

MGR/PC-14/C12/**Through Email****Date: 18.11.2022****To,****The Director (M),**

Ministry of Environment, Forests & Climate Change
Indira Paryavaran Bhavan, JOR Bagh Road,
Near JOR bagh Metro station, New Delhi 110003.

Sub: Environmental Clearance Compliance report of Mangrol Limestone Mine (M.L. No. 26/08 Area 132 ha.) by M/s J.K. Cement Works, Mangrol, Tehsil: Nimbahera, Dist. Chittorgarh (Raj.).

Ref.: Environment Clearance letter no. - J-11O15/427/2008-IA.II (M) Dated 06 August 2010.

Dear Sir,

Kindly refer to the above subject matter and refer EC letter no., please find attached herewith compliance of EC for the period of **April 2022 to September 2022**.

As per MoEF & CC notification no. S.O. 5845 (E) 26.11.2018 the soft copy of same has been sent through email to iro.jaipur-mefcc@gov.in, moef@nic.in, ccb.cpcb@nic.in, member-secretary@rpcb.nic.in, cpcb.bhopal@gov.in, monitoring-ec@nic.in.

We trust you will find the same in order.

Thanking you,

Yours Faithfully

For J. K. Cement Works, Mangrol

R. B. M. Tripathi
President (Operations)

Encl: as above**Copy to:**

1. The Deputy Director(S), Ministry of Environment, Forests & Climate Change, Integrated Regional office, Jaipur, A-218, Aranya Bhawan, Jhalana Institutional Area, **Jaipur-302004**
2. The Regional Director, Central Pollution Control Board, Paryavaran Parisar, E-5, Arera colony, **Bhopal (M.P) 462016**
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, **New Delhi 110032**.
4. The Chairman, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, **Jaipur - 302004 (Rajasthan)**

**Corporate Office**

Padam Tower, 19 DDA Community Centre
Okhla, Phase - 1, New Delhi - 110020, India
+011-49220000
admin.padamtower@jkcement.com
www.jkcement.com

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Form for Uploading Six Monthly Compliance Report					
Proposal Details					
Proposal No.		IA/RJ/MIN/8947/2008	Project Name	Mangrol Limestone Mining Project (ML No.: 26/08, Area 132 ha. of M/s. J.K. Cement Works, located in Village - Mangrol, Tehsil - Nimbahera, District Chittorgarh, Rajasthan (Limestone 1.5 MMTPA)	
Category		A	MoEF File No.	J-11015/427/2008-IA.II (M) dated 06 th August, 2010	
Name of the Entity / Corporate Office*		M/s. J.K. Cement Works, Nimbahera, Kailash Nagar, District Chittorgarh-312617 (Rajasthan)			
Entity's PAN*		AABCJ0355R			
Entity Name as per PAN		J K CEMENT LIMITED.			
Compliance Letter/Report					
Reporting Year*		2022	Reporting Period*	April-2022 to September-2022	
Remarks (if any)		Submitting herewith the Six Monthly EC Compliance Report for the period: April-2022 to September-2022 of Mangrol Limestone Mine (ML. No.: 26/08, Area 132.00 ha.) - Limestone Production - 1.5 MMTPA.			
Details of Production and Project Area					
Date of Commencement of Project /Activity:*		13-06-2013	Project Area as Per EC Granted (In Case of Mine Lease):*		132.00 ha.
Actual Project Area (In Case of Mine Lease):*		115.23 ha.			
PRODUCTION CAPACITY:		Detail of Mines Excavation Quantity for the FY: 2022-23 (till September-2022)			
S. No.	Name of the Product	Unit	As per EC granted	Production during last Financial Year: 2021-22	Production during current Financial Year: 2022-23 (Till Sept-2022)
1	Cement Grade Limestone	Million TPA	1.500	0.99208	0.0454
2	Subgrade Limestone	Million TPA	-	0.02580	0
3	Top Soil	Million TPA	-	0.012156	0
Total Excavation Quantity		Million TPA	1.500	1.0299	0.0454

Mangrol Limestone Mine (M.L. No.: 26/08, Area - 132.00 ha.)
M/s. J. K. Cement Works, at Village - Mangrol, Tehsil - Nimbahera, District - Chittorgarh, Rajasthan-312617

EC Compliance Report for the period: April-22 to September-22

Mangrol Limestone Mine (ML No.: 26/08, Area 132 ha., Limestone 1.5 MMTPA, Village-Mangrol, Tehsil-Nimbahera, District-Chittorgarh, Rajasthan

Environment Clearance vide No.: J-11015/427/2008-IA.II (M) dated 06th August, 2010

A. SPECIFIC CONDITION: -				
S. No.	Condition Type	Condition Details	Self Declaration	Remarks / Reason
(i)	Statutory compliance	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.	Complied	<ul style="list-style-type: none"> • Consent to Establish has been obtained vide letter No.: F(Mines)/Chittorgarh/(Nimbahera) 966(1) 2011- 12/4718-4722 dated 29.09.2011. • Consent to operate has been obtained vide letter No.: F(Mines)/Chittorgarh(Nimbahera)/1863(1)/2016-2017/7040-7044 dated 25.02.2019, valid up to 31.01.2024.
(ii)	Statutory compliance	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.	Complied	Noted.
(iii)	Miscellaneous	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.	Complied	Private agriculture land is used only after diversion for non-agriculture use from state revenue department.
(iv)	Statutory compliance	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.	Complied	Permission for use of grazing land for mining purpose has been obtained from Revenue Department, Govt. of Rajasthan vide letter No.: Revenue/2011-12 dated 12/01/2012.
(v)	Miscellaneous	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	Complied	Fodder plots are being developed in our purchased land having non-mineralized zone and are falling in our mines lease area.

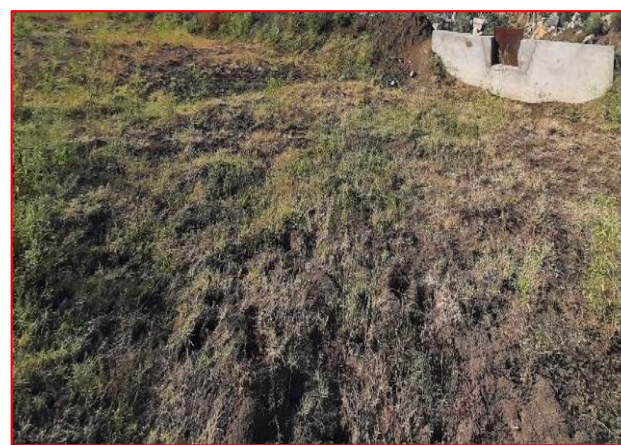
(vi)	Statutory compliance	The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	Complied	<ul style="list-style-type: none">Water table will not be intersected during the conceptual phase/life of mine.Detail of the mine elevation, ground water table and working level are given below: <table><tr><th>S. N.</th><th>Particulars</th><th>Level (MSL)</th><th>BGL (M)</th></tr><tr><td>1</td><td>Highest Elevation</td><td>440</td><td>--</td></tr><tr><td>2</td><td>Lowest Elevation</td><td>432</td><td>--</td></tr><tr><td>3</td><td>General Ground Level</td><td>435</td><td>--</td></tr><tr><td>4</td><td>Water Table (Pre-Monsoon)</td><td>380-385</td><td>50-55</td></tr><tr><td>5</td><td>Water Table (Post-Monsoon)</td><td>395</td><td>40</td></tr><tr><td>6</td><td>Ultimate Pit Limit</td><td>395</td><td>40</td></tr></table> <p>Source: - As per approved Modified Mining Plan with PMCP dated 03.01.2019.</p>	S. N.	Particulars	Level (MSL)	BGL (M)	1	Highest Elevation	440	--	2	Lowest Elevation	432	--	3	General Ground Level	435	--	4	Water Table (Pre-Monsoon)	380-385	50-55	5	Water Table (Post-Monsoon)	395	40	6	Ultimate Pit Limit	395	40
S. N.	Particulars	Level (MSL)	BGL (M)																													
1	Highest Elevation	440	--																													
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5	Water Table (Post-Monsoon)	395	40																													
6	Ultimate Pit Limit	395	40																													
(vii)	Miscellaneous	The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations.	Complied	There are no large channels or other sources of water in the area. The water drains out of the area following the natural slope. No natural water course are being obstructed during mining operation.																												
(viii)	Miscellaneous	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.	Complied	Top soil not generated during April 22 to Sept 22.																												
(ix)	Miscellaneous	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.	Complied	<ul style="list-style-type: none">Waste/mineral reject not generated during the period: Apr-22 to Sept-22, previously generated waste/mineral reject is stacked at designated places, levelled and being stabilized by carrying out plantation over it.Latest EC compliance report for the period: Oct-21 to Mar-22 has been submitted to MoEF&CC including its Regional Office located at Lucknow and the SPCB & CPCB vide letter No.: MGR/PC-14/C12 dated 25.05.2022, e-mailed on 31/05/2022.																												
(x)	Statutory compliance	The void left unfilled in the entire excavated area of 88.55 ha. shall be converted into water body. The higher benches of excavated void/mining pit shall be	Yet to be complied	Whole excavated area will be used for collection of harvested rain water. The entire excavated area will be properly fenced along the periphery and plantation to be done at the end of life of mine.																												

		terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out all along the excavated area.		
(xi)	Miscellaneous	<p>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 Gambhiri dam, the Murlia reservoir, the Gambhiri river 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.</p> <p>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 Gambhiri dam, the Murlia reservoir, the Gambhiri river 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 slit material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	Complied	<ul style="list-style-type: none"> • Catch drain and siltation ponds has been constructed of appropriate size around the mining pit to prevent run off water and flow of sediments going directly into the agriculture fields/outside the mining limit and water bodies. There will be no generation of waste as prescribed in approved mining plan, hence no overburden dump will be formed. • Garland drain system of appropriate size, gradient and length has been constructed around the mining pit to prevent runoff water and flow of sediments outside the mining limit. There will be no generation of waste as mentioned in approved mining plan; hence no overburden dump will be formed.
(xii)	Miscellaneous	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.	Complied	Since there is no generation of waste, only top soil is generated, which is being used in plantation. Garland drain and siltation pond has been constructed to check runoff.

(xiii)	Greenbelt	Plantation shall be raised in an area of 14 ha including a 7.5 m 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.	Complied	<ul style="list-style-type: none"> • Total Plantation done in 8.50 ha. with 10828 nos. of plants till FY 2020-21. (within lease 6.48 ha with 7808 plants and outside lease 2.02 ha. with 3020 plants). • In FY 2021-22, total plantation done in 0.80 ha. within lease area is 2091 plants. • In FY 2021-22, total plantation done in 1.40 ha. in safety zone (7.5m) with 3659 plants. • In FY 2022-23 (till Sept) total plantation done in safety zone in 0.7 ha. with 3961 of saplings. • In FY 2022-23 (till Sept) total plantation done within lease in 0.5 ha. with 2829 of saplings.
(xiv)	Statutory compliance	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.	Complied	<ul style="list-style-type: none"> • Regular water sprinkling done on the haul roads by water tanker which has sprinkler facility. Wet drilling system is practiced during drilling of holes. • Ambient air quality monitoring in core as well as buffer zone are being conducted on regular basis and the results are found well within the prescribed norms. • Details ambient air quality monitoring report for the period: Apr-22 to Sept-22 is enclosed as <u>Annexure-1</u>.
(xv)	Miscellaneous	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.	Complied	Rain water is being collected in mine pit and utilized in cement plant operation.
(xvi)	Statutory compliance	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	Complied	<ul style="list-style-type: none"> • Periodically ground water level and quality is being monitored in and around the mining lease area as per the Environment Management Plan of approved Mining plan by establishing a network of existing wells. • We have installed 3 Nos. of manual piezometer holes & one DWLR (Digital Water Level Recorder) with telemetry system for online monitoring of ground water level. The water quality report tested by NABL lab and report is being submitted to MoEF&CC and its Regional Office, Lucknow, the CGWA and

		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.		<p>the Regional Director, Central Ground Water Board on periodic basis.</p> <ul style="list-style-type: none"> • Water quality analysis report for the period Pre-monsoon (April-May-22) & Monsoon (August-22) has been submitted to CGWA/ CGWB on 09.05.2022 & 06.09.2022 respectively. • Copy of the water quality analysis report is enclosed as Annexure-2.
(xvii)	Miscellaneous	Appropriate mitigative measures shall be taken to prevent pollution of the Gambhiri River and Murlia Dam in consultation with the State Pollution Control Board.	Complied	Gambhiri dam and Murlia dam is far away from the mine and control blasting is implemented with delay detonator.
(xviii)	Statutory compliance	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water required for the project.	Complied	Renewal NOC obtained vide letter No.: CGWA/NOC/MIN/REN/2/2021/5960 and Corrigendum vide letter No.: 21-4/532/RJ/ MIN/2012-99, dated 20/05/2021, valid up to 06/04/2023.
(xix)	Miscellaneous	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	Complied	Rain water harvesting is being done through mine pit water stored in lower most benches and constructed one recharge well & 02 Nos. Check Dams to augment the water resources in the mines area.

Photographs of RWH Structures



(xx)	Miscellaneous	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.	Complied	Tipplers engaged in the mine are regularly checked once in six months for vehicle emissions and always kept under permissible limits as per the guidelines issued by the authorities. The tipplers are not being loaded above the rated capacity.
(xxi)	Miscellaneous	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Complied	<ul style="list-style-type: none"> Controlled blasting is being carried out by using delay detonator, non-electric detonator. Regular monitoring of ground vibration is being practiced. Rock breaker is used to eliminate secondary blasting. Detail peak particle velocity /vibration monitoring report for the period: Apr-22 to Sept-22 is enclosed as <u>Annexure-3</u>.
(xxii)	Miscellaneous	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.	Complied	No secondary blasting is being done during the mining operation. Oversized boulders are broken by use of Hydraulic Rock breaker.
(xxiii)	Air Quality Monitoring And Preservation	Drills shall either be operated with dust extractors or equipped with water injection system.	Complied	Water injection system on wagon drill is provided to suppress dust at its source of generation and only wet drilling is being carried out as committed in environment management plan of approved mining plan.
(xxiv)	Air Quality Monitoring And Preservation	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.	Complied	Regular water spraying arrangement on haul roads and on blast material before loading is practiced to control of fugitive emission.
(xxv)	Water Quality Monitoring And Preservation	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.	Complied	<ul style="list-style-type: none"> STP is already installed in the colony. No industrial waste water is being generated from mine operation and workshop waste water collected in pit and use for dust suppression after separation of oil.

				<ul style="list-style-type: none"> Workshop waste water quality analysis report for the period: Apr-22 to Sept-22 is enclosed as Annexure-4.
(xxvi)	Human Health Environment	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.	Complied	Pre-placement initial medical examination of the workers is carried out and record being maintained. Schedule of health examination drawn in such a manner that every workman is being examined once in five years.
(xxvii)	Miscellaneous	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.	Complied	No construction labour is being engaged.
(xxviii)	Statutory compliance	The critical parameters such as RSPM (Particulate matter with size less than 10 microns 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))]. 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.	Complied	Critical parameters are being measured periodically during ambient air monitoring. No industrial waste water is being generated during mines operation and workshop waste water collected in pit and use in dust suppression after oil separation. Mines key parameters are being uploaded on our company website www.jkcement.com/environmental-complaine in every quarterly basis.

(xxix)	Statutory compliance	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.	Yet to be complied	Progressive Mine Closure Plan is prepared along with approved Mining plan. There is no plan of final mine closure in first five year of Mining Plan.
B.	General Conditions:			
(i)	Statutory compliance	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.	Complied	Mining is being done in accordance with approved Mining Plan.
(ii)	Statutory compliance	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	Complied	Mining is being done in accordance with approved Mining Plan.
(iii)	Statutory compliance	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.	Complied	<p>Combined WLCP has been prepared for 5 Nos. of captive Limestone Mines and 2 Nos. of Integrated Cement Plant of J K Cement Ltd are situated within 10 Km radius in Tehsil Nimbahera, Chittorgarh District.</p> <p>Wildlife Conservation Plan (WCP) has been prepared for 6 Schedule-I Species found in the buffer area during the survey i.e.:</p> <ul style="list-style-type: none"> a) Pavocristatus (Indian Peafowl), b) Pantherapadusfusca (Indian Leopard), c) Prionailurusrubiginosus (Rusty-Spotted Cat), d) Canis lupus pallipes (Indian Wolf), e) Varanusbengalensis (Indian Monitor Lizard) f) Gyps indicus/Gyps bengalensis (Indian Vulture) <p>Wild life conservation plan has been forwarded by the DFO, Chittorgarh to Divisional Chief Conservator of Forest vide letter No.: F(5) Survey/UVS/2021-22/4089 dated 13.07.2021 and accordingly 20% amount of Rs. 57.07 Lakh deposited to DFO - Chittorgarh against the total amount of WCP of Rs. 285.30/- Cr in July-2021.</p>
(iv)	Air Quality Monitoring And Preservation	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	Complied	Ambient Air Quality Monitoring stations has been established in consultation with the State Pollution Control Board vide letter no. MGR/PC/28/1600 on dated 4/10/2013.

		10 micron i.e., PM10) and NOx 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.		
(v)	Air Quality Monitoring And Preservation	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM10) & NOx 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.	Complied	Monitoring data is regularly submitting to the concerned offices. Latest EC compliance report for the period: Oct-21 to March-22 was submitted to MoEF&CC, CPCB and RSPC Board vide letter No.: MGR/PC-14/C12 dated 25.05.2022.
(vi)	Air Quality Monitoring And Preservation	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.	Complied	<ul style="list-style-type: none"> • Water spraying arrangement on haul roads, loading & unloading point and transfer points has been provided. Green belt developed in and around mine lease area to control fugitive dust emission. • Details fugitive emission monitoring report for the period: Apr-22 to Sept-22 is enclosed as <u>Annexure-5</u>.
(vii)	Noise and vibration monitoring and prevention	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.	Complied	<ul style="list-style-type: none"> • 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. • Detail noise level monitoring report of ambient & work zone area for the period: Apr-22 to Sept-22 is enclosed as <u>Annex.-6</u>.
(viii)	Water Quality Monitoring And Preservation	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 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Complied	No industrial waste water is generating during mine operation and workshop waste water collected in pit and use in dust suppression. Trapped oil and grease has safely disposed by co-processing in own cement kiln.

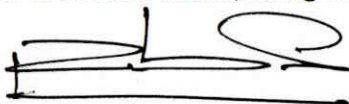
(ix)	Human Health Environment	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Complied	Protective respiratory devices are provided to every personal working in dusty area. Training and information on safety and health aspects is imparted. Occupational health surveillance program of the workers is being undertaken periodically. Environment awareness program have conducted time to time in plant, mines & near villages.
(x)	Statutory compliance	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.	Complied	JKCL have well equipped Environment Laboratory with suitable qualified personnel.
(xi)	Miscellaneous	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.	Complied	<ul style="list-style-type: none"> • A separate fund is kept for environment protection measures and report is being sent regularly to the concerned authority. • For environment protection measures expenditure made during FY: 2021-22 was Rs. 2189251/- lakh. • Detail environment protection measures expenditure made for the period: FY 2022-23 will be submitted along with next EC compliance report.
(xii)	Miscellaneous	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.	Complied	Total project cost of mine is 44.0662 Cr. and commercial date of production is 13.06.2013 of this mine.
(xiii)	Miscellaneous	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.	Complied	Noted and will extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.
(xiv)	Statutory compliance	The project proponent shall submit six monthly reports on the status of compliance of the stipulated	Complied	<ul style="list-style-type: none"> • Six Monthly EC Compliance Reports has been submitted to all concern authorities.

		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.		<ul style="list-style-type: none"> • Latest Six Monthly EC compliance reports along with monitoring report has sent to MoEF&CC, CPCB & RPCB vide our letter No.: MGR/PC-14/C12/, dated 25.05.2022 and also uploaded on company website: https://www.jkcement.com/environmental-compliance
(xv)	Miscellaneous	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.	Complied	EC copy has been submitted to concerned Panchayat, Zila Parisad, Municipal Corporation and Urban Local Body. EC letter is also uploaded on our company website in public domain.
(xvi)	Miscellaneous	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	This condition not related to us.
(xvii)	Miscellaneous	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	Complied	Environment Statement Report of FY 2021-22 has submitted vide letter No.: MGR/PC/ESR/21/639 dated 19.09.2022.

		environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.		
(xviii)	Miscellaneous	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.	Complied	Implemented and the necessary information already sent to the concerned authority.

Yours sincerely,

For, Mangrol Limestone Mines,
J. K. Cement Works, Mangrol



(Authorized Signatory)

GRingdi

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST

ANNEXURE-1

(See Rule - 10)

Final Report

Report No. : **2081**

Report On : **22/06/2022**

I hereby certify that I **Dr Giriraj Kumar Songara**, State Board Analyst duly appointed **under sub Section(2) of Section 29 of the Air (Prevention & Control of Pollution) Act, 1981** received on the **15/06/2022** from **Surya Pratap Meena, JSO, Chittorgarh ,RSPCB Chittorgarh** a sample of **Ambient Air Quality of M/S J.K Cement Works, Mangrol , Plant - Mangrol [735] ,Village Mangrol , City- Tilakhera and Mangrol Tehsil- Nimbahera , District- Chittorgarh M.L No- ML-26108** Collected from **Ambient air quality monitoring near Mangrol mines Rawana office.** Collected on **14/06/2022**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **22/06/2022** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	87
2	PM 2.5 ug/m^3	32
3	Sulphur Dioxide as SO2 ug/m^3	3.5
4	NO2 ug/m^3	20.1

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **22/06/2022**


BOARD ANALYST

Rajasthan State Pollution Control Board
Regional Office Chittorgarh
Near FCI Godown, Chanderia, Chittorgarh
Phone:01472-255077

FORM - X
RAJASTHAN STATE POLLUTION CONTROL BOARD
REPORT OF THE STATE BOARD ANALYST

(See Rule - 10)

Final Report

Report No. : **2082**

Report On : **22/06/2022**

I hereby certify that I **Dr Giriraj Kumar Songara**, State Board Analyst duly appointed **under sub Section(2) of Section 29 of the Air (Prevention & Control of Pollution) Act, 1981** received on the **15/06/2022** from **Surya Pratap Meena, JSO, Chittorgarh ,RSPCB Chittorgarh** a sample of **Ambient Air Quality of M/S J.K Cement Works, Mangrol , Plant - Mangrol [735] ,Village Mangrol , City- Tilakhera and Mangrol Tehsil- Nimbahera , District- Chittorgarh M.L No- ML-26108** Collected from **Ambient air quality monitoring near Mangrol mines office**. Collected on **14/06/2022**. The Sample was in a condition fit for analysis as reported below :-

I further certify that I have analyzed the aforementioned sample on **22/06/2022** and declare the result of the analysis to be as below :-

S. No.	Parameters	Result
1	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	84
2	PM 2.5 $\mu\text{g}/\text{m}^3$	31
3	Sulphur Dioxide as SO2 $\mu\text{g}/\text{m}^3$	3.3
4	NO2 $\mu\text{g}/\text{m}^3$	16.0

The condition of the seals, fastening and container on receipt was as follows : **Intact**

Signed This On **22/06/2022**



BOARD ANALYST

Rajasthan State Pollution Control Board
Regional Office Chittorgarh
Near FCI Godown, Chanderia, Chittorgarh
Phone:01472-255077



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ISO 45001:2018 (OH&S)

JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400001613	Date :	22-06-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	17-06-2022
Point of Collection :	Tie Village, Mangrol	Date of Receipt :	20-06-2022
Date of Test/Analysis :	20-06-2022 to 22-06-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL (<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	340	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.12	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	11.03	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL (<20.0)	APHA 1977,Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	30.14	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	3.05	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	78.57	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	12.1	IS 5182 : Part 26 : 2020	20.00

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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Puran Mal Yogi

Rajesh Maheshwari



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT


Report No./ULR No. :	400001613	Date :	22-06-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbaheera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	17-06-2022
Point of Collection :	Tie Village, Mangrol	Date of Receipt :	20-06-2022
Date of Test/Analysis :	20-06-2022 to 22-06-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Benzene [microgram/m3]	BDL (<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
2	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Senior Analyst Yogi


Rajesh Maheshwari
Authorized Signatory
(Report No: 400001613)



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JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400001614	Date :	22-06-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	17-06-2022
Point of Collection :	Mangrol Village	Date of Receipt :	20-06-2022
Date of Test/Analysis :	20-06-2022 to 22-06-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL (<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	330	TTH/AAQM/08	4000
3	Nitrogen Dioxide as NO2 [microgram/m3]	12.83	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
4	Ozone [microgram/m3]	BDL (<20.0)	APHA 1977,Part 819	100.00
5	Particulate Matter (PM2.5) [microgram/m3]	38.05	IS 5182 (Part 24) : 2019	60.00
6	Sulphur Dioxide [microgram/m3]	3.05	IS 5182 (Part 2) : 2001 RA 2017	80.00
7	Particulate Matter (PM 10) [microgram/m3]	81.09	IS 5182 (Part 23)-2006 RA 2017	100.00
8	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
9	Nickel [ng/m3]	10.9	IS 5182 : Part 26 : 2020	20.00

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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Purni Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory



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JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
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Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400001614	Date :	22-06-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	17-06-2022
Point of Collection :	Mangrol Village	Date of Receipt :	20-06-2022
Date of Test/Analysis :	20-06-2022 to 22-06-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Benzene [microgram/m3]	BDL (<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
2	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Purni Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: 400001614)



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400002416	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	12-08-2022
Point of Collection :	Towards Factory Gate, Mangrol Mine	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	220	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	12.52	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	19.96	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	4.07	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	44.42	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Puran Mal Yogi
Senior Analyst

K.N. MUKHOPADHYAY

Authorized Signatory
(Report No: TC502522400002416)



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400002417	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Near Ravana Office ,Mangrol Mine	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	210	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	12.75	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	17.71	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.26	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	34.52	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Senior Analyst

Puran Mal Yogi

K.N. MUKHOPADHYAY

Authorized Signatory

(Report No: TC502522400002417)



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
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Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400002420	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	12-08-2022
Point of Collection :	Tie Village, Mangrol	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	150	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	9.72	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	13.87	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.92	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	24.22	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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Puran Mal Yogi
Senior Analyst

K.N. MUKHOPADHYAY

Authorized Signatory
(Report No: TC502522400002420)



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Office : E-65, Chitranganj Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400002421	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Mangrol Village	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	160	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	10.67	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	15.19	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.31	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	21.21	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Puran Mal Yogi
Senior Analyst

K.N. MUKHOPADHYAY

Authorized Signatory
(Report No: TC502522400002421)

J. K. Cement Works, MANGROL (RAJ)

MANGROL LIMESTONE MINE

SIX MONTHLY AMBIENT AIR QUALITY & NOISE MONITORING REPORT

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

Month	Towards Factory Gate					Near Ravana Office				
	PM10	PM2.5	SO ₂	Nox	CO	PM10	PM2.5	SO ₂	Nox	CO
Apr-22	46.5	28.6	9.6	17.2	624	53.4	36.3	12.3	19.3	658
May-22	49.6	30.4	8.8	15.1	527	51.9	32.4	10.4	17.0	567
Jun-22	60.2	45.6	18.6	25.3	550	54.1	36.6	17.4	28.3	693
Jul-22	53.9	40.4	26.5	32	595	61.4	49.4	31.4	35	682
Aug-22	29.3	18.8	9.2	14	538	36.6	23.1	11.1	18	573
Sep-22	27.5	16.5	7.2	11	544	33.1	20.3	10.0	16	584
AVERAGE	44.5	30.1	13.3	19.1	563	48.4	33.0	15.4	22.2	626



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000727	Date :	05-05-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Potable and Domestic Water	Date of Sample Collection/Monitoring :	26-04-2022
Point of Collection :	Pit Water - (Surface Water)	Date of Receipt :	28-04-2022
Date of Test/Analysis :	28-04-2022 to 05-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible limits in the absence of Alternate Sources as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	2.4	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	8.24	IS 3025 (Part 11) : 1983 RA 2017	6.50 - 8.50	-
5	Hardness (total) [mg/l]	372.82	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
6	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
7	Chloride [mg/l]	43.36	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	412	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00

Note:

Continue to next page...

Rajesh
Rajesh Maheshwari



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JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible limits in the absence of Alternate Sources as per IS 10500 : 2012
9	Calcium [mg/l]	124.27	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	15.1	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
11	Fluoride [mg/l]	0.42	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Suspended Solids [mg/l]	14	IS 3025 (Part 17) : 1984 RA 2017	-	-
13	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Conductivity [micromho/cm]	659	APHA 2017 : 2510 B	-	-
15	M - Alkalinity [mg/l]	149	IS 3025 (Part 23) : 1986 RA 2019	-	-

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Balram
Senior Analyst

Rajesh
Authorized Signatory

(Report No: TC502522100000727)



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JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
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Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000728	Date :	05-05-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	26-04-2022
Point of Collection :	Tube Well in Plantation area (Ground Water)	Date of Receipt :	28-04-2022
Date of Test/Analysis :	28-04-2022 to 05-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	BDL(<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.75	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	423.3	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
6	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
7	Chloride [mg/l]	76.87	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	559	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00

Note:

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Rajesh Maheshwari



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Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Calcium [mg/l]	144.47	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	15.1	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
11	Fluoride [mg/l]	0.81	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Conductivity [micromho/cm]	829	APHA 2017 : 2510 B	-	-
13	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Total Suspended Solids [mg/l]	6	IS 3025 (Part 17) : 1984 RA 2017	-	-
15	M - Alkalinity [mg/l]	290	IS 3025 (Part 23) : 1986 RA 2019	-	-

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Balaram
Senior Analyst
Balaram Agarwal

Rajesh
Authorized Signatory
Rajesh Maheshwari

(Report No: TC502522100000728)



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Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000729	Date :	05-05-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	26-04-2022
Point of Collection :	Tube Well in Gopalji Ag. Land (Ground Water)	Date of Receipt :	28-04-2022
Date of Test/Analysis :	28-04-2022 to 05-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	BDL(<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.73	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	438.83	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
6	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
7	Chloride [mg/l]	96.58	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	572	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00

Note:

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Rajesh
Rajesh Maheshwari



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C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
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Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Calcium [mg/l]	152.23	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	14.16	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
11	Fluoride [mg/l]	0.80	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Conductivity [micromho/cm]	895	APHA 2017 : 2510 B	-	-
13	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Total Suspended Solids [mg/l]	4	IS 3025 (Part 17) : 1984 RA 2017	-	-
15	M - Alkalinity [mg/l]	280	IS 3025 (Part 23) : 1986 RA 2019	-	-

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Belran
Senior Analyst
Adarwal

Raj
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522100000729)



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100001488	Date :	22-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Potable and Domestic Water	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Pit Water - (Surface Water)	Date of Receipt :	13-08-2022
Date of Test/Analysis :	13-08-2022 to 22-08-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible limits in the absence of Alternate Sources as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	BDL(<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.90	IS 3025 (Part 11) : 1983 RA 2017	6.50 - 8.50	-
5	Hardness (total) [mg/l]	88.24	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
6	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
7	Chloride [mg/l]	15.65	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	157	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Calcium [mg/l]	27.45	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	4.76	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00

Rajesh

Rajesh Maheshwari



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Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible limits in the absence of Alternate Sources as per IS 10500 : 2012
11	Fluoride [mg/l]	0.23	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Suspended Solids [mg/l]	8	IS 3025 (Part 17) : 1984 RA 2017	-	-
13	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Conductivity [micromho/cm]	246	APHA 2017 : 2510 B	-	-
15	M - Alkalinity [mg/l]	76	IS 3025 (Part 23) : 1986 RA 2019	-	-
16	Total coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	Shall not be detectable in 100 ml sample	-
17	E. Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in 100 ml sample	-

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Balram
Balram Agarwal
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522100001488)



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(Unit of Team Institute of Science & Technology Pvt. Ltd.)



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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100001489	Date :	22-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Tube Well in Plantation area (Ground Water)	Date of Receipt :	13-08-2022
Date of Test/Analysis :	13-08-2022 to 22-08-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	BDL(<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.82	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	392.16	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
6	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
7	Chloride [mg/l]	72.4	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	501	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Calcium [mg/l]	117.65	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	23.82	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00

Raj

Rajesh Maheshwari



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ISO 14001:2015,

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JDA/UDH

Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
11	Fluoride [mg/l]	0.83	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Conductivity [micromho/cm]	796	APHA 2017 : 2510 B	-	-
13	Oil and Grease [mg/l]	BDL(<0.1)	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Total Suspended Solids [mg/l]	6	IS 3025 (Part 17) : 1984 RA 2017	-	-
15	M - Alkalinity [mg/l]	270	IS 3025 (Part 23) : 1986 RA 2019	-	-

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Balram
Balram Agarwal
Senior Analyst

Rajesh
Authorized Signatory
Rajesh Maheshwari
(Report No: TC502522100001489)



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JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
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Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100001490	Date :	22-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Tube Well in Gopalji Ag. Land (Ground Water)	Date of Receipt :	13-08-2022
Date of Test/Analysis :	13-08-2022 to 22-08-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	BDL(<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.39	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	411.76	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
6	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
7	Chloride [mg/l]	72.4	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	560	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Calcium [mg/l]	129.41	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	21.44	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00

Rajesh

Rajesh Maheshwari



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
11	Fluoride [mg/l]	0.78	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Conductivity [micromho/cm]	870	APHA 2017 : 2510 B	-	-
13	Oil and Grease [mg/l]	BDL(<0.1)	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Total Suspended Solids [mg/l]	6	IS 3025 (Part 17) : 1984 RA 2017	-	-
15	M - Alkalinity [mg/l]	270	IS 3025 (Part 23) : 1986 RA 2019	-	-

Notes :-

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Balram
Balram Agarwal
Senior Analyst

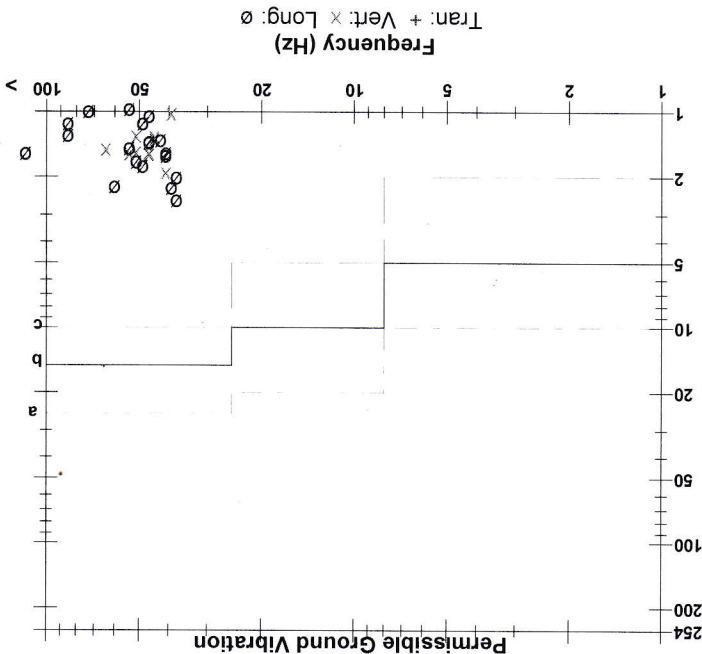
Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522100001490)

Serial Number UM10861 V 10-81 Micromate ISEE
Battery Level 3.8 Volts
Unit Calibration February 18, 2022 by UES New Delhi
File Name UM10861_20220731133519.IDFW

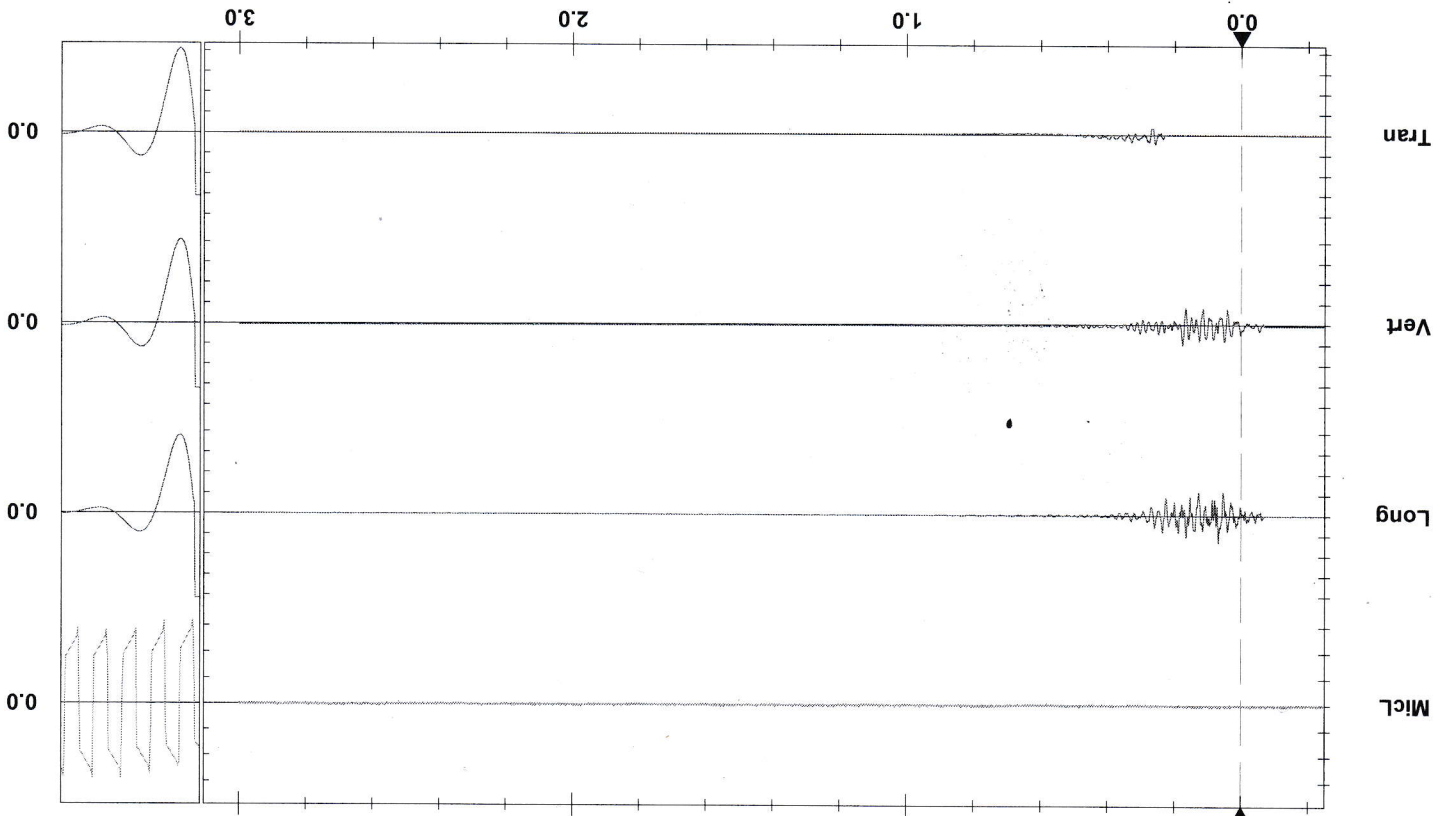
Post Event Notes
Mangrol Limestone Mine
NORTH PIT
Client: Tilaikhera Mine
User Name: J K Cement Works Mangrol
General: Lime Stone Mine

BID= 9--6 BENCH= II N- PIT, 7 HOLES, C/D= 32.35 KG,
DISTANCE FROM BLASTING FACE = 300 mtr.

DGMS India (A)



a) Industrial Buildings
b) Domestic houses/structures
c) Historic objects, sensitive structures



Sensor Check

Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div

Time Scale: 0.20 sec/div
Trigger =

Date/Time	Vert at 13:35:19 July 31, 2022
Trigger Source	Geo: 0.700 mm/s, Mic: 105.0 dB(L)
Range	Geo: 254.0 mm/s
Record Time	3.0 sec at 2048 sps
Operator/Setup:	TILAKHERA MINE/Tilaikhera.MMB
Notes	
Location:	NORTH PIT
Client:	Tilaikhera Mine
User Name:	J K Cement Works Mangrol
General:	Lime Stone Mine
Microphone	Linear Weighting
PSPL	<88 dB(L)
ZC Freq	>200 Hz
Channel Test	Passed (Freq = 19.7 Hz Amp = 1217 mv)
PPV	0.867 1.963 2.640
ZC Freq	45 41 38
Time (Rel. to Trig)	0.258 0.176 0.067
Peak Acceleration	0.043 0.074 0.146
Peak Displacement	0.014 0.012 0.008
Sensor Check	Passed
Frequency	7.5 7.5 7.3
Overlapping Ratio	3.5 3.5 4.1
Peak Vector Sum	2.644 mm/s at 0.067 sec
N/A: Not Applicable	

Velocity (mm/s)



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JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
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Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522200001294	Date :	22-06-2022
Issued To :	M/S J.K. Cement Works (Mangrol) Village- Mangrol, Tehsil - Nimbahera,, District - Chittorgarh-312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Liquid Effluents	Date of Sample Collection/Monitoring :	11-06-2022
Point of Collection :	Mangrol Mine Workshop Water	Date of Receipt :	14-06-2022
Date of Test/Analysis :	14-06-2022 to 22-06-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	24	APHA.2017:2540-D	100
2	Biochemical Oxygen Demand (BOD) [mg/l]	14.2	APHA 2017:5210-B	30
3	Chloride as Cl [mg/l]	103.96	APHA 2017 : 4500- Cl- B	-
4	Chemical Oxygen Demand (COD) [mg/l]	96	APHA:2017 : 5220-C	250
5	pH	8.11	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Phosphate (total) as P [mg/l]	BDL (<0.1)	APHA 2017 : 4500-P C	5
7	Sulphate [mg/l]	84.11	APHA:2017 : 4500-SO4-E	-
8	Chromium Total [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	2.0
9	Copper [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	3.0
10	Iron [mg/l]	0.12	APHA :2017 :3111- B	3.0
11	Zinc [mg/l]	0.05	APHA :2017 :3111- B	5.0
12	Oil & Grease [mg/l]	6	APHA 2017 : 5520 B	10
13	Total Residual chlorine [mg/l]	BDL (<0.1)	APHA 2017 : 4500- Cl- B	0.5

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502522200001294)



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Office : E-65, Chitranjan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400001611	Date :	22-06-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Fugitive Emission Quality Monitoring	Date of Sample Collection/Monitoring :	16-06-2022
Point of Collection :	3-10 Meter Distance Form Drilling Point of Mangrol Mine	Date of Receipt :	20-06-2022
Date of Test/Analysis :	20-06-2022 to 22-06-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashna Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Suspended Particulate Matter [microgram/m3]	416.56	IS 5182 (Part 4) : 1999 RA 2019
2	Sulphur Dioxide [microgram/m3]	6.31	IS 5182 (Part 2) : 2001 RA 2017
3	Oxides of Nitrogen [microgram/m3]	15.15	IS 5182 (Part 6) : 2006 Reaffirmed 2017
4	Carbon Monoxide [microgram/m3]	310	TTH/AAQM/08

Notes :-

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522400001611)



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Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400001612	Date :	22-06-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbaheera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Fugitive Emission Quality Monitoring	Date of Sample Collection/Monitoring :	16-06-2022
Point of Collection :	Near Loading point of Mangrol Mine	Date of Receipt :	20-06-2022
Date of Test/Analysis :	20-06-2022 to 22-06-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Suspended Particulate Matter [microgram/m3]	398.82	IS 5182 (Part 4) : 1999 RA 2019
2	Sulphur Dioxide [microgram/m3]	5.65	IS 5182 (Part 2) : 2001 RA 2017
3	Oxides of Nitrogen [microgram/m3]	12.62	IS 5182 (Part 6) : 2006 Reaffirmed 2017
4	Carbon Monoxide [microgram/m3]	310	TTH/AAQM/08

Notes :-

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P. Maheshwari
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522400001612)



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Office : E-65, Chitrangan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RHICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400002418	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Fugitive Emission Quality Monitoring	Date of Sample Collection/Monitoring :	12-08-2022
Point of Collection :	3-10 Meter Distance Form Drilling Point of Mangrol Mine	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Suspended Particulate Matter [microgram/m3]	131.48	IS 5182 (Part 4) : 1999 RA 2019
2	Sulphur Dioxide [microgram/m3]	3.57	IS 5182 (Part 2) : 2001 RA 2017
3	Oxides of Nitrogen [microgram/m3]	11.33	IS 5182 (Part 6) : 2006 Reaffirmed 2017
4	Carbon Monoxide [microgram/m3]	270	TTH/AAQM/08

Notes :-

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Senior Analyst
Purni Mal Yogi

K.N. MUKHOPADHYAY
Authorized Signatory
(Report No: TC502522400002418)



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Office : E-65, Chitranjan Marg,
C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
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Laboratory : G1-584, RIICO Industrial Area,
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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400002419	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Fugitive Emission Quality Monitoring	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Near Loading point of Mangrol Mine	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Suspended Particulate Matter [microgram/m3]	154.03	IS 5182 (Part 4) : 1999 RA 2019
2	Sulphur Dioxide [microgram/m3]	4.38	IS 5182 (Part 2) : 2001 RA 2017
3	Oxides of Nitrogen [microgram/m3]	11.2	IS 5182 (Part 6) : 2006 Reaffirmed 2017
4	Carbon Monoxide [microgram/m3]	260	TTH/AAQM/08

Notes :-

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Puran

Senior Analyst
Puran Mal Yogi

K.N. MUKHOPADHYAY

Authorized Signatory
(Report No: TC502522400002419)

J .K. Cement Works, MANGROL (RAJ)

MANGROL LIMESTONE MINE **SIX MONTHLY AMBIENT AIR QUALITY & NOISE MONITORING REPORT**

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

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

Month	3 to10 Meter Distance From Drilling Operation				Near loading point			
	SPM	SO ₂	Nox	CO	SPM	SO ₂	Nox	CO
Apr-22	278	7.2	14.6	584	303	9.1	21.2	624
May-22	288	9.7	13.4	590	271	7.3	28.4	534
Jun-22	432	18.7	28.5	733	388	15.6	25.4	561
Jul-22	429	15.0	20.0	595	341	13.0	13.8	527
Aug-22	254	7.7	11.4	561	236	10.6	14.3	527
Sep-22	239	6.1	12.2	538	218	5.8	10.5	516
AVERAGE	320	10.7	16.7	600	293	10.2	18.9	548

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri, Jaipur (Raj.) - 302 004

Result of Ambient Noise Level Monitoring

DATE OF RECEIPT : 15/06/2022

MONITORED BY : Surya Pratap Meena, JSO, Chittorgarh

S.No.	Lab Sample No	Name of Industry / Place	Point of Collection / Location	Date of Monitoring	Noise Level In Day Time(Leq dB(A))	Noise Level In Night Time(Leq dB(A))
1	2077	J.K Cement Works, Mangrol, Village- Tilakhera/MangrolTilakhera and Mangrol Tehsil:Nimbahera District:Chittorgarh	Ambient noise level monitoring near Mangrol mines rawana office.	14/06/2022	50.6	ND


BOARD ANALYST

Rajasthan State Pollution Control Board

* ND = Not Done

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongri, Jaipur (Raj.) - 302 004

Result of Ambient Noise Level Monitoring

DATE OF RECEIPT : 15/06/2022

MONITORED BY : Surya Pratap Meena, JSO, Chittorgarh

S.No.	Lab Sample No	Name of Industry / Place	Point of Collection / Location	Date of Monitoring	Noise Level In Day Time(Leq dB(A))	Noise Level In Night Time(Leq dB(A))
1	2078	J.K Cement Works, Mangrol, Village- Tilakhera/MangrolTilakhera and Mangrol Tehsil:Nimbahera District:Chittorgarh	Ambient noise level monitoring near Mangrol mines office	14/06/2022	62.7	ND



BOARD ANALYST

Rajasthan State Pollution Control Board

* ND = Not Done



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Email : director@teamtesthouse.com,
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TEST REPORT

Report No./ULR No. :	TC502522600001573	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Towards Factory Gate, Mangrol Mine	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	63.7	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	54.3	IS 9989	65

Notes :-

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Senior Analyst

Puran Mal Yogi

K.N. MUKHOPADHYAY

Authorized Signatory

(Report No: TC502522600001573)



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C-Scheme, Jaipur - 302001, Rajasthan
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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522600001574	Date :	25-08-2022
Issued To :	M/S Mangrol Limestone Mine (ML No.-26/08) C/o J. K. Cement Works Tehsil- Nimbahera,, District- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	13-08-2022
Point of Collection :	Near Ravana Office ,Mangrol Mine	Date of Receipt :	16-08-2022
Date of Test/Analysis :	16-08-2022 to 23-08-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	60.1	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	52.7	IS 9989	65

Notes :-

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Senior Analyst

Purnan Mal Yogi

K.N. MUKHOPADHYAY
Authorized Signatory
(Report No: TC502522600001574)

J. K. Cement Works, MANGROL (RAJ)

MANGROL LIMESTONE MINE

MONTHLY NOISE MONITORING REPORT

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

Month	Towards Factory Gate		Near Ravana Office	
	NOISE LEVEL db(A)			
	Day Time	Night Time	Day Time	Night Time
Apr-22	52.2	41.0	61.6	47.5
May-22	65.5	41.2	61.5	42.3
Jun-22	51.5	36.8	53.8	37.2
Jul-22	54.4	37.8	55.6	39.4
Aug-22	57.7	40.2	56.8	36.4
Sep-22	55.4	39.6	58.7	38.1