

SIX MONTHLY COMPLIANCE REPORT

Name of the Project: Dhanappa Limestone Mine (ML No. 03/93)

Enc. Clearance Letter No.: J-11015/03/2009-IA-II(M) dated 30.08.2010

Period of Compliance Report: October. 2018 to March. 2019

S. No.	A. SPECIFIC CONDITIONS	COMPLIANCE STATUS
(i)	The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.	The Consent to Establish and Consent to Operate obtained from RSPCB vide letter no. F (Mines)/Nagaur (Merta) /43 (1)/ 2010 -2011/6693-6697 dated 25.01.2011 and F (Mines)/Nagaur (Merta) /2652(1)/ 2017 -2018/9170-9174 dated 31.01.2018 respectively.
(ii)	Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition © No. 412/2004 in IA No. 833 in Writ Petition © No. 202 of 1995, as may be applicable to this project.	The area doesn't falls in Aravalli hills range therefore doesn't cover by the order of the Hon'ble Supreme Court dated 08.04.2005 in the contempt petition © 412/2004 in the writ petition 202 of 1995 in the matter of Godavarman vs Union of India, however we are communicating our agreement for final outcome of above said petition, as may be applicable for this project.
(iii)	The environmental clearance is subject to approval of the State Land Use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.	Agreed
(iv)	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.	Mining lease renewal was granted for 20 years from 08/04/1994 to 07/04/2014 and extended up to 07.04.2034 as per the MMDR Amendment ACT 2015. The permission for mining was granted by State Department of Mines & Geology, Govt. of Rajasthan.
(v)	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	The fodder plots in the non-mineralized area shall be developed in lieu of use of grazing land.
(vi)	The mining operation shall be restricted to above ground water table and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ministry of Environment and	The avg. ultimate working depth of mine will be 25 m bgl whereas the ground water table in the area is more than 80 m bgl in the area during post-monsoon so no ground water intersection will be there due

	Forest and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	to mining operations.
(vii)	The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken for protection of the 1 st order and 2 nd order streams, if any emanating/ passing through the mine lease during the course of mining operation.	Shall be complied with.
(viii)	The top soil shall temporarily be stored at earmarked sit (s) only & it should not be kept unutilized for long. The top soil shall be used for land reclamation & plantation.	Topsoil availability is very poor. Topsoil available, if any is being utilized by means of spreading on reclaimed (backfilled) area for plantation purposes simultaneously with mining operations.
(ix)	The overburden (OB) generated during the mining operation shall be concurrently backfilled. The existing waste dump shall be liquidated by the end of the 7 th year and thereafter there shall be no external OB dump. The entire excavated area of 156.12 ha, shall be backfilled and reclaimed by plantation. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Lucknow on six monthly basis.	Presently OB/waste is being backfilled in the worked out area for the reclamation & rehabilitation point of view. The phased restoration, reclamation and rehabilitation are being carried out as per MCDR. A total of 41.88 ha area has been backfilled by the end of March. 2019 and is kept continue.
(x)	Catch drains and siltation ponds of the appropriate size shall be constructed for the working pit, temporary soil, OB and mineral dumps to arrest flow of silt and sediment directly into the agricultural fields, the Jojri Nadi and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly. Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and the temporary over burden dumps to prevent runoff of water and flow of sediments directly into the agricultural fields, the Jojri Nadi and	Catch drains and siltation ponds of appropriate size have been constructed to arrest silt and sediment flows from mine pit and temporary over burden dump. The water collected in mine pit is being utilized for watering the mine area, roads, green belt development etc.

	other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	
(xi)	Dimension of the retaining wall at the toe of the temporary OB dumps and the OB benches within the mine to check run-off and siltation should be based on the rain fall data.	Retaining walls at the toe of the OB dumps has been constructed.
(xii)	Plantation shall be raised in an area of 172.2 ha including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1000 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Presently 38.83 ha area is covered under greenbelt/plantation up to March.2019. We have planted 3070 nos. of plant saplings covering 3.0 ha area in our ML area during the current financial year 2018-19. Plantation shall be raised in an area of 172.2 ha area during the mine life along periphery, along road and on backfilled and dump area.
(xiii)	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the Central pollution Control Board in this regard.	Water spraying arrangement on haul roads, dump, and trucks (loading & unloading) has been provided to control the fugitive dust emission. Regular monitoring for ambient air quality has been carried out; results are well within the stipulated norms.
(xiv)	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	We are maintaining Seven no. of rainwater harvesting stations and utilizing rain water collected in mining pits for plantation and spraying on haul roads.
(xv)	The project proponent shall undertake provision of artificial recharge to ground water through rainwater harvesting to the tune of 2.5 to 3.0 ML/year in the area in consultation with the Rajasthan State Ground Water Department.	The project of rainwater harvesting has been completed. We have constructed seven rainwater harvesting stations within lease area and maintaining them in good conditions for recharging the ground water.

(xvi)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year – pre-monsoon (April-May), monsoon (August), post monsoon (November) and winter (January); one in each season)] shall be carried out in consultation with the State Ground Water Board /Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forest and its Regional Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.	<p>We are doing regular monitoring of ground water level in the mines as per guideline. Piezometers are installed and complete monitoring record is maintained.</p> <p>Comply with conditions, ground water level monitoring details are being regularly submitted to the concerned office.</p>
(xvii)	Appropriate mitigative measures shall be taken to prevent pollution of the Jojri Nadi in consultation with the State Pollution Control Board.	The Nadi Jojri flows at about 1.25 km south of the lease area which is a seasonal one. No impact is envisaged due to mining activities on this said Nadi.
(xviii)	The project proponent shall obtain necessary prior permission of the component authorities for drawl of requisite quantity of water (surface water Ground water, if any) required for the project.	Not applicable. The water requirement for the site is being met from the mine sump water and nearby area.
(xix)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	We have planned and implemented seven nos.of rain water harvesting structures in the lease area.
(xx)	The project proponent shall be ensure that the fluoride level in the water to be used for drinking purpose in this area are within prescribed limits by making provision of RO System.	The J.K. White Cement Works Management already has installed RO System in the factory colony for workers, staff. The management also installed RO System in village Gotan for nearby villagers to check fluoride level.
(xxi)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance vehicles used in mining operations and in transportation of mineral.	All the vehicles used for mining operations are on hired basis and we supervise & force them for periodic maintenance & servicing. PUC certified vehicles are being used.

	The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	
(xxii)	The project proponent shall take specific safeguard measure to control RSPM levels in the area.	Safeguard measures area being taken to control RSPM levels in the area. The RSPM results area within the stipulated norms.
(xxiii)	Blast vibration study shall be carried out. Based on the same, charge per delay should be so adjusted that there is no adverse impact in the surrounding area due to vibration.	<p>Blast Vibration Study was conducted by M/s Uttam Blastech Pvt. Ltd., Hyderabad in the month of Sept.2011.</p> <p>The observations made during Blast Vibration Studies were: -</p> <ol style="list-style-type: none"> 1. The vibration recorded were within the limits specified by DGMS vide their Technical Circular No. 7 of 1997 2. Ground vibrations generated due to blasting are not a major concern while working in this mine with the present methodology.
(xxiv)	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	<p>Blasting operation is being carried out during the daytime only.</p> <p>Controlled blasting is being practiced by using most advance and safe technology i.e. Shock Tubes Blasting by competent persons and also as per recommendations made in Blast Vibration Studies Report.</p>
(xxv)	Drills shall either be operated with dust extractors or equipped with water injection system.	Wet drilling operation is being practiced.
(xxvi)	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Not applicable as handling of mineral is being carried out by manual means only. No loading of limestone by mechanized means.
(xxvii)	Sewage treatment plant shall be installed for the colony. ETP shall be provided for the workshop and wastewater generated during the mining operation.	Not applicable, as no effluents are envisaged from mine. The workers come from nearby villages.
(xxviii)	Pre-placement medical examination and periodical medical examination of the workers	Pre-placement medical examination and periodical medical examination is being

	engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	carried out and records are maintained.
(xxix)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office located at Lucknow.	Digital Processing of the entire lease area was conducted by M/s Hydro-Geo Survey Consultants Pvt. Ltd., Jodhpur in the Year 2011, 2014 & 17 and reports submitted to Moef and Regional Office, Lucknow.
(xxx)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	Not applicable as it is mining project hence no construction activity is involved.
(xxxi)	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e. PM ₁₀), NO _x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharge water shall also be monitored [(TDS, DO, pH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forest, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	<p>Ambient Air Quality-monitoring stations have been set up in mines area. Periodical monitoring is being carried out by our environment Cell and third party monitoring is being also done.</p> <p>All the parameters w. r. t. SPM, RSPM, NO_x, SO₂ are well within the stipulated norms. Annexure-I.</p> <p>The monitored data have been displayed on a display board at the Mine site.</p> <p>No water is being discharged from the lease area.</p>
(xxxii)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forest 5 years in advance of final closure for approval.	A final mine closure plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forest well before as directed.
	B. General Conditions	

(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forest.	No change in mining technology and scope of working shall be made without prior approval of Ministry of Environment & Forests.
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	No change in the calendar plan including excavation, quantum of mineral limestone and waste is made.
(iii)	Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.	No endangered to endemic species of flora and fauna found in the study area. However 10 hectares land has been developed for conservation of flora and fauna in the area.
(iv)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 micron i.e. PM ₁₀), NOx monitoring. Location of the stations should be decided based on the meteorological, topographical features and environmentally and meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Ambient Air Quality-monitoring stations have been set up in Core and Buffer zone. Regular monitoring of AAQ is being carried out.
(v)	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀), NOx should be regularly submitted to the Ministry of Environment and Forest including its Regional office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six month.	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀), NOx is attached herewith. Annexure –I
(vi)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Water spraying arrangement on haul roads, unloading of waste trucks has been provided to control the fugitive dust emission. Blasted/ fragmented limestone loading in trucks is by manual means so no dust generation is envisaged.
(vii)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	All the equipments are maintained properly & workers are provided with all necessary PPE. Noise monitoring is being done & results are well within the prescribed norms.
(viii)	Industrial waste water (workshop and waste water from the mine) should be properly	Not applicable. There is no generation of industrial waste water from the Dhanappa

	collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluent.	Limestone Mines.
(ix)	<p>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.</p> <p>Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.</p>	PPE has been provided to person working in such area & time to time training about safety & awareness is given to all the workers. Occupational health surveillance program of the workers is being conducted periodically. There is no occupational disease observed so far.
(x)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	A separate environmental management cell with suitable qualified personnel has been set-up.
(xi)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Lucknow.	The funds earmarked for environmental protection measures kept in a separate account and not diverted for other purpose. Expenditure incurred for the environmental protection measures during the financial year 2018-19 is Rs. 9.63 lacs.
(xii)	The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The mining project in question is an operative mining unit since 1987.
(xiii)	The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports.	We are extending full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports regularly.
(xiv)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Lucknow, the respective Zonal Office of Central Pollution	The reports on the status of compliance of stipulated EC conditions including results of monitoring is being sent to concern offices within time frame (Both in hard copies as well as by e-mail) The status of compliance in hard copies is being done.

	Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forest, Lucknow, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	
(xv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the Local NGO, If any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Copy of clearance letter has sent to the concerned Panchayat / Local NGO.
(xvi)	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and the Collector's Office / Tehsildar's Office for 30 days.	Complied with.
(xvii)	The environmental statement for each financial year ending 31 st March in form –V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.	The Environmental Statement for financial year April 2018 to 31 st March 2019 in Form–V will be submitted by Sep. 2019.
(xviii)	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forest at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of	Advertisement of Environmental Clearance published in Rajasthan Patrika & Dainik Bhaskar dated 10 Sept. 2010.

	this Ministry located at Lucknow	
3	The Ministry of other competent authority may alter/ modify the above conditions or stipulate any further condition in the interest of environment protection.	Agreed
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.	Agreed
5	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 Rajasthan and any other Court of Law relating to subject matter.	We are communicating our agreement to fulfill the other statutory requirements under any law/ rules/ notifications if any applicable.
6	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.	Agreed

Thanking you,

Yours faithfully

For J.K. White Cement Works

(Unit of J.K.Cement Ltd.)

(Bajrang Lal)

General Manager-Mines

AIR QUALITY MONITORING REPORT OF DHANAPPA LIME STONE MINES (3/93)
L.K. WHITE CEMENT WORKS, GOTAN (RAJ.)

Date of Monitoring	Site	Parameters						
		PM ₁₀ (µg/m³)	PM _{2.5} (µg/m³)	TSPM (µg/m³)	SO ₂ (µg/m³)	NOx (µg/m³)	CO (µg/m³)	Noise dB(A) Leq.
10.10.2018	Buffer Zone	40.12	42.17	285.21	BDL	16	1258.4	56.0
10.10.2018	Core Zone	45.46	38.14	288.14	BDL	14	1372.8	60.0
12.11.2018	Buffer Zone	56.18	38.56	310.12	BDL	18	1144.0	54.3
12.11.2018	Core Zone	62.16	41.18	316.22	BDL	12	1372.8	61.2
18.12.2018	Buffer Zone	58.21	42.21	298.16	BDL	17	1029.6	60.4
18.12.2018	Core Zone	58.18	40.22	303.21	BDL	14	1258.4	61.7

* BDL = Below Detectable Limit for NOx & SO₂ the concentration is less than 9 $\mu\text{g}/\text{m}^3$ & 4 $\mu\text{g}/\text{m}^3$.
Note: - No mine effluent generated.



Dr. Ranjeet Kumar Bagariya
Sr. Officer Environment



Vardan EnviroLab

Laboratory: Samaspur, Sector-51, Opp. Amity School, Gurugram - 122001 (Haryana)

Corp. Off : Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)

Regd. Office: D-142, Sushant Lok - III, Sector - 57, Gurugram - 122003 (Haryana)

MoEF & CC Recognized | HSPCB & RSPCB Approved | ISO 9001|ISO 14001|OHSAS 18001

Test Report

Sample Number:	VEL/JKWCW/AA/11	Report No.:	VEL/AA/1903/11001
Name & address of the Party:	M/s JK White Cement Works, Gotan (Unit of JK Cement LTD.)	Format No.:	5.1F-01
	Dhanappa Limestone Mines (ML No. 3/93), Vill- Dhanappa, Tehsil- Merta, District- Nagaur, Raj.	Party Reference No.:	NIL
		Reporting Date:	14/03/2019
		Period of Analysis:	11-14/03/20019
		Receipt Date:	11/03/2019

Sample Description: AMBIENT AIR QUALITY MONITORING

General Information:-

Sample collected by	: Vardan EnviroLab Representative
Client Representative	: Dr. Ranjeet Kumar Bagariya
Sampling Location	: Dhanapa Lime Stone Mine
Latitude & Longitude	: 26°33'40.2" N & 73°46'18.9" E
Instrument Code	: RDS 01 & FPS 01
Instrument Used	: RDS, FPS with attachment
Instrument Calibration Status	: Calibrated
Meteorological condition during monitoring	: Clear Sky
Date of Monitoring	: 05/03/2019 to 06/03/2019
Time of Monitoring	: 24 hours
Ambient Temperature (°C)	: Min. 15 Max. 30
Surrounding Activity	: Human, Vehicular & Lime Stone Mining activities
Scope of Monitoring	: Regulatory Requirement
Sampling & Analysis Protocol	: IS-5182
Parameter Required	: As per Work Order

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	46.3	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	85.6	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	32.5	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	8.62	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	40.62	mg/m ³	4
6.	Ammonia (NH ₃), µg/m ³	IS: 11255(P-6), Reaffirmed-2009	BDL	µg/m ³	400
7.	Lead (Pb), µg/m ³	IS: 5182 (P-22), Reaffirmed-2009	0.10	µg/m ³	1
8.	Benzene(C ₆ H ₆), µg/m ³	IS: 5182 (P-11), 2004	BDL	µg/m ³	05
9.	Benzo(a)pyrene, ng/m ³	IS: 5182 (P-12), 2004	BDL	ng/m ³	01
10.	Ozone (O ₃), µg/m ³	IS: 5182 (P-9), Reaffirmed-2003	11.2	µg/m ³	180
11.	Arsenic As, ng/ m ³	IS: 5182 (P-22), Reaffirmed-2009	BDL	ng/ m ³	6
12.	Nickel Ni, ng/ m ³	IS: 5182 (P-22), Reaffirmed-2009	BDL	ng/ m ³	20

Note:* NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009.

SOP- Laboratory Standard Operating Procedure.

Tested By)

(Checked By)

(Approved By)

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NOTE: a) The results listed refer only to the tested samples & applicable parameters
b) Total liabilities of our lab will be restricted to the invoice amount only
c) The sample will be destroyed after retention time unless otherwise specified
d) This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law



Vardan EnviroLab

Laboratory: Samaspur, Sector-51, Opp. Amity School, Gurugram - 122001 (Haryana)

Corp. Off : Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)

Regd. Office: D-142, Sushant Lok - III, Sector - 57, Gurugram - 122003 (Haryana)

MoEF & CC Recognized | HSPCB & RSPCB Approved | ISO 9001|ISO 14001|OHSAS 18001

Test Report

Sample Number: VEL/JKWCW/AA/12
Name & address of the Party: M/s JK White Cement Works, Gotan
(Unit of JK Cement LTD.)
Dhanappa Limestone Mines (ML No. 3/93),
Vill- Dhanappa, Tehsil- Merta, District-
Nagaur, Raj.

Report No.: VEL/AA/1903/11002
Format No.: 5.1F-01
Party Reference No.: NIL
Reporting Date: 14/03/2019
Period of Analysis: 11-14/03/20019
Receipt Date: 11/03/2019

Sample Description: AMBIENT AIR QUALITY MONITORING

General Information:-

Sample collected by : Vardan EnviroLab Representative
Client Representative : Dr. Ranjeet Kumar Bagariya
Sampling Location : Village- Dhanappa
Latitude & Longitude : 26°33'58.3" N & 73°46'48.6" E
Instrument Code : RDS 02 & FPS 02
Instrument Used : RDS, FPS with attachment
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 05/03/2019 to 06/03/2019
Time of Monitoring : 24 hours
Ambient Temperature (°C) : Min. 15 Max. 30
Surrounding Activity : Human & Vehicular activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182
Parameter Required : As per Work Order

TEST RESULTS

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	37.8	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	74.5	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	29.3	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	8.22	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.61	mg/m ³	4
6.	Ammonia (NH ₃), µg/m ³	IS: 11255(P-6), Reaffirmed-2009	BDL	µg/m ³	400
7.	Lead (Pb), µg/m ³	IS: 5182 (P-22), Reaffirmed-2009	0.09	µg/m ³	1
8.	Benzene (C ₆ H ₆), µg/m ³	IS: 5182 (P-11), 2004	BDL	µg/m ³	05
9.	Benzo(a)pyrene, ng/m ³	IS: 5182 (P-12), 2004	BDL	ng/m ³	01
10.	Ozone (O ₃), µg/m ³	IS: 5182 (P-9), Reaffirmed-2003	11.9	µg/m ³	180
11.	Arsenic As, ng/m ³	IS: 5182 (P-22), Reaffirmed-2009	BDL	ng/m ³	6
12.	Nickel Ni, ng/m ³	IS: 5182 (P-22), Reaffirmed-2009	BDL	ng/m ³	20

Note: * NAAQS - National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

SOP- Laboratory Standard Operating Procedure

(Tested By)

(Checked By)

(Approved By)

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Vardan EnviroLab

Laboratory: Samaspur, Sector-51, Opp. Amity School, Gurugram - 122001 (Haryana)

Corp. Off : Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana)

Regd. Office: D-142, Sushant Lok - III, Sector - 57, Gurugram - 122003 (Haryana)

MoEF & CC Recognized | HSPCB & RSPCB Approved | ISO 9001 | ISO 14001 | OHSAS 18001

Test Report

Sample Number: **VEL/ JKWCW/AN/01** Report No.: **VEL/AN/1903/11001**
Name & Address of Party: **M/s JK White Cement Works, Gotan** Format No.: **5.10 F-01**
(Unit of JK Cement LTD.) Party Reference No.: **NIL**
Dhanappa Limestone Mines (ML No. 3/93), Vill- Reporting Date: **14/03/2019**
Dhanappa, Tehsil- Merta, District- Nagaur, Raj. Receipt Date: **11/03/2019**

Sample Description : **AMBIENT NOISE LEVEL MONITORING**

General Information:-

Sample collected by : Vardan EnviroLab Team
Sampling Location : Dhanappa Lime Stone Mine
Latitude & Longitude : 26°33'40.5" N & 73°46'18.2" E
Instrument Used : Sound Level Meter
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 05/03/2019 to 06/03/2019
Time of Monitoring : 06:00 AM to 06:00 AM
Surrounding Activity : Human, Vehicular & Lime Stone Mining activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 Hours
Parameter Required : As per Work Order

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	L _{max}	IS 9989 R-2003	73.6	64.2	dB(A)
2.	L _{min}	IS 9989 R-2003	49.5	43.5	dB(A)
3.	L _{eq}	IS 9989 R-2003	62.79	55.16	dB(A)
4.	CPCB Limits in dB(A) Leq (Industrial Area)*	-	75.0	70.0	dB(A)


(Tested By)


(Checked By)

(Approved By)



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MoEF & CC Recognized | HSPCB & RSPCB Approved | ISO 9001 | ISO 14001 | OHSAS 18001

Test Report

Sample Number: VEL/ JKWCW/AN/02
Name & Address of Party: M/s JK White Cement Works, Gotan
(Unit of JK Cement LTD.)
Dhanappa Limestone Mines (ML No. 3/93), Vill-
Dhanappa, Tehsil- Merta, District- Nagaur, Raj.

Report No.: VEL/AN/1903/11002
Format No.: 5.10 F-01
Party Reference No.: NIL
Reporting Date: 14/03/2019
Receipt Date: 11/03/2019

Sample Description : AMBIENT NOISE LEVEL MONITORING

General Information:-

Sample collected by : Vardan EnviroLab Team
Sampling Location : Village- Dhanappa
Latitude & Longitude : 26°33'58.9" N & 73°46'48.2" E
Instrument Used : Sound Level Meter
Instrument Calibration Status : Calibrated
Meteorological condition during monitoring : Clear Sky
Date of Monitoring : 05/03/2019 to 06/03/2019
Time of Monitoring : 06:00 AM to 06:00 AM
Surrounding Activity : Human & Vehicular activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 Hours
Parameter Required : As per Work Order

S. No.	Parameters	Protocol	Test Result dB (A)		Unit
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	
1.	L_{max}	IS 9989 R-2003	67.8	59.2	dB(A)
2.	L_{min}	IS 9989 R-2003	43.5	39.1	dB(A)
3.	L_{eq}	IS 9989 R-2003	54.26	44.13	dB(A)
4.	CPCB Limits in dB(A) Leq (Residential Area)*	-	55.0	55.0	dB(A)

(Tested By)

(Checked By)



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