

**REGD. A/D**

**ACL/EMD/F-16/2017/**

**29.11.2017**

**The Director (s),**  
Ministry of Environment & Forest (MoEF),  
Regional Office, Western Region,  
"Kendriya Paryavaran Bhavan"  
Link Road No.3, Ravi Shankar Nagar,  
Bhopal – 462016, (M.P.)

**Sub. :** Half Yearly Compliance Status Report of Environmental Clearance of Singar Limestone Mines.

**Ref. :** Environmental Clearance No. J-11015/273/2007- IA.II (M) dated 12.05.2010

Sir,

We are pleased to submit herewith half yearly compliance status report (i.e. for the period of April'17 to September'17) of Environmental Clearance No. J-11015/273/2007-IA.II (M) dated 12.05.2010 granted by MoEF to **Singsar Limestone Mines** of Ambuja Cements Ltd., located at village – Singar, Thordi & Barevala of Taluka - Sutrapada, District – Gir Somnath (Gujarat). We are also enclosing here with CD containing soft copy of the same.

In case of further clarification/information require, we shall be please to provide the same.

Thanking you,

Yours Faithfully,  
For **Ambuja Cements Ltd.**

**Dr. Anand Rai**  
**Head-Environment**

Encl.: As above.

Copy to:

- 1) Central Pollution Control Board  
Privesh Bhavan, Atmajyoti Ashram Rd,  
Opp. VMC Ward Office No. 10, Subhanpura,  
Vadodara – 390023 (Gujarat)

2) Member Secretary,  
Gujarat Pollution Control Board,  
Paryavaran Bhavan, Sector-10-A, Gandhinagar-382010

3) Regional Officer  
Gujarat Pollution Control Board,  
Opp. Saint Anne's Church Station Road,  
Junagadh.

MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS  
Ministry of Environment & Forests  
Western Regional Office (W), Bhopal.

Monitoring Report  
Part-I  
**DATA SHEET**

Date: 29.11.2017

- 01 Project type : Open Cast (Limestone) Mining
- 02 Name of the project : Singsar Limestone Mining Project
- 03 Clearance letter(s) / OM no. and date : J-11015/273/2007-IA.II (M),  
Dated 12.5.2010
- 04 Location :
- a) District(s) : Gir Somnath
- b) State(s) : Gujarat
- c) Latitude : 20°47'38" to 20°50'01" N
- d) Longitude : 70°35'53" to 70°38'20" E
- 05 Address for correspondence :
- a) Address of concerned : Sh. Arun Kumar Sharma  
Project Chief Engineer (with : Sr. Vice President ( Mines ),  
pincode & telephone / telex : Ambuja Cements Ltd  
/ fax numbers). PO :Ambujanagar , Taluka - Kodinar  
District : Gir Somnath (Gujarat)  
Pin. : 362715  
Tel: 02795-237011  
Fax: 02795 - 220328/232032
- b) Address of Executive : Sh. Kumar Rajan  
Project Engineer / Manager DGM (Mines)  
(with pincode / fax Ambuja Cements Ltd  
numbers. PO : Ambujanagar - 362715  
Taluka : Kodinar,  
District: Gir Somnath (Gujarat).  
Tel: 02795 - 232064  
Fax: 02795 - 220328/232032

- 06 Salient features
- a) of the project : Singsar Limestone Mining Lease is located at a distance of about 5.8 Kms from the Cement Plants at Ambujanagar.
- b) of the environmental management plans :
- ❖ Mining operations would not involve drilling & blasting. Limestone excavation will be carried out by environment friendly Surface Miner supported by ripper dozer.
  - ❖ Regular monitoring of environmental parameters is undertaken as per the norms of MoEF and IBM.
  - ❖ Preventive maintenance of deployed HEMM is undertaken regularly.
  - ❖ Dust suppression by water sprinkling on haul roads are being done regularly in working area.
  - ❖ Afforestation / Green belt development will be done along haul road and lease periphery.
  - ❖ Mined-out areas will be converted to pasture land & also converted into water reservoir.
  - ❖ Rural Development and Socio-economic activities will be undertaken in the project buffer zone area.
- 07 Break up of the project area.
- a) Submergence area (forest & non-forest) : Nil
- b) Others : 728.1156 ha  
(Government waste land, Gauchar land & Private land)
- 08 Break up of the project affected population with :

enumeration of those losing houses / dwelling units only agricultural land only, both dwelling units & agricultural land & landless labourers / artisan.

- a) SC, ST / Adivasis : Not applicable
- b) Others : Not applicable

(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures if a survey is carried out give details & year of survey)

- 09 Financial details : Project Cost : Rs.103 Crore  
(year of price reference 2008)
- Project cost as originally planned and subsequent revised estimates and the year of price reference. Limestone raised from the mining lease area will partially supplement the requirements of existing cement units. As it is a captive mine for the Cement Plant, no separate project costing was prepared.
- a) Allocation made for environmental management plans with item wise and year wise break-up. : **Capital Investment**  
Capital investment for environment 57.08 Lakhs  
protection measures
- Recurring Expenditure per year***
- |                                 |   |                       |
|---------------------------------|---|-----------------------|
| Plantation                      | - | 3.00 Lakhs            |
| Environmental Monitoring        | - | 2.00 Lakhs            |
| Pollution Control - Rural       |   |                       |
| Development                     | - | 5.0 Lakhs             |
| <b>Total / Year (Recurring)</b> |   | <b>Rs.15.00 Lakhs</b> |
- b) Benefit cost ratio / Internal rate of return and the year of assessment. : No separate assessment made, as it is an integral part of the raw material source for the cement plants at Ambujanagar.
- c) Whether (c) includes the cost of environmental management as shown in the above. : Yes

- d) Actual expenditure incurred : 18.65 Crore  
on the project so far.
  - e) Actual expenditure incurred : 2.46 Crore  
on the environmental  
management plans so far.
- 10 Forest land requirement. :
- a) The status of approval for : Not Applicable, The project area does not  
diversion of forest land for comprise of any forest land.  
non-forestry use
  - b) The status of clearing : Not applicable.  
felling
  - c) The status of : Not applicable.  
compensatory  
afforestation, if any
  - d) Comments on the viability : Not applicable.  
& sustainability of  
compensatory afforestation  
programme in the light of  
actual field experience so  
far.
- 11 The status of clear felling in : Not applicable  
non-forest areas (such as  
submergence area of  
reservoir, approach roads), if  
any with quantitative  
information.
- 12 Status of construction
- a) Date of commencement : February 2012  
(Actual and / or **planned**)
  - b) Date of completion (Actual : Not applicable. As it is ongoing captive  
and / or **planned**). mining Project for cement plant.
- 13 Reasons for the delay if the : Not applicable.  
project is yet to start. :

- 14 Dates of site visits :
- a) The dates on which the project was monitored by the Regional Office on previous occasions, if any. : 12.10.10 to 13.10.10 by Dr. A. Mehrotra Regional Office, Bhopal
- b) Date of site visit for this monitoring report : 12.10.10 to 13.10.10
- 15 Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits). : Half yearly compliance status report is being regularly submitted and last submission was on 30.05.2017 vide letter no.ACL/EMD/F-16/2017.

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**Compliance Status of Environment Clearance issued to Singar Limestone Mines  
Vide MoEF Letter No: J-11015/273/2007-IA.II (M) dated 12th May, 2010**

S No.	Condition	Compliance Status
(i)	The project proponent shall obtain consent to establish and consent to operate from the Gujarat State Pollution Control Board and effectively implement all the conditions stipulated therein.	<ul style="list-style-type: none"> <li>Consent to establish &amp; Consent to operate has been granted by Gujarat Pollution Control Board vide CTE No. 39140 dated 29.10.2010, vide letter no. GPCB/ID29262/CTE/CCA-NG/288/62147 &amp; CCA No. AWH-73145 dated 16.09.2015, vide letter no. GPCB/ID-29262/CCA/JNG-288(2)/332533 respectively. All the stipulated conditions are being effectively complied.</li> </ul>
(ii)	The environmental clearance is subject to approval of the State Land use Department, Government of Gujarat for diversion of agricultural land for non-agricultural use.	<ul style="list-style-type: none"> <li>Point noted and being complied. The revenue land on which mining is done is being converted in to non-agricultural use from State Land use dept. Government of Gujarat.</li> </ul>
(iii)	Necessary prior permission from the competent authority as may be applicable for use of grazing land for mining purpose shall be obtained.	<ul style="list-style-type: none"> <li>Industries and Mines Dept. Govt. of Gujarat have granted lease grant order vide order no. MCR-112000-CHH-1 dated 18.10.2011.</li> </ul>
(iv)	The project proponent shall develop alternate grazing land/fodder plots in the non-mineralized area for use of grazing land.	<ul style="list-style-type: none"> <li>Pasture land will be developed outside mine lease area, on getting clearance from various authorities.</li> </ul>
(v)	The mine working shall be restricted to one meter above pre-monsoon ground water table level and without resorting to any pumping of groundwater.	<ul style="list-style-type: none"> <li>Mining is being done above pre monsoon ground water table. No pumping of ground water during mining.</li> </ul>
(vi)	No pumping of groundwater shall be done for any purpose in the mine lease area.	<ul style="list-style-type: none"> <li>No pumping of ground water in the mine lease area.</li> </ul>
(vii)	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.	<ul style="list-style-type: none"> <li>At no stage of mining natural water course will be obstructed by mining activity.</li> </ul>
(viii)	The project proponent shall effectively implement the conditions made by the Chief Wildlife Warden and Principal Chief Conservator of Forests, Gandhinagar vide their letter No.WLP/325/32/A/141-42/2009-10 dated 27.05.2009.	<p>Compliance Status is as under.</p> <ul style="list-style-type: none"> <li>Mining is being done using eco-friendly, blast free Surface Miner Machine.</li> <li>Regular water sprinkling is being done in mining area and roads.</li> <li>Parameter of air, water and land is being maintained within prescribed norms.</li> <li>Green belt will be developed in periphery of lease area with respect to approved mine plan.</li> <li>Appropriate parapet bund will be</li> </ul>



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		<p>created around mining pits.</p> <ul style="list-style-type: none"> <li>• Mines will be suitably reclaimed.</li> </ul>
(ix)	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation plantation and green belt development.	<ul style="list-style-type: none"> <li>• Top soil is being stacked separately and systematically in the earmarked site with appropriate measures. Road side bunds are made from poor grade material and Top soil is used for greenbelt development and pasture land development.</li> </ul>
(x)	Catch drains and siltation ponds of appropriate size should be constructed for the working pit to arrest flow of silt and sediment directly into the agricultural fields, rivers and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for the mine pit to prevent run off of water and flow of sediments directly into the agricultural fields rivers and other water bodies and sump capacity should be designed Keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	<ul style="list-style-type: none"> <li>• Catch drains, siltation ponds of appropriate size will be constructed after progressive mining. Garland drains and sedimentation pits will be constructed after progressive mining.</li> </ul>
(xii)	The entire excavated area of 650.94ha left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.	<ul style="list-style-type: none"> <li>• Excavated area will be converted in to water bodies as per approved mining plan from IBM. Total Open mine area is 94.78 Ha.</li> <li>• Higher benches will be made gentler for easy accessibility by local people to use the water body.</li> <li>• Peripheral fencing of bella stone is provided along excavated area Total 511 meter brick wall peripheral, 16815 mtr barbed wire and 22793 mtr earthen bund fencing has been done.</li> </ul>
(xiii)	Plantation shall be raised in an area of 72.68ha including a 7.5m wide green belt in the safety zone around the mining lease, around the water body, reclaimed	<ul style="list-style-type: none"> <li>• Till September 2017, 1.1213 ha area is covered under plantation and green belt development. Details of greenbelt / reclamation are enclosed as <b>Annexure</b></li> </ul>

## Compliance Status of Environment Clearance issued to Singar Limestone Mines

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	area, mine benches, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1500 plants per ha.	<b>-9 (A) &amp; 9 (B).</b>
(xiv)	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	<ul style="list-style-type: none"> <li>Regular water sprinkling through tractor mounted water tanker is in practice at mine lease area and on haul roads to control air borne dust. Ambient air quality parameters are being maintained within norms prescribed by CPCB.</li> </ul>
(xv)	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	<ul style="list-style-type: none"> <li>Rainwater harvesting measures to augment ground water resources in the area is being done by Ambuja Cement Foundation (ACF). Glimpses about ACF &amp; community development work done by ACF in surrounding areas are enclosed as <b>Annexure I.</b></li> </ul>
(xvi)	Regular monitoring of ground water level and quality shall be carried out within the mine lease and in the surrounding area (upto 5 km of the mine lease) by establishing a network of groundwater monitoring stations (existing wells and installing new piezometers) during the mining operation in consultation with Central Groundwater Authority / Ground Water Board and groundwater table shall be monitored and records maintained. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater	<ul style="list-style-type: none"> <li>Regular monitoring of ground water level and quality is being carried out in and around the mine lease area by developing network of existing wells &amp; establishing new piezometers around mine lease area. Periodic monitoring report of ground water is being sent regularly to the Ministry of Environment and Forests and its Regional Office Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. Quarterly Ground water level &amp; quality monitoring report for the period April'17 to September'17 is enclosed as <b>Annexure-2.</b> Preliminary study on ground water in Singar limestone mine &amp; its buffer zone has been conducted by Ground Water and Mineral Investigation Consultancy Centre (P) Ltd., Jaipur. Copy of report has been already submitted to MoEF vide our submission dated 25.12.2010 vide letter no.ACL/EMD/F-16/2010.</li> </ul>

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	table is getting depleted and salinity ingress in groundwater is observed due to the mining activity, necessary corrective safeguard measures shall be taken in consultation with the Central Ground Water Authority.	
(xvii)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) required for the project.	<ul style="list-style-type: none"> <li>There will be no withdrawal of ground water. Water requirement at initial stage is being met from harvested rain water in existing solaj mines pits, as mines will develop water requirement will be met from harvested rain water in mined out pits.</li> </ul>
(xviii)	The project proponent shall practice suitable rainwater harvesting measures on long term basis and work out a detailed scheme for rainwater harvesting in consultation with the Central Groundwater Authority and submit a copy of the same to the Ministry of Environment and Forests and its Regional Office, Bhopal.	<ul style="list-style-type: none"> <li>Rainwater harvesting measures to augment ground water resources in the area is being done by Ambuja Cement Foundation (ACF). Details of work done by ACF in nearby areas is enclosed as <b>Annexure –I</b>.</li> </ul>
(xix)	Appropriate mitigative measures shall be taken to prevent pollution of the Somat River, the Singoda River and the Saraswati River in consultation with the State Pollution Control Board.	<ul style="list-style-type: none"> <li>Even though these rivers are far off from the project area, State Pollution Control Board will be consulted, if required.</li> </ul>
(xx)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	<ul style="list-style-type: none"> <li>Vehicular emissions are being checked &amp; monitored regularly. Detail of P.U.C certificate by Omkar driving school &amp; P.U.C center (Approved by Government of Gujarat) is enclosed as <b>Annexure 10</b>.</li> <li>All vehicles used for transportation of raw materials are being covered properly.</li> </ul>
(xxi)	Drilling and blasting operation shall not be carried out.	<ul style="list-style-type: none"> <li>Blast free fully mechanized Surface Miner machine is being used for mining.</li> </ul>
(xxii)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to the Ministry of Environment and Forests and its Regional Office located at Bhopal.	<ul style="list-style-type: none"> <li>Land use pattern report study has been conducted by Compusense Automation, Ahmadabad. Report is under preparation stage and will be submitted to MoEF&amp;CC as soon as possible.</li> </ul>
(xxiii)	Land oustees and land losers/affected people should be rehabilitated as per the National Policy on Resettlement and Rehabilitation of project Affected Families	<ul style="list-style-type: none"> <li>Resettlement and Rehabilitation is not applicable in this mine.</li> </ul>

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	(NPRR).	
(xxiv)	Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	<ul style="list-style-type: none"> <li>There is no mineral handling plant at Mine site. Mineral extracted is being transported to cement plant by tippers/truck tipplers, which is being covered with suitable covering mechanism for prevention of fugitive emission.</li> </ul>
(xxv)	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	<ul style="list-style-type: none"> <li>Sewage treatment plant has already been installed &amp; operational at Ambujanagar. No additional colony has been developed at project site. ETP for workshop of waste water is provided.</li> </ul>
(xxvi)	The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed mine.	<ul style="list-style-type: none"> <li>Pre-project community health status report has been already submitted to MoEF vide our submission dated 25.12.2010 vide letter no.ACL/EMD/F-16/2010</li> </ul>
(xxvii)	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	<ul style="list-style-type: none"> <li>Pre-placement medical examination and periodical medical examination of the worker men engaged is being regularly carried out at our all existing plant and mines by team of doctors at our occupational health centre.</li> </ul>
(xxviii)	Provision shall be made for the housing of constructions labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	<ul style="list-style-type: none"> <li>All the operators and competent person is being resided in our existing colony at Ambujanagar, Kodinar.</li> </ul>
(xxix)	The critical parameters such as RSPM (Particulate matter with size less than 10µm i.e., PM10), NOX in the ambient air within the impact zone, shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006- IA.II (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website	<ul style="list-style-type: none"> <li>Air quality monitoring and water quality monitoring is being done regularly and report is submitted to GPCB &amp; MoEF. Results of Air &amp; Water quality monitoring is being uploaded on the website of the company as well as displayed on display board at the project site near mine office. The AAQ monitoring results for the period April'17 to September'17 for SPM, RSPM, CO, SO<sub>2</sub>, and NO<sub>x</sub> are enclosed as <b>Annexure-3</b></li> </ul>

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	of the Ministry <a href="http://www.envfor.nic.in">www.envfor.nic.in</a> , shall also be referred in this regard for its compliance.	
(xxx)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely Asiatic Lion, Leopard, Indian Peafowl, Eurasian Spoonbill etc. spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhopal.	<ul style="list-style-type: none"> <li>"Status of Biodiversity (Flora &amp; Fauna) in core and buffer zone areas of Singars Limestone Mine Lease study area is prepared by "Gujarat Institute of Desert Ecology", Bhuj. The same has been submitted to MoEF vide our submission dated 25.12.2010 vide letter no.ACL/EMD/F-16/2010</li> </ul>
(xxxi)	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.	<ul style="list-style-type: none"> <li>Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment &amp; Forests 5 years in advance of final mine closure for approval.</li> </ul>
<b>B. General Conditions:</b>		
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	<ul style="list-style-type: none"> <li>We are following the same mining practices through state of art Surface Miner as proposed. In case of any change in the mining technology and scope of working, we will take prior approval from Ministry of Environment, Forest &amp; Climate Change.</li> </ul>
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	<ul style="list-style-type: none"> <li>Point Noted &amp; being complied.</li> </ul>
(iii)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10µm i.e., PM10), NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive	<ul style="list-style-type: none"> <li>Four ambient air quality monitoring locations have been identified as directed and are being monitored as per CPCB/SPCB guidelines. Ambient air quality monitoring reports are enclosed as <b>Annexure 3</b>.</li> </ul>

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	targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	
(iv)	Data on ambient air quality RSPM (Particulate matter with size less than 10µm i.e., PM10), & NO <sub>x</sub> should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.	<ul style="list-style-type: none"> <li>Ambient air quality is being monitored regularly and report is being regularly submitted to GPCB/ MoEF &amp; CPCB. Last Submission was on 30.05.2017 vide letter no. ACL/EMD/F-16/2017.</li> </ul>
(v)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	<ul style="list-style-type: none"> <li>Environment friendly Surface Miner machine is being used for mining. Surface miner is provided with inbuilt facility of water sprinkling to suppress dust generated during mining. On all haul roads regular water sprinkling is being done by water tankers.</li> </ul>
(vi)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	<ul style="list-style-type: none"> <li>Blast free eco-friendly machine i.e. Surface Miner is used for excavating the limestone. The noise levels are kept well within the permissible limits by system of condition monitoring of the equipment and well planned maintenance routine. All the workers working in high noise areas are being provided with ear plug/ear muffs. Report of ambient noise monitoring as well as HEMM noise monitoring is enclosed as <b>Annexure 5 &amp; 6</b>.</li> </ul>
(vii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	<ul style="list-style-type: none"> <li>No waste water generation from Mines, only negligible amount of waste water generated from workshop, which is being treated at baffle type oil and grease separation system and treated water is being used for plantation/greenbelt development.</li> </ul>
(viii)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	<ul style="list-style-type: none"> <li>Dust Masks, Safety Shoes, Safety Goggles &amp; Helmet are provided to each &amp; every personnel working in the mine area. Periodic Health check up is being done for personnel working in mines area. Work area monitoring for air borne dust is carried out regularly on monthly basis, monitoring results are enclosed as <b>Annexure 4</b>.</li> </ul>

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	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.	<ul style="list-style-type: none"> <li>Occupational health surveillance program of the workers is undertaken periodically by our Occupational Health Centre.</li> </ul>
(ix)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	<ul style="list-style-type: none"> <li>A well established Environmental Management Division (EMD) with suitable qualified personnel is in place. Head of environmental management cell directly report to the Unit Head (Jt. president) of the organization. EMD organization chart is enclosed as <b>Annexure 7.</b></li> </ul>
(x)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Bhopal.	<ul style="list-style-type: none"> <li>Details of capital and recurring expenditure for environmental protection measures are enclosed as <b>Annexure 8.</b></li> </ul>
(xi)	The project authorities should inform to the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	<ul style="list-style-type: none"> <li>Regular six monthly environmental clearance compliance reports are being submitted to MoEF. Last submission was on 30.05.2017 vide letter no. ACL/EMD/F-16/2017.</li> </ul>
(xii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	<ul style="list-style-type: none"> <li>Point noted and will be complied. Full support and co-operation is being extended during the visit of officers from Ministry of Environment &amp; Forest, CPCB as well as GPCB.</li> </ul>
(xiii)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhopal, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and	<ul style="list-style-type: none"> <li>Half yearly compliance status report is being regularly submitted and last submission was on 30.05.2017 vide letter no. ACL/EMD/F-16/2017.</li> </ul>

**Compliance Status of Environment Clearance issued to Singars Limestone Mines  
Vide MoEF Letter No: J-11015/273/2007-IA.II (M) dated 12th May, 2010**

	Forests, Bhopal, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	
(xiv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	<ul style="list-style-type: none"> <li>A copy of clearance letter has been marked to concern.</li> </ul>
(xv)	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collectors office/ Tehsildars Office for 30 days.	<ul style="list-style-type: none"> <li>GPCB is the concern authority for the same.</li> </ul>
(xvi)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal by e-mail.	<ul style="list-style-type: none"> <li>Environmental statement is being regularly submitted to concern authority for each financial year. Last Environment Statement submitted on 28.09.2017 vide letter no. ACL/EMD/F22/2017.</li> </ul>
(xvii)	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhopal.	<ul style="list-style-type: none"> <li>Advertisement was published in two local news papers. Copy of advertisement has been submitted to MoEF on 25.12.2010 vide letter no. ACL/EMD/F16/2010.</li> </ul>



**Ambuja Cement Foundation - Ambujanagar**

Annexure-I

**Details for programme wise expenditure for the year April 2017 to Sept. 2017**

							(Rs. In lakhs)
Sr.No	Programme	ACF - ACL	*Funds received through Government	** Funds from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.
	<b>GUJARAT - Kodinar</b>						-
1	Water Resource Mangement & Drinking Water Projects						
	a.Water Resource Devlopment	33.55					33.55
	B .Drinking Water Programme	6.28	4.17		64.84	95.76	171.05
	C. Salinity Prevention (KVV III)	7.47		34.49	32.97	43.33	118.26
2	Agriculture Development( Farm Forestry &Afforesation)	7.03	3.08		31.70	47.48	89.29
3	BCI	1.65		33.43	15.98	27.63	78.69
4	Krishi Vigyan Kendra (KVK) - Agriculture	0.18	52.77				52.95
5	Health & Sanitation	3.38			2.84	2.76	8.98
6	Women / Youth Development	3.46					3.46
7	Skill and Enterprunership Development Programme	31.39	10.40				41.79
8	Integrated Community Development Programme	73.21					73.21
9	Co-ordination & Administration Expenses	47.07					47.07
10	Capital Expenditure						0.00
	<b>TOTAL</b>	<b>214.67</b>	<b>70.42</b>	<b>67.92</b>	<b>148.33</b>	<b>216.96</b>	<b>718.30</b>

Sept'-2017

## Ground Water Quality Report of Singsar Limestone Mines.Sept -2017

Ref.No.	IS 10500:2012 (S.R)		Well Water					Piezometers	
	Desirable	Permissible							
Source			W1	W3	W4	W8	W10	PIEZO NO-1	PIEZO NO-2
Village			SINGSAR	SINGSAR	SINGSAR	SINGSAR	SINGSAR	SINGSAR	SINGSAR
Taluka			SUTRAPADA	SUTRAPADA	SUTRAPADA	SUTRAPADA	SUTRAPADA	SUTRAPADA	SUTRAPADA
District			GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH	GIR-SOMNATH
Color Hazen Units	5	25	C.L.	C.L.	C.L.	C.L.	C.L.	C.L.	C.L.
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity NTU	1	5	0.56	3.59	0.83	0.5	0.68	0.63	0.84
Dissolved Solids mg/l	500	2000	364	250	1978	2774	1032	404	352
pH	6.5 to 8.5	No Relaxation	8.53	8.45	7.95	8.01	8.1	8.46	8.42
Total Hardness (as CaCO <sub>3</sub> ) mg/l	200	600	192	88	976	1248	200	160	120
Calcium (as Ca) mg/l	75	200	38	18	195	251	40	32	34
Magnesium (as Mg) mg/l	30	100	24	10	119	158	24	19	15
Chlorides (as Cl) mg/l	250	1000	68	56	504	864	496	124	116
Sulphates (as SO <sub>4</sub> ) mg/l	200	400	31	14	157	205	32	26	20
Nitrates (as NO <sub>3</sub> ) mg/l	45	No Relaxation	18.11	6.76	67.06	4.28	34.53	1134	17.02
Fluorides (as F) mg/l	1	1.5	0.62	0.64	0.48	0.47	1.06	0.51	0.66
Alkalinity (as CaCO <sub>3</sub> ) mg/l	200	600	116	124	160	60	116	88	116

**Ambient Air Quality Monitoring Results**  
**(April 2017 - September 2017)**

Month	Ambient Air Quality Monitoring Results																			
	Singsar Mines					Thordi Village					Barevala Village					Solaj Mines Office				
Unit >	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)	CO (mg/m3)	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)	CO (mg/m3)	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)	CO (mg/m3)	PM2.5 (µg/m3)	PM10 (µg/m3)	SO2 (µg/m3)	NOx (µg/m3)	CO (mg/m3)
Apr 2017	32.00	62.00	10.70	15.30	BDL	28.00	51.00	11.40	14.80	BDL	26.00	46.00	12.70	15.70	BDL	24.00	38.00	11.10	16.30	BDL
	30.00	58.00	12.60	15.90	BDL	24.00	47.00	11.80	14.60	BDL	28.00	50.00	10.70	14.30	BDL	22.00	44.00	11.30	16.20	BDL
May 2017	30.00	59.00	9.60	13.70	BDL	26.00	49.00	10.50	13.90	BDL	24.00	44.00	11.30	14.70	BDL	21.00	36.00	12.40	15.20	BDL
	33.00	60.00	10.90	14.80	BDL	22.00	45.00	11.30	15.20	BDL	26.00	48.00	12.50	16.10	BDL	20.00	42.00	11.90	15.80	BDL
June 2017	33.00	62.00	10.80	14.50	BDL	28.00	52.00	11.30	15.30	BDL	26.00	47.00	12.40	14.20	BDL	23.00	38.00	10.90	15.70	BDL
	35.00	62.00	11.40	14.90	BDL	24.00	47.00	12.40	15.60	BDL	28.00	50.00	10.90	14.20	BDL	23.00	44.00	13.10	16.40	BDL
July 2017	31.00	58.00	11.60	15.20	BDL	27.00	50.00	12.80	16.10	BDL	24.00	45.00	11.90	15.10	BDL	21.00	36.00	12.30	16.60	BDL
	33.00	60.00	11.90	15.30	BDL	22.00	45.00	12.10	16.20	BDL	26.00	47.00	12.60	16.60	BDL	21.00	42.00	11.50	15.10	BDL
Aug. 2017	29.00	56.00	12.30	16.30	BDL	26.00	48.00	11.90	15.40	BDL	22.00	43.00	12.70	16.80	BDL	19.00	34.00	10.80	15.10	BDL
	35.00	65.00	12.50	15.90	BDL	24.00	47.00	11.90	16.20	BDL	28.00	50.00	11.30	15.40	BDL	23.00	46.00	12.70	17.00	BDL
Sept. 2017	31.00	58.00	11.60	15.70	BDL	28.00	50.00	12.50	16.30	BDL	24.00	45.00	11.20	15.90	BDL	22.00	37.00	10.90	14.80	BDL
	37.00	68.00	11.40	15.40	BDL	26.00	50.00	12.80	16.20	BDL	30.00	53.00	11.10	15.80	BDL	25.00	48.00	10.70	14.90	BDL
Minimum	29.00	56	9.6	13.70	0	22	45	10.5	13.9	0	22	43	10.7	14.2	0	19	34	10.7	14.8	0
Maximum	37	68	12.6	16.30	0	28	52	12.8	16.3	0	30	53	12.7	16.8	0	25	48	13.1	17	0
Average	32.417	60.667	11.442	15.242	#DIV/0!	25.417	48.417	11.892	15.483	#DIV/0!	26	47.333	11.775	15.4	#DIV/0!	22	40.417	11.633	15.758	#DIV/0!



## Air Borne Dust Survey - Singsar Mines Mines (April 2017 - September 2017)

<i>Machine : Surface Miner</i>				<i>Machine :Dozer</i>				<i>Machine Loader</i>			
Date	Period	Location	RSPM (mg/m3)	Date	Period	Location	RSPM (mg/m3)	Date	Period	Location	RSPM (mg/m3)
10-Apr-17	14:00-22:00	Inside Cabin	0.30	11-Apr-17	14:00-22:00	Inside Cabin	0.32	12-Apr-17	14:00-22:00	Inside Cabin	0.34
9-May-17	6:00-14:00		0.38	10-May-17	6:00-14:00		0.34	11-May-17	6:00-14:00		0.32
9-Jun-17	14:00-22:00		0.34	10-Jun-17	14:00-22:00		0.36	12-Jun-17	14:00-22:00		0.31
10-Jul-17	6:00-14:00		0.33	11-Jul-17	6:00-14:00		0.32	12-Jul-17	6:00-14:00		0.30
9-Aug-17	14:00-22:00		0.29	10-Aug-17	14:00-22:00		0.31	11-Aug-17	14:00-22:00		0.28
11-Sep-17	6:00-14:00		0.32	12-Sep-17	6:00-14:00		0.33	13-Sep-17	6:00-14:00		0.30

<b>Ambient Noise Level Monitoring - Singsar Mines (April 2017 -September 2017)</b>
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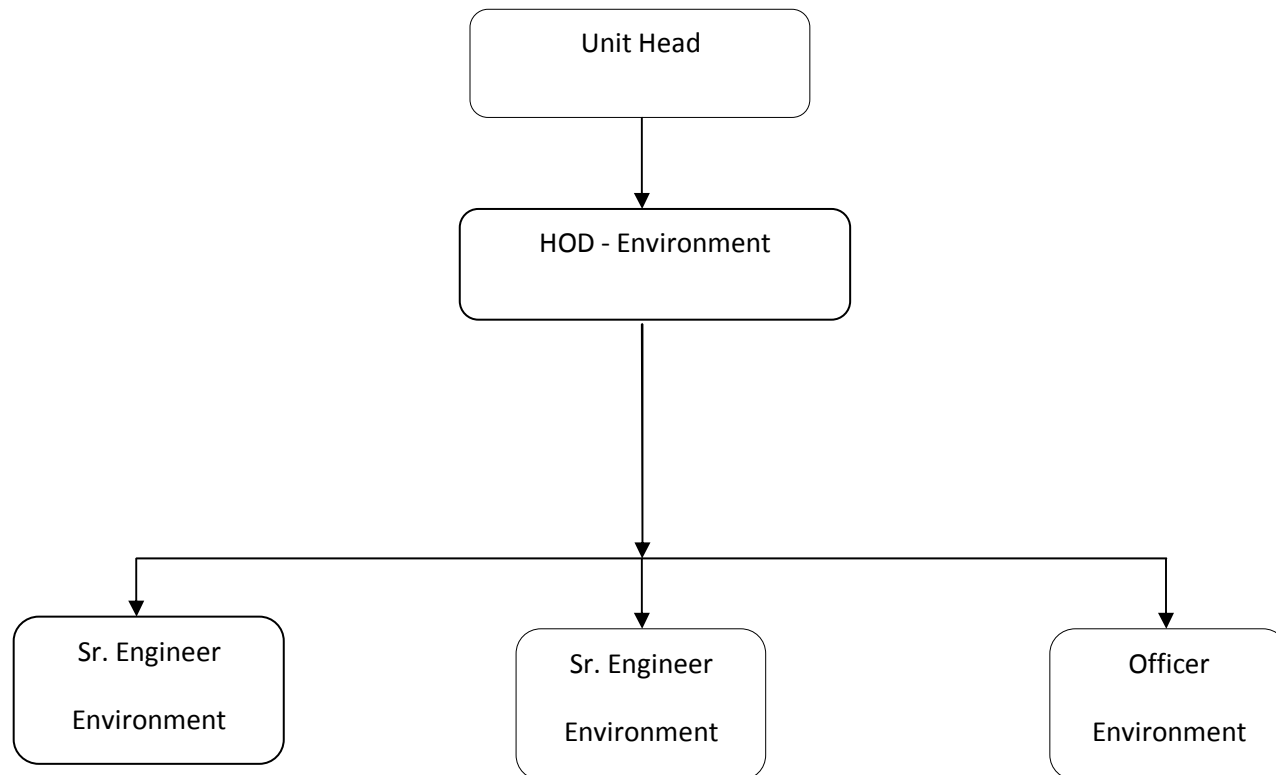
Month	Noise Levels in dB(A)					
	Near Surface Miner		Hual road		Mines offices	
	Leq (Day)	Leq (Night)	Leq (Day)	Leq (Night)	Leq (Day)	Leq (Night)
Apr-17	71	65	63	58	59	53
May-17	73	67	65	59	60	52
Jun-17	72	66	64	57	61	54
Jul-17	69	65	66	62	59	55
Aug-17	68	64	65	61	57	54
Sep-17	67	63	66	62	56	52

## Annexure - VI

Noise Level of HEMM - Singsar Mines (April 2017 - September 2017)									
Machine	Surface Miner			Loader			Dozer		
Month	Conditions	Noise Levels (dB)		Conditions	Noise Levels (dB)		Conditions	Noise Levels (dB)	
		At 5m. distance	At 10m. distance		At 5m. distance	At 10m. distance		At 5m. distance	At 10m. distance
		Leq	Leq		Leq	Leq		Leq	Leq
Apr-17	While dozing the material	73	68	While loading to tipper	72	69	While mining	74	70
May-17	While dozing the material	72	67	While loading to tipper	74	68	While mining	73	66
Jun-17	While dozing the material	71	66	While loading to tipper	73	67	While mining	72	68
Jul-17	While dozing the material	70	65	While loading to tipper	71	66	While mining	69	63
Aug-17	While dozing the material	69	64	While loading to tipper	70	65	While mining	68	63
Sep-17	While dozing the material	72	68	While loading to tipper	73	69	While mining	70	67

## Annexure 7 [ORGANISATION CHART]

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**(A) Capital Investment for Environmental Monitoring :**

(1) Monitoring Equipments	: 37.08 Lakh
(2) Environmental Laboratory	: 10.00 Lakh
(3) Others (Monitoring Van & DG sets)	: 10.00 Lakh

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**Total : Rs. 57.08 Lakh****(B) Recurring expenditure for the period of April'17 to September'17 :**

(1) Green belt development & dust suppression	: 9.29 Lakh
(2) Manpower Cost*	: 15.15 Lakh
(3) House Keeping	: 1.10 Lakh
(4) Other Env. Protection (Environmental Monitoring)	: 0.69 Lakh
(5) Environmental Awareness*	: 0.95 Lakh

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**Total : Rs. 27.18 Lakh**

\*Expenditures common for all the plant & mines.

**(A) Community Development expenditure by Ambuja : Rs. 718.30 Lakh  
Cement Foundation\*\***

\*\* Community development expenditure is common for all plant & mines at Ambujanagar. Programme wise Expenditure Details for the year (April'17 to September'17) is as below:

Ambuja Cement Foundation - Ambujanagar							
Details for programme wise expenditure for the year April 2017 to Sept. 2017							
							(Rs. In lakhs)
Sr.No	Programme	ACF - ACL	*Funds received through Government	** Funds from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.
	GUJARAT - Kodinar						-
1	Water Resource Mangement & Drinking Water Projects						
	a. Water Resource Development	33.55					33.55
	B .Drinking Water Programme	6.28	4.17		64.84	95.76	171.05
	C. Salinity Prevention (KVY III)	7.47		34.49	32.97	43.33	118.26
2	Agriculture Development( Farm Forestry &Afforesation)	7.03	3.08		31.70	47.48	89.29
3	BCI	1.65		33.43	15.98	27.63	78.69
4	Krishi Vigyan Kendra (KVK) - Agriculture	0.18	52.77				52.95
5	Health & Sanitation	3.38			2.84	2.76	8.98
6	Women / Youth Development	3.46					3.46
7	Skill and Enterprunership Development Programme	31.39	10.40				41.79
8	Integrated Community Development Programme	73.21					73.21
9	Co-ordination & Administration Expenses	47.07					47.07
10	Capital Expenditure						0.00
	<b>TOTAL</b>	<b>214.67</b>	<b>70.42</b>	<b>67.92</b>	<b>148.33</b>	<b>216.96</b>	<b>718.30</b>

## Annexure 9 (A)

<b>Singsar MINES Greenbelt &amp; Plantation Details till September 2017</b>				
Total Lease Area (in ha)	Opened up Area (in Ha)	Planted Area (in Ha)	Reclaimed area for Pasture land (in Ha)	Water Body (in Ha)
728.1156	94.7888	1.1213	9.7079	0



**Saplings Planted in reclaimed area**







**Green belt developed near mines office**



**Rain water harvested in mined out pits**







Pasture land





POLLUTION UNDER CONTROL CERTIFICATE							
(Approved by motor Vehicle Department Government of Gujarat)							
OMKAR DRIVING SCHOOL & P.U.C. CENTER							
5, Bharati Complex, Giriraj Society Main Road, Nr. Bus Station, JUNAGADH. M. 98242 27309							
PUC No.	D085004263	It is certified that this vehicle conforms to the emission level standards Prescribed under rules 115(2) of the Central Motor Vehicles Rules, 1989.	Opacity (%)	Kval (l/m)	Idle RPM	Max. RPM	Oil Temp. (°C)
Vehicle No.	GJ-11-Z-8634		07.9	0.19	940	1840	065
Make	AMW		07.8	0.18	880	2150	065
Model	TIPER		04.8	0.11	780	1850	065
Category	6W		05.4	0.13	770	1860	065
Mfg. Year	21/Jun/2013	In case of complaint please write to Commissioner of Transport, Gujarat State, Gandhinagar.	Avg.	06.5	0.15		PASS
Fuel	DIESEL						
Date	Apr 23, 2017						
Time	07:41						
Valid Up To	Oct 22, 2017						
							
આ પી.યુ.સી. સર્ટી પુરૂ થવાની છેલ્લી તારીખ.....		રીન્યુ કરવાનું સરનામું : ડૉક્ટર ડ્રાઈવીંગ સ્કૂલ & પી.યુ.સી. સેન્ટર પ-ભારતી કોમ્પ્લેક્સ, ગીરીરાજ સોસાયટી મેઈન રોડ, બસ સ્ટેશન પાસે, જૂનાગઢ. મો. ૯૮૨૪૨ ૨૭૩૦૯					

POLLUTION UNDER CONTROL CERTIFICATE							
(Approved by motor Vehicle Department Government of Gujarat)							
OMKAR DRIVING SCHOOL & P.U.C. CENTER							
5, Bharati Complex, Giriraj Society Main Road, Nr. Bus Station, JUNAGADH. M. 98242 27309							
PUC No.	D085004254	It is certified that this vehicle conforms to the emission level standards Prescribed under rules 115(2) of the Central Motor Vehicles Rules, 1989.	Opacity (%)	Kval (l/m)	Idle RPM	Max. RPM	Oil Temp. (°C)
Vehicle No.	GJ-11-Z-8635		02.4	0.05	879	1359	066
Make	AMW		02.3	0.05	922	1359	066
Model	TIPER		02.4	0.05	453	1263	066
Category	6W		02.4	0.05	910	1299	066
Mfg. Year	21/Jun/2013	In case of complaint please write to Commissioner of Transport, Gujarat State, Gandhinagar.	Avg.	02.4	0.05		PASS
Fuel	DIESEL						
Date	Apr 23, 2017						
Time	07:41						
Valid Up To	Oct 22, 2017						
							
આ પી.યુ.સી. સર્ટી પુરૂ થવાની છેલ્લી તારીખ.....		રીન્યુ કરવાનું સરનામું : ડૉક્ટર ડ્રાઈવીંગ સ્કૂલ & પી.યુ.સી. સેન્ટર પ-ભારતી કોમ્પ્લેક્સ, ગીરીરાજ સોસાયટી મેઈન રોડ, બસ સ્ટેશન પાસે, જૂનાગઢ. મો. ૯૮૨૪૨ ૨૭૩૦૯					