

Regd. AD.

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J.K. Cement Works
Kailash Nagar - 312617, Nimbahera
Distt. Chittorgarh (Raj.) INDIA


CIN : L17229UP1994PLC017199

ISO 9001:2008, ISO 14001:2004 & OHSAS 18001 : 2007 CERTIFIED COMPANY

Our Ref. No.: NBH/PC- 14/ 3586

Date: 28.11.2018

To,

 **The Additional Director**
Indira Paryavaran Bhavan,
JOR Bagh Road,
Near JOR bagh Metro station
New Delhi

Sub: Environmental Clearance Compliance report of Karunda Limestone Mine.

Dear Sir,

Kindly refer Environmental Clearance letter No. J-11O15/428/2008-IA.II (M) Dated 06 August 2010 of our **Karunda Mine.**

We are enclosing herewith compliance report of Environmental Clearance conditions along with Environment Monitoring Data (**Core zone** as well as **Buffer zone**) from the month of **April' 2018 to September' 2018 in hard copy as well as mail as soft copy** for your kind reference and record. We trust you will find the same in order.

Thanking you,

Yours Faithfully
For J.K. Cement Works, Nimbahera



S.K. Acharya
(Technical Head)

Encl : a/a

Copy to:

The Director, Ministry of Environment, Forests & Climate Change, Regional office (Central Region), Kendriya Bhawan, 5th Floor, Sector 'H', ALIGANJ, LUCKNOW- 226020 (U.P.)

The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, Maharaja Surajmal Marg, Vishwas Nagar Extension, Viswas nagar Shahdara- Behind Karkarduma high court New Delhi 11032

Member Secretary, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, JAIPUR - 302004 (RAJASTHAN)

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J. K. Cement Works, Nimbahera
J. K. Cement Works Mangrol
J. K. Cement Works, Gotan
J. K. Cement Works, Jharli

J. K. Power, Bamania
J. K. Cement Works, Muddapur
J. K. White Cement Works, Gotan
J. K. White, Katni



Compliance report of Environment Clearance for Karunda Lime Stone Mine

(For the Period from April 2018 to September 2018)

Reference Letter from MOEF, New Delhi - J-11015/428/2008-IA.II (M) Dated 06.08.2010

S. No.	(A) Specific Conditions	Condition	Status
(i)	The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.		Consent to establish has been obtained under Air & Water act for upgraded production capacity (1.09 MMTPA to 2.0 MMTPA) on date 27.01.2011. Consent to operate has been obtained under air & water act for upgraded production capacity (1.09 MMTPA to 2.0 MMTPA) vide letter no. F(Mines)/Chittorgarh (Nimbahera)/1869(1)/2017-2018/ 2141 – 2145 dated 20.06.2017 (for 5 years).
(ii)	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition (C) No.412/2004 in IA No. 833 in Writ Petition (C) No. 202 of 1995, as may be applicable to this project.		Agreed.
(iii)	The environmental clearance is subject to approval of the State Land use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.		Mining lease was initially executed on 13.12.1984 and it was renewed (First renewal) from 13.12.2004. Private land is used only after diversion for non-agriculture use from state revenue department.
(iv)	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.		Mining lease was initially executed on 13.12.1984 and it was renewed (First renewal) from 13.12.2004. Approval for Grazing land used for Mining has been taken.
(v)	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.		Mining lease was initially executed on 13.12.1984 and it was renewed (First renewal) from 13.12.2004.
(vi)	The mining operations shall be restricted to above ground water table and it should not intersect the ground water table. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.		Agreed. We have obtained permission for mining below water table vide letter no. 21-4(286) WR/CGWA/2008-813 dtd. 17.05.2016 from CGWA, New Delhi. However presently we are not working below the ground water table.
(vii)	The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken for protection of the seasonal nallah passing through the mine lease and also the Murlia dam reported adjacent to mine lease (0.1 km) during the course of mining operation.		Agreed. No natural water course and / or water resources will be obstructed due to any mining operation.
(viii)	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.		Agreed and being used for plantation or temporary stored at earmarked site.
(ix)	The waste generated during the mining operation shall be stacked at the earmarked site and reclaimed by the plantation. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Lucknow on six monthly basis.		No waste is generated during the course of Mining activity. Only top black cotton soil and interstitial clay is generated which is stacked at designated places, levelled and plantation is done over it.
(x)	The void left unfilled in the entire excavated area of 115 ha. shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people		Agreed. Presently it is an operative mine. Once the mineral reserves mined out, it will work as water reservoir.

	to use the water body. Peripheral fencing shall be carried out all along the excavated area.	
(xi)	Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, temporary soil, mineral dumps and waste dump(s) to arrest flow of silt and sediment directly into the agricultural fields, the Murli dam, seasonal nallah and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly. Garland drains, setting tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and waste dump(s) to prevent run off of water and flow of sediments directly into the agricultural fields, the Murli dam, seasonal nallah and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper setting of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	Garland drain system maintained all around the Mining pit, outside the Mining limit for proper water harvesting. Check dams and siltation ponds are provided to control the flow of sediments, silt in and around the Mine working. There is no generation of waste except interstitial clay and all the blasted material is used for manufacturing of cement.
(xii)	Dimension of the retaining wall at the toe of the waste dumps and the waste benches within the mine to check run-off and siltation should be based on the rain fall data.	Since there is no generation of waste dump. Only Top black cotton soil and interstitial clay is generated which is stacked, levelled and used for plantation. The plantation is protected by barbed wire fencing.
(xiii)	Plantation shall be raised in an area of 27ha including a 7.5m wide green belt in the safety zone around the mining lease, reclaimed area, around water body, around waste dumps along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1000 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Agreed, Plantation done during the year 2018-19 (upto sept. 2018) within lease 1495 nos. plants covering 1.0 ha. new area. Total Planation done till date is 30069 nos. within and 1000 nos. in outside lease area. Survival rate of plantation is 61.39% within lease and 60% outside lease. Total plantation covered area till date is 16.00 ha in inside lease area and 1.50 hectare Outside lease area and Green belt of 17.80 ha area.
(xiv)	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular water sprinkling by deploying water sprinkler is done on the haul roads to prevent the dust becoming air borne during transportation of vehicles. Wet drilling system is practiced on the existing setup for drilling machine.
(xv)	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	Surface rain water is collected in the lower most benches to augment Ground water resources.
(xvi)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year – pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office, Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.	Report is being sent regularly on Schedule time. Last report ground water level and quality for monsoon season (August' 2018) was sent vide letter no. NBH/PC/14/2456 on 06.09.2018. To augment the water resources, rain water harvesting is done and rainwater also stored in lower most benches.
(xvii)	Appropriate mitigative measures shall be taken to prevent pollution of the Murli dam in	No working is carried out in submergence area of the dam and upto

	consultation with the State Pollution Control Board.	15 mts. from the boundary of the catchment area and nallah connecting to Murlia dam. There is no disturbance and obstruction due to Mining activity.
(xviii)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water required for the project.	We have obtained NOC for drawl of groundwater from CGWA vide letter no.21 – 4(286) WR / CGWA /2008/1676 dated 28.10.2015. Renewal application is already submitted vide letter no. MGR/PC/23/2562 dated 16.10.2017.
(xix)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	Agreed. Rain water is harvested during rainy season in the bottom most bench.
(xx)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	Tipplers engaged in the Mines are regularly checked once in six months for vehicular emissions and are kept under permissible limits. The tipplers are not loaded above the rated capacity. Copy of PUC is enclosed as <i>annexure-I</i>
(xxi)	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator. Regular monitoring of Ground vibration is being practiced. Rock breaker is used to minimize secondary blasting.
(xxii)	The project proponent shall take all mitigative measures during the mining operation to ensure that the buildings/structures in the nearby areas shall not be affected due to blasting.	Agreed. Controlled blasting is done by use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator and use of air deck to reduce charge per hole and vibration.
(xxiii)	Drills shall either be operated with dust extractors or equipped with waster injection system.	Water injection system is fitted with drill machine which suppresses dust at its source of generation.
(xxiv)	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Regular water spraying by deploying water tanker is done in the Mineral handling area.
(xxv)	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and waste water generated during the mining operation.	Sewage treatment plant is already installed in the colony for Nimbahera plant & mines. No waste water generating during mining operation. Generated waste water from workshop is collected in pit and use in dust suppression in coal yard.
(xxvi)	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Regular initial medical examination and periodical medical examination is being carried out. During the year 2018-19 (upto sept.), 04 nos. of Initial and 04 nos. of periodical medical examination were done.
(xxvii)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office located at Lucknow.	Agreed, We have submitted report of digital processing of the entire lease area on 29.03.2017 vide letter no. MGR/PC/14/052.
(xxviii)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	No construction labours are engaged in Mine.
(xxix)	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e. PM ₁₀) and NO _x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)].	Agreed, These critical parameter are measured periodically during ambient air monitoring. No waste water is generating during mining operation. RSPM, Nox and Peak particle velocity monitoring report is enclosed as <i>annexure- II</i>

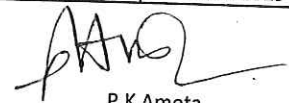
	The monitored data shall be uploaded on the website of the company as well as displayed on the display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	
(xxx)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.	Progressive Mine closure plan is being prepared along with Modified Mining plan. There is no plan of Final Mine closure in current 5 years Mining Plan/ scheme.
B. General Conditions :-		
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Agreed. Mining will be done in accordance with Approved Modified Mining Plan / Scheme of Mining.
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	Agreed, mining will be done in accordance with approved Modified Mining plan/Scheme of mining.
(iii)	Conservation measures for protection of flora and fauna in the core and buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.	Agreed.
(iv)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀) and NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Monitoring at four stations already being done because it is our existing mine.
(v)	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀) & NO _x should be regularly submitted to the Ministry of Environment and Forests including its Regional Office located at Lucknow and the State Pollution Control Board/Central Pollution Control Board once in six months.	Monitoring data is regularly submitting to the concerned offices. Latest report on air monitoring is enclosed as <i>annexure (III)</i>
(vi)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Agreed and being implemented to control fugitive dust emission by regular water spraying arrangement.
(vii)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	Regular maintenance (including cabin) of HEMM being done to keep noise level within the specified limits. Workers engaged in operation of HEMM etc. are provided with ear plugs.
(viii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Agreed. No industrial waste water is generating during Mine operation. Periodical analysis of Mine pit water reveals that there is no presence of any kind of toxic substance. Generated waste water from workshop is collected in pit and use in dust suppression in coal yard. Oil & grease trap has been constructed at the service station before discharge of effluent from workshop and trapped oil and grease is sold to authorized recycler.
(ix)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Persons engaged in drilling, dozing and loading have been provided with dust mask. VT is being provided as required under VT rules. Regular periodic check-up of workers is being carried out.

(x)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	A separate environmental management cell with qualified personnel is already established & has sufficient monitoring equipment in environmental laboratory.
(xi)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Lucknow.	A separate fund is kept for environment protection measures and report is being sent regularly to the concerned authority. Environment expenditure for 2017-2018 and Proposed FY Budget 2018-2019 detail is already submitted vide letter no. NBH/PC/14/1010 dated 29.05.2018.
(xii)	The project authorities should be inform to the Regional Office located at Lucknow regarding data of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Agreed
(xiii)	The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	We will extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
(xiv)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office located at Lucknow, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional office of the Ministry of Environment and Forests, Lucknow, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	Agreed. Six monthly reports are already submitting to concern offices as given in previous clearance letter. Last Six Monthly Monitoring report was sent on 29.05.2018 vide letter no. NBH/PC/14/1010.
(xv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad, Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Implemented.
(xvi)	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and the Collector's Office/Tehsildar's Office for 30 days.	Complied
(xvii)	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.	Complying with, The Environment statement report of FY 2017-18 has submitted vide letter no .NBH-PC-13/2745, Date: 26.09.2018.
(xviii)	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the 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 website of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.	Implemented & the necessary information already sent to the concerned authority.

**J.K.CEMENT WORKS, NIMBAHERA
KARUNDA LIMESTONE MINES
PUCC OF PRODUCTION TIPPERS.**

Date:- 28.10.2018

Sr.No.	TYPE OF MACHINE	Tipper Model No.	MACHINE NO.	PUC LIMIT	NO.OF READING	AVG.OF PUC READING	DATE OF TESTING	VALID UP TO
1	TIPPER	TATA LPK2518	RJ09GB2807	<65%	6	34.5	21.07.2018	20.01.2019
2	TIPPER	TATA LPK2518	RJ09GB2809	<65%	6	36.9	21.07.2018	20.01.2019
3	TIPPER	TATA LPK2518	RJ09GB2810	<65%	6	32.4	21.07.2018	20.01.2019
4	TIPPER	TATA LPK2518	RJ09GB2811	<65%	6	38.5	21.07.2018	20.01.2019
5	TIPPER	TATA LPK2518	RJ09GA9437	<65%	6	38.4	21.07.2018	20.01.2019
6	TIPPER	TATA LPK2518	RJ09GA9438	<65%	6	38.4	21.07.2018	20.01.2019
7	TIPPER	TATA LPK2518	RJ09GA9440	<65%	6	38.4	21.07.2018	20.01.2019
8	TIPPER	TATA LPK2518	RJ09GA9443	<65%	6	34.7	21.07.2018	20.01.2019
9	TIPPER	TATA LPK3118	RJ09GA9446	<65%	6	41.5	21.07.2018	20.01.2019
10	TIPPER	TATA LPK3118	RJ09GA9447	<65%	6	38.5	21.07.2018	20.01.2019
11	TIPPER	TATA LPK3118	RJ09GA9449	<65%	6	37.3	21.07.2018	20.01.2019
12	TIPPER	TATA LPK2518	RJ09GB0523	<65%	6	38.4	21.07.2018	20.01.2019
13	TIPPER	TATA LPK2518	RJ09GB0524	<65%	6	38.6	21.07.2018	20.01.2019
14	TIPPER	TATA LPK2518	RJ09GB0526	<65%	6	37.5	21.07.2018	20.01.2019
15	TIPPER	TATA LPK2518	RJ09GB0529	<65%	6	32.9	21.07.2018	20.01.2019
16	TIPPER	TATA LPK2518	RJ09GB0534	<65%	6	34.5	21.07.2018	20.01.2019
17	TIPPER	TATA LPK2518	RJ09GB2566	<65%	6	28.5	21.07.2018	20.01.2019
18	TIPPER	TATA LPK2518	RJ09GB2574	<65%	6	33.3	21.07.2018	20.01.2019
19	TIPPER	TATA LPK3118	RJ09GA9178	<65%	6	37.3	21.07.2018	20.01.2019
20	TIPPER	TATA LPK3118	RJ09GA9180	<65%	6	38.6	21.07.2018	20.01.2019
21	TIPPER	TATA LPK3118	RJ09GA9181	<65%	6	38.6	21.07.2018	20.01.2019
22	TIPPER	TATA LPK3118	RJ09GB9881	<65%	6	28.4	21.07.2018	20.01.2019
23	TIPPER	TATA LPK3118	RJ09GB9882	<65%	6	30.3	21.07.2018	20.01.2019
24	TIPPER	TATA LPK3118	RJ09GB9883	<65%	6	26.4	21.07.2018	20.01.2019
25	TIPPER	TATA LPK3118	RJ09GB9884	<65%	6	34.3	21.07.2018	20.01.2019
26	TIPPER	TATA LPK3118	RJ09GB9885	<65%	6	34.3	21.07.2018	20.01.2019
27	TIPPER	TATA LPK3718	RJ09GC1983	<65%	6	27.4	21.07.2018	20.01.2019
28	TIPPER	TATA LPK3718	RJ09GC1984	<65%	6	31.7	21.07.2018	20.01.2019
29	TIPPER	TATA LPK3718	RJ09GC1988	<65%	6	18.6	21.07.2018	20.01.2019
30	TIPPER	TATA LPK3718	RJ09GC1989	<65%	6	38.5	21.07.2018	20.01.2019
31	TIPPER	TATA LPK3718	RJ09GC1991	<65%	6	29.4	21.07.2018	20.01.2019


 P.K Ameta
 Sr.Manager (Mines)

KARUNDA LIMESTONE MINES

Blast Vibration Summary List

April-2018 To September-2018

Sr. No.	Date	Location of Blasting		Vibration measured from blasting face (Distance in Mtrs.)	No. of Holes	Charge/ Delay (Kg sum/mm/sec.)	Peak vector sum (mm/sec.)	Accessories used in blasting
		Bench	B.Id.					
1	16.04.2018	III,S-Pit	12--6	300M Back side of blast face	10	33.5	2.76	DTH & TLD
2	22.04.2018	II,N-Pit	11--3	300M Back side of blast face	18	29.27	1.41	DTH & TLD
3	29.04.2018	III,S-Pit	13--7	300M Back side of blast face	16	42.7	1.58	DTH & TLD
4	07.05.2018	III,N-Pit	12--17	300M Back side of blast face	24	28.54	1.76	DTH & TLD
5	24.05.2018	IIIE,N-Pit	12--22	300M Back side of blast face	21	33.42	1.93	DTH & TLD
6	02.06.2018	IIIE,N-Pit	13-14	300M Back side of blast face	11	34.27	1.22	DTH & TLD
7	14.06.2018	IIIV,S-Pit	12--28	300M Back side of blast face	10	38.33	2.31	DTH & TLD
8	28.06.2018	IIS,S-Pit	8--3	300M Back side of blast face	21	34.12	2.43	DTH & TLD
9	08.07.2018	IIIE,N-Pit	13-24	300M Back side of blast face	16	24.65	2.21	DTH & TLD
10	27.07.2018	I-W,S-Pit	9-5	300M Back side of blast face	16	28.82	1.69	DTH & TLD
11	10.08.2018	IIW,S-Pit	9-9	300M Back side of blast face	12	29.16	1.94	DTH & TLD
12	25.08.2018	IIIN,N-Pit	16-14	300M Back side of blast face	14	32.14	2.38	DTH & TLD
13	15.09.2018	IIIE,N-Pit	15-14	300M Back side of blast face	8	22.91	2.49	DTH & TLD
14	17.09.2018	I N,N-Pit	16-20	300M Back side of blast face	16	34.37	2.83	DTH & TLD



Rajesh Joshi

Dy. Manager (Mines)



P K Ameta

Sr. Manager (Mines)

J.K. Cement WORKS, NIMBAHERA (P.A.)

KARUNDA LIMESTONE MINE

SIX MONTHLY AMBIENT AIR QUALITY & NOISE MONITORING REPORT

1) AMBIENT AIR QUALITY SPM RESULTS : (ALL VALUES IN µg/M3)

Sample duration: 24 hourly sample,
(monthly average basis)

Month	Near Mine Office					Near Ravana Office					3 to 10 Meter Distance From Drilling Operation					Near loading point				
	SPM	PM10	SO ₂	Nox	CO	SPM	PM10	SO ₂	Nox	CO	SPM	PM10	SO ₂	Nox	CO	SPM	PM10	SO ₂	Nox	CO
Apr-18	405.0	50.4	13.0	26.7	744.3	448.0	54.4	16.4	33.4	858.8	492.0	57.4	18.4	38.4	973.3	427.0	52.3	14.7	29.6	801.5
May-18	387.0	48.3	11.7	23.4	629.8	467.0	56.2	17.8	29.6	744.3	524.0	59.8	20.1	32.4	1087.8	443.0	54.2	13.8	25.2	858.8
Jun-18	368.0	46.5	10.4	21.4	515.3	418.0	50.7	14.4	26.7	858.8	457.0	53.2	16.5	29.4	858.8	395.0	48.5	12.5	23.5	629.8
Jul-18	274.0	31.6	7.6	20.5	400.8	325.0	40.5	10.6	24.4	515.3	378.0	45.6	15.1	28.5	744.3	307.0	38.5	13.2	26.3	572.5
Aug-18	252.0	30.1	8.2	22.4	515.3	347.0	42.2	11.3	26.5	400.8	392.0	47.0	16.5	30.1	744.3	329.0	40.2	15.3	28.5	515.3
Sep-18	263.0	31.4	9.9	20.5	400.8	354.0	43.8	12.4	25.6	515.3	385.0	45.4	15.6	25.8	629.8	349.0	41.4	14.8	25.7	515.3

2) NOISE LEVEL MEASUREMENT RESULTS : (ALL VALUES IN dB(A))

Month	Near Mine Office			Near Ravana Office		
	NOISE LEVEL db(A)					
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
Apr-18	66.7	58.6	69.5	60.5	69.5	60.5
May-18	67.5	60.2	70.6	61.5	70.6	61.5
Jun-18	68.0	56.9	69.0	58.0	69.0	58.0
Jul-18	64.7	52.3	66.7	53.6	66.7	53.6
Aug-18	65.3	52.8	67.4	54.8	67.4	54.8
Sep-18	65.1	53.0	67.2	56.5	67.2	56.5

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J.K.Cement Works, Nimbahera
Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2018-19/926

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01631

Sample Description : Ambient Air

Sampling Location : Charlia gadia Village (Karunda Mine)

Date of Sampling : 13/14.08.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	64	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	32	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	5.1	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	19.7	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.20	IS 5182 :(Part-10) :1999

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

Report Prepared By:



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Report No. : MSK/UDR/2018-19/927

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01632

Sample Description : Ambient Air

Sampling Location : Karunda Village (Karunda Mine)

Date of Sampling : 13/14.08.2018

Reference No.& Date : e-mail dtd: 07.06.2018

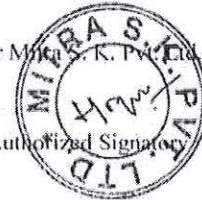
SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	70	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	37	USEPA CFR-40,Part-50, Appendix-L.
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	5.4	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	22.8	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.21	IS 5182 :(Part-10) :1999

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

Report Prepared By:

For Mitra S.K. Pvt. Ltd.

Authorized Signatory



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Report No. : MSK/UDR/2018-19/928

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01633

Sample Description : Ambient Air

Sampling Location : Near Loading Point (Karunda Mine)

Date of Sampling : 13/14.08.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	97	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	52	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	6.8	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	27.0	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.40	IS 5182 :(Part-10) :1999

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

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Report No. : MSK/UDR/2018-19/929

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01634

Sample Description : Ambient Air

Sampling Location : Near Mine Office (Karunda Mine)

Date of Sampling : 13/14.08.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	80	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	44	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	6.9	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	26.1	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.40	IS 5182 :(Part-10) :1999

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

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Report No. : MSK/UDR/2018-19/930

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01635

Sample Description : Ambient Air

Sampling Location : Near Ravana Office (Karunda Mine)

Date of Sampling : 13/14.08.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in µg/m ³	100	83	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in µg/m ³	60	44	USEPA CFR-40,Part-50, Appendix-L.
3	Sulphur dioxide(SO ₂) in µg/m ³	80	6.2	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in µg/m ³	80	25.7	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.39	IS 5182 :(Part-10) :1999

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

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Report No. : MSK/UDR/2018-19/925

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01630

Sample Description : Ambient Air

Sampling Location : 3-10 Meter Distance from Drilling
Operation (Karunda Mine)

Date of Sampling : 13/14.08.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	97	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	55	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	6.8	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	27.1	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.47	IS 5182 :(Part-10) :1999

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

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TEST REPORT

Name & Address of the Customer :

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Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2018-19/953

Date : 31.08.2018

Sample No. : MSKGL/ED/2018-19/08/01669 & 01670

Sample Description : Noise Monitoring (Karunda Mine)

Reference No.& Date : e-mail dtd: 07.06.2018

ANALYSIS RESULT

Sl. No.	Sampling Date	Sampling Location	Results Leq dB(A)	
			Day Time	Night Time
1.	13/14.08.2018	Near Mine Office (Karunda Mine)	57.1	48.0
2.		Near Ravana Office (Karunda Mine)	55.8	47.4
Limit As per CPCB (Environment Protection Rules, 1986)		in Industrial Area Leq dB(A)	75	70

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Report No. : MSK/UDR/2018-19/376

Date : 30.06.2018

Sample No. : MSKGL/ED/2018-19/06/01418

Sample Description : Ambient Air

Sampling Location : 3-10 Meter Distance from Drilling

Operation (Karunda Mine)

Date of Sampling : 18/19.06.2018

Reference No.& Date : e-mail dttd: 07.06.2018

Sl. No.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	94	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	51	USEPA CFR-40,Part-50, Appendix-1.
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	6.6	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	28.7	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.41	IS 5182 :(Part-10) :1999
6	Ozone (O ₃) in $\mu\text{g}/\text{m}^3$	180	<19.62	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-411)
7	Ammonia (NH ₃) in $\mu\text{g}/\text{m}^3$	400	20.3	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-401)
8	Lead (Pb) in $\mu\text{g}/\text{m}^3$	1	0.23	EPA-IO 3.2
9	Nickel (Ni) in ng/m^3	20	8.6	EPA-IO 3.2
10	Arsenic (As) in ng/m^3	6	<1.0	APHA 22nd - 3114 C
11	Benzene (C ₆ H ₆) in $\mu\text{g}/\text{m}^3$	5	<2.08	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m^3	1	<0.4	IS 5182 : Part. 12 : 2004

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

Report Prepared By:



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Report No. : MSK/UDR/2018-19/377

Date : 30.06.2018

Sample No. : MSKGL/ED/2018-19/06/01419

Sample Description : Ambient Air

Sampling Location : Charlia gadia Village (Karunda Mine)

Date of Sampling : 19/20.06.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	69	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	33	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	5.5	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	22.8	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.23	IS 5182 :(Part-10) :1999
6	Ozone (O ₃) in $\mu\text{g}/\text{m}^3$	180	<19.62	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-411)
7	Ammonia (NH ₃) in $\mu\text{g}/\text{m}^3$	400	10.8	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-401)
8	Lead (Pb) in $\mu\text{g}/\text{m}^3$	1	<0.02	EPA-IO 3.2
9	Nickel (Ni) in ng/m^3	20	<4.0	EPA-IO 3.2
10	Arsenic (As) in ng/m^3	6	<1.0	APHA 22nd - 3114 C
11	Benzene (C ₆ H ₆) in $\mu\text{g}/\text{m}^3$	5	<2.08	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m^3	1	<0.4	IS 5182 : Part. 12 : 2004

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

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Report No. : MSK/UDR/2018-19/378

Date : 30.06.2018

Sample No. : MSKGL/ED/2018-19/06/01420

Sample Description : Ambient Air

Sampling Location : Karunda Village (Karunda Mine)

Date of Sampling : 19/20.06.2018

Reference No.& Date : e-mail dtd: 07.06.2018

Sl. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	74	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	38	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	5.0	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	22.4	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.18	IS 5182 : (Part-10) : 1999
6	Ozone (O ₃) in $\mu\text{g}/\text{m}^3$	180	<19.62	Method of Air sampling, 3rd Edn, By James P. Lodge (Method-411)
7	Ammonia (NH ₃) in $\mu\text{g}/\text{m}^3$	400	11.0	Method of Air sampling, 3rd Edn, By James P. Lodge (Method-401)
8	Lead (Pb) in $\mu\text{g}/\text{m}^3$	1	<0.02	EPA-IO 3.2
9	Nickel (Ni) in ng/m^3	20	<4.0	EPA-IO 3.2
10	Arsenic (As) in ng/m^3	6	<1.0	APHA 22nd - 3114 C
11	Benzene (C ₆ H ₆) in $\mu\text{g}/\text{m}^3$	5	<2.08	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m^3	1	<0.4	IS 5182 : Part. 12 : 2004

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

Report Prepared By:



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Report No. : MSK/UDR/2018-19/379

Date : 30.06.2018

Sample No. : MSKGL/ED/2018-19/06/01421

Sample Description : Ambient Air

Sampling Location : Near Loading Point (Karunda Mine)

Date of Sampling : 19/20.06.2018

Reference No.& Date : e-mail dtd: 07.06.2018

SL. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	96	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	54	USEPA CFR-40,Part-50, Appendix-L
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	6.2	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	26.3	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.37	IS 5182 :(Part-10) :1999
6	Ozone (O ₃) in $\mu\text{g}/\text{m}^3$	180	<19.62	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-411)
7	Ammonia (NH ₃) in $\mu\text{g}/\text{m}^3$	400	21.3	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-401)
8	Lead (Pb) in $\mu\text{g}/\text{m}^3$	1	0.18	EPA-IO 3.2
9	Nickel (Ni) in ng/m^3	20	8.20	EPA-IO 3.2
10	Arsenic (As) in ng/m^3	6	<1.0	APHA 22nd - 3114 C
11	Benzene (C ₆ H ₆) in $\mu\text{g}/\text{m}^3$	5	<2.08	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m^3	1	<0.4	IS 5182 : Part. 12 : 2004

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

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Report No. : MSK/UDR/2018-19/380

Date : 30.06.2018

Sample No. : MSKGL/ED/2018-19/06/01422

Sample Description : Ambient Air

Sampling Location : Near Mine Office (Karunda Mine)

Date of Sampling : 18/19.06.2018

Reference No.& Date : e-mail did: 07.06.2018

Sl. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in µg/m ³	100	74	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in µg/m ³	60	40	USEPA CFR-40,Part-50, Appendix-1.
3	Sulphur dioxide(SO ₂) in µg/m ³	80	6.3	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in µg/m ³	80	25.7	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.38	IS 5182 :(Part-10) :1999
6	Ozone (O ₃) in µg/m ³	180	<19.62	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-411)
7	Ammonia (NH ₃) in µg/m ³	400	17.2	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-401)
8	Lead (Pb) in µg/m ³	1	<0.02	EPA-IO 3.2
9	Nickel (Ni) in ng/m ³	20	<4.0	EPA-IO 3.2
10	Arsenic (As) in ng/m ³	6	<1.0	APHA 22nd - 3114 C
11	Benzene (C ₆ H ₆) in µg/m ³	5	<2.08	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m ³	1	<0.4	IS 5182 : Part. 12 : 2004

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

Report Prepared By:



Mitra S.K. Private Limited



TESTING • INSPECTION

Shrachi Center (5th Floor)
74B, Acharya Jagadish Chandra Bose Road
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Name & Address of the Customer :

J.K.Cement Works, Nimbahera
Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2018-19/381

Date : 30.06.2018

Sample No. : MSKGL/ED/2018-19/06/01423

Sample Description : Ambient Air

Sampling Location : Near Ravana Office (Karunda Mine)

Date of Sampling : 18/19.06.2018

Reference No.& Date : e-mail did: 07.06.2018

Sl. NO.	Pollutants	Limit	Result	Method of Test Reference
1	Particulate matter (PM ₁₀) in $\mu\text{g}/\text{m}^3$	100	81	IS: 5182:(Part-23)-2006
2	Particulate matter(PM _{2.5}) in $\mu\text{g}/\text{m}^3$	60	42	USEPA CFR-40,Part-50, Appendix-I.
3	Sulphur dioxide(SO ₂) in $\mu\text{g}/\text{m}^3$	80	5.8	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO ₂) in $\mu\text{g}/\text{m}^3$	80	26.8	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m^3	2	0.36	IS 5182 : (Part-10) : 1999
6	Ozone (O ₃) in $\mu\text{g}/\text{m}^3$	180	<19.62	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-411)
7	Ammonia (NH ₃) in $\mu\text{g}/\text{m}^3$	400	19.7	Method of Air sampling, 3rd Edn. By James P. Lodge (Method-401)
8	Lead (Pb) in $\mu\text{g}/\text{m}^3$	1	0.04	EPA-IO 3.2
9	Nickel (Ni) in ng/m^3	20	7.22	EPA-IO 3.2
10	Arsenic (As) in ng/m^3	6	<1.0	APHA 22nd - 3114 C
11	Benzene (C ₆ H ₆) in $\mu\text{g}/\text{m}^3$	5	<2.08	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m^3	1	<0.4	IS 5182 : Part. 12 : 2004

Note : Limit as per CPCB notification, New Delhi, 18th November 2009, For Ambient air Quality

Report Prepared By:



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TEST REPORT

Name & Address of the Customer :
J.K.Cement Works, Nimbahera
Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2018-19/410
Date : 30.06.2018
Sample No. : MSKGL/ED/2018-19/06/01453 & 01454
Sample Description : Noise Monitoring

Reference No.& Date : e-mail did: 07.06.2018

ANALYSIS RESULT

Sl. No.	Sampling Date	Sampling Location	Results Leq dB(A)	
			Day Time	Night Time
1.	18/19.06.2018	Near Mine Office (Karunda Mine)	58.5	48.9
2.		Near Ravana Office (Karunda Mine)	56.7	47.0
Limit As per CPCB (Environment Protection Rules, 1986)		in Industrial Area Leq dB(A)	75	70

Report Prepared by :



