

No.JKCW/ENV/2021-22/ EC Compliance/2nd Half(PLANT)/89/16

Date - 11-05-2022

To

The Scientist-F

Ministry of Environment & Forest

Govt. of India, Indira Paryavaran Bhavan

Aliganj, New Delhi- 110 003

Sub: **Half Yearly Environmental Clearance Compliance report for the period from Oct-2021 to Mar-2022 (2nd Half) for JK Cement Works, Village- Muddapur, Taluka- Mudhol, District- Bagalkot (Karnataka)**

Ref: **MoEF Letter F. No. J-11011/489/2006-1A.II (I)/dtd.14-09-2007.**

Dear Sir,

With reference to aforesaid subject and reference matter, we are here by sending the enclosed pointwise environmental clearance compliance report for the period **Oct-2021 to Mar-2022 (2nd Half)** of JK Cement Works, Muddapur, (Unit: JK Cement Ltd) (Cement Plant -2.20 MTPA Clinker & 2.50 MTPA OPC and Captive Power Plant 2 x 25 MW, for JK Cement Works, Village-Muddapur, Taluka-Mudhol, District-Bagalkot, Karnataka.

This for your kind perusal and acknowledge the receipt

Thanking you

Yours faithfully

For J.K. Cement Works


Umashankar Choudhary
(Unit Head)

Encl. – EC Compliance report, Socio-economic development report & six monthly manual AAQ monitoring, stack, fugitive emission, treated effluent monitoring, noise monitoring, continuous emission monitoring, CAAQM report and six monthly environmental expenditures.

Corporate Office

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**JK SUPER
CEMENT**
BUILD SAFE**JK CEMENT
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White Cement Wall Putty

Manufacturing Units at :

Nimbahera, Mangrol, Gotan (Rajasthan) | Muddapur (Karnataka)

Jharli (Haryana) | Katni (M.P.) | Aligarh (U.P.) | Balasinor (Gujarat)



CC:

- 1- The Addl. Principal Chief Conservator of Forest (C), Ministry of Environment & Forest, Regional Office (South Zone), Koramangala, Bangalore
- 2- Chairman, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, New Delhi
- 3- Scientist 'D' & Incharge, Central Pollution Control Board, 1st & 2nd Floors, Nisarga Bhavan, A-Block, Thimmaiah, Main Road, 7thD Cross, Shivanagar, Opp. Pushpanjali Theatre, Bengaluru
- 4- Member Secretary, Karnataka Pollution Control Board, Church Street, Bangalore
- 5- The Environmental officer, Karnataka State Pollution Control Board, Bagalkot – 587102

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Subject: Cement Plant (2.20 MTPA) Clinker & 2.50 MTPA OPC and, Captive Power Plant (2 x 25 MW) at Village- Lokapur, Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit :JK Cement Ltd).

Reference: MoEF vide Letter F. No. J-11011 / 489 / 2006-1A.II (I) / dated. 14th September 2007

Environmental Clearance (EC) Compliance Report (Oct '2021 to Mar'2022)

A. Specific Conditions:

i.	Electrostatic precipitator (ESP) to cooler, Bag House to Raw mill, Bag filter to coal kiln burner and pre-calciner shall be provided. Online gas analyzer for O ₂ , CO, emission at kiln inlet and power House out let and on line dust monitor to kiln and cooler shall be provided. A closed clinker system shall be adopted to control fugitive emission. Water sprinkler shall be done in raw material stock yard and cement bag loading areas.	Complied. Electrostatic precipitator (ESP) to cooler, Bag House to Raw mill, Bag filter to coal kiln burner and pre calciner have been provided. Online gas analyzer for O ₂ , CO, emission at kiln inlet and on line dust monitor to kiln and cooler have been provided. A closed clinker system has been adopted to control fugitive emission. Water sprinkler is done in raw material stock yard and cement bag loading areas.
ii.	The total water requirement from Ghatprabha River source shall not exceed 1046.4 m ³ /day. The treated waste water shall be recycled and reused in the process and or for dust suppression, green belt development and other plant related activities etc. The Effluent generated by CPP will also be used in the cement manufacturing process. No process waste water shall be discharged outside the factory premises and zero discharge shall be adopted. Domestic effluent treated in sewage treatment plant (STP) shall be used for green belt development within the plant and colony areas.	Complied. We are not abstracting water more than 1046.4 m ³ /day from Ghataprabha River. Dry manufacturing process has been adopted for cement manufacturing so no waste water is generated in cement plant. The treated waste water generated in CPP is being in process. So, no process waste water is being discharged outside the factory premises and zero discharge is being adopted. Domestic effluent treated in sewage treatment plant (STP) is used for green belt development within the plant and colony areas.
iii.	The fly ash and bottom ash generated from the power plant shall be used in the process itself for manufacturing PPC. All the cement dust collected from the pollution control devices shall be recycled and reuse in the process and used for cement manufacturing. The fly ash utilization shall be as per the provision stipulated in the fly ash notification of September, 1999 and amended in august, 2003. STP sludge shall be used as manure for green belt	Complied. The fly ash and bottom ash generated from the power plant are being used in the process itself for manufacturing PPC. All the cement dust collected from the pollution control devices is recycled and reused in the process and used for cement manufacturing. The fly ash utilization is as per the provision stipulated in the fly ash notification of September, 1999 and amended in august, 2003. Quarterly report on fly ash utilization is being submitted to PCB. STP sludge is being utilized as manure for green belt

Subject: Cement Plant (2.20 MTPA) Clinker & 2.50 MTPA OPC and, Captive Power Plant (2 x 25 MW) at Village- Lokapur, Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit :JK Cement Ltd).

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	development. Used oil shall be sold to authorized recycler / re processor only.	development. Generated Used oil/waste oil is being handed over to authorized recycler / re processor only.
iv.	High calorific hazardous waste shall be utilized in the cement plant.	Complying with. We have obtained the permission from KSPCB for co-processing various hazardous wastes and Non-Hazardous wastes in cement plant vide KSPCB authorization no. 327139 dated 29 th September 2021.
v.	As proposed in EIA / EMP, green belt shall be developed in 80 ha. (66%) out of total 120 ha. As per the CPCB Guidelines to mitigate the effect of air emission in consultation with local DFO.	As a part of green belt development, we have received a certificate from forest department via. Letter no. B2.GFL/Mines/2007-08/597 dated 30-08-2007 regarding availability of local Flora and Fauna in Mudhol Taluka. We have planted 155803 number of plants in and around cement plant and colony . We have covered more than 33% area of total land area from plantation. Total area (Plant and Colony) = 258.37 Acres. Total Nos. of plantation:-155803 no.s Total plantation area:- 118.94 Ha % of plantation area :- 46.03.
General Condition :		
i.	The project authorities shall adhere to the stipulation made by Karnataka State Pollution Control Board and State Government.	Agreed
ii.	No further Expansion or modification of the plant shall be carried out without prior approval of Ministry or rules made there under.	Agreed. We have obtained environmental clearance for expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) via. MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010 and also obtained permission for manufacturing the cement based adhesive without increasing the production capacity from MoEF via F. No. J 11011/263/2009- IA II (I) dated 26 September 2012.

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iii.	The gaseous and particulate matter emission from various units shall confirm to the standards prescribed by the KSPCB. Interlocking facilities shall be provided in the pollution control so that in the event of the pollution control equipment not working, the respective unit(s) is shutdown automatically.	Complying, we have provided online monitoring instruments at major stacks and the gaseous and particulate matter emissions from various units are within the standard prescribed by the KSPCB/CPCB/MoEF. Interlocking facilities have been provided in pollution control equipment.
iv.	One Ambient Air Quality Monitoring station shall be installed in down wind direction. Ambient air quality including Ambient Noise Level shall not exceed the standard stipulated under EPA or by the state authorities. Monitoring of Ambient air quality and stack emission shall be carried out regularly in consultation with KSPCB and report submitted to the KSPCB quarterly and to the Ministry Regional Office at Bangalore Half Yearly.	Complied, we have installed total 4 Nos. of monitoring station in cement plant. Ambient air quality including ambient Noise level is not exceeding the standard stipulated under EPA or by the state authorities. Monitoring of Ambient air quality and stack emission are being carried out regularly in consultation with KSPCB and reports are being submitted to the KSPCB monthly/quarterly and to the Ministry Regional Office at Bangalore Half Yearly, the reports are enclosed as Annexure-1
v.	The Company shall install adequate dust collection and extraction system to control fugitive dust handling (Unloading, conveying, transporting, and stacking) vehicular movement, bagging and packing areas etc. Asphaltting / concreting of roads and water spray all around the stock yard and loading / unloading areas shall be carried out to control fugitive emission. Covered sheds for storage of raw materials and fully covered conveyors for transportation of materials shall be provided besides coal, cement, fly ash and clinker shall be stored in silos.	Complied, we have installed adequate dust collection and extraction system to control fugitive dust handling. Asphaltting / concreting of roads and water spray all around the stock yard and loading / unloading areas are being carried out to control fugitive emission. Covered sheds for storage of raw materials and fully covered conveyors for transportation of materials have been provided besides coal. Cement, fly ash and clinker are stored in silos.
vi.	Prior permission from the State Ground water Board, Central Ground Water Authority (SGWB / CGWA) regarding drawl of ground water shall be obtained.	Ground water abstract permission have been obtained from Karnataka Ground Water Authority, Bangalore via. Letter no. KGWA/GW/NOC/32/2020-21/4323, dated 30.03.2021.

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vii.	The company must harvest the rain water from the roof tops and storm water drains recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Complying, we are harvesting the rain water from roof tops. Storm water drains are recharging the ground water in colony and cement plant. We have constructed total 4 Nos of rainwater storage tanks and 11 rooftop rain water recharge structures in plant premises and colony.
viii.	The company shall undertake eco-development measures including community welfare measures in the project areas.	Complying, we are undertaking eco-development measures like energy saving, hazardous wastes, Manufacturing of PPC/Slag cement and other wastes disposing etc. including community welfare measures. Expenditure incurred from October 2021 to March-2022 for community welfare is enclosed as Annexure- 2.
ix.	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environments (Protection) Act, 1986 Rules 1989 viz 75 dBA (Day Time) and 70 dBA at (Night Time).	Complying, the overall noise levels in and around the plant area is well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels are well within the standard prescribed under Environments (Protection) Act, 1986 Rules 1989 viz 75 dBA (Day Time) and 70 dBA (Night Time). Average Ambient Noise level monitoring report (Period from October-2021 to March-2022)are attached as Annexure -1 :-
x.	All recommendations made in the Corporate Responsibilities for Protection (CREP) for cement plants shall be implemented.	Complying, Recommendations made in the charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants are being implemented. CREP compliance report is as below.
1.	Cement Plants, which are not complying with notified standards, shall do the following to meet the standards: • Augmentation of existing Air Pollution Control Devices -by July 2003	Already Complying

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	<ul style="list-style-type: none"> Replacement of existing Air Pollution Control Devices -by July 2004 	
2	Cement Plants located in critically polluted or urban areas (including 5-km distance outside urban boundary) will meet 100 mg/Nm ³ limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nm ³	We are maintaining emission level of particulate matter within 30 mg/Nm ³ as per standards prescribed in CFO issued by KSPCB.
3	The new cement kilns to be accorded NOC/Environmental Clearance w.e.f. 01.04.2003 will meet the limit of 50 mg/Nm ³ for particulate matter emissions	We are maintaining emission level of particulate matter within 30 mg/Nm ³ as per standards prescribed in CFO issued by KSPCB.
4	CPCB will evolve load based standards by December 2003	MoEF & CC has released notification on on load based standards on 10th May 2016, for cement plants with co-processing. As per the notification, we have taken necessary measure to maintain the PM emission less than 0.125kg/tonne of clinker.
5	CPCB and NCBM will evolve SO ₂ and NO _x emission standards by June 2004	Emission standards (for SO ₂ & NO _x) are notified vide MoEFCC notification G.S.R. 612(E) dt. 25/08/2014, G.S.R. 496(E) dt. 09/05/2016 and G.S.R. 497(E) dt. 10/05/2016. It is being complied. We have installed DeNO _x system (SNCR) to control emissions of NO _x .
6	The Cement industries will control fugitive emissions from all the raw material and products storage and transfer points by December 2003. However, the feasibility for the control of fugitive emissions from limestone and coal storage areas will be decided by the National Task Force (NTF). The NTF shall submit its recommendations within three months	All the raw material/ product sheds/ transfer points and belt conveyors are fully covered. Bag filters are installed at all transfer points. Roads are concreted to reduce fugitive dust emissions.

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7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003	Complied. We are using petroleum coke as a fuel in cement kiln after obtaining permission from KSPCB.
8	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operations/sections for installation of continuous monitoring equipment. The industry will install the Continuous Monitoring Systems (CMS) by December 2003	Complied. We have already installed online continuous emission monitoring stations (OCEMS) at all major stacks and the data is connected to CPCB and KSPCB servers.
9	Trippings in kiln ESP to be minimized by July 2003 as per the recommendation of NTF	Reverse Air Bag House has been installed at Raw Mill and Kiln exit instead of ESP to minimize tripping.
10	Industries will submit the target date to enhance the utilization of waste material by April 2003	Complied, utilization of various wastes in kiln as a supplementary fuel.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003	Complied. Hazardous and other waste from various industries is being co processed in cement kiln.
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003	We are generating power from 50 MW Captive power plant and 5MW Solar Power Plant to fulfil power requirement of Cement plant and colony.
xi.	Proper housekeeping and adequate occupational health program shall be taken up.	Complying, 3 Nos of road sweeping machines and 1 Nos of water nozzle mounted truck has been provided to maintain good housekeeping. Regular premedical and periodical health checkup of employees has been done.
xii.	A separate Environmental Management cell to carry out various management and monitoring function shall be set up under control of Sr. Executive.	Complied, a separate Environmental Management cell to carry out various management and monitoring function has been set up under control of Sr. Executive.
xiii.	Rs.8.70 crores earmarked for environmental pollution measures shall be suitable used to implement the condition stipulated by the Ministry of Environment	Complied, as a part of environmental pollution control measures, we have invested above earmarked amount. The fund so provided has

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	and Forest as well as the State Government. The fund so provided shall not be diverted for any other purpose.	not been diverted for any other purpose. Details of expenditure given as below as Annexure-3
xiv.	The Regional of this Ministry at Bangalore / CPCB / KSPCB shall monitor the stipulated condition. A six monthly compliance report and monitor data along with statistical interpretation shall be submitted to them regularly.	Complying With, Six monthly compliance report and monitor data along with statistical interpretation is being submitted to The Regional of this Ministry at Bangalore / CPCB / KSPCB regularly.
xv.	The project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by concerned authorities and the date of commencing the land development work.	Complied, Project has been completed. We had informed the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by concerned authorities and the date of commencing the land development work.
xvi	The project proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with the Karnataka Pollution Control Board / committee and may be seen at website of the Ministry of Environment and Forests at http://www.envfor.nic.in . This should be advertised within seven days from the date of issues of clearance letter at least in two local newspapers 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 shall be forwarded to the regional office at Bangalore.	Complied, we had informed the public that the project has been accorded environmental clearance by Ministry and the same is published in newspapers & copies of the clearance letter are available with the Karnataka Pollution Control Board / committee and may be seen at website of the Ministry of Environment and Forests at http://www.envfor.nic.in .
6.0	The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional offices of this Ministry located of Bangalore.	Noted

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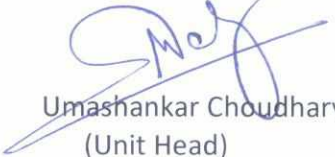
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7.0	The Ministry may revoke or suspend the clearance if implementation of any of the above condition is not satisfactory.	Noted
8.0	Any other condition or alteration in the above conditions shall to be implemented by the project authorities in a time bound manner.	Noted
9.0	The above conditions shall be enforced, inter-alia under the provisions of The Water (Prevention and control of pollution) Act, 1974, the Air Act. 1981, The Environment Protection Act 1986 and The Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted

Thanking you,

Yours Faithfully

J.K. Cement Works, Muddapur (Karnataka)


Umashankar Choudhary
(Unit Head)

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

CEMENT PLANT & 2X25 CPP MW

HALF YEARLY AAQM REPORT (SO₂, NO₂, PM₁₀, PM_{2.5}), FOR THE MONTH OF OCTOBER-2021 TO MARCH-2022

(ALL VALUES IN MICROGRAMS / CUBIC METER)

Month	SLNo.	Date	Week	SO ₂				NO ₂				PM ₁₀				PM _{2.5}			
				Locations				Locations				Locations				Locations			
				Adm	D-Block	Weigh Bridge	Guest House	Adm	D-Block	Weigh Bridge	Guest House	Adm	D-Block	Weigh Bridge	Guest House	Adm	D-Block	Weigh Bridge	Guest House
OCTOBER	1	1.10.2021	1st	8.0	6.5	6.7	7.3	18.0	17.2	16.7	17.3	89.6	75.6	63.8	61.7	25.0	20.8	29.2	12.5
	2	5.10.2021		7.3	6.8	6.8	6.8	17.8	17.3	16.7	16.5	91.6	61.4	71.1	52.8	41.7	16.7	25.0	15.0
	3	8.10.2021	2nd	9.2	7.5	7.3	5.7	19.2	18.5	17.3	15.7	72.4	70.4	30.9	57.4	25.0	33.3	29.2	16.7
	4	12.10.2021		6.7	6.2	6.7	4.8	16.5	17.3	17.8	15.8	90.1	66.8	75.5	64.3	20.8	25.0	20.8	20.8
	5	15.10.2021	3rd	8.0	6.5	5.7	5.8	18.0	17.3	15.7	15.5	92.2	70.9	78.2	67.5	25.0	33.4	25.0	33.3
	6	19.10.2021		7.7	8.0	4.8	3.8	17.7	18.0	15.0	14.2	89.3	66.5	85.1	80.4	29.2	28.5	45.8	41.7
	7	22.10.2021	4th	6.8	7.5	5.2	4.8	18.2	17.0	16.2	15.3	94.2	67.9	83.8	84.5	25.0	30.7	25.0	37.5
	8	26.10.2021		7.8	6.5	4.8	5.5	17.8	17.3	14.5	16.0	68.5	76.0	71.4	68.1	33.3	29.2	25.0	33.3
	9	29.10.2021		4.5	6.5	6.5	6.2	15.5	16.5	16.5	16.3	90.8	64.2	79.0	62.4	20.4	25.0	20.8	25.0
NOVEMBER	1	2.11.2021	1st	5.8	6.5	5.5	4.7	15.8	16.0	15.3	17.5	62.3	73.0	61.5	47.1	29.2	33.3	20.8	25.0
	2	5.11.2021		5.8	5.3	6.5	7.0	15.8	17.3	17.0	17.3	68.9	71.0	36.0	51.9	20.8	25.0	16.7	21.7
	3	9.11.2021	2nd	6.7	6.7	5.7	6.7	15.8	18.0	17.3	18.0	61.6	64.4	70.8	57.0	33.4	35.0	37.5	29.2
	4	12.11.2021		5.0	7.5	7.5	5.8	14.8	17.0	17.0	18.3	65.2	68.4	74.8	54.1	20.8	28.5	29.2	20.8
	5	16.11.2021	3rd	7.5	6.7	6.3	5.5	15.0	18.2	17.7	17.3	67.9	73.4	27.4	68.1	18.8	32.7	45.8	25.0
	6	19.11.2021		4.5	7.0	5.5	7.5	15.3	17.5	14.7	17.8	70.1	67.1	53.6	51.9	33.3	28.3	29.2	37.5
	7	23.11.2021	4th	7.0	6.8	7.8	4.5	15.2	16.8	17.2	16.8	65.7	60.7	63.3	60.8	26.3	25.0	20.8	25.0
	8	26.11.2021		8.3	5.5	7.0	5.3	14.7	16.0	17.0	18.5	72.1	64.8	53.8	58.9	50.0	50.0	33.3	29.2
	9	30.11.2021		6.0	6.0	8.8	5.5	14.0	18.0	17.0	19.0	63.5	60.3	61.2	66.4	16.7	23.3	20.8	16.7
DECEMBER	1	3.12.2021	1st	6.8	7.5	7.2	7.3	16.8	17.5	17.2	17.3	83.7	91.8	63.9	58.3	25.0	29.2	20.8	20.8
	2	7.12.2021		5.8	6.2	6.7	6.5	15.8	16.8	16.7	16.7	77.2	80.3	69.2	62.4	33.3	25.0	25.0	25.0
	3	10.12.2021	2nd	6.8	8.0	6.3	6.8	16.8	18.0	16.5	16.8	70.5	74.1	78.0	55.6	29.2	20.8	24.2	12.5
	4	14.12.2021		5.8	6.8	7.5	5.8	16.8	16.8	17.5	15.8	60.7	75.0	66.5	69.6	27.1	16.7	20.8	29.2
	5	17.12.2021	3rd	6.0	7.3	5.8	7.3	16.0	16.7	15.8	17.0	75.2	85.3	75.9	56.3	33.3	37.5	25.0	26.4
	6	21.12.2021		6.7	7.5	7.8	6.7	16.8	17.5	17.8	16.8	78.8	80.4	69.7	75.4	40.8	20.8	33.3	25.0
	7	24.12.2021	4th	6.7	5.7	6.2	6.7	16.0	15.7	16.2	16.2	71.3	89.9	64.7	68.7	29.2	26.7	29.2	33.3
	8	28.12.2021		5.8	6.8	5.8	7.0	15.8	16.8	15.8	17.0	61.0	71.3	68.3	65.9	29.2	33.3	31.3	20.8
	9	31.12.2021		6.8	5.8	7.5	8.0	17.7	15.7	17.2	18.0	69.1	79.4	61.5	58.8	25.0	37.5	33.3	25.0
JANUARY	1	4.1.2022	1st	7.0	6.3	7.7	7.5	17.7	16.3	17.7	17.5	66.0	79.9	70.5	67.1	20.8	37.5	22.9	20.8
	2	7.1.2022		6.2	7.0	6.5	5.8	17.0	17.0	16.8	15.8	70.6	71.0	64.6	60.4	22.5	25.0	29.2	22.9
	3	11.1.2022	2nd	6.5	6.2	7.7	8.0	16.0	16.7	17.5	17.7	62.3	76.9	70.7	70.1	25.0	33.4	25.0	25.0
	4	14.1.2022		7.8	7.0	5.7	6.8	17.5	17.0	15.7	16.8	57.7	69.1	68.4	64.2	27.5	20.8	29.2	45.8
	5	18.1.2022	3rd	8.0	8.0	7.5	7.3	18.0	18.0	17.5	17.5	62.1	73.3	66.2	84.5	34.2	37.5	20.8	25.0
	6	21.1.2022		6.8	6.8	6.8	8.0	16.8	17.8	16.5	18.0	81.1	70.5	65.9	71.4	25.0	41.7	25.0	33.3
	7	25.1.2022	4th	6.7	7.2	8.0	6.7	17.0	17.7	18.0	16.8	63.3	72.4	75.5	69.3	37.5	45.8	45.8	29.2
	8	28.1.2022		6.8	8.0	7.8	8.0	18.0	18.0	17.5	18.0	76.8	84.2	69.3	77.9	20.8	33.3	25.0	25.0
FEBRUARY	1	01.2.2022	1st	7.5	7.5	6.2	5.8	17.5	17.5	20.8	16.8	71.9	75.3	45.4	69.8	29.2	33.4	20.8	22.9
	2	04.2.2022		8.0	8.0	7.3	7.7	18.8	18.0	25.0	17.5	65.5	67.3	72.4	61.6	25.0	28.5	25.0	25.0
	3	08.2.2022	2nd	9.3	6.7	6.3	6.8	19.3	17.8	27.1	16.8	75.3	70.6	77.8	73.5	29.2	30.7	27.1	20.8
	4	11.2.2022		6.8	5.8	8.0	5.8	17.8	16.2	29.2	15.8	68.6	73.4	72.3	70.2	20.8	29.2	29.2	30.0
	5	15.2.2022	3rd	6.0	8.0	6.3	6.8	16.3	18.0	25.8	16.8	64.2	70.5	68.5	66.9	25.0	25.0	25.8	20.8
	6	18.2.2022		7.7	8.0	7.5	7.2	18.2	18.3	20.8	19.0	73.8	85.5	75.9	72.9	20.8	31.7	20.8	22.5
	7	22.2.2022	4th	7.5	8.0	7.7	8.0	18.3	18.0	27.1	18.0	75.1	77.8	61.7	70.8	28.3	33.3	27.1	29.2
8	25.2.2022	6.8		7.8	8.0	7.0	17.8	17.3	22.5	17.5	65.9	70.7	70.3	66.0	24.2	37.5	22.5	23.3	
MARCH	1	1.3.2022	1st	7.7	6.7	7.5	8.0	17.7	16.7	17.5	18.0	56.7	64.8	67.7	67.7	20.8	25.0	29.2	20.8
	2	4.3.2022		6.7	7.3	8.2	7.5	16.7	18.5	18.7	16.3	58.7	60.5	60.4	56.8	37.5	29.2	25.0	33.3
	3	8.3.2022	2nd	8.0	5.7	6.5	8.0	18.0	16.0	16.7	16.7	68.1	65.2	72.2	69.4	41.7	25.0	33.3	41.7
	4	12.3.2022		6.8	6.2	8.0	6.7	16.8	17.3	18.0	17.3	50.8	67.1	67.8	77.8	33.3	37.5	20.8	37.5
	5	15.3.2022	3rd	7.0	8.0	7.3	8.0	17.5	18.2	17.5	18.0	58.2	76.8	65.1	67.5	37.5	29.2	25.0	33.3
	6	19.3.2022		8.0	8.5	6.7	7.2	18.0	19.2	16.7	18.0	58.3	68.1	62.6	77.4	41.7	33.3	45.8	25.0
	7	22.3.2022	4th	7.3	6.3	7.3	6.7	17.3	16.3	18.2	16.7	66.9	74.7	68.1	65.4	29.2	38.3	25.0	20.8
	8	26.3.2022		8.0	7.2	8.2	6.3	18.0	18.2	18.2	17.0	71.6	62.9	50.9	55.9	33.3	36.2	29.2	29.2
	9	29.3.2022		8.0	8.2	7.3	7.5	18.0	18.2	17.5	17.5	59.6	61.9	60.1	67.2	41.7	20.8	20.8	25.0
Miniumum				4.5	5.3	4.8	3.8	14.0	15.7	14.5	14.2	50.8	60.3	27.4	47.1	16.7	16.7	16.7	12.5
Maximum				9.3	8.5	8.8	8.0	19.3	19.2	29.2	19.0	94.2	91.8	85.1	84.5	50.0	50.0	45.8	45.8
Average				7.0	7.0	6.9	6.6	17.0	17.3	18.1	17.1	70.6	71.9	65.9	65.5	28.8	30.2	27.3	26.4


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J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit : J.K. Cement Limited)

Half Yearly Fugitive Emission Monitoring Report of Cement plant for the month of October-2021 to March-2022

SL. NO.	MONTH/YEAR	SPM (microgram/m ³)							
		Gypsum Yard	Slag Yard	Flyash Yard	Cement mill	Lime stone unloading hopper	Lime stone crushing Site	Coal Yard	Packing Plant
1	Oct-21	575.7	528.5	592.4	704.8	558.7	579.1	676.6	761.1
2	Nov-21	517.2	501.5	572.5	693.0	542.8	590.8	555.7	620.3
3	Dec-21	841.7	1101.4	1022.8	785.6	598.6	596.6	1094.3	1027.6
4	Jan-22	1068.0	981.5	937.7	897.9	518.5	595.1	705.3	667.4
5	Feb-22	1171.9	897.8	1115.1	968.5	573.4	583.2	632.6	752.5
6	Mar-22	1056.0	1038.5	1028.5	1150.7	584.5	575.6	756.6	824.3
Minimum		517.19	501.52	572.47	693.02	518.52	575.64	555.73	620.31
Maximum		1171.85	1101.39	1115.12	1150.71	598.61	596.61	1094.27	1027.55
Average		871.74	841.53	878.17	866.77	562.76	586.72	736.83	775.53


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J.K. Cement WORKS, MUDDAPUR (KARNATAKA)
(Unit: J.K. Cement Ltd.)

Half Yearly Noise monitoring report of Cement & Power Plant for the month of October-2021 to March-2022

Sl. No.	Location Name	Ambient Noise																	
		Oct-21		Nov-21		Dec-21		Jan-22		Feb-22		Mar-22		Minimum		Maximum		Average	
		Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq
1	Boundary side	47.5	36.2	48.2	38.5	45.8	37.4	54.8	48.9	65.2	57.4	55.2	49.2	45.8	36.2	65.2	57.4	52.8	44.6
2	Administrative Building	49.5	37.5	45.5	35.2	48.7	35.5	52.6	46.7	55.3	49.7	53.8	47.5	45.5	35.2	55.3	49.7	50.9	42.0
3	Lime Stone gate	51.8	39.5	54.3	46.8	55.8	47.2	60.8	55.7	63.5	54.6	61.6	56.8	51.8	39.5	63.5	56.8	58.0	50.1
4	Despatch gate	50.2	43.6	65.8	56.5	53.3	40.8	62.5	57.5	65.2	57.2	63.8	58.3	50.2	40.8	65.8	58.3	60.1	52.3
5	Near QC Lab.	47.8	38.9	48.3	37.5	50.5	42.7	55.3	49.6	61.6	53.8	55.3	49.6	47.8	37.5	61.6	53.8	53.1	45.4
6	Near Canteen	54.6	43.7	55.5	45.7	53.8	42.5	62.7	52.8	64.3	54.2	63.8	54.8	53.8	42.5	64.3	54.8	59.1	49.0
7	Plant main gate	53.4	42.8	61.5	51.6	62.6	52.8	65.6	54.7	68.5	58.7	66.5	55.7	53.4	42.8	68.5	58.7	63.0	52.7
8	Dispensary	52.7	40.6	52.7	40.2	48.9	40.2	52.9	45.6	57.5	47.5	53.7	46.9	48.9	40.2	57.5	47.5	53.1	43.5
9	General Store	56.5	46.7	54.5	47.8	56.5	49.2	56.5	44.9	61.3	50.8	57.3	48.6	54.5	44.9	61.3	50.8	57.1	48.0

Sl. No.	Location Name	Oct-21 (dB) Leq	Nov-21 (dB) Leq	Dec-21 (dB) Leq	Jan-22 (dB) Leq	Feb-22 (dB) Leq	Mar-22 (dB) Leq	Minimum (dB) Leq	Maximum (dB) Leq	Average (dB) Leq
1	Lime Stone Crusher	65.2	65.8	67.3	82.5	81.5	80.6	65.2	82.5	73.8
2	Kiln/ Cooler	60.5	67.5	66.8	84.6	83.4	82.5	60.5	84.6	74.2
3	Kiln Platform	71.6	72.8	70.7	80.6	82.4	80.3	70.7	82.4	76.4
4	Power Plant	60.5	64.6	62.6	60.2	61.5	62.5	60.2	64.6	62.0
5	Coal Yard	57.5	57.7	57.6	62.5	63.7	60.6	57.5	63.7	59.9
6	Slag yard	53.4	52.8	54.4	64.6	65.6	63.5	52.8	65.6	59.1
7	Gypsum yard	57.4	57.9	56.8	58.5	59.2	57.6	56.8	59.2	57.9
8	Packing Plant	58.8	60.8	58.5	70.2	71.6	71.5	58.5	71.6	65.2
9	DG House (1-meter distance)	74.8	75.8	73.2	72.5	73.5	74.6	72.5	75.8	74.1
10	DG House (2-meter distance)	72.4	73.5	70	70.2	72.8	71.5	70	73.5	71.7
12	Raw mill proportioning hopper	69.7	72.8	74.8	70.8	70.6	72.2	69.7	74.8	71.8
13	coal mill	67.5	68.9	67.3	80.2	81.5	81.5	67.3	81.5	74.5
14	Near silo clinker loading point	65.6	66.2	65.5	75.6	76.5	76.3	65.5	76.5	71.0
15	CM-1 weigh feeder	60.8	63.7	62.8	72.4	74.6	73.5	60.8	74.6	68.0
16	CM-2 weigh feeder	61.6	64.8	60.2	70.8	72.8	71.6	60.2	72.8	67.0
17	Cement silo Packer-1	64.6	62.3	64.7	68.7	69.5	69.5	62.3	69.5	66.6
18	Cement silo Packer-2	57.6	65.8	66.9	70.2	71.2	71.5	57.6	71.5	67.2
19	Cement silo Packer-3	65.7	67.5	68.6	66.5	67.5	66.3	65.7	68.6	67.0
20	Cement silo Packer-4	57.6	61.6	62.8	64.8	65.6	65.8	57.6	65.8	63.0
22	Truck Loading point- 1	59.7	63.5	64.6	72.4	73.5	70.5	59.7	73.5	67.4
23	Truck Loading point- 2	62.8	64.5	65.3	74.6	76.4	72.8	62.8	76.4	69.4
24	Truck Loading point- 3	66.6	69.8	62.3	70.8	71.5	73.4	62.3	73.4	69.1
25	Truck Loading point- 4	60.7	62.5	60.6	68.6	69.5	69.5	60.6	69.5	65.2
26	Slag mill weigh feeder	54.6	59.6	58.2	66.8	67.3	65.8	54.6	67.3	62.1


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(Unit : J.K. Cement Ltd.)

Stack monitoring report of Cement plant & 2x25 MW Thermal power plant for October-2021 to March-2022

Sl. No.	Month/Year	Stack locations					
		Thermal Power Plant			Kiln / Raw Mill		
		SPM in mg/Nm3	SO2 in mg/Nm3	NOx in mg/Nm3	SPM in mg/Nm3	SO2 in mg/Nm3	NOx in mg/Nm3
1	Oct-21	33.63	191	33	13.9	0.0	610.0
2	Nov-21	Plant Shutdown			15.7	0.0	464.0
3	Dec-21				9.9	0.0	462.0
4	Jan-22				12.4	0.0	453.0
5	Feb-22				8.7	0.0	410.0
6	Mar-22				12.0	0.0	521.0

Sl. No.	Month/Year	Stack locations						
		SPM in mg/Nm3						
		CM-3 (Slag Cement Mill)	Coal crusher	LSC	CM-1	CM-2	Cooler	Coal Mill
1	Oct-21	24.8	22.7	11.8	Mill Shutdown	8.5	5.1	8.5
2	Nov-21	10.0	18.5	8.8	6.9	11.7	5.9	12.8
3	Dec-21	8.4	15.4	10.2	4.7	9.5	7.8	15.5
4	Jan-22	8.9	10.2	9.0	6.75	10.67	7.1	19.6
5	Feb-22	13.0	12.1	12.0	6.7	15.6	5.4	15.1
6	Mar-22	13.4	9.0	10.1	10.9	17.4	13.0	15.6


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J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

STP water Analysis Report (Monthly Average) for the Month of October-2021 to March-2022

Sl.No.	Month	Suspended Solids	PH	BOD	COD	NH4-N	N-total	Fecal Coliform
Tolerance limit		20	6 to 9	10	50	5	10	<230
1	Oct-21	7.8	8.2	7.4	24.9	4.3	7.5	Nil
2	Nov-21	7.7	7.2	7.0	24.9	3.5	7.4	Nil
3	Dec-21	8.2	7.7	7.4	24.6	4.4	7.3	Nil
4	Jan-22	11.4	7.8	8.5	31.1	3.7	7.3	Nil
5	Feb-22	9.2	7.9	7.3	24.5	4.2	7.3	Nil
6	Mar-22	8.0	7.7	7.3	27.5	4.3	7.4	Nil
Half Yearly Min.		7.73	7.25	7.02	24.48	3.52	7.25	Nil
Half Yearly Max.		11.37	8.24	8.50	31.09	4.41	7.53	Nil
Half Yearly Avg.		8.71	7.76	7.49	26.24	4.06	7.37	Nil


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(Unit: J.K. Cement Ltd.)

STP water Analysis Report (Monthly Average) for the Month of October-2021 to March-2022

Sl.No.	Month	Suspended Solids	PH	BOD	COD	NH4-N	N-total	Fecal Coliform
Tolerance limit		20	6 to 9	10	50	5	10	<230
1	Oct-21	7.8	8.2	7.4	24.9	4.3	7.5	Nil
2	Nov-21	7.7	7.2	7.0	24.9	3.5	7.4	Nil
3	Dec-21	8.2	7.7	7.4	24.6	4.4	7.3	Nil
4	Jan-22	11.4	7.8	8.5	31.1	3.7	7.3	Nil
5	Feb-22	9.2	7.9	7.3	24.5	4.2	7.3	Nil
6	Mar-22	8.0	7.7	7.3	27.5	4.3	7.4	Nil
Half Yearly Min.		7.73	7.25	7.02	24.48	3.52	7.25	Nil
Half Yearly Max.		11.37	8.24	8.50	31.09	4.41	7.53	Nil
Half Yearly Avg.		8.71	7.76	7.49	26.24	4.06	7.37	Nil


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SUMS TECHNO LABS PRIVATE LIMITED

[Analytical & Environment Laboratory]

NABL Accredited Laboratory Cert No. TC-6224

Recognized by MoEF

[Environment (Protection) Act, 1986 vide Gazette notification S.No. 2836(E)
dt:30.08.2017, validity dt: 08.08.2022]



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

TC-6224

ANALYSIS REPORT OF AMBIENT AIR QUALITY MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Particulars of Sample Collected : SUMSTLPL/RDS/CEIS/01, SUMSTLPL/FPS/CEIS/2
4. Date of Collection : 29.12.2021
5. Date of Sample Receipt : 30.12.2021
6. Date of Analysis Started : 30.12.2021
7. Discipline : Chemical
8. Group : Atmospheric Pollution
9. Test Report Number : STLPL/JKC/AA/2021/12/1122
10. ULR : TC622421000001122F
11. Lab code : 844/1, 844/2, 844/3, 844/4
12. Report Issued Date : 15.01.2022

Sl.No	Parameters	Protocol	Unit	Result				NAAQ STANDARDS (2009)
				Near admin office	Near Guest House	D Block Staff Colony Quarters	Near Dispatch Gate	
1.	PM ₁₀	IS: 5182 (Part 23): 2006	µg/m ³	71	62	55	65	100
2.	PM _{2.5}	SUMS/SOP/038 Issued:01/ Dated/ 03.05.2012 (Based on CPCB Guidelines volume -I may 2011)	µg/m ³	43	38	41	45	60
3.	SO ₂	IS: 5182 (Part 2): 2006	µg/m ³	13.4	12.5	10.5	12.2	80
4.	NO ₂	IS: 5182(Part 6):2006	µg/m ³	17.1	15.4	13.6	15.7	80
5.	Ozone(O ₃)	IS: 5182:(Part 9):1974	µg/m ³	14.51	18.24	15.64	10.14	100
6.	Ammonia (NH ₃)	SUMS/SOP/147 Issued No:01 Date 10.06.2015 (Based on CPCB Guidelines volume -I may 2011)	µg/m ³	21.22	23.11	17.68	26.84	400
7.	Lead (Pb)	IS: 5182: (Part 22):2005	µg/m ³	BDL	BDL	BDL	BDL	0.5-1.0
8.	Nickel (Ni)	Based on CPCB Guidelines	ng/m ³	BDL	BDL	BDL	BDL	20
9.	Arsenic (As)	Based on CPCB Guidelines	ng/m ³	BDL	BDL	BDL	BDL	06
10.	Carbon Monoxide (CO)	SUMSTLPL/SOP/AA/10 Issued No/ Date: 01/07.03.2017	mg/m ³	BDL	BDL	BDL	BDL	04

Note: BDL-Below Detectable Limit

INFERENCE	As per NAAQ Standards (2009);
	Report Status: Measured values for the above parameters are within the limit. Ammonia, Ozone, CO Parameters are monitored for a period of 1 hour

Anand
Analysed by
Anand N



Shivashankar
Authorised Signatory
Shivashankar H M

Page No.1 of 28

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E-mail: technolabs@sums.org.in, sums.hpt@gmail.com, Website: www.sums.org.in
Branch Office: Maakrupa Apartment, 2nd Floor, H.No-201, Near Baldwin School, Nagarabhavi Road, Kalyan Nagar,
Bangalore-560072.



SUMS TECHNO LABS PRIVATE LIMITED

[Analytical & Environment Laboratory]

Recognized by MoEF

[Environment (Protection) Act, 1986 vide Gazette notification Sl.No. 2836(E)
DT: 30.08.2017, validity DT: 08.08.2022]

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Sl.No	Parameters	Protocol	Unit	Result				NAAQ STANDARDS (2009)
				Near admin office	Near Guest House	D Block Staff Colony Quarters	Near Dispatch Gate	
1.	Benzene (C ₆ H ₆)	IS: 5102: (Part 11):2006	µg/m ³	BDL	BDL	BDL	BDL	05
2.	Benzo(a) Pyrene (BaP)	Based on CPCB Guidelines	ng/m ³	BDL	BDL	BDL	BDL	01

Note: BDL-Below Detectable Limit

INFERENCE	As per NAAQ Standards (2009):
	Report Status: Measured values for the above parameters are within the limit.

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H. V. L. H.
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Shivashankaraiah H M

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Head Office: 15-DP2, KIADB, Sankalapura Industrial Area, Ballari Road, Hosapete - 583201, Ballari District, Karnataka.
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[Environment (Protection) Act, 1986 vide Gazette notification SI.No. 2836(E)
DT: 30.08.2017, validity DT: 08.08.2022]

ISO 9001: 2015
ISO 14001:2015
ISO 45001:2018

ANALYSIS REPORT OF FUGITIVE EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)- 587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Sampling Equipment's ID : SUMSTLPL/RDS/ CEIS /09, SUMSTLPL/RDS/CEIS/03
SUMSTLPL/RDS/CEIS/05, SUMSTLPL/RDS/ CEIS /07
4. Discipline : Chemical
5. Product group : Atmospheric Pollution
6. Test Report Number : STLPL/JKC/FE/2021/01/1122
7. ULR Number : TC622421000001122F
8. Report Issued Date : 15.01.2022

Sl.No	Name of the location	Sample collection Date	Receipt date	Analysis started	Lab Code	TSPM [$\mu\text{g}/\text{m}^3$] IS : 5182 (Part 23):2004
						Result
1	Near slag yard	29.12.2021	30.12.2021	30.12.2021	844/15	1183
2	Near gypsum yard	29.12.2021	30.12.2021	30.12.2021	844/16	1053
3	Near cement mill-1	29.12.2021	30.12.2021	30.12.2021	844/17	985
4	Near laterite yard	29.12.2021	30.12.2021	30.12.2021	844/18	594
5	Near coal yard	29.12.2021	30.12.2021	30.12.2021	844/19	1242
6	Near packing plant	29.12.2021	30.12.2021	30.12.2021	844/21	924
7	Near lime stone crusher (upside)	29.12.2021	30.12.2021	30.12.2021	844/22	548
8	Near lime stone crusher (down side)	29.12.2021	30.12.2021	30.12.2021	844/20	498
As per KSPCB Std. 24 Hrs. Avg.						2000.00 $\mu\text{g}/\text{m}^3$

INFERENCE	Standards as per KSPCB Consent Report Status: - measured values for all the parameters are within the standards.
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Shivashankaraiah.H.M.
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Head Office: 15-DP2, KIADB, Sarakalapura Industrial Area, Ballari Road, Hosapete - 583201, Ballari District, Karnataka.
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dt:30.08.2017, validity dt: 08.08.2022]



ISO 9001: 2015
ISO 14001:2015
ISO 45001:2018

TC-6224

AMBIENT NOISE LEVEL REPORT

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Particulars of Sample Collected : Envirotech SLM 109 (ID No. SUMSTLPL/NOISE/ENT/01)
Envirotech SLM 100 (ID No. SUMSTLPL/NOISE/ENT/02)
4. Method Adopted : IS 9989:1981
5. Discipline : Chemical
6. Group : Atmospheric Pollution
7. Test Report Number : STLPL/JKC/AN/2021/01/1122
8. ULR Number : TC622421000001122F
9. Report Issued Date : 15.01.2022

Sl. No	Sample Location	Lab Code	Date of Sampling	Shift	Parameters in dB(A)			KSPCB / CPCB STD
					Min.	Max.	LEQ	
1	Near Cooler Station	844/5	27.12.2021	--	79.5	84.9	82.2	85
2	Near Packing Plant	844/6	27.12.2021	--	78.4	83.1	80.7	85
3	Near Crusher Area	844/7	28.12.2021	--	77.9	84.5	81.1	85
4	Near Power Plant	844/10	29.12.2021	--	79.1	84.3	81.7	85
5	Unloading Area Near	844/11	30.12.2021	--	80.5	83.5	82.0	85
6	Near Kiln Plant	844/12	30.12.2021	--	79.8	84.9	82.3	85
7	Near Cement Mill	844/13	31.12.2021	--	79.2	84.3	81.7	85
8	Near Raw Mill	844/14	31.12.2021	--	78.5	83.1	80.8	85
9	Near Cooler Office	844/8	28.12.2021	Day	56.7	69.3	62.7	75
			28.12.2021	Night	55.2	66.7	60.7	70
10	Near Admin Area	844/9	29.12.2021	Day	43.8	55.7	49.4	75
			29.12.2021	Night	38.6	50.1	44.0	70

Note: After additional conditions Sl. No 1 to 8, the condition viz. "The noise standard for work zone exposure for industrial workers shall be as per the factories act/The Noise pollution Rules, 2000" Shall be included as additional conditions.

INFERENCE	As per CPCB/KSPCB Standards Report Status: - Measured values for all the parameters are within the limits.
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ISO 14001:2015
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TC-6224

ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Cement Mill-2
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 29.12.2021
6. Date of Sample Receipt : 30.12.2021
7. Date of Analysis Started : 30.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. ULR : TC622421000001122F
12. Lab code : 844/42
13. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack Attached to	Cement Mill- 2
Ambient Temperature (°C)	30
Stack Temperature (°C)	85
Diameter(m)	1.25

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Velocity of flue gas discharge	IS 11255(Part 3): 1985	m/s	7.14	--
2	Volume of flue gas discharge	IS 11255(Part 3):1985	Nm ³ /hr	26256.92	--
3	Particulate matter (PM)	IS 11255(Part 1):1985	mg/Nm ³	11.58	30

INFERENCE	As per CPCB/KSPCB Standards (2009), Report Status: - Measured Values for the above parameters are within the limit.
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ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Cement Mill-2
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 29.12.2021
6. Date of Sample Receipt : 30.12.2021
7. Date of Analysis Started : 30.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack Attached to	Cement Mill- 2
Ambient Temperature (°C)	30
Stack Temperature (°C)	85
Diameter(m)	1.25

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Moisture	IS-11255(Part03)	%	<1	--

INFERENCE As per CPCB/KSPCB Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

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ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Cement Mill-3
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 30.12.2021
6. Date of Sample Receipt : 31.12.2021
7. Date of Analysis Started : 31.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. ULR : TC622421000001122F
12. Lab code : 844/43
13. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack Attached to	Cement Mill- 3
Ambient Temperature (°C)	28
Stack Temperature (°C)	82
Diameter(m)	3.75

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Velocity of flue gas discharge	IS 11255(Part 3): 1985	m/s	8.06	--
2	Volume of flue gas discharge	IS 11255(Part 3):1985	Nm ³ /hr	269015.85	--
3	Particulate matter (PM)	IS 11255(Part 1):1985	mg/Nm ³	11.2	30

INFERENCE	As per CPCB/KSPCB Standards (2009), Report Status:- Measured Values for the above parameters are within the limit.
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Page No.27 of 28

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ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Cement Mill-3
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 30.12.2021
6. Date of Sample Receipt : 31.12.2021
7. Date of Analysis Started : 31.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack Attached to	Cement Mill- 3
Ambient Temperature (°C)	28
Stack Temperature (°C)	82
Diameter(m)	3.75

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Moisture	IS-11255(Part03)	%	<1	--

INFERENCE

As per CPCB/KSPCB Standards (2009),
Report Status: - Measured Values for the above parameters are within the limit.

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TC-6224

ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Coal Mill
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 30.12.2021
6. Date of Sample Receipt : 31.12.2021
7. Date of Analysis Started : 31.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. ULR : TC622421000001122F
12. Lab code : 844/40
13. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack Attached to	Coal Mill
Ambient Temperature (°C)	27
Stack Temperature (°C)	55
Diameter(m)	1.80

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Velocity of flue gas discharge	IS 11255(Part 3): 1985	m/s	8.78	--
2	Volume of flue gas discharge	IS 11255(Part 3):1985	Nm ³ /hr	73075	--
3	Particulate matter (PM)	IS 11255(Part 1):1985	mg/Nm ³	20.7	30

INFERENCE	As per CPCB/KSPCB Standards (2009), Report Status: - Measured Values for the above parameters are within the limit.
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ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Coal Mill
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 30.12.2021
6. Date of Sample Receipt : 31.12.2021
7. Date of Analysis Started : 31.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack Attached to	Coal Mill
Ambient Temperature (°C)	27
Stack Temperature (°C)	55
Diameter(m)	1.80

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Moisture	IS-11255(Part03)	%	<1	--

INFERENCE	As per CPCB/KSPCB Standards (2009). Report Status: - Measured Values for the above parameters are within the limit.
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ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Raw Mill
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 30.12.2021
6. Date of Sample Receipt : 31.12.2021
7. Date of Analysis Started : 31.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. ULR : TC622421000001122F
12. Lab code : 844/39
13. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack attached to	Raw Mill/Kiln
Ambient Temperature (°C)	30
Stack Temperature (°C)	82
Diameter(m)	5

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Velocity of flue gas discharge	IS 11255(Part 3): 1985	m/s	8.13	--
2	Volume of flue gas discharge	IS 11255(Part 3):1985	Nm ³ /hr	482403	--
3	Particulate matter (PM)	IS 11255(Part 1):1985	mg/Nm ³	19.5	30
4	Nitrogen Dioxide as NO ₂	IS 11255 (Part 7):2005	mg/Nm ³	495	800
5	Sulphur Dioxide as SO ₂	IS 11255 (Part 2):2005	mg/Nm ³	0.8	100

INFERENCE	As per CPCB/KSPCB Standards (2009), Report Status: - Measured Values for the above parameters are within the limit.
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ANALYSIS REPORT FOR STACK EMISSION MONITORING

1. Name and Address of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd) Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Stack ID : Raw Mill
3. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
4. Sampling Equipment's ID : Vayubodhan Stack Sampler VSS 1
5. Date of Collection : 30.12.2021
6. Date of Sample Receipt : 31.12.2021
7. Date of Analysis Started : 31.12.2021
8. Discipline : Chemical
9. Group : Atmospheric Pollution
10. Test Report Number : STLPL/JKC/AA/2021/12/1122
11. Report Issued Date : 15.01.2022

GENERAL DETAILS

Stack attached to	Raw Mill/Kiln
Ambient Temperature (°C)	30
Stack Temperature (°C)	82
Diameter(m)	5

Sl. No	Parameters	Protocol	Unit	Result	Standards as per KSPCB
1	Moisture	IS-11255(Part03)	%	<1	--

INFERENCE	As per CPCB/KSPCB Standards (2009). Report Status: - Measured Values for the above parameters are within the limit.
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ISO 45001:2018

TC-6224

ANALYSIS REPORT OF STP OUTLET WASTE WATER

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Name of the sample collected : STP Outlet Waste Water
4. Date of Collection : 29.12.2021
5. Date of Sampling Receipt : 30.12.2021
6. Date of analysis Started : 30.12.2021
7. Sampling Method : APHA 23rd Edition - 1060 B
8. Discipline : Chemical
9. Group : Pollution & Environment
10. Test Report Number : STLPL/JKC /WW/2021/12/1122
11. ULR Number : TC622421000001122F
12. Lab Code : 844/37
13. Report Issued Date : 15.01.2022

Sl. No	Parameters	Protocol	Unit	Result	Standard as per KSPCB Consent
1	pH	APHA 23 rd EDITION-4500	-	7.21	6.5-9.0
2	Total Suspended Solids	APHA 23 rd EDITION -2540 D	mg/l	6	20
3	Chemical Oxygen Demand (COD)	APHA 23 rd EDITION - 5220 C	mg/l	19.96	50
4	Biological Oxygen Demand (BOD) at 27°C for 3 days	IS:3025(Part-44) 1993	mg/l	7.5	10

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ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

ANALYSIS REPORT OF STP OUTLET WASTE WATER

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Name of the sample collected : STP Outlet Waste Water
4. Date of Collection : 29.12.2021
5. Date of Sampling Receipt : 30.12.2021
6. Date of analysis Started : 30.12.2021
7. Sampling Method : APHA 23rd Edition - 1060 B
8. Discipline : Chemical
9. Group : Pollution & Environment
10. Test Report Number : STLPL/JKC /WW/2021/12/1122
11. Report Issued Date : 15.01.2022

Sl. No.	Parameters	Protocol	Unit	Result	Standard as per KSPCB Consent
1	Total Nitrogen	IS:3025(part-34)	mg/l	6.72	10
2	Ammonical Nitrogen	IS:3025(part-34)	Mg/l	3.08	5
3	Fecal Coli Form	IS:1622:1981, RA 2009	MPN/100ml	73	<100

Aidas
Analysed by
K AIDAS



Shivashankaraiah H M
Authorised Signatory
Shivashankaraiah H M
Page No.18 of 28

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Branch Office: Maakrupa Apartment, 2nd Floor, H.No-201, Near Baldwin School, Nagarabhavi Road, Kalyan Nagar, Bangalore-560072.



SUMS TECHNO LABS PRIVATE LIMITED

[Analytical & Environment]

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TC-6224

ANALYSIS REPORT OF GROUND WATER QUALITY

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
2. Sample Collected By : Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
3. Date of Collection : SUMS Techno Labs Private Limited, Hosapete
4. Date of Sampling Receipt : 29.12.2021
5. Date of analysis Started : 30.12.2021
6. Sampling Method : APHA 23RD Edition - 1060 B
7. Discipline : Chemical
8. Group : Water
9. Test Report Number : STLPL/JKC/GW/2021/12/1122
10. ULR Number : TC622421000001122F
11. Lab code : 844/23,844/24,844/25
12. Report Issued Date : 15.01.2022

Sl. No	Parameters	Protocol	Unit	Result			Standards As per IS:10500:2012	
				BW-1	BW-2	BW-3	DL	PL
1.	Colour	APHA 23rd Edition-2120 B	Hazen	<1	<1	<1	5	15
2.	pH	APHA 23rd Edition-4500 B	--	7.08	7.14	7.44	6.5-8.5	NR
3.	Turbidity	APHA 23rd Edition-2130 B	NTU	1.8	2.0	3.2	1	5
4.	Conductivity	APHA 23rd Edition- 2510 B	µmhos/cm	1466	1345	2379	-	-
5.	Total Dissolved Solids	APHA 23rd Edition-2540 C	mg/l	1012	928	1642	500	2000
6.	Total Alkalinity as CaCO ₃	APHA 23rd Edition-2320 B	mg/l	250	232	276	200	600
7.	Total Hardness as CaCO ₃	APHA 23rd Edition-2340 C	mg/l	228	216	248	200	600
8.	Calcium as Ca	APHA 23rd Edition-3500 B	mg/l	83.2	78.4	92.0	75	200
9.	Magnesium as Mg	APHA 23rd Edition-3500 B	mg/l	4.9	4.9	4.4	30	100
10.	Sodium as Na	APHA 23rd Edition-3500 B	mg/l	64.26	64.26	117.81	-	-
11.	Potassium as K	APHA 23rd Edition-3500 B	mg/l	1.47	1.47	4.00	-	-
12.	Iron as Fe	APHA 23rd Edition-3500 B	mg/l	0.21	0.21	0.18	0.3	NR
13.	Chlorides as Cl	APHA 23rd Edition-4500 B	mg/l	183.94	131.96	191.94	250	1000
14.	Sulphates as SO ₄	APHA 23rd Edition-4500 B	mg/l	26.65	53.30	66.62	200	400
15.	Nitrates as NO ₃	APHA 23rd Edition-4500 E	mg/l	5.82	7.12	8.41	45	NR
16.	Fluoride as F	APHA 23rd Edition-4500 D	mg/l	0.18	0.11	0.10	1.0	1.5
17.	Boron as B	APHA 23rd Edition-4500 B	mg/l	0.11	0.12	0.14	1.0	5.0

Note: BW-Bore well water

BW-1: Opposite Main Gate Near Security Office, BW-2: Out Side Plant Near Canal, BW-3: Near AFR Shed

DL: Desirable Limit, PL: Permissible Limit, NR: No Relaxation, BDL: Below Detectable Limit.

INFERENCE	Standards As per IS:10500:2012
	Report Status: - measured values for all the parameters are within the standards.

E.R.T.
Analysed by
E Raghunatha Reddy



H. M. Kar
Authorized Signatory
Shivashankaraiah.H.M

Page No.5 of 28



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ANALYSIS REPORT OF GROUND WATER QUALITY

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Date of Collection : 29.12.2021
4. Date of Sampling Receipt : 30.12.2021
5. Date of analysis Started : 30.12.2021
6. Sampling Method : APHA 23RD Edition - 1060 B
7. Discipline : Chemical
8. Group : Water
9. Test Report Number : STLPL/JKC/GW/2021/12/1122
10. Report Issued Date : 15.01.2022

Sl. No	Parameters	Protocol	Unit	Result			Standards As per IS:10500:2012	
				BW-1	BW-2	BW-3	DL	PL
18.	Phosphorous as P	IS:3025(Part-31)-1988	mg/l	0.090	0.025	0.020	-	-
19.	Cadmium as Cd	APHA 23rd Edition -3111 B	mg/l	0.001	0.002	0.001	0.05	-
20.	Nickel as Ni	APHA 23rd Edition -3111 B	mg/l	0.015	BDL	BDL	0.02	NR
21.	Zinc as Zn	APHA 23rd Edition -3111 B	mg/l	BDL	BDL	BDL	5	15
22.	Lead as Pb	APHA 23rd Edition -3111 B	mg/l	BDL	0.002	BDL	0.1	-
23.	Chromium As Cr	APHA 23rd Edition -3111 B	mg/l	0.040	0.042	0.028	0.05	-
24.	Mercury as Hg	APHA 23rd Edition -3112 B	mg/l	BDL	BDL	BDL	0.01	-
25.	Manganese as Mn	APHA 23rd Edition -3111 B	mg/l	0.002	BDL	BDL	0.1	0.5
26.	Copper as Cu	APHA 23rd Edition -3111	mg/l	0.002	0.002	0.001	0.05	1.5
27.	E Coli Bacteria/100 ml	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent	Absent	Absent
28.	Total Coli Form (MPN/100ml)	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent	Absent	Absent

Note: BW-Bore well water

BW-1: Opposite Main Gate near security office, BW-2: Out side plant near canal, BW-3: Near AFR Shed

DL: Desirable Limit, PL: Permissible Limit, NR: No Relaxation, BDL: Below Detectable Limit.

INFERENCE	Standards As per IS:10500:2012 Report Status: - measured values for all the parameters are within the standards.
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E.R.F.

Analysed by
E Raghunatha Reddy



Shivashankaraiah.H.M.

Authorized Signatory
Shivashankaraiah.H.M

Page No.6 of 28



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TC-6224

ANALYSIS REPORT OF GROUND WATER QUALITY

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Date of Collection : 29.12.2021
4. Date of Sampling Receipt : 30.12.2021
5. Date of analysis Started : 30.12.2021
6. Sampling Method : APHA 23RD Edition - 1060 B
7. Discipline : Chemical
8. Group : Water
9. Test Report Number : STLPL/JKC/GW/2021/12/1122
10. ULR Number : TC622421000001122F
11. Lab code : 844/26,844/27,844/28
12. Report Issued Date : 15.01.2022

Sl. No	Parameters	Protocol	Unit	Result		Standards As per IS:10500:2012	
				BW-4	BW-5	DL	PL
1.	Colour	APHA 23rd Edition-2120 B	Hazen	<1	<1	5	15
2.	pH	APHA 23rd Edition-4500 B	--	7.11	7.22	6.5-8.5	NR
3.	Turbidity	APHA 23rd Edition-2130 B	NTU	1.4	1.1	1	5
4.	Conductivity	APHA 23rd Edition- 2510 B	µmhos/cm	2493	1420	-	-
5.	Total Dissolved Solids	APHA 23rd Edition-2540 C	mg/l	1720	980	500	2000
6.	Total Alkalinity as CaCO ₃	APHA 23rd Edition-2320 B	mg/l	256	248	200	600
7.	Total Hardness as CaCO ₃	APHA 23rd Edition-2340 C	mg/l	224	228	200	600
8.	Calcium as Ca	APHA 23rd Edition-3500 B	mg/l	84.8	86.4	75	200
9.	Magnesium as Mg	APHA 23rd Edition-3500 B	mg/l	2.9	2.9	30	100
10.	Sodium as Na	APHA 23rd Edition-3500 B	mg/l	85.68	82.11	-	-
11.	Potassium as K	APHA 23rd Edition-3500 B	mg/l	3.34	3.67	-	-
12.	Iron as Fe	APHA 23rd Edition-3500 B	mg/l	0.14	0.13	0.3	NR
13.	Chlorides as Cl	APHA 23rd Edition-4500 B	mg/l	211.93	220.93	250	1000
14.	Sulphates as SO ₄	APHA 23rd Edition-4500 B	mg/l	111.04	99.94	200	400
15.	Nitrates as NO ₃	APHA 23rd Edition-4500 E	mg/l	21.03	16.18	45	NR
16.	Fluoride as F	APHA 23rd Edition-4500 D	mg/l	0.2	0.3	1.0	1.5
17.	Boron as B	APHA 23rd Edition-4500 B	mg/l	0.12	0.11	1.0	5.0

Note: BW-Bore Well water

BW-4: Near DG House, BW-5: Out side plant near canal road side

DL: Desirable Limit, PL: Permissible Limit, NR: No Relaxation, BDL: Below Detectable Limit.

INFERENCE	Standards As per IS :10500:2012
	Report Status: - measured values for all the parameters are within the standards.

E.R.f
Analysed by
E Raghunatha Reddy



J. N. Kur
Authorized Signatory
Shivashankaraiah.H.M

Page No.7 of 28



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ANALYSIS REPORT OF GROUND WATER QUALITY

1. Name of the Industry : M/s J.K Cements works, Muddapur (Unit: J.K. Cement Ltd)
Muddapur village, Mudhol (Tq.), Bagalkot (Dist.)-587122
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete
3. Date of Collection : 29.12.2021
4. Date of Sampling Receipt : 30.12.2021
5. Date of analysis Started : 30.12.2021
6. Sampling Method : APHA 23RD Edition - 1060 B
7. Discipline : Chemical
8. Group : Water
9. Test Report Number : STLPL/JKC/GW/2021/12/1122
10. Report Issued Date : 15.01.2022

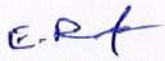
Sl. No	Parameters	Protocol	Unit	Result		Standards As per IS:10500:2012	
				BW-4	BW-5	DL	PL
18.	Phosphorous as P	IS:3025(Part-31)-1988	mg/l	0.030	0.040	-	-
19.	Cadmium as Cd	APHA 23 rd Edition -3111 B	mg/l	0.001	0.002	0.05	-
20.	Nickel as Ni	APHA 23 rd Edition -3111 B	mg/l	0.012	0.007	0.02	NR
21.	Zinc as Zn	APHA 23 rd Edition -3111 B	mg/l	BDL	BDL	5	15
22.	Lead as Pb	APHA 23 rd Edition -3111 B	mg/l	0.004	BDL	0.1	-
23.	Chromium As Cr	APHA 23 rd Edition -3111 B	mg/l	0.035	0.031	0.05	-
24.	Mercury as Hg	APHA 23 rd Edition -3112 B	mg/l	BDL	BDL	0.01	-
25.	Manganese as Mn	APHA 23 rd Edition -3111 B	mg/l	0.001	0.001	0.1	0.5
26.	Copper as Cu	APHA 23 rd Edition -3111 B	mg/l	0.0001	0.002	0.05	1.5
27.	E Coli Bacteria/100 ml	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent	Absent
28.	Total Coli Form (MPN/100ml)	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent	Absent

Note: BW-Bore Well water

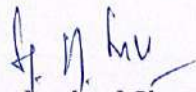
BW-4: Near DG House, BW-5: Out side plant near canal road side

DL: Desirable Limit, PL: Permissible Limit, NR: No Relaxation, BDL: Below Detectable Limit.

INFERENCE	Standards As per IS:10500:2012
	Report Status: - measured values for all the parameters are within the standards.


Analysed by
E Raghunatha Reddy




Authorized Signatory
Shivashankaraiah.H.M

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[Environment (Protection) Act, 1986 vide Gazette notification S.No. 2836(E)
dt:30.08.2017, validity dt: 08.08.2022]



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

TC-6224

ANALYSIS REPORT OF SURFACE WATER QUALITY

1. Name of the Industry : Muddapur Lime Stone of M/s. J.K. Cement Ltd.
Muddapur Village, Mudhol Taluk, Bagalkot District
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete.
3. Date of Collection : 29.12.2021
4. Date of Sampling Receipt : 30.12.2021
5. Date of analysis Started : 30.12.2021
6. Sampling Method : APHA 23rd Edition - 1060 B
7. Discipline : Chemical
8. Group : Water
9. Test Report Number : STLPL/JKC/SW/2021/12/1124
10. ULR Number : TC622421000001124F
11. Lab code : 842/14,842/15
12. Report Issued Date : 15.01.2022

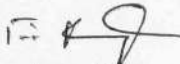
Sl.No	Parameters	Protocol	Unit	Result		Standards As per IS:10500:2012	
				SW-1	SW-2	DL	PL
1.	Colour	APHA 23 rd Edition -2120 B	Hazen	<5	<5	5	15
2.	pH	APHA 23 rd Edition -4500 B	--	7.28	7.48	6.5-8.5	NR
3.	Turbidity	APHA 23 rd Edition -2130 B	NTU	1.1	3.8	1	5
4.	Conductivity	APHA 23 rd Edition- 2510 B	µmhos/cm	1485	1348	-	-
5.	Total Dissolved Solids	APHA 23 rd Edition -2540 C	mg/l	1025	930	500	2000
6.	Total Alkalinity as CaCO ₃	APHA 23 rd Edition- 2320 B	mg/l	136	206	200	600
7.	Total Hardness as CaCO ₃	APHA 23 rd Edition- 2340 C	mg/l	370	368	200	600
8.	Calcium as Ca	APHA 23 rd Edition- 3500 B	mg/l	71.20	70.40	75	200
9.	Magnesium as Mg	APHA 23 rd Edition- 3500 B	mg/l	46.66	46.66	30	100
10.	Sodium as Na	APHA 23 rd Edition -3500 B	mg/l	107.1	82.11	-	-
11.	Potassium as K	APHA 23 rd Edition-3500 B	mg/l	1.07	1.27	-	-
12.	Iron as Fe	APHA 23 rd Edition -3500 B	mg/l	0.1	0.01	0.3	NR
13.	Chlorides as Cl	APHA 23 rd Edition -4500 B	mg/l	283.91	157.95	250	1000
14.	Sulphates as SO ₄	APHA 23 rd Edition-4500 B	mg/l	83.28	77.73	200	400
15.	Nitrates as NO ₃	APHA 23 rd Edition-4500 E	mg/l	9.06	3.88	45	NR
16.	Fluoride as F	APHA 23 rd Edition -4500 D	mg/l	0.42	0.58	1.0	1.5
17.	Boron as B	APHA 23 rd Edition -4500 B	mg/l	0.1	0.12	1.0	5.0

Note: Surface Water

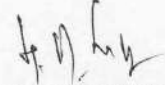
SW-1: River Water-Ghataprabha, SW-2: Muddapur Mines Pit,

DL: Desirable Limit, PL: Permissible Limit, NR: No Relaxation, BDL: Below Detectable Limit.

INFERENCE	Standards As per IS:10500:2012 Report Status: - measured values for all the parameters are within the standards.
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Analysed by
E Raghunatha Reddy




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Page No.7 of 8

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Branch Office: Maakrupa Apartment, 2nd Floor, H.No-201, Near Baldwin School, Nagarabhavi Road, Kalyan Nagar,
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SUMS TECHNO LABS PRIVATE LIMITED

[Analytical & Environment Laboratory]

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[Environment (Protection) Act, 1986 vide Gazette notification Sl.No. 2836(E)
DT: 30.08.2017, validity DT: 08.08.2022]

ISO 9001: 2015
ISO 14001:2015
ISO 45001:2018

ANALYSIS REPORT OF SURFACE WATER QUALITY

1. Name of the Industry : Muddapur Lime Stone of M/s. J.K. Cement Ltd.
Muddapur Village, Mudhol Taluk, Bagalkot District
2. Sample Collected By : SUMS Techno Labs Private Limited, Hosapete.
3. Date of Collection : 29.12.2021
4. Date of Sampling Receipt : 30.12.2021
5. Date of analysis Started : 30.12.2021
6. Discipline : Chemical
7. Group : Water
8. Sampling Method : APHA 23rd Edition - 1060 B
9. Test Report Number : STLPL/JKC / SW/2021/12/1124
10. Report Issued Date : 15.01.2022

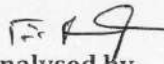
Sl. No	Parameters	Protocol	Unit	Result		Standards As per IS:10500:2012	
				SW-1	SW-2	DL	PL
1.	Total Suspended Solids	IS:3025(PART 17)-1984	mg/l	1	2	-	-
2.	Dissolved Oxygen	IS: 3025 (PART 38)-1989	mg/l	6.10	6.40	-	-
3.	Biochemical Oxygen Demand For 3 Days At 27° C	IS:3025(PART-17)	mg/l	<1	2.10	-	-
4.	Chemical Oxygen Demand	APHA 23 rd Edition -5220 B	mg/l	<1	16	-	-
5.	Phosphate As P	APHA 23 rd Edition-4500P	mg/l	0.030	0.030	--	--
6.	Acidity As CaCO ₃	IS: 3025 (PART 25)-1991	mg/l	NIL	NIL	-	-
7.	Oil & Grease	IS: 3025 (PART-39)-1991	mg/l	0.049	0.018	-	-
8.	Nickel As Ni	APHA 23 rd Edition -3111 B	mg/l	0.016	0.014	0.02	NR
9.	Manganese as Mn	APHA 23 rd Edition -3111 B	mg/l	BDL	BDL	0.1	0.5
10.	Copper as Cu	APHA 23 rd Edition - 3111 B	mg/l	0.119	0.128	0.05	1.5
11.	Zinc as Zn	APHA 23 rd Edition - 3111 B	mg/l	BDL	BDL	5	15
12.	Lead as Pb	APHA 23 rd Edition -3111 B	mg/l	0.008	0.0017	0.1	NR
13.	Silver as Ag	APHA 23 rd Edition -3111 B	mg/l	BDL	BDL	0.10	NR
14.	Chromium as Cr	APHA 23 rd Edition -3111 B	mg/l	BDL	0.020	0.05	NR
15.	E Coli Bacteria/100 ml	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent	Absent
16.	Total Coli Form	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent	Absent

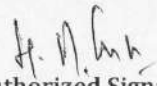
Note: Surface Water

SW-1: River Water-Ghataprabha, SW-2: Muddapur Mines Pit

DL: Desirable Limit, PL: Permissible Limit, NR: No Relaxation, BDL: Below Detectable Limit.

INFERENCE	Standards As per IS:10500:2012
	Report Status: - measured values for all the parameters are within the standards.


Analysed by
E Raghunatha Reddy


Authorized Signatory
Shivashankaraiah.H.M



Page No.8 of 8

Annexure-2

J K CEMENT WORKS, MUDDAPUR

<u>DETAILS OF CSR ACTIVITY UNDERTAKEN DURING October '2021 TO March'2022</u>		
Sl. No	Particulars	Amount
1	Education & Extra-curricular support to students	3444140
2	Health and sanitisation	32260
3	Medical aid / COVID relief / Grocery under Health Care	463500
4	Medical Support	105600
5	Pooja/ Fair/Festival in local village	1060877
6	Promoting Rural sports, Nationally recognized sports	90000
7	Rural Community Development Projects	832466.6
8	Rural development / other support to villagers	487015
9	Rural Infrastructure Development Projects	1063190.1
	Grand Total	7579048.7


Prepared by


checked by

ANNEXURE - 3

**EXPENDITURE ON THE ENVIRONMENTAL MANAGEMENT PLAN FOR PERIOD
FROM OCTOBER 2021 TO MARCH 2022**

DESCRIPTION	Expenditure (in Lakh)
Air Pollution Control in Kiln, Cooler, cement mill, coal mill, and LS crusher (main equipment) including stacks, Bag filters along with ventilation system for the control of fugitive dust emissions from the plant including stacks/ Cost of equipment for controlling emission like bag house, ESP, Bag filter etc., Operational cost/electricity cost, Operation & Maintenance cost	997.06
Fly ash Silo's and ash handling systems	61.01
Emission Monitoring equipment (including online emission monitoring equipment (CEMS) at sources and ambient air quality in the vicinity) and laboratory	3.83
Green Belt Development, Sewage Treatment plant and Water Harvesting Schemes for plant	30.73
Extra expenditure on green purchase (Purchase of green fuel, recycled materials or any other such purchase (AFR purchase, Fly ash and Slag purchase) to reduce environmental footprint	3599.6
Other environmental management costs (AFR system operation, odour control, environmental training/Award, SNCR system CPP, Environmental License Fees)	233.99
TOTAL (Rs in Lakhs)	4926.22



Prepared by
Shridhar M



Checked by
Veerabhadrarao Vetcha