## INSPECTION REPORT

## 1.0 **GENERAL**

| SN   | Particulars   | Details  |
|------|---|--|
| 1(a) | Name of the Mine  | Adityana Limestone & Marl Mines  |
| 1(b) | Name of Inspecting Officer & Designation                      | Sanjay M. Girhe, Sr. Mining Geologist  |
| 1(c) | Accompanying Mines Representatives                            | Sh. P.K. Deshpande, Mines Manager & Sh. A.R.Panda, ME  |
| 1(d) | Type of Inspection  | Star Ratings   |
| 1(e) | Date of Inspection  | 05.07.2017   |
| 2    | Total Lease Area (Ha) with breakup of                         | 643.02 Hectare ( Govt. waste Land)   |
|      | Non-forest and forest land                                    | Forest- Nil  |
| 3    | Mine code   | 38 GUJ 08254   |
| 4    | IBM Registration Number under rule 45 of MCDR, 1988           | IBM/280/2011   |
| 5    | Name of the lessee, Address, phone, email and fax number      | Saurashtra Cement Ltd, PO: Ranavav, Dist. Porbandar 02801-304232, Fax: 02801-304200          |
|      |   | scl-rnv@mehtagroup.com   |
| 6    | Village   | Ranavav  |
| 7    | Taluka/Mandal   | Ranavav  |
| 8    | District  | Porbandar  |
| 9    | Pin code  | 360 560  |
| 10   | State   | Gujarat  |
| 11   | Post office   | Ranavav  |
| 12   | Nearest police station  | Ranavav  |
| 13   | Nearest Railway station                                       | Ranavav  |
| 14   | Date of Grant of Mining Lease                                 | 20 -10 -1956   |
| 15   | Date of Execution   | 09.03.1957   |
| 16   | Date of opening of Mine                                       | 27-10 - 1960   |
| 17   | Date of first Renewal, if applicable and its                  | 20 -10 -1976, Twenty years.  |
|      | period & expiry   | 19- 10 -1996 Due to reduction in area, mining lease deed was                                 |
| 10   | Detection 1 December 1 'Complement                            | executed 14 <sup>th</sup> March,1977 for further 20 years.                                   |
| 18   | Date of second Renewal, if applicable and its period & expiry | Under deemed renewal, 31- 03-2030 (As per No. MCR- 1576- (S-102)-8192-Chh. 1, Dt.24-10-2017) |
| 19   | Date of submission of renewal application if                  | Second Renewal: Dt.18-09- 1995,  |
| 19   | Mining Operations are continuing under                        | Third Renewal: Dt. 02-03-2015.   |
|      | deemed extension  | Tilliu Reliewai . Dt. 02-03-2013.  |
| 20   | Name of the Nominated Owner with                              | Sh. M S Gilotra  |
|      | Address, phone, email, fax number and date                    | 2 <sup>nd</sup> floor, N.K. Mehta Intl. House  |
|      | of appointment  | 178, Backbay Reclamation, Babubhai Chinai Road, Mumbai, -                                    |
|      |   | 400 020, Fax: 022-22048122   |
|      |   | Ph. No. 022-66365444   |
|      |   | scl-rnv@mehtagroup.com   |
|      |   | Dt. of App. 01.11.1995   |
| 21   | Name of the Mine Agent with Address,                          | Sh. Narendra Singh   |
|      | phone, email, fax number and date of                          | SCL, Nr. Railway Station   |
|      | appointment   | Ph. No. 02801 - 304200, Fax: 02801 - 304376-84   |
|      |   | scl-rnv@mehtagroup.com   |
| - 22 | N Cd MC M   | Dt. of App. 21/06/2016   |
| 22   | Name of the Mines Manager with Address,                       | Sh. P K Deshpande  |
|      | phone, email, fax number and date of                          | SCL, Nr. Railway Station, Ph. No. 02801-304232   |
|      | appointment in mines  | Fax:02801-304376-84, <u>pkdeshpande@mehtagroup.com</u> Dt. of App. 17.08.2007                |
| 23   | Name of the Mining Engineer, Qualification                    | Sh. A R Panda  |
| 23   | and total experience with Address, phone,                     | SCL, Nr. Railway Station, Ph. No. 02801-304352   |
|      | email, fax number and date of appointment                     | Fax: -02801-304376-84  |
|      | in mine   | arpanda@mehtagroup.com   |
|      |   | Dt. of app. 01.10.2013   |
| 24   | Whether Geologist and Mining Engineer                         | Yes, Geologist and Mining Engineer appointed as per rule 55                                  |
|      | appointed in mines satisfy the rule 55 &                      | of MCDR,2017   |
|      | carrying out their duties as per rule 56 & 57.                | ,  |
| 25   | Date of Approval of Mining Plan/Modified                      | Modified Mining Plan with PMCP approved vide letter No-                                      |
|      | Mining Plan with five-year period and                         | 682(23) (MS-583)/2010-MCDR (U))/UDP for the period 2016-                                     |
|      | specific condition in approval letter, if any.                | 17 to 2020-21 on dtd. 25 – 07-2016.  |
|      | **  |  |

| 26 | Date of Approval of Scheme of              | No  |
|----|--|---|
|    | Mining/Modified Scheme of Mining with      |   |
|    | five-year period and specific condition in |   |
|    | approval letter, if any.                   |   |
| 27 | Mineral(s) granted in lease and proved for | Limestone, Marl (Marl mineral has been included in ML |
|    | mining                                     | Lease deed),  |
| 28 | Method of Mining(Opencast, Underground)    | Opencast  |
| 29 | Category (Fully Mechanised, Others or      | Fully Mechanised                                      |
|    | Manual)                                    |   |
| 30 | Captive/Non Captive                        | Captive   |

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –  ${\bf Exploration}$ 

|    | v = v·· v = v ==   | Exploitation                           |                            |                         |  |
|----|--|--|----------------------------|-------------------------|--|
| SN | Item   | Proposals                              | Actual work                | Remarks                 |  |
|    |  | (2016-17)                              | (2016-17)                  |                         |  |
| 1a | Backlog of previous year   | NA                                     | NA                         | No Proposal             |  |
| 1b | Exploration over lease area for                                    | NA                                     | NA                         |                         |  |
|    | Geological axis 1 or 2.  |  |                            |                         |  |
| 1c | Exploration Agency & Expenditure in                                | NA                                     | NA                         |                         |  |
|    | lakh Rupees during the year  |  |                            |                         |  |
| 1d | Balance area to be explored to bring                               | 169.02hectare                          | NA                         | Proposal given for      |  |
|    | Geological axis in 1 or 2  | (G3)                                   |                            | the year(2018-19)       |  |
| 1e | Balance reserves as on 01.04.2017                                  | Limestone                              | Limestone                  | In Million Tons.        |  |
|    |  | Proved: 49.51                          | Proved: 49.66              |                         |  |
|    |  | Probable: 44.29                        | Probable: 44.29            |                         |  |
|    |  | Possible: 66.40                        | Possible: 66.40            |                         |  |
|    |  | Marl                                   | <u>Marl</u>                |                         |  |
|    |  | Proved: 10.573                         | Proved: 11.16              |                         |  |
|    |  | Probable: 1.90                         | Probable: 1.90             |                         |  |
|    |  | Possible: 6.26                         | Possible: 6.26             |                         |  |
| 1f | General remarks of inspecting officer on geology, exploration etc. | All the explorations of MEMC Rules,201 | carried out in the past me | eets the criteria/norms |  |

2.0 Development

| SN | Item  | Proposals (2016-17)  | Actual work (2016-17)   | Remarks   |
|----|---|--|---|---|
| 2a | Location of development w.r.t. lease area   | Limestone<br>N758-N856 & E800-E1000<br>N111-N528 & E245-E626<br>N145-S70 & E42-E377<br>N21-S332 & E696-E1379<br>N562-N107 &E525-E712 | Mine working<br>done over the<br>proposed location<br>with very minor<br>variation. | Working carried out as per the proposed locations.      |
|    |   | Marl<br>N523-N365&E1120-E1419<br>N353-N86 &E800-E882   | Within Proposal   |   |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15)                           | No proposals for separate benches  | Not applicable  | No Top soil&<br>Overburden<br>encountered in<br>ML area |
| 2c | Stripping ratio or ore to OB ratio  | Not Applicable   | Not Applicable  |   |
| 2d | Quantity of topsoil generation in m3  | Not Applicable   | Not Applicable  |   |
| 2e | Quantity of overburden generation in m3   | Not Applicable   | Not Applicable  |   |
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc. | No violations pointed out in this r  | regard during site insp   | pection.  |

3.0 Exploitation

| S | SN | Item                        | Proposals (2016-17)   | Actual work (2016-17)   | Remarks |
|---|----|-----------------------------|-----------------------|-------------------------|---------|
| 3 | 3a | Number of pits proposed for | In 2 (Two) pits as    | Mine working is done as |         |
|   |    | production                  | earmarked in relevant | per the proposals       |         |
|   |    |                             | plates                |                         |         |

| 3b    | Quantity of ROM mineral  | Limestone-1671840 Ton   | Limestone-1528219 Ton   |  |
|-------|--|---|---|--|
| 30    | production proposed  | Marl-587200 Ton   | Efficatione-1320217 Toll  |  |
|       |  |   | Marl-527476.83 Ton  | -  |
| 3c    | Recovery of salable/usable mineral from ROM production   | Not Applicable  | Not Applicable  | ROM is being   |
| 3d    | Quantity of mineral reject generation  | Not Applicable  | Not Applicable  | consumed/utilized in view given  |
| 3e    | Grade of mineral reject generation and threshold value declared                                      | Not Applicable  | Not Applicable  | Threshold Values   |
| 3f    | Quantity of sub-grade mineral generation   | Not Applicable  | Not Applicable  |  |
| 3g    | Grade of sub-grade mineral generation  | Not Applicable  | Not Applicable  |  |
| 3h    | Manual / Mechanised method adopted for segregating from ROM  | Not Applicable  | Not Applicable  |  |
| 3i    | Any analysis or beneficiation<br>study proposed & carried out for<br>sub-grade mineral and reject    | Not Applicable  | Not Applicable  |  |
| 3j    | Provision of drilling & blasting in mineral benches  | Hole Dia-150mm,<br>Spacing-5m, Burden-4m,<br>use of slurry(both<br>column & base charge)  | Same as per proposal (deep hole drilling & blasting)  | Rarely resorted<br>where surface<br>miner operation is<br>not possible |
| 3k    | Provision of mining machineries in mineral benches   | Surface Miner-1, Loader-3, Excavator-2, Dumper-10, Drill-1  | Surface Miner, Loader,<br>Excavator and Dumper<br>combination being<br>adopted.   |  |
| 31    | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Yes   | Yes   |  |
| 3m    | Total area covered under excavation/pits   | 155.30 (Cumulative)   | 150.17 (Cumulative)   |  |
| 3n    | Ore to OB ratio for the pit/mine during the year   | Not Applicable  | Not Applicable  | No OB encountered  |
| 30    | Total area put in use under different heads at the end of year                                       | Pit-155.3,<br>Infrastructure,road-<br>20.19, Other(Mineral<br>stack, Plantation)-48.15  | Pit-<br>150.17,Infrastructures-<br>20.19, Others(mineral<br>stack, Plantation)-51.45  |  |
| 3p    | Production of ROM mineral during last five-year period, as applicable                                | Limestone 2012-13:1433680MT 2013-14:1434219MT 2014-15:1555790MT 2015-16:1680064MT 2016-17:1671840MT Marl 2012-13:774378MT 2013-14:771434MT 2014-15:690968MT 2015-16:530161MT 2016-17:587200MT | Limestone 2012-13:1230558MT 2013-14:1358319MT 2014-15:1489932MT 2015-16:1307863MT 2016-17:1528219MT Marl 2012-13:1107037MT 2013-14:226687MT 2014-15:14333MT 2015-16:527476MT 2016-17:528686MT |  |
| 3q    | General remarks of inspecting officer on method of mining etc.                                       | Systematic benching patter dumper combination obser   | rn by deploying surface mine ved during inspection.   | er noticed and   |
| 4.0 S | olid Waste Management-Dumping  |   | <u> </u>  |  |
| SN    | Item   | Proposals (2016-<br>17)   | Actual work (2016-17)   | Remarks  |
| 4a    | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)                                       | Not applicable  | Not applicable  |  |
| 4b    | Location of topsoil, OB & mineral reject dumps   | Not Applicable  | Not Applicable  |  |
| 4c    | Number of dumps within lease area and outside lease area   | Not Applicable  | Not Applicable  | No top soil, OB,   |

| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16)             | Not Applicable  | Not Applicable | mineral reject<br>encountered             |
|----|---|---|----------------|---|
| 4e | Number of active & alive dumps                                    | Not Applicable  | Not Applicable | during mining operation                   |
| 4f | Number of dead dumps  | Not Applicable  | Not Applicable |   |
| 4g | Number of dumps stabilished                                       | Not Applicable  | Not Applicable |   |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Not Applicable  | Not Applicable |   |
| 4i | Length of Retaining wall or garland drain all along dump          | Not Applicable  | Not Applicable | No top soil, OB,<br>mineral reject        |
| 4j | Number of settling ponds  | Not Applicable  | Not Applicable | encountered<br>during mining<br>operation |
| 4k | Specific comments of inspecting officer                           | No top soil, OB, mineral reject encountered during mining operation hence most items are not applicable |                |   |

5.0 Solid Waste Management-Backfilling

| SN | Item                                 | Proposals           | Actual work            | Remarks            |
|----|--------------------------------------|---------------------|------------------------|--------------------|
|    |                                      | (2016-17)           | (2016-17)              |                    |
| 5a | Status on part or full extraction of | Mineral extracted & | Backfilling is not     |                    |
|    | mineral from mined out area          | Mined out area      | applicable as no OB in |                    |
|    | before starting backfilling          |                     | the area               |                    |
| 5b | Area under backfilling of mined      | 2 Hectare           | 1.8 Hectare            | Plant Waste used   |
|    | out area                             |                     |                        | for backfilling    |
| 5c | Concurrent use of topsoil for        | Not Applicable      | Not Applicable         | No Top Soil in the |
|    | restoration or rehabilitation of     |                     |                        | area               |
|    | mined out area (Rule 32)             |                     |                        |                    |
| 5d | Total area fully reclaimed &         | 2 hectare           | 1.8Hectare             | Plant Waste used   |
|    | rehabilitated                        |                     |                        | for backfilling    |
| 5e | General remarks of inspecting        | No comments         |                        |                    |
|    | officer on backfilling, reclamation  |                     |                        |                    |
|    | etc                                  |                     |                        |                    |

6.0 Progressive Mine Closure Plan

| SN | Item  | Proposals (2016<br>17)                                   | - Actual work (2016-<br>17)   | Remarks   |
|----|---|--|---|---|
| 6a | Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.   | Yes  | Report submitted within time limit as per prescribed format.  |   |
| 6b | Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year | (i)2Heactre<br>(ii) 2Heactare<br>(iii) saplings-3000Nos. | (i) 1.8heactre reclaimed (ii) 2.2 Hectare (iii)Saplings planted- 3050nos. (IV) Nos. of saplings Planted-97575(within lease) (v) Rs.82.17Lakhs | Survival rate & caring of saplings found satisfactorily |
| 6с | Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area  | (i) Area (300X70X2.5)                                    | (i)) Area(300X70X2.5)<br>(ii)Area(250X75X2.5)<br>(iii) 1.8 Hectare(sapling-2400Nos.)<br>(iv) 2.5Hectare                                       |   |

|    | iv) Rehabilitation by making<br>water reservoir<br>v) Any other specific means   |   |   |                 |
|----|--|---|---|-----------------|
| 6d | Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Methof of rehabilitation | Not Proposed  | (i) 0.4Heactare by afforestation  |                 |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone)   | Yes(Rs.9.2Lakh)                                       | Rs.6.79Lakh Monitoring is<br>being carried out as per<br>IBM guidelines |                 |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive   | Under the previous PMCP please boundary have been con | proposals bricks-cement wall a constructed by the lessee.               | ll along mining |

7.0 Mineral Conservation

| 7.0 1 | 7.0 Willicial Consci vation     |   |                |         |  |
|-------|---------------------------------|---|----------------|---------|--|
| SN    | Item                            | Proposals   | Actual work    | Remarks |  |
|       |                                 | (2016-17)   | (2016-17)      |         |  |
| 7a    | ROM Mineral dispatch or         | Not Applicable hence not  | Not Applicable |         |  |
|       | grade-wise sorting within lease | proposed  |                |         |  |
|       | area                            |   |                |         |  |
| 7b    | Method of grade-wise mineral    | Not Applicable hence not  | Not Applicable |         |  |
|       | sorting i.e. manual or          | proposed  |                |         |  |
|       | mechanical                      |   |                |         |  |
| 7c    | Different grade of mineral      | Not Applicable hence not  | Not Applicable |         |  |
|       | sorted out at mines             | proposed  |                |         |  |
| 7d    | Any beneficiation process at    | Not Applicable hence not  | Not Applicable |         |  |
|       | mines                           | proposed  |                |         |  |
| 7e    | General remarks of inspecting   | Marl mineral below the threshold value of Limestone is being judiciously by |                |         |  |
|       | officer on Mineral conservation | the lessee by blending with high grade limestone                            |                |         |  |
|       | & beneficiation issues          |   |                |         |  |

## 8.0 Environment

| SN | Item   | Proposals (2  | 2016- Actual work 17) | (2016- Remarks  |
|----|--|---|-----------------------|---|
| 8a | Separate removal and utilization of topsoil (Rule 32)  | Not Applicable  | Not Applicab          | No top soil encountered                               |
| 8b | Concurrent use or storage of topsoil   | Not Applicable  | Not Applicab          | ole   |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33)   | Not Applicable  | Not Applicab          | ole   |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use                    | Not Applicable  | Not Applicab          | ole   |
| 8e | Phased restoration, reclamation<br>and rehabilitation of lands<br>affected by mining operations<br>(Pits, dumps etc) | Pit be partly reclair<br>plant generated was<br>and/or water reserv | ste                   | sal   |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 41)                               | 3000  | 3050                  | Good aesthetic view<br>near crusher & Mines<br>office |
| 8g | Survival rate  | 92%   | 83.6%                 |   |

| 8h | Water sprinkling on roads to control airborne dust                                | Yes   | Yes (Mechanically propelled water tanker) |  |
|----|---|---|---|--|
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines are | Overall plantation work is carried out in very well manner and good aesthetic view by lush plantation is observed |   |  |

9.0 Compliance of Rule 45

| S.N | Item  | COMMENTS  |  | Remarks  |
|-----|---|---|--|--|
| •   | Status of submission of<br>Monthly and Annual returns   | M.R. Submitted upto – NOV-17<br>A.R. submitted upto- 2016-17  |  |  |
| S.N | Item  | Details GIVEN in A.R.   | Observation of I/Officer   | Remarks  |
| 9b  | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Sh. A R Panda, ME<br>Dt. of app. 01.10.2013   | Geologist and Mining<br>Engineer appointed as<br>per rule 55 of<br>MCDR,20107  | During the inspection it   |
| 9c  | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Pit-155.3,<br>Infrastructure,road-<br>20.19, Other(Mineral<br>stack, Plantation)-48.15  | Pit-<br>150.17,Infrastructures-<br>20.19, Others(mineral<br>stack, Plantation)-51.45   | was advised to Mine representative to submit the AR & MR correctly for correct cost of production & Ex mine price as per the guidelines in future. |
| 9d  | Scrutiny of Annual return on afforestation  | 3000 saplings proposed<br>for the year with 92% as<br>survival rate   | Achieved 3050 saplings with overall survival rate of 83.6%   |  |
| 9e  | Scrutiny of Annual return on<br>mineral reject generation<br>(Grade & quantity)               | Not Applicable as no grade wise generation of material not proposed   | Not applicable   |  |
| 9f  | Scrutiny of Annual return on ROM stock and/or graded ore                                      | Not given   | Not given  |  |
| 9g  | Scrutiny of Annual return on sale value, Ex. Mine price & production cost                     | Limestone-Ex-mine price & cost of production Rs- 187.95/MT Marl-Ex-mine Price & cost of production Rs- 151.76/MT & Cost of production is Rs-7 | Limestone-Ex-mine price & cost of production Rs- 187.95/MT  Marl-Ex-mine Price & cost of production Rs- 151.76/MT & Cost of production is Rs-7 |  |
| 9i  | Scrutiny of Annual return on fixed assets   | Given   | Given separately for<br>Mines & Plant  |  |
| 9k  | Scrutiny of Annual return on mining machineries   | Surface Miner-1,<br>Loader-3, Excavator-<br>2,Dumper-10,Drill-1   | Surface Miner, Loader,<br>Excavator and Dumper<br>combination being<br>adopted.  |  |

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out: -The last inspection of mine was carried out on dtd 26.05.2016 and violations of rules 13(1), 25(5)(b) & 45(5)(b)(viii) were observed and these violation rectified by the lessee vide letter No-QRY/84/2016 dtd 20.06.2016. This inspection was carried out for evaluation of online templates filled by the lessee for the year 2016-17. No violations were pointed out during the said inspection.

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