



By E-mail

Gop/MoEF/HYC/C/302/3376

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. J-11015/47/2005-IA. II (M) dated 07.10.2005 in respect of **Gop (Composite) Limestone Mines** for the half year period **Oct -2022 to March-2023**

Respected Sir,

As required, we are submitting herewith Pointwise compliance status to various stipulations, as laid-down in Environmental Clearance letter No. J-11015/47/2005-IA. II(M) dated 07.10.2005 with supporting documents, is enclosed with the following Annexure -

Sr. No.	Annexure	Sr. No.	Annexure
1	Annexure-I (Photographs of Water Reservoir)	7	Annexure-VII (Ambient Air Quality Report)
2	Annexure-II (Medical Camp Photographs)	8	Annexure-VIII (Noise Level Monitoring Report)
3	Annexure-III (Photographs of Plantation)	9	Annexure-IX ((Environment Yearly Expenses Statement)
4	Annexure-IV (Approval Letter-Mining Plan)	10	Annexure- X (MOEF-EC)
5	Annexure-V (Comprehensive Hydrogeological Report)	11	Annexure-XI (Environment Statement in Form V for the year 2022-23)
6	Annexure-VI - (SPCB-CTO)		

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

Thanking you,

Yours faithfully,
For SHREE DIGVIJAY CEMENT CO. LTD.

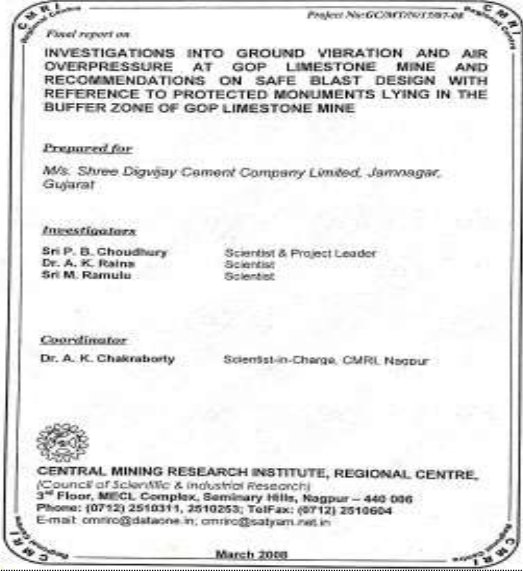
Dharmendra Kumar Bansal
Manager Mine
Enclosures - As Above

Copy To:

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

SHREE DIGVIJAY CEMENT CO. LTD.
GOP (COMPOSITE) LIMESTONE MINE
SIX MONTHLY COMPLIANCE STATUS
October-2022 to March-2023

S. NO.	CONDITIONS	COMPLIANCE STATUS																								
A. Specific Conditions																										
(i)	The production capacity of this mine shall not exceed 0.25 MTPA with a capping of production of limestone to a capacity of 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 individually.	Production during April-2022 to March-2023 is 0.249 MTPA from Gop (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 7th October 2005. Chorbedi Mines - J-11015/47/2005-IA.II (M) dated 7th October 2005. Pachhtar Mines - J-11015/49/2005-IA.II (M) dated 7th October 2005. Mokhana Mines - J-11015/48/2005-IA.II (M) dated 7th October 2005. Production of all 05 Limestone Mines during April-2022 to March-2023 and its capacities are 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="5">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></tr><tr><td>Total</td><td>2.85 (Limited to 2.20)</td><td>1.045</td><td></td></tr></table> Mokhana Mines: Whole 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 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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(ii)	The recommendations of the Expert Committee on Historical Religious Monuments constituted under the District Collector shall be complied with to ensure that the mining does not have adverse impacts on the Sun temple and Gop Nath temple. The compliance report shall be submitted regularly to the MOEF	Being complied. As per the recommendation No blasting within 1.0 km of Sun Temple and within 500 m of Gopnath Temple is performed. At present there is No Blasting in the Mine at all since 2015. Presently, the drilling & Blasting is not being performed and same is replaced by the use of Ripper –Dozer and Excavator combination, an Eco-Friendly mining machinery.																								

S. NO.	CONDITIONS	COMPLIANCE STATUS
	Regional Office, Bhopal and to the GSPCB.	The Compliance reports are being submitted Half Yearly to MOEF Regional Office and to the GPCB.
(iii)	A study to be carried out by a specialized agency such as the CMRI shall be commissioned to determine the ground vibrations during blasting operations and the precautionary and safety measures recommended shall be implemented for the safety of the monuments located in the buffer zone.	Complied. A study carried out by CMRI, Nagpur to determine the ground vibrations during blasting operations. The precautionary and safety measures have been implemented for safety of monuments located in the buffer zone, as recommended. Presently, the drilling & Blasting has been replaced by the use of Ripper –Dozer and Excavator combination, an Eco-Friendly mining machinery. 
(iv)	Timing of primary blasting shall be stipulated and specified. The notice displaying such timing shall be displayed in local language for the benefit of local population.	Being complied. Primary Blasting time stipulated during 12 to 2 pm. Notice has been displayed as depicted in picture below. However, there is no Drilling and Blasting since 2015. Presently, the drilling & Blasting has been replaced by the use of Ripper –Dozer and Excavator combination, an Eco-Friendly mining machinery. 
(v)	Drainage plan in mining area shall be so	Check dam and bunds have been created to store &

S. NO.	CONDITIONS	COMPLIANCE STATUS
	designed to make most effective use of water resources.	augment rainwater in the mined-out area. The picture of mines pond is depicted below-  Water reservoir is enclosed as Annexure-I
(vi)	No river water should be used for water spraying in the mining area and on the Kutcha roads.	Being complied. Water for mines utilization is being arrange from outside (purchased water) available through Tanker.
(vii)	First Aid facilities shall be provided at convenient locations. Emergency and First Aid Training shall be imparted to all the operating staff at all levels and to local affected villages.	A First Aid facilities have been provided at mine sites. Company's Doctor & Officers holding First Aid Certificate are imparting training to all operating staff. Free medical and Ambulance facilities are being provided to local villagers in the area.  Medical Camp Photographs is enclosed as Annexure-II
(viii)	Socio-economic plan should be prepared in consultation with local community and the plan should be implemented in a phased manner and published at local level in Gram Sabha.	Being complied. Socio-economic plan is prepared in consultation with local community and is being implemented accordingly.
(ix)	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 Drains have been constructed. For Waste Dump: Not applicable as there is no waste generated from the mine. For Mines: The mining is being done in slope and bottom of the hilly area following limestone deposits. Water flowing downwards from catchment is trapped into Mine Pits through water channels (Drains).

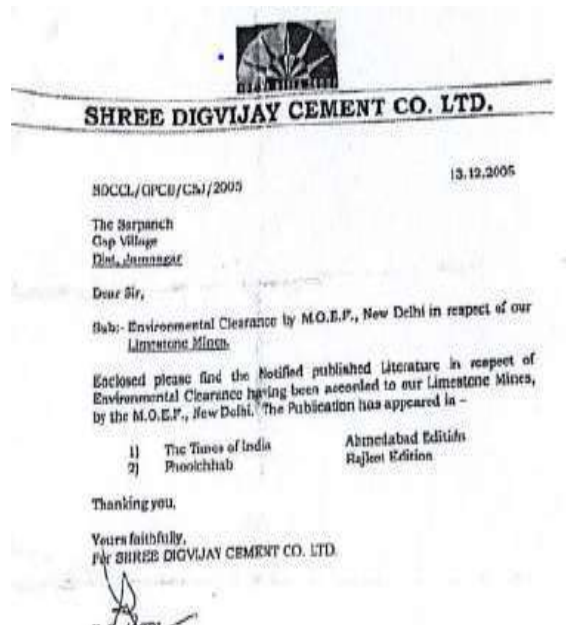
S. NO.	CONDITIONS	COMPLIANCE STATUS														
	Garland drain (size, gradient & length) shall be constructed for both mine pit and for the waste dump. Sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper setting of silt material. Sedimentation pits should be constructed	Pits and Drains are marked in Surface Plan and details of these pits have been submitted vide our Email dated 20.03.2020. Size of the Sump (Pit) is capable to receive and store 2355487.50 KL of water with average rainfall of 630 and calculated by considering 60% run of coefficient collection efficiency =890374.3 KL. Sumps are large enough to provide adequate retention period for proper settling of silt material. Details of Drains & Siltation Pits have been submitted vide our Email dated 20.03.2020.														
																
(x)	Drills should be wet operated or with dust extractors.	Drilling is not practiced.														
(xi)	Controlled blasting should be practiced and only between 12 Noon and 2 PM. The mitigative measures for control of ground vibrations to arrest the fly rocks and boulders should be implemented. No blasting shall be carried out within 500 m distance from Gop Nath Temple and 1 KM distance from the Sun Temple.	Being complied. Presently, the drilling & blasting not being performed the same is replaced by the use of Ripper –Dozer and Excavator combination, an Eco-Friendly mining machinery.														
(xii)	Plantation shall be done over the lease area includes 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 is being done within and outside lease area. We have done year wise plantation in mines area as per mining plan. A table with year wise plantation details is given below: <table><tr><th>Year & Nos.</th><th>Nos. of trees</th></tr><tr><td>Up to 2018-19</td><td>8970</td></tr><tr><td>2019-20</td><td>2959</td></tr><tr><td>2020-21</td><td>4870</td></tr><tr><td>2021-22</td><td>11600</td></tr><tr><td>2022-23</td><td>18154</td></tr><tr><td>Total</td><td>46553</td></tr></table> We have planted 18154 Nos of plants in the year 2022-23 (October-22 to March-23) against the target of 1500 Nos plants. Plantation Photographs are enclosed as Annexure-III	Year & Nos.	Nos. of trees	Up to 2018-19	8970	2019-20	2959	2020-21	4870	2021-22	11600	2022-23	18154	Total	46553
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Total	46553															

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(xiii)	Ground water shall not be encountered during mining operations. Prior approval of the MOEF and CGWA shall be taken for mining below ground water.	The Ground Water table is in the range of 17-20m belowground level (bgl) (Pre-Monsoon) and 6-12m bgl (post-Monsoon). Depth of deposit lies well above Water Table at 5-6 mtrs (BGL). So, there is no chance of encountering Ground Water during Mining Operations. Mining is being carried out as per approved mining plan. Copy of Approval letter enclosed as Annexure-IV
(xiv)	Rainwater harvesting measures shall be taken up in consultation with the Regional Office, CGWB to recharge and augment groundwater in the area.	Rainwater harvesting measures being practiced and the rainwater has been channelized inside the excavated pits in the mine area. Thus, the entire precipitation water of the lease area is being collected inside the pits and available for ground water recharge in the area. A study from reputed consultant and ex-Director of CGWB is carried out for systematic Rainwater Harvesting in Gop Mines. The report with proposals is submitted to Regional Office, CGWB, Ahmedabad. As per proposal: 1. Old mine pits are created which serves as recharge ponds. 2. Circular pits in plantation area are also made 3. Artificial Recharge structure at Mines Office is created. In this regard we have also requested guidance and expertise from Regional Director, C.G.W.B. Ahmedabad. The CHR report is enclosed as Annexure-V The picture of existing rainwater harvesting ponds are depicted below;

S. NO.	CONDITIONS	COMPLIANCE STATUS
		
(xv)	A final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.	The validity of Mining Lease is up to 31.03.2030. Balance life of Mine is envisaged as 08 Years @ present rates of production. So Final Closure is anticipated by 2030. Accordingly, Final Mine Closure plan will be submitted by 2025 i.e. before 5 years of anticipated closure.
(xvi)	Consent to operate shall be obtained from the SPCB before expanding mining operations.	Noted. Consent to Operate had obtained vide order no AWH 106505 (letter no PC/CCA-JMN-46(3)/ID-30566, dated 03.02.2020), valid up to 20/02/2025. Copy of CTO enclosed as Annexure-VI

S. NO.	CONDITIONS	COMPLIANCE STATUS										
	 GUJARAT POLLUTION CONTROL BOARD PARYAVARAN BHAVAN Sector-10-A, Gandhinagar 382 010 Phone : (079) 23222425 (079) 23232152 Fax : (079) 23232156 Website : www.gpcb.gov.in <u>BY R.P.A.D.</u> 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 Wastes (Management and Transboundary Movement) Rules-2016 framed under the Environment (Protection) Act-1986. And whereas Board has received consolidated consent application inward No 169772 dated 27/12/2019 for the Renewal 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) M/S SHREE D & C LTD (GOP COMPOSITE MINE) (J0566). PLOT NO. S NO.50/12, VILL. GOPRIVANVARI, GOP - 361140, TAL. JAMJODHPUR, DIST. JAMNAGAR. 7. Consent Order No.: AWH-106505 Date of Issue: 03/02/2020. 8. The consents shall be valid up to 20/02/2025 for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products: <table><thead><tr><th>Sr. No.</th><th>Product</th><th>Total Capacity</th></tr></thead><tbody><tr><td>1</td><td>LIME STONE MINING</td><td>25,500 MT/Month</td></tr></tbody></table> Specific Conditions: 1. The applicant shall strictly observe & comply with various Environment stipulation mentioned in EC (Environmental Clearance) issued by MoEF vide its letter no. J-11015 /47/2005 1A.11 (M) dated 07/10/2005. Specific Conditions for mining: 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 of required height with weep holes to drain out water to the guard 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. 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 hankering 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. Conditions for Transportation: ➤ Industry shall take adequate measures to control emission due to loading, unloading of materials and movement of vehicles. Conditions for Material stockpiles: ➤ Industry shall take necessary measures to control dust emission due to operation of mining activity. The mine waste management should be as per the approved mine plan.  Clean Gujarat Green Gujarat ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation	Sr. No.	Product	Total Capacity	1	LIME STONE MINING	25,500 MT/Month					
Sr. No.	Product	Total Capacity										
1	LIME STONE MINING	25,500 MT/Month										
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 and being complied. Mining is being done as per approved mining plan.										
(ii)	No change in the calendar plan including excavation, quantum of limestone and waste should be made.	Being complied. Similarly, no change is made in the calendar plans including excavations, quantum of Limestone and waste. Mining is being done as per approved mining plan. <table><thead><tr><th>Year</th><th>Mineral</th><th>Proposed Production as per approved Mining Plan in MT</th><th>Actual Production in MT</th><th>Remarks</th></tr></thead><tbody><tr><td>2022-23</td><td>Limestone</td><td>2,50,000</td><td>249522.747</td><td></td></tr></tbody></table>	Year	Mineral	Proposed Production as per approved Mining Plan in MT	Actual Production in MT	Remarks	2022-23	Limestone	2,50,000	249522.747	
Year	Mineral	Proposed Production as per approved Mining Plan in MT	Actual Production in MT	Remarks								
2022-23	Limestone	2,50,000	249522.747									
(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.	Being complied. AAQM is being done regularly and report of the same are regularly submitted to concerned offices in stipulated time period. Ambient air Quality monitoring report for the period October-2022 to March-2023 is attached as Annexure –VII										

S. NO.	CONDITIONS	COMPLIANCE STATUS
(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.	Being complied. Water sprinkling arrangement has been provided & is being practiced. 
(v)	Adequate measures should be taken for control of noise levels in the work environment.	Noise monitoring is being done regularly. The noise levels are well within the limits; however, ear plugs / earmuffs is being provided to operators. Copy of noise monitoring report for the period of October-2022 to March-2023 enclosed as Annexure-VIII
(vi)	Industrial wastewater, if any, should be properly collected, treated so as to conform to the standards prescribed under GSR 422 € 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 Corgo 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 program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Being complied. 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

S. NO.	CONDITIONS	COMPLIANCE STATUS																																	
		Radiograph, Spirometry, Audiometry, Pathological Test (Blood Sugar – Fasting & Post Prandial). So far not a single case is detected for dust borne disease.																																	
(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. Year wise expenditures on environmental protection measures is given below: <table> <tr> <th>S. No.</th><th>Year</th><th>Recurring Yearly Expenditure in Rs.</th></tr> <tr><td>1</td><td>2013-14</td><td>₹ 375319</td></tr> <tr><td>2</td><td>2014-15</td><td>₹ 123321</td></tr> <tr><td>3</td><td>2015-16</td><td>₹ 131240</td></tr> <tr><td>4</td><td>2016-17</td><td>₹ 199408</td></tr> <tr><td>5</td><td>2017-18</td><td>₹ 321289</td></tr> <tr><td>6</td><td>2018-19</td><td>₹ 224666</td></tr> <tr><td>7</td><td>2019-20</td><td>₹ 187086</td></tr> <tr><td>8</td><td>2020-21</td><td>₹ 976350</td></tr> <tr><td>9</td><td>2021-22</td><td>₹ 739934</td></tr> <tr><td>10</td><td>2022-23</td><td>₹ 1702520</td></tr> </table> Details on Expenditure for environmental protection measures for the FY 2022-23 is enclosed as Annexure-IX	S. No.	Year	Recurring Yearly Expenditure in Rs.	1	2013-14	₹ 375319	2	2014-15	₹ 123321	3	2015-16	₹ 131240	4	2016-17	₹ 199408	5	2017-18	₹ 321289	6	2018-19	₹ 224666	7	2019-20	₹ 187086	8	2020-21	₹ 976350	9	2021-22	₹ 739934	10	2022-23	₹ 1702520
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9	2021-22	₹ 739934																																	
10	2022-23	₹ 1702520																																	
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.																																	
(x)	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 Environmental Clearance letter was handed over to all concerned Panchayat vide letter dated 13.12.2005.  The letter is from SHREE DIGVIJAY CEMENT CO. LTD. to The Sarpanch, Chap Village, Dist. Jabalpur. It is dated 13.12.2005. The letter mentions MOCC/GRCB/CB/2005 and discusses environmental clearance by M.O.E.P., New Delhi. It also mentions enclosed literature regarding environmental clearance for limestone mines, published by M.O.E.P., New Delhi. The literature is listed as 'The Times of India' and 'Pravachan' from Ahmedabad Edition. The letter is signed for SHREE DIGVIJAY CEMENT CO. LTD.																																	
		Copy of EC is enclosed as Annexure-X																																	

S. NO.	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 provides 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 .	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. Copy given below: 

SHREE DIGVIJAY CEMENT COMPANY LIMITED
Water Reservoir Photographs of Gop Composite Limestone Mine



SHREE DIGVIJAY CEMENT COMPANY LIMITED
Medical Photographs of Gop Composite Limestone Mine





SHREE DIGVIJAY CEMENT COMPANY LIMITED
Plantation Photographs of Gop Composite Limestone Mine







भारत सरकार
खान मंत्रालय
भारतीय खान ब्यूरो
क्षेत्रीय खान नियंत्रक का कार्यालय
कर्मयोगी भवन, चतुर्थ माला, ब्लॉक-2, सी विंग, सेक्टर-10A
गांधीनगर, गुजरात, 382010



Email/Regd Post
Government of India
Ministry of Mines
Indian Bureau of Mines
Office of Regional Controller of Mines
Karmayogi Bhavan, 4th Floor, Block-2, C Wing, Sector 10A,
Gandhinagar, Gujarat-382010

Tel- 079 29750358 /29750359; ई-मेल/ E-mail: ro.gandhinagar@ibm.gov.in

फाईल संख्या File No: 684(4)(1)/MP-372/2021-22 GNR

दिनांक 12 Jan 2022

सेवा में To, नोमिनेटेड ओनर
मै. श्री दिग्विजय सीमेंट कंपनी लिमिटेड
दिग्विजयग्राम, गाँव: सिक्का,
जिला- जामनगर
गुजरात - 361140

Nominated Owner
M/s Shree Digvijay Cement Company Limited
Digvijaygram, Village: Sikka,
Dist.- Jamnagar,
Gujarat- 361140
E-mail : sdccclmines@gmail.com,
anil.nigam@digvijaycement.com

विषय Sub: Approval of Review and updation of Mining Plan along-with Progressive Mine Closure Plan (PMCP) in respect of Gop-I Limestone Mine of M/s Shree Digvijay Cement Co. Ltd. over an area of 218.53 hectare near Village- Moti Gop & Zinavari, Tehsil- Jamjodhpur, District – Jamnagar, submitted under Rule 17(2) of Minerals (Other than Atomic & Hydro Carbons Energy Minerals) Concession Rules, 2016 & 23 of MCDR 2017.

संदर्भ /Ref: 1. Your e-mail dated 12th Nov 2021 received in the office.
2. Our office letter of even number dated 16th Dec 2021
3. Your letter no. Nil dated- 30 Dec2021 received in this office on dated 31st Dec 2021.

महोदय/Sir,

With reference to above and in exercise of the power conferred by Clause (b) of Sub-Section (2) of section 5 of Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India order no. S.O. 445 (E) dated 28.04.1987 and Government of India Order No- S.O. 1857 (E) dated 18.05.2016; I hereby approve the aforesaid Review & updation of Mining Plan Including Progressive Mine Closure Plan (herein after refer as **Mining Plan**). This approval is subject to the following conditions:

1. 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.
2. The proposals shown on the plates and/or given in the mining plan is based on the lease map /sketch submitted by the lessee and is applicable from the date of approval. Proposed scale of production is subjected to environmental clearance by competent authority.
3. It is clarified that 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, or the Minerals (Other than Atomic & Hydro Carbon Energy Minerals) Concession Rules, 2016 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made there under, The Occupational Safety, Health and Working Conditions Code, 2020/The Mines Act 1952 and Rule & Regulations made there under.
4. Indian Bureau of Mines has not undertaken verification of the mining lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the precise area as furnished by the lessee.
5. The Next Financial Assurance shall be due for submission on 31 March 2027.
6. This approval is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Review and updation of Mining Plan for the period commencing from the date of submission of appropriate and requisite amount of Bank Guarantee (as per chapter-7 of mining plan) against Financial Assurance as per amended MCDR, 2017 in prescribed format and co-terminus with plan period as per rules OR 1st April 2022 for the financial year 2022-23 whichever is LATER, up to financial year 2026-27 with validity up to 31 March 2027 and subject to all statutory compliance and clearance for the mining activity to be carried out with in the mining leasehold.
7. Drone survey shall be carried out and submit the processed output as per rule 34A of MCDR, 2017(as amended on 03-11-2021).
8. Mining lease is in much close vicinity of
 - a. Village and habitat area near lease pillar 12 thus; all appropriate special precautions shall be taken while carrying out mining operations in such areas.
 - b. Proposed area is also in close proximity to the place of religious importance, thus utmost care shall be taken for connecting roads, pathways etc.
 - c. Proper care to be taken while mining is proposed area in foothills near pillar 1 & 2.
9. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
10. Adequate number of parapet walls, check dams, and/or retaining walls shall be made and maintained in good condition to check any detrimental impact on water regime.

11. Wherever side/benches have finalized or reached to its ultimate limit, immediate steps shall be taken for stabilization/restoration of such sides/benches/terraces appropriately like plantations of suitable species etc.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.

Encl: One copy of approved Mining Plan.

भवदीय

(पुष्पेन्द्र गौड़/ Pushpender Gaur)

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

प्रतिलिपि सूचनार्थ प्रेषित / Copy for kind information to:-

1. The Commissioner, Department of Geology & Mining, Govt. of Gujarat, Gandhinagar, Gujarat, e-mail- commissioner-cgm@gujarat.gov.in.
2. The Geologist, Department of Geology & Mining, Collector Office Compound, Block-A, Bahumali Makan, Lal Bungalow Compound, Jamnagar, Gujarat e-mail- geologist-jam@gujarat.gov.in. Along-with copy of approved Review and updation of Mining Plan along with PMCP. Kindly refer our letter no 684(4)(1)/MP-372/2021-22 GNR dated 10.01.2022 in this matter.
3. Shri K. K. Rajeev Nambiar, The Nominated Owner, M/s Shree Digvijay Cement Company Limited, Digvijaygram, Village: Sikka, Dist.- Jamnagar, Gujarat- 361140 e-mail: anil.nigam@digvijaycement.com.
4. Sh. Deepak Gaur, Mining Engineer E-mail : dgaur@mining360services.com

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

भारत सरकार
खान मंत्रालय
भारतीय खान ब्यूरो
क्षेत्रीय खान नियंत्रक का कार्यालय
कर्मयोगी भवन, चतुर्थ माला, ब्लॉक-2, सी विंग, सेक्टर-10A
गांधीनगर, गुजरात, 382010



Email/Regd Post
Government of India
Ministry of Mines
Indian Bureau of Mines
Office of Regional Controller of Mines
Karmayogi Bhavan, 4th Floor, Block-2, C Wing, Sector 10A,
Gandhinagar, Gujarat-382010

Tel- 079 29750358 /29750359; ई-मेल/ E-mail: ro.gandhinagar@ibm.gov.in

फाईल संख्या File No: 684(4)(1)/MP-373/2021-22 GNR

दिनांक 12 Jan 2022

सेवा में To, नोमिनेटेड ओनर
मै. श्री दिग्विजय सीमेंट कंपनी लिमिटेड
दिग्विजयग्राम, गाँव: सिक्का,
जिला- जामनगर
गुजरात - 361140

Nominated Owner
M/s Shree Digvijay Cement Company Limited
Digvijaygram, Village: Sikka,
Dist.- Jamnagar,
Gujarat- 361140
E-mail : sdcclmines@gmail.com

विषय Sub: Approval of Review and updation of Mining Plan along-with Progressive Mine Closure Plan (PMCP) in respect of Gop-II Limestone Mine of M/s Shree Digvijay Cement Co. Ltd. over an area of 58.68 hectare near Village- Moti Gop, Tehsil- Jamjodhpur, District – Jamnagar, submitted under Rule 17(2) of Minerals (Other than Atomic & Hydro Carbons Energy Minerals) Concession Rules, 2016 & 23 of MCDR 2017.

- संदर्भ /Ref:
1. Your e-mail dated 12th Nov 2021 received in the office.
 2. Our office letter of even number dated 16th Dec 2021
 3. Your letter no. Nil dated- 30 Dec 2021 received in this office on dated 31st Dec 2021.

महोदय/Sir,

With reference to above and in exercise of the power conferred by Clause (b) of Sub-Section (2) of section 5 of Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India order no. S.O. 445 (E) dated 28.04.1987 and Government of India Order No- S.O. 1857 (E) dated 18.05.2016; I hereby approve the aforesaid Review & updation of Mining Plan Including Progressive Mine Closure Plan (herein after refer as **Mining Plan**). This approval is subject to the following conditions:

1. 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.
2. The proposals shown on the plates and/or given in the mining plan is based on the lease map /sketch submitted by the lessee and is applicable from the date of approval. Proposed scale of production is subjected to environmental clearance by competent authority.
3. It is clarified that 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, or the Minerals (Other than Atomic & Hydro Carbon Energy Minerals) Concession Rules, 2016 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 or the rules made there under, The Occupational Safety, Health and Working Conditions Code, 2020/The Mines Act 1952 and Rule & Regulations made there under.
4. Indian Bureau of Mines has not undertaken verification of the mining lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the precise area as furnished by the lessee.
5. The Next Financial Assurance shall be due for submission on 31 March 2027.
6. This approval is restricted in respect of the prospective proposals contained therein within the valid mining lease area of this Review and updation of Mining Plan for the period commencing from the date of submission of appropriate and requisite amount of Bank Guarantee (as per chapter-7 of mining plan) against Financial Assurance as per amended MCDR, 2017 in prescribed format and co-terminus with plan period as per rules OR 1st April 2022 for the financial year 2022-23 whichever is LATER, up to financial year 2026-27 with validity up to 31 March 2027 and subject to all statutory compliance and clearance for the mining activity to be carried out with in the mining leasehold.
7. Drone survey shall be carried out and submit the processed output as per rule 34A of MCDR, 2017 (as amended on 03-11-2021).
8. Mining lease is in much close vicinity of
 - a. Public roads are passing through lease area therefore utmost care shall be taken from public safety point of view.
 - b. Proposed area is also in close proximity to the place of religious importance and its connecting roads, thus utmost care shall be taken for connecting roads, pathways etc.
9. Adequate measures shall be taken to prevent any inadvertent access to the mined out area/water logged pits, if any, with appropriate fencing etc.
10. Adequate number of parapet walls, check dams, and/or retaining walls shall be made and maintained in good condition to check any detrimental impact on water regime.
11. Wherever side/benches have finalized or reached to its ultimate limit, immediate steps shall be taken for stabilization/ restoration of such sides/benches/terraces appropriately like plantations of suitable species etc.

12. 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.
 13. 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.
 14. 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.
 15. 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.
 16. 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.
- Encl: One copy of approved Mining Plan.

भवदीय

(पुष्पेन्द्र गौड़/ Pushpender Gaur)

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

प्रतिलिपि सूचनार्थ प्रेषित / Copy for kind information to:-

1. The Commissioner, Department of Geology & Mining, Govt. of Gujarat, Gandhinagar, Gujarat, e-mail- commissioner-cgm@gujarat.gov.in.
2. The Geologist, Department of Geology & Mining, Collector Office Compound, Block-A, Bahumali Makan, Lal Bungalow Compound, Jamnagar, Gujarat e-mail- geologist-jam@gujarat.gov.in. Along-with copy of approved Review and updation of Mining Plan along with PMCP. Kindly refer our letter no 684(4)(1)/MP-373/2021-22 GNR dated 12.01.2022 in this matter.
3. Shri K. K. Rajeev Nambiar, The Nominated Owner, M/s Shree Digvijay Cement Company Limited, Digvijaygram, Village: Sikka, Dist.- Jamnagar, Gujarat- 361140 e-mail: anil.nigam@digvijaycement.com.
4. Sh. Deepak Gaur, Mining Engineer E-mail : dgaur@mining360services.com

क्षेत्रीय खान नियंत्रक /Regional Controller of Mines

**COMPREHENSIVE REPORT ON GROUND WATER
CONDITIONS AT GOP VILLAGE, JAMJODHPUR TALUKA,
JAMNAGAR DISTRICT, GUJARAT**

(As per CGWA guidelines dated 24.09.2020)

**FOR
SHREE DIGVIJAY CEMENT COMPANY LTD**

**GOP LIMESTONE MINE
GOP & ZINAVARI VILLAGE
TALUKA: JAMJODHPUR
DISTRICT: JAMNAGAR
STATE:GUJARAT**



Report Prepared by

Dr. Nallathambi Varadaraj,

M.Tech , P.G .Dip (Hons), Ph. D

**CGWA Accredited Individual (Sl. No. 7) for Impact Assessment Report,
Modelling Studies & Hydrogeological Report for Mining Projects**

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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 GOP composite limestone mine is one of the mines in operation with 0.25 MTPA capacity.

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. PROJECT DESCRIPTION

Mining of Limestone and manufacturing of Clinker / Cement, has been the main life of activity of the company, which it has been carrying out with distinction for last over seven decades period. Mining of Limestone is being carried out by use of Dozer – Ripper & Excavator combination. No Drilling - blasting being performed since 2015.

3. BACKGROUND

Shree Digvijay Cement Company Limited, incorporated in the year 1944, started its production in the year 1949 by the then prevailing “Wet process” Technology, using calcareous sea sand as the main raw material. The various types of cement produced by this company under the brand name “KAMAL”.

4. OBJECTIVES AND SCOPE

The Scope of work includes the following.

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

5.0 REGIONAL SETTING

5.1 LOCATION

Gop limestone mine is located in S.No.286 in GOP village and S.No 91 in Zinavari located near Gop Jam railway which is about 50 km away from Jamnagar town and lies between N. Latitude $22^{\circ}02'25''$ and $22^{\circ}03'15''$ and E longitude $69^{\circ}54'18''$ to $69^{\circ}55'19''$. The location map of Gop Jam area is given in Fig-1 and Google map of mines and surrounding area is shown in Fig-2

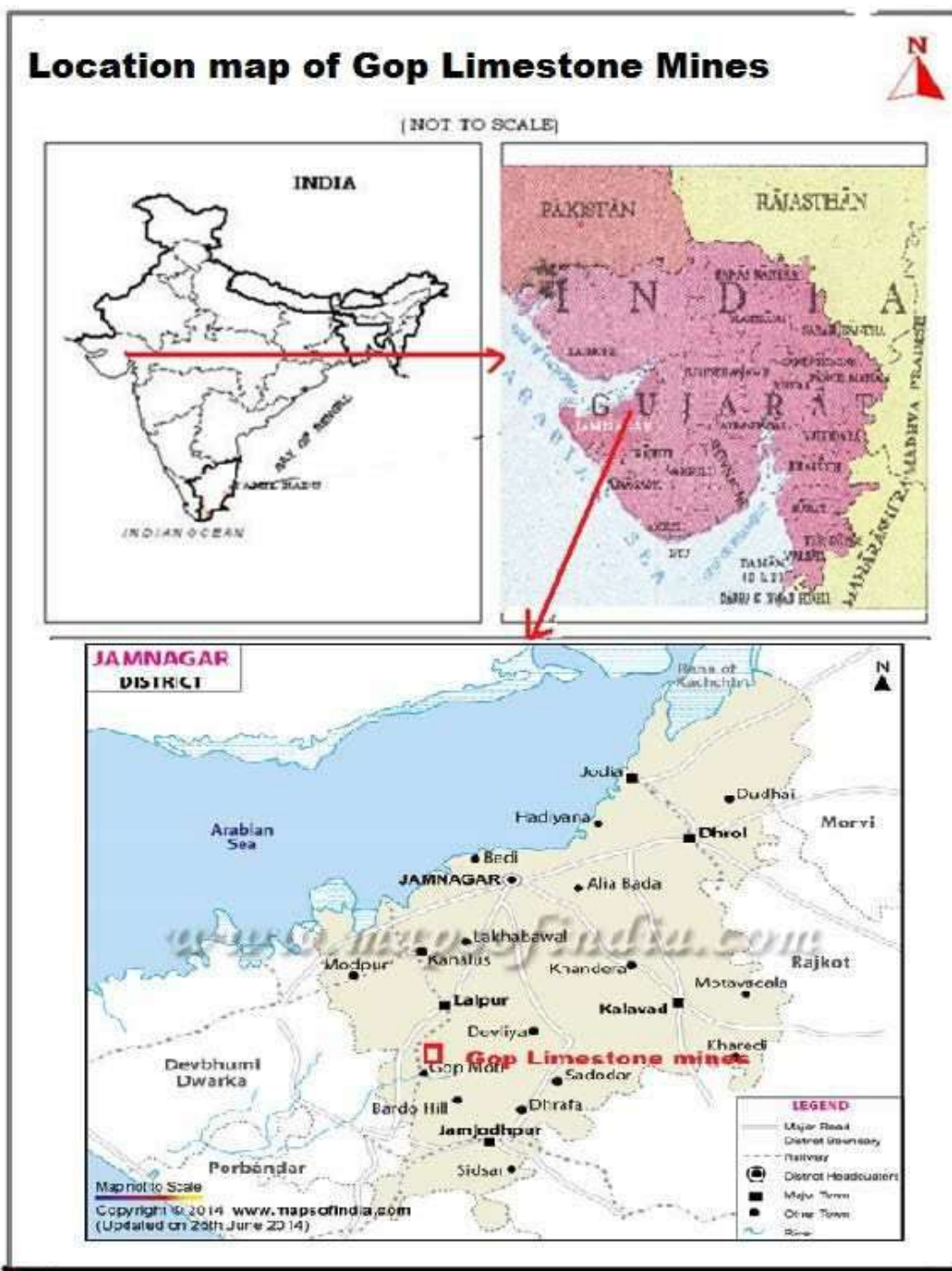


Fig-1 Location map of GOP Limestone mines

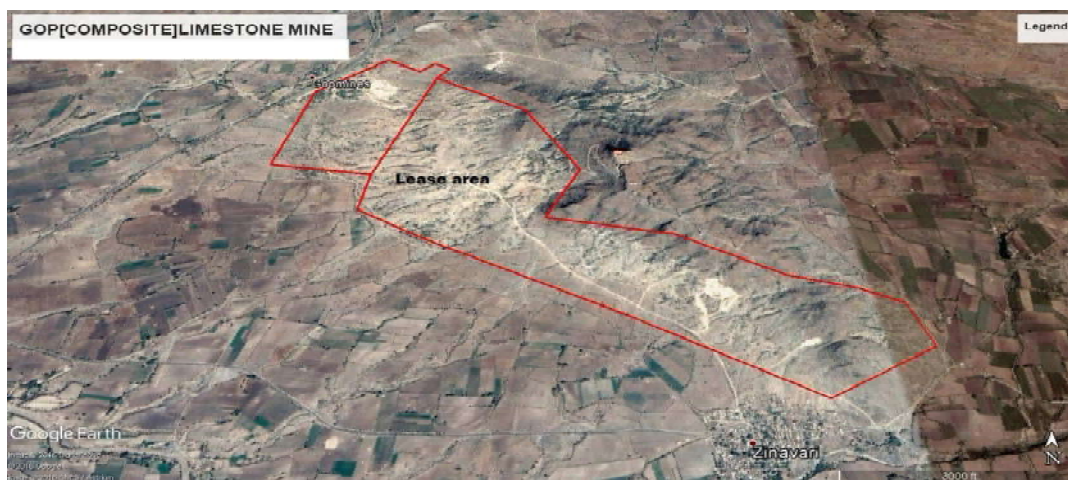


Fig: 2 GOOGLE map of GOP Mines area

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 NO	latitude	longitude	Altitude (m)	Description
001	22.045724000	69.921183000	187.6	ROAD inside the Mines
002	22.045296000	69.918975000	166.9	Check Dam
003	22.044305000	69.918919000	164.5	Existing WELL
004	22.043900000	69.919047000	163.9	NEW Bore well location
005	22.043769000	69.918324000	158.9	Old BW DRY-RWH
006	22.043602000	69.918721000	158.4	Alternate NEW BW point
007	22.044664000	69.921318000	184.8	Existing WELL-2
008	22.043374000	69.920745000	174.6	Check Dam -2
009	22.033331000	69.930151000	156.5	MINE PIT
010	22.032830000	69.939271000	147.8	Private WELL-3
011	22.033243000	69.938559000	148.7	Private BW
012	22.041268000	69.911608000	144.8	WELL4
013	22.052066000	69.908899000	138.6	Bore Well
014	22.052820000	69.909885000	140.2	DRY Bore- Proposed RWH
015	22.052311000	69.910288000	139.3	NEW BW proposed
016	22.052182000	69.903766000	126.0	Private WELL Good yield
017	22.054693000	69.907506000	124.8	Irrigation WELL
018	22.058647000	69.957945000	175.6	Irrigation WELL
019	22.057561000	69.969837000	198.0	Irrigation WELL
020	22.064735000	69.989832000	216.1	Irrigation WELL

Table-1 GPS readings for survey points –GOP Mines area

5.2 LANDUSE

Total study area/ buffer zone of Gop (Composite) Limestone Mines of Shree Digvijay Cement Company Limited mainly comprises of Crop Land (7290.97 Hectare covering 23.03 % area) followed by barren land (21882.3 Hectare covering 69.12 % area). Details of land use pattern is given below:.

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

S. No.	LU/LC Class	Area (hectare)	Area (%)
1	River/Canal	1952.21	6.17
2	Agriculture	7290.97	23.03
3	Barren Land	21882.3	69.12
4	Settlement	257.365	0.81
5	Mine Quarry	277.21	0.88
	Total	31660.1	100.00

5.3 CLIMATE AND RAINFALL

Jamnagar 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 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)	Humidity (%)	Wind Spd. Kmpd	Sunshine (Hours)	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
Average	32.2	19.9	63.7	176.3	8.3	19.8	4.8	-

(Source :CGWB)

5.4 TOPOGRAPHY AND DRAINAGE

Gop mines area is coastal upland with number of isolated rocky pediments and pediments. The prominent land form is the GOP hill trending in East-West direction. The regional slope is North East to South west and ground elevation varies from 120 to 200 m above Mean sea level (m amsl). Two small dully is flowing in the Mines area and crosses railway line in the western side as seasonal drainage.

The prominent geomorphic units identified in the area through interpretation of Satellite imagery are 1) Structural Hills (SH). 2) Rocky pediment/ Pediment 3) Buried Pediments and man made 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 thin 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.

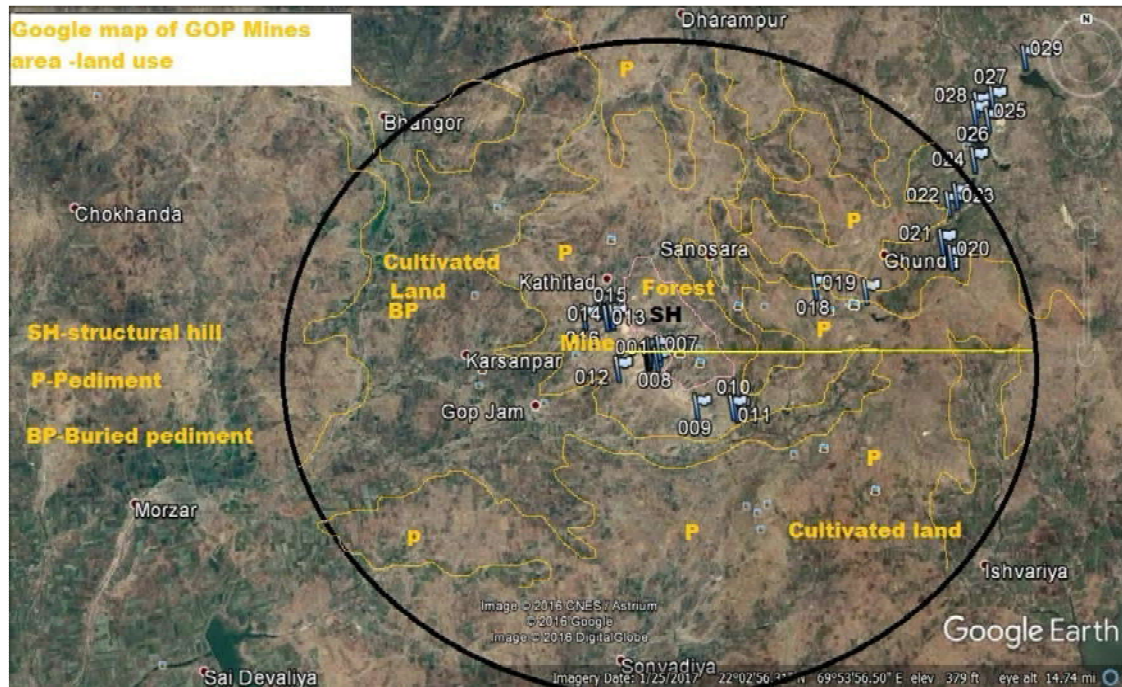


Fig-3 Google map of Gop Mines landforms& Land use

The 10 km area surrounding the mines is unique coastal upland with mining and agriculture. The drainage is few and also there are few ponds and other surface water bodies with barren land surrounding the hillock .

5.5 GEOLOGY

Regional Geology

The miliolitic limestone deposit in the leasehold area at Gop occurs in the valleys and also along hill slope and well extending on the low flat ground Gop Limestone deposit occurs along the southern slopes of Gop hill ranges trending in an east west direction. The prominent Gop hill ranges are occupied by basalt belonging to Deccan traps. Geologically Miliolitic Limestone deposit of Recent age in Saurashtra coastal region is one of the most widespread and important mineral wealth of Gujarat State. The basaltic traps and associated lava differentiates of the

Deccan trap occupying extensive area of Saurashtra region form the oldest basement rocks.

The regional stratigraphic sequence is given in table-3 below:

Table -3 Stratigraphy of GOP area

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 Beds --Unconformity--	Clay and calcareous clay -----
Paleocene to Upper Cretaceous	Deccan Trap	Basalt and its derivatives including the intermediate and acidic rock types like, dacites, granophyres etc.

The rocks of the Miliolite Formation have the appearance of dirty white, friable, oolitic calcarinite. The rocks occur in beds which show a gentle eastward 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 their in shells and faecal 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 hold area of Shree Digvijay Cement Co. Ltd. at Gop Mine is geologically miliolite limestone deposit. The rainwater flows down the slope of the area and flows into the nearby areas. The prominent Gop Hill ranges trending in an East-West direction occupied by Basaltic Traps, forms the oldest basement rock exposed in the area.

The Limestone formation is practically horizontally bedded and general off white to buff in colour. The Limestone is soft, porous and friable in nature but also compact, hard and boundary at places. Thickness varies from 0.5 meters to 6.0 meters. The variation is due to undulating basalt floor. However it is not continuous and separated by basalt rock intrusion at irregular places

On the basis of field observation and their co-relation with excavated pits in the area, the general sequences of Litho units encountered in the Gop mining Lease area is as shown below:-

Local stratigraphic sequences in Gop Lease area

Rock type	Thickness	Formation	Geological age.
Oolitic Miliolite Limestone	0.5 to 6 meters	Miliolite Limestone	Pleistocene to sub Recent
.....Unconformity.....			
Basaltic trap rock altered at top	Thickness not known	Deccan traps	Paleocene to Upper Cretaceous

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 Gop and Zinavari villages is highly compact and rock exposures are seen in most of the forest and waste land region. 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.

6.0 GENERAL HYDROGEOLOGY

All the rock units, found in this region, are capable of yielding water. The yield in different rock types, however, varies with differences in permeability. Most of the wells are dug or open with the exception of some which are dug-cum-bore wells.

Groundwater occurs in water table as well as semi-confined to confined conditions. The water table aquifer occurs from 0 to 20 m or less. Since the saturated thickness of water table aquifer is not consistent it is highly variable laterally. The top clays, fractured limestones and sandstones of Miliolite Limestone and Dwarka formations form the water table aquifer. The sandstones of Dwarka Formation form the semi-confined or confined aquifer. The description of various aquifers is presented below.

WATER IN MILIOLITE ROCKS - Miliolites, comprised of limestone, calcareous sandstone, and shelly sand, are the most important water bearing formations in the area. Groundwater circulating through porous Miliolite limestone through its numerous sink holes is arrested by the impervious beds of the Gaj series. The Miliolites therefore act as good reservoir for shallow groundwater. Water occurs in the Miliolite limestone under water-table conditions. Recharge to this formation, is affected mainly by direct precipitation over these porous formations, and by influent seepage from perennial and other ephemeral streams. Recharge is also affected by applied irrigation water. Dug wells piercing Miliolite limestone are numerous, each irrigating a small plot of land of 2 to 5 acres. The hydraulic gradient is towards the Arabian Sea.

Discharge of groundwater from the infiltration limestones is mainly affected by withdrawal of water for irrigation and other uses by dug-wells or dug cum-bore wells and by evapo-transpiration. Dug-wells in the Miliolite limestone are generally 10 x 10 feet. They yield on an average about 15,000 gallons per day. Most of the wells, using, mechanical pumps for lifting water, are however, capable of yielding 50,000 gallons per day. Such wells are commonly seen between Varaval, Chorwad, Mangrol and Sil and north of Degam and Kolikhara.

The chemical quality of water in Miliolite limestone is generally good. The average chloride content ranges from 150-250 parts per million. The total hardness and bicarbonates are comparatively high. The hardness-range, during winter season, is between 200 and 300 parts per million, while the bicarbonate range is between 300 and 400, during the same period. Close to the sea however, the Salinity increases. Although the chloride content increases considerably, the bicarbonates and hardness do not seem to increase in the same proportion.

WATER IN DWARKA BEDS - Dwarka beds are composed of yellow gypseous clays below and foraminiferal sandy limestone above, water in Dwarka beds occurs mainly under water-table conditions. Recharge to this formation is affected mainly by rain water percolating through its porous formations exposed in the central part of the Okhamandal, comprising the localities of Gadhechi – Kalianpur - Dhrasanvel.

Groundwater moves towards the Arabian Sea in the west and to the Okha Rann in the east. The central part thus forms a groundwater mound. Discharge is affected by withdrawal of water for industrial and irrigational purposes. Some groundwater seepages are seen towards East around Charakla and Tupni in the vicinity of the

Okha Rann. Such seepages and evapo-transpiration appear to contribute much to the discharge of groundwater. Because of the clayey nature of the formations and the narrow stretch of sandy limestone exposed to recharge, the rocks of the Dwarka beds are generally poor aquifers. The average diameter of wells in this rock series is approx. 10 feet.

The chemical quality of water in the rocks of Dwarka series is generally poor. They are high in Chloride content (average range between 500 and 700 parts per million). The bicarbonates range between 400 and 600 parts per million. Close to creeks and to the Rann, the quality of water deteriorates considerably.

WATER IN GAJ SERIES - The rocks of the Gaj series consist of yellow and brown limestone, clays and grits often nearly and gypsiferous. Water in the rocks of this series occurs both under confined and water-table conditions. Recent drilling results have shown that the deeper aquifers yield meager supplies of groundwater; the quality of water is extremely saline. Recharge to this formation is affected by rain water percolating through its granular beds, exposed northward close to Deccan Trap boundary. Since the upper granular beds are immediately underlain by impervious clay beds of fairly good thicknesses, the deeper permeable beds of the Gaj hardly get any recharge. Moreover the area, over which they are exposed to recharge, is restricted only to a few miles (about 2 to 4). The upper granular beds however, get good recharge through rain and through infiltration from perennial and ephemeral streams. The movement of the groundwater is to the south and south-west, towards the Arabian Sea. In the absence of reduced level data, the magnitude of the hydraulic gradient could not be determined.

Discharge of groundwater from the Gaj beds is mainly affected by withdrawal of water for irrigation and other uses. The upper granular bed of the Gaj series, consisting of limestone and grit, is a good aquifer, for shallow groundwater.

WATER IN ALLUVIUM - The alluvial deposits of this region invariably yield highly saline water-unsuitable for irrigation or domestic uses. As such, wells are very rare in this area. Water for domestic use is generally drawn from the nearby stream, if any, or from the village pond. Very few of the wells are used for irrigation purposes. Small scale irrigation is done only locally from wells located on the banks of perennial or ephemeral streams. Because of the clayey nature of alluvium, recharge is poor.

The groundwater development in the area is mainly through dug wells, dug cum bore wells, bore wells and tube wells. The district can be broadly divided into two units. The major area is covered by hard rock formation i.e. Deccan traps. Groundwater development in this area is by dug well and bore wells. The yield ranges from 80-150 lpm in dug wells and 60-300 lpm in bore wells. The soft rock formation in the district has limited resources. The discharge in these formation ranges from 200-300 lpm in dug well zone and 200-400 lpm in tube well zones. The yield potential and suitability of drilling techniques is given below:

Taluka	Wells feasible	Drilling Technique	Depth of Well	Discharge (Liters per minute)
Dwarka, Kalyanpur, Jodiya	Dug Wells	Manual	10-25	200-300
	Tube Wells	Direct Rotary, Reverse Rotary	50-100	200-400
Jamnagar, Khambaliya, Lalpur, Kalawad, Jam Jodhpur, Bhanvad, Dhrol, Kalyanpur	Dug Wells	Manual	10-25	80-150
	Bore Wells	Down the Hole Hammer	100-200	60-300

6.1 GROUNDWATER CONDITION

The ground water condition in and around the Gop mine site covering 10 km radius is studied in detail. The northern part of the site is part of GOP hill while the southern side is mostly barren land with isolated built up area. 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 3-7m bgl in the western side of railway line and eastern side of Gop hill while it is very thin in mines area. Weathered flow contacts extend to greater depths in few places. The permeability of these zones are further intensified by fracturing and jointing. 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.

There are few bore wells and dug wells in Study area which are low yielding due to unfavourable hydrogeological setting. Few wells are inventoried and details are given in table. The wells studied are shown in the Google map in Fig.3 with GPS number and also detailed in Table-1.

Table: Details of Dug wells & Bore wells existing at Mine area

Particulars	Temple Well 1	Temple Well 2	Private Well 3	Gopnath Temple Well 4	Irrigation Well in Ghunda village	Irrigation well
Diameter (m)	3.95	4.2	4.0	4.2	5.5	4.2
Depth reported/ Measured (m)	21.0	23.9	23.0	19.4	19.2	15.5
Water Quality	Good	Good	Good	Good	Good	Good
Static water level M below top of casing	12.6	22.2	21.3	14.8	14.7	10.0
Use	Temple needs at hilltop	Temple needs	Poor yield Horizontal bore exists	Mode rate yield	Irrigation	Irrigation well
Remarks	Low yield and Pumped to well 2	Acts as storage sump for pumping to hill top	0m bore well in land gives 1lps(liter per second)	Used for irrigation & water quality monitoring	Located in Nala side and weathering is 6 m5 HP submergible pump	Fitted with Diesel pump

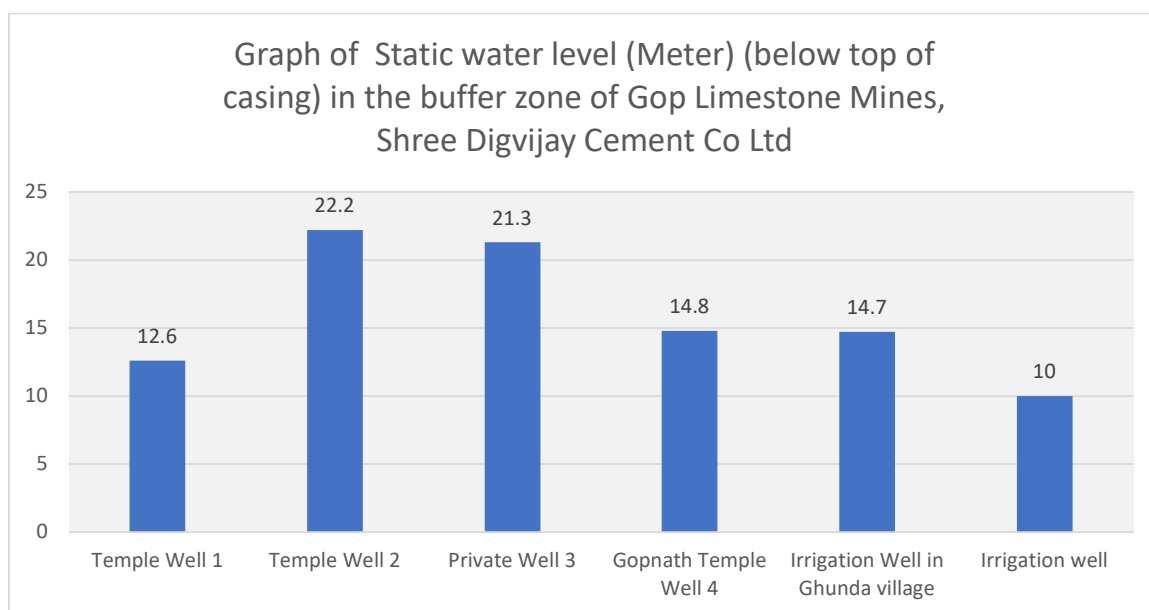
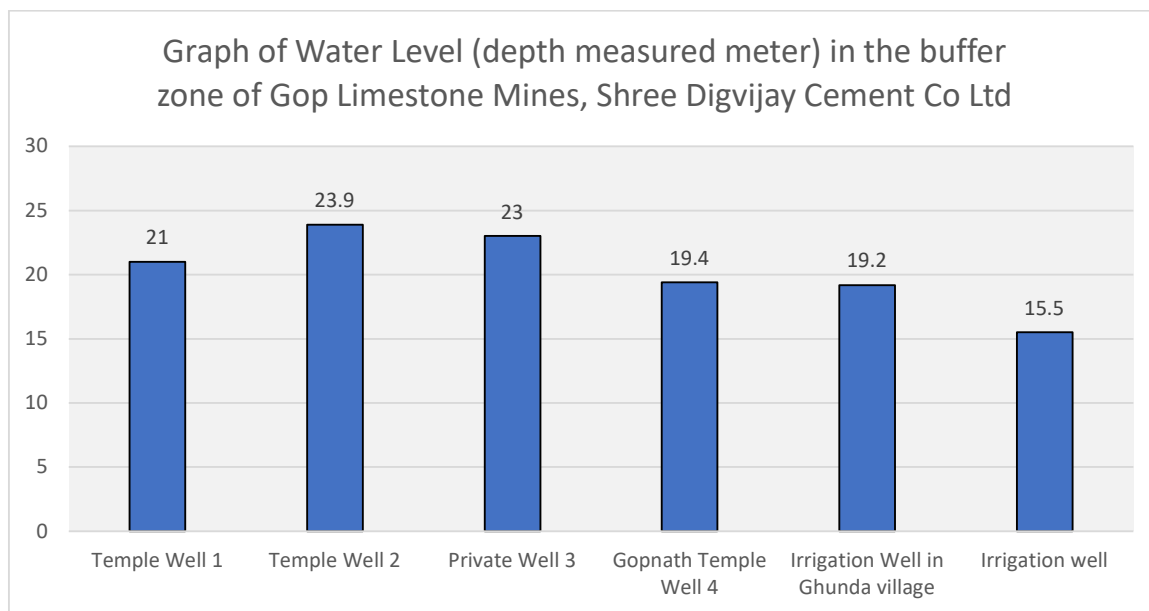
There are few unused and failed bore wells in the study area near the Gop colony and the reported quality deterioration due to sewerage is the reason for disuse of well water.

6.2 SPATIAL AND TEMPORAL VARIATIONS IN WATER LEVELS AND GROUND WATER QUALITY

Groundwater Analysis

S. No	Parameters	Unit	Temple Well 1	Temple Well 2	Private Well 3	Gopnath Temple Well 4	Irrigation Well in Ghunda village	Irrigation well	Specification as per IS 10500- 2012	
									Acceptable Limit	Permissible Limit in the Absence of Alternate Source
1	Colour	Hazen	2.54	3.03	3.02	2.5	2.93	2.12	5	15
2	Turbidity	NTU	0.89	0.81	0.79	0.78	0.81	0.92	1	5
3	pH at 25 ⁰ C	-	7.92	7.93	7.7	7.8	7.8	8	6.5 to 8.5	No Relaxation
4	Conductivity at 25 ⁰ C	µS/cm	719	705	715	712	718	721		
5	Total Dissolved Solids	mg/l	460	428	456	462	474	462	500	2000
6	Total Hardness (as CaCO ₃)	mg/l	116	112	119	122	127	141	200	600
7	Calcium (as Ca ⁺²)	mg/l	26	24	22	25	27	42	75	200
8	Magnesium (as Mg ⁺²)	mg/l	12	13	15	12	14	27	30	100
9	Chloride (as Cl ⁻)	mg/l	80	72	68.75	78	82	108	250	1000
10	Sulphate (as SO ₄ ⁻²)	mg/l	19	18	17	15	19	38	200	400

11	Nitrate (as NO ₃ ⁻)	mg/l	22	25	27	30	32	5.18	45	No Relaxation
12	Fluoride (as F ⁻)	mg/l	0.17	0.13	0.12	0.14	0.19	0.38	1	1.5
13	Total Alkalinity (as CaCO ₃)	mg/l	210	235	198	240	260	258	200	600



Chemical analysis of groundwater samples reveals that there is no considerable variation in chemical composition of water samples collected from different sources (bore wells/dug wells) of nearby areas. Groundwater quality is found to be good in general and suitable for drinking purposes/human consumption as certain major parameters were found within permissible range for drinking water standards as described by Indian Standard: 10500-2012.

7.0 IMPACT OF GROUNDWATER EXTRACTION ON LOCAL GROUNDWATER

Rainwater harvesting/Artificial groundwater recharge is to be done to minimize the undesirable effect on groundwater status. It is necessary that groundwater storage of an area must be arranged by rainwater harvesting so that the existence of any industry does not adversely affect the groundwater situation.

The artificial recharge to groundwater aims at augmentation of groundwater reservoir by modifying the natural movement of surface water utilizing suitable civil construction techniques. Artificial recharge techniques normally addresses to following issues –

- (i) To enhance the sustainable yield in areas where over-development has depleted the aquifer.
- (ii) Conservation and storage of excess surface water for future requirements, since these requirements often change within a season or a period.
- (iii) To improve the quality of existing ground water through dilution.
- (iv) To remove bacteriological and other impurities from sewage and waste water so that water is suitable for re-use.

The basic purpose of artificial recharge of ground water is to restore supplies from aquifers depleted due to excessive groundwater development.

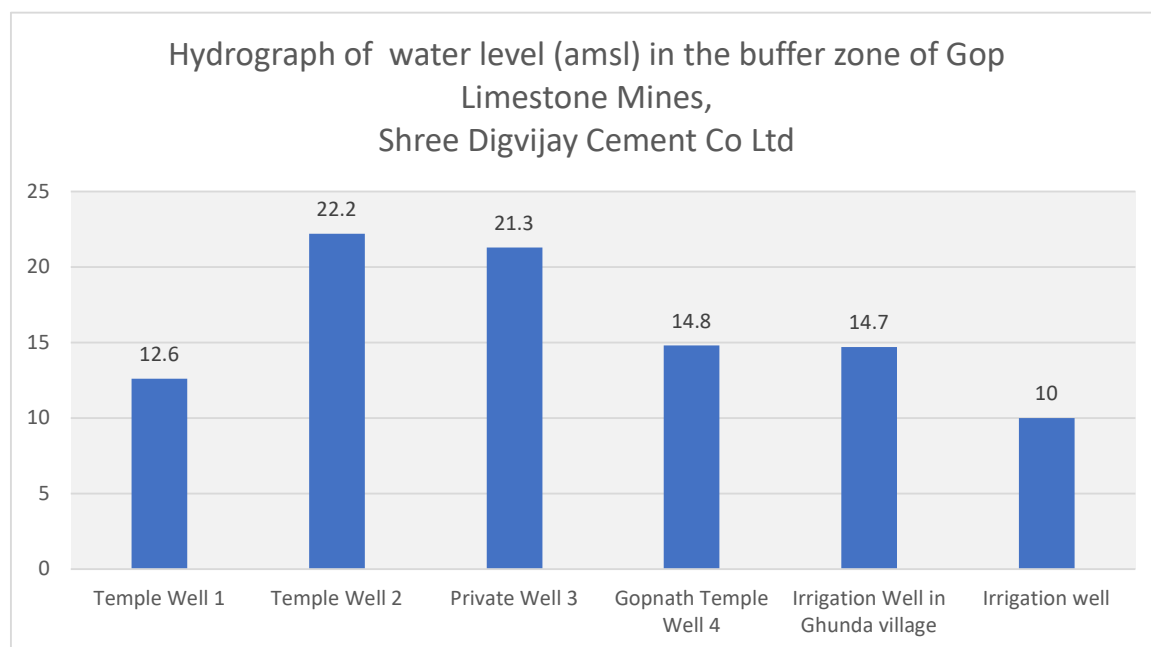
The total fresh water requirement for Limestone mine of Shri Digvijay Cement Company Limited is **30.0 M³/day** which shall be met out from ground water supplies/ mine sump water/accumulated rainwater (as already developed). Although, the zone in which **mine site is falling i.e. Jamjodhpur taluka, coming under Safe Category (CGWB), yet no significant deficit in groundwater storage in nearby areas.** However, rainwater harvesting measures is being practiced for minimizing dependency on groundwater resources as well as betterment and augmentation of natural resources in a long run. Mined out pits of

the lease area is developed as groundwater recharge pits and fulfil the requirement of lessee.

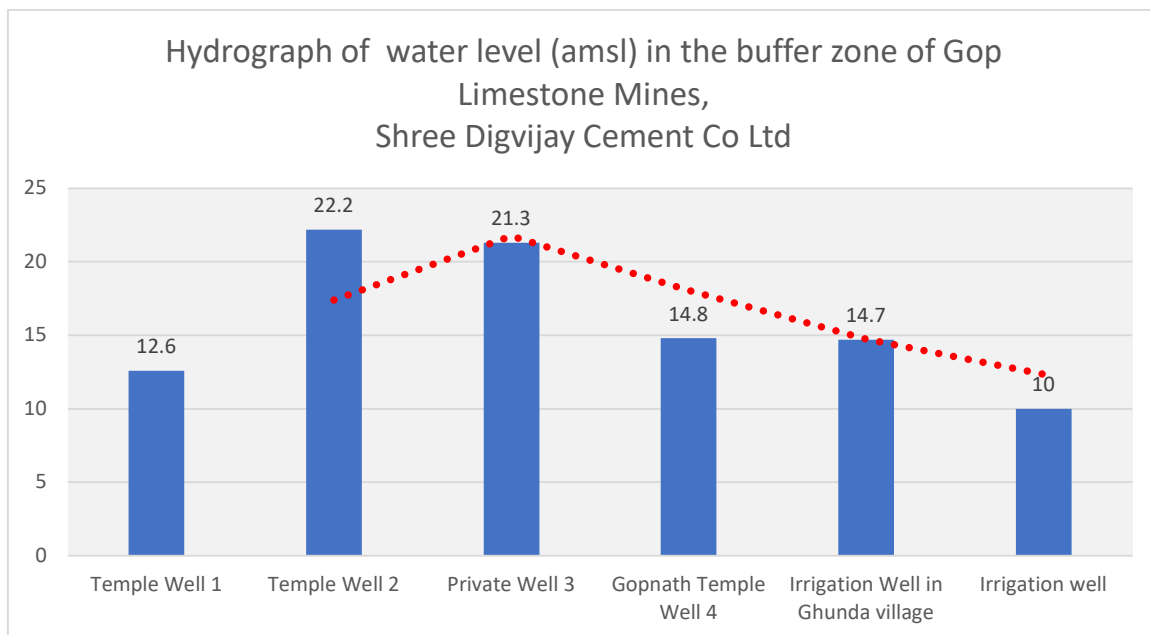
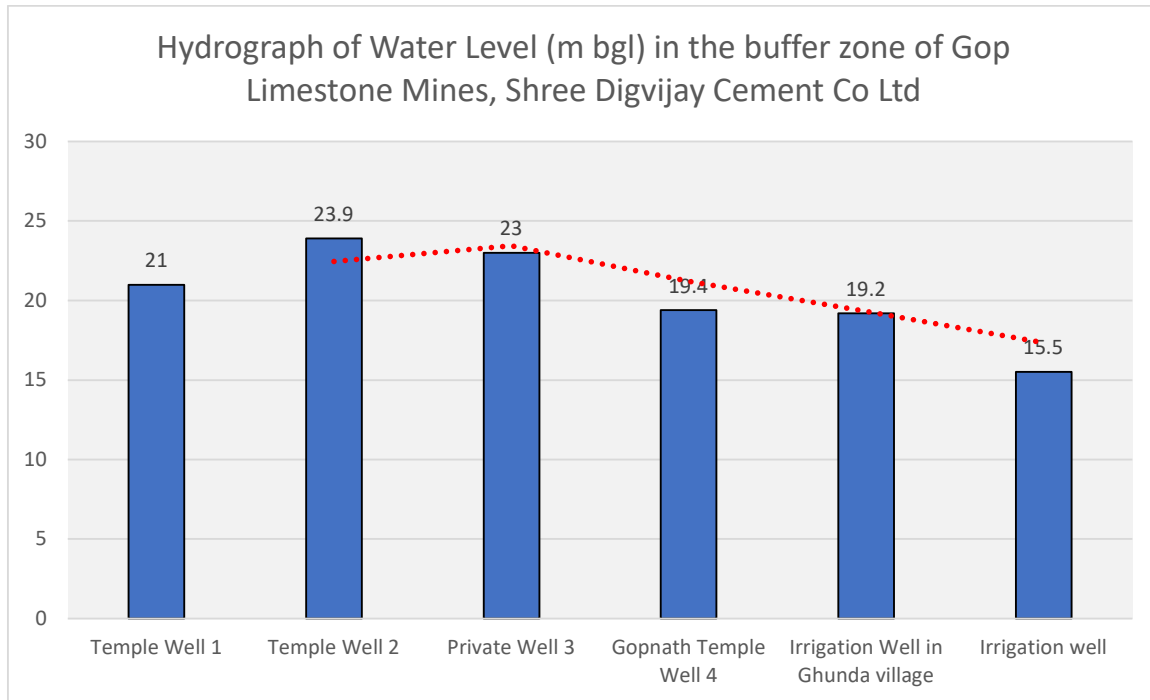
7.1 HYDROGRAPH OF WATER LEVEL/PIEZOMETER IN MONITORING WELLS

Details of Groundwater Level Monitoring in Buffer Zone, Gop Limestone Mines , Shri Digvijay Cement Company Limited, Jamnagar District

S.No.	Location	Northing	Easting	Type of Well	Water Level (m bgl) (m bgl)	Elevation (m amsl)	Water Level (m amsl) (m amsl)
1	Temple Well 1	22.044	69.919	Open Well	100	113	92
2	Temple Well 2	22.045	69.921	Open Well	91	113	89.1
3	Private Well 3	22.033	69.939	Open Well	96	117	94
4	Gopnath Temple Well 4	22.041	69.912	Open Well	149	164	144.6
5	Irrigation Well in Ghunda village	22.055	69.908	Open Well	110.1	124.8	105.6
6	Irrigation well	22.059	69.958	Open Well	165.6	175.6	160.1



7.2 TREND ANALYSIS OF HISTORICAL WATER LEVELS FLOW NET ANALYSIS



7.3 YEAR WISE/BENCH WISE MINE DEWATERING COMPUTATION **AS PER APPROVED MINE PLAN**

Based on groundwater level monitoring and pattern, during five year plan period, 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 for use of Dust Suppression/Plantation/and domestic use.

Year	Volume of Rainwater Accumulated (Cum)	Volume of Groundwater Seepage (Cum)	Total Volume to be Dewatered (Cum)
1st Year	135000	-	135000
2nd Year	137244	-	137244
3rd Year	136481	-	136481
4th Year	135965	-	135965
5th Year	136983	-	136983
Total	681673		681673

Maximum Rainwater Accumulation in Mine Pits = 681673 Cum

8.0 CONCLUSION

The ground water condition in and around the GOP Limestone mines and colony is highly variable from place to place depending on the ground elevation and thickness of overburden and top soil. In the absence of thick top soil in the study area, the runoff from the Hillock and low rainfall results in limited saturation of the shallow aquifer. The ground water development in the Jamjodhpur 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 the mines area and surrounding are giving low yield and not sustainable in summer.

The yield of bore wells of 60 to 75m varies from negligible to 2 liters per second (lps) and dug wells give 10,000 to 30,000 liters per day in summer while it gives about 20,000 to 1 lac liter per day in post monsoon period. The bores are fitted with 1HP submergible pump while the dug wells are pumped with 2 to 5 HP submergible pumps.



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

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 Wastes (Management and Trans boundary Movement) Rules'2016 framed under the Environment (Protection) Act-1986.

And whereas Board has received consolidated consent application inward No 169772 dated.27/12/2019 for the Renewal 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)

M/S SHREE D C C LTD (GOP COMPOSITE MINE) (30566),

PLOT NO: S NO.50/17,

VILL GOPJIVANVARI,

GOP - 361140,

TAL: JAMJODHPUR, DIST: JAMNAGAR.

7 Consent Order No.: AWH-106505 date of Issue: 03/02/2020.

8 The consents shall be valid up to 20/02/2025 for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacture of the following items/products:

Sr. No.	Product	Total Capacity
I	LIME STONE MINING	25,000 MT/Month

Specific Conditions:

- The applicant shall strictly observe & comply with various Environment stipulation mentioned in EC (Environmental Clearance) issued by MoEF vide it's letter no. J-11015 /47/2005 1A.II (M) dated 07/10/2005.

Specific Conditions for mining.**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 of required height with 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.

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 hanking 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.

Conditions for Transportation.

- Industry shall take adequate measures to control emission due to loading, unloading of materials and movement of vehicles.

Conditions for Material stockpiles

- Industry shall take necessary measures to control dust emission due to operation of mining activity. The mine waste management should be as per the approved mine plan.



3 CONDITIONS UNDER WATER ACT 1974:

- 3.1. Source of water: - Tankers.
- 3.2. The quantity of the fresh water consumption for industrial purpose shall not exceed 10,000 Lit/Day.
- 3.3. The quantity of the fresh water consumption for domestic purpose shall not exceed 20,000 Lit/Day.
- 3.4. There shall be no generation of industrial effluent from the manufacture process & other ancillary industrial operations.
- 3.5. The quantity of the domestic waste water (sewage) shall not exceed 9000 Lit/Day.
- 3.6. Sewage shall be disposed of through Septic tank/soak pit system.

4 CONDITIONS UNDER AIR ACT 1981:

- 4.1. There shall be no use of fuel and hence there shall be no any flue gases emission.
- 4.2. The industry shall install & operate air pollution control system in order to control the air pollution due to mining activities and operation of vehicles.
- 4.3. (a) Water sprinkling system.
- 4.4. (b) Adequate plantation should be carried out in and around the mining area.
- 4.5. (c) Transportation of product material shall be carried out in closed/covered vehicle.
- 4.6. (d) Mining shall be carried out as per approval of Indian Bureau of mines.
- 4.7. Ambient air quality within the premises of the industry shall conform to the following standards.

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

- 4.8. 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.
- 4.9. 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 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- 4.10. All measures for the control of environment pollution shall be provided before commencing production.

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. SHREE D C C LTD (GOP COMPOSITE MINE) (30566) is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at PLOT NO: S NO.50/17, VILL GOPJIVANVARI, GOP - 361140, TAL: JAMJODHPUR, DIST: JAMNAGAR.

Sr. No.	Waste	Schedule	Total Quantity MT/Year	Facility
1	Used or Spent Oil	I-5.1	0.150	Collection, Storage, Transportation and reuse or selling to actual re-refiner.



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5.2. The authorization shall be valid up to 20/02/2025.

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.

5.5. TERMS AND CONDITIONS OF AUTHORISATION

5.5.1 The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.

5.5.2 The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.

5.5.3 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.

5.5.4 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.

5.5.5 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;

5.5.6 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"

5.5.7 It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.

5.5.8 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.

5.5.9 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.

5.5.10 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

5.5.11 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.

5.5.12 The importer or exporter shall bear the cost of import or export and mitigation of damages if any.

5.5.13 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.

5.5.14 The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.

5.5.15 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.

5.5.16 In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.

5.5.17 As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.

5.5.18 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.

5.5.19 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.

5.5.20 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.

5.5.21 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.

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation



5.5.22 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.

6 GENERAL CONDITIONS:-

- 6.1 Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- 6.2 Applicant shall also comply with the general conditions given in annexure I.
- 6.3 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.
- 6.4 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.
- 6.5 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.
- 6.6 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.
- 6.7 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.
- 6.8 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.
- 6.9 Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme order in w.p. no. 657 of 1995 dated 14th October 2003.
- 6.10 If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property in that case they are obliged to pay the compensation as determined by the competent authority.

For and on behalf of
Gujarat Pollution Control Board

DY. CHIEF ENVIRONMENT ENGINEER

NO: PC/ CCA-JMN-46(3)/ID-30566/ 559157
Issued To:
M/S. SHREE D C C LTD (GOP COMPOSITE MINE) (30566),
PLOT NO: S NO.50/17,
VILL GOPJIVANVARI,
GOP - 361140,
TAL: JAMJODHPUR, DIST: JAMNAGAR.

Date:- 20.04.2020



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Environment Auditing & Consultancy Service

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

Ref. No. :792/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	1.10	1.20	1.16	1.15
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	21.9	23.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.8	49.2	48.8	49.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.0	15.8	14.5	15.1
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	19.6	20.5	21.2	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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 Ashish
Analyst



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Ref. No. :793/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	1.12	1.18	1.15	1.15
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	22.7	21.8	22.2	22.2
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	46.7	48.2	47.6	47.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	12.9	14.8	13.6	13.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.6	19.2	18.8	19.9

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. : 8052/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : OCTOBER 2022 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer 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	28/10/2022	28/10/2022
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	1.20	1.18	1.20	1.19
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	21.6	20.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	46.5	47.2	48.3	47.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.9	14.6	13.8	14.8
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 100 & PM 2.5 Sampler AAS 127
Calibrate Done on : 27/12/2021

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Ref. No. :8053/10/2022-23

Date: 31/10/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : OCTOBER 2022 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. 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	28/10/2022	28/10/2022
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	1.10	1.20	1.10	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	22.7	20.9	21.6	21.7
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.6	47.2	49.7	48.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.3	15.6	13.8	14.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	19.6	18.3	20.4	19.0

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. :892/11/2022-23

Date:01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	1.11	1.12	1.15	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	25.4	24.6	23.3	24.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	46.6	48.8	47.2	47.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	13.9	14.4	12.6	13.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	19.2	21.4	23.6	21.4

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. :893/11/2022-23

Date:01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	1.14	1.12	1.16	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	23.2	24.4	21.6	23.1
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.2	49.9	46.6	48.2
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	13.4	15.1	14.2	14.2
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	20.6	21.9

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. : 9052/11/2022-23

Date: 01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : NOVEMBER 2022 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer 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	---	29/11/2022	29/11/2022	29/11/2022	29/11/2022
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	1.10	1.16	1.10	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	20.7	21.6	22.3	21.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.2	46.5	47.1	47.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.4	15.3	14.6	15.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.5	20.9	22.7	22.4

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

Royal Environment Auditing & Consultancy Service

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Ref. No. : 9053/11/2022-23

Date: 01/12/2022

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : NOVEMBER 2022 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. 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	---	29/11/2022	29/11/2022	29/11/2022	29/11/2022
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	1.10	1.20	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	21.6	22.8	20.7	21.7
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	47.8	48.2	46.9	47.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	13.8	14.9	12.3	13.7
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.4	19.8	18.1	19.4

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. :992/12/2022-23

Date:03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	1.15	1.14	1.12	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	25.7	24.1	25.4
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.7	50.2	52.6	50.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.3	15.5	11.6	13.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	20.1	23.2	24.8	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 : 27/12/2021

Royal Environment Auditing & Consultancy Service Rajkot



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Ref. No. :993/12/2022-23

Date:03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	1.10	1.14	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	27.6	25.4	26.2	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	52.8	49.7	50.9
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.4	17.2	16.5	16.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.5	23.8	21.7	23.3

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. :1052/12/2022-23

Date: 03/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : DECEMBER 2022 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer 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	---	29/12/2022	29/12/2022	29/12/2022	29/12/2022
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	1.10	1.16	1.10	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	20.7	21.6	22.3	21.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.2	46.5	47.1	47.3
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.4	15.3	14.6	15.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.5	20.9	22.7	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 : 27/12/2021

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Date: 03/01/2023

Ref. No. :1053/12/2022-23

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : DECEMBER 2022 (2nd time)

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

Sr. No.	Particulars	Unit	Buffer Zone = 1. 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	---	29/12/2022	29/12/2022	29/12/2022	29/12/2022
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	1.10	1.20	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	28.2	29.5	17.3	25.0
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.7	53.2	50.8	52.2
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.4	18.7	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	24.5	22.5	21.3	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. 192/01/2022-23

Date: 30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	09/01/2023	09/01/2023
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	1.11	1.12	1.14	1.12
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	27.3	26.5	25.7	26.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	47.9	52.7	51.3	50.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.6	16.7	12.4	14.9
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	21.3	24.5	25.6	23.8

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. :193/01/2022-23

Date:30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	09/01/2023	09/01/2023
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	1.12	1.14	1.16	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	28.2	26.7	28.3	27.7
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.8	54.3	50.6	51.2
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	14.4	16.8	15.2	15.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.5	22.1	20.9	22.2

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. : 2052/01/2022-23

Date: 30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : JANUARY 2023 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer 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	----	25/01/2023	25/01/2023	25/01/2023	25/01/2023
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	1.12	1.18	1.14	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	21.8	22.7	23.4	22.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.3	48.6	49.4	49.4
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.5	14.7	13.2	14.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.6	21.8	23.8	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 : 26/12/2022

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Ref. No. 2053/01/2022-23

Date: 30/01/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : JANUARY 2023 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. 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	---	25/01/2023	25/01/2023	25/01/2023	25/01/2023
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	1.12	1.10	1.20	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	27.3	28.7	16.4	24.1
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	53.8	54.3	51.0	53.0
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	17.5	19.8	16.4	17.9
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	25.4	23.7	22.5	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. :293/02/2022-23

Date:01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	09/02/2023	09/02/2023
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	1.20	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	27.3	25.6	28.1	27.0
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	49.5	55.3	52.4	52.4
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	15.6	17.8	16.5	16.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	24.6	23.2	21.4	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. :292/02/2022-23

Date:01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	09/02/2023	09/02/2023
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	1.14	1.16	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	28.4	27.6	26.8	27.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	48.8	53.8	52.4	51.7
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.7	17.8	14.2	16.2
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	23.4	25.6	26.9	25.3

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. :3052/02/2022-23

Date: 01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : FEBRUARY 2023 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer 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	---	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	1.16	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	22.7	23.8	24.5	23.7
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	51.4	49.2	50.9	50.5
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.4	15.3	14.7	15.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	25.8	22.7	24.1	24.2

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. :3053/02/2022-23

Date: 01/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : FEBRUARY 2023 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. 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	---	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	1.14	1.20	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	28.4	29.8	18.3	25.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	54.9	55.6	52.2	54.2
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.4	20.7	19.2	19.4
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	26.3	24.5	23.8	24.9

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. :392/03/2022-23

Date:21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	02/03/2023	02/03/2023
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	1.20	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	30.8	29.6	28.4	29.6
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	50.3	55.9	54.6	53.6
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	19.7	21.5	18.2	19.8
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	25.4	26.8	27.6	26.6

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. :393/03/2022-23

Date:21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP 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. 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	02/03/2023	02/03/2023
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	1.16	1.18	1.20	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	30.5	28.2	32.7	30.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	52.3	58.6	54.8	55.2
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	16.4	20.9	18.5	18.6
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	26.9	25.4	23.2	25.2

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. :4052/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : MARCH 2023 (2nd time)

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

Sr. No.	Particulars	Unit	Buffer 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	---	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	1.10	1.20	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	26.8	28.4	30.2	28.5
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	53.5	51.3	54.1	53.0
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	18.2	17.4	16.8	17.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	26.9	24.8	26.2	26.0

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. :4053/03/2022-23

Date: 21/03/2023

REPORT OF AMBIENT AIR QUALITY MONITORING : Buffer Zone GOP MINES : MARCH 2023 (2nd time)

Name of company : Shree Digvijay Cement Company Limited

Digvijaygram - 361 140.

District : Jamnagar.

Sr. No.	Particulars	Unit	Buffer Zone = 1. 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	—	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	1.16	1.10	1.20	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	30.5	32.9	29.4	30.9
09.	Permissible Limits of PM 10	µg/m ³	100	100	100	100
10.	Measured Concentration of PM 10	µg/m ³	56.2	58.7	55.4	56.8
11.	Permissible Limits of SO ₂	µg/m ³	80	80	80	80
12.	Measured Concentration of SO ₂	µg/m ³	19.3	21.8	20.4	20.5
13.	Permissible Limits of NO ₂	µg/m ³	80	80	80	80
14.	Measured Concentration of NO ₂	µg/m ³	27.4	25.6	24.9	26.0

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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Annexure-VIII

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

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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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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)	
Time of sampling		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

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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

		Limit in dB(A) Leq.	
Area Code	Category of Area / Zone	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

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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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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

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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

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Annexure-IX

GOP (COMPOSITE) LIMESTONE MINES
YEARLY EXPENDITURE STATEMENT
FOR ENVIRONMENT MANAGEMENT
(For the Period of October 2022 to March 2023)

Sr. No.	WORK	Grand Total
1	Ambient Air & Noise Monitoring	38880
2	Water Sprinkling on haul roads	44400
3	Security and Maintenance	157200
	Total	240480

Signature

Dharmendra Kumar Bansal

(Manager Mines)

No.J-11015/47/2005-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi - 110 003

Dated: 7th October 2005

To
Shri Chain Singh Jasol,
Vice-President (CE. C&L),
M/s Shree Digvijay Cement Co. Ltd,
Digvijaygram - 361140,
Jamnagar, GUJARAT

Subject: Gop (Composite) Captive Limestone mine of M/s Shree Digvijay cement Co. Ltd. at villages Gop/Jeenawari, Taluka Jamjodhpur, District Jamnagar, Gujarat- Application for environmental clearance- reg.

Sir,

This has reference to your letter No. SDCCL/RM/ECA/5MP/GO/2005/02 dated 28.02.2005 enclosing your application and subsequent letter dated 10.05.2005 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for expansion in production of the existing Gop Limestone mine over a total mining lease area of **277.215 ha**, which is a wasteland. There are no ecologically sensitive areas such as National Parks/Wildlife Sanctuaries/Biosphere Reserves found within 10 km of mine site. The project does not involve displacement of populations. Of the total lease area, area to be excavated is 111.88 ha, 1.00 ha is for infrastructure, 4.0 ha is for roads, 2.0 ha is for green belt, 2.60 ha is for township area, and 149.73 ha is undisturbed area. Mining will be Opencast by mechanised method and involves drilling & blasting. The project is for production of limestone at an annual targeted capacity of **2.5,000 tonnes per annum (TPA) (0.25 million TPA)**. Mineral transportation of 200 TPD of limestone is by road for a distance of 1.5 km. Water table is in the range of 17-20 m below ground level (bgl) (pre-monsoon) and 6-12m bgl (post-monsoon). Water requirement of 30 m³/day will be met from well water supplied by local villagers. No waste generation and hence no OB dumps and backfilling proposed. IBM has approved the Mining Plan on 23.06.2004. No Objection Certificate has been obtained from the State Pollution Control Board on 08.07.2004. Public Hearing was held on 09.10.2003. Life of the mine at the rated capacity is 20 years. Capital cost of the project is **Rs 13.04 lakhs**.

2.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned Gop (Composite) Captive Limestone mine of M/s Shree Digvijay cement Co. Ltd. for expansion in production to a maximum of 0.25 million TPA involving lease area of **277.215 ha** under the provisions of the Environmental Impact Assessment Notification, 1994 and subsequent amendments thereto subject to compliance of the terms and conditions mentioned below:

A. Specific conditions

- (i) The production capacity of this mine shall not exceed 0.25 MTPA with capping of production of limestone to 2.2 MTPA from all 5 mines, namely Gop, Pachtar, Mokahana, Chorbedi and Bhogat Limestone mines put together subject to their obtaining environmental clearance individually.

- (ii) The recommendations of the Expert Committee on Historical Religious Monuments constituted under the District Collector shall be complied with to ensure that the mining does not have adverse impacts on the Sun temple and Gop Nath temple. The compliance report shall be submitted regularly to the MOEF Regional Office, Bhopal and to the GSPCB.
- (iii) A study to be carried out by a specialised agency such as the CMRI shall be commissioned to determine the ground vibrations during blasting operations and the precautionary and safety measures recommended shall be implemented for the safety of the monuments located in the buffer zone.
- (iv) Timing of primary blasting shall be stipulated and specified. The notice displaying such timing shall be displayed in local language for the benefit of local population.
- (v) Drainage plan in mining area shall be so designed to make most effective use of water resources.
- (vi) No river water should be used for water spraying in the mining area and on the Katcha roads.
- (vii) First Aid facilities shall be provided at convenient locations. Emergency and First Aid Training shall be imparted to all the operating staff at all levels and to local affected villagers.
- (viii) Socioeconomic plan should be prepared in consultation with local community and the plan should be implemented in a phased manner and published at local level in Gram Sabha.
- (ix) 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 desilted 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.
- (x) Drills should be wet operated or with dust extractors.
- (xi) Controlled blasting should be practiced and only between 12 Noon and 2 PM. The mitigative measures for control of ground vibrations to arrest the fly rocks and boulders should be implemented. No blasting shall be carried out within 500m distance from Gop Nath Temple and 1km distance from the Sun Temple.
- (xii) Plantation shall be done over the lease area includes a green belt of adequate width around the ML area, along roads by planting suitable native species in consultation with the local DFO/Agriculture Department. The density of trees should be around 1000 plants per hectare.
- (xiii) Ground water shall not be encountered during mining operations. Prior approval of the MOEF and CGWA shall be taken for mining below ground water.

- (xix) Rainwater harvesting measures shall be taken up in consultation with the Regional Office, CGWB to recharge and augment groundwater in the area.
- (xx) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.
- (xxi) A Consent to Operate shall be obtained from the SPCB before expanding mining operations.

B. General conditions

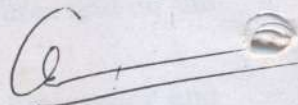
- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of limestone and waste should be made.
- (iii) Data on ambient air quality (RPM and SPM) should be regularly submitted once a year to the Ministry including its Regional office (CZ) at Lucknow and the Rajasthan State Pollution Control Board / Central Pollution Control Board once in six months.
- (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.
- (v) Adequate measures should be taken for control of noise levels in the work environment.
- (vi) Industrial waste water, if any, should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time.
- (vii) Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- (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 Lucknow (CZ).
- (ix) The Regional Office (CZ) of this Ministry located at Lucknow 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.
- (ix) 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.
- (x) 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.

- (xi) The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the 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 & Forests at <http://envfor.nic.in>.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance.

5. The above conditions will be enforced, inter alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(DR.T.CHANDINI)
ADDITIONAL DIRECTOR

Copy to:

1. Secretary, Department of Environment, Government of Gujarat, Gandhinagar.
2. Secretary, Industries & Mines Department, Government of Gujarat, Sachivalaya, Gandhinagar, Gujarat.
3. Chief Conservator of Forests, Regional Office (WZ), Ministry of Environment and Forests, Bhopal.
4. Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
5. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
6. Controller General, Indian Bureau of Mines, Indira Bhawan, Civil Lines, Nagpur.
7. Chairman, Gujarat State Pollution Control Board, Sector 10-A, Gandhinagar-382043.
8. Member-Secretary, Central Ground Water Authority, A3 W-3 Curzon Road Barracks, Kasturba Gandhi Marg, New Delhi.
9. District Collector, District Jamnagar, Government of Gujarat.
10. Monitoring File. 11. Guard File. 12. Record File.



REGISTERED A/D

GPCB-ID-30566

GOP/GPCB/Form -V/C/352/3375

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 Gop (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 Gop (Composite) Limestone mines.

We hope that you shall find the same in order.

Thanking you,

Yours faithfully,

For Shree Digvijay Cement Co. Ltd.

Dharmendra Kumar Bansal

(Manager Mine)

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.
GOP (Composite) Limestone Mine
Survey No.50 /17, Village-Gop/Jeenavari,
Taluka-Jamjodhpur, Distt. - Jamnagar
(Gujarat)**
2. Industry Category :
Primary: (STC Code) : **Mining Industry**
Secondary: (SIC Code)
3. Production Capacity : **0.25 Million TPA**
4. Year of Establishment : **01.06.1978 & 17.06.86**
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)	:	19.95 KL
Dust Suppression	:	2.93 KL
Plantation	:	0.49 KL

(*) P. S. 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	0	0
2	Ammonium nitrate		0	0
3	Detonating Fuse		0	0
4	Safety Fuse		0	0
5	Detonator		0	0
6	Cord Relays		0	0
7	HSD		77400 L	86700 L
8	Lubricant oil		394 L	2095 L
9	Grease		97.5 Kg	493 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	9 KL goes to ground through septic tank and soak pit,		
(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)	40 Litres	100 Litres
(b)	From pollution control facilities	-	-

PART – E

(Solid Wastes)

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

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 certain extent. However, as it is absolutely necessary to have a 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.

Following control measures were contemplated for reducing dust in mines.

1. Dust suppressed on haul road by water sprinkling.
2. Fumes and smoke emissions from HEMM controlled by regular maintenance and timely overhaul of engines.
3. Tarpaulin covering on the transporting vehicle before leaving the mine site.
4. AAQ monitoring is done on regular basis. Contract awarded to Royal Environment Auditing and consultancy Service, Rajkot and reports are submitted to GPCB, Gandhinagar, MOEF, New Delhi and Regional Office of MOEF.
- 5.

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: Dharmendra Kumar Bansal
Designation: Manager (Mines)
Address: Shree Digvijay Cement Co. Ltd.
P.O. Digvijaygram 361140
(Via) Jamnagar, Gujarat