G.M. Mines – For kind information & record please

CC: VP (T) Imlai – For kind information & record please

CC: Office Copy

ENVIRONMENTAL MONITORING REPORT

of

M/s Diamond Cements
(Prop. HeidelbergCement India Limited)
Village & Post: Narsingarh,
District : Damoh

for

January, 2021

Prepared by:



Certificate No.: T-2202

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Ecomen Laboratories Pvt. Ltd.

(An approved Laboratory from NABL & MoEF&CC)

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An approved Laboratory from Ministry of Environment, Forest and Climate Change, Govt. of India, New Delhi

FORMAT NO. : ECO/QS/D/FORMAT/01

TEST REPORT NO. : ECO LAB/D/A:05-08 & M:05-08/01/21

REV. NO. : 00

ISSUE DATE : 30.01.2021

Month: January, 2021

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Plant/Mines :

M/s Diamond Cements -Clinkerisation Unit
(Prop. HeidelbergCement India Limited), Narsingarh, Damoh (M.P.)

AAQMS	Date/ Time*	PM _{2.5} ($\mu\text{g}/\text{m}^3$)	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	Time	CO ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)
		05.01.2021	05.01.2021		05.01.2021	05.01.2021	05.01.2021
Near Hospital	06.00 am	35.76	55.65	06:00 am to 10:00 am	350	10.26	12.70
				10:00 am to 02:00 pm		9.63	13.95
				02:00 pm to 06:00 pm	370	10.73	12.78
				06:00 pm to 10:00 pm		12.32	13.11
				10:00 pm to 02:00 am	360	10.84	13.48
				02:00 am to 06:00 am		11.41	13.11
				Average Value	360	10.87	13.19
Near Gate of Mine Pit No.1	06.00 am	39.97	58.76	06:20 am to 10:20 am	340	11.83	11.98
				10:20 am to 02:20 pm		11.38	14.03
				02:20 pm to 06:20 pm	380	12.40	13.83
				06:20 pm to 10:20 pm		10.27	15.16
				10:20 pm to 02:20 am	370	11.41	13.83
				02:20 am to 06:20 am		10.18	14.03
				Average Value	363	11.25	13.81
Near STP Area	06.00 am	38.84	63.59	06:40 am to 10:40 am	330	9.63	13.14
				10:40 am to 02:40 pm		9.87	12.33
				02:40 pm to 06:40 pm	350	10.06	12.92
				06:40 pm to 10:40 pm		10.68	13.75
				10:40 pm to 02:40 am	360	11.38	12.13
				02:40 am to 06:40 am		10.01	12.86
				Average Value	347	10.27	12.85
Near Worker Colony	06.00 am	37.72	61.58	07:00 am to 11:00 am	360	11.27	12.95
				11:00 am to 03:00 pm		12.68	11.92
				03:00 pm to 07:00 pm	380	13.25	13.33
				07:00 pm to 11:00 pm		11.86	13.66
				11:00 pm to 03:00 am	390	11.47	12.22
				03:20 am to 07:00 am		11.19	12.62
				Average Value	377	11.95	12.78

Air (Ambient Standard) - The Environment (Protection) Rules, 1986. [NAAQMS]							
S.NO.	Standard	Time	PM 2.5	PM 10	SO2	NO2	CO
1	($\mu\text{g}/\text{m}^3$)	24 hours	60	100	80	80	2000
2		Annual	40	60	50	40	-

* Time mentioned above is the Initial Time of Sampling.

SO₂ BDL < 4.0 ($\mu\text{g}/\text{m}^3$) and NO₂ BDL < 6.1 ($\mu\text{g}/\text{m}^3$)

Checked by

Authorized Signatory

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TEST REPORT NO. : ECO LAB/D/A:09-12 & M:09-12/01/21
ISSUE DATE : 30.01.2021

Month: January, 2021

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Plant/Mines :

M/s Diamond Cements -Grinding Unit
(Prop. HeidelbergCement India Limited), Imlai, Damoh (M.P.)

AAQMS	Date/ Time*	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	Time	CO (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
		13.01.2021	14.01.2021		14.01.2021	14.01.2021	14.01.2021
Near Admin Bld.	06.00 am	33.70	53.84	06:00 am to 10:00 am	400	10.16	11.39
				10:00 am to 02:00 pm		12.07	13.18
				02:00 pm to 06:00 pm	440	11.89	12.04
				06:00 pm to 10:00 pm		12.20	12.67
				10:00 pm to 02:00 am	410	10.73	12.07
				02:00 am to 06:00 am		11.13	12.56
				Average Value	417	11.36	12.32
Near Water Storage Tank (Behind D.G. Set)	06.00 am	41.62	62.41	06:20 am to 10:20 am	420	11.89	14.64
				10:20 am to 02:20 pm		11.30	13.69
				02:20 pm to 06:20 pm	440	12.52	13.96
				06:20 pm to 10:20 pm		10.34	15.12
				10:20 pm to 02:20 am	470	11.92	14.20
				02:20 am to 06:20 am		10.06	13.39
Average Value	443	11.34	14.17				
Near Railway Siding	06.00 am	43.74	65.42	06:40 am to 10:40 am	430	10.16	14.23
				10:40 am to 02:40 pm		10.73	13.25
				02:40 pm to 06:40 pm	450	10.11	14.40
				06:40 pm to 10:40 pm		11.63	13.28
				10:40 pm to 02:40 am	420	11.41	14.30
				02:40 am to 06:40 am		11.38	12.37
Average Value	433	10.90	13.64				
Near Worker Colony	06.00 am	34.85	60.85	07:00 am to 11:00 am	430	11.89	12.75
				11:00 am to 03:00 pm		12.84	12.07
				03:00 pm to 07:00 pm	440	12.89	12.79
				07:00 pm to 11:00 pm		11.78	14.03
				11:00 pm to 03:00 am	450	11.38	13.32
				03:20 am to 07:00 am		12.68	14.09
Average Value	440	12.24	13.17				

Air (Ambient Standard) - The Environment (Protection) Rules, 1986 (NAAQMS)

S.NO.	Standard	Time	PM 2.5	PM 10	SO2	NO2	CO
1	(µg/m ³)	24 hours	60	100	80	80	2000
2		Annual	40	60	50	40	-

* Time mentioned above is the initial Time of Sampling.

SO₂ BDL < 4.0 (µg/m³) and NO₂ BDL < 6.1 (µg/m³)
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FORMAT NO. : ECO/QS/D/FORMAT/01
REV. NO. : 00

TEST REPORT NO. :ECO LAB/D/A:01-04 & M:01-04/01/21
ISSUE DATE : 30.01.2021

Month: January, 2021

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Plant/Mines :

Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

AAQMS	Date/ Time*	PM _{2.5} (µg/m ³)	PM ₁₀ (µg/m ³)	Time	CO (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
		02.01.2021	04.01.2021		04.01.2021	04.01.2021	04.01.2021
Near Main Office	06.00 am	36.82	54.48	06:00 am to 10:00 am	400	10.21	12.16
				10:00 am to 02:00 pm		10.70	13.67
				02:00 pm to 06:00 pm		12.01	12.16
				06:00 pm to 10:00 pm	410	11.83	12.22
				10:00 pm to 02:00 am		10.65	12.22
				02:00 am to 06:00 am		11.50	13.22
				Average Value	403	11.15	12.61
Near Back Filling Area	06.00 am	40.66	64.78	06:20 am to 10:20 am	420	11.72	12.56
				10:20 am to 02:20 pm		11.13	13.03
				02:20 pm to 06:20 pm	410	12.52	14.08
				06:20 pm to 10:20 pm		10.08	12.72
				10:20 pm to 02:20 am	400	11.89	12.75
				02:20 am to 06:20 am		10.42	13.28
				Average Value	410	11.29	13.07
Near Mine Pit	06.00 am	42.77	66.44	06:40 am to 10:40 am	420	10.16	13.05
				10:40 am to 02:40 pm		10.73	13.49
				02:40 pm to 06:40 pm	430	10.11	13.80
				06:40 pm to 10:40 pm		11.01	13.02
				10:40 pm to 02:40 am	440	11.33	12.78
				02:40 am to 06:40 am		11.53	13.62
				Average Value	430	10.81	13.29
Near Temple	06.00 am	44.78	69.70	07:00 am to 11:00 am	400	11.72	13.49
				11:00 am to 03:00 pm		10.64	13.46
				03:00 pm to 07:00 pm	390	10.27	14.15
				07:00 pm to 11:00 pm		11.92	13.02
				11:00 pm to 03:00 am	410	11.19	13.56
				03:20 am to 07:00 am		11.95	14.23
				Average Value	400	11.28	13.55

Air (Ambient Standard) - The Environment (Protection) Rules, 1988-[NAAQMS]							
S.NO.	Standard	Time	PM 2.5	PM 10	SO2	NO2	CO
1	(µg/m ³)	24 hours	60	100	80	80	2000
2		Annual	40	60	50	40	-

* Time mentioned above is the Initial Time of Sampling.

SO₂ BDL<4.0 (µg/m³) and NO₂ BDL<6.1 (µg/m³)

Checked by *Archana*

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REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/A:13-16 & M:13-16/01/21
ISSUE DATE : 30.01.2021

Month: January, 2021

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Plant/Mines :

Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

AAQMS	Date/ Time*	PM _{2.5} ($\mu\text{g}/\text{m}^3$)		Time	CO ($\mu\text{g}/\text{m}^3$)		SO ₂ ($\mu\text{g}/\text{m}^3$)		NO ₂ ($\mu\text{g}/\text{m}^3$)	
		18.01.2021	19.01.2021		18.01.2021	19.01.2021	19.01.2021	19.01.2021		
Near Main Office	06.00 am	30.83	57.61	06:00 am to 10:00 am	400	10.76	12.10			
				10:00 am to 02:00 pm		11.30	12.92			
				02:00 pm to 06:00 pm	460	12.49	12.98			
				06:00 pm to 10:00 pm		12.52	12.78			
				10:00 pm to 02:00 am	430	11.95	12.10			
				02:00 am to 06:00 am		12.07	14.38			
				Average Value	430	11.85	12.88			
Near Back Filling Area	06.00 am	43.53	67.47	06:20 am to 10:20 am	390	11.78	14.26			
				10:20 am to 02:20 pm		11.33	13.73			
				02:20 pm to 06:20 pm	360	12.46	14.25			
				06:20 pm to 10:20 pm		10.32	13.62			
				10:20 pm to 02:20 am	360	9.61	13.83			
				02:20 am to 06:20 am		10.11	13.89			
				Average Value	367	10.93	13.90			
Near Mine Pit	06.00 am	45.62	88.66	06:40 am to 10:40 am	440	10.21	14.07			
				10:40 am to 02:40 pm		10.76	13.76			
				02:40 pm to 06:40 pm	450	12.46	13.42			
				06:40 pm to 10:40 pm		10.60	13.56			
				10:40 pm to 02:40 am	440	11.13	13.26			
				02:40 am to 06:40 am		11.53	12.95			
				Average Value	443	11.11	13.60			
Near Temple	06.00 am	31.89	58.89	07:00 am to 11:00 am	390	11.35	12.34			
				11:00 am to 03:00 pm		12.43	12.22			
				03:00 pm to 07:00 pm	410	12.52	13.46			
				07:00 pm to 11:00 pm		11.83	13.15			
				11:00 pm to 03:00 am	420	11.92	13.02			
				03:20 am to 07:00 am		10.68	12.01			
				Average Value	407	11.79	12.70			

Air (Ambient Standard) - The Environment (Protection) Rules, 1986 [NAAQMS]							
S.NO.	Standard	Time	PM 2.5	PM 10	SO2	NO2	CO
1	($\mu\text{g}/\text{m}^3$)	24 hours	60	100	80	80	2000
2		Annual	40	60	50	40	-

* Time mentioned above is the initial Time of Sampling.

SO₂ BDL < 4.0 ($\mu\text{g}/\text{m}^3$) and NO₂ BDL < 6.1 ($\mu\text{g}/\text{m}^3$)

Checked by *Archan*

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FORMAT NO. : ECO/QS/D/FORMAT/02
REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/N:01/01/21
ISSUE DATE: 30.01.2021

Month: : January 2021

TEST REPORT OF AMBIENT NOISE MONITORING

Name of Plant/Mines : M/s Diamond Cements - Clinkerisation -Clinkersiation Unit
(Prop. Heidelberg Cement India Limited), Narsingarh, Damoh (M.P.)

Date of Monitoring : 06.01.2021

Sl. No.	Location	Leq Value in dB(A)	
		Day Time	Night Time
1.	Near Hospital	52.3	43.2
2.	Near Gate of Mine Pit No.1	60.2	58.3
3.	Near STP Area	61.3	58.3
4.	Near Worker Colony	48.5	42.3

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Noise (Ambient Standard) - Noise Pollution (Prevention & Control Rule 2000) ph.2746282 Fax-2745726

Area Code	Category of area	Limit in dB (A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Note:

1	Day time is reckoned in between 6:00 AM and 10:00 PM.
2	Night time is reckoned in between 10:00 PM and 6:00 AM
3	Silence zone is defined as area up to 100m around such premises as hospitals, educational institutions & courts. The silence zones are to be declared by a competent authority.
4	Mixed categories of areas should be declared as one of the four above-mentioned categories by the competent authority and the corresponding standard shall apply.

FORMAT NO. : ECO/QS/D/FORMAT/02
REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/N:02/01/21
ISSUE DATE: 30.01.2021

Month: : January 2021

TEST REPORT OF AMBIENT NOISE MONITORING

Name of Plant/Mines : M/s Diamond Cements -Grinding Unit
(Prop. Heidelberg Cement India Limited), Imlai, Damoh (M.P.)

Date of Monitoring : 14.01.2021

Sl. No.	Location	Leq Value in dB(A)	
		Day Time	Night Time
1.	Near ADM Bld.	56.5	52.8
2.	Near Worker Colony	48.3	44.6
3.	Near Railway Siding	63.4	59.2
4.	Near Water Storage Tank (Behind D.G.Set)	60.3	55.4

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Noise (Ambient Standard) - Noise Pollution (Prevention & Control Rule 2000)

Area Code	Category of area	Limit in dB (A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Note:

1	Day time is reckoned in between 6:00 AM and 10:00 PM.
2	Night time is reckoned in between 10:00 PM and 6:00 AM
3	Silence zone is defined as area up to 100m around such premises as hospitals, educational institutions & courts. The silence zones are to be declared by a competent authority.
4	Mixed categories of areas should be declared as one of the four above-mentioned categories by the competent authority and the corresponding standard shall apply.

FORMAT NO. : ECO/QS/D/FORMAT/02
REV. NO. : 00

TEST REPORT NO : ECO LAB/D/N:03/01/21
ISSUE DATE: 30.01.2021

Month: : January 2021

TEST REPORT OF AMBIENT NOISE MONITORING

Name of Plant/Mines : Lime Stone Mines, Patharia- Diamond Cements
(Prop. Heidelberg Cement India Limited), Damoh (M.P.)

Date of Monitoring : 19.01.2021

Sl. No.	Location	Leq Value in dB(A)	
		Day Time	Night Time
1.	Near Main Office	60.3	56.1
2.	Near Back Filling Area	52.7	49.5
3.	Near Mine Pit	63.5	58.9
4.	Near Temple	58.9	55.1

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Noise (Ambient Standard) - Noise Pollution (Prevention & Control Rule 2000)

Area Code	Category of area	Limit in dB (A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Note:

1	Day time is reckoned in between 6:00 AM and 10:00 PM.
2	Night time is reckoned in between 10:00 PM and 6:00 AM
3	Silence zone is defined as area up to 100m around such premises as hospitals, educational institutions & courts. The silence zones are to be declared by a competent authority.
4	Mixed categories of areas should be declared as one of the four above-mentioned categories by the competent authority and the corresponding standard shall apply.

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An approved Laboratory from Ministry of Environment, Forest and Climate Change, Govt. of India, New Delhi

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REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/S:09,10&,14/01/21
ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF STACK MONITORING

Name of Plant/Mines : M/s Diamond Cements -Clinkerisation Unit
(Prop. HeidelbergCement India Limited), Narsingarh, Damoh (M.P.)

Location	S-1	S-2	S-3
Date of Monitoring	25.01.2021	25.01.2021	28.01.2021
Stack Details			
Material of Construction (Stack/Duct)	M.S.	M.S.	M.S.
Stack Attached to	Coal Mill No-1	Coal Mill No-2	Coal Mill No-3
Name of Air Pollution Control Device	Bag House	Bag House	Bag House
Stack Height above the Groundlevel (m)	30.4	37	72.7
Stack Top	Circular	Circular	Circular
Inside Diameter of Stack (m)	1.45	1.45	2.12
Cross sectional area of Duct/Stack (m ²)	1.65	1.65	3.53
Ambient Temp (°C)	19	18	20
Stack Gas Temp (°C)	52	62	62
Exit Velocity of Gas (m/sec.)	5.11	6.41	6.89
Flow Rate (Nm ³ / sec.)	7.22	8.77	20.26
Lab Testing			
Particulate Matter(PM) (mg/Nm ³) (Isokinetic Samples)	11.4	16.7	19.0

Stack Emission Standard = 30 mg/NM³

* Plant was under Planned shutdown, Hence Stack Monitoring could not be conducted.

Note:

S-1 : Coal Mill No-1

S-2 : Coal Mill No-2

S-3 : Coal Mill No-3

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Month: January 2021

TEST REPORT OF STACK MONITORING

Name of Plant/Mines : M/s Diamond Cements -Clinkerisation Unit
(Prop. HeidelbergCement India Limited), Narsingarh, Damoh (M.P.)

Location	S-4	S-5	S-6	
Date of Monitoring	14.01.2021	06.01.2021	20.01.2021	
StackDetails				
Material of Construction (Stack/Duct)	M.S.	M.S.	M.S.	
Stack Attached to	Kiln / Raw Mill No-1	Kiln / Raw Mill No-2	Kiln / Raw Mill No-3	
Name of Air Pollution Control Device	Hybrid Filter	Hybrid Filter	RABH	
Stack Height above the Groundlevel (m)	76.4	98	110	
Stack Top	Circular	Circular	Circular	
Inside Diameter of Stack (m)	2.4	2.65	4.5	
Cross sectional area of Duct/Stack (m ²)	4.52	5.51	15.90	
Ambient Temp (°C)	28	22	21	
Stack Gas Temp (°C)	126	119	81	
Exit Velocity of Gas (m/sec.)	19.23	16.6	15.53	
Flow Rate (Nm ³ / sec.)	62.18	63.24	191.69	
Test Conducted				
Particulate Matter(PM) (mg/Nm ³) (Isokinetic Samples)	15.8	14.1	13.3	
Oxygen (O ₂) (%)	11.5	8.7	10.8	
Sulphur Dioxide (SO ₂)	(mg/Nm ³)	11.5	14.5	10.6
	at 10 % O ₂ Correction (mg/Nm ³)	13.3	13.0	11.4
Nitrogen Dioxides (NO _x)	(mg/Nm ³)	450.5	642.6	638.7
	at 10 % O ₂ Correction (mg/Nm ³)	521.6	574.7	688.8
Standard				
PM	-	30 mg/Nm ³		
SO ₂	-	100 mg/Nm ³ at 10 % O ₂		
NO _x	-	800 mg/Nm ³ at 10 % O ₂		

Note: * Plant was under Planned shutdown, Hence Stack Monitoring could not be conducted.

S-4 : Kiln / Raw Mill No-1

S-5 : Kiln / Raw Mill No-2

S-6 : Kiln / Raw Mill No-3

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ISSUE DATE: : 30.01.2021

Month: January 2021

TEST REPORT OF STACK MONITORINGName of Plant/Mines : M/s Diamond Cements -Clinkerisation Unit
(Prop. HeidelbergCement India Limited), Narsingarh, Damoh (M.P.)

Location	S-7	S-8	S-9	S-10
Date of Monitoring	08.01.2021	04.01.2021	20.01.2021	18.01.2021
Stack Details				
Material of Construction (Stack/Duct)	M.S.	M.S.	M.S.	M.S.
Stack Attached to	Clinker Cooler No-1	Clinker CoolerNo-2	Clinker Cooler No-3	Crusher
Name of Air Pollution Control Device	ESP	ESP	ESP	Bag House
Stack Height above the Groundlevel (m)	40	44.45	45.6	17
Stack Top	Circular	Circular	Circular	Circular
Inside Diameter of Stack (m)	2.976	3.75	3.75	0.8
Cross sectional area of Duct/Stack (m ²)	6.95	11.05	11.05	0.282
Ambient Temp (°C)	22	20	26	18
Stack Gas Temp (°C)	110	101	127	22
Exit Velocity of Gas (m/sec.)	7.89	7.83	11.22	6.22
Flow Rate (Nm ³ / sec.)	40.65	66.31	88.23	3.02
Particulate Matter(PM) (mg/Nm ³) (Isokinetic Samples)	10.2	18.3	17.7	20.3

Stack Emission Standard = 30 mg/NM3

* Plant was under Planned shutdown, Hence Stack Monitoring could not be conducted.

Note:

S-7 : Clinker Cooler No-1

S-8 : Clinker Cooler No-2

S-9 : Clinker Cooler No-3

S-10 : Crusher

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ISSUE DATE: : 30.01.2021

Month: January 2021

TEST REPORT OF STACK MONITORINGName of Plant/Mines : M/s Diamond Cements -Grinding Unit
(Prop. HeidelbergCement India Limited), Imlai, Damoh (M.P.)

Location	S-1	S-2	S-3
Date of Monitoring	27.01.2021	27.01.2021	-
Stack Details			
Material of Construction (Stack/Duct)	M.S.	M.S.	M.S.
Stack Attached to	Cement Mill No-1	Cement Mill No-2	Cement Mill No-3
Name of Air Pollution Control Device	Bag House	Bag House	Bag House
Stack Height above the Groundlevel (m)	38	37.5	51
Stack Top	Circular	Circular	Circular
Inside Diameter of Stack (m)	1.45	1.5	1.12
Cross sectional area of Duct/Stack (m ²)	1.65	1.77	0.985
Ambient Temp (°C)	19	22	-
Stack Gas Temp (°C)	67	72	-
Exit Velocity of Gas (m/sec.)	5.05	6.84	-
Flow Rate (Nm ³ / sec.)	6.77	9.89	-
(Test Conducted)			
Particulate Matter(PM) (mg/Nm ³) (Isokinetic Samples)	13.0	9.9	*

Stack Emission Standard = 30 mg/NM³

* Plant was under Planned shutdown, Hence Stack Monitoring could not be conducted.

Note:

S-1 : Cement Mill No-1

S-2 : Cement Mill No-2

S-3 : Cement Mill No-3

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TEST REPORT OF STACK MONITORING

Name of Plant/Mines : M/s Diamond Cements -Grinding Unit
(Prop. HeidelbergCement India Limited), Imlai, Damoh (M.P.)

Location	S-4
Date of Monitoring	20.01.2021
Stack Details	
Material of Construction (Stack/Duct)	M.S.
Stack Attached to	Packing Plant No-3
Name of Air Pollution Control Device	Bag House
Stack Height above the Groundlevel (m)	30
Stack Top	Circular
Inside Diameter of Stack (m)	0.53
Cross sectional area of Duct/Stack (m ²)	0.22
Ambient Temp (°C)	21
Stack Gas Temp (°C)	24
Exit Velocity of Gas (m/sec.)	22.43
Flow Rate (Nm ³ / sec.)	4.80
(Test Conducted)	
Particulate Matter(PM) (mg/Nm ³) Samples	(Isokinetic) 21.0

Stack Emission Standard = 30 mg/NM³

Note:

S-4 : Packer No-3

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TEST REPORT NO. : ECO LAB/D/S:13/01/21
ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF STACK MONITORING

Name of Plant/Mines : Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

Location	S-01
Date of Monitoring	28.01.2021
Stack Details	
Material of Construction (Stack/Duct)	M.S.
Stack Attached to	Crusher
Name of Air Pollution Control Device	Bag House
Stack Height above the Groundlevel (m)	30
Stack Top	Circular
Inside Diameter of Stack (m)	1.5
Cross sectional area of Duct/Stack (m ²)	1.77
Ambient Temp (°C)	18
Stack Gas Temp (°C)	25
Exit Velocity of Gas (m/sec.)	10.91
Flow Rate (Nm ³ /sec.)	18.49
(Test Conducted)	
Particulate Matter(PM) (mg/Nm ³) (Isokinetic Samples)	23.2

Stack Emission Standard = 30 mg/NM³

Note:

S-1 : Crusher

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TEST REPORT NO. : ECO LAB/D/WE:01-05/01/21
ISSUE DATE: 30-01-2021

Month: January 2021

TEST REPORT OF WORK ENVIRONMENT MONITORING

Name of Plant/Mines :

M/s Diamond Cements -Clinkerisation Unit
(Prop. HeidelbergCement India Limited), Narsingarh, Damoh (M.P.)

Sl. No.	Locations	Date	Time	Total Dust (mg/m ³)
1	Kiln Area	05.01.2021	06:00 am to 02:00 pm	1.79
			02:00 pm to 10:00 pm	2.00
			10:00 pm to 06:00 am	1.89
2	Near Crusher Area	06.01.2021	06:00 am to 02:00 pm	1.80
			02:00 pm to 10:00 pm	1.99
			10:00 pm to 06:00 am	2.09
3	Raw Mill Area	07.01.2021	06:00 am to 02:00 pm	1.69
			02:00 pm to 10:00 pm	1.79
			10:00 pm to 06:00 am	2.00
4	Commslsloning Office Project	08.01.2021	06:00 am to 02:00 pm	2.09
			02:00 pm to 10:00 pm	2.00
			10:00 pm to 06:00 am	1.60
5	Environmental Lab.	09.01.2021	06:00 am to 02:00 pm	1.60
			02:00 pm to 10:00 pm	1.79
			10:00 pm to 06:00 am	1.74

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TEST REPORT NO. : ECO LAB/DWE:06-10/01/21
ISSUE DATE: 30-01-2021

Month: January 2021

TEST REPORT OF WORK ENVIRONMENT MONITORING

Name of Plant/Mines :

M/s Diamond Cements -Grinding Unit
(Prop. HeidelbergCement India Limited), Imlai, Damoh (M.P.)

Sl. No.	Locations	Date	Time	Total Dust (mg/m ³)
1	Near Weigh Bridge Area	12.01.2021	06:00 am to 02:00 pm	2.26
			02:00 pm to 10:00 pm	1.80
			10:00 pm to 06:00 am	1.59
2	Near Packing Plant	13.01.2021	06:00 am to 02:00 pm	2.20
			02:00 pm to 10:00 pm	2.30
			10:00 pm to 06:00 am	2.50
3	Mill Control Room	14.01.2021	06:00 am to 02:00 pm	2.79
			02:00 pm to 10:00 pm	2.10
			10:00 pm to 06:00 am	2.38
4	STP Area	15.01.2021	06:00 am to 02:00 pm	1.80
			02:00 pm to 10:00 pm	1.89
			10:00 pm to 06:00 am	2.10
5	QC Office	16.01.2021	06:00 am to 02:00 pm	2.30
			02:00 pm to 10:00 pm	2.00
			10:00 pm to 06:00 am	2.49

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TEST REPORT NO. : ECO LAB/D/WE:11-15/01/21
ISSUE DATE : 30-01-2021

Month: January 2021

TEST REPORT OF WORK ENVIRONMENT MONITORING

Name of Plant/Mines : Lime Stone Mine -Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

Sl. No.	Locations	Date	Time	Total Dust (mg/m ³)
1	Drill Operator	18.01.2021	06:00 am to 02:00 pm	2.30
			02:00 pm to 10:00 pm	2.30
			10:00 pm to 06:00 am	2.20
2	Crusher Office	19.01.2021	06:00 am to 02:00 pm	1.89
			02:00 pm to 10:00 pm	1.60
			10:00 pm to 06:00 am	1.79
3	Dumper Operator	20.01.2021	06:00 am to 02:00 pm	2.00
			02:00 pm to 10:00 pm	2.29
			10:00 pm to 06:00 am	2.59
4	Excavator Operator	21.01.2021	06:00 am to 02:00 pm	2.09
			02:00 pm to 10:00 pm	2.20
			10:00 pm to 06:00 am	1.79
5	Weigh Bridge Operator	22.01.2021	06:00 am to 02:00 pm	2.20
			02:00 pm to 10:00 pm	2.50
			10:00 pm to 06:00 am	2.39

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TEST REPORT NO. : ECO LAB/DWN:01/01/21

REV. NO. : 00

ISSUE DATE 30.01.2021

Month: January 2021

TEST REPORT OF WORK ZONE NOISE MONITORING

Name of Plant/Mines : Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

Monitoring Done By : Mr. Laxman Singh

Sl. No.	Location	Date of Monitoring	Leq Value in dB(A)
1	Drill (In Operator Cabin)	23.01.2021	81.6
2	Dumper (In Operator Cabin)	23.01.2021	82.6
3	Excavator (In Operator Cabin)	23.01.2021	75.4
4	Crusher Operator Cabin	23.01.2021	88.5
5	Near Screen House	23.01.2021	95.3
6	Near Crusher Impactor Platform	23.01.2021	97.6
7	Near Silo House Loading Point	23.01.2021	79.6
8	Near Transfer Tower- 1 (T.T.-1)	23.01.2021	86.9
9	Near Transfer Tower- 2 (T.T.-2)	23.01.2021	95.3
10	Near Transfer Tower- 3 (T.T.-3)	23.01.2021	90.5
11	Near Unloading Point Bunker Area No-1	23.01.2021	77.3
12	Near Silo Top	23.01.2021	85.2
13	Near Bubbler	23.01.2021	91.6
14	Near Dump Hopper	23.01.2021	73.9
15	Dumper operator in cabin (Private)	23.01.2021	89.6

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TEST REPORT NO. : ECO LAB/D/ELW:12998-12999/01/21
ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF WASTE WATER ANALYSIS

Name of Plant/Mines : M/s Diamond Cements -Clinkerisation Unit
(Prop. Heidelbergcemen India Limited),Narsingarh Damoh (M.P.)
Date of Sample Collection : 25.01.2021
Source of Sample : Sewage Treatment Plant (STP)


Sl. No.	Parameters	Result		PCB Standards
		STP Inlet	STP Outlet	
1	pH	7.60	7.40	5.5 - 9.0
2	Total Suspended Solid (TSS)	365.5	6.7	10.0
3	Total Dissolved Solid (TDS)	735.5	345.3	-
4	Biochemical Oxygen Demand (3 days at 27 °C)	166.5	7.3	10.0
5	Chemical Oxygen Demand (COD)	62.3	24.6	50.0
6	Oil & Grease (O&G)	1.6	BDL	10.0
7	Sodium Adsorption Ratio (SAR)	1.8	0.77	-
8	Fecal Coliform (FC) MPN/100ml	-	82	1000

Note: All parameters are in mg/l except pH and SAR

Oil & Grease BDL < 1.0 (mg/l)


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TEST REPORT NO. : ECO LAB/D/ELW:13000-13001/01/21
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Month: January 2021

TEST REPORT OF WASTE WATER ANALYSIS

Name of Plant/Mines : M/s Diamond Cements -Grinding Unit
(Prop. HeidelbergCement India Limited), Imlai, Damoh (M.P.)

Date of Sample Collection : 25.01.2021

Source of Sample : Sewage Treatment Plant (STP)

Sl. No.	Parameters	Result		PCB Standards
		STP Inlet	STP Outlet	
1	pH	7.67	7.44	5.5 - 9.0
2	Total Suspended Solid (TSS)	341.5	7.6	10.0
3	Total Dissolved Solid (TDS)	389.7	277.5	-
4	Biochemical Oxygen Demand (3 days at 27 °C)	186.3	8.3	10.0
5	Chemical Oxygen Demand (COD)	389.6	22.6	50.0
6	Oil & Grease (O&G)	1.5	BDL	10.0
7	Sodium Adsorption Ratio (SAR)	1.8	1.2	-
8	Fecal Coliform (FC) MPN/100ml	-	75	1000

Note: All parameters are in mg/l except pH and SAR

Oil & Grease BDL < 1.0 (mg/l)

Checked by *A. Chandra*

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ECOMEN LABORATORIES PVT. LTD.

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An approved Laboratory from Ministry of Environment, Forest and Climate Change, Govt. of India, New Delhi

FORMAT NO. : ECO/QS/D/FORMAT/06
REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/ELW:13002/01/21
ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF WASTE WATER ANALYSIS

Name of Plant/Mines : Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

Date of Sample Collection : 25.01.2021

Source of Sample : Septic tank

Sl. No.	Parameters	Result	PCB Standards
1	pH	7.7	5.5 - 9.0
2	Total Suspended Solid (TSS)	7.9	10.0
3	Total Dissolved Solid (TDS)	482.5	-
4	Biochemical Oxygen Demand (3 days at 27 °C)	8.1	10.0
5	Chemical Oxygen Demand (COD)	23.6	50.0
6	Oil & Grease (O&G)	BDL	10.0
7	Chloride(Cl)	33.6	1000.0

Note: All parameters are in mg/l except pH and SAR

Oil & Grease BDL < 1.0 (mg/l)

Archana
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FORMAT NO. : ECO/QS/D/FORMAT/06
REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/ELW:13003/01/21
ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF WASTE WATER ANALYSIS

Name of Plant/Mines : Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

Date of Sample Collection : 25.01.2021

Source of Sample : Oil & Grease Trap

Sl. No.	Parameters	Result	PCB Standards
1	pH	7.5	5.5 - 9.0
2	Total Suspended Solid (TSS)	8.4	10
3	Total Dissolved Solid (TDS)	365.6	-
4	Biochemical Oxygen Demand (3 days at 27 °C)	7.6	10
5	Chemical Oxygen Demand (COD)	18.6	50
6	Oil & Grease (O&G)	BDL	10

Note: All parameters are in mg/l except pH and SAR

Oil & Grease BDL < 1.0 (mg/l)

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FORMAT NO. : ECO/QS/D/FORMAT/06
REV. NO. : 00

TEST REPORT NO. : ECO LAB/D/ELW:13004/01/21
ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF WATER ANALYSIS

Name of Plant/Mines : Lime Stone Mines, Patharia-Diamond Cements
(Prop. HeidelbergCement India Limited), Damoh (M.P.)

Date of Sample Collection : 25.01.2021

Source of Sample : Mine Pit

Sl. No.	Parameters	Result
1	pH	7.6
2	Suspended Solid	86.2
3	Total Dissolved Solid (TDS)	387.6
4	Total Hardness as CaCO ₃	472
5	Oil & Grease (O&G)	BDL
6	Fluoride as F	0.09
7	Calcium as CaCO ₃	286.9
8	Magnesium as CaCO ₃	185
9	Sodium as Na	15.2
10	Total Alkalinity	26.4
11	Potassium	1.4
12	Chloride as Cl	13.6
13	Total Organic Carbon (TOC)	1.6

Note: All parameters are in mg/l except pH

Oil & Grease BDL < 1.0 (mg/l)

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FORMAT NO. : ECO/QS/D/FORMAT/06

TEST REPORT NO. : ECO LAB/D/ELW:13005/01/21

REV. NO. : 00

ISSUE DATE : 30.01.2021

Month: January 2021

TEST REPORT OF WASTE WATER ANALYSIS

Name of Plant/Mines

(Prop. Heidelbergcemen India Limited), Narsingarh Damoh (M.P.)

Date of Sample Collection : 25.01.2021

Source of Sample : Effluent Treatment Plant

Sl. No.	Parameters	Result	PCB Standards
1	pH	7.6	5.5 - 9.0
2	Total Suspended Solid (TSS)	18.6	100
3	Total Dissolved Solid (TDS)	487.6	2100
4	Biochemical Oxygen Demand (3 days at 27 °C)	4.6	30
5	Chemical Oxygen Demand (COD)	38.9	250
6	Oil & Grease (O&G)	BDL	10
7	Chlorides	236.4	1000

Note: All parameters are in mg/l except pH

Oil & Grease BDL < 1.0 (mg/l)

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Data Report

Near Hospital

FromTime : 01 Jan 2021 00:00:00 ToTime : 31 Jan 2021 00:00:00 Interval : hour

Time	AAQMS3-PM-10- µg/m3	AAQMS3-PM-2.5- µg/m3	AAQMS3-CO- mg/m3	AAQMS3-NO2- µg/m3	AAQMS3-SO2- µg/m3
04 Jan 2021 12:00	78.62	56.66	0.41	0.02	60.42
05 Jan 2021 00:00	87.37	67.34	0.6	0	72.83
05 Jan 2021 12:00	62.84	50.18	0.66	0	75.38
06 Jan 2021 00:00	53.77	37.99	0.57	1.5	63.24
06 Jan 2021 12:00	41.87	28.28	0.57	5.48	45.22
07 Jan 2021 00:00	50.78	27.47	0.52	5.5	44.38
07 Jan 2021 12:00	37.38	28.92	0.54	5.34	46.12
08 Jan 2021 00:00	30.98	19.87	0.55	5.32	44.91
08 Jan 2021 12:00	35.04	25.99	0.51	5.51	46.81
09 Jan 2021 00:00	34.97	24.62	0.46	5.19	44.99
09 Jan 2021 12:00	34.2	24.16	0.47	5.41	46.88
10 Jan 2021 00:00	33.95	23.04	0.5	5.5	46.5
10 Jan 2021 12:00	36.83	28.49	0.52	5.46	46.66
11 Jan 2021 00:00	38.96	20.14	0.48	5.44	45.79
11 Jan 2021 12:00	37.58	26.5	0.47	5.33	47.02
12 Jan 2021 00:00	27.9	15.6	0.44	5.32	45.01
12 Jan 2021 12:00	21.51	12.49	0.36	5.05	47.18
13 Jan 2021 00:00	70.33	23.9	0.41	5.46	45.76
13 Jan 2021 12:00	79.31	36.47	0.34	5.26	46.31
14 Jan 2021 00:00	233.59	71.9	0.52	5.25	45.06
14 Jan 2021 12:00	20.02	15.43	0.35	5.4	46.15
15 Jan 2021 00:00	0	27.29	0.48	5.5	42.8
15 Jan 2021 12:00	0	27.21	0.44	5.66	43.65
16 Jan 2021 00:00	25.2	0	0.56	5.66	36.7
16 Jan 2021 12:00	69.94	31.65	0.43	5.2	47.18
17 Jan 2021 00:00	72.4	46.61	0.56	5.27	44.98
17 Jan 2021 12:00	46.82	29.5	0.41	5.28	46.58
18 Jan 2021 00:00	118.94	86.51	0.77	5.14	43.99
18 Jan 2021 12:00	59.52	42.7	0.65	5.3	48.54
19 Jan 2021 00:00	78.95	36.93	0.54	5.29	47.85
19 Jan 2021 12:00	70.43	34.98	0.52	5.22	49.5
20 Jan 2021 00:00	74.56	40.31	0.65	5.37	47.85
20 Jan 2021 12:00	62.7	30.47	0.49	5.28	49.81
21 Jan 2021 00:00	51.53	29.97	0.53	5.25	47.09
21 Jan 2021 12:00	54.19	16.27	0.33	5.27	50.13
22 Jan 2021 00:00	60.37	23.42	0.44	5.33	48.22
22 Jan 2021 12:00	26.07	13.11	0.35	5.35	91.62
23 Jan 2021 00:00	31.33	19.69	0.47	5.17	36
23 Jan 2021 12:00	36.13	14.38	0.41	5.13	33.59
24 Jan 2021 00:00	40.47	17.31	0.4	5.54	29.67
24 Jan 2021 12:00	42.41	18.33	0.44	5.57	31.77
25 Jan 2021 00:00	53.86	36.11	0.86	5.66	29.45

25 Jan 2021 12:00	51.9	35.16	0.8	5.47	31.11
26 Jan 2021 00:00	56.95	33.45	0.79	5.45	29.18
26 Jan 2021 12:00	48.42	29.26	0.65	5.66	31.47
27 Jan 2021 00:00	33.47	20.25	0.72	5.61	29.72
27 Jan 2021 12:00	27.66	17.43	0.46	5.42	31.71
28 Jan 2021 00:00	47.67	29.89	0.59	5.17	30.42
28 Jan 2021 12:00	31.31	21.62	0.48	5.39	32.77
29 Jan 2021 00:00	46.03	25.99	0.6	5.39	31.02
29 Jan 2021 12:00	31.02	17.73	0.44	5.37	32.45
30 Jan 2021 00:00	75.69	28.77	0.59	5.52	31.86
30 Jan 2021 12:00	23.33	12.55	0.36	5.48	33.41
31 Jan 2021 00:00	57.44	19.56	0.49	5.33	32.52
31 Jan 2021 12:00	20.13	9.07	0.41	5.33	33.76

Data Report

FromTime : 01 Jan 2021 00:00:00 ToTime : 31 Jan 2021 00:00:00 Interval : hour

Worker Colony

Time	AAQMS2-PM10 µg/m3	AAQMS2-PM2.5- mg/m3	AAQMS2-SO2- µg/m3	AAQMS2-NO2- µg/m3	AAQMS2-CO- mg/m3
01 Jan 2021 00:00	56.95	39.02	17.92	24.86	0.16
01 Jan 2021 12:00	47.73	35.41	18.06	24.89	0.16
02 Jan 2021 00:00	57.75	44.5	18.12	24.99	0.17
02 Jan 2021 12:00	46.9	35.37	18.28	24.88	0.14
03 Jan 2021 00:00	45.35	32.25	18.33	24.88	0.13
03 Jan 2021 12:00	50.14	36.25	18.33	24.87	0.15
04 Jan 2021 00:00	52.89	38.37	18.36	24.83	0.14
04 Jan 2021 12:00	48.99	31.41	18.39	24.8	0.13
05 Jan 2021 00:00	58.48	44.43	18.41	24.91	0.18
05 Jan 2021 12:00	53.58	31.03	18.49	24.86	0.19
06 Jan 2021 00:00	50.89	28.64	18.51	24.81	0.16
06 Jan 2021 12:00	41.16	18.28	18.56	24.91	0.15
07 Jan 2021 00:00	31.09	18.42	18.55	24.89	0.13
07 Jan 2021 12:00	34.95	18.88	18.61	24.91	0.13
08 Jan 2021 00:00	30.19	17.38	18.62	24.82	0.13
08 Jan 2021 12:00	35.39	19.16	18.71	24.86	0.12
09 Jan 2021 00:00	39.94	17.95	18.73	24.89	0.11
09 Jan 2021 12:00	31.01	15.93	18.77	24.94	0.11
10 Jan 2021 00:00	27.58	18.15	18.83	24.88	0.12
10 Jan 2021 12:00	35.95	21.79	18.83	24.86	0.12
11 Jan 2021 00:00	26.79	14.23	18.83	24.87	0.11
11 Jan 2021 12:00	39.12		18.88	24.99	0.1
13 Jan 2021 00:00	67	51.01	18.74	24.81	0.09
13 Jan 2021 12:00	46.12	26.83	18.74	24.97	0.09
15 Jan 2021 00:00	44.68	34.62	18.77	24.72	0.14
15 Jan 2021 12:00	47.7	21.48	18.73	24.9	0.13
16 Jan 2021 00:00	32.21	24.04	18.76	24.88	0.16
16 Jan 2021 12:00	47.85	26.51	18.79	25	0.17
17 Jan 2021 00:00	39.27	24.18	18.81	24.81	0.16
17 Jan 2021 12:00	28.77	15.9	18.87	24.78	0.12
18 Jan 2021 00:00	58.56	47.47	18.97	24.92	0.2
18 Jan 2021 12:00	45.73	31.34	19.04	24.87	0.17
19 Jan 2021 00:00	37.82	25.99	19.08	24.89	0.14
19 Jan 2021 12:00	37.49	26.17	19.15	24.85	0.13
20 Jan 2021 00:00	33.05	29.42	19.09	24.91	0.15
20 Jan 2021 12:00	34.42	21.76	19.13	24.84	0.13
21 Jan 2021 00:00	22.16	20.78	19.06	24.92	0.13
21 Jan 2021 12:00	36.76	11.68	19.08	24.81	0.1
22 Jan 2021 00:00	22.4	16.12	19.07	24.86	0.12
22 Jan 2021 12:00	40.47	14.35	19.12	24.91	0.11
23 Jan 2021 00:00	38.5	22.37	19.17	24.93	0.14
23 Jan 2021 12:00	19.05	12.83	19.25	24.88	0.11

24 Jan 2021 00:00	22.04	16.94	19.23	24.86	0.11
24 Jan 2021 12:00	41.67	20.59	19.3	24.98	0.12
25 Jan 2021 00:00	45.93	41.71	19.34	24.92	0.23
25 Jan 2021 12:00	47.24	37.49	19.35	24.84	0.21
26 Jan 2021 00:00	48.18	39.41	19.34	25.01	0.2
26 Jan 2021 12:00	46.22	31.24	19.35	24.95	0.17
27 Jan 2021 00:00	29.36	24.57	19.3	25.04	0.2
27 Jan 2021 12:00	32.77	19.2	19.37	24.91	0.13
28 Jan 2021 00:00	45.84	34.08	19.33	24.89	0.17
28 Jan 2021 12:00	39.46	22.61	19.43	24.95	0.14
29 Jan 2021 00:00	37.51	28.14	19.41	24.96	0.17
29 Jan 2021 12:00	64.18	19.22	19.32	25.06	0.14
30 Jan 2021 00:00	32.96	28.57	19.31	24.92	0.17
30 Jan 2021 12:00	56.49	21.89	19.39	24.95	0.15
31 Jan 2021 00:00	32.28	20.03	19.36	24.94	0.15
31 Jan 2021 12:00	39.63	13.44	19.36	24.91	0.12

Data Report

FromTime : 01 Jan 2021 00:00:00 ToTime : 31 Jan 2021 00:00:00 Interval : hour

Patharia Mines

Time	AAQMS1-PM10- μg	AAQMS1-PM2.5- μg	AAQMS1-SO2- μg	AAQMS1-NO2- μg	AAQMS1-CO-m
01 Jan 2021 00:00	101.4	64.26	53.83	10.45	0.1
01 Jan 2021 12:00	53.17	57.78	53.77	10.49	0.09
02 Jan 2021 00:00	77.49	69.04	53.66	10.37	0.12
02 Jan 2021 12:00	98.47	56.25	53.36	10.44	0.07
03 Jan 2021 00:00	40.62	48.76	53.23	10.39	0.07
03 Jan 2021 12:00	54.94	54.85	53.29	10.44	0.07
04 Jan 2021 00:00	65.59	56.36	53	10.48	0.08
04 Jan 2021 12:00	45.85	46.49	53.12	10.43	0.06
05 Jan 2021 00:00	58.56	49.57	52.95	10.42	0.09
05 Jan 2021 12:00	58.84	35.93	53.28	10.47	0.09
06 Jan 2021 00:00	100.75	38.44	53.24	10.42	0.1
06 Jan 2021 12:00	72.27	22.7	53.11	10.39	0.04
07 Jan 2021 00:00	49.02	28.05	53.46	10.44	0.08
07 Jan 2021 12:00	59.22	26.44	54.12	10.42	0.06
08 Jan 2021 00:00	71.14	20.21	53.88	10.5	0.09
08 Jan 2021 12:00	59.35	23.78	53.81	10.41	0.07
09 Jan 2021 00:00	54.51	20.72	53.93	10.49	0.05
09 Jan 2021 12:00	48	21.6	54.06	10.42	0.05
10 Jan 2021 00:00	54.71	24.95	54.22	10.5	0.06
10 Jan 2021 12:00	41	26.98	54.07	10.48	0.06
11 Jan 2021 00:00	33.85	22.24	54.34	10.49	0.07
11 Jan 2021 12:00	35.06	22.91	53.91	10.45	0.07
12 Jan 2021 00:00	31.02	14.7	53.88	10.44	0.08
12 Jan 2021 12:00	28.42	9.01	53.45	10.51	0.06
13 Jan 2021 00:00	47.08	15.53	53.83	10.45	0.05
13 Jan 2021 12:00	41.27	9.7	53.76	10.51	0.04
14 Jan 2021 00:00	42.68	14.82	53.96	10.44	0.06
14 Jan 2021 12:00	51.83	10.15	54.63	10.45	0.07
15 Jan 2021 00:00	72.42	18.83	54.19	10.34	0.09
15 Jan 2021 12:00	80.29	16.02	54.19	10.45	0.09
16 Jan 2021 00:00	51.86	19.86	54.22	10.4	0.07
16 Jan 2021 12:00	78.62	15.89	54.23	10.38	0.09
17 Jan 2021 00:00	76.44	20.74	54.41	10.41	0.1
17 Jan 2021 12:00	26.24	13.97	54.61	10.44	0.05
18 Jan 2021 00:00	71.44	40.4	54.74	10.44	0.11
18 Jan 2021 12:00	86.62	33.91	54.58	10.5	0.08
19 Jan 2021 00:00	58.08	26.63	55.26	10.49	0.08
19 Jan 2021 12:00	81.07	23.26	54.89	10.39	0.07
20 Jan 2021 00:00	61.89	30.51	55.37	10.41	0.09
20 Jan 2021 12:00	75.99	19.02	55.29	10.48	0.05
21 Jan 2021 00:00	70.82	24.31	55.32	10.38	0.1
21 Jan 2021 12:00	81.45	10.07	55.41	10.48	0.05
22 Jan 2021 00:00	133.68	17.23	55.59	10.47	0.09

22 Jan 2021 12:00		9.75	55.02	10.47	0.06
23 Jan 2021 00:00	63.04	19.08	55.58	10.44	0.08
23 Jan 2021 12:00	35.41	13.3	55.72	10.41	0.06
24 Jan 2021 00:00	43.55	16.34	55.52	10.49	0.07
24 Jan 2021 12:00	55.08	17.82	55.12	10.34	0.05
25 Jan 2021 00:00	128.14	38.43	54.68	10.39	0.13
25 Jan 2021 12:00	73.19	35.08	54.73	10.36	0.07
26 Jan 2021 00:00	33.19	32.04	54.93	10.36	0.12
26 Jan 2021 12:00	27.26	29.02	54.49	10.47	0.07
27 Jan 2021 00:00	21	23.23	54.75	10.53	0.12
27 Jan 2021 12:00	30.77	17.93	39.96	10.57	0.18
28 Jan 2021 00:00	57.78	29.09	16.56	10.58	0.12
28 Jan 2021 12:00	28.43	22.39	17.71	10.61	0.04
29 Jan 2021 00:00	36.84	30.04	19.61	10.55	0.05
29 Jan 2021 12:00	36.58	16.01	18.9	10.65	0.13
30 Jan 2021 00:00	30.14	25.7	18.62	10.64	0.04
30 Jan 2021 12:00	22.8	10.25	18.11	10.62	0.1
31 Jan 2021 00:00	40.43	18.78	19.25	10.66	0.03
31 Jan 2021 12:00	29.55	9.06	25.54	10.15	0.07

Report Name : Average Report

From: 01-01-2021 - 00:00:00 To: 31-01-2021 - 23:59:45

Date (DD-MM-YYYY)	AAQMS_1 PM10 (ug/m3)Normalized	AAQMS_1 SO2 (ug/m3)Normalized	AAQMS_1 NO2 (ug/m3)Normalized	AAQMS 1 PM2.5 (ug/m3) Normalized	AAQMS_1 NOx (ug/m3)Normalized	AAQMS_1 NO (ug/m3)Normalized
Avg	81.61	28.71	1.59	47.37	4.64	2.16
Min	40.93	27.12	1.53	26.65	4.55	2.13
Max	180.52	32.45	1.65	71.25	4.71	2.19
Geom.Mean	81.61	28.71	1.59	47.37	4.64	2.16
Median	27.81	1.33	0.03	10.09	0.03	0.02
Mode	84.63	27.12	1.61	38.35	4.63	2.16
Std.Deviation	79.35	28.3	1.6	45.81	4.64	2.16
Prescribed Standard	100.0	80.0	80.0	60.0	80.0	80.0
First Max occurred at	22-01-2021	25-01-2021	01-01-2021	05-01-2021	01-01-2021	06-01-2021
First Min occurred at	27-01-2021	01-01-2021	08-01-2021	12-01-2021	11-01-2021	10-01-2021
Valid Data Points	31	31	31	30	31	31
Total Data Points	31	31	31	31	31	31
Data Availability %	100	100	100	96	100	100
Uncertainty	0	0	0	0	0	0
01-01-2021	84.63	27.12	1.65	0	4.71	2.17
02-01-2021	90.94	27.22	1.59	64.38	4.64	2.16
03-01-2021	79.35	27.31	1.6	55.18	4.66	2.17
04-01-2021	74.03	27.47	1.61	58.22	4.67	2.17
05-01-2021	68.47	27.64	1.61	71.25	4.64	2.15
06-01-2021	91.53	27.74	1.61	60.86	4.69	2.19
07-01-2021	59.83	28	1.61	49.34	4.66	2.16
08-01-2021	42.98	27.88	1.53	38.35	4.61	2.18
09-01-2021	47.82	28.14	1.6	40.62	4.63	2.15
10-01-2021	48.98	28.35	1.59	40.8	4.59	2.13
11-01-2021	66.98	28.24	1.54	38.35	4.55	2.14
12-01-2021	55.62	28.21	1.56	26.65	4.59	2.14
13-01-2021	102.71	27.96	1.6	44.78	4.67	2.18

14-01-2021	127.09	27.89	1.6	54.93	4.65	2.17
15-01-2021	96.89	28.02	1.65	44.92	4.7	2.17
16-01-2021	118.61	28.17	1.6	49.28	4.64	2.16
17-01-2021	71.15	28.3	1.58	38.86	4.63	2.16
18-01-2021	68.64	28.38	1.57	55.81	4.62	2.16
19-01-2021	89.68	28.51	1.56	47.37	4.62	2.16
20-01-2021	80.3	28.48	1.57	45.86	4.65	2.18
21-01-2021	86.22	28.53	1.59	38.59	4.64	2.16
22-01-2021	180.52	29.03	1.57	61.27	4.66	2.19
23-01-2021	96.41	30.62	1.59	42.06	4.63	2.16
24-01-2021	84.42	30.07	1.61	34.81	4.63	2.14
25-01-2021	70.43	32.45	1.59	59.41	4.62	2.14
26-01-2021	65.58	31.55	1.6	53.8	4.63	2.14
27-01-2021	40.93	30.61	1.59	33.3	4.63	2.15
28-01-2021	54.43	31.24	1.61	45.81	4.63	2.14
29-01-2021	74.62	30.26	1.61	41.47	4.63	2.14
30-01-2021	111.19	28.32	1.61	43.69	4.64	2.15
31-01-2021	98.83	28.31	1.6	40.97	4.66	2.16

Report Name : Average Report(Continued)

Date (DD-MM-YYYY)	AAQMS_1 CO (mg/m3)Normalized
Avg	0.46
Min	0.36
Max	0.60
Geom.Mean	0.46
Median	0.06
Mode	0.42
Std.Deviation	0.45
Prescribed Standard	4.0
First Max occurred at	25-01-2021
First Min occurred at	12-01-2021
Valid Data Points	31
Total Data Points	31
Data Availability %	100
Uncertainty	0
01-01-2021	0.49
02-01-2021	0.48
03-01-2021	0.41
04-01-2021	0.42
05-01-2021	0.57
06-01-2021	0.54
07-01-2021	0.44
08-01-2021	0.44
09-01-2021	0.4
10-01-2021	0.42
11-01-2021	0.42
12-01-2021	0.36
13-01-2021	0.36
14-01-2021	0.41
15-01-2021	0.47

16-01-2021	0.49
17-01-2021	0.47
18-01-2021	0.53
19-01-2021	0.5
20-01-2021	0.48
21-01-2021	0.42
22-01-2021	0.47
23-01-2021	0.46
24-01-2021	0.36
25-01-2021	0.6
26-01-2021	0.52
27-01-2021	0.46
28-01-2021	0.45
29-01-2021	0.42
30-01-2021	0.43
31-01-2021	0.45

Report Name : Average Report

From: 01-01-2021 - 00:00:00 To: 31-01-2021 - 23:59:30

Date (DD-MM-YYYY)	AAQMS_2 NOx (ug/m3)Normalized	AAQMS_2 NO (ug/m3)Normalized	AAQMS_2 CO (mg/m3)Normalized	AAQMS_2 SO2 (ug/m3)Normalized	AAQMS_2 NO2 (ug/m3)Normalized	AAQMS 2 PM2.5 (ug/m3) Normalized
Avg	4.5	2.26	0.19	18.66	1.24	32.68
Min	4.47	2.24	0.15	18.61	1.21	20.07
Max	4.53	2.27	0.26	18.76	1.27	56.50
Geom.Mean	4.5	2.26	0.19	18.66	1.24	32.68
Median	0.01	0.01	0.03	0.04	0.01	9.17
Mode	4.49	2.26	0.18	18.64	1.24	24.74
Std.Deviation	4.5	2.26	0.19	18.65	1.24	31.75
Prescribed Standard	80.0	80.0	4.0	80.0	80.0	60.0
First Max occurred at	20-01-2021	03-01-2021	05-01-2021	11-01-2021	20-01-2021	18-01-2021
First Min occurred at	07-01-2021	08-01-2021	12-01-2021	04-01-2021	07-01-2021	12-01-2021
Valid Data Points	31	31	31	31	31	31
Total Data Points	31	31	31	31	31	31
Data Availability %	100	100	100	100	100	100
Uncertainty	0	0	0	0	0	0
01-01-2021	4.51	2.26	0.22	18.65	1.24	24.74
02-01-2021	4.51	2.26	0.23	18.69	1.24	24.99
03-01-2021	4.51	2.27	0.2	18.64	1.23	21.87
04-01-2021	4.52	2.26	0.21	18.61	1.24	23.52
05-01-2021	4.52	2.26	0.26	18.61	1.26	26.67
06-01-2021	4.52	2.26	0.23	18.61	1.25	20.93
07-01-2021	4.47	2.26	0.17	18.67	1.21	21.17
08-01-2021	4.48	2.24	0.18	18.64	1.26	26.46
09-01-2021	4.49	2.26	0.19	18.69	1.23	41
10-01-2021	4.5	2.26	0.18	18.67	1.24	38.83
11-01-2021	4.5	2.27	0.18	18.76	1.23	33.64
12-01-2021	4.51	2.26	0.15	18.65	1.25	20.07
13-01-2021	4.49	2.26	0.15	18.64	1.23	32.95

14-01-2021	4.5	2.26	0.16	18.64	1.24	40.45
15-01-2021	4.49	2.26	0.19	18.64	1.23	36.67
16-01-2021	4.5	2.27	0.19	18.64	1.23	32.49
17-01-2021	4.49	2.26	0.19	18.65	1.24	31.75
18-01-2021	4.49	2.25	0.22	18.65	1.25	56.5
19-01-2021	4.5	2.26	0.2	18.74	1.23	39.33
20-01-2021	4.53	2.26	0.19	18.68	1.27	37.35
21-01-2021	4.49	2.25	0.17	18.64	1.24	31.84
22-01-2021	4.51	2.27	0.16	18.65	1.24	29.59
23-01-2021	4.5	2.27	0.17	18.66	1.23	26.51
24-01-2021	4.5	2.26	0.16	18.7	1.24	29.11
25-01-2021	4.5	2.26	0.26	18.68	1.24	55.88
26-01-2021	4.49	2.26	0.24	18.74	1.23	49.75
27-01-2021	4.5	2.26	0.21	18.63	1.23	30.38
28-01-2021	4.51	2.26	0.19	18.64	1.24	38.52
29-01-2021	4.52	2.27	0.18	18.63	1.25	28.63
30-01-2021	4.49	2.26	0.18	18.69	1.22	32.18
31-01-2021	4.49	2.26	0.18	18.67	1.22	29.17

Report Name : Average Report(Continued)

Date (DD-MM-YYYY)	AAQMS_2 PM10 (ug/m3)Normalized
Avg	79.23
Min	36.64
Max	146.00
Geom.Mean	79.23
Median	32.51
Mode	142.51
Std.Deviation	71.94
Prescribed Standard	100.0
First Max occurred at	04-01-2021
First Min occurred at	12-01-2021
Valid Data Points	30
Total Data Points	31
Data Availability %	96
Uncertainty	0
01-01-2021	142.51
02-01-2021	137.49
03-01-2021	132.91
04-01-2021	146
05-01-2021	140.22
06-01-2021	71.32
07-01-2021	0
08-01-2021	71.94
09-01-2021	63.29
10-01-2021	52.84
11-01-2021	40.44
12-01-2021	36.64
13-01-2021	53.14
14-01-2021	71.2
15-01-2021	81.11

16-01-2021	80.86
17-01-2021	63.71
18-01-2021	111.24
19-01-2021	51.09
20-01-2021	42.12
21-01-2021	78.65
22-01-2021	115.25
23-01-2021	39.52
24-01-2021	56.61
25-01-2021	78.92
26-01-2021	79.37
27-01-2021	79.53
28-01-2021	82.33
29-01-2021	53.26
30-01-2021	61.95
31-01-2021	61.4

DIAMOND CEMENTS - DAMOH

PERFORMANCE OF ESPs / BAG HOUSES

Jan-21

PCM ATTACHED TO	Plant Operation		PCM Operation		PCM Stoppage Hrs.	No. OF ESP Trippings	% OF		Remarks
	Hrs.	Min	Hrs.	Min			ESP	R.Hrs	
ESP To KILN NO. 1 + RAW MILL NO.1	593	0	593	0	0.000	0	100.000		
ESP To KILN NO. 2 + RAW MILL NO. 2	744	0	744	0	0.000	0	100.000		
REVERSE AIR BAG HOUSE(RABH) To KILN NO. 3 + RAW MILL NO. 3	655	15	655	15	0.000	0	100.000		
BAG HOUSE To COAL MILL NO. 1	429	25	429	25	0.000	0	100.000		
BAG HOUSE To COAL MILL NO. 2	668	30	668	30	0.000	0	100.000		
BAG HOUSE To COAL MILL NO. 3	214	37	214	37	0.000	0	100.000		
ESP To COOLER NO. 1	593	0	593	0	0.000	0	100.000		
ESP To COOLER NO. 2	744	0	744	0	0.000	0	100.000		
ESP To COOLER NO. 3	655	15	655	14	0.017	1	99.997		
BAG HOUSE To CEMENT MILL NO. 1	712	50	712	50	0.000	0	100.000		
BAG HOUSE To CEMENT MILL NO. 2	438	12	438	12	0.000	0	100.000		
BAG HOUSE To CEMENT MILL NO. 3	0	0	0	0	0.000	0	0.000		

DIAMOND CEMENTS DAMOH

Energy Meter Reading

Month : January - 21

S.No.	Location	Month	Consumption (KWH)	Remarks, If Any
Clinkerisation Unit Narsingarh				
1	Hybrid ESP For KILN/ RAW MILL NO.1	Jan-21	6333	
2	Hybrid ESP For KILN/ RAW MILL NO.2	Jan-21	11306	
3	RABH For KILN / RAW MILL NO. 3	Jan-21	211625	
4	ESP For COOLER NO. 1	Jan-21	19880	
5	ESP For COOLER NO. 2	Jan-21	55109	
6	ESP For COOLER NO. 3	Jan-21	18520	
7	BAG HOUSE For COAL MILL NO. 1	Jan-21	22309	
8	BAG HOUSE For COAL MILL NO. 2	Jan-21	140675	
9	BAG HOUSE For COAL MILL NO. 3	Jan-21	346190	
10	SEWAGE TREATMENT PLANT	Jan-21	10450	
Grinding Unit Imlai				
1	BAG HOUSE For CEMENT MILL NO. 1	Jan-21	9595	
2	BAG HOUSE For CEMENT MILL NO. 2	Jan-21	9497	
3	BAG HOUSE For CEMENT MILL NO. 3	Jan-21	0	
4	SEWAGE TREATMENT PLANT	Jan-21	14570	

ABBREVIATIONS

S. No.	Abbreviation	Full Form
1.	SPM	Suspended Particulate Matter
2.	RABH	Reverse Air Bag House
3.	PM	Particulate Matter
4.	PM ₁₀	Particulate Matter of less than 10 micron size
5.	PM _{2.5}	Particulate Matter of less than 2.5 micron size
6.	SO ₂	Sulphur Dioxide
7.	NO ₂	Nitrogen Dioxide
8.	CO	Carbon Monoxide
9.	AAQMS	Ambient Air Quality Monitoring Station
10.	BDL	Below Detection Limit
11.	dB	Decibel
12.	°C	Degree Centigrade
13.	m/sec	Meter per second
14.	m ²	Meter square
15.	Nm ³ /sec	Normal cubic meter per second
16.	µg/m ³	Micro Grams per cubic meter
17.	mg/Nm ³	Milli Grams per Normal cubic meter
18.	mg/l	Milli Grams per liter



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



26.06.2020

Extension in Validity of Accreditation

NABL Policy: It is decided to extend the validity of accreditation for a period of one year to all conformity assessment bodies (CABs) where renewal of accreditation is to take place and accreditation validity date is between 01.01.2020 and 30.06.2022 **subject to the following:**

1. Providing satisfactory documents based on NABL-218 wrt compliance to the requirements of the relevant Standard and NABL requirements.
2. The CABs are required to conduct additional internal audit to ensure compliance with the standard requirements (by increasing the existing frequency of their audit plan) and submit the document.
3. The CABs are required to provide control charts and trends for assuring the validity of results.
4. CABs are required to provide an undertaking to undergo unannounced assessment (onsite and/or remotely, depending on the situation) and actions as per NABL-216 thereof, at any point of time during the validity period.
5. Making payment of **annual accreditation fee** for the extended period.

Examples:

- Accredited CABs with date of issue 15.01.2018 and valid till 14.01.2020, then their Accreditation validity will be extended till 14.01.2021.
- Accredited CABs with date of issue 15.02.2019 and valid till 14.02.2021, then their Accreditation validity will be extended till 14.02.2022.
- Accredited CABs with date of issue 15.06.2020 and valid till 14.06.2022, then their Accreditation validity will be extended till 14.06.2023

NOTE:

1. The above will be applicable to the laboratories for which transition to ISO/IEC 17025:2017 version has been completed. For the laboratories which are accredited as per ISO/IEC 17025:2005 version, they have to undergo transition assessment (onsite and/or remotely, depending on the situation) and follow transition plan defined.
2. The above is not applicable to CABs where there will be a change in name of CAB and/or legal identity change and/or Premises change.
3. Also, **the above is not applicable to the CABs which are not registered in portal** (exemption- International accredited CABs).
4. Routine assessments will take place for any scope extension /addition.
5. Payment due to NABL can be deferred (postpone the payment) upto a period of Six (6) months. There will be no waive-off of any fee for any CABs. If payments are not made, then action as per procedure (NABL-216) will be initiated. There will be no relaxations wrt payment from 01.01.2021.

N.Venkateswaran
CEO, NABL



**National Accreditation Board for
Testing and Calibration Laboratories**

(A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

ECOMEN LABORATORIES PVT. LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

Flat 5-8, IInd Floor, Arif Chamber V, Sector-H, Aliganj,
Lucknow, Uttar Pradesh

in the field of

TESTING

Certificate Number TC-7587 (in lieu of T-2202)

Issue Date 25/07/2018

Valid Until 24/07/2020

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL



89076970100030001777

Anil Relia

Anil Relia
Chief Executive Officer



CERTIFICATE

*This is to Certify that the
Occupational Health & Safety Management System
of*

ECOMEN LABORATORIES PVT. LTD.
FLAT NO. 5-8, 2ND FLOOR, ARIF CHAMBER-V, SECTOR- H,
ALIGANJ, LUCKNOW- 226024, (U.P.) INDIA.

has been independently assessed and is compliant
with the requirements of

OHSAS 18001:2007

This Certificate is applicable to the following product or service ranges:

**ENVIRONMENTAL MONITORING, STUDIES, TESTING SERVICES IN
CHEMICAL FIELD, ENVIRONMENTAL IMPACT ASSESSMENT,
ENVIRONMENTAL MANAGEMENT PLAN AND
CONSULTANCY SERVICES**

Certificate No.: IN32538C

IAS UID No.: MSCB-132-76321

Date of initial registration	15 July 2015
Date of this Certificate	14 July 2018
Surveillance audit on or before	14 July 2019
Recertification Due / Certificate expiry	14 July 2021

This Certificate is property of LMS Certifications and remains valid
subject to satisfactory surveillance audits.



Director

For verification and updated information concerning the present certificate visit to www.lmscert.com
This Certificate is the property of LMS Certification Limited and shall be returned immediately when demanded.



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