

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1(a)	Name of the Mine	<b>Adityana Limestone and Marl Mines</b>
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	Modified Mining Plan
1(e)	Date of Inspection	26.07.2018
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	643.02 Ha. (Govt. Waste Land) Forest- Nil
3	Mine code	38GUJ08254
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/280/2011
5	Name of the lessee, Address, phone, email and fax number	<b>M/s. SAURASHTRA CEMENT LIMITED</b> Address :-Near Railway Station Ranavav 36056 Dist.-Porbandar, Gujarat (India) Phone-02801-304232, Email:- scl-rnv@mehtagroup.com Fax:-02801-304200
6	Village	Ranavav
7	Taluka/Mandal	Ranavav
8	District	Porbandar
9	Pin code	360560
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	20-10-1956
16	Date of opening of Mine	27-10-1960
17	Date of first Renewal, if applicable and its period & expiry	20-10-1976, 20 Years. 19-10-1996
18	Date of second Renewal, if applicable and its period & expiry	Lease renewal, 31-03-2030 (As per Letter No. MCR-1576-(S-102)-8192-Chh.1, Dated. 24-10-2017
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Second Renewal:18-09-1995,  Third Renewal :02-03-2015
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	<b>Shri M.S Gilotra</b> Address:-2 <sup>nd</sup> floor ,N.K Mehta International House 178,Back bay Reclamation, Babubhai Chinai Road, Mumbai-400020 Phone No:- 022-66365444 Fax:- 022-22048122 Email:- scl-rnv@mehtagroup.com Date of Appointment: – 1.11.1995
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	<b>Shri Narendra Singh</b> Saurashtra Cement Limited Near Railway Station Ranavav-360560 Phone-02801-304200 Email:- scl-rnv@mehtagroup.com Fax:-02801-304376-84 Date of Appointment – 21.06.2016
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	<b>Shri P.K Deshpande</b> Saurashtra Cement Limited Near Railway Station Ranavav-360560 Phone-02801-304232 Email – pkdeshpande@mehtagroup.com Fax:-02801-304376-84 Date of Appointment – 31.10.2008
23	Name of the Mining Engineer, Qualification	<b>Shri A.R Panda</b>

	and total experience with Address, phone, email, fax number and date of appointment in mine	Saurashtra Cement Limited Near Railway Station Ranavav-360560 Phone:-02801-304352 Email:- arpanda@mehtagroup.com Fax:-02801-304376-84 Date of Appointment – 01-10-2013
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Yes, Yes, Geologist and Mining Engineer appointed as per rule 55 of MCDR,2017
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Date of Approval of Mining Plan :- 25-07-2016 Vide letter No. 682(23)(MS-583)/2010-MCDR(U)/UDP Period :- From 2016-17 to 2020-21
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
27	Mineral(s) granted in lease and proved for mining	Limestone & Marl
28	Method of Mining(Open cast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

#### **Exploration**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
1a	Backlog of previous year	NA	NA	No Proposal in RY
1b	Exploration over lease area for Geological axis 1 or 2.	NA	NA	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	169.02 Ha.(G3)	NA	Proposal Given for Year 2018-19
1e	Balance reserves as on 01.04.2018	<b>In Million tones</b> <b>Limestone</b> Proved-47.83 Probable-44.29 <b>Marl</b> Proved-10.59 Probable-1.99	<b>In Million tones</b> <b>Limestone</b> Proved-48.20 Probable-44.29 <b>Marl</b> Proved-10.86 Probable-1.99	
1f	General remarks of inspecting officer on geology, exploration etc.	Explorations carried out in the past meets the criteria/norms of MEMC Rules,2015		

#### **2.0 Development**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
2a	Location of development w.r.t. lease area	<b>For Limestone:</b> N146-N377 & E76-E380, N111-N528 & E245-E626, N1065-N764 & E735-E1023	Mine working done over the proposed location with very minor variation.	Working carried out as per the proposed locations.
		<b>For Marl :</b> N272-N92 & E690-E848, N618-N507 & E1114-E1307	Within Proposal	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No proposals for separate benches	Not applicable	No Top soil & Overburden encountered in ML area

2c	Stripping ratio or ore to OB ratio	Not Applicable	Not Applicable	No OB
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.	Development of all working pits carried out in a very systematic manner as per the given proposals in approved MMP		

### 3.0 Exploitation

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
3a	Number of pits proposed for production	In 3 (Three) pits as earmarked on all relevant plates	Mine working is done as per the proposals in 3 pits	
3b	Quantity of ROM mineral production proposed	<b>Limestone</b> -1680480 tones	<b>Limestone</b> -1448387 tones	
		<b>Marl</b> - 521440 tones	<b>Marl</b> - 297996 tones	
3c	Recovery of salable/usable mineral from ROM production	NA	NA	
3d	Quantity of mineral reject generation	NA	700 Cum (Removal of Basaltic Boulder and used for Backfilling)	Basaltic Boulder:-In process of mining, particularly in marl, sometime segregated oversized boulder mass found above upper layer of Deccan Trap.
3e	Grade of mineral reject generation and threshold value declared	NA	NA	
3f	Quantity of sub-grade mineral generation	521440 Tonne	297996 Tonne	Marl Production
3g	Grade of sub-grade mineral generation	Grade- (In %) SiO <sub>2</sub> -48.74 to 18.79 CaO- 30.24-15.85 MgO- 3.22-0.60	Grade- (In %) SiO <sub>2</sub> -48.74 to 18.79 CaO- 30.24-15.85 MgO- 3.22-0.60	Marl Grade
3h	Manual / Mechanised method adopted for segregating from ROM	NA	NA	As per Geological Formation of lease area separate layer of marl is occur between limestone and Deccan trap so segregation is not required
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	NA	NA	
3j	Provision of drilling & blasting in mineral benches	Hole Dia-150mm,spacing - 5m,burden-4m,use of slurry(both column and base charge)	Same as per proposal (deep hole drilling and blasting)	Rarely resorted where surface miner is not possible
3k	Provision of mining machineries in mineral benches	1.BACK HOE (0.900 CUM)-01 2.SHOVEL	1.BACK HOE (0.900 CUM)-01 2.SHOVEL (HYDRAULIC)	

		(HYDRAULIC) 3.90CUM-02 3.DUMPER 35.00 Tonne-06 4. DOZER( 320 HP)-01 5. SURFACE MINER(900 HP)-01 6.DUMPER (25 Tonne)-12 7. FRONT END LOADER(1.9 CUM)-04 8. ROCK DRILL (NON ELCT.) (152 MM)- 01	3.90CUM-02 3.DUMPER 35.00 Tonne-06 4. DOZER( 320 HP)-01 5. SURFACE MINER(900 HP)-01 6.DUMPER (25 Tonne)-12 7. FRONT END LOADER(1.9 CUM)-04 8. ROCK DRILL (NON ELCT.) (152 MM)- 01	
3l	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	162.46 Ha.	160.45 Ha.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.0	1:0.0	No OB
3o	Total area put in use under different heads at the end of year	Pit- 162.46 ha. Infrastructure, road- 20.19 ha. Others (Mineral Stack & Plantation)-53.25 ha.	Pit- 160.45 ha. Infrastructure ,road-20.19 ha Others(Mineral Stack & Plantation)-58.35 ha	
3p	Production of ROM mineral during last five-year period, as applicable	2013-14: 2205653MT	2013-14: 1585007.04	ROM- (Limestone+ Marl)
		2014-15: 2246758MT	2014-15: 1504265.64MT	
		2015-16: 2210225 MT	2015-16: 1835340.56 MT	
		2016-17: 2259040MT	2016-17: 2056905.55 MT	
		2017-18: 2201920MT	2017-18 :1746383 Tones	
3q	General remarks of inspecting officer on method of mining etc.	Systematic benching pattern by deploying surface miner noticed with combination of dumper noticed during the inspection.		

#### **4.0 Solid Waste Management-Dumping**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	NA	700 Cum (Removal of Basaltic Boulder and used for Backfilling)	Basaltic Boulder:- In process of mining, particularly in marl, sometime segregated oversized boulder mass found above upper layer of Deccan Trap.
4b	Location of topsoil, OB & mineral reject dumps	NA	NA	No top soil, OB, mineral reject encountered during mining operation
4c	Number of dumps within lease area and outside lease area	NA	NA	--do--
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	NA	--do--
4e	Number of active & alive dumps	NA	NA	--do--
4f	Number of dead dumps	NA	NA	--do--
4g	Number of dumps stabilised	NA	NA	--do--
4h	Whether Retaining wall or garland drain all along dumps are there	NA	NA	--do--
4i	Length of Retaining wall or garland drain all along dump	NA	NA	--do--

4j	Number of settling ponds	NA	NA	
4k	Specific comments of inspecting officer	No top soil, OB, mineral reject encountered during mining operation hence most items are indicate as “not applicable”		

### **5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Mineral extracted	Mineral extracted, Mined out area & Non Mining Zone	
5b	Area under backfilling of mined out area	2.0 Ha.	2.0 Ha.	Backfilled by Plant Waste
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed & rehabilitated	1.3 Ha.	1.3 Ha.	By plantation on backfilled area
5e	General remarks of inspecting officer on backfilling, reclamation etc	No comments		

### **6.0 Progressive Mine Closure Plan**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(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	NA	NA	
6c	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 iv) Rehabilitation by making water reservoir v) Any other specific means	i) 2.0 Ha. ii) 2.0 Ha. iii) 1.3 Ha. iv) 0.0 Ha. v) Nil	Compliance on reclamation and rehabilitation by backfilling i) 2.0 Ha. ii) 2.0 Ha. iii) 1.3 Ha. iv) 7.5 Ha. v) Nil	This 7.5 Ha. area covered under reservoir within pit and its floor mRL is reached 8 to 10 mRL so no further mining is to be reported as per Mining plan thus considered as area reclaimed by water reservoir
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	0.70 ha by planting 1000 sapling (developing green belt)	0.70 ha by planting 1080 sapling (developing green belt)	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes (Rs. 8.39 lakh)/Annum cost	Yes (Rs. 6.02 lakh) /Annum cost	

6f	General remarks of inspecting officer on PMCP compliance & progressive	No Comments
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### 7.0 Mineral Conservation

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NA	240443 Tonnes (Marl dispatch quantity)	As Marl has no individual use in Mining industry & here we are utilizing marl in our captive plant for cement manufacturing that minimise the utilization of other additives like-Silica sand ,iron ore , Bauxite etc therefore utilization of marl can be considered as a step towards mineral conservation.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	NA	NA	As per Geological formation of lease area separate layer of marl is occur between limestone and Deccan trap so mineral sorting is not required
7c	Different grade of mineral sorted out at mines	NA	NA	do
7d	Any beneficiation process at mines	NA	NA	do
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Marl mineral below the threshold value of Limestone is being judiciously used by the lessee by blending with high grade limestone.		

### 8.0 Environment

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Applicable	Not Applicable	No top soil
8b	Concurrent use or storage of topsoil	Not Applicable	Not Applicable	do
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Applicable	Not Applicable	No, OB, Mineral reject
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Applicable	Not Applicable	do
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Pit will be partly reclaimed by plant generated waste and / or water reservoir	As per proposal	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	3000	3080	Good aesthetic view near crusher & Mines office

8g	Survival rate	92 %	85.0 %	
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 area	Overall plantation work is carried out in very well manner and good aesthetic view is observed		

#### 9.0 Compliance of Rule 45

S.N	Item	COMMENTS	Remarks
.	Status of submission of Monthly and Annual returns	M.R. Submitted upto – July 2018 A.R. submitted upto- 2017-18	

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 Dt. of app. 01.10.2013	Geologist and Mining Engineer appointed as per rule 55 of MCDR,20107	During the inspection it 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.  Further, violations for rules 31(4) &45(5)(c) were pointed as discrepancies were observed in Annual Return filed for the year 2017-18. Violation letter was issued accordingly.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Pit- 160.45 ha. Infrastructure ,road-20.19 ha, Others(Mineral Stack & Plantation)-58.35 ha	
9d	Scrutiny of Annual return on afforestation	Given	0.70 ha by planting 1080 sapling (developing green belt)	
9e	Scrutiny of Annual return on mineral reject generation (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	<u>Given</u>	<u>Limestone-Ex-mine price &amp; cost of production Rs-184.14/MT</u> <u>Marl-Ex-mine Price Rs-84.16/MT</u>	
9i	Scrutiny of Annual return on fixed assets	Given	Given separately for Mines & Plant	
9k	Scrutiny of Annual return on mining machineries	Given	Surface Miner, Loader, Excavator and Dumper combination being 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 12.05.16 and violations of rules 13(1), 28(5)(b) & & 45(5)(b)(viii) were pointed out. This inspection was carried out in connection with examination of Modified Mining Plan and during inspection violation of rules 31(4) & 45(5)(c) and accordingly violation letter was issued on 06.09.18.

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