

No.JKCW/ENV/2021-22/ EC Compliance/2nd Half(MINE)/93/11

Date : 25-05-2022

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 Oct-2021 to Mar-2022 (2nd 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 **Oct-2021 to Mar-2022 (2nd 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. – EC Compliance report, Socio-economic development report & six monthly manual AAQ monitoring, fugitive emission, noise monitoring, Water Analysis report and six monthly environmental expenditures.

CC:

- 1- The Addl. Principal Chief Conservator of Forest (C), Ministry of Environment & Forest, Regional Office (South Zone), Koramangala, Bangalore.



Corporate Office

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- 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

Corporate Office

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

MoEF Letter No. J-11015/384/2006-1A.II(M) /dtd. 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.N.	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 month. 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.
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. The impacts of mining projects are positive. Surrounding people are sustaining their livelihood in this project. The literacy rate and the better living standards are enhanced due to increased earning capacity of the villagers, better medical facility and transportation facilities. For socio economic development we have granted funds to the nearby villagers. A copy attached as Annexure-1 .
iii)	A no. of 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. A no. of mining zone barrier of 50 m from the cannel passing through the lease areas on both sides is demarcated and afforested with local species like neem, tapsi, 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
v)	Conservation plan for wild life 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.
vi)	Measures for control and preventions of soil erosion and management of silt shall be prepared and submitted to the Regional office	Complied. Soil erosion control measures have been mentioned in EIA which is already submitted to MOEF.

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

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

	of the ministry within six months	
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 has been observed. Water quality reports of surface (mine pit) as well as ground water in the core zone is attached as Annexure- 2
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 other wise 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.	To be complied. At the 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 examination of the mine workers is being carried out on regular basis as required under Mine Rule 1955 and training on various medical aspects are being given. The company has engaged full time trained doctor for occupational health surveillance. Records are being maintained.
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. Top soil 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	Complying. Over burden is being stacked at earmarked dump site as planned in the mining plan. Presently dumps are active. After completion of dumps, plantation will be done. Presently dump height is 18 mts with

Halki Limestone Mine(2344(A), Village- Halki, Taluk- Mudhol, Dist.- Bagalkot, Karnataka
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	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.	two stages and overall slope is maintained less than 28°. The OB dump is scientifically vegetated with suitable native species to prevent erosion and surface run off. Compliance report is being submitted to the Ministry of Environment Forests 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 utilised 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 pit. 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 no nallah within the lease 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 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.	Complying. Green Belt Development is being done with native species and in consultation with DFO as committed in Mining plan.
xvi)	Details of the year wise a forestation programmed already under take 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 a forestation programme is already submitted to MoEF and Plantation is being done as per mining plan.

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

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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/Rain water harvested in pits recharges ground water as it percolates downwards due to inclined strata.
xviii)	Prior permission from the competent authority shall be obtained for extraction of ground water, if any.	Complied. We have obtained permission from Karnataka Ground Water Authority, Bagalkot vide letter no. SG/GWB/NOC/Halki/2020-21/373, dated: 12-01-2021. Presently we are utilizing borewell for only domestic requirement and greenery. we are utilizing rain water harvested in the mines pit for dust suppression and plantation.
xix)	Drilling and blasting (if any) shall be conducted by using dust extractors/ wet drilling.	Complying. Wet drilling is being done.
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 of ores are being carried out are 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.	Will be followed at the time of mine closure.
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 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	Complied. Four Ambient Air Quality – monitoring stations have been established.

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	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.	
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 to MoEF, Bangalore and SPCB/CPCB on six monthly basis. AAQM data is attached as Annexure-3
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.	Being Complied. Water is sprayed 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.	Being complied, earplugs/ muffs have been provided.
Vii)	Industrial waste water (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 waste water 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 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.
xi)	The funds earmarked for Environmental	Complied.

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	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.	
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.	Agreed
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.

Thanking you,

Yours Faithfully,
For Halki Limestone Mine


Umashankar Choudhary
(Unit Head)

Annexure-1

J K CEMENT WORKS, MUDDAPUR

DETAILS OF CSR ACTIVITY UNDERTAKEN DURING October '2021 TO March'2022		
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


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Recognized by MoEF

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



TC-6224

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

ANALYSIS REPORT OF GROUND WATER QUALITY

1. Name of the Industry : Halki Limestone Mine of M/s. JK Cements Ltd.
2. Sample Collected By : Halki Ningapur Village, Mudhol Taluk, Bagalkot District
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 : 30.12.2021
7. Discipline : APHA 23RD Edition - 1060 B
8. Group : Chemical
9. Test Report Number : Water
10. ULR Number : STLPL/JKC/GW/2021/12/1123
11. Lab code : TC622421000001123F
12. Report Issued Date : 843/13
13. Report Issued Date : 15.01.2022

Sl. No	Parameters	Protocol	Unit	Result	Standards As per IS:10500:2012	
				Halki Mine(Bore well water)	DL	PL
1.	Colour	APHA 23 rd Edition-2120 B	Hazen	<1	5	15
2.	pH	APHA 23 rd Edition-4500 B	--	7.46	6.5-8.5	NR
3.	Turbidity	APHA 23 rd Edition-2130 B	NTU	0.2	1	5
4.	Conductivity	APHA 23 rd Edition- 2510 B	umhos/cm	1148	-	-
5.	Total Dissolved Solids	APHA 23 rd Edition-2540 C	mg/l	792	500	2000
6.	Total Alkalinity as CaCO ₃	APHA 23 rd Edition-2320 B	mg/l	82	200	600
7.	Total Hardness as CaCO ₃	APHA 23 rd Edition-2340 C	mg/l	124	200	600
8.	Calcium as Ca	APHA 23 rd Edition-3500 B	mg/l	28.00	75	200
9.	Magnesium as Mg	APHA 23 rd Edition-3500 B	mg/l	13.12	30	100
10.	Sodium as Na	APHA 23 rd Edition-3500 B	mg/l	41.412	-	-
11.	Potassium as K	APHA 23 rd Edition-3500 B	mg/l	0.50	-	-
12.	Iron as Fe	APHA 23 rd Edition-3500 B	mg/l	0.1	0.3	NR
13.	Chlorides as Cl	APHA 23 rd Edition-4500 B	mg/l	144.96	250	1000
14.	Sulphates as SO ₄	APHA 23 rd Edition-4500 B	mg/l	77.73	200	400
15.	Nitrates as NO ₃	APHA 23 rd Edition-4500 E	mg/l	3.88	45	NR
16.	Fluoride as F	APHA 23 rd Edition-4500 D	mg/l	0.18	1.0	1.5
17.	Boron as B	APHA 23 rd Edition-4500 B	mg/l	0.01	1.0	5.0

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
Shivashankaraiiah.H.M

Page No.5 of 8

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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

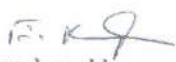
ANALYSIS REPORT OF GROUND WATER QUALITY

1. Name of the Industry : Halki Limestone Mine of M/s. JK Cements Ltd.
Halki Ningapur 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/GW/2021/12/1123
10. Report Issued Date : 15.01.2022

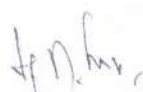
Sl. No	Parameters	Protocol	Unit	Result	Standards As per IS:10500:2012	
				Halki Mine(Bore well water)	DL	PL
18	Phosphorous as P	IS:3025(Part-31)-1988	mg/l	0.015	-	-
19	Cadmium as Cd	APHA 23 rd Edition -3111 B	mg/l	0.002	0.05	-
20	Nickel as Ni	APHA 23 rd Edition -3111 B	mg/l	0.016	0.02	NR
21	Zinc as Zn	APHA 23 rd Edition -3111 B	mg/l	BDL	5	15
22	Lead as Pb	APHA 23 rd Edition -3111 B	mg/l	0.006	0.1	-
23	Chromium As Cr	APHA 23 rd Edition -3111 B	mg/l	BDL	0.05	-
24	Mercury as Hg	APHA 23 rd Edition -3112 B	mg/l	BDL	0.01	-
25	Manganese as Mn	APHA 23 rd Edition -3111 B	mg/l	BDL	0.1	0.5
26	Copper as Cu	APHA 23 rd Edition -3111 B	mg/l	BDL	0.05	1.5
27	E Coli Bacteria/100 ml	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent
28	Total Coli Form (MPN/100ml)	IS:1622:1981, RA 2009	MPN/100ml	Absent	Absent	Absent

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




Authorized Signatory
Shivashankaraiah.H.M

Page No.6 of 8

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

TC-6224

ANALYSIS REPORT OF SURFACE WATER QUALITY

1. Name of the Industry : Halki Limestone Mine of M/s. JK Cements Ltd.
Halki Ningapur 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/2021/12/1123
10. ULR Number : TC622421000001123F
11. Lab code : 843/14
12. Report Issued Date : 15.01.2022

Sl.No	Parameters	Protocol	Unit	Result	Standards As per IS :10500:2012	
				Halki Mines Pit (Surface water)	DL	PL
1.	Colour	APHA 23 rd Edition -2120 B	Hazen	<5	5	15
2.	pH	APHA 23 rd Edition -4500 B	--	7.78	6.5-8.5	NR
3.	Turbidity	APHA 23 rd Edition -2130 B	NTU	2.2	1	5
4.	Conductivity	APHA 23 rd Edition- 2510 B	µmhos/cm	1348	-	-
5.	Total Dissolved Solids	APHA 23 rd Edition -2540 C	mg/l	930	500	2000
6.	Total Alkalinity as CaCO ₃	APHA 23 rd Edition- 2320 B	mg/l	136	200	600
7.	Total Hardness as CaCO ₃	APHA 23 rd Edition- 2340 C	mg/l	224	200	600
8.	Calcium as Ca	APHA 23 rd Edition- 3500 B	mg/l	52.00	75	200
9.	Magnesium as Mg	APHA 23 rd Edition- 3500 B	mg/l	22.84	30	100
10.	Sodium as Na	APHA 23 rd Edition -3500 B	mg/l	42.84	-	-
11.	Potassium as K	APHA 23 rd Edition-3500 B	mg/l	0.60	-	-
12.	Iron as Fe	APHA 23 rd Edition -3500 B	mg/l	0.01	0.3	NR
13.	Chlorides as Cl	APHA 23 rd Edition -4500 B	mg/l	161.95	250	1000
14.	Sulphates as SO ₄	APHA 23 rd Edition -4500 B	mg/l	83.28	200	400
15.	Nitrates as NO ₃	APHA 23 rd Edition-4500 E	mg/l	4.53	45	NR
16.	Fluoride as F	APHA 23 rd Edition -4500 D	mg/l	0.64	1.0	1.5
17.	Boron as B	APHA 23 rd Edition -4500 B	mg/l	0.14	1.0	5.0

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.7 of 8

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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]

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

ANALYSIS REPORT OF SURFACE WATER QUALITY

1. Name of the Industry : Halki Limestone Mine of M/s. JK Cements Ltd.
Halki Ningapur 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/2021/12/1123
10. Report Issued Date : 15.01.2022

Sl. No	Parameters	Protocol	Unit	Result	Standards As per IS:10500:2012	
				Halki Mines Pit (Surface water)	DL	PL
18	Total Suspended Solids	IS:3025(PART 17)-1984	mg/l	2	-	-
19	Dissolved Oxygen	IS: 3025 (PART 38)-1989	mg/l	6.10	-	-
20	Biochemical Oxygen Demand For 3 Days At 27°C	IS:3025(PART-17)	mg/l	1.70	-	-
21	Chemical Oxygen Demand	APHA 23 rd Edition -5220 B	mg/l	16	-	-
22	Phosphate As P	APHA 23 rd Edition-4500 ^P	mg/l	0.040	-	-
23	Acidity As CaCO ₃	IS: 3025 (PART 25)-1991	mg/l	NIL	-	-
24	Oil & Grease	IS: 3025 (PART-39)-1991	mg/l	0.056	-	-
25	Nickel As Ni	APHA 23 rd Edition -3111 B	mg/l	0.015	0.02	NR
26	Manganese as Mn	APHA 23 rd Edition -3111 B	mg/l	BDL	0.1	0.5
27	Copper as Cu	APHA 23 rd Edition - 3111 B	mg/l	0.130	0.05	1.5
28	Zinc as Zn	APHA 23 rd Edition - 3111 B	mg/l	BDL	5	15
29	Lead as Pb	APHA 23 rd Edition -3111 B	mg/l	0.005	0.1	NR
30	Silver as Ag	APHA 23 rd Edition -3111 B	mg/l	BDL	0.10	NR
31	Chromium as Cr	APHA 23 rd Edition -3111 B	mg/l	0.040	0.05	NR
32	E Coli Bacteria/100 ml	IS:1622-1981, RA 2009	MPN/100ml	Absent	Absent	Absent
33	Total Coli Form (MPN/100ml)	IS:1622-1981, RA 2009	MPN/100ml	Absent	Absent	Absent

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

HALKI LIMESTONE MINES, (KARNATAKA)**(Unit: JK Cement Ltd.)****HALF YEARLY AAQM REPORT (SO₂, NO_x, PM₁₀, PM_{2.5}) FROM OCTOBER-2021 TO MARCH-2022****(ALL VALUES IN MICROGRAMS / CUBIC METER)**

Month	Sl. No.	Date	Week	(ALL VALUES IN MICROGRAMS / CUBIC METER)															
				SO ₂				Nox				PM ₁₀				PM _{2.5}			
				NAAQ Standard = 80 µg/m ³				NAAQ Standard = 80 µg/m3				NAAQ Standard = 100 µg/m3				NAAQ Standard = 60 µg/m3			
				Locations				Locations				Locations				Locations			
A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D				
OCTOBER	1	1.10.2021	1st	8.0	7.7	8.0	8.0	18.0	17.8	18.0	18.0	57.7	46.1	55.0	41.9	25.0	20.8	29.2	25.0
	2	5.10.2021		6.7	8.0	7.8	7.8	16.8	18.0	17.8	17.8	48.8	50.2	50.6	52.0	29.2	25.0	20.8	37.5
	3	8.10.2021	2nd	7.0	6.8	8.0	8.0	17.5	16.8	18.0	18.8	55.0	59.9	60.8	58.3	20.8	20.8	25.0	33.3
	4	12.10.2021		8.0	8.0	6.8	7.5	18.0	18.7	16.8	17.0	57.3	63.0	65.1	61.5	25.0	25.0	37.5	29.2
	5	15.10.2021	3rd	7.3	7.5	7.8	8.2	17.3	17.5	17.8	17.3	62.0	59.0	57.3	49.5	16.7	20.8	29.2	20.8
	6	19.10.2021		6.7	7.2	8.0	9.0	16.7	18.0	18.8	18.8	65.5	55.6	51.2	51.1	25.0	25.0	33.3	16.7
	7	22.10.2021	4th	8.0	8.0	8.3	8.7	18.0	17.5	18.3	18.7	56.2	67.6	65.3	99.0	20.8	33.3	37.5	20.8
	8	26.10.2021		7.3	7.5	8.0	9.2	17.5	17.5	18.0	19.2	67.7	62.3	60.1	81.8	25.0	29.2	25.0	29.2
	9	29.10.2021		5.5	9.0	8.5	8.0	16.5	19.0	17.3	18.0	84.6	71.2	58.2	66.1	29.2	25.0	29.2	33.3
NOVEMBER	1	2.11.2021	1st	6.8	8.0	8.0	6.2	16.7	18.0	18.0	17.5	63.7	51.7	68.8	57.6	12.5	31.7	20.8	29.2
	2	5.11.2021		7.0	6.7	7.3	7.0	17.5	17.2	17.3	17.0	67.7	66.7	71.6	49.8	16.7	29.2	16.7	25.0
	3	9.11.2021	2nd	6.8	6.5	6.3	8.0	16.8	16.5	16.7	18.0	70.9	71.8	57.0	55.2	25.0	25.0	20.8	20.8
	4	12.11.2021		8.0	8.0	7.5	6.5	18.0	18.0	17.5	16.5	58.3	68.0	63.8	62.8	20.8	31.3	12.5	37.5
	5	16.11.2021	3rd	7.0	6.8	6.7	7.8	16.8	16.5	16.5	17.8	46.0	60.2	56.5	77.8	16.7	20.8	16.7	25.0
	6	19.11.2021		6.5	7.2	7.5	8.7	16.5	17.7	17.5	17.8	67.3	69.4	60.3	66.9	25.0	29.2	20.8	16.7
	7	23.11.2021	4th	7.5	6.3	6.2	6.7	17.5	16.3	16.2	16.2	51.5	57.0	68.1	61.6	20.8	25.0	16.7	25.0
	8	26.11.2021		6.7	6.7	6.3	6.8	16.7	16.2	16.3	17.0	54.7	68.2	57.3	69.8	16.7	33.3	37.5	20.8
	9	30.11.2021		6.0	6.0	7.2	7.5	16.0	15.0	17.2	17.5	70.3	64.6	52.1	57.3	20.8	25.0	33.3	16.7
DECEMBER	1	3.12.2021	1st	6.7	6.8	6.8	6.2	16.2	16.2	17.2	16.8	53.3	56.6	58.7	58.0	16.7	20.8	29.2	29.2
	2	7.12.2021		5.8	7.2	6.0	7.0	15.8	17.5	16.0	17.0	61.1	59.8	69.6	81.7	20.8	25.0	33.3	25.0
	3	10.12.2021	2nd	8.0	6.3	6.8	8.0	18.0	16.3	16.8	17.7	58.4	68.5	71.1	75.2	21.7	20.8	31.3	16.7
	4	14.12.2021		6.2	5.8	5.8	7.7	16.2	15.8	15.8	17.7	63.6	75.9	77.2	63.9	20.0	25.0	25.0	20.8
	5	17.12.2021	3rd	7.3	6.8	7.0	7.0	18.3	16.7	17.0	16.7	68.1	67.4	61.7	61.8	18.8	20.8	27.1	31.7
	6	21.12.2021		6.7	5.8	6.3	6.8	16.2	15.8	16.3	16.2	60.9	48.6	58.3	79.9	29.2	25.0	41.7	29.2
	7	24.12.2021	4th	7.3	6.2	5.8	5.8	16.5	16.7	15.8	15.8	53.7	58.0	62.2	62.6	20.8	33.3	25.0	30.8
	8	28.12.2021		6.8	5.8	6.8	6.8	16.8	15.3	16.8	16.8	50.5	69.1	56.9	74.9	29.2	33.3	16.7	29.2
	9	31.12.2021		7.3	6.7	7.3	7.5	17.5	16.8	17.5	17.5	66.7	71.8	60.1	67.5	25.0	20.8	33.3	37.5
JANUARY	1	4.1.2022	1st	7.0	8.0	6.8	7.0	17.7	18.5	16.5	17.5	70.4	69.0	65.2	65.9	20.8	25.0	25.0	20.8
	2	7.1.2022		6.8	7.8	7.5	8.0	16.8	17.8	17.5	18.0	64.1	76.0	60.0	58.1	16.7	29.2	16.7	20.8
	3	11.1.2022	2nd	6.7	6.7	5.8	6.7	17.3	16.7	15.8	16.7	75.2	79.0	68.1	67.8	20.8	16.7	12.5	29.2
	4	14.1.2022		6.2	7.0	6.7	7.3	16.2	17.0	16.7	17.3	69.8	63.1	51.6	70.7	33.3	20.8	25.0	25.0
	5	18.1.2022	3rd	7.2	6.5	8.0	7.2	17.7	16.8	18.7	18.0	73.3	69.4	64.8	63.3	35.8	16.7	29.2	37.5
	6	21.1.2022		8.0	7.3	6.7	6.8	17.0	18.0	17.3	16.8	68.1	55.9	58.2	59.1	25.0	20.8	20.8	33.3
	7	25.1.2022	4th	8.0	8.0	8.0	7.8	18.5	18.0	18.0	17.8	65.4	60.2	65.4	68.4	33.3	20.8	25.0	20.8
	8	28.1.2022		6.8	6.8	7.0	7.5	16.8	17.5	16.8	17.5	57.1	73.3	70.4	75.7	25.0	25.0	33.3	29.2
FEBRUARY	1	1.2.2022	1st	6.7	8.0	7.5	6.8	17.5	18.0	17.5	17.5	74.0	58.8	69.0	71.8	29.2	28.3	25.0	20.8
	2	4.2.2022		7.5	7.0	8.0	8.0	17.5	17.5	18.2	18.0	60.1	69.8	73.8	68.9	25.0	25.0	20.8	16.7
	3	8.2.2022	2nd	8.0	8.0	7.5	7.5	18.0	18.5	17.5	17.5	76.0	62.8	79.1	78.2	20.8	20.8	25.0	25.0
	4	11.2.2022		6.7	6.7	8.0	6.8	17.5	16.8	17.7	16.8	65.2	70.6	70.8	69.6	23.8	29.2	17.5	29.2
	5	15.2.2022	3rd	7.2	7.0	6.8	7.0	17.3	17.5	16.8	17.0	61.3	65.3	61.2	59.2	27.5	20.8	25.0	25.0
	6	18.2.2022		7.0	8.2	7.0	6.8	18.5	18.2	17.0	16.8	58.3	73.2	75.3	51.8	29.6	27.9	16.7	20.8
	7	22.2.2022	4th	6.8	6.8	6.3	8.2	17.5	16.8	16.7	18.3	76.8	78.1	69.9	68.8	20.8	25.0	20.8	25.0
	8	25.2.2022		7.0	7.5	7.0	7.0	16.8	17.5	17.0	17.8	70.4	60.2	62.3	60.9	25.0	20.8	29.2	16.7
MARCH	1	1.3.2022	1st	7.50	6.83	7.33	7.33	17.8	16.8	17.0	17.3	61.1	50.0	60.1	65.8	20.0	20.0	25.0	29.2
	2	4.3.2022		5.83	7.00	8.17	6.67	15.8	17.0	18.2	18.2	69.4	61.2	65.4	71.4	16.7	25.0	29.2	20.8
	3	8.3.2022	2nd	6.50	6.33	6.83	7.00	16.5	16.8	16.8	17.5	57.3	69.1	59.7	65.3	20.8	20.8	33.3	25.0
	4	11.3.2022		7.00	8.33	7.00	8.00	17.5	18.0	17.7	18.8	62.0	65.9	67.2	78.9	29.2	27.1	37.5	33.3
	5	15.3.2022	3rd	6.33	6.83	5.83	7.50	16.7	16.8	16.8	17.8	67.4	54.2	72.1	73.7	20.8	21.7	41.7	20.8
	6	18.3.2022		7.50	6.83	6.67	6.67	17.7	17.5	16.2	17.5	70.0	63.1	75.6	53.9	29.2	30.8	25.0	37.5
	7	22.3.2022	4th	6.50	8.00	7.50	7.50	16.3	18.3	17.5	17.5	56.8	52.3	69.1	66.7	12.5	29.2	33.3	29.2
	8	25.3.2022		7.83	6.67	6.33	6.17	17.8	16.2	16.5	16.8	53.0	68.4	52.1	62.9	25.0	41.7	43.7	36.7
	9	29.3.2022		6.83	6.50	7.83	6.83	17.5	17.0	18.0	17.5	68.9	65.5	59.0	58.0	29.2	29.2	29.2	33.3
Half Yearly Avg.				7.0	7.1	7.1	7.4	17.2	17.2	17.2	17.5	63.3	63.9	63.5	65.4	23.3	25.4	26.7	26.4
Half Yearly Min.				5.5	5.8	5.8	5.8	15.8	15.0	15.8	15.8	46.0	46.1	50.6	41.9	12.5	16.7	12.5	16.7
Half Yearly Max.				8.0	9.0	8.5	9.2	18.5	19.0	18.8	19.2	84.6	79.0	79.1	99.0	35.8	41.7	43.7	37.5
Notes: Location A - Neamtiang, B - E...																			

Note:- Location A-Near mines office
Location B-Service Road
Location C-Halki village
Location D-Metgudda village


Shridhar
Checked by

HALKI LIME STONE MINES, (KARNATAKA)

(Unit : J.K. Cement Ltd.)

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

Sl. No.	MONTH/YEAR	SPM ($\mu\text{g}/\text{m}^3$)				
		Loading Area	Drilling Area	Haulage Area	Waste Dumping Site	Service Road
1	Oct-21	586.28	575.74	528.30	548.09	589.24
2	Nov-21	503.19	591.67	483.97	548.89	555.61
3	Dec-21	571.88	575.74	592.07	583.16	536.11
4	Jan-22	581.5	558.0	542.4	566.3	550.1
5	Feb-22	506.9	518.2	468.5	584.8	540.9
6	Mar-22	481.7	546.9	489.4	555.6	559.9
	Minimum	481.69	518.16	468.53	548.09	536.11
	Maximum	586.28	591.67	592.07	584.76	589.24
	Average	538.58	561.02	517.44	564.46	555.32

Note:-SPM Standard $600\mu\text{g}/\text{m}^3$


Shridhar
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Halki Limestone Mines (Karnataka)

(Unit: J.K. Cement Ltd.)

Noise monitoring report of Halki mines (Core zone) for the month of October-2021 to March-2022

Sl.No.	Time	Month	Halki Mines boundary	Halki Mines Office	Halki mines Drilling Time	Halki mines Waste dumping site	Halki mines Service Road
1	Day	Oct-21	48.3	48.7	75.6	49.6	58.3
	Night		38.5	36.7	-	37.5	43.2
2	Day	Nov-21	51.8	50.5	65.2	68.6	55.8
	Night		37.6	35.4		45.7	39.5
3	Day	Dec-21	47.6	53.8	63.5	68.2	55.8
	Night		37.5	41.5		43.5	36.8
4	Day	Jan-22	48.5	54.6	64.5	69.5	54.6
	Night		37.6	42.8		44.2	44.8
5	Day	Feb-22	50.3	53.8	65.8	70.2	53.8
	Night		41.5	42.8		44.2	43.7
6	Day	Mar-22	51.7	52.8	80.8	70.4	55.6
	Night		42.8	43.5		45.5	44.8
Average	Day	Day	49.70	52.37	69.23	66.08	55.65
	Night	Night	39.25	40.45		43.43	42.13
Minimum	Day	Day	47.6	48.7	63.5	49.6	53.8
	Night	Night	37.5	35.4	0	37.5	36.8
Minimum	Day	Day	51.8	54.6	80.8	70.4	58.3
	Night	Night	42.8	43.5	0	45.7	44.8

Note:- Ambient noise standard for day time-75 dB & Night time-70 dB

Work Zone Standard-85dB


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Environmental Expenditure for Halki Limestone Mine-2344(A)
Oct 2021 to Mar 2022

Sl. No.	Particulars	Cost (In Rs.)	Remarks
1	Pollution Control	2739000.00	Water tankers
2	Pollution Monitoring	300000.00	
3	Occupational Health & Safety	0.00	
4	Green belt	150000.00	Plantation & Gardener Salary
5	Reclamation	Nil	
6	Others	129600.00	JCB for Trench & Plantation
	Total	3318600.00	Rupees Thirty Three Lacs Eighteen Thousand & Six Hundred Only


 Mines Manager 29/05/2022

Halki Limestone Mine
Pavankumar Deshmukh
 D.G.M.-Mines