

No.JKCW/ENV/2023-24/ EC Compliance/1st Half(Halki LSM)/93/16 Date :20-11-2023

To

The Deputy Director,
Ministry of Environment & Forest
Govt. of India, Indira Paryavaran Bhavan,
New Delhi- 110 003

Sub: **Half Yearly Environmental Clearance Compliance report for the period from April-2023 to September-2023 (1st Half) for Halki Limestone Mine, Village- Halki, Taluka- Mudhol, District- Bagalkot (Karnataka).**

Ref: **MoEF Letter No. J-11015/384/2006-1A.II(M), dtd.21-01-2008.**

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 **April-2023 to September-2023 (1st Half) of Halki Limestone Mine** (Limestone production of 2 MTPA) Village-Halki, Taluka-Mudhol, District-Bagalkot, Karnataka.

This for your kind perusal and acknowledge the receipt

Thanking you

Yours faithfully

For Halki Limestone Mine


Umashankar Choudhary
(Unit Head)

Encl. – A- EC Compliance Report **Annexure-1**

- Ambient Air Quality Monitoring– **Annexure -2**
- Fugitive emission Monitoring - **Annexure -3**
- Noise Level Monitoring– **Annexure -4**
- Mines Water Analysis Report – **Annexure- 5**
- Environmental expenditure- **Annexure-6**
- CSR Report-**Annexure-7**

Corporate Office

📍 Prism Tower 5th Floor, Ninaniya Estate Gwal Pahari,
Gurugram - 122102, Haryana, INDIA
☎ +0124-6919000
✉ admin.prism@jkcement.com
🌐 www.jkcement.com

**JK SUPER
CEMENT**
BUILD SAFE

Manufacturing Units at :
Nimbahera, Mangrol, Gotan (Rajasthan) | Muddapur (Karnataka)
Jharli (Haryana) | Katni (M.P.) | Aligarh (U.P.) | Balasinor (Gujarat)

JK CEMENT
WallMaxX
White Cement Wall Putty



Registered Office : 🏠 Kamla Tower, Kanpur-208001, U.P., India. ☎ +91-512-2371478 to 85 📠 91-512-2399854 🌐 www.jkcement.com



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

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, Karnataka

MoEF Letter No. J-11015/384/2006-1A. II(M) /dated. 21st January 2008

EC to Halki Limestone Mine (ML area 124.24 ha and 2.0 MTPA of limestone Production) of M/s J.K. Cement Ltd., at village Halki, in Mudhol Taluk, Bagalkot, Dist. In Karnataka.

S.No	Condition	Compliance status
A.	Specific Conditions	
i)	Land use pattern of nearby village shall be studied and action plan for abatement and compensation for damage to agriculture land /common property land as applicable due to mining activity shall be submitted to the Regional office of the Ministry within six months. Annual status of implementation of the plan and expenditure thereon shall be reported to the regional office of the ministry.	Complied. It has been studied with EIA which submitted to concerned authority. Mining is being done as per IBM approved modified mining Plan so there is no damage to agriculture land /common property. Environmental expenditure is attached as Annexure-6 .
ii)	Need based assessment for the nearby villages shall be conducted to study economic measures which can help in upliftment of poor section of society such as development of fodder farm, fruit orchard, vocational training etc. Year wise allocation of funds for implementation of these economic measures shall be reported to the regional office of the ministry within six months.	Complying, Surrounding village people are sustaining their lively hood in this project. The literacy rate and better living standards enhanced due to increased earning capacity of villagers, better medical facility, and transportation and communication facilities. For socio economic development we have granted funds to the nearby villagers. A copy enclosed as Annexure-7 .
iii)	A no mining zone barrier of 50 m from the cannel passing through the lease areas on both sides shall be demarcated and the area shall be afforested with thick species of native vegetation.	Complied. In mining zone barrier of 50 m from the cannel passing through the lease areas on both sides has been demarcated and afforested with local species like Neem, Tapasi, and Gulmohar. Also, it is planned to shift the canal outside the lease area.
iv)	Recommendations of NEERI, Nagpur, as mentioned in their report on status of Environment –"Action plan " for the State of Karnataka, as be applicable to this project, shall be reported to the Regional office of the Ministry.	Not Applicable. As per the email communication dated 15.12.2009 with NEERI Director said, NEERI has not prepared any report on Status of Environment-Action for the State of Karnataka.
v)	Conservation plan for wildlife shall be prepared in consultation of with the Chief wild life warden and shall be implemented within six months. Necessary allocation of fund for implementation of the same and the status of implementation of the plan shall be reported to the regional office of the Ministry.	Not Applicable as there is no forest area nearby mining lease, however we had submitted an application to forest department on dated 25.08.2007, branch forest, Lokapur had inspected on 27.08.2007 and submitted a letter to zonal forest Mudhol 28.08.2007 and Zonal forest Mudhol had submitted its report to

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, Karnataka

MoEF Letter No. J-11015/384/2006-1A. II(M) /dated. 21st January 2008

		Deputy Conservator of Forest, Bagalkot Division, Bagalkot on dated 28.08.2007, detailed report as there is no schedule-I species are available in 10 KM radius area, hence no conservation plan for wild life for site is not applicable as per above statement.
vi)	Measures for control and preventions of soil erosion and management of silt shall be prepared and submitted to the Regional office of the ministry within six months	Complied. Soil erosion control measures have been mentioned in EIA which is already submitted to MOEF.
vii)	Water quality both for surface as well as ground water in the core zone shall be regularly monitored for contamination due to mining activity and records maintained. In case contamination is observed, measures for control and action taken shall be reported to the State Government as well as the Regional Office of the Ministry within six months.	Complying. Water quality is being monitored regularly and no contamination is observed. Water quality reports of surface (mine pit) as well as ground water in the core zone is attached as Annexure-5
viii)	Water bodies shall be developed and utilized to develop Pisciculture. Fishermen cooperative society shall be established with the land losers (if any) and specially the poorer section as members of society. Initial financial assistance either in the form of shared money or otherwise and managerial assistance shall be provided so that the members themselves can run the affairs of the society in due course. The project proponent shall arrange marketing tie up so that the society gets fair price of their produce and the profits are equitably shared by the members of the society as regular source of income.	Noted. During final closure of mine, Mining pit will be developed as water body and to be utilized to develop Pisciculture.
ix)	Action taken report on issues raised during the public hearing shall be submitted to the Ministry and the State Governments within six months.	Complied and it has been submitted.
x)	Occupational health and safety measures for the workers including training on malaria eradication, HIV, health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full-time doctor who is trained in occupational health surveillance. Records of the health of the workers shall be maintained.	Complying. Initial and periodical medical examinations of all mine's workers are being done on a regular basis as required under Mine Rule 1955 and training on various medical aspects is being imparted. The company has engaged a fulltime doctor who is trained in Occupational health surveillance. Records are being maintained.

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, KarnatakaMoEF Letter No. J-11015/384/2006-1A. II(M) /dated. 21st January 2008

xi)	Top soil/solid waste(if any) shall be stacked properly with proper slope and adequate safe guards and shall back filled for reclamation and rehabilitation of the mined area	Complying. Topsoil is being utilized for plantation and solid waste is being stacked properly with proper slope and adequate safe guards have been provided.
xii)	Over burden if any shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not be exceed 30m, each stage shall preferably be of 10m and overall slope of the dump shall not exceeded 28°. The OB dump shall be backfilled. The OB scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self – sustaining. Compliance status shall be submitted to the Ministry of Environment Forests on six monthly bases.	Complying. Over burden is being stacked at earmarked dump site as planned in mining plan. Presently, dumps are active. After completion of dumps, plantation will be done. Presently the dump height is 18 meters with two stages and overall slope is maintained less than 28°. The OB dump is being scientifically vegetated with suitable native species to prevent erosion and surface run off. Compliance report is being submitted to the ministry of environment and forest on six monthly basis.
xiii)	Garland drains shall be constructed to arrest silt and sediment flows from soil, and mineral dumps. The water so collected shall be utilized for watering the mine areas, roads, green belt development etc. The drains shall be regularly de-silted particularly after monsoon and maintained properly. Garland drain of appropriate size, gradient and length shall be designed keeping 50% safety margin over and above peak sudden rain fall (based on 50 years' data) and maximum discharge in the area adjoining the mine site. Sump capacity will also provide adequate retention period to allow proper settling of silt materials. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals. Check dams and gully checks shall be constructed across nallahs (if any) flowing through the lease area.	Complying. Garland drains have been made around dumps and pits. The collected water in the pit is being used for green belt development and spraying on haul roads for controlling fugitive dust emission. There is a seasonal nallah inside the mining lease and we are not disturbing it, 50m of area has left both side of season nallah as no mining area.
xiv)	Slope of mining bench and ultimate pit limit shall be as per the mining scheme approved by Indian Bureau of mines.	Complying. Slope of mining bench and ultimate pit limit are followed as per the mining plan approved by Indian Bureau of mines.
xv)	Green Belt Development shall be carried out considering CPCB guidelines including selection of plan species and in consultation with DFO. Herbs, shrubs shall also form a part of a forestation programme besides tree plantation. Plantation shall	Complying. Green Belt Development is being done with native species and in consultation with DFO as committed in Mining plan.

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, Karnataka

MoEF Letter No. J-11015/384/2006-1A. II(M) /dated. 21st January 2008

	be raised in 22.0 ha around the ML area, haul roads, OB dump sites etc. the density of the trees shall be not less than 2500 plants per ha. The company shall involve local people with the help of self-help group for plantation programme.	
xvi)	Details of the year wise afforestation programme already undertake as well as proposed to be taken of including rehabilitation of mined out areas shall be submitted to the Ministry within six months.	Complied. Details of the year wise afforestation programme is already submitted to MoEF and plantation is being done as per mining plan.
xvii)	The project authority shall implement suitable conservation measures to augment ground water resource in the areas in consultation with the Regional Director, Central Ground Water Board. Status of implementation shall be reported to the regional office of the Ministry from time to time.	Complying. Surface/rainwater harvested in pit recharges ground water as water percolates down wards due to inclined strata.
xviii)	Prior permission from the competent authority shall be obtained for extraction of ground water, if any.	Complied. Prior permission taken from Karnataka Ground water authority for extraction of ground water.
xix)	Drilling and blasting (if any) shall be conducted by using dust extractors/ wet drilling.	Complying. Wet drilling is being followed.
xx)	Vehicles used for transportation of ores and other mining operation shall have valid permission as prescribed under Central Motor Vehicles rules,1989 and its amendments. Transporting of ores shall be done covered with a tarpaulin or other suitable enclosures so that no dust particles /fine matters escape during the course of transportation. No overloading of ores for transportations shall be under taken.	Complying. Vehicles used for transportation of ores and other mining operation have valid permission as prescribed under Central Motor Vehicles rules,1989 and its amendments. It is ensured that no spillage is occurred during transportation.
xxi)	Village roads through which transportation of ores are being carried out shall be regularly maintained by the company at its own expenses.	Complying. Village roads through which transportation are being carried out shall be regularly maintained by the company at its own expenses.
xxii)	A final mine closure plan, along with details of corpus funds, shall be submitted to the Ministry of Environments &Forests within six months, in advance of final mine closure for approval.	Noted.
B	General Condition:	
i)	No change in mining technology and scope of working shall be made without prior approval of Ministry of Environment& Forests.	Agreed.
ii)	No change in calendar plan including excavation, quantum of mineral, limestone and waste shall be made.	Agreed.
iii)	Four Ambient Air Quality – monitoring station shall	Complied. Four Ambient Air Quality

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, Karnataka

MoEF Letter No. J-11015/384/2006-1A. II(M) /dated. 21st January 2008

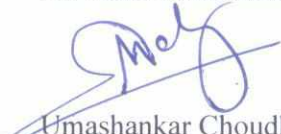
	be established in the core zone as well as in the buffer zone for RPM, SPM, SO ₂ , NO _x monitoring. Location of the stations should be decided based on the metrological data, Topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be under taken in consultation with the State Pollution Control Board.	monitoring stations have been established in the core and buffer zone.
iv)	Data on Ambient Air Quality (RSPM, SPM, SO ₂ , and NO _x) should be regularly submitted to the Ministry including its Regional Office located at Bangalore and the State Pollution Control Board/Central Pollution Control Boards once in six months.	Complying. Ambient air quality data is being submitted regularly to MoEF, Bangalore and SPCB/CPCB. AAQM data is attached as Annexure-2 .
v)	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	Complying. Water is spraying on the haul roads, loading and unloading points by tankers.
vi)	Measures shall be taken for control of noise level below 85 dBA in the work environments. Workers engaged in operations of HEMM, etc shall be provided with ear plugs/ muffs.	Complying, earplugs/ muffs have been provided.
vii)	Industrial wastewater (Works shop and waste water from the mine should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December 1993 or as amended from time to time. Oil and Grease trap shall be instilled before discharge of effluents.	Not applicable, there is no workshop in mines area and no wastewater discharged from mines.
viii)	Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information of Safety and Health aspects.	Complying. Personnel working in dusty areas have been provided with protective respiratory devices and imparted adequate training and information of Safety and Health aspects.
ix)	A separate Environmental Management cell with suitable qualified personnel shall be set up the control of Senior Executive, who will be report directly to the head of the organization.	Complied. A separate Environmental Management cell with suitable qualified personnel has been set up the control of Senior Executive, who is report directly to the head of the organization.
x)	The project authorities shall inform to the Regional Office of the Ministry located at Bangalore regarding date of financial closures and final approval of the project by the concern authorities and the date of start of land development work.	Complied.

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, Karnataka

MoEF Letter No. J-11015/384/2006-1A. II(M) /dated. 21st January 2008

xi)	The funds earmarked for Environmental Protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional office located at Bangalore.	Complied.
xii)	The project authorities shall informed to the Regional Office of the Ministry located at Bangalore regarding date of financial closures and final approval of the project by the concern authorities and the date of start of land development work.	Complied.
xiii)	The Regional Office of the Ministry, Bangalore shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer(s) of the Regional office by furnishing the requisite data/ information /monitoring reports.	Agreed.
xiv)	A copy of clearance letter will be marked to concerned panchayat /local NGO, if any from whom suggestion /representation has been received while processing the proposal.	Complied.
xv)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and collector's office /Tahsildar's office for 30 days.	Noted.
xvi)	The project authorities shall advertise at least in two local Newspapers widely circulated , one of which shall be in the vernacular languages of the localities concern within 7days of issue of the clearance letter informing that the project has been accorded Environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of the Environment & Forests at http: www.envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of the Ministry located at Bangalore .	Complied.

Yours faithfully
For Halki Limestone Mine


Umashankar Choudhary
(Unit Head)

Special Condition w.r.t office memorandum vide file no F. No. IA3-22/8/2021-1A.III [150512] dated 18.07.2022.

SI No.	Special Condition	Compliance
(I)	All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021.	We have conducted the awareness sessions among the people working within the Project area as well as its surrounding area on ban of single use plastic as per the Notification published by MoEF&CC on 12/08/2021 to ensure the compliance to sensitize the people and create the awareness among them.



Glimpse of awareness session on ban of SUP, Cotton Bags distribution and Sign board installation inside the offices.

HALKI LIMESTONE MINES, (KARNATAKA)

(Unit: Jk Cement Ltd.)

HALF YEARLY AAQM REPORT (SO₂, NO_x, PM₁₀, PM_{2.5}) FROM APRIL-2023 TO SEPTEMBER-2023

(ALL VALUES IN MICROGRAMS / CUBIC METER)

Month	Sl. No.	Date	Week	SO ₂				Nox				PM ₁₀				PM _{2.5}			
				Locations				Locations				Locations				Locations			
				A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
A p r i l	1	1.4.2023	1 st	8.2	6.8	8.0	9.2	18.2	16.8	18.0	19.2	71.8	71.8	70.5	89.6	41.7	25.0	28.3	37.5
	2	5.4.2023		7.5	8.0	7.3	8.0	17.2	18.0	17.3	18.0	79.5	69.9	80.3	70.2	45.8	20.8	37.5	41.7
	3	8.4.2023	2 nd	9.3	7.5	8.0	7.7	19.3	18.0	19.2	18.0	88.4	76.5	75.6	82.8	36.2	33.3	33.3	37.5
	4	12.4.2023		10.2	8.0	9.2	7.7	20.2	19.2	19.2	17.7	74.0	63.1	68.6	75.6	39.6	25.0	29.2	27.5
	5	15.4.2023	3 rd	6.8	7.0	8.0	6.3	16.8	17.7	18.0	16.7	88.6	84.6	71.6	81.9	31.7	27.5	31.0	33.3
	6	19.4.2023		8.7	8.0	7.8	5.8	18.7	18.0	18.0	15.5	83.2	78.5	77.3	89.1	29.2	37.5	30.7	25.0
	7	22.4.2023	4 th	9.0	9.0	9.2	6.7	19.0	19.0	18.8	16.5	71.7	87.4	81.8	73.8	45.8	52.5	35.4	37.5
	8	26.4.2023		7.5	8.8	8.2	8.0	17.5	18.5	18.2	18.0	85.0	71.7	73.7	80.3	50.0	29.2	41.7	29.2
	9	29.4.2023		6.5	8.0	10.2	8.2	16.8	18.8	20.2	18.2	70.7	76.9	89.2	77.4	43.3	50.0	45.8	50.0
M a y	1	03.5.2023	1 st	8.0	8.2	6.8	8.0	18.0	18.2	16.8	18.0	67.2	62.3	69.0	62.0	37.5	41.7	27.1	37.5
	2	06.5.2023		6.8	7.8	8.0	7.5	16.8	17.5	18.0	17.7	62.4	75.2	73.0	70.6	29.2	33.3	33.3	29.2
	3	10.5.2023	2 nd	7.7	7.0	7.0	7.3	17.2	17.0	17.0	17.5	52.0	81.7	62.7	66.5	22.5	27.5	37.5	37.5
	4	13.5.2023		7.0	8.8	7.8	5.8	17.0	18.8	16.8	15.5	58.8	72.9	59.1	76.6	33.3	37.5	25.0	22.9
	5	17.5.2023	3 rd	10.2	9.5	8.2	7.5	20.2	19.5	18.2	16.7	65.2	66.3	69.0	70.1	20.8	29.2	31.3	39.6
	6	20.5.2023		8.0	6.5	7.8	10.0	18.0	16.5	17.8	19.2	70.6	76.5	77.2	60.4	25.0	31.3	35.4	27.1
	7	24.5.2023	4 th	6.8	9.2	8.0	6.2	16.8	19.3	18.0	14.3	76.4	64.8	80.1	66.0	32.9	33.3	29.2	32.1
	8	27.5.2023		9.7	8.0	8.0	9.5	19.5	18.0	18.0	19.2	70.9	72.5	63.9	76.7	38.8	25.0	37.9	25.0
	9	31.5.2023		6.8	7.5	9.7	6.8	16.8	17.5	19.7	17.3	65.9	60.7	75.9	71.9	33.3	37.5	41.7	31.3
J u n e	1	3.6.2023	1 st	8.2	8.0	8.2	8.0	18.2	18.0	18.2	18.0	68.9	64.7	76.6	70.6	28.3	30.8	33.3	37.5
	2	7.6.2023		9.8	7.0	9.0	9.3	19.8	17.0	19.0	19.3	60.4	70.3	68.8	80.5	29.2	22.5	23.8	29.2
	3	10.6.2023	2 nd	10.0	5.8	7.7	10.0	20.0	15.8	17.7	20.0	65.3	56.7	72.1	85.8	33.3	35.0	26.7	33.3
	4	14.6.2023		7.8	9.0	8.5	11.5	17.8	19.0	18.2	20.3	57.2	69.2	71.8	76.1	41.7	33.3	37.5	39.2
	5	17.6.2023	3 rd	8.8	7.2	10.2	8.8	18.8	17.2	20.0	18.8	61.0	66.4	78.1	72.5	31.3	20.8	22.1	36.2
	6	21.6.2023		7.0	8.8	9.5	10.0	17.5	18.8	19.5	20.0	55.7	75.1	72.9	86.2	41.7	35.8	31.7	25.0
	7	24.6.2023	4 th	6.8	6.8	11.0	7.0	16.3	16.8	21.0	17.0	62.3	72.9	80.1	77.3	29.2	37.5	37.5	29.2
	8	28.6.2023		9.7	9.2	8.8	8.5	19.7	19.2	20.0	18.5	73.6	77.2	87.3	87.4	37.5	23.3	31.7	37.5
J u l y	1	1.7.2023	1 st	7.5	6.8	6.7	6.7	17.5	16.8	16.8	16.7	38.0	35.6	27.1	38.1	12.5	14.2	10.8	8.3
	2	4.7.2023		8.0	7.0	8.0	6.7	18.3	17.0	18.0	16.8	28.1	37.5	21.7	35.8	8.3	10.4	16.7	12.5
	3	8.7.2023	2 nd	9.2	8.0	7.0	5.8	19.2	18.0	17.0	15.7	36.9	42.1	35.6	42.7	12.5	6.3	13.3	10.4
	4	11.7.2023		6.8	9.0	6.5	7.0	17.2	19.0	16.5	17.0	42.0	31.2	43.7	30.9	8.3	9.2	14.2	11.7
	5	15.7.2023	3 rd	8.7	8.0	9.7	8.2	18.7	18.0	19.0	18.2	30.2	45.1	31.7	45.2	14.6	11.7	15.8	12.5
	6	18.7.2023		6.8	7.2	8.2	6.8	16.8	17.2	18.2	16.8	39.7	33.2	38.6	33.3	13.3	10.8	9.2	8.3
	7	22.7.2023	4 th	8.3	8.0	10.5	7.0	18.3	18.0	20.8	17.0	24.0	39.6	44.2	38.8	12.3	12.5	10.4	14.6
	8	25.7.2023		9.0	7.2	5.8	6.3	19.3	17.7	15.8	16.3	30.9	31.0	35.4	43.8	10.4	8.3	8.3	11.2
	9	29.7.2023		7.3	6.7	6.7	7.5	17.3	16.7	16.3	17.5	43.8	40.3	22.1	41.2	16.7	20.8	13.3	13.7
A u g u s t	1	2.8.2023	1 st	6.5	8.0	6.7	8.0	16.5	18.0	16.7	18.8	60.9	68.8	59.8	61.8	4.2	25.0	20.8	25.0
	2	5.8.2023		7.5	7.8	7.7	9.7	17.8	16.3	17.7	19.5	69.3	57.8	66.1	70.0	8.3	29.2	29.2	33.3
	3	9.8.2023	2 nd	6.7	8.0	8.0	10.2	16.8	18.0	18.0	19.0	55.4	59.1	55.7	74.4	12.5	20.8	25.0	29.2
	4	12.8.2023		7.5	9.0	5.5	7.7	17.5	18.0	15.5	17.7	67.2	72.4	70.0	61.1	16.7	16.7	33.3	29.2
	5	16.8.2023	3 rd	6.7	8.5	6.7	6.3	17.5	17.5	16.7	16.7	77.0	68.4	58.2	64.6	20.8	20.8	25.0	33.3
	6	19.8.2023		8.0	7.0	8.0	5.8	18.0	17.8	18.0	15.5	60.0	52.3	60.8	57.7	18.7	18.7	29.2	37.5
	7	23.8.2023	4 th	7.5	8.0	6.7	6.7	17.3	18.8	16.5	16.5	50.4	67.9	65.9	65.3	16.7	20.8	33.3	29.2
	8	26.8.2023		6.7	9.2	9.0	8.0	16.7	19.0	20.0	18.0	57.7	60.7	78.1	60.1	20.8	16.7	25.0	35.4
	9	30.8.2023		7.3	8.1	6.5	9.6	17.5	18.6	16.8	14.3	56.8	58.9	75.4	62.5	18.3	15.8	22.5	32.8
S e p t e m b e r	1	2.9.2023	1 st	6.0	7.3	5.8	6.7	17.0	17.3	17.2	17.8	67.9	72.2	70.4	58.3	20.8	29.2	20.8	20.8
	2	6.9.2023		7.2	8.2	7.2	8.0	17.8	18.8	18.0	18.0	62.7	58.8	72.5	73.6	33.3	20.8	33.3	25.0
	3	10.9.2023	2 nd	6.7	8.0	11.0	6.7	16.7	18.0	20.3	16.2	59.5	62.8	80.6	89.0	29.2	27.9	25.0	33.3
	4	13.9.2023		8.0	6.7	6.5	7.7	18.0	16.7	16.5	17.7	61.7	62.7	67.0	78.4	37.5	33.3	37.5	22.9
	5	16.9.2023	3 rd	7.7	7.5	8.0	5.8	17.7	17.5	17.8	15.8	82.8	71.2	74.5	62.3	33.3	25.0	29.2	33.4
	6	19.9.2023		8.2	8.0	6.8	8.3	18.2	18.0	16.7	19.0	69.4	89.2	79.4	69.9	25.0	37.5	27.9	28.5
	7	22.9.2023	4 th	9.2	6.0	8.0	8.0	19.3	17.8	18.0	18.0	76.4	60.5	88.2	74.4	45.8	16.7	23.3	30.7
	8	26.9.2023		6.7	7.0	7.3	8.7	16.8	17.3	17.3	19.5	69.4	72.1	84.3	70.1	25.0	37.5	26.7	29.2
	9	29.9.2023		7.5	8.0	9.8	6.8	19.0	18.0	18.2	16.7	57.0	77.6	78.7	76.5	37.5	25.0	31.7	37.5
Half Yearly Avg.				7.8	7.8	8.0	7.7	17.9	17.9	18.0	17.6	61.9	64.1	66.3	67.1	27.2	26.0	27.7	28.6
Half Yearly Min.				6.0	5.8	5.5	5.8	16.3	15.8	15.5	14.3	24.0	31.0	21.7	30.9	4.2	6.3	8.3	8.3
Half Yearly Max.				10.2	9.5	11.0	11.5	20.2	19.5	21.0	20.3	88.6	89.2	89.2	89.6	50.0	52.5	45.8	50.0

Note:- Location A-Near mines office
Location B-North boundary side
Location C-Halki village
Location D-Metgudda village


Vani Patil
Monitored by


Vinit Kumar Sharma
Checked by



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental laboratory. Recognized by MoEF & CC. Accredited by NABL (ISO/IEC: 17025)
vide certificate No: TC6152 and Certified by ISO (45001:2018)



Certificate No:TC6152

AIR QUALITY MONITORING DATA

Report No.: I A2

- Name of the Project : M/s. JK Cement Works, Muddapur.
- Name of the Client : M/s. JK Cement Works, Muddapur, (Unit: J.K.Cement Ltd),
P.O.Muddapur-587122, Dist.Bagalkot (Karnataka) India
- Sample Collected By : Cosmo Conscious Research Laboratory
- Particulars of Sample Collected : Ambient Air Quality Monitoring
- Sample Condition : Satisfactory
- Analysis Start Date : 29.09.2023
- Analysis Completion Date : 04.10.2023
- Month of Monitoring : September 2023
- Environmental condition at the time of sampling : 28.2°C
- Unique Lab Report Number : TC6152230000006547F

Name of the Station/ Date of Sample Collection	Lab Sample Code	Particulars of Sample Collected			
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
AAQM Locations for Halki Mines		NAAQ standards 2009			
		80 (µg/m3)	80 (µg/m3)	100 (µg/m3)	60 (µg/m3)
AV- Near Halki mines office					
29.09.2023	388, 388, C06, 241	11	15	40	20
AVI- North Boundary Side					
29.09.2023	389, 389, C05, 240	12	19	55	30
AVII-Halki Village					
28.09.2023	386, 386, C13, 244	14	17	50	28
AVIII- Metgudda Village					
28.09.2023	383, 383, C08, 242	11	13	45	18

END OF REPORT

Note: 1. SO₂ – Sulfur Dioxide, NO₂ – Nitrogen Dioxide, PM₁₀ – Particulate Matter (size less than 10 µm), PM_{2.5} – Particulate Matter (size less than 2.5 µm).

2. The above results are related only to the samples collected & tested on the particular date and time.

3. RA – Reaffirmed.

ANALYZED BY:

(G.Dhavaleshwar)
Analyst

VERIFIED BY:

(P.Harika)
Technical Manager

AUTHORISED SIGNATORY:

(M. Shashikala)
Head of the Laboratory

2 of 21



"SURVEY HOUSE", # 121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)

Ph: 08392 255744, Website: www.tsccl.com email:

chiefexecutive@tsccl.com

DQS Inc.



CCRL
OHSAS 18001:2007



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental laboratory, Recognized by MoEF & CC, Accredited by NABL (ISO/IEC: 17024)
Vide certificate No: TC 6152 and Certified by ISO (45001:2018)



Certificate No: TC 6152

AIR QUALITY MONITORING DATA

Report No.: I A1

1. Name of the Project : JK Cements Works
M/s. JK Cements Works, Muddapur,
(Unit: J.K.Cement Ltd),
2. Name of the Client : P.O.Muddapur-587122,
Dist.Bagalkot (Karnataka) India
3. Sample Collected By : Cosmo Conscious Research Laboratory
4. Particulars of Sample Collected : Source Emission Air Quality Monitoring
5. Sample Condition : Satisfactory
6. Analysis Start Date : 17.08.2023
7. Analysis Completion Date : 19.08.2023
8. Month of Monitoring : August 2023
9. Environmental condition at the time : 29°C
10. Unique Lab Report Number : TC6152230000006521F

Name of the Station/ Date of Sample Collection	Lab Sample Code	Particulars of Sample Collected			
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
AAQM Locations for Cement Plant					
AI- Admin Building					
16.08.2023	345, 345, C21, 955	15	11	43	16
All- Guest House					
16.08.2023	346, 346, C20, 957	13	11	57	15
AIII-Muddapur Village					
18.08.2023	353, 353, C15, 249	12	13	60	20
AIV- Bomanbudhini Village					
18.08.2023	354, 354, C14, 958	25	16	49	14
AAQM Locations for Halki Mines					
AV- Near Halki mines office					
16.08.2023	347, 347, C23, 960	20	16	45	11
AVI- North Boundary Side					
16.08.2023	348, 348, C22, 956	25	17	59	12
AVII-Halki Village					
17.08.2023	350, 350, C16, 952	23	21	55	13
AVIII- Metgudda Village					
17.08.2023	349, 349, C18, 953	13	17	44	15

Contd...

1 of 27



"SURVEY HOUSE", #121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)
Ph: 08392 255744, Website: www.hccrl.com email: chiefexecutive@hccrl.com



DQS Inc.
CCRL
OHSAS 18001:2007



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental Laboratory, Recognized by MoEF & CC, Accredited by NABL (ISO/IEC: 17025)
also certified by MoEF & CC and Certified by ISO (45001:2018)



Certificate No: C6152

Name of the Station/ Date of Sample Collection	Lab Sample Code	Particulars of Sample Collected			
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
AAQM Locations for Muddapur Mines					
AIX-Near Muddapur Mines Office					
18.08.2023	355, 355, C16, 959	17	16	53	19
AX- Petlur					
17.08.2023	352, 352, C17, 957	13	21	51	14
AXI-Thimmapur Village					
17.08.2023	351, 351, C19, 954	12	18	53	19
AXII- D-Colony, D-block quarters					
18.08.2023	356, 356, C12, 256	13	17	57	14

END OF REPORT

Note: 1. SO₂ - Sulfur Dioxide, NO₂ - Nitrogen Dioxide, PM₁₀ - Particulate Matter (size less than 10 µm), PM_{2.5} - Particulate Matter (size less than 2.5 µm).

2. The above results are related only to the samples collected & tested on the particular date and time.

3. RA - Reaffirmed.

ANALYZED BY:

N.R.
(B. Maruthi Rao)
Analyst

VERIFIED BY:

P. Harika
(P. Harika)
Technical Manager

AUTHORISED SIGNATORY:

M. Shashikala
(M. Shashikala)
Head of the Laboratory



AIR QUALITY MONITORING DATA

Report No.: I A1

1. Name of the Project : JK Cements Works
M/s. JK Cements Works, Muddapur,
(Unit: J.K.Cement Ltd),
2. Name of the Client : P.O.Muddapur-587122
Dist.Bagalkot (Karnataka) India
3. Sample Collected By : Cosmo Conscious Research Laboratory
4. Particulars of Sample Collected : Source Emission Air Quality Monitoring
5. Sample Condition : Satisfactory
6. Analysis Start Date : 10.07.2023
7. Analysis Completion Date : 10.07.2023
8. Month of Monitoring : July 2023
9. Environmental condition at the time : 26.5°C

Name of the Station/ Date of Sample Collection	Particulars of Sample Collected			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
AAQM Locations for Cement Plant				
AI- Admin Building				
03.07.2023	13	20	52	15
AII- Guest House				
03.07.2023	19	11	48	19
AIII-Muddapur Village				
07.07.2023	13	17	56	12
AIV- Bomanbudhini Village				
04.07.2023	17	14	50	11

Contd...



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental Laboratory, Registered by MoF & EC Accredited by NABL (ISO/IEC 17025)
Laboratory No. TC6152 and Certified by ISO (45001:2018)



Certificate No:TC6152

Name of the Station/ Date of Sample Collection	Particulars of Sample Collected			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
AAQM Locations for Halki Mines				
AV- Near Halki mines office				
06.07.2023	16	11	50	16
AVI- North Boundary Side				
04.07.2023	18	18	59	21
AVII-Halki Village				
05.07.2023	12	20	55	19
AVIII- Metgudda Village				
04.07.2023	15	12	56	17
AAQM Locations for Muddapur Mines				
AIX-Near Muddapur Mines Office				
07.07.2023	19	14	51	17
AX- Petlur				
05.07.2023	19	13	51	15
AXI-Thimmapur Village				
04.07.2023	13	19	59	18
AXII- D-Colony, D-block quarters				
04.07.2023	18	20	54	17

END OF REPORT

Note: 1. SO₂ – Sulfur Dioxide, NO₂ – Nitrogen Dioxide, PM₁₀ – Particulate Matter (size less than 10 µm), PM_{2.5} – Particulate Matter (size less than 2.5 µm).

2. The above results are related only to the samples collected & tested on the particular date and time.

3. RA – Reaffirmed.

ANALYZED BY:

(B. Maruthi Rao)
Analyst

VERIFIED BY:

(P. Harika)
Technical Manager

AUTHORISED SIGNATORY:

(M. Shashikala)
Head of the Laboratory

2 of 23



"SURVEY HOUSE", #121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)

Ph: 08392 255744; Website: www.tscrl.com; email: chiefexecutive@tscrl.com

DQS Inc.



CCRL
OHSAS 18001:2007

HALKI LIME STONE MINES, (KARNATAKA)

(Unit : J.K. Cement Ltd.)

Half Yearly Fugitive Emission Monitoring Report of Halki mines for the month of April-2023 to September-2023

Sl. No.	MONTH/YEAR	SPM (µg/m ³)				
		Loading Area	Drilling Area	Haulage Area	Waste Dumping Site	Service Road
1	Apr-23	505.88	525.98	571.07	498.58	537.64
2	May-23	543.02	537.75	526.79	516.53	550.96
3	Jun-23	529.23	487.59	531.85	572.54	505.34
4	Jul-23	591.9	538.3	549.0	554.1	584.0
5	Aug-23	504.6	521.0	574.1	586.0	566.4
6	Sep-23	599.8	570.3	529.8	549.9	590.0
Minimum		504.65	487.59	526.79	498.58	505.34
Maximum		599.79	570.33	574.09	586.00	589.99
Average		545.74	530.16	547.09	546.28	555.73


Vani Patil
Monitored by


Vinit Kumar Sharma
Checked by



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental laboratory Recognized by MoEF & CC, Accredited by NABL (ISO/IEC 17025)
vide certificate No. TC6152 and Certified by ISO (45001:2018)

Annexure - 3

Fugitive Report of Halki Mine

1. Name of the Industry : M/s. JK Cement Works
2. Address : M/s. JK Cement Works, Muddapur,
(Unit: J.K.Cement Ltd), P.O. Muddapur-
587122, Dist. Bagalkot (Karnataka) India
3. Sample collected by : Cosmo Conscious Research Laboratory
4. Name of the Location : Halki Mine

Sl. No.	MONTH/YEAR	SPM ($\mu\text{g}/\text{m}^3$)				
		Loading Area	Drilling Area	Haulage Area	Waste Dumping Site	Service Road
1	Aug-23	463.5	533.6	584.2	505.2	526.4

End of Report

Note:

1. The above results are related only to the samples collected & tested on the particular date and time.

ANALYZED BY:

(Harika P.)
Analyst

AUTHORISED SIGNATORY:

(M. Sashikala)
Head of the Laboratory

1 of 1



"SURVEY HOUSE", #121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)

Ph: 08392 255744, Website: www.tsccl.com email:
chiefexecutive@tsccl.com



OHSAS 18001:2007

Halki Limestone Mines (Karnataka)

(Unit: J.K. Cement Ltd.)

Noise monitoring report of Halki mines (Core zone) for the month of April-2023 to September-2023

Sl.No.	Time	Month	Halki Mines boundary	Halki Mines Office	Halki mines Drilling Time	Halki mines Waste dumping site	Halki mines Service Road	Excavator
1	Day	Apr-23	64.8	62.4	81.5	64.5	74.8	83.4
	Night		60.7	58.2	-	-	-	-
2	Day	May-23	67.7	62.8	82.8	66.7	72.7	82.8
	Night		64.6	58.7	-	-	-	-
3	Day	Jun-23	70.2	65.8	80.6	68.7	75.5	83.5
	Night		68.5	62.8	-	-	-	-
4	Day	Jul-23	68.7	66.4	82.5	67.4	78.7	82.3
	Night		66.5	64.6	-	-	-	-
5	Day	Aug-23	66.8	65.2	81.8	67.4	75.2	80.4
	Night		64.2	62.8	-	-	-	-
6	Day	Sep-23	67.5	64.7	80.5	68.3	74.6	82.5
	Night		65.8	62.6	-	-	-	-
Average	Day	Day	67.6	64.6	81.6	67.2	75.3	82.5
	Night	Night	65.1	61.6	-	-	-	-
Minimum	Day	Day	64.8	62.4	80.5	64.5	72.7	80.4
	Night	Night	60.7	58.2	-	-	-	-
Maximum	Day	Day	70.2	66.4	82.8	68.7	78.7	83.5
	Night	Night	68.5	64.6	-	-	-	-

Monitored by



Vaan Patil

 Vinit Kumar Sharma
 Checked by





COSMO CONSCIOUS RESEARCH LABORATORY

Environmental laboratory. Recognized by MoEF & CC Accredited by NABL (ISO/IEC 17025)
vide certificate No: 1C6152 and Certified by ISO (45001:2018)

Annexure - 4

Noise Report of Halki Mine

1. Name of the Industry : M/s. JK Cement Works
M/s. JK Cement Works,
2. Address : Muddapur, (Unit: J.K.Cement
Ltd), P.O. Muddapur-587122,
Dist. Bagalkot (Karnataka)
India
3. Sample collected by : Cosmo Conscious Research
Laboratory
4. Name of the Location : Halki Mine

Sl.No.	Time	Month	Halki Mines boundary	Halki Mines Office	Halki mines Drilling Time	Halki mines Waste dumping site	Halki mines Service Road	Excavator
1	Day	Jul-23	68.7	66.4	82.5	67.4	78.7	82.3
	Night		66.5	64.6	-	-	-	-
2	Day	Aug-23	66.8	65.2	81.8	67.4	75.2	80.4
	Night		64.2	62.8	-	-	-	-
3	Day	Sep-23	67.5	64.7	80.5	68.3	74.6	82.5
	Night		65.8	62.6	-	-	-	-
Average		Day	67.7	65.4	81.6	67.7	76.2	81.7
		Night	65.5	63.3	-	-	-	-
Minimum		Day	66.8	64.7	80.5	67.4	74.6	80.4
		Night	64.2	62.6	-	-	-	-
Maximum		Day	68.7	66.4	82.5	68.3	78.7	82.5
		Night	66.5	64.6	-	-	-	-

End of Report

Note:

1. The above results are related only to the samples collected & tested on the particular date and time.

ANALYZED BY:

(Harika.P)
Analyst

AUTHORISED SIGNATORY:

(M.Sashikala)
Head of the Laboratory

1 of 1



"SURVEY HOUSE", #121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)

Ph: 08392 255744, Website: www.tscrl.com email: chiefexecutive@tscrl.com



OHSAS 18001:2007

HALKI LIMESTONE MINE, (KARNATAKA)

(Unit: J.K. Cement Ltd.)

Water analysis report of Core and Buffer Zone (Avg of April-2023 to September-2023)

Sample collected from											
Core Zone & Buffer Zone											
Sl. No.	Constituents	Desirable Limit	Core Zone			Buffer Zone					
			Halki mines pit	Halki Mines	Pettur	Metgud	Ningapur	Bamanbudini	Halki	Thimmapur	
1	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
3	Total Dissolved Solids	500	535.2	536.4	556.5	504.9	550.9	530.6	530.8	529.2	
4	Turbidity	5 NTU	2.1	2.1	1.9	1.6	2.0	1.7	2.0	1.9	
5	pH	6.5-8.5	7.6	7.5	7.4	6.6	7.0	7.0	7.3	7.0	
6	Total Hardness	300	360.3	323.8	308.3	298.1	317.0	321.6	317.1	321.1	
7	Calcium	75	75.0	73.3	73.2	77.6	76.7	75.1	77.9	71.2	
8	Magnesium	30	37.5	32.5	35.6	33.2	33.2	32.5	38.9	34.8	
9	Alkalinity	200	323.8	322.4	278.5	281.4	330.5	277.9	327.2	315.0	
10	Chloride	250	83.2	91.8	68.7	73.6	79.7	77.5	86.8	78.3	

Note: 1- The Above analysis have been carried out as per IS-10500.

2- Observed Concentration in mg/liter except pH and Turbidity.


Vinit Kumar Sharma
Analysed By


Vinit Kumar Sharma
Checked By



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental laboratory, Recognized by MoEF & CC Accredited by NABL (ISO/IEC: 17025)
vide certificate No-TC6152 and Certified by ISO (45001:2018)



Certificate No: TC 6152

WATER QUALITY MONITORING DATA

Report no: II C1

1. Name of the Project : Halki Lime Stone Mine
2. Address : M/s. JK Cements Works, Muddapur,
(Unit: J.K.Cement Ltd),
P.O.Muddapur-587122,
Dist.Bagalkot(Karnataka) India
3. Sample collected by : Cosmo Conscious Research Laboratory
4. Name of the Location : Mine Pit -2
5. Particulars of sample collected : Surface water
6. Field Sample code : JKSW4
7. Lab Sample Code : CCRL W 9257B
8. Date of sample collection : 31.08.2023
9. Date of sample Received : 31.08.2023
10. Date of sample Analyzed : 31.08.2023 to 07.09.2023
11. Method of Sampling : IS:3025 (Part 1) 1987 (Reaffirmed 2017)
12. Environmental Condition at the time of Sampling : 28.9°C
13. Unique Lab Report Number : TC6152230000006525F

Sl. No.	Parameters	Protocol	Unit of Measurement	Results	Drinking water specification Standards as per IS:10500:2012	
				Aug.'23	Desirable Limits	Permissible Limits
PHYSICAL						
1.	Colour	IS: 3025 (PART 4)- 1984, RA-2012, Platinum cobalt Method	Hazen units	1	5	15
2.	Conductivity	IS:3025 (PART 14)-1984, RA-2013, Electrometric method	µs/cms	937	-	-
3.	Total Dissolved Solids	IS:3025 (part 16)-1984, RA-2012, Gravimetric method	mg/L	663	500	2000
4.	pH	IS:3025 (part 11)-1983, RA-2012, Electrometric method	-	7.34	6.5 to 8.5	No relaxation
5.	Turbidity	IS:3025 (part 10)-1984, RA-2012, Nephelometric method	NTU	1.4	1	5
CHEMICAL						
7.	Phosphorous as P	IS:3025 (part 31)-1988, RA-2014 Stannous chloride method	mg/L	0.064	-	-
8.	Sodium as Na	IS:3025 (part 45)-1993, RA-2014 Flame Emissionphotometric method	mg/L	101.60	-	-
9.	Potassium as K	IS:3025 (part 17)-1984,, RA-2014 Flame Emission photometric method	mg/L	4.60	-	-
10.	Calcium as Ca	IS:3025 (part 40)-1991, RA-2014 EDTA Titrimetric method	mg/L	60.12	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 3500-B-Mg By calculation	mg/L	32.03	30	100
12.	Total Hardness as CaCO ₃	IS:3025 (part 21)-1983, RA-2014 EDTA Titrimetric method	mg/L	282	200	600
13.	Chloride as Cl	IS:3025 (part 32)-1988, RA-2014 Argentometric Method	mg/L	144.96	250	1000
14.	Sulphate as SO ₄	APHA 23 rd Edition 4500-SO ₄ ²⁻ -E (P.NO.4-190-191) Turbidimetric method	mg/L	42.58	200	400

Contd...

8 of 27



"SURVEY HOUSE", # 121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)

Ph: 08392 255744. Website: www.tscrl.com email: chiefexecutive@tscrl.com



CCRL
OHSAS 18001:2007



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental Laboratory has been established by MoU & C.E. Accredited by NABL (ISO/IEC: 17025)
Valid certificate No. 17A152 and certified by ISO 14001:2015



Certificate No. 17A152

Sl. No.	Parameters	Protocol	Unit of Measur ement	Results	Drinking water specification Standards as per IS:10500:2012	
				Aug.'23	Desirable Limits	Permissible Limits
CHEMICAL						
15.	Fluoride as F	APHA 23 rd Edition 4500-F D. (P.NO. 4-87 - 88)SPADNS Method	mg/L	0.63	1	1.50
16.	Nitrate Nitrogen as NO ₃	IS:3025 (part 34)-1988, RA-2014 Chromotropic acid method	mg/L	1.78	45	No relaxation
17.	Total Alkalinity as CaCO ₃	IS:3025 (part 23)-1986, RA-2014 Indicator method	mg/L	205	200	600
TRACE METALS						
18.	Total Iron as Fe	APHA 23 rd Edition 3111B (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.30	No relaxation
19.	Nickel as Ni	APHA 23 rd Edition 3111B (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.02	No relaxation
20.	Manganese as Mn	APHA 23 rd Edition 3111B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	0.174	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.01	No relaxation
24.	Chromium as Cr	APHA 23 rd Edition 3111 B. (p.no.3-18) Direct Air Acetylene Flame Method	mg/L	BDL	0.05	No relaxation

END OF REPORT

Note: 1. BDL: Below detectable limit. (For trace metals <0.1).

RA: Reaffirmed.

2. The above results are related only to the samples collected & tested on the particular Date and time.

ANALYZED BY:

1. (K. Somasekhar Rao)

Analyst

2. (G. Dhavaleshwar)

Analyst

VERIFIED BY:

(P. Harika)

Technical Manager

AUTHORISED SIGNATORY:

(M. Shashikala)
Head of the Laboratory



WATER QUALITY MONITORING DATA

Report no: II B1

1. Name of the Project : Halki Lime Stone Mine
M/s. JK Cements Works, Muddapur,
(Unit: J.K.Cement Ltd),
P.O.Muddapur-587122,
Dist.Bagalkot(Karnataka) India
2. Address : Cosmo Conscious Research Laboratory
3. Sample collected by : Mine Pit -1
4. Name of the Location : Surface water
5. Particulars of sample collected : JKSW3
6. Field Sample code : CCRL W 9257A
7. Lab Sample Code : 31.08.2023
8. Date of sample collection : 31.08.2023
9. Date of sample Received : 31.08.2023 to 07.09.2023
10. Date of sample Analyzed : IS:3025 (Part 1) 1987 (Reaffirmed 2017)
11. Method of Sampling : 28.9°C
12. Environmental Condition at the time of Sampling : TC6152230000006524F
13. Unique Lab Report Number

Sl. No.	Parameters	Protocol	Unit of Measure ment	Results	Drinking water specification Standards as per IS:10500:2012	
				Aug.'23	Desirable Limits	Permissible Limits
PHYSICAL						
1.	Colour	IS: 3025 (PART 4)- 1984, RA-2012, Platinum cobalt Method	Hazen units	2	5	15
2.	Conductivity	IS:3025 (PART 14)-1984, RA-2013, Electrometric method	µs/cms	3450	-	-
3.	Total Dissolved Solids	IS:3025 (part 16)-1984, RA-2012, Gravimetric method	mg/L	2410	500	2000
4.	pH	IS:3025 (part 11)-1983, RA-2012, Electrometric method	-	7.04	6.5 to 8.5	No relaxation
5.	Turbidity	IS:3025 (part 10)-1984, RA-2012, Nephelometric method	NTU	1.0	1	5
CHEMICAL						
7.	Phosphorous as P	IS:3025 (part 31)-1988, RA-2014 Stannous chloride method*	mg/L	0.048	-	-
8.	Sodium as Na	IS:3025 (part 45)-1993, RA-2014 Flame Emissionphotometric method	mg/L	175.20	-	-
9.	Potassium as K	IS:3025 (part 17)-1984,, RA-2014 Flame Emission photometric method	mg/L	4.00	-	-
10.	Calcium as Ca	IS:3025 (part 40)-1991, RA-2014 EDTA Titrimetric method	mg/L	161.12	75	200
11.	Magnesium as Mg	APHA 23 rd Edition 3500-B-Mg By calculation	mg/L	72.77	30	100
12.	Total Hardness as CaCO ₃	IS:3025 (part 21)-1983, RA-2014 EDTA Titrimetric method	mg/L	702	200	600
13.	Chloride as Cl	IS:3025 (part 32)-1988, RA-2014 Argentometric Method	mg/L	434.87	250	1000
14.	Sulphate as SO ₄	APHA 23 rd Edition 4500-SO ₄ ²⁻ -E (P.NO.4-190-191) Turbidimetric method	mg/L	88.73	200	400

Contd...



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental Laboratory Recognized by MoEF & CC Accredited by NABL (ISO/IEC: 17025)
Vide Certificate No. TC-6752 and Certified by ISO 14001:2015



Certificate No: TC6152

Sl. No.	Parameters	Protocol	Unit of Measurement	Results	Drinking water specification Standards as per IS:10500:2012	
				Aug.'23	Desirable Limits	Permissible Limits
CHEMICAL						
15.	Fluoride as F	APHA 23 rd Edition 4500-F D. (P.NO. 4-87 - 88)SPADNS Method	mg/L	1.05	1	1.50
16.	Nitrate Nitrogen as NO ₃	IS:3025 (part 34)-1988, RA-2014 Chromotropic acid method	mg/L	1.82	45	No relaxation
17.	Total Alkalinity as CaCO ₃	IS:3025 (part 23)-1986, RA-2014 Indicator method	mg/L	140	200	600
TRACE METALS						
18.	Total Iron as Fe	APHA 23 rd Edition 3111B (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.30	No relaxation
19.	Nickel as Ni	APHA 23 rd Edition 3111B (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.02	No relaxation
20.	Manganese as Mn	APHA 23 rd Edition 3111B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.10	0.30
21.	Copper as Cu	APHA 23 rd Edition 3111B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.05	1.50
22.	Zinc as Zn	APHA 23 rd Edition 3111 B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	5	15
23.	Lead as Pb	APHA 23 rd Edition 3111 B. (p.no.3-19) Direct Air Acetylene Flame Method	mg/L	BDL	0.01	No relaxation
24.	Chromium as Cr	APHA 23 rd Edition 3111 B. (p.no.3-18) Direct Air Acetylene Flame Method	mg/L	BDL	0.05	No relaxation

END OF REPORT

Note: 1. BDL: Below detectable limit. (For trace metals <0.1).

RA: Reaffirmed.

2. The above results are related only to the samples collected & tested on the particular Date and time.

ANALYZED BY:

1. (K. Somasekhar Rao)
Analyst

2. (G. Dhavaleshwar)
Analyst

VERIFIED BY:

(P. Harika)
Technical Manager

AUTHORISED SIGNATORY:

(M. Shashikala)
Head of the Laboratory



COSMO CONSCIOUS RESEARCH LABORATORY

Environmental laboratory Recognized by MoEF & CC, Accredited by NABL (ISO/IEC: 17025)
vide certificate No. 1C 6152 and Certified by ISO (45001:2018)

Water Report of Halki Mine (Core and Buffer Zone)

1. Name of the Industry : M/s. JK Cement Works
2. Address : M/s. JK Cement Works, Muddapur,
(Unit: J.K.Cement Ltd), P.O. Muddapur-
587122, Dist. Bagalkot (Karnataka) India
3. Sample collected by : Cosmo Conscious Research Laboratory
4. Name of the Location : Halki Mine

Sl. No.	Constituents	Desirable Limit	Average of July-2023 to September-2023							
			Core Zone		Buffer Zone					
			Halki mines pit	Halki Mines	Petlur	Metgud	Ningapur	Bamanbudini	Halki	Thimmapur
1	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Total Dissolved Solids	500	525.2	516.4	459.3	486.3	510.9	532.6	510.8	521.2
4	Turbidity	5 NTU	2.2	1.7	1.6	1.4	1.5	1.4	1.2	1.6
5	pH	6.5-8.5	7.6	7.5	7.2	6.7	7.1	7.2	6.9	7.1
6	Total Hardness	300	330.3	313.8	298.3	258.1	267.4	267.5	298.1	283.4
7	Calcium	75	72.2	68.4	65.4	55.7	67.4	69.2	65.7	59.3
8	Magnesium	30	28.4	29.8	23.3	25.6	21.6	27.4	27.4	22.5
9	Alkalinity	200	313.8	222.4	178.5	181.4	230.5	207.9	227.2	215.0
10	Chloride	250	83.2	108.4	78.4	87.9	87.3	87.3	110.5	72.4

End of Report


Note:

1. The above results are related only to the samples collected & tested on the particular date and time.

ANALYZED BY:


(G. Dhavalshwar)
Analyst

AUTHORISED SIGNATORY:


(M. Sashikala)
Head of the Laboratory

1 of 1



"SURVEY HOUSE", #121, 2nd Cross, Nehru Colony, Ballari-583103 (Karnataka)

Ph: 08392 255744, Website: www.tscrl.com email: chiefexecutive@tscrl.com



OHSAS 18001:2007

M/s. J K Cement Works Muddapur**Environmental Expenditure for Halki Limestone Mine-2344(A)****Apr 2023 to Sep 2023**

Sl. No.	Particulars	Cost (In Rs.)	Remarks
1	Pollution Control	3017550.00	Water tankers
2	Pollution Monitoring	83050.00	
3	Occupational Health & Safety	0.00	
4	Green belt	250000.00	Plantation & Gardener Salary
5	Reclamation	0.0	
6	Others	103500.00	JCB
	Total	34,54100.00	Rupees Thirty Four Lacs Fifty Four Thousand & One Hundred Only



Mines Manager

Halki Limestone Mine

Annexure-7

JK CEMENT WORKS, MUDDAPUR

DETAILS OF CSR ACTIVITY UNDERTAKEN DURING APRIL-2023 TO SEPTEMBER-2023

SL NO	Particulars	Amount (RS)
1	Running and maintenance of Sir Padampat School	499,087
2	Education aid and support	540,000
3	Pooja/ Fair/Festival/temple contributions	290,240
4	Rural development & other welfare activities	914,817
5	Promoting Rural sports, Nationally recognized sports	316,500
Total		2,560,644



Prepared by



Checked By