

NBH/PC-14/C13/

Through Email

Date: 22.05.2023

To,

The Director (M),

Ministry of Environment, Forest & Climate Change,

Indira Paryavaran Bhawan,

JOR Bagh Road, Aligarh,

New Delhi-110003**Sub: Environmental Clearance Compliance report of Karunda Limestone Mine (ML 03/2003) by J. K. Cement Works, Nimbahera, Dist. Chittorgarh, Rajasthan (J K Cement Ltd.)**Ref.: EC letter no. - J-11015 / 36/ 2019-IA.II (M) dated 19th August 2021

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 **October 2022 to March 2023**.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 hope that the compliance is in order.

Thanking you,

Yours Faithfully

For J. K. Cement Works, Nimbahera**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)**

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Form for Uploading Six Monthly Compliance Report

Proposal Details:

Proposal No.	IA/RJ/MIN/ 210770/2019	Project Name	Environmental Clearance for Expansion of Karunda Limestone Mine (M.L. No.: 03/2003, ML Area 240.86 ha.) from 2.0 Million TPA Limestone to total excavation of 3.8 Million TPA (Cement Grade Limestone: 3.448 Million TPA, Subgrade Limestone: 0.152 Million TPA, Interstitial Clay/ Screen rejects/ Waste: 0.189 Million TPA and Top Soil: 0.011 Million TPA) and Limestone Crusher with Screening (500 TPH Limestone and 50 TPH Screening Clay) situated at Village - Karunda, Tehsil - Nimbahera, District - Chittorgarh, Rajasthan by M/s. J.K. Cement Limited.
Category	A	MoEF File No.	J-11015/36/2019-IA.II (M), dated 19.08.2021
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*	2023	Reporting Period*	October-2022 to March-2023
Remarks (if any)	Submitting the Six Monthly EC Compliance Report for the period: October-2022 to March-2023 of Karunda Limestone Mine (M.L. No.: 03/2003, ML Area: 240.86 ha.) from 2.0 Million TPA Limestone to total excavation of 3.8 Million TPA and Limestone Crusher with Screening (500 TPH Limestone and 50 TPH Screening Clay) situated at Village - Karunda, Tehsil - Nimbahera, District - Chittorgarh, Rajasthan by M/s. J.K. Cement Limited.		

Details of Production and Project Area

Date of Commencement of Project /Activity:*	25.02.1986	Project Area as Per EC Granted (In Case of Mine Lease):*	240.86 ha.
Actual Project Area (In Case of Mine Lease):*	228.13 ha.		

PRODUCTION CAPACITY: Detail of Mines Excavation Quantity for the FY: 2022-23


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
1	Cement Grade Limestone	Million TPA	3.448	2.2625	3.34825232
2	Subgrade Limestone	Million TPA	0.152	0.0150	0.1488
3	Interstitial Clay/Screen rejects/ Waste	Million TPA	0.189	0.0550	0.08492
4	Top Soil	Million TPA	0.011	0.0075	0.01096
Total Excavation Quantity		Million TPA	3.800	2.3401	3.59293232

Karunda Limestone Mine (M.L. No.: 03/2003, ML Area: 240.86 ha.)
M/s. J. K. Cement Works, Karunda, Nimbahera, Chittorgarh, Rajasthan-312617
EC Compliance Report: October-2022 to March-2023

Environmental Clearance for Expansion of Karunda Limestone Mine (M.L. No.: 03/2003, ML Area 240.86 ha.) from 2.0 Million TPA Limestone to total excavation of 3.8 Million TPA (Cement Grade Limestone: 3.448 Million TPA, Subgrade Limestone: 0.152 Million TPA, Interstitial Clay/ Screen rejects/ Waste: 0.189 Million TPA and Top Soil: 0.011 Million TPA) and Limestone Crusher with Screening (500 TPH Limestone and 50 TPH Screening Clay) situated at Village - Karunda, Tehsil - Nimbahera, District - Chittorgarh, Rajasthan by M/s. J.K. Cement Limited.

Environment Clearance vide No.: J-11015/36/ 2019-IA.II (M), dated 19/08/2021

A. SPECIFIC CONDITION: -

S. No.	Condition Type	Condition Details	Self Declaration	Remarks / Reason
1	Statutory compliance	The project proponent should explore the possibility of plantation in the adjoining area outside the lease boundary between the village and the mine lease to create a barrier of at least 50 m width belt.	Complied	Safety zone of 300 m has been maintained towards Charliya, Karunda and Pipliya villages and same will be maintained till conceptual stage. If, any changes is required, prior permission will be obtained.
2	Statutory compliance	It is proposed to create a water reservoir at 175.086 ha. at the end of closure of mine. PP must submit a detailed plan that how will this water reservoir be protected, utilized for villagers in agriculture after necessary treatment.	Yet to be complied	Water reservoir to be developed on 175.086 ha. and detailed plan will be submitted at the time of closure of mine.
3	Miscellaneous	The project proponent should explore the possibility of use of permanent water sprinklers for control of dust on the haul roads within the mine lease area.	Complied	<ul style="list-style-type: none"> Unit has deployed one mobile water tanker of 15 KL capacity for regular water sprinkling on the haul roads to prevent dust generation during transportation of limestone through dumpers. Water tanker has also been equipped with high pressure jet system to wet the blasted muck for suppression the fugitive dust emission during loading activity. <div style="text-align: center;">  <p>Water Spray Practice on Blasted Muck</p> </div>

4	Statutory compliance	There are village roads passing through the mine lease area. 50 m safety zone on either side and avenue plantation must be undertaken as there was no proposal for road diversion. The safety zone from nearby village currently maintained at 300 m till the life of mine must be maintained at SE and SW directions.	Complied	<ul style="list-style-type: none">• Diversion of road has been taken by Govt. of Rajasthan, 50 m safety zone on either side of road and avenue plantation is being undertaken.• Safety zone of 300 m has been maintained towards - Charliya, Karunda and Pipliya Villages and it will be maintained till conceptual stage. If any changes are required, prior permission will be obtained.																			
5	Mining Plan	OLBC must be completed within 5 months as committed during the presentation.	Complied	OLBC has been commissioned on 12/01/2022, which has intimated to Ministry.																			
6	Green Belt	PP should ensure plantation in the mined out pits in the benches, which are not sub-merged in water with 95 % survival rate.	Complied	Presently, mine pits are in active condition, plantation will be done in the benches of mined out pits.																			
7	Mining Plan	PP must not exceed the total excavation that it has considered for preparation of EMP at any time during the operation.	Complied	Excavation quantity is maintaining well within the permitted limit. Details of excavation Million TPA in FY: 2022-23 as below: <table><tr><td>Cement Grade Limestone</td><td>Sub Grade Limestone</td><td>IB/Screen Reject/ Waste</td><td>Top Soil</td></tr><tr><td>3.34825232</td><td>0.1488</td><td>0.08492</td><td>0.01096</td></tr></table>					Cement Grade Limestone	Sub Grade Limestone	IB/Screen Reject/ Waste	Top Soil	3.34825232	0.1488	0.08492	0.01096							
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3.34825232	0.1488	0.08492	0.01096																				
8	Mining Plan	Timeline for crusher and belt conveyer installation from Karunda to Maliakhera for internal transport be submitted.	Yet to be Complied	Noted																			
9	Green Belt	The PP must submit the status report of plantation in the periphery, non-mineral zone, safety zone, avenue plantation, and either side of village road to the Ministry in every 6 months.	Complied	Details of plantation developed are: - <table><tr><th>Location of plantation</th><th>Total Area</th><th>Total Plantation till the FY: 2022-23</th><th>Total Plantation in FY-2022-23</th><th>Remark</th></tr><tr><td>Periphery area (Safety Zone)</td><td>4.90 ha</td><td>2.868 ha covered with 7175 nos. of saplings.</td><td>0.33 ha. with 825 nos. of saplings</td><td>Remaining Periphery plantation area 2.032 ha will be done in remaining period of the FY 2023-24</td></tr><tr><td>Non mineral area/ Avenue</td><td></td><td>Cumulative within lease - 25.652 ha.</td><td>2.04 ha sapling 5105 nos.</td><td>--</td></tr></table>					Location of plantation	Total Area	Total Plantation till the FY: 2022-23	Total Plantation in FY-2022-23	Remark	Periphery area (Safety Zone)	4.90 ha	2.868 ha covered with 7175 nos. of saplings.	0.33 ha. with 825 nos. of saplings	Remaining Periphery plantation area 2.032 ha will be done in remaining period of the FY 2023-24	Non mineral area/ Avenue		Cumulative within lease - 25.652 ha.	2.04 ha sapling 5105 nos.	--
Location of plantation	Total Area	Total Plantation till the FY: 2022-23	Total Plantation in FY-2022-23	Remark																			
Periphery area (Safety Zone)	4.90 ha	2.868 ha covered with 7175 nos. of saplings.	0.33 ha. with 825 nos. of saplings	Remaining Periphery plantation area 2.032 ha will be done in remaining period of the FY 2023-24																			
Non mineral area/ Avenue		Cumulative within lease - 25.652 ha.	2.04 ha sapling 5105 nos.	--																			

				Plantation/ Village Road		with 63555 nos. saplings. Cumulative outside lease – 1.5 ha. with 4850 nos. of saplings.		
				Total		30.02 ha (75580 nos.)	2.37 ha (5975 nos.)	
10	Statutory compliance	The compliance to public hearing as indicated in the table with an investment of 160 Lakhs be submitted annually to the Ministry.	Complied	Details of PH issue addressed are in below table:				

Details of PH Issue Addressed

CSR Project or Activities	Time bound Action Plan with Budgetary allocation	CSR Expenditure Capital Cost (In Lakh)						
		2021-22	Completion Status	Cost Expenditure	2022-23	Completion Status	2023-24	Total
Panchayati Nohra in Village Maliakhedi	After allotment of land by Government/Panchayat Construction of Panchayati Nohra/Community Center in Village Maliakhedi will be done in FY 2022-23 with a budget of Rs.50 Lakhs	-	-	-	50	To be completed (After available of panchayat land)	-	50
Plantation at Alsigarh Balaji Temple near Village Falwa	Budget for Plantation activities (300 nos of sapling with tree guard) at Alsigarh Balaji Temple near Village Falwa will be Rs. 5.0 Lakhs and work will be completed in FY 2021-22 & 2022-23.	2.5	Completed	0.5	2.5	To be completed	-	5
Gaushala in Village Phalwa	After allotment of land by Government/Panchayat, Construction of Gaushala in village Phalwa will be done in FY 2021-22 & 2022-23 with a budget of Rs.20.0 Lakhs.	-	-	-	-	-	20	20
Solar water pump set in village Phalwa	Installation of Solar water pump set will be done by year 2021-22 with a cost of Rs. 3.0 Lakhs	3	-	-	-	-	-	3
CC Road and drainage at Shergarh Village.	Construction of CC road (700-800 mtr) and drainage in Village Shergarh will be done in year 2022-23 with a budget of Rs. 14.0 Lakh	-	-	-	14	Completed	-	14
CC Road in Pipaliya & Karunda Village .	Construction of CC road (1400 mtr) and drainage in Village Saand will be done in year 2021-22 with a budget of Rs. 18.0 Lakh	18	Completed	16	-	-	-	18
Community Hall in Pipliya Gadiya Village	After allotment of land by Government/Panchayat, Construction of Community Hall in Pipliya Gadiya Village will be done in FY 2022-23 with a budget of Rs.20 Lakhs	-	-	-	20	To be completed (Government land is not available)	-	20
Pipeline for drinking water in Village Maliakhedi	Budget for the pipeline will be Rs. 20 Lakhs and completed in FY 2021-22 (1000 mtr Length)	20	Completed	20	-	-	-	20

Need based		Total project cost is Rs. 49.29 Crore and considering 2% of project cost, total CER cost comes to Rs. 99 lacs. However, we are proposing CER Cost of Rs. 160 lacs. Accordingly, there is an additional provision of Rs. 24 lacs to meet the instant requirement from the community	-	-	-	-	-	24	24
		Total CSR Expenditure (In Lakh)	43.5	-	36.5	86.5	-	44	160
11	Miscellaneous	Submit the update on implementation of Wildlife Conservation Plan both specific to this mine expenditure as well as combined expenditure annually.	Complied	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. Wildlife Conservation Plan (WCP) has been prepared for 6 Schedule-I Species found in the buffer area during the survey i.e.: - 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) 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.					
12	Miscellaneous	At the time of revision of mining plan, EMP if modified, for a peak production be submitted along with the revised mining plan to the Ministry.	Yet to be complied	Agreed, no any revision of mining plan.					
13	Greenbelt	The study carried out by drone and shown during the presentation must be submitted to the Ministry for the purpose of record.	Complied	Plantation status shown by drone during EAC meeting has been submitted to the MoEF&CC along with EC Compliance Report on 30/11/2021.					
B. STANDARD CONDITIONS:									
I Statutory Compliance									
1	Statutory compliance	This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble	Complied	Noted					

		High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.		
2	Statutory compliance	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2 nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.	Complied	Unit is complies with all the statutory requirements.
3	Statutory compliance	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2 nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.	Complied	Certificate issued by Mining Department regarding the "No Dues "of compensation levied.
4	Statutory compliance	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.	Complied	Not applicable
5	Statutory compliance	This environmental clearance shall become operational only after receiving formal forest clearance (FC) under the provision of forest conservation act, 1980, if applicable to the project.	Complied	Not applicable
6	Statutory compliance	Project proponent (PP) shall obtain consent to operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining consent to establish/consent to operate from the concerned state pollution control board /committee.	Complied	Unit obtained the CTE & CTO from RSPCB: - <ul style="list-style-type: none"> • CTE granted by RSPCB vide letter No.: F (Mines)/Chittorgarh (Nimbahera)/1869 (1) /2017-2018/3482-3486, dated 26.10.2021. • CTO granted by RSPCB vide letter No.: F (Mines)/Chittorgarh (Nimbahera)/1869(1) /2017-2018/3891-3895, dated 12.11.2021, valid up to 31/10/2026.
7	Statutory compliance	The PP shall adhere to the provision of the Mines Act, 1952, Mines and mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP	Complied	Agreed and complied.

		shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian bureau of mines from time to time.		
8	Statutory compliance	The project proponent shall obtain consents from all the concerned land owners, before start of mining operations as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.	Complied	Agreed, land owners have no any concern.
9	Statutory compliance	The project proponent shall follow the mitigation measures provided in MOEFCC's office memorandum No. Z-1103/57/2014-IA.II(M), dated 29 th October, 2014, titled "Impact of mining activities on Habitations - issues related to the mining projects wherein habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area"	Complied	Unit has taken the following measures to reduces the impact of mining activities on habitations: - <ul style="list-style-type: none"> • Garland drain constructed, • Siltation pond facilitated, • Regular water spray on haul road is being done, • Rain water collected in mine pit and as per requirement of villagers, water is being supplied to nearby villagers during the lean period, • Mask light are being kept in off mode during night period, • Company own road used for limestone transportation, • Control blasting has been implemented, and • Carried out dense plantation.
10	Statutory compliance	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water from CGWA for withdrawal of ground water for the project.	Complied	Unit has obtained Combined NOC for ground water withdrawal for Plant & Mines from CGWA vide letter No.: CGWA/NOC/MIN/REN/2/2021/6354 dated 28.10.2020, valid till 27/10/2022.
11	Statutory compliance	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.	Complied	EC copy had been submitted to concern Panchayat, Zila Parishad, DIC Office, District Collector, SDM Office vide letter No.: NBH/ PC-A/EC-M/KRD/13, dated 23.08.2021. Receipt copy of the same has also been submitted to ministry along with last EC half yearly compliance report.
12	Statutory compliance	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	Complied	Agreed & Noted.

13	Statutory compliance	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.	Complied	EC granted information published in two local newspapers i.e.: Dainik Bhasker and Rajasthan Patrika on 24/08/2021 and proof of the same has been submitted along with last six monthly EC compliance report.
14	Statutory compliance	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.	Complied	If any change in ownership of mining, will be intimated to the ministry.
II Air Quality Monitoring And Preservation				
1	Air Quality Monitoring And Preservation	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No.: B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the Main Gate of the mine site.	Complied	Three (03) nos. of CAAQMS has been installed all along the mine lease boundary: - 1. Near View Point towards Villages Charliya and Peepliya. 2. Near North Pit towards Village Karunda. 3. Towards Village Charliya (Common for Karunda Limestone Mine and Maliakhera Limestone Mine). • Digital display board has been provided at Mine Office Near Main Gate. • CAAQMS data has been uploaded on CPCB and RSPCB portals.

2	Air Quality Monitoring And Preservation	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metaled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC /Central Pollution Control Board.	Complied	<p>Following safeguard measures taken for prevention of dust generation: -</p> <ul style="list-style-type: none"> • Regular water sprinkling is being done on haul roads and water sprinkling system has been provided at the unloading point to control the fugitive emission. • Ambient air quality monitoring is being carried out on regular basis by NABL accredited laboratory. • Detail Ambient air quality and fugitive emission monitoring reports for the period: Oct-22 to March-23 are enclosed as <u>Annexure-1</u> and <u>Annexure-2</u>, respectively.
III Water Quality Monitoring And Preservation				
1	Water Quality Monitoring And Preservation	In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.	Complied	Unit has obtained the NOC for Mines Seepage permission from CGWA vide NOC No.: CGWA/NOC/MIN/ORIG/2022/14763, dated 10/03/2022, valid till 09/03/2024.
2	Water Quality Monitoring And Preservation	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground	Complied	<p>Unit has taken following measures: -</p> <ul style="list-style-type: none"> • No natural water course and / or water resources will be obstructed due to any mining operation. • In Karunda Mining lease area, there exists a nallah in South side flowing in South direction from SW to SE direction meeting the catchment area of the earthen dam. This nallah is only a seasonal nallah and is not a perennial one. • This area is already deducted from the active mine working and also we have put embankment all along the length of the nallah keeping a safety distance of 15

		water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.		<p>m from it in addition to safety zone of 45 m on both side all along the nallah.</p> <ul style="list-style-type: none"> • Ground water level and quality report submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
3	Water Quality Monitoring And Preservation	Project Proponent shall regularly monitor and maintain records w.r.t. groundwater level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department/State Pollution Control Board.	Complied	<ul style="list-style-type: none"> • Regular monitoring of ground water level and quality is being carried out in and around the mining lease area as per the Environment Management Plan of approved Mining plan by establishing a network of existing wells. • Unit has installed 5 nos. of piezometers for periodic and installed one DWLR (Digital Water Level Recorder) with telemetry system for online monitoring of ground water level. • Detail ground water level monitoring report for the period: Oct-22 to March-23 is enclosed as <u>Annexure-3</u>.
4	Water Quality Monitoring And Preservation	The Project Proponent shall undertake regular monitoring of natural water course/water resources /springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz.: Pre- monsoon (April-May), Monsoon (August), Post-monsoon (November) and Winter (January) and the record of monitored data may	Complied	<ul style="list-style-type: none"> • Unit is monitoring the ground water quality on quarterly basis i.e.: Pre-monsoon (April-May), Monsoon (August), Post-monsoon (November) and Winter (January) by deploying NABL accredited Laboratory. • Ground water quality analysis report for post monsoon and winter season are enclosed as <u>Annexure-4</u>.

		be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.		
5	Water Quality Monitoring And Preservation	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA. II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.	Complied	<ul style="list-style-type: none"> • There is no waste water generation from the Limestone mining operation. • Mine Key parameter data has been uploaded at www.jkcement.com/environmental-compliance as per notification as well as displayed at mine office.
6	Water Quality Monitoring And Preservation	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.	Complied	<ul style="list-style-type: none"> • To augment the water resources, rain water harvesting is done and stored in lower most benches (Water reservoir). • Surface rain water is collected in the lower most benches to augment Ground water resources. • Anicut and siltation pond is constructed to augment water table. • Photographs of implemented rainwater harvesting measures are as below:




7	Water Quality Monitoring And Preservation	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.	Complied	There is no industrial waste water is generated from the Mine operation.
8	Water Quality Monitoring And Preservation	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.	Complied	Annual Water Audit conducted by the NPC and measures has been taken to reduce the water consumption as per the recommendations. Annual water audit report submitted on 25/05/2022.
IV Noise And Vibration Monitoring And Prevention				
1	Noise And Vibration Monitoring And Prevention	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.	Complied	<ul style="list-style-type: none"> Blasting operation is being carried out in day time only. Use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator for blasting and to mitigate vibration. Water injection system on DTH drill has been provided which suppresses dust at its source of generation. The nearest habitation Village Charliya and Pipliya - Gadia are at 300m. Max Peak partial velocity was observed is 3.252 mm/sec for the period: Oct-22 to March-23 and report of the same is enclosed as <u>Annexure-5</u>.

2	Noise And Vibration Monitoring And Prevention	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise level at night. PPs must ensure that the biological clock of the villages is not disturbed, by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day/night hours.	Complied	<ul style="list-style-type: none">Unit is maintaining the illumination and noise level well within permissible limits during day and night hours.Detail ambient noise level monitoring report for the period: Oct-22 to March-23 is enclosed as Annexure-6.								
3	Noise And Vibration Monitoring And Prevention	The project proponent shall take measures for control of noise levels below 85dBA in the work environment. The workers engaged in operations of HEMM etc. should be provided with ear plugs / muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/personals/laborers are working without personal protective equipment.	Complied	<ul style="list-style-type: none">Regular maintenance (including cabin) of HEMM are being done to keep noise level well within the specified limits.Workers engaged in operation of HEMM etc. are provided ear plugs.Onsite tool box talk is being conducted on daily basis and imparted the periodical training for all employee & workmen.								
V	Mining Plan											
1	Mining Plan	The project proponent shall adhere to the working of mining plan, which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e.: Quantum of mineral waste, over burden, inter burden and top soil. No change in basic mining proposal like mining technology. total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B. & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the ministry of Environment, forest and climate change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to short term permit (STP), query license or any other name.	Complied	<ul style="list-style-type: none">Method of mining is opencast, fully mechanized using wet drilling and control blasting. All mining activities are being carried out as per approved mining plan.Total excavation Million TPA during FY 2022-23: <table><tr><td>Cement Grade Limestone</td><td>Sub Grade Limestone</td><td>IB/Screen Reject/ Waste</td><td>Top Soil</td></tr><tr><td>3.34825232</td><td>0.1488</td><td>0.08492</td><td>0.01096</td></tr></table>	Cement Grade Limestone	Sub Grade Limestone	IB/Screen Reject/ Waste	Top Soil	3.34825232	0.1488	0.08492	0.01096
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2	Mining Plan	The project proponent shall get the final mine closure plan along with financial assurance approved from Indian bureau of mines/ department of mining & geology as required under the provision of the MMDR Act,1957 and rules /guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned regional office of the ministry of environment, Forest and climate change for the record and verification.	Yet to be Complied	Unit will be submitted the final mine closure plan within due course of time.
3	Mining Plan	The land use of the mine area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved mining plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional office.	Complied	There is no back filling proposed in the approved mining plan.
VI Land Reclamation				
1	Land Reclamation	The overburden (O.B.) generated during the mining operations shall be at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved mining plan as per the guidelines /circulars issued by D.G.M.S. w.r.t. Safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The top soil shall be used for land reclamation and plantation.	Complied	<ul style="list-style-type: none"> • Interstitial clay/waste generated during the mining operations are being at earmarked dump sites only. • Physical parameters of dumps i.e.: height, width and angle of slope being maintained in compliance of the approved mining plan as per the guidelines /circulars issued by DGMS. • Top soil generation quantity from mining operation in the FY: 2022-23 is 0.01096 Million TPA. It is being used for plantation purpose.
2	Land Reclamation	The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width, and angle of slope shall be governed as per the approved mining plan as per the guidelines/circulars	Complied	<ul style="list-style-type: none"> • Waste generated during the mining operations is being at earmarked waste dump sites only. • Physical parameters of the waste dumps i.e.: height, width and angle of slope being maintained in

		issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.		<p>compliance of the approved mining plan as per the guidelines/ circulars issued by DGMS.</p> <ul style="list-style-type: none">• Inter-burden/interstitial clay generation quantity from mining operation in the FY: 2022-23 is 0.08492 Million TPA.• Sub-grade mineral generation quantity from mining operation in the FY: 2022-23 is 0.1488 Million TPA.• The total area occupied by stacking of sub grade material in 7.61 ha.																												
3	Land Reclamation	The reclamation of waste dump sites shall be done in scientific manner as per the approved mining plan cum progressive mine closure plan.	Complied	Agreed, reclamation of waste dump will be done as per the approved mining plan cum progressive mine closure plan.																												
4	Land Reclamation	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plan species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ levelling of dump mass. In critical areas use of geo textiles/geo-membranes/clay liners/Bentonite etc. shall be undertaken for stabilization of the dump.	Complied	<ul style="list-style-type: none">• Presently, total 5 nos. of sub-grade/interstitial clay dumps are in active condition.• There are 3 nos. of active dumps of subgrade materials existing in our mine and their dimension in meters are as follows:<table><tr><th>No. of Dump</th><th>Length</th><th>Width</th><th>Height</th></tr><tr><td>1 - South</td><td>463</td><td>86.5</td><td><10</td></tr><tr><td>2 - East</td><td>255</td><td>106</td><td><10</td></tr><tr><td>3 - West</td><td>200</td><td>71</td><td><10</td></tr></table>• There are 2 nos. of active dumps of Interstitial Clay and their dimension in meters are as under:<table><tr><th>No. of Dump</th><th>Length</th><th>Width</th><th>Height</th></tr><tr><td>1-south</td><td>385</td><td>66</td><td><10</td></tr><tr><td>2-West</td><td>114</td><td>50</td><td><10</td></tr></table>• As per the condition, plantation will be done after the dumps become inactive.	No. of Dump	Length	Width	Height	1 - South	463	86.5	<10	2 - East	255	106	<10	3 - West	200	71	<10	No. of Dump	Length	Width	Height	1-south	385	66	<10	2-West	114	50	<10
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5	Land Reclamation	The project proponent shall carry out slope stability in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MOEF&CC.	Complied	Agreed and will be complied, if dump height goes beyond 30m. Presently, dump height is less than 10 m for sub-grade mineral.																												
6	Land Reclamation	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/ Waste dumps to prevent run off of water and flow of sediments directly	Complied	Rainwater collected in working mine pit and it transfers to non-working mine pits for sedimentation, after proper sedimentation mine water is utilized for various purposes.																												

		into the water bodies (Nallahs/River/Pond etc.) The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. the drains/sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.		<table><tr><th>S.N.</th><th>Catch Drain/ Garland Drain</th><th>Dimension</th></tr><tr><td>1</td><td>West of North Pit</td><td>Length - 850 m, Width - 1 m, Depth - 1.5 m</td></tr><tr><td>2</td><td>South West of South Pit</td><td>Length – 770 m, Width - 1 m, Depth - 1.5 m</td></tr><tr><td>3</td><td>Around Subgrade dump in NE side of North pit near Charlia Village</td><td>Length – 921 m, Width - 1 m, Depth - 1.5 m</td></tr><tr><td>4</td><td>Around Subgrade dump in South side of South Pit</td><td>Length - 183 m, Width - 1 m, Depth - 1.5 m</td></tr></table> <p>Constructed six siltation pit with dimension as given below: -</p> <table><tr><th>S. No.</th><th>Length (M)</th><th>Width (M)</th><th>Depth (M)</th><th>Capacity (M³)</th></tr><tr><td>1</td><td>15.5</td><td>15</td><td>2.45</td><td>569.625</td></tr><tr><td>2.</td><td>18</td><td>17</td><td>3</td><td>918</td></tr><tr><td>3.</td><td>17</td><td>17</td><td>3</td><td>867</td></tr><tr><td>4.</td><td>20</td><td>16</td><td>2.46</td><td>787.2</td></tr><tr><td>5.</td><td>11</td><td>8</td><td>3</td><td>264</td></tr><tr><td>6.</td><td>9</td><td>8</td><td>2.5</td><td>180</td></tr><tr><td colspan="4">Total</td><td>3585.825</td></tr></table>  <p>A View of Garland Drain System At Karunda Limestone Mine of J.K. Cement Works, Nimbahera</p>	S.N.	Catch Drain/ Garland Drain	Dimension	1	West of North Pit	Length - 850 m, Width - 1 m, Depth - 1.5 m	2	South West of South Pit	Length – 770 m, Width - 1 m, Depth - 1.5 m	3	Around Subgrade dump in NE side of North pit near Charlia Village	Length – 921 m, Width - 1 m, Depth - 1.5 m	4	Around Subgrade dump in South side of South Pit	Length - 183 m, Width - 1 m, Depth - 1.5 m	S. No.	Length (M)	Width (M)	Depth (M)	Capacity (M³)	1	15.5	15	2.45	569.625	2.	18	17	3	918	3.	17	17	3	867	4.	20	16	2.46	787.2	5.	11	8	3	264	6.	9	8	2.5	180	Total				3585.825
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7	Land Reclamation	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years’ data) and maximum discharge	Complied	Total rainfall in single day (considering 50 mm maximum rainfall): - 1. Total rain water would be available = OB dump (area) X Rainfall(m) X Runoff coefficient (20%) i.e.: 23340 m² X 0.05 m X 0.20 = 233.4 m³ and considering 50% safety margin. Total capacity of siltation pond should be																																																							

		in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/silt material. The sedimentation pits/sumps shall be constructed at the corners of the garland drains.		<p>466.8 m³.</p> <p>2. Sub-grade (area) X Rainfall (m) X Runoff coefficient (20%) i.e.: 62540 m² X 0.05 m X 0.20 = 625.4 m³ and considering 50% safety margin then total capacity of siltation pond should be 1250.8 m³.</p> <p>3. Total rain water collection capacity of siltation pit requires = 466.8 m³+ 1250.8 m³ = 1717.6 m³.</p> <p>4. The storm water is being collected to garland drain from the periphery of the pit area and waste dump area routed to siltation pond. The collected water is being used for plantation and water sprinkling on haul road.</p>
8	Land Reclamation	The top soil, if any, shall temporarily be stored at earmarked sites(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved mining plan and as per the guidelines framed by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered the stability of dumps. The top soil shall be used for land reclamation and plantation purpose.	Complied	Top soil generated during mining operation in FY: 2022-23 is 0.01096 Million TPA and it's stored at earmarked sites within the mine lease only and same is being used for plantation purpose.
VII Transportation				
1	Transportation	No transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/rural roads shall be allowed in consultation with nodal state govt. department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water	Complied	<ul style="list-style-type: none"> Not applicable, road is not passing through any villages/habitations. All the minerals are being transported by own cemented concrete road.

		sprinkling will also be done regularly Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control(PUC) certificate for all the vehicles from authorized pollution testing centers.																	
2	Transportation	The main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points. material yards etc. should invariably be provide with dust suppression arrangements. The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at crusher, belt –conveyors and other areas prone to air pollution the belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.	Complied	Tanker-mounted water sprinkling system has been provided for control of fugitive dust emission and regular water sprinkling being carried out on loading & unloading points, transfer points as well as the haul roads to prevent the dust becoming air borne during transportation movement of vehicles by water tanker.															
VIII Green Belt																			
1	Green Belt	The project proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.	Complied	Details of plantation developed are: - <table border="1"> <thead> <tr> <th>Location of plantation</th><th>Total Area</th><th>Total Plantation till the FY: 2022-23</th><th>Total Plantation in FY-2022-23</th><th>Remark</th></tr> </thead> <tbody> <tr> <td>Periphery area (Safety Zone)</td><td>4.90 ha</td><td>2.868 ha covered with 7175 nos. of saplings.</td><td>0.33 ha. with 825 nos. of saplings</td><td>Remaining Periphery plantation area 2.032 ha will be done in remaining period of the FY 2023-24</td></tr> <tr> <td>Non mineral area/ Avenue Plantation/ Village Road</td><td></td><td>Cumulative within lease - 25.652 ha. with 63555 nos. saplings. Cumulative outside lease –</td><td>2.04 ha sapling 5105 nos.</td><td>--</td></tr> </tbody> </table>	Location of plantation	Total Area	Total Plantation till the FY: 2022-23	Total Plantation in FY-2022-23	Remark	Periphery area (Safety Zone)	4.90 ha	2.868 ha covered with 7175 nos. of saplings.	0.33 ha. with 825 nos. of saplings	Remaining Periphery plantation area 2.032 ha will be done in remaining period of the FY 2023-24	Non mineral area/ Avenue Plantation/ Village Road		Cumulative within lease - 25.652 ha. with 63555 nos. saplings. Cumulative outside lease –	2.04 ha sapling 5105 nos.	--
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2	Green Belt	The project proponent shall carryout plantation / afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the state forest department/ Agriculture Department/ Rural development/ Tribal Welfare Department/ gram panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per hectare adequate budgetary provision shall be made for protection and care of trees.	Complied	There is no proposal of backfilling as per approved mining plan.										
3	Green Belt	The project proponent shall make necessary alternative arrangements for livestock feed be developing grazing land with a view to compensate those areas which are coming within the mine lease rea. The development of such grazing land shall be done in consultation with the state government, in this regard Project proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The Sparse trees on such grazing ground , which provide mid-day shelter from the scorching sun, should be scrupulously guarded /protected against felling and plantation of such trees should be promoted.	Complied	<ul style="list-style-type: none"> • Mining lease was originally granted on 25/07/1984 and executed on 13/12/1984, which is prior to the court order. • Permission for working in gazing land has been granted by District Authority vide letter No.: Rajasva/Khanan/ NOC/12-12(66)07/199 on 2nd Jan., 2012 and Rajasva/ Khanan/NOC/12-12(66)07/228 on 6th Feb., 2012 and Prakaran No.: 5/96 on 27th March, 1996. 										
4	Green Belt	The project proponent shall undertake all precautionary, measures for conservation and protection of endangered flora and fauna and schedule –I species during mining operation. A wildlife conservation plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The plan shall be approved by Chief Wild Life Warden of the State Govt.	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> <p>a) Pavocristatus (Indian Peafowl),</p> <p>b) Pantherapadusfusca (Indian Leopard),</p>										

				c) Prionailurus rubiginosus (Rusty-Spotted Cat), d) Canis lupus pallipes (Indian Wolf), e) Varanus bengalensis (Indian Monitor Lizard) f) Gyps indicus/Gyps bengalensis (Indian Vulture) 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.										
5	Green Belt	And implemented in consultation with the state Forest and Wildlife Department. A copy of wildlife conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.	Complied	Wildlife conservation plan prepared in the consultation of DFO and implementation will also be done according to approved wildlife conservation plan. Annual status will be submitted after final approval of WCP.										
IX Public Hearing And Human Health Issues														
1		The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.	Complied	<ul style="list-style-type: none">Periodical medical examination of workmen is being carried out.Detail of medical examination carried out for the period: Oct-22 to March-23 is given below: <table><tr><td>Particular</td><td>Medical Exam. Carried out (in Nos.)</td></tr><tr><td>No. of persons examined</td><td>0</td></tr><tr><td>Initial Medical Examination</td><td>0</td></tr><tr><td>Periodical Medical Examination</td><td>0</td></tr><tr><td>Disease observed</td><td>NO</td></tr></table>	Particular	Medical Exam. Carried out (in Nos.)	No. of persons examined	0	Initial Medical Examination	0	Periodical Medical Examination	0	Disease observed	NO
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2	Public Hearing And Human Health Issues	The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall	Complied	<ul style="list-style-type: none">Company has “Zero Harm Goal Policy” and periodically identified the hazards and preventive action are being taken.Best practices have been implemented to maintain vibration, fly rocks, dust emission, noise level and all parameters are well within the limit.										

		maintain accurate and systematic records of the I-IRA. The I-IRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line I-IRA for all the category of workers and thereafter every five years.		<ul style="list-style-type: none"> • Mobile medical check-up camps are being organized at all nearby villages for treatment and medicine free of cost.
3	Public Hearing And Human Health Issues	The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one) must meet ILO criteria (17 x14 inches and of good quality).	Complied	Pre-employment medical check-up are being carried out considering the parameter as per DGMS.

4	Public Hearing And Human Health Issues	The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1) , forced vital capacity (FVC) and the ratio unless they are smokers which has to be adjusted and the effect of age , (d) their hearing should not be affected . as a proof an Audiogram (first and last need to be presented), (e) they should not have developed any persistent back pain, neck pain and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the regional office. MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.	Complied	Unit is maintaining record of performance indicators for workers. There is no any abnormality has been reported till date, therefore no any relief and compensation required to paid to the workers.
5	Public Hearing And Human Health Issues	The Project Proponent shall ensure that 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.	Complied	PPE's have been provided and used by the persons engaged in drilling, dozing and loading. VT is being provided as under required VT Rules.
6	Public Hearing And Human Health Issues	Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.	Complied	<ul style="list-style-type: none"> • All workers engaged are belongs to local area and they are living in their own houses, therefore temporary structure/ hutment are not required. • Employees are residing in colony situated at Nimbahera Cement Plant, where all basic facilities are available.
7	Public Hearing And Human Health Issues	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions	Complied	Kindly refer to the point no. 10

		mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.		
X	Corporate Environment Responsibility			
1	Corporate Environment Responsibility	The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O. M. No. 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.	Complied	Activities proposed for CER are being implemented in a time bound manner and annual report of implementation of the same has been submitted to Regional Office MoEF&CC for the FY: 2022-23 along with last EC compliance report.
2	Corporate Environment Responsibility	Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.	Complied	<ul style="list-style-type: none"> Complied with
XI	Miscellaneous			
1	Miscellaneous	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.	Complied	Digital processing report of the entire lease area has been submitted on 02.03.2020 vide letter No.: NBH/PC-14/C12/5905.
2	Miscellaneous	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Complied	This is the existing captive limestone mine and Project cost after expansion is 49.29 Crores.
3	Miscellaneous	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC & its concerned Regional Office, Central	Complied	Latest six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards were sent through email on 19.11.2022 to the MoEF&CC, CPCB and RPCB vide our letter No.: NBH/PC-

		Pollution Control Board and State Pollution Control Board.		14/C13, dated 18/11/2022.
4	Miscellaneous	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.	Complied	A separate environmental management cell with qualified personnel is already established and has sufficient monitoring equipment's in environmental laboratory.
5	Miscellaneous	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.	Complied	Agreed, unit will extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
24	Miscellaneous	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.	Complied	Noted & agreed.
25	Miscellaneous	Concealing factual data or submission of false/ fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attracts action under the provisions of Environment (Protection) Act, 1986.	Complied	Noted & agreed.
26	Miscellaneous	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court of Chhattisgarh and any other Court of Law relating to the subject matter.	Complied	Noted & agreed.
27	Miscellaneous	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a	Complied	Noted & agreed.

		period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.		
28	Miscellaneous	This issues with the approval of competent Authority.	Complied	Noted

Yours Sincerely,

For, Karunda Limestone Mine
J. K. Cement Work, Nimbahera



(Authorized Signatory)

J.K. Cement Works, Nimbahera (RAJ)
KARUNDA LIMESTONE MINE
MONTHLY AVERAGE AMBIENT AIR QUALITY REPORT
October'2022 to March'2023

Annexure-01

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

Month	Near Mine Office					Near Ravana Office				
	PM10	PM2.5	SO ₂	Nox	CO	PM10	PM2.5	SO ₂	Nox	CO
Oct-22	57.2	28.7	12.5	25.9	590	51.4	24.5	13.0	16.2	676
Nov-22	63.6	31.4	15.4	33.5	687	58.7	29.5	18.6	29.3	556
Dec-22	65.7	30.5	10.5	26.1	458	50.7	20.0	13.4	27.0	727
Jan-23	42.4	21.2	13.7	27.6	315	51.9	22.8	13.3	25.9	516
Feb-23	56.4	26.4	12.6	25.2	556	61.6	35.6	14.6	27.2	453
Mar-23	53.8	25.0	12.6	25.2	556	45.2	28.4	7.3	24.2	699
AVERAGE	56.5	27.2	12.9	27.2	527.0	53.2	26.8	13.4	25.0	604.3



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003446	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	21-11-2022
Point of Collection :	Near Mine office, Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	300	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	10.55	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	32.21	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.59	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	68.13	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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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

Raju
Authorized Signatory
(Report No: TC502522400003446)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003447	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	22-11-2022
Point of Collection :	Near Ravana Office ,Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	280	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	11.56	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	32.35	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.41	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	74.64	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Puran Mai Yogi
Senior Analyst

Rajesh Kumar Swarni
Authorized Signatory
(Report No: TC502522400003447)



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TEST REPORT

Report No./ULR No. :	TC502522400003450	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan).	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	21-11-2022
Point of Collection :	Charlia Gadia Village Karunda	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	300	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	13.61	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	33.77	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.71	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	76.56	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Puram
Puram Mal Yogi

Senior Analyst

Rajin
Authorized Signatory
(Report No: TC502522400003450)



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TEST REPORT

Report No./ULR No. :	TC502522400003451	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works, Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	22-11-2022
Point of Collection :	Karunda Village	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	10.77	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	39.5	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.9	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	74.35	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst **Pran Mal Yogi**

Authorized Signatory **Rajeshwar**

(Report No: TC502522400003451)



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TEST REPORT

Report No./ULR No. :	TC502523400000503	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023 12:16 to 17-02-2023 12:16
Point of Collection :	Near Mine office, Karunda Mine	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	14.8	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	34.15	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	5.1	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	75.14	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Sunil Kumar
Senior Analyst

Prahlad Yogi
Authorized Signatory
(Report No: TC502523400000503)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523400000504	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023 12:17 to 17-02-2023 12:18
Point of Collection :	Near Ravana Office ,Karunda Mine	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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]	360	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	14.82	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	27.79	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	3.7	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	78.82	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst
Sunil Kumar

Authorized Signatory
(Report No: TC502523400000504)
Prahlad Yogi



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523400000507	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023 12:21 to 17-02-2023 12:21
Point of Collection :	Charlia Gadia Village Karunda	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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]	390	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	15.08	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	40.1	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	5.56	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	80.92	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst
Sunil Kumar


Authorized Signatory
(Report No. TC502523400000507)
Prahlad Yogi



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TEST REPORT

Report No./ULR No. :	TC502523400000508	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023 12:23 to 17-02-2023 12:23
Point of Collection :	Karunda Village	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	15.46	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	35.91	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	4.51	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	87.72	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst


Authorized Signatory
(Report No: TC502523400000508)

J.K. Cement WORKS, NIMBAHERA (RAJ)
KARUNDA LIMESTONE MINE
MONTHLY AVERAGE OF FUGITIVE DUST MONITORING REPORT
October'2022 to March'2023

Annexure-02

(ALL VALUES IN $\mu\text{g}/\text{M}^3$)

Month	3 to10 Meter Distance From Drilling Operation				Near loading point			
	SPM	SO ₂	NO _x	CO	SPM	SO ₂	NO _x	CO
Oct-22	359	13.4	30.9	607.2	301.0	17.7	19.5	544.2
Nov-22	366	13.2	27.4	647.3	293.0	16.1	24.6	658.7
Dec-22	338	11.2	21.2	658.7	365.0	12.1	21.5	773.3
Jan-23	258	13.1	17.7	705.0	353.0	13.5	19.1	658.7
Feb-23	387	11.9	17.9	687.4	432.0	14.3	17.8	784.7
Mar-23	401	14.0	23.7	796.2	302.0	12.8	21.5	767.6
AVERAGE	351.50	12.80	23.14	683.62	341.00	14.40	20.66	697.87



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003448	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbaheera, Tehsil- Nimbaheera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	21-11-2022
Point of Collection :	3-10 Meter Distance Form Drilling Point of Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	11.89	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Sulphur Dioxide [microgram/m3]	3.21	IS 5182 (Part 2) : 2001 RA 2017	80.00
4	Suspended Particulate Matter (SPM) [microgram/m3]	468.91	IS 5182 (Part 4) : 1999 RA 2019	-

Notes :-

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Purnan Mal Yogi
Senior Analyst

Authorized Signatory
(Report No: TC502522400003448)



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TEST REPORT

Report No./ULR No. :	TC502522400003448	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	21-11-2022
Point of Collection :	3-10 Meter Distance Form Drilling Point of Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	11.89	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Sulphur Dioxide [microgram/m3]	3.21	IS 5182 (Part 2) : 2001 RA 2017	80.00
4	Suspended Particulate Matter (SPM) [microgram/m3]	468.91	IS 5182 (Part 4) : 1999 RA 2019	-

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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Purnan Mal Yogi
Senior Analyst

Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522400003448)



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TEST REPORT

Report No./ULR No. :	TC502522400003449	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	22-11-2022
Point of Collection :	Near Loading point of Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	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	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	310	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	13.44	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Sulphur Dioxide [microgram/m3]	4.24	IS 5182 (Part 2) : 2001 RA 2017	80.00
4	Suspended Particulate Matter (SPM) [microgram/m3]	483.01	IS 5182 (Part 4) : 1999 RA 2019	-

Notes :-

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Puran

Senior Analyst

Puran Mal Yogi

Rajesh

Authorized Signatory

(Report No: TC502522400003449)



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TEST REPORT

Report No./ULR No. :	TC502523400000505	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Fugitive Emission Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023
Point of Collection :	3-10 Meter Distance Form Drilling Point of Karunda Mine	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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]	201.89	IS 5182 (Part 4) : 1999 RA 2019
2	Sulphur Dioxide [microgram/m3]	3.67	IS 5182 (Part 2) : 2001 RA 2017
3	Oxides of Nitrogen [microgram/m3]	14.37	IS 5182 (Part 6) : 2006 Reaffirmed 2017
4	Carbon Monoxide [microgram/m3]	320	TTH/AAQM/08

Notes :-

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Senior Analyst
Sunil Kumar


Authorized Signatory
(Report No: TC502523400000505)



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TEST REPORT

Report No./ULR No. :	TC502523400000506	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Fugitive Emission Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-02-2023
Point of Collection :	Near Loading point of Karunda Mine	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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]	269.87	IS 5182 (Part 4) : 1999 RA 2019
2	Sulphur Dioxide [microgram/m3]	3.54	IS 5182 (Part 2) : 2001 RA 2017
3	Oxides of Nitrogen [microgram/m3]	14.72	IS 5182 (Part 6) : 2006 Reaffirmed 2017
4	Carbon Monoxide [microgram/m3]	290	TTH/AAQM/08

Notes :-

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Senior Analyst
Sunil Kumar


Authorized Signatory
Prahlad Yogi
(Report No: TC502523400000506)

Annexure-03		
M/s J.K.CEMENT WORKS,NIMBAHERA		
Digital Water Level Recorder Report (Ground water Level) of Karunda Limestone Mine. (ML No. 3/2003)		
Month	Telemetry BW_7 (in m)(avg.)	Remarks
Oct-22	6.12	
Nov-22	8.92	
Dec-22	10.89	
Jan-23	12.05	
Feb-23	12.75	
Mar-23	13.81	



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100002135	Date :	23-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbaheara, Tehsil- Nimbaheara,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Potable and Domestic Water	Date of Sample Collection/Monitoring :	08-11-2022
Point of Collection :	Pit Water (Surface Water)	Date of Receipt :	17-11-2022
Date of Test/Analysis :	17-11-2022 to 23-11-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr	Sample Collected By :	Rakesh Sharma
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]	15	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Turbidity [NTU]	0.89	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.92	IS 3025 (Part 11) : 1983 RA 2017	6.50 - 8.50	-
5	Hardness (total) [mg/l]	163.46	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]	53.81	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	290	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Calcium [mg/l]	38.46	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	16.36	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00

Rajesh Maheshwari



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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]	0.51	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Suspended Solids [mg/l]	15	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]	432	APHA 2017 : 2510 B	-	-
15	M - Alkalinity [mg/l]	90	APHA : 2017, 2320 B	-	-
16	Total coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	Shall not be detectable in 100ml Sample	-
17	E. Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in 100ml Sample	-

Notes :-

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Balram
Balram Agarwal
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522100002135)



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TEST REPORT

Report No./ULR No. :	TC502522100002136	Date :	23-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	08-11-2022
Point of Collection :	Tube Well (Mines Office) (Ground Water)	Date of Receipt :	17-11-2022
Date of Test/Analysis :	17-11-2022 to 23-11-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr	Sample Collected By :	Rakesh Sharma
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	7.88	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	298.08	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]	62.62	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	402	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Calcium [mg/l]	84.62	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	21.03	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00

Rajesh Maheshwari



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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]	0.56	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Conductivity [micromho/cm]	635	APHA 2017 : 2510 B	-	-
13	Oil and Grease [mg/l]	BDL(<1.0)	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Total Suspended Solids [mg/l]	8	IS 3025 (Part 17) : 1984 RA 2017	-	-
15	M - Alkalinity [mg/l]	180	APHA : 2017, 2320 B	-	-
16	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
17	Total Coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	Shall not be detectable in any 100 ml sample	-

Notes :-

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Balram
Balram Agarwal
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522100002136)



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TEST REPORT

Report No./ULR No. :	TC502522100002137	Date :	23-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	08-11-2022
Point of Collection :	Hand Pump (Near Village Charlia) (Ground Water)	Date of Receipt :	17-11-2022
Date of Test/Analysis :	17-11-2022 to 23-11-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr	Sample Collected By :	Rakesh Sharma
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	7.74	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	365.38	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]	50.88	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	422	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Calcium [mg/l]	107.69	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
10	Magnesium [mg/l]	23.36	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00

Rajesh Manchwa



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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]	0.58	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
12	Conductivity [micromho/cm]	628	APHA 2017 : 2510 B	-	-
13	Oil and Grease [mg/l]	BDL(<1.0)	IS 3025 (Part 39) : 1991 RA 2019	-	-
14	Total Suspended Solids [mg/l]	8	IS 3025 (Part 17) : 1984 RA 2017	-	-
15	M - Alkalinity [mg/l]	210	APHA : 2017, 2320 B	-	-
16	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
17	Total Coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	Shall not be detectable in any 100 ml sample	-

Notes :-

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Balram
Balram Agarwal
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522100002137)



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TEST REPORT

Report No./ULR No. :	TC502523100000033	Date :	13-01-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Water / Chemical	Date of Sample Collection/Monitoring :	06-01-2023 12:41 to 06-01-2023 12:41
Point of Collection :	Pit Water (Surface Water)..	Date of Receipt :	07-01-2023
Date of Test/Analysis :	07-01-2023 to 13-01-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	Prahlad yogi
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	Agreeable
3	Turbidity [NTU]	0.6	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.92	IS 3025 (Part 11) : 1983 RA 2017	6.50 - 8.50	-
5	Hardness (total) [mg/l]	225.24	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]	45.01	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	376	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Fluoride [mg/l]	0.76	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
10	Suspended Solids [mg/l]	3	IS 3025 (Part 17) : 1984 RA 2017	-	-
11	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
12	Conductivity [micromho/cm]	597	APHA 2017 : 2510 B	-	-

Prahlad



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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
13	Calcium Hardness [mg/l]	205.82	IS 3025 (Part 40) : 1991 RA 2019	-	-
14	Magnesium Hardness [mg/l]	19.41	IS 3025 (Part 46) : 1994 RA 2019	-	-
15	M - Alkalinity [mg/l]	162.12	IS 3025 (Part 23) : 1986 RA 2019	-	-

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Balram

Balram Agarwal
Senior Analyst

Rajesh

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523100000033)



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TEST REPORT

Report No./ULR No. :	TC502523100000034	Date :	13-01-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ground Water / Chemical	Date of Sample Collection/Monitoring :	06-01-2023 12:44 to 06-01-2023 12:44
Point of Collection :	Tube Well (Mines Office)..	Date of Receipt :	07-01-2023
Date of Test/Analysis :	07-01-2023 to 13-01-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	Prahlad yogi
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]	0.3	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.94	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	174.76	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]	33.27	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	320	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Fluoride [mg/l]	0.55	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
10	Conductivity [micromho/cm]	449	APHA 2017 : 2510 B	-	-
11	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
12	Total Suspended Solids [mg/l]	3	IS 3025 (Part 17) : 1984 RA 2017	-	-

Ref



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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
13	Calcium Hardness [mg/l]	147.75	IS 3025 (Part 40) : 1991 RA 2019	-	-
14	M - Alkalinity [mg/l]	135.1	IS 3025 (Part 23) : 1986 RA 2019	-	-
15	Magnesium Hardness [mg/l]	27.18	APHA:2017 : 3500-Mg-B	-	-

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Balram Agarwal
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523100000034)



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TEST REPORT

Report No./ULR No. :	TC502523100000035	Date :	13-01-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ground Water / Chemical	Date of Sample Collection/Monitoring :	06-01-2023 12:46 to 06-01-2023 12:47
Point of Collection :	Hand Pump (Near Village Charlia)..	Date of Receipt :	07-01-2023
Date of Test/Analysis :	07-01-2023 to 13-01-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2 Ltr.	Sample Collected By :	Prahlad yogi
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]	0.4	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
4	pH	7.59	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
5	Hardness (total) [mg/l]	213.59	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]	39.14	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00
8	Total Dissolved Solids [mg/l]	374	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
9	Fluoride [mg/l]	0.68	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
10	Conductivity [micromho/cm]	551	APHA 2017 : 2510 B	-	-
11	Oil and Grease [mg/l]	Less than 1	IS 3025 (Part 39) : 1991 RA 2019	-	-
12	Total Suspended Solids [mg/l]	5	IS 3025 (Part 17) : 1984 RA 2017	-	-

Raj



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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
13	Calcium Hardness [mg/l]	163.10	IS 3025 (Part 40) : 1991 RA 2019	-	-
14	M - Alkalinity [mg/l]	208.44	IS 3025 (Part 23) : 1986 RA 2019	-	-
15	Magnesium Hardness [mg/l]	50.48	APHA:2017 : 3500-Mg-B	-	-

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Balram
Balram Agarwal
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523100000035)

Date/Time Vert at 13:45:26 February 20, 2023
Trigger Source Geo: 0.500 mm/s
Range Geo: 254.0 mm/s
Record Time 3.0 sec at 2048 sps
Operator/Setup: Operator/kdm RAJESH.mmb

Serial Number UM19523 V 10-90GC Micromate ISEE
Battery Level 3.5 Volts
Unit Calibration September 7, 2022 by UES New Delhi
File Name UM19523_20230220134526.IDFW

Notes

Location: KARUNDA LIMESTONE MINE
Client: JK CEMENT WORKS, NIMBAHERA
User Name: JK CEMENT WORKS, NIMBAHERA
General: LIMESTONE MINE

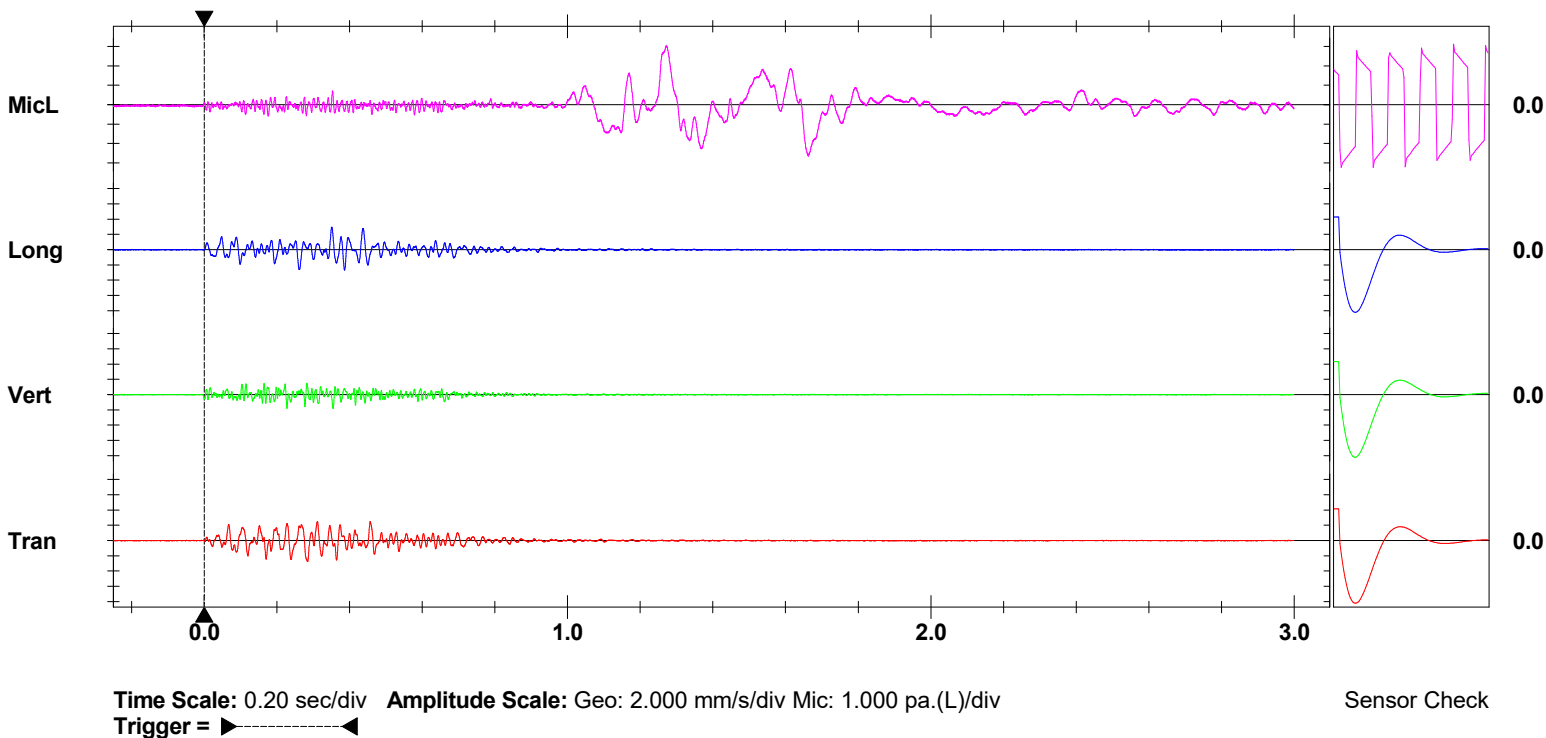
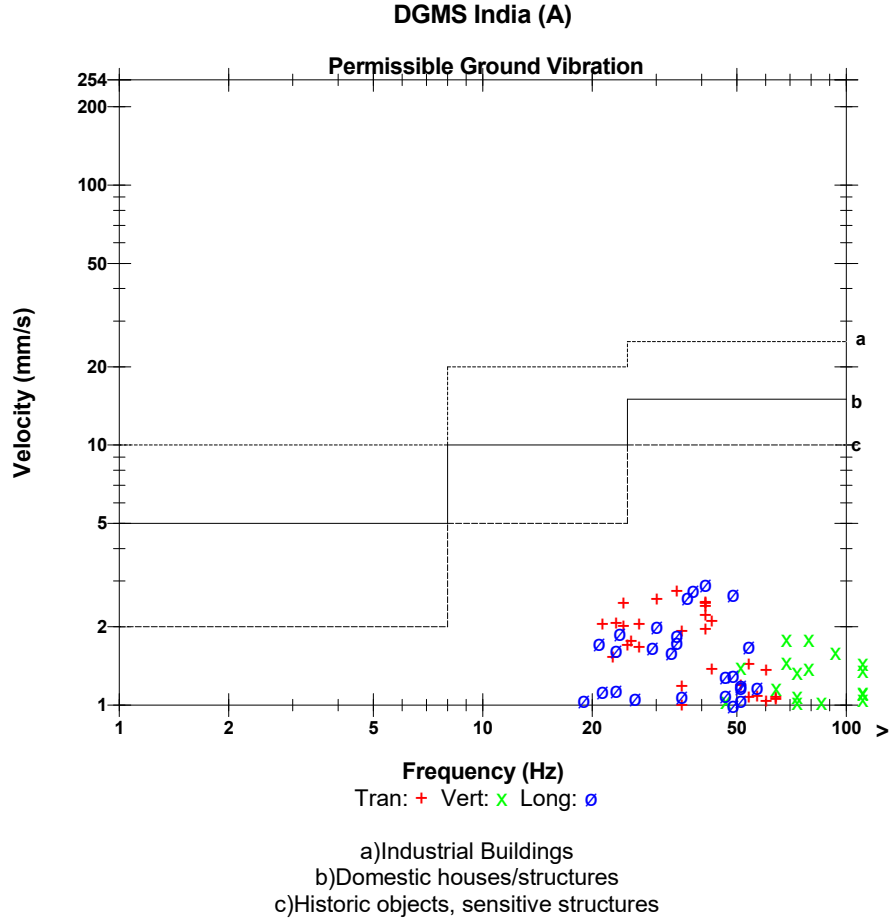
Post Event Notes

Bench-II N-pit, Face S--N, B Id=13--1
No. of holes=18, Ch./Delay=28.02Kg
Vibration monitor 300 m back side of blasting face

Microphone Linear Weighting
PSPL 3.025 pa.(L) at 1.271 sec
ZC Freq 8.2 Hz
Channel Test Passed (Freq = 20.5 Hz Amp = 1233 mv)

	Tran	Vert	Long	
PPV	2.751	1.805	2.932	mm/s
PPV	59.79	56.13	60.34	dB
ZC Freq	34	79	41	Hz
Time (Rel. to Trig)	0.285	0.228	0.351	sec
Peak Acceleration	0.079	0.102	0.076	g
Peak Displacement	0.015	0.004	0.012	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.5	7.5	Hz
Overswing Ratio	4.6	4.4	4.4	

Peak Vector Sum 3.252 mm/s at 0.261 sec



J.K. Cement WORKS, NIMBAHERA (RAJ)
KARUNDA LIMESTONE MINE
MONTHLY AMBIENT NOISE MONITORING REPORT
October'2022 to March'2023

Annexure-06

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

Month	Near Mines Gate		Near Ravana Office	
	DAY	NIGHT	DAY	NIGHT
Oct-22	66.5	50.9	62.2	51.6
Nov-22	64.2	45.5	60.1	47.4
Dec-22	61.2	48.4	64.8	52.5
Jan-23	67.9	49.6	68.3	50.2
Feb-23	65.4	50.8	63.6	51.9
Mar-23	68.1	48.1	62.3	46.6



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TEST REPORT

Report No./ULR No. :	TC502522600002314	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	22-11-2022
Point of Collection :	Near Mine office, Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	Sampling Plan :	TTH/NOISE/01
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 Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	60.3	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	46.8	IS 9989	65

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Senior Analyst

Rajesh Kumar Swain
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(Report No: TC502522600002314)



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TEST REPORT

Report No./ULR No. :	TC502522600002315	Date :	30-11-2022
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbaheera, Tehsil- Nimbaheera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	22-11-2022
Point of Collection :	Near Ravana Office ,Karunda Mine	Date of Sample Receipt :	24-11-2022
Date of Test :	24-11-2022 to 30-11-2022	Sampling Plan :	TTH/NOISE/01
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	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	64.8	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	47.6	IS 9989	65

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.


Senior Analyst


Authorized Signatory
Rakesh Malleshwar
(Report No: TC502522600002315)



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TEST REPORT

Report No./ULR No. :	TC502523600000387	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023 12:25 to 17-02-2023 12:25
Point of Collection :	Near Mine office, Karunda Mine	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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)]	58.5	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	49.4	IS 9989	65

Notes :-

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Sunil Kumar
Senior Analyst

Prahlad Yogi
Authorized Signatory
(Report No: TC502523600000387)



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TEST REPORT

Report No./ULR No. :	TC502523600000388	Date :	17-03-2023
Issued To :	M/S Karunda Limestone Mine (ML No.-3/03) C/o J.K. Cement Works , Nimbahera, Tehsil- Nimbahera,, District- Chittorgarh 312617 (Rajasthan),	Type of Unit :	Mines
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-02-2023 12:26 to 17-02-2023 12:26
Point of Collection :	Near Ravana Office ,Karunda Mine	Date of Receipt :	08-03-2023
Date of Test/Analysis :	08-03-2023 to 17-03-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Prahlad yogi
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)]	61.2	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	52.4	IS 9989	65

Notes :-

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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
Sunil Kumar


Authorized Signatory
Prahlad Yogi
(Report No: TC502523600000388)