



By E-mail

Pach/MoEF/HYC/C/302/3379

Date: 24-05-2023

To,
Deputy Director General of Forests (C)
Integrated Regional Office, Gandhi Nagar
Ministry of Environment, Forest & Climate Change,
A- Wing - 407 & 409, Aranya Bhawan,
Near CH -3 Circle Sector-10 A,
Gandhinagar - 382010 (Gujarat)

Subject: Submission of Compliance Report of the conditions as laid down in the Environmental Clearance letter no. No. J-11015/49/2005-IA. II(M) dated 07.10.2005, corrigendum dated 06.02.2006 & 21.06.2010 in respect of **Pachhtar (Composite) Limestone Mines**, pertaining to Shree Digvijay Cement Co Ltd. for the period of **Oct -2022 to Mar-2023**.

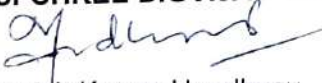
Respected Sir,
As required, we are submitting herewith Pointwise compliance status to various stipulations, as laid-down in Environmental Clearance letter No. J-11015/49/2005-IA. II(M) dated 07.10.2005 and 06.02.2006 & 21.06.2010 with supporting documents, is enclosed with the following Annexure: -

Sr. No.	Annexure	Sr. No.	Annexure
1	Annexure-I (Approval letter of Mining Plan)	6	Annexure-VI (Approval letter of Mining Plan)
2	Annexure-II (Ambient Air (Oct - March 23)	7	Annexure-VII (Noise Report – Oct 22 - March 23)
3	Annexure-III (Photographs -Plantation)	8	Annexure-VIII (Environment Yearly Expenses Statement)
4	Annexure-IV (CHR)	9	Annexure-IX (Environment Statement in Form V for the year 2022-23)
5	Annexure-V (Consent to Operate)		

We hope that you will find the above submission in order.

Thanking you,

Yours faithfully,
For SHREE DIGVIJAY CEMENT CO. LTD.


Manish Kumar Upadhyay
Manager Mine

Enclosures - As Above

Copy To:
1.The Environmental Engineer, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector 10A,
Gandhinagar -382010

**SHREE DIGVIJAY
CEMENT CO. LTD.**

Registered Office & Works
Post- Digvijaygram 361140, Jamnagar,
Gujarat, India.
CIN L26940GJ1944PLC000749

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info@digvijaycement.com
www.digvijaycement.com

PACHHTAR COMPOSITE LIMESTONE MINE
STATUS OF COMPLIANCE
Period: October-2022 to March-2023

Point wise compliance status to various stipulations as laid down in the Environmental Clearance letter No. J-11015/49/2005-IA. II (M) dated 21.06.2010:

Sr. NO.	CONDITIONS	COMPLIANCE STATUS
A. Specific Condition		
(i)	The project proponent shall carry out mining operations using Surface Miners in accordance with the mining scheme as approved by the Indian Bureau of Mines on 25.01.2010.	Being complied. Mining operation is being carried out as per Approved Mining Plan. Copy of Approval letter enclosed as Annexure-I IBM has approved a fresh Mining Plan on 01.04.2023 for the period of 2023 -24 to 2027 – 28.
(ii)	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 one shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, pH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on 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 Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	Being complied. Ambient Air Quality is being monitored on regular basis and results are well within the stipulated norms. Monitoring reports are being submitted to all concerned offices regularly. A copy of test report for the period of October-2022 to March-2023 is attached herewith for your kind reference as Annexure-II . There is no any water discharge from the mines. The domestic wastewater as generated from office toilets is being disposed off in soak pit & septic tank. The data are being displayed at main gate of the Office as well as uploaded on the website of the company on regular intervals.
(iii)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Not Applicable This is an operative mine.

B. General Condition

(i)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results	Being complied. Half Yearly reports are being submitted via email to all concerns offices within stipulated
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	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 Control Board, the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional office of the Ministry of Environment and forests, Bhopal, the respective zonal office of Central Pollution Control board and the State Pollution Control Board.	time periods on regular basis. The details are furnished below:																																																																																																								
	<table><tr><th colspan="6">Last 8 Years summary of HY compliance Report submitted</th></tr><tr><th colspan="6">Pachhtar Composite Limestone Mines</th></tr><tr><th>Sr. No.</th><th>Year</th><th colspan="2">Period</th><th>Letter No.</th><th>Date of Submission</th></tr><tr><td rowspan="2">1</td><td rowspan="2">2014-15</td><td>Apr-14</td><td>Sep-14</td><td>SDCCL/MINES/MOEF/2014</td><td>01.12.2014</td></tr><tr><td>Oct-14</td><td>Mar-15</td><td>SDCCL/MINES/MOEF/2015/480</td><td>01.06.2015</td></tr><tr><td rowspan="2">2</td><td rowspan="2">2015-16</td><td>Apr-15</td><td>Sep-15</td><td>SDCCL/MINES/MOEF/2015</td><td>01.12.2015</td></tr><tr><td>Oct-15</td><td>Mar-16</td><td>Pac/MoEF/HYC/A/302/763</td><td>01.06.2016</td></tr><tr><td rowspan="2">3</td><td rowspan="2">2016-17</td><td>Apr-16</td><td>Sep-16</td><td>Pac/MoEF/HYC/A/302/885</td><td>19.11.2016</td></tr><tr><td>Oct-16</td><td>Mar-17</td><td>Pac/MoEF/HYC/A/302/ 1046</td><td>31.05.2017</td></tr><tr><td rowspan="2">4</td><td rowspan="2">2017-18</td><td>Apr-17</td><td>Sep-17</td><td>Pac/MoEF/HYC/A/302/1239</td><td>22.11.2017</td></tr><tr><td>Oct-17</td><td>Mar-18</td><td>Pac/MoEF/HYC/A/302/ 1382</td><td>18.05.2018</td></tr><tr><td rowspan="2">5</td><td rowspan="2">2018-19</td><td>Apr-18</td><td>Sep-18</td><td>Pac/MoEF/HYC/A/302/1562</td><td>26.11.2018</td></tr><tr><td>Oct-18</td><td>Mar-19</td><td>Pac/MoEF/HYC/A/302/1328</td><td>23.05.2019</td></tr><tr><td rowspan="2">6</td><td rowspan="2">2019-20</td><td>Apr-19</td><td>Sep-19</td><td>Pac/MoEF/HYC/A/302/ 1889</td><td>30.11.2019</td></tr><tr><td>Oct-19</td><td>Mar-20</td><td>Pac/MoEF/HYC/A/302/2035</td><td>29.05.2020</td></tr><tr><td rowspan="2">7</td><td rowspan="2">2020-21</td><td>Apr-20</td><td>Sep-20</td><td>Pac/MoEF/HYC/A/302/2240</td><td>20.11.2020</td></tr><tr><td>Oct-20</td><td>Mar-21</td><td>Pac/MoEF/HYC/A/302/2240</td><td>28.05.2021</td></tr><tr><td rowspan="2">8</td><td rowspan="2">2021-22</td><td>Apr-21</td><td>Sep-21</td><td>Pac/MoEF/HYC/A/302/2556</td><td>27.11.2021</td></tr><tr><td>Oct-21</td><td>Mar-22</td><td>Pac/MoEF/HYC/A/302/2956</td><td>31.05.2022</td></tr><tr><td>9</td><td>2022-23</td><td>Apr-22</td><td>Sep-22</td><td>Pac/MoEF/HYC/A/302/3245</td><td>30.11.2022</td></tr></table> The compliances report along with Annexures are also available at the website of the company.		Last 8 Years summary of HY compliance Report submitted						Pachhtar Composite Limestone Mines						Sr. No.	Year	Period		Letter No.	Date of Submission	1	2014-15	Apr-14	Sep-14	SDCCL/MINES/MOEF/2014	01.12.2014	Oct-14	Mar-15	SDCCL/MINES/MOEF/2015/480	01.06.2015	2	2015-16	Apr-15	Sep-15	SDCCL/MINES/MOEF/2015	01.12.2015	Oct-15	Mar-16	Pac/MoEF/HYC/A/302/763	01.06.2016	3	2016-17	Apr-16	Sep-16	Pac/MoEF/HYC/A/302/885	19.11.2016	Oct-16	Mar-17	Pac/MoEF/HYC/A/302/ 1046	31.05.2017	4	2017-18	Apr-17	Sep-17	Pac/MoEF/HYC/A/302/1239	22.11.2017	Oct-17	Mar-18	Pac/MoEF/HYC/A/302/ 1382	18.05.2018	5	2018-19	Apr-18	Sep-18	Pac/MoEF/HYC/A/302/1562	26.11.2018	Oct-18	Mar-19	Pac/MoEF/HYC/A/302/1328	23.05.2019	6	2019-20	Apr-19	Sep-19	Pac/MoEF/HYC/A/302/ 1889	30.11.2019	Oct-19	Mar-20	Pac/MoEF/HYC/A/302/2035	29.05.2020	7	2020-21	Apr-20	Sep-20	Pac/MoEF/HYC/A/302/2240	20.11.2020	Oct-20	Mar-21	Pac/MoEF/HYC/A/302/2240	28.05.2021	8	2021-22	Apr-21	Sep-21	Pac/MoEF/HYC/A/302/2556	27.11.2021	Oct-21	Mar-22	Pac/MoEF/HYC/A/302/2956	31.05.2022	9	2022-23	Apr-22	Sep-22	Pac/MoEF/HYC/A/302/3245	30.11.2022
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(ii)	The environmental statement for each financial year ending 31st March in Form - V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal by e-mail.	Being complied. Environmental Statement Report (ESR) for each financial year in Form - V is being submitted regularly to all concerned offices. ESR for the period of 2021-22 submitted vide letter no. PAC/GPCB/Form-V/C/352/3372 dated 22.05.2023 and copy of the same is available at Company's website. We are regularly submitting the ESR to all concerned department/offices by e-mail as well, as and when asked to submit.																																																																																																								

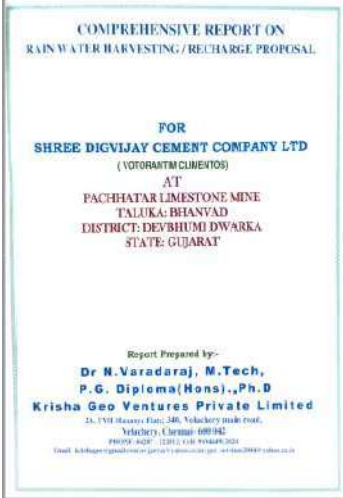
Point wise compliance status to various stipulations as laid down in the Environmental Clearance letter No. J-11015/49/2005-IA.II (M) dated 07.10.2005 and 06.02.2006:

SL.	CONDITIONS	COMPLIANCE STATUS																									
A. Specific Conditions																											
(i)	Prior approval of the Chief Wildlife Warden, Government of Gujarat, shall be obtained before expansion of mining activities.	Noted. No expansion till date.																									
(ii)	The production capacity from this mine shall not exceed 1.0 MTPA with a capping of production of limestone to 2.2 MTPA from all 5 Mines, namely Gop, Pachhtar, Mokhana, Chorbedi and Bhogat Limestone mines put together subject to the individual mines obtaining environmental clearance.	Being complied. Production during Apr-22 to Mar-2023 is 499996.230 tonnes from Pachhtar (Composite) Limestone Mine. 04 Mines viz. Gop, Chorbedi, Pachhtar and Mokhana Mines have obtained EC individually as detailed below: Gop Mines: J-11015/47/2005-IA. II (M) dated 07.10.2005 Chorbedi Mines: J-11015/47/2005-IA. II (M) dated 07.10 2005 Pachhtar Mines: J-11015/49/2005-IA. II (M) dated 07.10 2005 Mokhana Mines: J-11015/48/2005-IA. II (M) dated 07.10 2005. Production of all 05 Limestone Mines during Apr-2022 to Mar-2023 and its capacities are given as under: <table><tr><th>Name of Mine</th><th>EC Capacity in Million Tons</th><th>Production in Million Tons</th><th>Remarks</th></tr><tr><td>Gop</td><td>0.25</td><td>0.249</td><td rowspan="4">Within the EC Limit</td></tr><tr><td>Pachhtar</td><td>1.00</td><td>0.499</td></tr><tr><td>Chorbedi</td><td>0.90</td><td>0.297</td></tr><tr><td>Mokhana</td><td>0.70</td><td>0.000</td></tr><tr><td>Bhogat</td><td>EC not granted</td><td>0.000</td><td></td></tr><tr><td>Total</td><td>2.85 (Limited to 2.20)</td><td>1.045</td><td></td></tr></table> The individual and cumulative production is well within the limit. Mokhana Mines: Entire lease area of Mokhana Mines was under Forest Land for which Possession taken over by Forest Department on 07.08.2004. The operations were stopped since 05.08.2004. Bhogat Mines: The area covered under CRZ and EC for this mine is rejected vide MoEF letter dated 09.10.2006. There is no production from Bhogat Mines Since 21.10.2004.	Name of Mine	EC Capacity in Million Tons	Production in Million Tons	Remarks	Gop	0.25	0.249	Within the EC Limit	Pachhtar	1.00	0.499	Chorbedi	0.90	0.297	Mokhana	0.70	0.000	Bhogat	EC not granted	0.000		Total	2.85 (Limited to 2.20)	1.045	
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SL.	CONDITIONS	COMPLIANCE STATUS																																																																																			
(ii)	Catch drains and siltation ponds of appropriate size and check dams should be constructed to arrest silt and sediment flows from the mining operations. The drains should be regularly de-silted and maintained properly. Garland drain (size, gradient & length) shall be constructed for both mine pit and for the waste dump. Sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall 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.	Being complied. Details of Catch Drains & Siltation Pond: Catch drains and Siltation Ponds have been constructed and details are given as under. Catch Drains: <table><tr><th>Catch Drain No</th><th>Length in Meter</th><th>Width in Meter</th><th>Depth in Meter</th></tr><tr><td>1</td><td>354</td><td>12</td><td>1.5</td></tr><tr><td>2</td><td>324</td><td>12</td><td>1.20</td></tr><tr><td>3</td><td>151</td><td>9</td><td>0.5</td></tr><tr><td>4</td><td>18</td><td>11</td><td>0.5</td></tr></table> Siltation ponds: Bottom pits of mines act as siltation ponds; details as below: <table><tr><th rowspan="2">Siltation Pond</th><th>Length</th><th>Width</th><th>Depth</th><th rowspan="2">Area (Sq m)</th><th rowspan="2">Volume (m³)</th></tr><tr><th colspan="3">In meter</th></tr><tr><td>1</td><td>218</td><td>97</td><td>5</td><td>21146</td><td>105730</td></tr><tr><td>2</td><td>145</td><td>43</td><td>3</td><td>6235</td><td>18705</td></tr><tr><td>3</td><td>291</td><td>121</td><td>5</td><td>28050</td><td>140250</td></tr><tr><td>4</td><td>86</td><td>74</td><td>2</td><td>6364</td><td>12728</td></tr><tr><td>5</td><td>182</td><td>75</td><td>3</td><td>13650</td><td>40950</td></tr><tr><td>6</td><td>692</td><td>61</td><td>5</td><td>42212</td><td>211060</td></tr><tr><td>7</td><td>404</td><td>83</td><td>12</td><td>33532</td><td>402384</td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="5">Total</td><td>931807</td></tr></table> Construction of Garland Drains: For Waste Dump: Not applicable as there is no waste. For Mines: Instead of Garland drain, catch drains are developed. There is no overflow of water or discharge of any mine water from the pits. All the silts are settled in pits itself. Catchment area including pits – 1221568 M2, Total quantity of water with an average rainfall of 63 CM and calculated by considering 60 % run of coefficient collection efficiency = 461752.7 KL. Sumps are large enough to	Catch Drain No	Length in Meter	Width in Meter	Depth in Meter	1	354	12	1.5	2	324	12	1.20	3	151	9	0.5	4	18	11	0.5	Siltation Pond	Length	Width	Depth	Area (Sq m)	Volume (m³)	In meter			1	218	97	5	21146	105730	2	145	43	3	6235	18705	3	291	121	5	28050	140250	4	86	74	2	6364	12728	5	182	75	3	13650	40950	6	692	61	5	42212	211060	7	404	83	12	33532	402384	8						Total					931807
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		provide adequate retention period for proper settling of silt material. This region of Gujarat is known as Semi-desert and scarcity of water is major concern. An arrangement has been made to collect surface runoff water during the monsoon into the pits. Rainwater accumulated in these pits helps to augment ground water. This water is also used for development of greenbelt & dust suppression. Beneficiaries of nearby mines area also use this water for irrigation purpose as per their requirement.														
																
(iv)	Drills should be wet operated or with dust extractors.	Drill machines are not in operation, as drilling & blasting has been eliminated by the use of Ripper– Dozer and Excavator combination, an Eco-Friendly mining.														
(v)	Controlled blasting should be practiced only day time. The mitigative measures for control of ground vibrations to arrest the fly rocks and boulders should be implemented.	Drilling & Blasting has been eliminated by the use of Ripper–Dozer and Excavator combination - an Eco-Friendly mining. 														
(vi)	Plantation shall be done over the lease area including a green belt of adequate width around the ML area, along roads by planting suitable native species in consultation with the local DFO/Agricultural Department. The density of trees should be around 1000 plants per hectare.	Plantation program is under progress in the required area. A table with year wise plantation is given below. <table><tr><th>Year</th><th>Nos of Saplings planted</th></tr><tr><td>Up to 2018-19</td><td>4778</td></tr><tr><td>2019-20</td><td>352</td></tr><tr><td>2020-21</td><td>1068</td></tr><tr><td>2021-22</td><td>1169</td></tr><tr><td>2022-23</td><td>1385</td></tr><tr><td>Total</td><td>8752</td></tr></table> Copy of Plantation enclosed as Annexure-III	Year	Nos of Saplings planted	Up to 2018-19	4778	2019-20	352	2020-21	1068	2021-22	1169	2022-23	1385	Total	8752
Year	Nos of Saplings planted															
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SL.	CONDITIONS	COMPLIANCE STATUS
	 	
(vii)	A total of 83.16 ha of the mined out area shall be converted into a water reservoir. The higher benches of the void shall be terraced and plantation done to stabilize the slopes. Peripheral fencing shall be done along the excavated area.	Being complied. Mining is being done as per approved mining plan. Mined out area are being developed as basin for collecting surface runoff rainwater after complete removal of mineral. Peripheral fencing & Stone Parapet Wall also being created along the excavated area.
(viii)	Ground water shall not be encountered during mining operations. Prior approval of the MOEF and CGWA shall be taken for mining below ground water.	Being complied. Ground Water is not encountered during mining operations. Mining is being carried out as per Approved mining plan and no ground will intersect. The Limestone thickness in the area is 20 mtrs from GL, whereas the Water table lies about 25 mtrs BGL, so there is no possibility of working below Ground Water.
(ix)	Rain water harvesting measures shall be taken up in consultation with the Regional Office, CGWB to recharge and augment groundwater in the area.	A scientific study of Rainwater harvesting, and Ground water recharge has been done by Hydrology & Groundwater expert Dr N. Varadaraj, M. Tech -, P.G. Diploma (Hons), Ph.D. The study report has been submitted to the CGWA – Ahmedabad (Copy attached Annexure-IV). Rainwater harvesting & Ground water recharge measures is being done, as per the recommendations. The water harvesting pictures are depicted below;

SL.	CONDITIONS	COMPLIANCE STATUS
	  	
s(x)	A final Mine Closure Plan along with detail of Corpus Fund should be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.	Noted. Final Mine closure plan will be submitted as per statutory provisions.
(xi)	Consent to operate shall be obtained from the SPCB before expanding mining operations.	Noted. Consent to operate has obtained from GPCB, vide Consent Order No. AWH 108461 dated 23.06.2020 which is valid up to 08/06/2025. Copy of CTO is enclosed as Annexure-V 
B	General conditions	
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Noted. Mining is being done as accordance with Approved Mining Plan (period of 2018 -19 to 2022-23) copy of Approval letter enclosed as Annexure-VI

SL.	CONDITIONS	COMPLIANCE STATUS								
(ii)	No change in the calendar plan including excavation, quantum of limestone and waste should be made.	Noted. Mining is being done as accordance with Approved Mining Plan (period of 2018 -19 to 2022 -23) The production details for the period 2022-23 is given below. <table><tr><th>Year</th><th>Mineral</th><th>Proposed Production as per approved Mining Plan (MT)</th><th>Actual Production in MT</th></tr><tr><td>2022-23</td><td>Limestone</td><td>10,000,00</td><td>4,49,996.230</td></tr></table>	Year	Mineral	Proposed Production as per approved Mining Plan (MT)	Actual Production in MT	2022-23	Limestone	10,000,00	4,49,996.230
Year	Mineral	Proposed Production as per approved Mining Plan (MT)	Actual Production in MT							
2022-23	Limestone	10,000,00	4,49,996.230							
(iii)	Data on ambient air quality (RPM and SPM) should be regularly submitted once a year to the Ministry including its Regional Office (WZ) at Bhopal and the Gujarat State Pollution Control Board /Central Pollution Control Board once in six months.	Ambient Air Quality is being monitored on regular basis and results are well within the stipulated norms. Monitoring reports are being submitted to all concerned offices regularly. A copy of test report for the period of Oct-2022 to Mar-2023 is attached herewith for your kind reference as Annexure-II The results are well within the stipulate norms.								
(iv)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) should be provided and properly maintained.	Water is being sprinkled continuously on the mine haul roads as well as near the faces in order to suppress the fugitive emissions generated due to the movements of vehicles. Adequate measures should be taken for control EFFECTIVE DUST SUPPRESSION AT MINES 								
(v)	Adequate measures should be taken for control of noise levels in the work environment.	Being complied. Mining machineries are provided with AC cabin for operator which protects the operator from heat, noise & dust. Machineries are being								

SL.	CONDITIONS	COMPLIANCE STATUS
		maintained regularly. PPEs ear plugs / earmuffs is being provided to operators. Copy of noise monitoring report for the period of Oct-2022 to Mar-2023 enclosed as Annexure-VII
(vi)	Industrial wastewater, if any, should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December 1993 or as amended from time to time.	Repair and maintenance of vehicles is being done at Tata Cargo workshop, Rajkot. All maintenance & treatment facilities like ETP are available as per the norms. A photograph is attached for your kind reference. 
(vii)	Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Occupational health surveillance program of the workers is being taken regularly and Periodic Medical Examination (PME) of all the workmen is done at statutory intervals. Initial / Periodical Medical Examination is being carried out for following parameters as per Form O under rule 29 B of Mines Rules 1955 for all employees General Development: Height, Weight, Eye, Ears, Respiratory System, Circulatory System, Nervous System, Locomotor System, Hydrocele Any other abnormality. Urine, Skiagram of Chest, Cardiological Assessment, Neurological Assessment, ILO-Chest Radiograph, Spirometry, Audiometry, Pathological Test (Blood Sugar – Fasting & Post Prandial). So far not a single case is detected for dust borne disease.
Pachhtar Composite Limestone Mines		

SL.	CONDITIONS	COMPLIANCE STATUS																																
	Summary of No. of Person Examined																																	
	Sr. No.	Year	No of Person required to be medically Examined	No of Person medically examined	No of Person declared medically unfit	Submission of Return in Form T to DGMS vide letter No	Date of submission of Return																											
	1	2015	12	10	0	Pac/DGMS/FormT/A/107/665	05.01.2016																											
	2	2016	3	3	0	Pac/DGMS/FormT/A/107/939	01.02.2017																											
	3	2017	4	4	0	Pac/DGMS/FormT/A/107/1290	19.01.2018																											
	4	2018	16	16	0	Pac/DGMS/FormT/A/107/1611	18.01.2019																											
	5	2019	8	8	0	Pac(Comp)/DGMS/AR/FormT/A/107/1934	05.01.2020																											
	6	2020	7	7	0	Pac(Comp)/DGMS/AR/FormT/A/107/2289	18.01.2021																											
	7	2021	17	17	0	Pac(Comp)/DGMS/AR/FormT/A/107/2627	28.01.2022																											
	8	2022	06	06	0	Pac(Comp)/DGMS/AR/FormT/A/107/3245	31.01.2023																											
(viii)	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 this Ministry's Regional Office located at Bhopal (WZ).					Noted. Expenditure for environmental protection measures is given below: <table><tr><td>S. No.</td><td>Year</td><td>Recurring Yearly Expenditure</td></tr><tr><td>1</td><td>2015-16</td><td>₹ 750680</td></tr><tr><td>2</td><td>2016-17</td><td>₹ 356756</td></tr><tr><td>3</td><td>2017-18</td><td>₹ 406410</td></tr><tr><td>4</td><td>2018-19</td><td>₹ 495120</td></tr><tr><td>5</td><td>2019-20</td><td>₹ 578149</td></tr><tr><td>6</td><td>2020-21</td><td>₹ 687255</td></tr><tr><td>7</td><td>2021-22</td><td>₹ 436063</td></tr><tr><td>8</td><td>2022-23</td><td>₹ 458500</td></tr></table> Details on Expenditure for environmental protection measures for the FY 2022-23 (Oct-22 to Mar-23 is enclosed as Annexure-VIII		S. No.	Year	Recurring Yearly Expenditure	1	2015-16	₹ 750680	2	2016-17	₹ 356756	3	2017-18	₹ 406410	4	2018-19	₹ 495120	5	2019-20	₹ 578149	6	2020-21	₹ 687255	7	2021-22	₹ 436063	8	2022-23	₹ 458500
S. No.	Year	Recurring Yearly Expenditure																																
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5	2019-20	₹ 578149																																
6	2020-21	₹ 687255																																
7	2021-22	₹ 436063																																
8	2022-23	₹ 458500																																
(ix)	The Regional Office (WZ) of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the office (s) of the Regional Office by furnishing the requisite data / information/ monitoring reports.					Noted. Compliance report is being submitted regularly along with annexures to all concerned offices along with MoEF&CC, Regional Office. Details on submitted reports are given below;																												

SL.	CONDITIONS				COMPLIANCE STATUS	
(x)	Last 8 Years summary of HY compliance Report submitted					
	Pachhtar Composite Limestone Mines					
	Sr. No.	Year	Period		Letter No.	Date of Submission
	1	2014-15	Apr-14	Sep-14	SDCCL/MINES/MOEF/2014	01.12.2014
			Oct-14	Mar-15	SDCCL/MINES/MOEF/2015/480	01.06.2015
	2	2015-16	Apr-15	Sep-15	SDCCL/MINES/MOEF/2015	01.12.2015
			Oct-15	Mar-16	Pac/MoEF/HYC/A/302/763	01.06.2016
	3	2016-17	Apr-16	Sep-16	Pac/MoEF/HYC/A/302/885	19.11.2016
			Oct-16	Mar-17	Pac/MoEF/HYC/A/302/ 1046	31.05.2017
	4	2017-18	Apr-17	Sep-17	Pac/MoEF/HYC/A/302/1239	22.11.2017
			Oct-17	Mar-18	Pac/MoEF/HYC/A/302/ 1382	18.05.2018
	5	2018-19	Apr-18	Sep-18	Pac/MoEF/HYC/A/302/1562	26.11.2018
			Oct-18	Mar-19	Pac/MoEF/HYC/A/302/1328	23.05.2019
	6	2019-20	Apr-19	Sep-19	Pac/MoEF/HYC/A/302/ 1889	30.11.2019
			Oct-19	Mar-20	Pac/MoEF/HYC/A/302/2035	29.05.2020
	7	2020-21	Apr-20	Sep-20	Pac/MoEF/HYC/A/302/2240	20.11.2020
			Oct-20	Mar-21	Pac/MoEF/HYC/A/302/2240	28.05.2021
	8	2021-22	Apr-21	Sep-21	Pac/MoEF/HYC/A/302/2556	27.11.2021
			Oct-21	Mar-22	Pac/MoEF/HYC/A/302/2956	31.05.2022
	9	2022-23	Apr-22	Sep-22	Pac/MoEF/HYC/A/302/3177	30.11.2022
A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom and suggestion/representation has been received while processing the proposal.						
Copy of clearance letter was handed over to all concerned Panchayat.						
						

SL.	CONDITIONS	COMPLIANCE STATUS
(xi)	State pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's office/Tehsildar's Office for 30 days and provide copies of the same to anyone requesting for the same.	Noted.
(xii)	The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in vernacular language of the locality concerned, within 7 days of the issue of clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment and Forests at http://envfor.nic.in .	Complied. We have published Environment Clearance information in the two local newspapers dated 10.12.2005. The publication has appeared in the – (1) Times of India - Ahmedabad Edition (2) Phoolchhab - Rajkot edition.



By e-mail

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, GANDHINAGAR**

No. MCDR-MPCP0CaFI/24/2022-GNR-IBM_RO_GNR

Dt : 09/12/2022

Shri/M/s. SHREE DIGVIJAY CEMENT COMPANY LIMITED ,
DIGVIJAYGRAM JAMNAGAR

Sub: Approval of Mining Plan and PMCP in respect of your Applied Mining Lease Area for Limestone over an area of 52.60 Ha. situated in Pachhatar Village, Bhanvad Taluka, Devbhumi Dwarka District of Gujarat State submitted under Rule 17(2) of M(OAHCEM)CR 2016 and Rule 23 of MCDR.

Ref : (i) Your Letter No.nil dated 23 Sep 2022 submitting Initial submission of Mining Plan in respect of aforesaid applied M.L.Area.(Based on realisation and confirmation of processing fee)

(ii) This office letter of even no. nil (online) dated 26.10.2022 through MPAS.

(iii) Your Letter No. Nil and on line final submission through online portal MPAS on dated 30.11.2022 submitting online copies of Mining Plan in respect of aforesaid ML area/Mine.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **Approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. General Conditions:

2. The Mining Plan is approved without prejudice to any other law applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.
3. That this the approval of Mining Plan does not in any way imply the approval of the Government in terms of any other provision of Mines & Minerals (Development & Regulation) Act, 1957, rule made thereunder, or the Minerals (Other than Atomic & Hydro Carbon Energy Minerals) Concession Rules, 2016 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made thereunder, The Occupational Safety, Health and Working Conditions Code, 2020/The Mines Act 1952 and Rule & Regulations made there under.
4. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
5. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
6. This approval for proposed mining operation and associated activities is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Mining Plan for the Period commencing from 1st April 2023 for financial year 2023-24, upto financial year 2027-28 with validity upto 31st March 2028 and subject to all statutory compliances and clearances for the mining activity to be carried out within the mining leasehold area.
7. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.

By e-mail

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, GANDHINAGAR**

No. MCDR-MPCP0CaFI/23/2022-GNR-IBM_RO_GNR

Dt : 02/12/2022

Shri/M/s. SHREE DIGVIJAY CEMENT COMPANY LIMITED ,
DIGVIJAYGRAM JAMNAGAR

Sub: Approval of Mining Plan and PMCP in respect of your Applied Mining Lease Area for Limestone over an area of 32.38 Ha. situated in Pachhatar Village, Bhanvad Taluka, Devbhumi Dwarka District of Gujarat State submitted under Rule 17(2) of M(OAHCEM)CR 2016 and Rule 23 of MCDR.

Ref : (i) Your Letter No. Nil dated 23 Sep 2022 submitting Initial submission of Mining Plan in respect of aforesaid applied M.L. Area.

(ii) This office letter of even no. nil (online) dated 26.10.2022.

(iii) Your Letter No. Nil and on line final submission on dated 29.11.2022 submitting online copies of Mining Plan in respect of aforesaid applied ML area.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. General Conditions:

1. That the Mining Plan is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other authority.
2. That this approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.
3. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
4. The provisions of the Mines Act, 1952/ The Occupational Safety, Health and Working Conditions Code, 2020 and Rules and Regulations made thereunder including submission of notices of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
5. If anything is found to be concealed as required by the Mines Act in the contents of the mining plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
6. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
7. This approval for proposed mining operation and associated activities is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Review of Mining

Plan for the Period commencing from 1st April 2023 for financial year 2023-24, upto financial year 2027-28 with validity upto 31st March 2028 and subject to all statutory compliance and clearance for the mining activity to be carried out within the mining leasehold.

8. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.
9. This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground.
10. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
11. At any stage, if it is found/observed that any of the information, data, details, drawings, geo-referenced spatial configuration of the mining lease, proposals etc. furnished/incorporated in the mining plan are incorrect or misrepresent the facts or non-compliance of the conditions of the approval letter, if any, the approval of this mining plan shall be revoked with immediate effect.

1.

Special Conditions:

1. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
2. The Next Financial Assurance shall be due for submission on and before 31st March 2028 which shall be furnished as per extant statutory provisions.
3. In addition to the PMCP proposals mining lease holder shall comply the Order of Hon'ble Supreme Court dated 08.01.2020 in the matter of Writ petition(C) No.114/2014(common Cause vs Union of India & Ors.) to undertake re-grassing of the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance status of the same shall be furnished every year along with the compliance of PMCP proposals under rule 26(2) of MCDR 2017. For the compliances including PMCP proposals.
4. Appropriate connectivity shall be maintained all the time/left such area intact for appropriate connectivity, as per applicable laws, with the patch of land within ML area as show in the plans but is not a part of ML area.
5. The conceptual plan needs to be examined thoroughly on planning and commencement of mining operations in next review & updation of mining plan.
6. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
7. This approval is restricted to the proposals only for the ensuing mining plan period and this approval shall not be interpreted as a compliance of any of the violations made to the statutory provisions.
8. Mining operations shall be carried out strictly as per provisions of MCDR 2017 and other rules made under MM(D&R) Act 1957 and updated time to time.
9. The mineral wise/ore stocks above the limit prescribed in the threshold values of minerals and below the cut-off grade if any shall be maintained separately and its inventory shall be maintained in a bound page register indicating the quantity and quality of material stacked. The month wise inventory of such materials shall be updated regularly.

Encl: Online Approved Mining Plan

Yours faithfully,

(पुष्पेन्द्र गौड़/ Pushpender Gaur)

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Copy forwarded for information to Shri Malay Kumar Raut, Qualified Person

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Not on first two copies:

By e-mail

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, GANDHINAGAR**

No. MCDR-MPCP0CaFI/25/2022-GNR-IBM_RO_GNR

Dt : 02/12/2022

Shri/M/s. SHREE DIGVIJAY CEMENT COMPANY LIMITED ,
DIGVIJAYGRAM JAMNAGAR

Sub: Approval of Mining Plan and PMCP in respect of your Applied Mining Lease Area for Limestone over an area of 16.00 Ha. situated in Pachhatar Village, Bhanvad Taluka, Devbhumi Dwarka District of Gujarat State submitted under Rule 17(2) of M(OAHCEM)CR 2016 and Rule 23 of MCDR 2017.

Ref : (i) Your Letter No.nil dated 21 Sep 2022 submitting Initial submission of Mining Plan in respect of aforesaid applied M.L.Area.

(ii) This office letter of even no. nil (online) dated 26.10.2022.

(iii) Your Letter No. Nil and on-line final submission on dated 29.11.2022 submitting online copies of Mining Plan in respect of aforesaid applied ML area.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. General Conditions:

1. That the Mining Plan is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other authority.
2. That this approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.
3. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
4. The provisions of the Mines Act, 1952/ The Occupational Safety, Health and Working Conditions Code, 2020 and Rules and Regulations made thereunder including submission of notices of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
5. If anything is found to be concealed as required by the Mines Act in the contents of the mining plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
6. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
7. This approval for proposed mining operation and associated activities is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Review of Mining

Plan for the Period commencing from 1st April 2023 for financial year 2023-24, upto financial year 2027-28 with validity upto 31st March 2028 and subject to all statutory compliance and clearance for the mining activity to be carried out within the mining leasehold.

8. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.
9. This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground.
10. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
11. At any stage, if it is found/observed that any of the information, data, details, drawings, geo-referenced spatial configuration of the mining lease, proposals etc. furnished/incorporated in the mining plan are incorrect or misrepresent the facts or non-compliance of the conditions of the approval letter, if any, the approval of this mining plan shall be revoked with immediate effect.

1.

Special Conditions:

1. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
2. The Next Financial Assurance shall be due for submission on and before 31st March 2028 which shall be furnished as per extant statutory provisions.
3. In addition to the PMCP proposals mining lease holder shall comply the Order of Hon'ble Supreme Court dated 08.01.2020 in the matter of Writ petition(C) No.114/2014(common Cause vs Union of India & Ors.) to undertake re-grassing of the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance status of the same shall be furnished every year along with the compliance of PMCP proposals under rule 26(2) of MCDR 2017. For the compliances including PMCP proposals. The conceptual plan needs to be examined thoroughly on planning and commencement of mining operations in next review & updation of mining plan.
4. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
5. This approval is restricted to the proposals only for the ensuing mining plan period and this approval shall not be interpreted as a compliance of any of the violations made to the statutory provisions.
6. Mining operations shall be carried out strictly as per provisions of MCDR 2017 and other rules made under MM(D&R) Act 1957 and updated time to time.
7. The mineral wise/ore stocks above the limit prescribed in the threshold values of minerals and below the cut-off grade if any shall be maintained separately and its inventory shall be maintained in a bound page register indicating the quantity and quality of material stacked. The month wise inventory of such materials shall be updated regularly.

Encl: Online Approved Mining Plan

Yours faithfully,

(पुष्पेन्द्र गौड़/ Pushpender Gaur)

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Copy forwarded for information to Shri Malay Kumar Raut, Qualified Person

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Not on first two copies:

Copy forwarded for kind information to:

1. The Commissioner, Department of Geology & Mining, Govt. of Gujarat, Gandhinagar, Gujarat, e-mail- commissioner-cgm@gujarat.gov.in.



Royal

Environment Auditing & Consultancy Service

Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Annexure-II

Ref. No. :794/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : OCTOBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	—	11/10/2022	11/10/2022	12/10/2022	12/10/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	—	SE	SE	SE	SE
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.20	1.18	1.14	1.17
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	19.8	20.6	20.1	20.2
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.3	48.2	47.9	48.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.1	13.5	13.9	13.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	18.7	19.3	19.9	19.3

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

Royal Environment Auditing & Consultancy Service



Ashish
Analyst



Royal

Environment Auditing & Consultancy Service

Plot No. 19 & 20, B/s. The North Star Nest School, Masoom School Road, Mota Mava, RAJKOT - 360 005.
Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 795/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : OCTOBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	10/10/2022	10/10/2022	11/10/2022	11/10/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SE	SE	SE	SE
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.20	1.20	1.12	1.17
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	24.6	23.7	24.1	24.1
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.9	48.5	49.2	49.2
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.8	14.9	14.6	15.1
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	22.2	21.8	21.1	21.7

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Analyst



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Ref. No. : 796/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : OCTOBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	10/10/2022	10/10/2022	11/10/2022	11/10/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SE	SE	SE	SE
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.16	1.12	1.15	1.14
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	19.8	20.4	21.3	20.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.6	51.2	49.1	50.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.2	15.7	15.4	15.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	19.4	18.6	17.8	18.6

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :8054/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : OCTOBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	—	29/10/2022	29/10/2022	29/10/2022	29/10/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	—	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 16	2 to 16	2 to 16	2 to 16
05.	Average flow rate during sampling	m3/minutes	1.18	1.20	1.17	1.18
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	23.5	22.4	22.9	22.9
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.2	48.8	49.9	49.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	12.6	14.5	13.7	13.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.4	21.2	19.7	20.4

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :8055/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : OCTOBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	28/10/2022	28/10/2022	29/10/2022	29/10/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 16	2 to 16	2 to 16	2 to 16
05.	Average flow rate during sampling	m ³ /minutes	1.15	1.17	1.18	1.17
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	19.6	20.1	21.3	20.3
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.7	49.7	48.3	49.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.8	13.7	12.9	13.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	19.4	18.7	20.3	19.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :8056/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : OCTOBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	—	28/10/2022	28/10/2022	29/10/2022	29/10/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 16	2 to 16	2 to 16	2 to 16
05.	Average flow rate during sampling	m3/minutes	1.12	1.18	1.20	1.17
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	20.7	21.4	22.7	21.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.3	49.1	47.8	48.4
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.8	16.2	14.7	15.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.9	21.3	19.7	20.6

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :894/11/2022-23

Date:01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : NOVEMBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	18/11/2022	18/11/2022	19/11/2022	19/11/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	4 to 14	4 to 14	4 to 14	4 to 14
05.	Average flow rate during sampling	m3/minutes	1.16	1.15	1.17	1.16
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	21.2	18.6	20.6	20.1
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	47.6	49.2	48.2	48.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.2	14.4	13.6	14.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	19.2	20.2	21.1	20.2

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. : 895/11/2022-23

Date:01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : NOVEMBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	—	17/11/2022	17/11/2022	18/11/2022	18/11/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	—	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	4 to 14	4 to 14	4 to 14	4 to 14
05.	Average flow rate during sampling	m3/minutes	1.15	1.14	1.13	1.14
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	25.4	24.3	26.4	25.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.2	47.6	49.9	48.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.8	15.1	13.6	14.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.6	24.6	22.3	23.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :896/11/2022-23

Date:01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : NOVEMBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	17/11/2022	17/11/2022	18/11/2022	18/11/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	4 to 14	4 to 14	4 to 14	4 to 14
05.	Average flow rate during sampling	m3/minutes	1.13	1.14	1.12	1.13
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	18.7	21.6	22.3	20.9
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	42.6	47.6	44.9	45.0
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.1	14.6	13.4	14.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	18.7	19.6	21.2	19.8

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :9054/11/2022-23

Date: 01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : NOVEMBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	28/11/2022	28/11/2022	28/11/2022	28/11/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.20	1.18	1.16	1.18
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	24.8	23.5	21.2	23.2
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.6	49.8	47.5	48.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	13.6	15.8	14.7	14.7
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.7	20.4	18.6	20.2

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. : 9055/11/2022-23

Date: 01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : NOVEMBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	27/11/2022	27/11/2022	28/11/2022	28/11/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.17	1.15	1.16	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	20.4	19.6	22.4	20.8
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.8	50.1	46.5	48.8
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	13.9	12.8	10.5	12.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.1	19.8	21.5	20.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

Royal Environment Auditing & Consultancy Service

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Ref. No. :9056/11/2022-23

Date: 01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : NOVEMBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	27/11/2022	27/11/2022	28/11/2022	28/11/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.14	1.16	1.10	1.13
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	21.4	22.3	23.8	22.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	47.6	48.3	46.2	47.4
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.2	15.4	13.8	14.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.7	20.4	18.9	20.3

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :994/12/2022-23

Date:03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : DECEMBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	15/12/2022	15/12/2022	16/12/2022	16/12/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	1 to 15	1 to 15	1 to 15	1 to 15
05.	Average flow rate during sampling	m3/minutes	1.16	1.15	1.17	1.16
06.	Average flow rate for Gas sampling	LPM	2.0	2.0	2.0	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	28.2	25.9	26.4	26.8
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.3	52.4	51.7	51.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.1	16.3	15.8	16.7
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.3	21.8	22.4	21.8

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. : 995/12/2022-23

Date: 03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : DECEMBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	14/12/2022	14/12/2022	15/12/2022	15/12/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	1 to 15	1 to 15	1 to 15	1 to 15
05.	Average flow rate during sampling	m3/minutes	1.16	1.13	1.11	1.13
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	27.1	26.4	28.6	27.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	51.2	50.6	52.8	51.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.7	18.5	15.3	16.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	22.6	23.8	21.2	22.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :996/12/2022-23

Date:03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : DECEMBER 2022 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	14/12/2022	14/12/2022	15/12/2022	15/12/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	1 to 15	1 to 15	1 to 15	1 to 15
05.	Average flow rate during sampling	m3/minutes	1.16	1.12	1.14	1.14
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	26.5	28.3	29.6	28.1
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.6	54.2	53.7	52.8
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.3	16.9	15.2	16.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.3	22.6	23.1	22.3

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. : 1054/12/2022-23

Date: 03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : DECEMBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	----	28/12/2022	28/12/2022	28/12/2022	28/12/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 14	2 to 14	2 to 14	2 to 14
05.	Average flow rate during sampling	m3/minutes	1.20	1.18	1.16	1.18
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	28.9	27.7	26.4	27.7
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.4	54.8	50.3	52.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.4	18.3	16.7	16.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.2	22.7	21.5	22.8

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :1055/12/2022-23

Date: 03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : DECEMBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	27/12/2022	27/12/2022	28/12/2022	28/12/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 14	2 to 14	2 to 14	2 to 14
05.	Average flow rate during sampling	m3/minutes	1.21	1.16	1.12	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	28.4	27.8	29.6	28.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	51.6	53.4	50.2	51.7
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	17.5	16.8	15.1	16.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.6	21.4	25.2	23.4

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :1056/12/2022-23

Date: 03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : DECEMBER 2022 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	27/12/2022	27/12/2022	28/12/2022	28/12/2022
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 14	2 to 14	2 to 14	2 to 14
05.	Average flow rate during sampling	m3/minutes	1.12	1.18	1.16	1.15
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	26.3	27.6	29.4	27.8
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.6	54.8	50.3	52.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.9	18.4	15.8	17.0
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.8	22.2	21.0	22.3

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 27/12/2021

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Ref. No. :194/01/2022-23

Date:30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : JANUARY 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	10/01/2023	10/01/2023	11/01/2023	11/01/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	2 to 16	2 to 16	2 to 16	2 to 16
05.	Average flow rate during sampling	m3/minutes	1.18	1.16	1.17	1.17
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	27.6	24.5	25.2	25.8
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.8	50.7	49.5	49.7
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	17.3	15.4	13.6	15.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.6	19.8	21.2	20.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 195/01/2022-23

Date:30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : JANUARY 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	09/01/2023	09/01/2023	10/01/2023	10/01/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	2 to 16	2 to 16	2 to 16	2 to 16
05.	Average flow rate during sampling	m3/minutes	1.18	1.16	1.13	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	26.8	25.2	27.5	26.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.1	48.3	50.9	49.4
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.9	17.6	14.2	15.9
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.8	22.3	20.6	21.6

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

Royal Environment Auditing & Consultancy Service

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Ref. No. : 196/01/2022-23

Date:30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : JANUARY 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	09/01/2023	09/01/2023	10/01/2023	10/01/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	2 to 16	2 to 16	2 to 16	2 to 16
05.	Average flow rate during sampling	m3/minutes	1.15	1.18	1.12	1.15
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	22.5	29.6	24.8	25.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	47.2	52.9	49.6	49.9
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.5	15.3	13.7	15.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.9	23.5	22.8	22.4

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :2054/01/2022-23

Date: 30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : JANUARY 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	----	24/01/2023	24/01/2023	24/01/2023	24/01/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	4 to 15	4 to 15	4 to 15	4 to 15
05.	Average flow rate during sampling	m3/minutes	1.10	1.20	1.18	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	27.8	26.6	25.3	26.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	51.3	53.5	49.8	51.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.9	16.4	15.9	15.7
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	25.3	23.9	22.8	24.0

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :2055/01/2022-23

Date: 30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : JANUARY 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	23/01/2023	23/01/2023	24/01/2023	24/01/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	4 to 15	4 to 15	4 to 15	4 to 15
05.	Average flow rate during sampling	m3/minutes	1.20	1.18	1.14	1.17
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	26.3	24.7	28.1	26.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.2	52.4	49.8	50.8
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.4	15.9	13.2	15.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.8	22.3	24.6	23.9

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. 2056/01/2022-23

Date: 30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : JANUARY 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	23/01/2023	23/01/2023	24/01/2023	24/01/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	4 to 15	4 to 15	4 to 15	4 to 15
05.	Average flow rate during sampling	m3/minutes	1.14	1.20	1.18	1.17
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	24.6	22.8	28.3	25.2
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.8	51.2	49.5	50.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.8	17.3	14.9	16.0
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.3	21.5	20.8	22.2

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :294/02/2022-23

Date:01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : FEBRUARY 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	----	10/02/2023	10/02/2023	11/02/2023	11/02/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.16	1.18	1.12	1.15
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	28.7	25.4	26.3	26.8
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	47.9	49.6	50.4	49.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.4	16.5	14.7	16.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.7	20.9	22.3	21.6

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 295/02/2022-23

Date:01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : FEBRUARY 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	09/02/2023	09/02/2023	10/02/2023	10/02/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m3/minutes	1.20	1.18	1.15	1.18
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	27.4	26.3	28.6	27.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.2	47.6	51.4	49.7
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.8	18.7	15.3	16.9
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	22.9	23.4	21.7	22.7

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 296/02/2022-23

Date:01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : FEBRUARY 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited
Digvijaygram - 361 140.
District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	—	09/02/2023	09/02/2023	10/02/2023	10/02/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	—	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	3 to 15	3 to 15	3 to 15	3 to 15
05.	Average flow rate during sampling	m ³ /minutes	1.18	1.20	1.16	1.18
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	24.6	28.9	26.2	26.6
09.	Permissible Limits of PM 10		100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.3	50.8	46.5	48.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	19.4	16.2	11.8	15.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.2	24.6	23.4	23.1

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :3056/02/2022-23

Date: 01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : FEBRUARY 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	23/02/2023	23/02/2023	24/02/2023	24/02/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	1 to 16	1 to 16	1 to 16	1 to 16
05.	Average flow rate during sampling	m3/minutes	1.18	1.10	1.20	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	26.8	28.9	33.5	29.7
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.3	54.6	50.7	52.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.1	18.5	16.3	17.0
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	26.4	25.8	23.9	25.4

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :3055/02/2022-23

Date: 01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : FEBRUARY 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	----	23/02/2023	23/02/2023	24/02/2023	24/02/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	1 to 16	1 to 16	1 to 16	1 to 16
05.	Average flow rate during sampling	m3/minutes	1.18	1.20	1.12	1.17
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	29.8	26.3	30.5	28.9
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.3	50.7	54.8	52.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	20.6	18.2	16.4	18.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	25.3	24.9	26.1	25.4

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 3054/02/2022-23

Date: 01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : FEBRUARY 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	24/02/2023	24/02/2023	24/02/2023	24/02/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	1 to 16	1 to 16	1 to 16	1 to 16
05.	Average flow rate during sampling	m3/minutes	1.15	1.18	1.14	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	33.4	31.5	29.9	31.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.5	54.3	50.6	52.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.9	18.2	17.4	17.2
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	26.8	24.1	25.7	25.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 395/03/2022-23

Date:21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : MARCH 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited
Digvijaygram - 361 140.
District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	02/03/2023	02/03/2023	03/03/2023	03/03/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	1 to 16	1 to 16	1 to 16	1 to 16
05.	Average flow rate during sampling	m3/minutes	1.10	1.20	1.18	1.16
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	29.5	28.4	30.7	29.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.3	49.6	53.5	51.8
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.9	20.8	17.8	19.2
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.1	25.5	23.8	24.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 396/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : MARCH 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited
Digvijaygram - 361 140.
District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	02/03/2023	02/03/2023	03/03/2023	03/03/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	1 to 16	1 to 16	1 to 16	1 to 16
05.	Average flow rate during sampling	m3/minutes	1.20	1.22	1.18	1.20
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	26.2	32.4	28.9	29.2
09.	Permissible Limits of PM 10		100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.9	52.4	49.6	51.0
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	24.6	20.9	19.8	21.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.5	26.8	25.9	25.7

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :394/03/2022-23

Date:21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : MARCH 2023 (1st time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	03/03/2023	03/03/2023	04/03/2023	04/03/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	S	S	S	S
04.	Average Wind Speed	Km./Hrs.	1 to 16	1 to 16	1 to 16	1 to 16
05.	Average flow rate during sampling	m3/minutes	1.18	1.20	1.16	1.18
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	2.0
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	30.8	28.5	27.4	28.9
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.6	51.7	52.5	51.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	20.5	18.6	16.8	18.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.8	22.1	26.4	24.4

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. : 4054/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone Pachhtar and Pachhtardi Mines : MARCH 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1, Pachhtar Village			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	—	15/03/2023	15/03/2023	15/03/2023	15/03/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	—	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 14	2 to 14	2 to 14	2 to 14
05.	Average flow rate during sampling	m3/minutes	1.18	1.20	1.16	1.18
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	34.5	32.6	30.1	32.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	54.6	56.4	52.8	54.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.2	19.3	18.5	18.0
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	27.9	25.2	26.8	26.6

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :4055/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : MARCH 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 1. Near Weigh Bridge			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	---	14/03/2023	14/03/2023	15/03/2023	15/03/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	---	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 14	2 to 14	2 to 14	2 to 14
05.	Average flow rate during sampling	m3/minutes	1.20	1.21	1.16	1.19
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	32.4	28.6	33.8	31.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	54.8	52.9	56.4	54.7
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	24.7	22.4	20.2	22.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	26.4	25.1	27.3	26.3

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseous Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

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Ref. No. :4056/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Core Zone Pachhtar and Pachhtardi Mines : MARCH 2023 (2nd Visit)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Core Zone = 2. Near Loading area			Average Result of 24 Hrs.
			1 st 8:00 Hrs.	2 nd 8:00 Hrs.	3 rd 8:00 Hrs.	
01.	Date of sampling	----	14/03/2023	14/03/2023	15/03/2023	15/03/2023
02.	Duration of Sampling	Hrs.	8.00	8.00	8.00	24.00
03.	Dominant Wind Direction (From)	----	SW	SW	SW	SW
04.	Average Wind Speed	Km./Hrs.	2 to 14	2 to 14	2 to 14	2 to 14
05.	Average flow rate during sampling	m3/minutes	1.20	1.16	1.10	1.15
06.	Average flow rate for Gas sampling	LPM	0.5	0.5	0.5	0.5
07.	Permissible Limits of PM 2.5	µg/m ³	60	60	60	60
08.	Measured Concentration of PM 2.5	µg/m ³	27.9	29.2	34.6	30.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	54.4	56.7	52.8	54.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.2	20.6	18.4	19.1
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	28.5	26.9	24.2	26.5

Instrument used : 1) Ecotech RDS, Model No. AAS - 217BL, Gaseouse Sampling Kit- AAS 109 & PM 2.5 Sampler AAS 127

Calibrate Done on : 26/12/2022

Royal Environment Auditing & Consultancy Service

Ashish
Analyst

Area Specific Plantation at Pachhtar (Composite) Mines





**COMPREHENSIVE REPORT ON GROUND WATER
CONDITIONS AT PACHHTAR VILLAGE, BHANVAD TALUKA,
DEVBHUMI DWARKA DISTRICT, GUJARAT**

FOR

SHREE DIGVIJAY CEMENT COMPANY LTD

**PACHHTAR LIMESTONE MINE
PACHHTAR VILLAGE
TALUKA: BHANVAD
DISTRICT: DEVBHUMI DWARKA
GUJARAT**



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COMPREHENSIVE REPORT ON GROUND WATER CONDITIONS AT PACHHTAR VILLAGE, BHANVAD TALUKA, DEVBHUMI DWARKA DISTRICT, GUJARAT

TABLE OF CONTENTS

CONTENTS		Page No.
1.0	INTRODUCTION	3
2.0	LOCATION	3
3.0	TOPOGRAPHY AND DRAINAGE	7
4.0	CLIMATE & RAINFALL	9
5.0	REGIONAL GEOLOGY	10
6.0	LAND USE	13
7.0	HYDROGEOLOGY	14
8.0	GROUNDWATER RESOURCE OF THE AREA	15
9.0	GROUNDWATER CONDITION	16
10.0	CONCLUSIONS	21

COMPREHENSIVE REPORT ON GROUND WATER CONDITIONS AT PACHHTAR VILLAGE, BHANVAD TALUKA, DEVBHUMI DWARKA DISTRICT, GUJARAT

1. Introduction

Shree Digvijay Cement Co Ltd., established in 1942 at Sikka – Jamnagar and one of the pioneers in the Cement business, is a flagship Company of Votorantim. The fully computer controlled plant has a production capacity of 1.30 million tonnes per annum. The limestone required for cement plant is obtained from three mines located in Jamnagar and Devbhumi Dwarka Districts. The Pachhtar limestone mine is one of the mines in operation with 83333 MT/month capacity (1.0 MTPA).

At the instance of company management, Krisha Geo ventures Pvt Ltd, Chennai has taken up detailed ground water surveys and rain water harvesting studies in the mines and adjoining villages in 10 km radius. The detailed ground water studies for designing rainwater harvesting structures in accordance with CGWB guidelines in its website is carried out during the period of 9th April 2017 to 11th April 2017. Dr N.Varadaraj, Ground water Expert (Formerly Member, CGWB, and Govt. of India) and team from Krisha Geo Ventures Pvt. Ltd, Chennai, collected the primary and secondary data on, Geology, Hydrogeology and land use pattern and prepared technical report on ground water conditions of the study area.

2. Location

Pachhtar limestone mine is located in S.No.225/p of Pachhtar village located near Bhanvad town which is about 94 km away from Sikka Cement plant and lies between N. Latitude $21^{\circ} 51' 15''$ and $21^{\circ} 52' 00''$ and E longitude $69^{\circ} 41' 24''$ to $69^{\circ} 42' 15''$. The location map of Pachhtar area is given in Fig-1 and Google map of mines and surrounding area is shown in Fig-2.

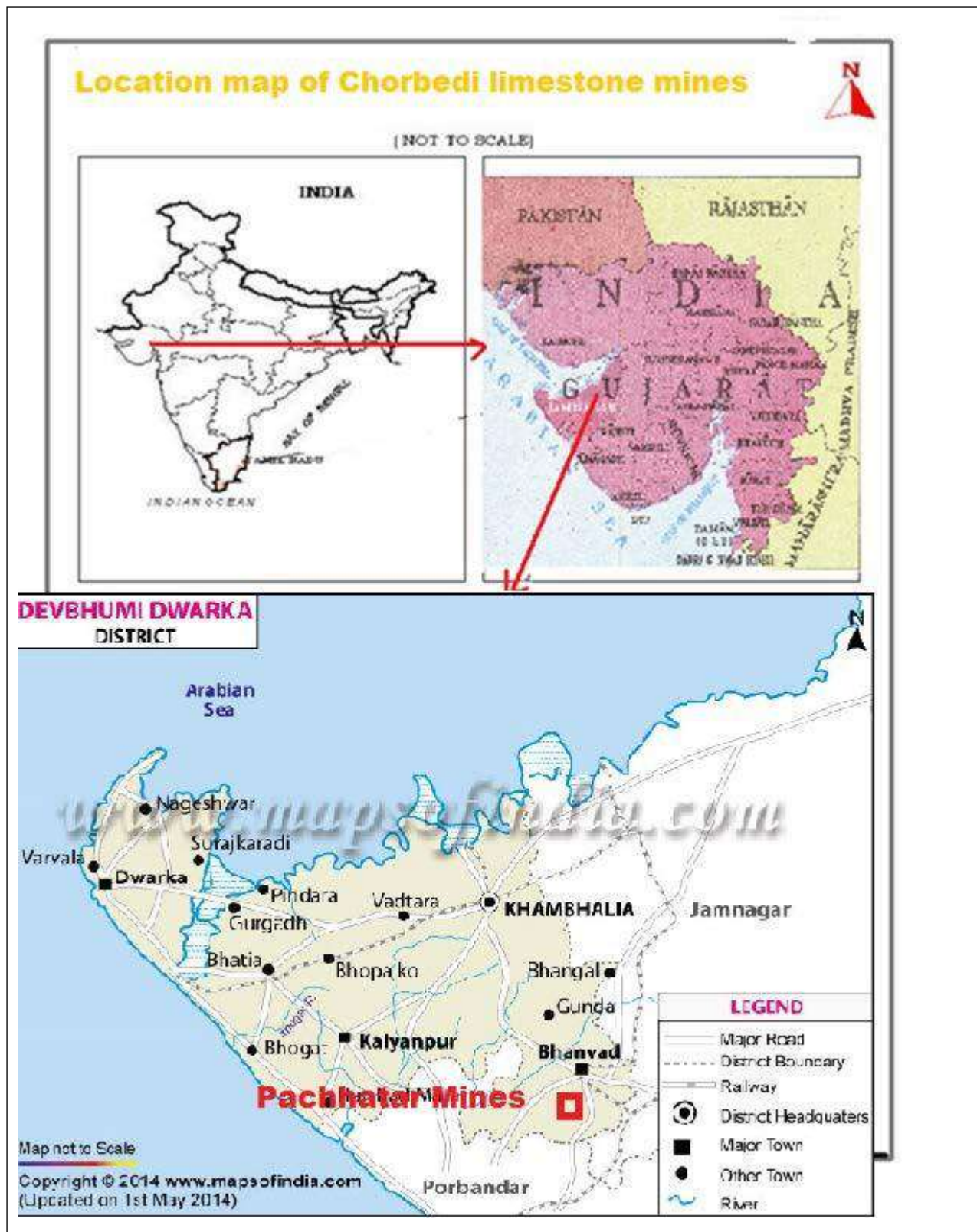


Fig-1 Location map of Pachhtar Limestone mines

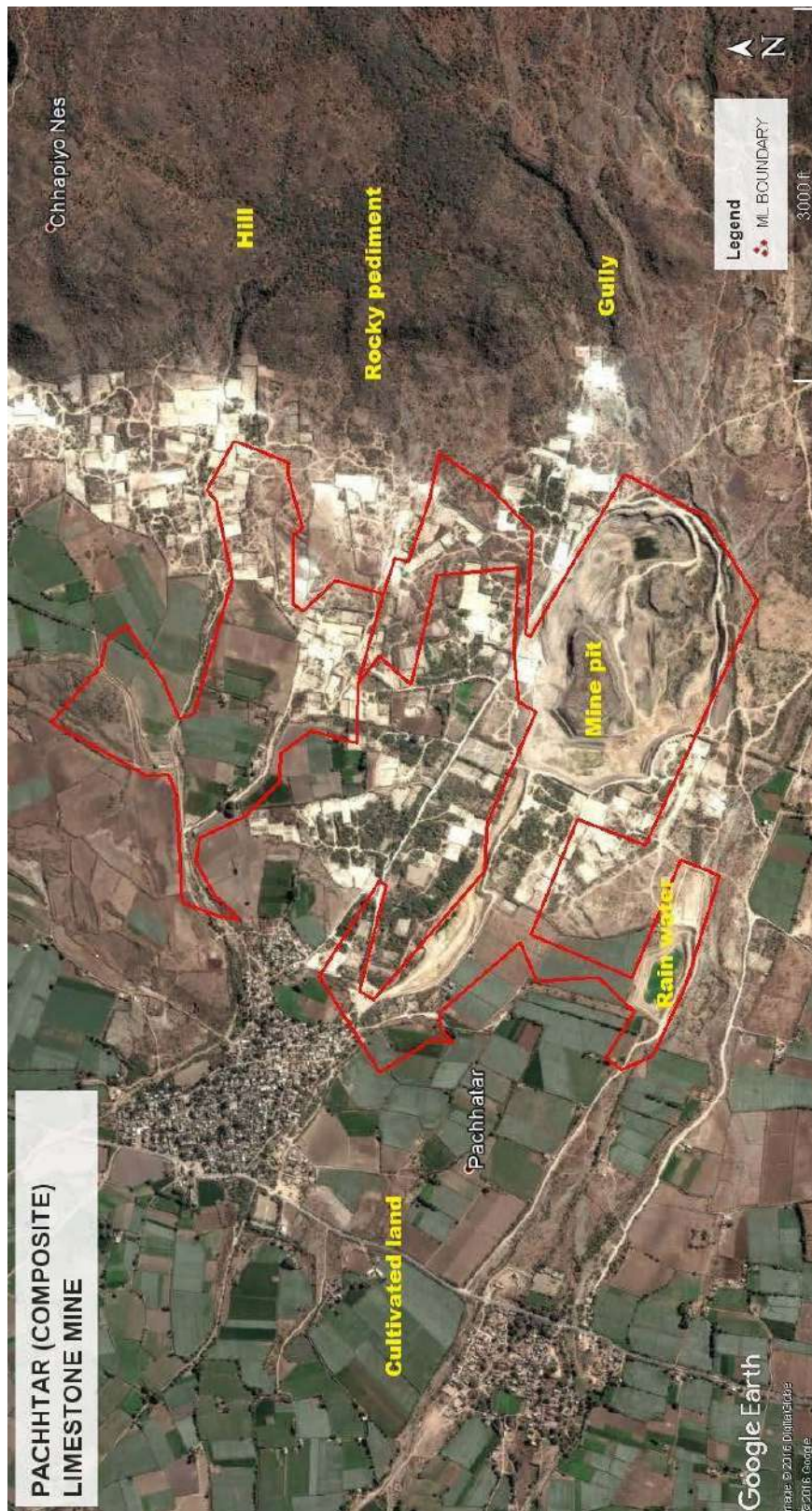


Fig: 2 GOOGLE map of Panchhatar Mines area

In order to get the regional hydrogeological information, traverses are made in a 10 km radius zone in and around the Mine site. The GPS points studied are shown in the Google map and the details of the study points are given in Table-1

GPS point	latitude	longitude	Altitude (m)	Description
001	21.865573000	69.692300000	78.8	Bore Well
002	21.867851000	69.699974000	84.4	WELL
003	21.858496000	69.696931000	95.1	RWH PIT
004	21.855423000	69.698311000	103.4	Bore well
005	21.853193000	69.697579000	101.6	WQ monitoring well
006	21.856726000	69.693294000	94.4	Bore well
007	21.856320000	69.693404000	95.6	Mine PIT
008	21.863498000	69.691626000	85.1	BW NEW point
009	21.863467000	69.691524000	79.5	Well
010	21.876512000	69.689439000	73.4	Well

Table-1 GPS readings–Pachhtar Mines area

2.1 Scope of Work

The Scope of work includes the following.

1. To analyze physiographic conditions of the study area with the help of field observations, GPS readings, Survey of India (SOI) toposheets and Satellite images.
2. To observe hydrogeological conditions and study of aquifer system of the area i.e. in Core and 10 km Buffer Zone.
3. To work out quantitative as well as qualitative variations in groundwater with respect to aerial extent and to find out water balance.
4. To observe surface water features and their impact on groundwater balance.
5. To ascertain the impact of proposed mining project on groundwater conditions of the surrounding area.
6. To work out scope of Rainwater harvesting within the proposed mining project and proposal for suitable recharge/storage system.
7. To suggest ways and means of creating rainwater harvesting to negate adverse impact on groundwater regime of the area.
8. To prepare detailed Hydro-geological report.

3. Topography and Drainage

Pachhtar mines area is coastal upland with number of isolated rocky pediments and pediments. The prominent land form is the hillocks trending in North East-South West direction. The regional slope is towards south west and ground elevation varies from 73 to 103 m above Mean sea level (m amsl). A canal is flowing from the area to coastal part to take the monsoon run off.

The prominent geomorphic units identified in the area through interpretation of Satellite imagery are 1) Rocky pediment 2. Pediment 3) Buried Pediments and manmade structures. The topsoil occurring in the study site is grey coloured loam derived from weathering of country rock. The thickness of top soil varies from place to place depending on the extent of weathering of host Deccan trap rocks. It is very thick in major part of the study area. The Google map of the study area showing the land use of mines, built up area near railway station and cultivated lands are shown in Fig-3.

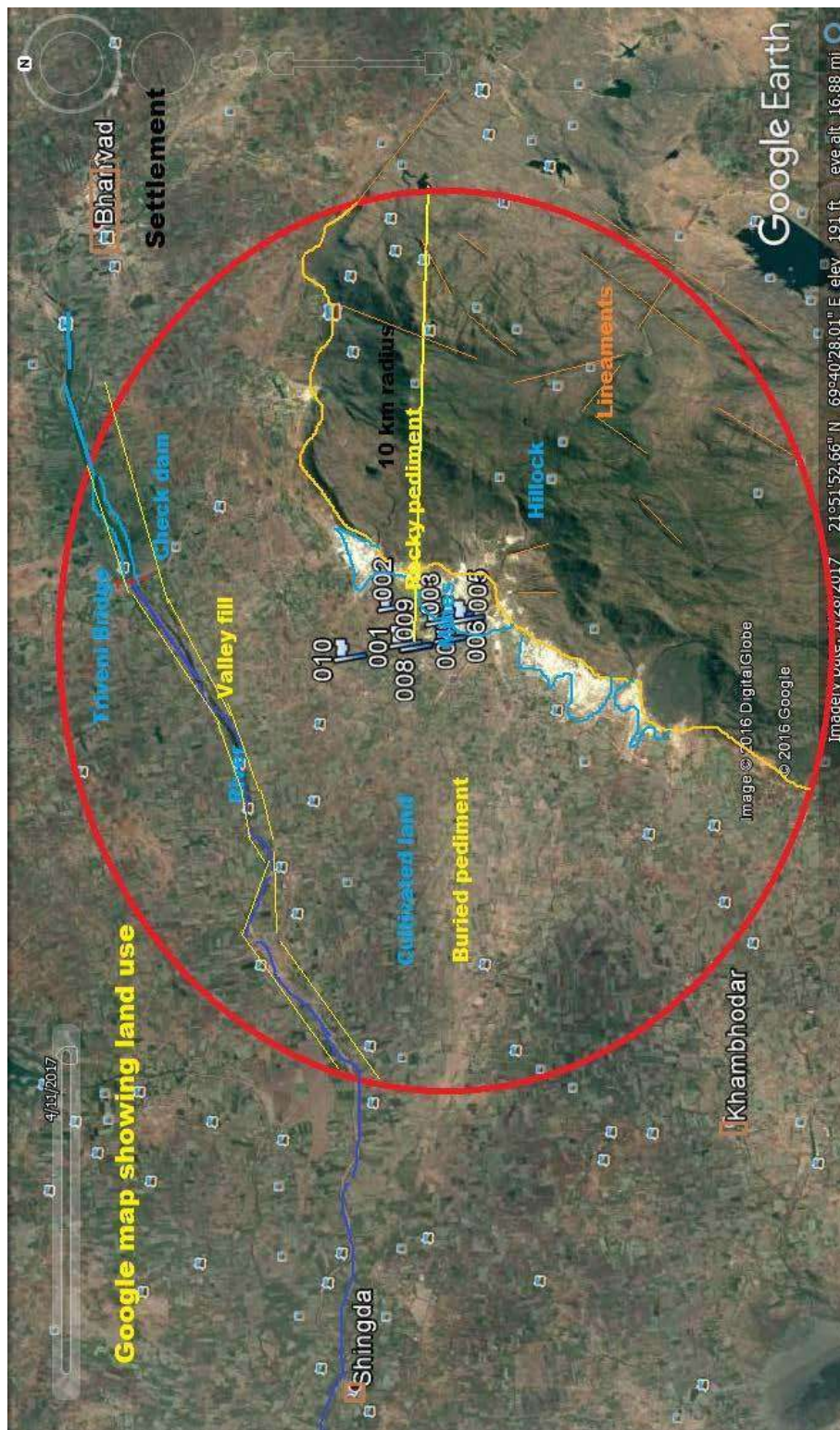


Fig-3 Google map of Pachhtar Mines landforms& Land use

The 10 km area surrounding the mines is unique upland with mining activity of cut stones for building and Limestone ore and agriculture. There are number of isolated old mine pits.

4. CLIMATE AND RAINFALL

Devbhumi Dwarka district enjoys a semi-arid climate. The weather is pleasant during the period from November to January. January is the coldest month with minimum daily temperature at 10.7°C and the mean daily maximum temperature at 26.3°C. May is the hottest month with maximum temperature of 36.4°C. The relative humidity during the southwest monsoon is very high (70.5 to 80.5%). The relative humidity during winter and summer months is 52 to 58%.

The average annual rainfall for the Jamnagar station for the period is 573.4 mm only and the normal monthly rainfall distribution is given in table-2

Table-2 Monthly Temperature & rainfall distribution in Jamnagar

Month	Max Temp (Deg. C)	Min Temp (Deg. C)	Humi dity (%)	Wind Spd. Kmpd	Sunshi ne (Hour s)	Solar Rad. (MJ/m 2/d)	Eto (mm/d)	Rainfall (mm)
January	26.3	10.7	52.5	143.7	8.9	17.0	3.6	1.7
February	29.0	12.8	54.0	127.4	9.3	19.5	4.1	1.8
March	33.0	17.4	58.0	143.7	9.6	22.3	5.3	1.1
April	35.4	21.4	62.0	181.3	10.3	25.0	6.4	0.0
May	36.4	24.9	65.5	259.7	10.2	25.3	7.2	0.9
June	35.9	26.7	70.5	264.6	7.9	21.8	6.3	91.6
July	33.0	25.7	78.0	254.8	5.0	17.4	4.8	197.6
August	31.5	24.8	80.5	231.9	4.9	16.9	4.3	180.3
September	32.2	23.5	76.5	158.4	7.0	19.0	4.5	62.0
October	34.5	21.2	62.0	114.3	8.8	19.5	4.6	28.6
November	31.8	16.7	52.0	112.7	9.0	17.5	3.9	7.0
December	27.9	12.4	52.5	122.5	8.6	15.9	3.3	0.8
Total	-	-	-	-	-	-	-	573.4
Aver age	32.2	19.9	63.7	176.3	8.3	19.8	4.8	-

(Source: CGWB)

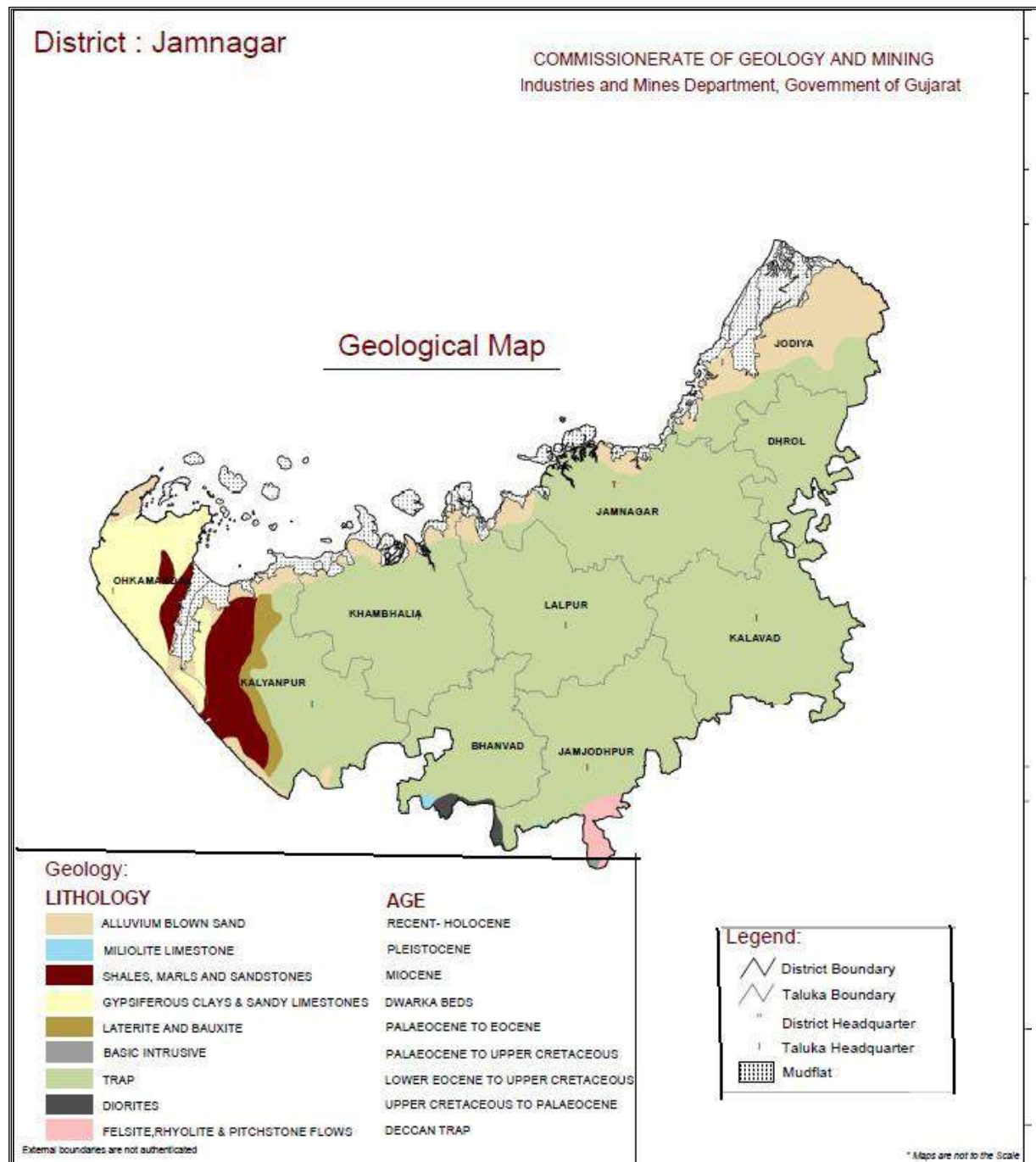


Fig-4 Generalised Geological map of Jamnagar area

5. Regional Geology

The rock formation belonging to Late Pleistocene to Early Holocene age and designated as Miliolite Formation occupies the Saurashtra coastal plain. This formation overlaps the Pliocene and Miocene rocks and occurs directly over the Deccan Trap Formation of Upper Cretaceous to Palaeocene age towards the north and east. The regional stratigraphic sequence is given in table below:

Table -3
REGIONAL STRATIGRAPHIC SEQUENCE

AGE	FORMATION	ROCK TYPE
Recent (Holocene)	Alluvium/Recent Limestone	Alluvial Soil, Black-brown soil, coastal limestone
Early Holocene to Late Pleistocene	Miliolite Formation	Arenaceous limestone and calcareous sandstone
Pliocene	Dwarka Beds	Gypsiferous clay and sandy foraminifer limestone
Miocene -----	Gaj BedsUnconformity..	-- Clay and calcareous clay --
Paleocene to Upper Cretaceous	Deccan Trap	Basalt and its derivatives including the intermediate and acidic rock types like, dacite, granophyre etc.

Detailed description of the individual rock formation of the region is beyond the purview of the present study but a brief outline of the main rock type of interest, viz., the Miliolite Limestone will be appropriate in understanding the nature and quality of the deposit within the limited confines of the present area of investigation.

The rocks of the Miliolite Formation along the coast have the appearance of dirty white, friable, oolitic calcarinite. Further inland but still along the coastal plains, these are somewhat purer, well consolidated, white oolitic limestone. The rocks occur in beds which show a gentle seaward dip of 5° to 14°. The rocks are extensively cross-laminated showing dune type current bedding. Alternating coarse and fine

grained lamination is common. They occur at various levels, in the coastal plains, along the foothills and high up in their glens. The name “miliolite” has been derived from the Miliolidae, belonging to the common foraminifera present in profusion in the rock. Composition-wise, the rocks are extremely variable ranging from near pure limestone devoid of sand to calcareous sandstone and clays limestone.

The rock formations originated as beach sediments formed in agitated, warm and very shallow waters. They were subsequently cemented by calcspar precipitated from sea water saturated with CaCO_3 . The warm, shallow, circulating waters were favourable living areas for marine organisms which have left there in shells and fecal pellets.

The occurrence of the Pleistocene beach limestone all over Tertiary coastal plains fringing the Deccan Trap plateau and deep in the interior of the Deccan Trap country at high elevations, tends to lead to the conclusion that during Pleistocene period the sea level stood much higher than at present. This may be true in respect of the areas of the coastal plain and the foothill regions. But the occurrence of the Miliolite rocks at higher elevation in the interior areas also point to an Aeolian origin indicating that the windblown particles from the fragmented beach sediments might have been deposited in the valleys of the high hills which acted as natural wind barrier and the sea need not have transgressed to such great heights in order to form the thinner layers of the Miliolite rocks at such higher altitudes.

Local Geology: -

The limestone bearing lease holds area of M/s Shree Digvijay Cement Co. Ltd. at Panchhatar is geologically miliolite limestone deposit of recent age in Saurashtra region and is one of the most wide spread and important mineral wealth of Gujarat.

The basaltic traps and associated lava differentiates of the Deccan trap group occupying extensive areas of Saurashtra Region form the oldest basement rocks. A series of undisturbed tertiary and quaternary marine strata deposit over the eroded Deccan trap basements is a result of marine transgression covering the present region, constitutes the regional geological setting of the area. The lease area is having undulating topography. The highest contour is 194mts and lowest contour is 154 mts.

The rainwater flows down the slope of the area and flows into the nearby areas.

Table:4 Local Stratigraphic sequences in Pachhtar area

Geological Age	Rock Type
Pleistocene to Sub recent	Oolitic Miliolite limestone
Cretaceous to Eocene	Basaltic trap rock altered at top

The weathered and jointed rocks are seen in the dug well sections in the study area while bore wells have encountered massive and fractured rock formation. The well cuttings at the Surrounding areas is highly compact with bedding joints. These are essentially basaltic flows having general horizontal to near horizontal disposition over large area. The basaltic flows do not have any primary porosity in the lower massive portion, but the top vesicular portion has some porosity because of the vesicles formed due to escaping gases. Both massive and vesicular portions have no primary permeability, as the vesicles are seldom interconnected.

6. Land Use

Total study area/ buffer zone (33,922 ha) of Pachhtar Mines of Shree Digvijay Cement Company Limited mainly comprises of Crop Land (12,289 Hectare covering 36.23% area) followed by stony land (11,022 Hectare covering 32.49% area) and fallow land (6,358 Hectare covering 18.74% area) respectively. Other classes of buffer area include plantation (1985 ha), open scrub land (1101 ha), mine quarries (339 ha), ponds/reservoirs (338 ha), river/canal (259 ha) and human settlements (227 ha) covering 5.85%, 3.25%, 1.0%, 1.0%, 0.76% and 0.67%, of the total study area.

Table 5: Land use pattern in buffer zone (10 km Radius)

S. No.	LU/LC Class	Area	Area (%)
1	River/Canal	259.38	0.76
2	Ponds/Reservoir	338.16	1.0
3	Stony Area	11022.30	32.49
4	Open Scrub Land	1100.98	3.25
5	Plantation	1985.32	5.85
6	Fallow Land	6358.47	18.74
7	Crop Land	12289.10	36.23

8	Human Settlement	227.31	0.67
9	Industrial Area	2.14	0.01
10	Mine Quarry	338.55	1.0
	Total	33922	100

7. Hydrogeology

Groundwater occurs in water table as well as semi-confined and confined conditions. Underground water occurs and flows along pore-spaces, cracks, fissures, shears, faults, cavities and other openings within the country-rocks and its availability for the water supply depends mainly on the porosity and permeability of the rocks in which they occur. The distribution of groundwater in a region depends on the nature and structure of rocks and soils forming the country. Recharge of ground water depends on the drainage basin area, precipitation and infiltration rate.

Infiltration rate depends on the lithology, slope and drainage characteristics. The area is having low precipitation, limited drainage length and poor infiltration rate. Basalt in general is poor ground water aquifer but at places due to secondary permeability it forms good groundwater potential zones. Deccan basalt province generally yields fresh ground water. In this area at shallow depth groundwater occurs in weathered tholeiite basalts, dissected by joints and having interconnected vesicular cavities. It also occurs at deeper levels along the sheared and weathered permeable contacts of basaltic flows. Picrite basalt forms relatively poor aquifer. The acid igneous rocks (granophyre, granite porphyry and rhyolite) are relatively less weathered and jointed, therefore, form poor ground water source in the area. Storage capacity of basalt is very less. Groundwater at depth occurs along major discontinuities (shears, joints and faults). Ground water in Bhatiya Formation occurs at shallow depth along the contact of basalt and overlying laterite. This water is not potable due to its brackish nature.

Gaj Formation (limestone, marl and gypseous clay) is having multiple aquifers. In general groundwater in this formation is brackish due to the inherent salinity of rocks. However, ground water at shallow depth (4 to 6 m) is fresh generally after monsoon due

to displacement and replenishment of saline water by the rain water along joints and shears. The discharge rates in this formation are poor.

Groundwater in Dwarka Formation (flaggy and well jointed limestone) is potable but the discharge rates are poor.

Rocks of Miliolite Formation (porous and permeable limestone and calcareous sandstone) form good aquifers with moderately high discharge rates (2000 to 5000 lph). Ground water in this formation occurs along porous and permeable rock mass and interconnected cavities. Miliolite limestone patches occurring in inland areas yields good quality of water whereas near coast it is brackish due to sea water intrusion.

Low discharge rate (<2000 lph) has been observed in the western part of the area occupied by Tertiary sediments. Moderate (2000 to 5000 lph) to high discharge rate (>5000 lph) rates (liters per hour) have been noticed in the wells located in tholeiitic basalt whereas the area covered by picrite basalt is having low discharge rate indicating that picrite basalt is relatively less permeable.

The Gaj and Dwarka limestone overlying the Deccan basalt are having low discharge rate (< 2000 lph). Sharp change from high to low discharge rate is noticed from basaltic terrain to the limestone terrain. Contrary to this Miliolite limestone along coast and in isolated patches in river valleys show high discharge rate due to its permeable nature

8. Groundwater Resources of the area

Devbhoomi Dwarka district was created from Jamnagar district on August, 2013. Groundwater assessment was done in year 2011 for the area. The groundwater resources potential as on March 2011 of Jamnagar district and stage of groundwater development are presented in Table 6. It may be observed from the table that all the assessment units (Talukas) fall under safe category and the stage of groundwater development of the district on an average is 64.21%.

Table 6: Groundwater Availability, Utilization and Development Stage

Taluka	Net Groundwater Availability (Ham)	Annual Groundwater Draft (Ham)			Projected Demand for Domestic and Industrial Uses	Groundwater Availability for Future Irrigation	Groundwater Development Stage (%)
		Irrigation	Domestic and Industrial Uses	Total			
Dhrol	5871.12	3332.20	113.00	3445.20	152.00	2386.92	58.68
Bhanvad	9198.72	4769.70	331.00	5100.70	444.00	3985.02	55.45
Jodiya	4435.87	2660.00	147.00	2807.00	198.00	1577.87	63.28
Jamnagar	11805.99	6473.40	1443.00	7916.40	1934.00	3398.59	67.05
Kalyanpur	7198.64	4176.30	486.00	4662.30	652.00	2370.34	64.77
Khambhalia	10046.96	6038.30	633.00	6671.30	847.00	3161.66	66.40
Kalavad	12610.65	8066.30	412.00	8478.30	552.00	3992.35	67.23
Jamjodhpur	12536.55	7730.70	355.00	8085.70	476.00	4329.85	64.50
Lalpur	9449.7	5891.90	307.00	6198.90	412.00	3145.82	65.60
Okhamandal	2359.02	1273.40	273.00	1546.40	366.00	719.62	65.55
Total	85513.26	50412.20	4500.00	54912.20	6033.00	29068.06	64.21

9 Ground water condition

The ground water condition in and around the Pachhtar mine site covering 10 km radius is studied in detail. The secondary porosity and permeability developed due to fracturing and jointing provides passage for infiltration, storage and movement of groundwater. The weathered zone extends to about 12-15m bgl in area bordering mines. These interflow zones and fractured and jointed zones have given rise to stratified aquifer system, which is responsible for occurrence of water even at greater depths as inferred from the existing bore wells and dug wells.

As per CGWB report, the depth of water level in the area ranges from 3.30 m bgl to 25.40 bgl during the pre-monsoon period while during the post monsoon the water level ranges from 0.06 to 17.50 m bgl. The yields of the wells tapping weathered basalts are in the range of 20-100m³/day. Those in which interflow

zones have been tapped 100-400m³/day. The bore wells drilled in the district have yields ranging from 100 to 500m³/day.

Table 7: Details of Groundwater Level Monitoring in Buffer Zone, Shri Digvijay Cement Company Limited, Dev Bhoomi Dwarka

S.No.	Location	Latitude			Longitude			Type of Well	Water Level (m bgl)	Elevation (m amsl)	Water Level (m amsl)
1	Mine Site (6.64.89 Ha)	21	53	43.6	69	43	7.0	Open Well	15.9	66	50.1
2	Mine Site (67.17.37 Ha)	21	52	43.5	69	42	0.7	Bore Well	15.5	81	65.6
3	Pachhtardi	21	51	37.5	69	40	56.5	Open Well	15.8	70	54.2
4	Dhebar	21	53	35.6	69	42	5.0	Open Well	12.6	60	47.4
5	Mokhana	21	54	1.2	69	44	37.5	Open Well	11.1	72	60.9
6	Jharena	21	54	35.3	69	40	43.3	Open Well	4.9	32	27.1
7	Bhavneswar	21	53	2.7	69	41	31.5	Open Well	16.1	64	47.9
8	Rojhda	21	48	51.0	69	37	24.9	Open Well	16.2	28	11.8
9	Bhanvad	21	55	30.4	69	47	4.4	Open Well	4.6	56	51.5
10	Bhenakvad	21	54	39.9	69	43	29.9	Open Well	11.7	54	42.3
11	Nagka	21	49	1.0	69	39	40.4	Open Well	15.3	62	46.7
12	Barda Hills	21	51	10.8	69	42	23.0	Bore Well	18.0	128	110.0
13	Pachhtar	21	51	41.8	69	41	25.9	Open Well	16.6	78	61.4
14	Dhebar	21	54	1.6	69	42	42.3	Open Well	15.0	52	37.0
15	Bhenakvad	21	54	37.8	69	43	16.7	Open Well	10.6	51	40.4
16	Pachhtardi	21	51	19.6	69	40	54.2	Open Well	15.7	71	55.3
17	Gadu	21	51	15.2	69	39	15.6	Open Well	15.0	45	30.0
18	Hathla	21	51	8.2	69	36	54.0	Open Well	10.0	26	16.0
19	Morana	21	52	31.5	69	37	2.9	Open Well	7.7	24	16.3
20	Paravada	21	53	18.9	69	39	32.9	Open Well	8.1	36	27.9
21	Pachhtar Mine	21	51	24.3	69	41	32.4	Drilling well	22.0	87	65.0

Depth to Water Level

The water level varies with season and deep water table is noticed in the entire study area in the range of 10 to 18 m in April 2017. The water level fluctuation is 6 to 8m in high grounds and the valley area near river has shallow water table of 2 to 5 m.

Quality of water

The quality of water is in general potable in Panchhatar area. The summarised analytical results of the water samples from monitoring wells is given in table. The results are indicative of moderate quality water in the study area with high hardness, alkalinity and nitrate.

Table 8: Analytical data of Water samples collected in February 2017

Name & Address:-			Senders Ref.No :		Nil
Digvijay Cement Co. Ltd.			Date of Collection :		06-02-17
Pachhatar Mines			Date of Arrival :		07-02-17
Pachhtar			Collected by :		Sender
Tal :- Bhanvad					
Dist. : Devbhoomi-Dwarka					
Sr.No.	Laboratory Ref.No. DDCW :	IS-10500:2012 (S.R)		877	878
		Requirement (Acceptable limit)	Permissible Limit in the Absence of		
	Source			Ground Water	Ground Water
				Openwell in Hamirbhai's Farm, 18Ft Dia & 60Ft Deep	Openwell in Karabhai Mori's Farm, 10Ft Dia & 70Ft Deep
	L.C. No.			514044	514044
	Village			Pachhatar	Pachhatar
	Taluka			Bhanvad	Bhanvad
	District			Devbhoomi-Dwarka	Devbhoomi-Dwarka
1	Colour Hazen Units, Max	5	15	0.00	0.00
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable
3	Turbidity NTU, Max	1	5	0.56	0.60
4	Total Dissolved Solids mg/l, Max	500	2000	344	458
5	pH Value	6.5 to 8.5	No Relaxation	7.83	7.71
6	Total Hardness (as CaCO ₃) mg/l	200	600	192	236
7	Calcium (as Ca ⁺²) mg/l, Max	75	200	69	77
	Magnesium (as Mg ⁺²) mg/l, Max	30	100	5	11
9	Chlorides (as Cl ⁻) mg/l, Max	250	1000	48	84
10	Sulphates (as SO ₄ ⁻²) mg/l, Max	200	400	37	44
11	Nitrates (as NO ₃ ⁻) mg/l, Max	45	No Relaxation	21.90	30.40
12	Fluorides (as F ⁻) mg/l, Max	1	1.5	0.23	0.10
13	Alkalinity (as CaCO ₃) mg/l, Max	200	600	168	188
*	OPINION for Potability is given considering above 13 test parameters only. The Result indicate that the water is FIT/UNFIT			FIT	FIT

DEWATERING OF MINES

Based on groundwater level monitoring and pattern, during first five year plan period as well as up to Conceptual mine plan, mining will be done above groundwater table. Hence, no groundwater seepage will be occurred. Total water volume to be intercepted in mine pits during five year plan period shall be rainwater accumulation only which needs to be dewatered.

Year	Volume of Rainwater Accumulated (Cum)	Volume of Groundwater Seepage (Cum)	Total Volume to be Dewatered (Cum)
1st	120652.500	-	120652.500
2nd	116286.750	-	116286.750
3rd	22500.000	-	22500.000
4th	18750.000	-	18750.000
5th	18750.000	-	18750.000
Total	296939.250		296939.250

Maximum Rainwater Accumulation in Mine Pits = 296939.250 Cum

10. Conclusions

The ground water condition in and around the Pachhtar Limestone is highly potential due to the recharge from the old mine pits and runoff water in the local nala. Due to the presence of water in old mine pits in the lease area, ground water potential is good in the 10 km area around mines and there are number of dug wells . The potential area is restricted to the valley section and water level is deep in high grounds bordering the hillock and area away from direct recharge zone. The ground water development in the Bhanvad Taluka Assessment unit is low and the area falls in Safe category (CGWB)

Area is covered by Deccan trap rocks with shallow and deeper water bearing zones. Existing dug wells in surrounding area are giving moderate yield and sustainable in summer also due to recharge from mine pits. There are no wells and bore wells in the high grounds and mine lease area. The ground water flow is towards the south and local flow in westerly direction is inferred.



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

By R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 3(c) & 5(5) of the Hazardous and other Waste (Management, and Trans boundary Movement) Rules-2016 framed under the Environment (Protection) Act-1986.

And whereas Board has received consolidated consent application Inward No 175694 dated 09/06/2020 of Consolidated Consent and Authorization (CC & A) of this Board under the provisions/rules of the aforesaid acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:

(Under the provisions /rules of the aforesaid environmental acts)

To;

SHRI DIGVIJAY CEMENT CO.LTD. (PACHHATAR MINES) (17133),

PLOT NO: SURVEY NO.225,

VILL. PACHHATAR,

PACHHATAR - 361140,

TAL: BHANVAD, DIST: DEVBHOOMI DWARKA.

1. Consent Order No.: AWH-108461 date of Issue: 23/06/2020.
2. The consents shall be valid up to 08/06/2025 for use of outlet for the discharge of trade effluent and emission due to operation of industrial plant for mining of the following items:

Sr. No.	Product	Quantity
1	Lime stone (Mine)	83333 MT/Month

Specific Conditions

Conditions for Mining Dumps:

- The individual dump should have maximum slope of 37 degree and an overall slope not exceed 28 degree.
- The external dump should have stretches of retaining wall at suitable locations.
- The wall should be constructed with suitable height the wall will have weep holes to drain out water to the garland drain.
- The back-filled areas should be leveled to match with adjoining ground level.
- The completed dumps and the back-filled areas should be afforested in a planned way to increase their stability.
- Excavation of new pit should begin only when an existing pit is exhausted. This should ensure that the over burden and inter burden generated is use for back filling instead of being dumped elsewhere.

Conditions for Overburden Dumps

- The top soil prior to drilling and blasting should be stacked at designated area surrounded by embankment to prevent erosion.
- The over burden and top soil dumps should be stabilized by plantation and ankering with coir nets / blankets.
- Phase-wise waste management should be shown on surface plan in the mine leased area for the 5th year, 10th year, 15th year 20th year, 25th year and 30th year.
- Waste generated from treatment of mine drainage, if normally designated as hazardous waste as per the relevant rules should be disposed off as landfill. Used oil should be stored properly and sold to registered re processor.
- The over burden disposal underground mines should be explored for putting it inside the void. The method of stowing should be worked out.

Conditions for Transportation.

- Applicant shall ensure that all trucks before leaving the storage yard Shall be covered with tarpaulin or any other effective measure/device completely and also that trucks are not over loaded as well as there is no spillage during transportation.

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- The vehicle carrying the Lime stone should not be overloaded.
- Optimize travel distances through appropriate site layout and design.
- Use wheel and truck wash facilities exits at site.

Conditions for Material stockpiles

- Wet suppression by using water sprinklers.
- Covered storage of mined out overburden or topsoil.
- Provide wind breaking wall near the pile to control uptake from stockpiles.
- Sprinklers with polyelectrolyte chemical
- Hood to cover the discharge point.
- The mine waste management should be as per the approved mine plan.

3. CONDITIONS UNDER THE WATER ACT 1974:

- 3.1. Source of water: - Tankers.
- 3.2. The quantity of water consumption for industrial purpose shall not exceed 5000 Lit/Day.
- 3.3. The quantity of water consumption for domestic purpose shall not exceed 1000 Lit/Day
- 3.4. There shall be neither generation nor discharge of industrial effluent from the manufacture process & other ancillary industrial operations.
- 3.5. The quantity of the domestic wastewater (Sewage) shall not exceed 500 Lit /day.
- 3.6. Sewage shall be disposed of through Septic tank/soak pit system.
- 3.7. Entire quantity of the mine seepage water, if any shall be treated to meet with the GPCB norms as prescribed below and shall be entirely utilized for dust suppression and for green belt development within the mines premises only.
- 3.8. The quality of the mine-seepage water, if any shall conform to the following standards.

PARAMETER	PERMISSIBLE LIMIT
pH	6.5 to 8.5
Colour(pt.co.units)	100 units
Temperature	40°C
Suspended Solids	100 mg/l
Oil&Grease	10 mg/l
Total Suspended Solids	100 mg/l
Phosphates	5 mg/l
BOD (3 DAYS 27°C)	30 mg/l
COD	100 mg/l

- 3.9. The environment Management Unit/Cell shall be setup to ensure implementation or and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The environment Management Unit/Cell shall directly report to the chief Executive of the organization and shall work as focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statement.
- 3.10. The Board reserves the right to review and /or revoke the consent and/or make variations the conditions, which the board deems, fit in accordance with section 27 of the Act.
- 3.11. In case of change of ownership /management the name and address of the new owner/partner/ director/proprietor should immediately be intimated to the Board.
- 3.12. The consent to operate the mines shall lapse if at any time any condition of this consent order is not complied with.
- 3.13. The applicant shall also comply with the General condition as per Annexure-I. **PENALTY PROVISIONS:** If the applicant fail to comply with the conditions and other directives issued by this Board as laid down in this order , the applicant is liable for precaution under section 43 & 44 and other penal provisions of the Act and shall on conviction , be liable for punishment and imprisonment as provided in the said Act.



GUJARAT POLLUTION CONTROL BOARD

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4. CONDITIONS UNDER THE AIR ACT 1981:

- 4.1. There shall be no use of fuel hence there shall be no flue gas emission.
- 4.2. Industry shall provide adequate air pollution control measure attached with to control process emission.
- 4.3. There shall be no process emission from the manufacturing process as well as any other ancillary operation.
- 4.4. The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

PARAMETERS	PERMISSIBLE LIMIT (Microgram/m ³)	
	Annual	24 Hrs Average
Particulate Matter-10 (PM ₁₀)	60	100
Particulate Matter- 2.5 (PM _{2.5})	40	60
SO ₂	50	80
NO _x	40	80

- 4.5. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.
 - 4.6. The industry shall take adequate measures for control of noise levels from its Own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70dB (A) during night time. Daytime is reckoned in between 6a.m. and 10p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
5. AUTHORIZATION as per HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016 Form-2 [See rule 6 (2)]

Form for grant of authorization for occupier or operator handling Hazardous waste

- 5.1 M/S. SHRI DIGVIJAY CEMENT CO.LTD. (PACHHATAR MINES) (17133) is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at PLOT NO: SURVEY NO.225, VILL. PACHHATAR, PACHHATAR - 361140, TAL: BHANVAD, DIST: DEVBHOOMI DWARKA.

Sr. No.	Waste	Cat.	Total MT/Year	Facility
1	Used or Spent Oil	I-5.1	0.125	Collection, Storage, Transportation and reuse or disposal by selling to re-refiner.

- 5.2 The authorization shall be valid up to 08/06/2025.
- 5.3 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986
- 5.4 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.5.1 to the industry having valid CCA of this Board.
6. TERMS AND CONDITIONS OF AUTHORISATION

- 6.1 The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
- 6.2 The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
- 6.3 The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
- 6.4 Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.
- 6.5 The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;

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- 6.6 The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"
- 6.7 It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- 6.8 An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous Waste and Other Waste Rules, 2016.
- 6.9 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- 6.10 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 6.11 The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
- 6.12 The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- 6.13 Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 6.14 The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
- 6.15 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.
- 6.16 In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
- 6.17 As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
- 6.18 Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
- 6.19 In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.
- 6.20 Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
- 6.21 Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
- 6.22 Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous wastes generated within the factory premises.

7. **GENERAL CONDITIONS**

- 7.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- 7.2. Applicant shall also comply with the general conditions given in annexure I.
- 7.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.
- 7.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.



GUJARAT POLLUTION CONTROL BOARD

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- 7.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.
- 7.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.
- 7.7. The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems, fit in accordance with Section 27 of the Act.
- 7.8. In case of change of ownership/management the name and address of the new owners/ partners/directors/proprietor should immediately be intimated to the Board.

For and on behalf of
Gujarat Pollution Control Board


(Smt. U. K. Upadhyay)
Environmental Engineer

NO: PC/CCA-JMN-48(3)/ID-17133/ 563607

Issued To:

SHRI DIGVIJAY CEMENT CO.LTD. (PACHHATAR MINES) (17133),

PLOT NO: SURVEY NO.225,

VILL. PACHHATAR,

PACHHATAR - 361140,

TAL: BHANVAD, DIST: DEVBHOOMI DWARKA.

Date: 03/07/2020

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By e-mail

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, GANDHINAGAR**

No. MCDR-MPCP0CaFI/24/2022-GNR-IBM_RO_GNR

Dt : 09/12/2022

Shri/M/s. SHREE DIGVIJAY CEMENT COMPANY LIMITED ,
DIGVIJAYGRAM JAMNAGAR

Sub: Approval of Mining Plan and PMCP in respect of your Applied Mining Lease Area for Limestone over an area of 52.60 Ha. situated in Pachhatar Village, Bhanvad Taluka, Devbhumi Dwarka District of Gujarat State submitted under Rule 17(2) of M(OAHCEM)CR 2016 and Rule 23 of MCDR.

Ref : (i) Your Letter No.nil dated 23 Sep 2022 submitting Initial submission of Mining Plan in respect of aforesaid applied M.L.Area.(Based on realisation and confirmation of processing fee)

(ii) This office letter of even no. nil (online) dated 26.10.2022 through MPAS.

(iii) Your Letter No. Nil and on line final submission through online portal MPAS on dated 30.11.2022 submitting online copies of Mining Plan in respect of aforesaid ML area/Mine.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987and S.O. 1857(E) dated 18th May, 2016; I hereby **Approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. General Conditions:

2. The Mining Plan is approved without prejudice to any other law applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.
3. That this the approval of Mining Plan does not in any way imply the approval of the Government in terms of any other provision of Mines & Minerals (Development & Regulation) Act, 1957, rule made thereunder, or the Minerals (Other than Atomic & Hydro Carbon Energy Minerals) Concession Rules, 2016 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made thereunder, The Occupational Safety, Health and Working Conditions Code, 2020/The Mines Act 1952 and Rule & Regulations made there under.
4. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
5. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
6. This approval for proposed mining operation and associated activities is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Mining Plan for the Period commencing from 1st April 2023 for financial year 2023-24, upto financial year 2027-28 with validity upto 31st March 2028 and subject to all statutory compliances and clearances for the mining activity to be carried out within the mining leasehold area.
7. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.

By e-mail

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, GANDHINAGAR**

No. MCDR-MPCP0CaFI/23/2022-GNR-IBM_RO_GNR

Dt : 02/12/2022

Shri/M/s. SHREE DIGVIJAY CEMENT COMPANY LIMITED ,
DIGVIJAYGRAM JAMNAGAR

Sub: Approval of Mining Plan and PMCP in respect of your Applied Mining Lease Area for Limestone over an area of 32.38 Ha. situated in Pachhatar Village, Bhanvad Taluka, Devbhumi Dwarka District of Gujarat State submitted under Rule 17(2) of M(OAHCEM)CR 2016 and Rule 23 of MCDR.

Ref : (i) Your Letter No. Nil dated 23 Sep 2022 submitting Initial submission of Mining Plan in respect of aforesaid applied M.L. Area.

(ii) This office letter of even no. nil (online) dated 26.10.2022.

(iii) Your Letter No. Nil and on line final submission on dated 29.11.2022 submitting online copies of Mining Plan in respect of aforesaid applied ML area.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. General Conditions:

1. That the Mining Plan is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other authority.
2. That this approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.
3. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
4. The provisions of the Mines Act, 1952/ The Occupational Safety, Health and Working Conditions Code, 2020 and Rules and Regulations made thereunder including submission of notices of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
5. If anything is found to be concealed as required by the Mines Act in the contents of the mining plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
6. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
7. This approval for proposed mining operation and associated activities is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Review of Mining

Plan for the Period commencing from 1st April 2023 for financial year 2023-24, upto financial year 2027-28 with validity upto 31st March 2028 and subject to all statutory compliance and clearance for the mining activity to be carried out within the mining leasehold.

8. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.
9. This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground.
10. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
11. At any stage, if it is found/observed that any of the information, data, details, drawings, geo-referenced spatial configuration of the mining lease, proposals etc. furnished/incorporated in the mining plan are incorrect or misrepresent the facts or non-compliance of the conditions of the approval letter, if any, the approval of this mining plan shall be revoked with immediate effect.

1.

Special Conditions:

1. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
2. The Next Financial Assurance shall be due for submission on and before 31st March 2028 which shall be furnished as per extant statutory provisions.
3. In addition to the PMCP proposals mining lease holder shall comply the Order of Hon'ble Supreme Court dated 08.01.2020 in the matter of Writ petition(C) No.114/2014(common Cause vs Union of India & Ors.) to undertake re-grassing of the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance status of the same shall be furnished every year along with the compliance of PMCP proposals under rule 26(2) of MCDR 2017. For the compliances including PMCP proposals.
4. Appropriate connectivity shall be maintained all the time/left such area intact for appropriate connectivity, as per applicable laws, with the patch of land within ML area as show in the plans but is not a part of ML area.
5. The conceptual plan needs to be examined thoroughly on planning and commencement of mining operations in next review & updation of mining plan.
6. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
7. This approval is restricted to the proposals only for the ensuing mining plan period and this approval shall not be interpreted as a compliance of any of the violations made to the statutory provisions.
8. Mining operations shall be carried out strictly as per provisions of MCDR 2017 and other rules made under MM(D&R) Act 1957 and updated time to time.
9. The mineral wise/ore stocks above the limit prescribed in the threshold values of minerals and below the cut-off grade if any shall be maintained separately and its inventory shall be maintained in a bound page register indicating the quantity and quality of material stacked. The month wise inventory of such materials shall be updated regularly.

Encl: Online Approved Mining Plan

Yours faithfully,

(पुष्पेन्द्र गौड़/ Pushpender Gaur)

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Copy forwarded for information to Shri Malay Kumar Raut, Qualified Person

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Not on first two copies:

By e-mail

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, GANDHINAGAR**

No. MCDR-MPCP0CaFI/25/2022-GNR-IBM_RO_GNR

Dt : 02/12/2022

Shri/M/s. SHREE DIGVIJAY CEMENT COMPANY LIMITED ,
DIGVIJAYGRAM JAMNAGAR

Sub: Approval of Mining Plan and PMCP in respect of your Applied Mining Lease Area for Limestone over an area of 16.00 Ha. situated in Pachhatar Village, Bhanvad Taluka, Devbhumi Dwarka District of Gujarat State submitted under Rule 17(2) of M(OAHCEM)CR 2016 and Rule 23 of MCDR 2017.

Ref : (i) Your Letter No.nil dated 21 Sep 2022 submitting Initial submission of Mining Plan in respect of aforesaid applied M.L.Area.

(ii) This office letter of even no. nil (online) dated 26.10.2022.

(iii) Your Letter No. Nil and on-line final submission on dated 29.11.2022 submitting online copies of Mining Plan in respect of aforesaid applied ML area.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. General Conditions:

1. That the Mining Plan is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other authority.
2. That this approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.
3. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
4. The provisions of the Mines Act, 1952/ The Occupational Safety, Health and Working Conditions Code, 2020 and Rules and Regulations made thereunder including submission of notices of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
5. If anything is found to be concealed as required by the Mines Act in the contents of the mining plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
6. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
7. This approval for proposed mining operation and associated activities is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Review of Mining

Plan for the Period commencing from 1st April 2023 for financial year 2023-24, upto financial year 2027-28 with validity upto 31st March 2028 and subject to all statutory compliance and clearance for the mining activity to be carried out within the mining leasehold.

8. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.
9. This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground.
10. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
11. At any stage, if it is found/observed that any of the information, data, details, drawings, geo-referenced spatial configuration of the mining lease, proposals etc. furnished/incorporated in the mining plan are incorrect or misrepresent the facts or non-compliance of the conditions of the approval letter, if any, the approval of this mining plan shall be revoked with immediate effect.

1.

Special Conditions:

1. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
2. The Next Financial Assurance shall be due for submission on and before 31st March 2028 which shall be furnished as per extant statutory provisions.
3. In addition to the PMCP proposals mining lease holder shall comply the Order of Hon'ble Supreme Court dated 08.01.2020 in the matter of Writ petition(C) No.114/2014(common Cause vs Union of India & Ors.) to undertake re-grassing of the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance status of the same shall be furnished every year along with the compliance of PMCP proposals under rule 26(2) of MCDR 2017. For the compliances including PMCP proposals. The conceptual plan needs to be examined thoroughly on planning and commencement of mining operations in next review & updation of mining plan.
4. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
5. This approval is restricted to the proposals only for the ensuing mining plan period and this approval shall not be interpreted as a compliance of any of the violations made to the statutory provisions.
6. Mining operations shall be carried out strictly as per provisions of MCDR 2017 and other rules made under MM(D&R) Act 1957 and updated time to time.
7. The mineral wise/ore stocks above the limit prescribed in the threshold values of minerals and below the cut-off grade if any shall be maintained separately and its inventory shall be maintained in a bound page register indicating the quantity and quality of material stacked. The month wise inventory of such materials shall be updated regularly.

Encl: Online Approved Mining Plan

Yours faithfully,

(पुष्पेन्द्र गौड़/ Pushpender Gaur)

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Copy forwarded for information to Shri Malay Kumar Raut, Qualified Person

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

Not on first two copies:

Copy forwarded for kind information to:

1. The Commissioner, Department of Geology & Mining, Govt. of Gujarat, Gandhinagar, Gujarat, e-mail- commissioner-cgm@gujarat.gov.in.



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Environment Auditing & Consultancy Service

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Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 897/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 27/10/2022

Sr. No.	Location of Sampling	Noise Level Avg. in dB (A)	
		Day Time 06:00 AM to 10:00 PM	Night Time 10:00 PM to 06:00 AM
01.	GOP Mines Adm. Building	57.4	46.2
02.	Chorbedi Mines Adm. Building	55.1	41.3
03.	Pachhtar and Pachhtardi Mines Adm. Building	51.7	42.6

CPCB Standards

Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Reference : Limits As Per The Noise Pollution Regulation and Control Rules, 2000 Schedule See Rule 3(1) and 4(1).

Instruments used : Sound level meter, model : IL-006719. (SIGMA)

Calibration done on : 04/03/2022

Royal Environment Auditing & Consultancy Service



Ashish
Analyst



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Ref. No. : 898/10/2022-23

Date: 31/10/2022

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 27/10/2022

Sr. No.	Location of Sampling	dB(A)		
Permissible Limits for 8:00 Hrs.		90 dBa		
CHORBEDI MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
01.	Dozer D8 - N (CAT)	81.8	69.8	62.7
02.	Hyundai - 140 (LC - 9)	79.1	71.0	65.4
Pachhtar and Pachhtardi Mines		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
03.	Dozer BD 355 Dozer(New)	84.8	73.1	62.3
04.	Hyundai - 140 Excavator	76.5	66.3	60.2
05.	Tata - 200 Excavator	75.8	71.2	64.7
GOP MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
06.	Dozer D8 - N (CAT)	81.6	70.6	64.8
07.	Hyundai - 140 (LC - 9)	73.5	68.8	65.1

Instruments used : Sound level meter, model : IL-006719. (SIGMA)

Calibration done on : 04/03/2022

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Analyst



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Ref. No. : 997/11/2022-23

Date:01/12/2022

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 28/11/2022

Sr. No.	Location of Sampling	Noise Level Avg. in dB (A)	
		Day Time 06:00 AM to 10:00 PM	Night Time 10:00 PM to 06:00 AM
01.	GOP Mines Adm. Building	56.8	45.2
02.	Chorbedi Mines Adm. Building	53.2	42.8
02.	Pachhtar and Pachhtardi Mines Adm. Building	50.4	43.6

CPCB Standards

Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Reference : Limits As Per The Noise Pollution Regulation and Control Rules, 2000 Schedule See Rule 3(1) and 4(1).

Instruments used : Sound level meter, model : IL-006719. (LUTRON)

Calibration done on : 04/03/2022

Royal Environment Auditing & Consultancy Service



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Date: 01/12/2022

Ref. No. : 998/11/2022-23

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited
Digvijaygram - 361 140.
District : Jamnagar.

Sampling Date : 28/11/2022

Sr. No. Location of Sampling		dB(A)		
		90 dBA		
Permissible Limits for 8:00 Hrs.				
CHORBEDI MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
01.	Dozer D8 - N (CAT)	80.2	68.2	63.4
02.	Hyundai - 140 (LC - 9)	78.4	69.4	66.4
Pachhtar and Pachhtardi Mines		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
03.	Dozer BD 355 Dozer(New)	83.7	74.6	64.2
04.	Hyundai - 140 Excavator	77.9	65.3	61.6
05.	Tata - 200 Excavator	77.6	72.6	66.2
GOP MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
06.	Dozer D8 - N (CAT)	82.4	71.2	65.6
07.	Hyundai - 140 (LC - 9)	75.1	69.2	66.7

Instruments used : Sound level meter, model : IL-006719. (LUTRON)
Calibration done on : 04/03/2022

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Ref. No. : 997/12/2022-23

Date:03/01/2023

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 28/12/2022

Sr. No.	Location of Sampling	Noise Level Avg. in dB (A)	
		Day Time 06:00 AM to 10:00 PM	Night Time 10:00 PM to 06:00 AM
01.	GOP Mines Adm. Building	54.7	43.8
02.	Chorbedi Mines Adm. Building	51.6	38.2
03.	Pachhtar and Pachhtardi Mines Adm. Building	49.3	41.6

CPCB Standards

Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Reference : Limits As Per The Noise Pollution Regulation and Control Rules, 2000 Schedule See Rule 3(1) and 4(1).

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

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Ref. No. : 998/12/2022-23

Date: 03/01/2023

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 28/12/2022

Sr. No.	Location of Sampling	dB(A)		
Permissible Limits for 8:00 Hrs.		90 dBa		
CHORBEDI MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
01.	Dozer D8 - N (CAT)	79.2	71.5	61.6
02.	Hyundai - 140 (LC - 9)	77.4	68.8	64.3
Pachhtar and Pachhtardi Mines		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
03.	Dozer BD 355 Dozer(New)	84.6	72.3	61.4
04.	Hyundai - 140 Excavator	78.1	66.5	60.2
05.	Tata - 200 Excavator	76.8	70.4	65.6
GOP MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
06.	Dozer D8 - N (CAT)	83.6	73.4	66.1
07.	Hyundai - 140 (LC - 9)	74.3	68.9	64.7

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

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Ref. No. : 197/01/2022-23

Date:30/01/2023

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 24/01/2023

Sr. No.	Location of Sampling	Noise Level Avg. in dB (A)	
		Day Time 06:00 AM to 10:00 PM	Night Time 10:00 PM to 06:00 AM
01.	GOP Mines Adm. Building	55.9	45.6
02.	Chorbedi Mines Adm. Building	52.7	43.4
03.	Pachhtar and Pachhtardi Mines Adm. Building	50.3	40.8

CPCB Standards

Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Reference : Limits As Per The Noise Pollution Regulation and Control Rules, 2000 Schedule See Rule 3(1) and 4(1).

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

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Ref. No. : 198/01/2022-23

Date: 30/01/2023

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 24/01/2023

Sr. No.	Location of Sampling	dB(A)		
Permissible Limits for 8:00 Hrs.		90 dBA		
CHORBEDI MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
01.	Dozer D8 - N (CAT)	80.5	67.3	64.7
02.	Hyundai - 140 (LC - 9)	76.2	69.8	65.4
Pachhtar and Pachhtardi Mines		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
03.	Dozer BD 355 Dozer(New)	83.4	73.6	62.5
04.	Hyundai - 140 Excavator	77.5	65.9	62.1
05.	Tata - 200 Excavator	74.3	72.5	63.8
GOP MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
06.	Dozer D8 - N (CAT)	84.6	70.3	64.7
07.	Hyundai - 140 (LC - 9)	72.8	66.5	62.4

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

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Ref. No. : 297/02/2022-23

Date:01/03/2023

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 24/02/2023

Sr. No.	Location of Sampling	Noise Level Avg. in dB (A)	
		Day Time 06:00 AM to 10:00 PM	Night Time 10:00 PM to 06:00 AM
01.	Chorbedi Mines Adm. Building	53.8	44.3
02.	Pachhtar and Pachhtardi Mines Adm. Building	51.5	41.9

CPCB Standards

Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Reference : Limits As Per The Noise Pollution Regulation and Control Rules, 2000 Schedule See Rule 3(1) and 4(1).

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

Royal Environment Auditing & Consultancy Service



Ashish
Analyst



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Ref. No. : 298/02/2022-23

Date: 01/03/2023

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 24/02/2023

Sr. No. Location of Sampling		dB(A)		
Permissible Limits for 8:00 Hrs.		90 dBA		
CHORBEDI MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
01.	Dozer D8 - N (CAT)	78.3	68.4	65.8
02.	Hyundai - 140 (LC - 9)	77.5	70.1	66.3
03.	Tata - 200 Excavator	80.8	72.5	63.2
Pachhtar and Pachhtardi Mines		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
04.	Dozer BD 355 Dozer(New)	84.2	71.6	63.6
05.	Hyundai - 140 Excavator	78.4	64.8	63.2
06.	Tata - 200 Excavator	76.9	70.4	64.9

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

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Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 397/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 15/03/2023

Sr. No.	Location of Sampling	Noise Level Avg. in dB (A)	
		Day Time 06:00 AM to 10:00 PM	Night Time 10:00 PM to 06:00 AM
01.	GOP Mines Adm. Building	57.2	48.6
02.	Chorbedi Mines Adm. Building	54.6	46.4
03.	Pachhtar and Pachhtardi Mines Adm. Building	50.8	42.5

CPCB Standards

Area Code	Category of Area / Zone	Limit in dB(A) Leq.	
		Day Time	Night Time
A	Industrial Area	75.0	70.0
B	Commercial Area	65.0	55.0
C	Residential Area	55.0	45.0
D	Silence Zone	50.0	40.0

Reference : Limits As Per The Noise Pollution Regulation and Control Rules, 2000 Schedule See Rule 3(1) and 4(1).

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

Royal Environment Auditing & Consultancy Service



Ashish
Analyst



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Ph.: +91 9099919954 ■ E-mail : royalenvironment@live.com ■ admin@royalconsultancy.com

Ref. No. : 398/03/2022-23

Date:21/03/2023

WORK ZONE NOISE LEVEL MEASUREMENT

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sampling Date : 15/03/2023

Sr. No.	Location of Sampling	dB(A)		
Permissible Limits for 8:00 Hrs.		90 dBa		
CHORBEDI MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
01.	Dozer D8 - N (CAT)	79.4	69.5	66.9
02.	Hyundai - 140 (LC - 9)	78.6	71.2	67.4
03.	Tata - 200 Excavator	81.9	73.6	64.3
Pachhtar and Pachhtardi Mines		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
04.	Dozer BD 355 Dozer(New)	85.3	72.7	66.7
05.	Hyundai - 140 Excavator	79.5	65.9	64.3
06.	Tata - 200 Excavator	77.2	71.5	65.8
GOP MINES		Inside Cabin	15 Mtr. Away from m/c.	50 Mtr. Away from m/c.
06.	Dozer D8 - N (CAT)	85.7	72.4	65.8
07.	Hyundai - 140 (LC - 9)	73.9	68.6	63.5

Instruments used : Sound level meter, model : SL-4030. (LUTRON)

Calibration done on : 04/03/2022

Royal Environment Auditing & Consultancy Service



Ashish
Analyst



Annexure-VIII

PACHHTAR (COMPOSITE) LIMESTONE MINES
YEARLY EXPENDITURE STATEMENT
FOR ENVIRONMENT MANAGEMENT
(For the Period of October 22 to March 23)

Sr. No.	WORK	Grand Total
1	Ambient Air & Noise Monitoring	58320
2	Water Sprinkling on haul roads	80500
3	Security and Maintenance	90000
	Total	228820


Signature

Manish Kumar Upadhyay
(Sr. General Manager Mines)



REGISTERED A/D

GPCB-ID-17133

PAC/GPCB/Form -V/C/352/3372

Date: 22.05.2023

To,

The Environmental Engineer,
Gujarat Pollution Control Board,
Sector 10 A, Paryavaran Bhavan
Gandhinagar-382010 (Gujarat)

Subject: Submission of Form V for our Pachhtar (Composite) Limestone Mines pertaining to M/s Shree Digvijay Cement Company Limited.

Sir,

We hereby submitting the Form-V (Environment Audit Report) for the financial year ending **31st March 2023 (2022-2023)** for our Pachhtar (Composite) Limestone mines.

We hope that you shall find the same in order.

Thanking you,

Yours faithfully,

For Shree Digvijay Cement Co. Ltd.

Manish Kumar Upadhyay
(Sr. General Manager, Mines)

Encl.: As above

✓ Copy to Regional officer, GPCB, Jamnagar

FORM V

Environment Audit Report for the financial year ending the 31st March 2023

PART – A

1. Name & Address of the Owner/
Occupier of the Industry
Operation or process : **Shree Digvijay Cement Co. Ltd.
Pachhtar (Composite) Limestone Mine
Survey No.225/P, Village- Pachhtar,
Taluka-Bhanvad, Distt. - Jamanagar
(Gujarat)**
2. Industry Category :
Primary: (STC Code) **Mining Industry**
Secondary: (SIC Code)
3. Production Capacity : **10 Lakh tones/Annum**
4. Year of Establishment : **07.11.1983**
5. Date of the last Environmental
Statement submitted. : **07.04.2022**

PART – B

Water & Raw Material Consumption

(i) * Water consumption M³ / day

Process	:	0
Cooling	:	0
Domestic (Drinking)	:	0.90 KL
Dust Suppression	:	1.07 KL
Plantation	:	0.22 KL

(*)PS Yearly consumption spread equally over 365 days of a year

	Name of products	Process water consumption per unit of product	
		During previous Financial Year 2021-22	During current Financial Year 2022-23
	LIMESTONE	Not Applicable	Not Applicable

(ii) Raw material consumption

S. No.	Name of raw materials	Name of Products	Consumption of raw material per unit of output	
			During the previous financial year 2021-22	During the current financial year 2022-23
1.	Explosives	Limestone	Nil	Nil
2	Ammonium nitrate		Nil	Nil
3	Detonating Fuse		Nil	Nil
4	Safety Fuse		Nil	Nil
5	Detonator		Nil	Nil
6	Cord Relays		Nil	Nil
7	HSD		361900 L	242640 L
8	Lubricant oil		6603 L	1694 L
9	Grease		563.10 Kg	412.0 Kg

PART – C

Pollution discharged to Environment/unit of output
(Parameter as specified in the consent issued)

	Pollutants	Qty. of pollutants discharged (Kg/Day)	Concentration of pollutants in discharges (Mg/Nm ³)	Percentage of variation from prescribed standard with reasons
(a)	Water	Nil.		
(b)	Air	Enclosed Annexure-1		
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Note: The prescribed limit of concentration as per the Consent issued –

Sr. No.	Pollutant	Time Weightage Average	Concentration in Ambient Air
1	Sulphur dioxide (SO ₂) in Microgram/M ³	Annual 24 hours	50 80
2	Nitrogen Dioxide(NO _x) in Microgram/M ³	Annual 24 hours	40 80
3	Particulate Matter (Size less than 10 Microgram/M ³ or PM 10 Microgram/M ³)	Annual 24 hours	60 100
4	Particulate Matter (Size less than 2.5 Microgram/M ³ or PM 2.5 Microgram/M ³)	Annual 24 hours	40 60

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes/Management & Handling Rules, 1989)

Hazardous Wastes		Total Quantity (Kg.)	
		During the previous Financial Year (2021-22)	During the current Financial Year (2022-23)
(a)	From Process (Used Oil from Machines)	110 L	80 L
(b)	From pollution control facilities	-	-

PART – E

(Solid Wastes)

		Total Quantity	
		During the Previous Financial Year	During the current Financial Year
(a)	From process	Not applicable, as there is no generation of solid waste from the process.	
(b)	From pollution control Facility		
(c)	i) Quantity recycled or re-utilized within the unit ii) Sold iii) Disposed		

PART – F

Please specify the characterization (in terms of concentration and quantum) of Hazardous as well as solid waste and indicate disposal practice adopted for both these categories of waste.

The used oil when taken out of machine at oil change time, it is collected in an empty barrel. This oil is reused for external lubrication of running moving parts of loading machine and lubrication system of drill machine.

Not applicable as described above in Part – E.

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Due to additional higher investment cost of pollution control monitoring and abatement measures there is slight additional burden on cost of production. Thus, the cost of production increases to a certain extent. However, as it is necessary to have pollution control to conserve ecology & environment, we have planted trees in the mines.

PART – H

Additional measures investment proposal for environmental protection including abatement of pollution, prevention of pollution.

The following control measures were being used for reducing dust in mines.

Use of Surface Miner/ Ripper Dozer – Mining operations has been carried out by Eco-friendly Surface Miner /Ripper Dozer which is having following advantages: -

- 1.Dust generated during cutting of limestone is suppressed with use of water sprinkling system at the point of generation itself.
- 2.Limestone so cut becomes moist hence during loading of limestone into dumpers/trucks, the dust generation is minimized.
- 3.Machine is provided with A.C cabin which protect the operator from dust, noise and heat.
- 4.Mined out floor is perfectly level and under footing condition is extremely good. The road condition becomes very good which ultimately reduce the diesel consumption of dumper/trucks plying on the road. Hence the generation of noxious fumes is also reduced.

Other Measures-

- 5.Dust suppressed on haul road by water sprinkling.
- 6.Fumes and smoke emission from HEMM controlled by regular maintenance and timely overhaul of engines.
- 7.Tarpulin covering on the transporting vehicle before leaving the mines site.
- 8.Vehicles are rightly loaded.
- 9.AAQ monitoring is done on regular basis. Contract awarded to Royal Auditing and Consultancy Services, Rajkot and reports area submitted to GPCB Gandhinagar, MOEF & CC, New Delhi and Regional office of MOEF & CC.

PART - I

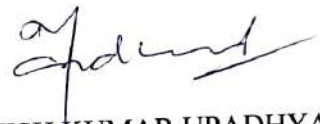
Any other particulars for improving the quality of the environment.

Following are various measures taken by us: -

1. Adequate plantation has been done in mines.
2. Mining is carried out as per Approved Mining Plan.
3. Sense of creating & maintaining clean environment among the employees are being created by celebrating Mines Environment and Mineral Conservation Week every year and Environment Day and other such functions time to time on Environment, keeping slogan boards on environment etc.

Date: 22.05.2023

Signature of a person carrying out
an industry, operation, or process



Name: MANISH KUMAR UPADHYAY
Designation: Sr. General Manager (Mines)
Address: Shree Digvijay Cement Co. Ltd.
P.O. Digvijaygram- 361140
(Via) Jamnagar, Gujarat