

MCDR Inspection Report \_)

**MCDR INSPECTION REPORT****1.0 GENERAL**

SN	Particulars	Details
1 (a)	Name of the Mine	Boricha Limestone Mines
1(b)	Name of inspecting officer & Designation	Shri Sunil Kumar Sharma, (Sr. ACOM)
1(c)	Accompanying Mines Respresentatives	Mr D.K.Singh, Mines Manager
1 (d)	Type of Inspection	Star Rating Evaluation/ MCDR inspection
1 (e)	Date of Inspection	18.12.2023
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	101.17 Ha. (Forest Area: Nil) (Non-forest Area: 101.17 HA)
3	Mine code	38GUJ21095
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/265/2011
5	Name of the lessee, Address, phone, email and fax number	Saurashtra Chemical, Division of Nirma Ltd. Porbandar
6	Village	Boricha
7	Taluka/Mandal	Porbandar
8	District	Porbandar
9	Pin code	360560
10	State	Gujarat
11	Post office	Bagvadar
12	Nearest police station	Ranavav
13	Nearest Railway station	Ranavav
14	Date of Grant of Mining Lease	27.08.1965
15	Date of Execution	10.07.1966
16	Date of opening of Mine	10.07.1966
17	Date of first Renewal, if applicable and its period & expiry	05.07.1985
18	Date of second Renewal, if applicable and its period & expiry	14.06.2005 Lease period extended upto 31.03.2030
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Period extended as per MMDR amendment act 2015 section 8A(5)(6) up to 31/03/2030 and execute supplementary lease deed accordingly.
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sri Sailesh V. Sonara, Executive Director, Saurashtra Chemical, Division of Nirma Ltd., Porbandar date of appointment: 15.01.2021
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sri Manish D Patel, Mines Agent, Saurashtra Chemical, Division of Nirma Ltd., Porbandar
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Sri Dhananjay Kumar Singh, Mines Manager, Saurashtra Chemical, Division of Nirma Ltd. Porbandar date of appointment: 15.01.2021
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax	Sri Dhananjay Kumar Singh, (Mining Engineer) Saurashtra Chemical, Division of Nirma Ltd.

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	number and date of appointment in mine	Porbandar
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56&57.	Sri Mehul Sharma (Geologist) Saurashtra Chemical, Division of Nirma Ltd. Porbandar
25	Date of Approval of Mining Plan/Modified Mining Plan/ Review of mining plan with five-year period and specific condition in approval letter, if any.	Letter No. 684(4)(1)/MP-317/2020-21_MDRD (N)/GNR Dt-. 02.03.2021 Period: Five years (From 2021-22 to 2025-26)
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	N.A.
27	Mineral(s) granted in lease and proved for mining	Limestone
28	Method of Mining(Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	'A' Category
30	Captive/Non Captive	Captive

38GUJ21095- 101.17 Ha - Boricha [22/2]- Nirma Ltd. Division of Saurashtra Chemicals- Porbandar- LST- 265/238

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. - **Exploration**

SN	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks		
1a	Backlog of previous year	No backlog	NA	-		
1b	Exploration over lease area for Geological axis 1 or 2.	G1 and to explore the mineralisation for depth.	Nil	-		
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	Nil	-		
1d	Balance area to be explored to bring Geological axis in 1 or 2	49.07 ha.	Nil	-		
		As on 01.04.2022	As on 1.04.2023			
1e	Balance reserves as on 01.04.2023. (In tonnes)	111	9,55,839	111	9,24,670	-
		122	15,89,800	122	15,89,800	
		221	1,56,760	221	1,56,760	
		222	5,47,200	222	5,47,200	
		331	1,44,600	331	1,44,600	
		332	2,51,600	332	2,51,600	
		333	2,54,48,600	333	2,54,48,600	
1f	General remarks of inspecting officer on geology, exploration etc.	No exploration activity was carried out during the year 2022-23.				

- **2.0 Development**

SN	Item	Proposals(2022-23)	Actual work (2022-23)	Remarks

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2a	Location of development w.r.t. lease area	2405314 N to 2405440 N 569999 E to 570440E	240538 N to 240542 N 570000 E to 570210 E	-
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No bench for topsoil and OB. First Bench- Limestone	As proposed	-
2c	Stripping ratio or ore to OB ratio	1:0	1:0	-
2d	Quantity of topsoil generation in m3	No proposal	NA	-
2e	Quantity of overburden generation in m3	No proposal	NA	-
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	There is no top soil and overburden. First bench was developed in limestone of 3m height.		

**3.0 Exploitation**

SN	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
3a	Number of pits proposed for production	3 pits	3 pits	
3b	Quantity of ROM mineral production proposed	200000 tonnes	31,169.790 tonnes	
3c	Recovery of salable/usable mineral from ROM production	160000 tonnes	25269.790 tonnes	
3d	Quantity of mineral reject generation	40000 tonnes	5,900 tonnes	
3e	Grade of mineral reject generation and threshold value declared	47.5% CaO (under size - < 25mm)	47.5% CaO (under size - < 25mm)	
3f	Quantity of sub-grade mineral generation	40000 tonnes	5,900 tonnes	
3g	Grade of sub-grade mineral generation	Undersize Chemical Grade Limestone	Undersize Chemical Grade Limestone	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	N.A.	N.A.	
3j	Provision of drilling & blasting in mineral benches	Yes	No	
3k	Provision of mining machineries in mineral benches	Yes	Yes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in	Yes	As proposed	

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	MP/SOM			
3m	Total area covered under excavation/pits	20.33 Ha	20.33 HA	
3n	Ore to OB ratio for the pit/mine during the year	1:0	1:0	
3o	Total area put in use under different heads at the end of year	Pit-20.33 Waste/reject-0.800 Plantation-0.60 Infrastucture-1.953 Remaining area-77.48	Pit-20.33 Waste/reject-0.800 Plantation-0.60 Infrastucture-1.953 Remaining area-77.48	As per Annual return
3p	Production of ROM mineral during last five-year period, as applicable (In tonnes)	Yr-2019-20- 200000 Yr 2020-21- 100000 Yr 2021-22 - 100000 Yr 2022-23 - 200000	Yr-19-20 - 00 Yr-2020-21- 00 Yr-2021-22- 00 Yr-2022-23- 31169.790	
3q	General remarks of inspecting officer on method of mining etc.	Mining is carried out with the use of rock breaker and other mining machineries.		

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

SN	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	No proposal	NA	There is no soil encountered during mining
4b	Location of topsoil, OB & mineral reject dumps	Mineral Reject: 20% of ROM will be stacked and sell to cement plant.	Mineral reject stacks is 62,750 tonnes as per monthly return of November 2023.	Mineral stack was observed during inspection.
4c	Number of dumps within lease area and outside lease area	01 (Mineral reject: undersize)	01 (Mineral reject: undersize)	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal	NA	
4e	Number of active & alive dumps	No proposal	NA	
4f	Number of dead dumps	No proposal	NA	
4g	Number of dumps stabilised	No proposal	NA	
4h	Whether Retaining wall or garland drain all along dumps are there	No proposal	NA	
4i	Length of Retaining wall or garland drain all along dump	No proposal	NA	
4j	Number of settling ponds	No proposal	NA	
4k	Specific comments of inspecting officer	It is observed that mineral reject is generated during mining operation which is under sized of 25mm. The material shall be sold to cement plant as proposed in mining plan.		

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**5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals (2022-23)	Actual work (22-23)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No proposal	NA	-
5b	Area under backfilling of mined out area	No proposal	NA	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	NA	-
5d	Total area fully reclaimed & rehabilitated	No proposal	NA	-
5e	General remarks of inspecting officer on backfilling, reclamation etc	-	-	-

**6.0 Progressive Mine Closure Plan**

SN	Item	Proposals (2022-23)	Actual work (2022-23)	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	Yes	
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. No proposal ii. 1 Ha iii. 1000Nos iv. - v. - vi. 1,00,000	i. N.A. ii. 0.4 Ha iii. 650Nos iv) - v) - vi) -	Less plantation was observed during inspection.
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	No reclamation is proposed by means of backfilling as no waste material is available	NA	-
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha)	No waste Land is available within lease area	NA	-

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	iii) Method of rehabilitation			
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Ambient Air Monitoring, Water quality monitoring and Noise monitoring	Ambient Air Monitoring, Water quality monitoring and Noise monitoring is being done on Quarterly/half yearly basis and soil monitoring on yearly basis by third party CCS.	-
6f	General remarks of inspecting officer on PMCP compliance & progressive.	Violation was observed in Rule 11(1) of MCDR, 2017 that plantation was not carried out in the year 2022-23 as per PMCP.		

### **7.0 Mineral Conservation**

SN	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatch: 1,60,000 tonnes Undersized limestone generated: 40,000 tonnes	ROM dispatched: 25,269.790 tonnes Undersized limestone generated: 5,900 tonnes	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	-
7c	Different grade of mineral sorted out at mines	Only undersize Limestone is available as subgrade mineral and stacked at pit floor	Only undersize Limestone is available as subgrade mineral and stacked at pit floor	-
7d	Any beneficiation process at mines	No Proposal	NA	-
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	It is observed that mineral reject is generated during mining operation which is under sized of 25mm. The material shall be sold to cement plant as proposed in mining plan.		

### **8.0 Environment**

SN	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	NA	-
8b	Concurrent use or storage of topsoil	No proposal	NA	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal	NA	-
8d	Use of overburden, waste rock, rejects and fines	No proposal	NA	-

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	dumps for restoring the land to its original use			
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Mined out pits will be utilized as rain water storage	Pits are being used for rain water harvesting	-
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	1000 No.s	650 No.s	Less plantation
8g	Survival rate	100 %	50 %	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on road will be done through water tanker	Water sprinkling on road will be done through water tanker	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	Violation was observed in Rule 11(1) of MCDR, 2017 that plantation was not carried out in the year 2022-23 as per PMCP.		

**9.0 Compliance of Rule 45**

S.N.	Item	COMMENTS	Remarks
9a.	Status of submission of Online Monthly and Annual returns	M.R. Submitted upto till date- up to Nov-2023 A.R. submitted upto till date-up to 2022-23	-
S.N.	Item	Observation of I/Officer /Actual reported in Returns	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri Dhananjay Kumar Singh (Mining engineer) Shri Mehul Sharma (Geologist)	-
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered Under Current working- 20.33 Ha/ Afforestation/ plantation -0.60 Ha	-
9d	Scrutiny of Annual return on afforestation	Afforestation/ plantation -0.60Ha	-
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	In submitted Annual Return 2022-23; at Part V; point No.2; the reserves mentioned under 121 UNFC code was 1589800 tonnes whereas as per approved mining plan it is reported in 122 code. At Part V; point No. 3; generation of sub-grade mineral reject was reported 5900 tonnes whereas it is chemical grade undersize. There is no mineral reject generated as it is chemical grade limestone.	Violation observed under Rule 45(5C)
9f	Scrutiny of Annual return on ROM stock and/or	31169.790 Mt	-

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	graded ore		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex.Mine Prise Rs.427.60/- per tonne Cost of production 427.60/- (captive mines)	-
9i	Scrutiny of Annual return on fixed assets	Nil	-
9k	Scrutiny of Annual return on mining machineries	Shovel (Hydraulic):01 No. (1.2 m <sup>3</sup> capacity) Front End Loader: 01 No. (2 m <sup>3</sup> capacity) Dumper: 03 No. (10 t capacity)	-

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

Details of Validations observed during current inspection and compliance position of earlier violation pointed out:-

नियम सं.	उल्लंघनों के प्रकारों का विस्तृत ब्यौरा
11(1)	The following violation is observed as per implementation of proposals of the mining plan approved vide this letter No. 684(4)(1)/MP-317/2020-21/MDRD(N)GNR dated 02.03.2021 :- According to point number 8.3 (Table No.58) of the approved mining plan, it was proposed to plant 1000 trees for environmental improvement in the year 2022-23, but at the time of inspection it was found that around 650 plants were planted which is less than proposed.
45(5C) read with 45(7)	In submitted Annual Return 2022-23 following deficiencies/ inconsistencies are found:  i. At Part V; Point No.2; the reserves mentioned under 121 UNFC code was 1589800 tonnes whereas as per approved mining plan it is reported in 122 UNFC code. ii. At Part V; point No. 3; generation of sub-grade mineral reject was reported 5900 tonnes whereas its grade is above cutoff grade, the material balance data seems not logical. This quantity is also given in table 3(ii) of Part-VI.

Sunil Kumar Sharma)  
Senior Assistant Controller of Mines