

MCDR INSPECTION REPORT

GENERAL

SN	Particulars	Details
1(a)	Name of the Mine	Zinzarka Limestone Mines
1(b)	Name of inspecting officer & Designation	Shri Sanjaya Kumar Sahoo (Jr.Mining Geologist,IBM)
1(c)	Accompanying Mines Representatives	Mr Rakesh Patel, Shri Mehul Sharma
1 (d)	Type of Inspection	Star Rating Evaluation
1 (e)	Date of Inspection	09.08.2024
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	24.28 Ha. (Forest Area: Nil) (Non-forest Area: 24.28 Ha)
3	Minecode	38GUJ21051
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	Pincode	360545
10	State	Gujarat
11	Post office	Boricha
12	Nearest police station	Bagvadar
13	Nearest Railway station	Ranavav
14	Date of Grant of Mining Lease	30.11.1985
15	Date of Execution	08.06.1988
16	Date of opening of Mine	-
17	Date of first Renewal, if applicable and its period & expiry	Lease was transferred vide Govt. of Gujarat order no. MCR-1589(S-54)-2164-CHH dated-24.11.1992
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Lease was extended up to 07.06.2038 vide order no.MCR-1589(S-34)2164/CHH dated-02.07.2020 of IMD Govt. of Gujarat
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Sailesh V. Sonara, Executive Director, Saurashtra Chemical, Division of Nirma Ltd. Porbandar
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri 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	Shri Rakesh P Patel, Mines Manager, Saurashtra Chemical, Division of Nirma Ltd. Porbandar
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23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Sri Ajay Jotava, (Mining Engineer) Saurashtra Chemical, Division of Nirma Ltd. Porbandar
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Shri 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. MCDR-MPCP0CaFI/14/2022-GNR-IBM_RO_GNR MP-444/22-23 dated-17.01.2023 (2023-24 to 2027-28)
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(Open cast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	'A' (OTFM)
30	Captive/Non Captive	Captive

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

1.0 Exploration

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
1a	Backlog of previous year	No Proposal	Not Applicable	
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal	2 Bore holes, 58 meter	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposal	₹ 297500	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	Not Applicable	
1e	Balance reserves as on 01.04.2024	UNFC 111- 26,30,524.45 MT		
1f	General remarks of inspecting officer on geology, exploration etc.	There was no proposal of exploration but 2 bore holes were done in 2023-24. Total area is explored to G1. No violation found.		

2.0 Development				
SN	Item	Proposals(2023-24)	Actual work (2023-24)	Remarks
2a	Location of development w.r.t. lease area	Pits No.-5,7,8,10,11 In east and west direction. In bench 1,2,3,6.	Pits No.- 5,7,8, ,11	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No Proposal	Not Applicable	
2c	Stripping ratio or ore to OB ratio	1:0	1:0	
2d	Quantity of topsoil generation in m3	No Proposal	Not Applicable	
2e	Quantity of overburden generation in m3	No Proposal	Not Applicable	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	There was no proposal of generation of topsoil and overburden. Location and size of Pit-05: N21°45'6.01" and E69°40'20.61", 102m x 11m x 3m Location and size of Pit-08: N21°45'13.59" and E69°40'33.07" 135m x 14m x 3m		

3.0 Exploitation

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
3a	Number of pits proposed for production	05 pits	04 pits	
3b	Quantity of ROM mineral production proposed	100000 MT	41346.550 MT	
3c	Recovery of saleable/usable mineral from ROM production	90000 MT	41346.550 MT	
3d	Quantity of mineral reject generation	10000 MT	Nil	No Reject generated
3e	Grade of mineral reject generation and threshold value declared	CaO - 52.36(%), MgO- 0.408(%)	Nil	
3f	Quantity of sub-grade mineral generation	No Proposal	Not Applicable	
3g	Grade of sub-grade mineral generation	No Proposal	Not Applicable	
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	No Proposal	Not Applicable	
3j	Provision of drilling & blasting in mineral benches	No Proposal	Not Applicable	
3k	Provision of mining	JCB-JS205 (Excavator	Dumper,	

	machineries in mineral benches	With Hammer), Dumper	Hydraulic Shovel, Front end loader	
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3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3m bench height in mineral No overburden	3m bench height in mineral No overburden	
3m	Total area covered under excavation/pits	12.28 Ha	11.110 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-12.28 Ha Mineral storage-0.16 Ha Plantation-0.5 Infrastructure-0.01 Ha Roads- 1.17 Ha Others- 3.53 Ha	Pit-11.110 Ha Waste disposal - 0.160 Ha Occupied by plant, buildings, residential, welfare buildings and roads- 3.250 Ha Reclamation- 9.150 Ha Work done under PMCP- 0.610 Ha	Reclamation has not been done but wrongly reported in Annual Return. Violation under Rule 45(5) (c) is found.
3p	Production of ROM mineral during last five-year period, as applicable in MT	2019-20- 150000 2020-21- 200000 2021-22- 200000 2022-23 -200000 2023-24 - 100000	2019-20-00.00 2020-21- 00.00 2021-22- 838.540 2022-23- 196137.785 2023-24- 41346.550	
3q	General remarks of inspecting officer on method of mining etc.	Only bench in mineral was proposed and 3m bench height is maintained. Location of Stack- N21°45'4.24" and E69°40' 33.99"		

4.0 Solid Waste Management-Dumping

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	No Proposal	Not Applicable	
4b	Location of topsoil, OB & mineral reject dumps	No Proposal	Not Applicable	
4c	Number of dumps within lease area and outside lease area	No Proposal	Not Applicable	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No Proposal	Not Applicable	
4e	Number of active & alive dumps	No Proposal	Not Applicable	

4f	Number of dead dumps	No Proposal	Not Applicable	
4g	Number of dumps stabilised	No Proposal	Not Applicable	
4h	Whether Retaining wall or garland drain all along dumps are there	No Proposal	Not Applicable	
4i	Length of Retaining wall or garland drain all along dump	No Proposal	Not Applicable	
4j	Number of settling ponds	No Proposal	Not Applicable	
4k	Specific comments of inspecting officer	There was no proposal of dump for 2023-24.		

5.0 Solid Waste Management-Backfilling

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposal	Not Applicable	
5b	Area under backfilling of mined out area	No Proposal	Not Applicable	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No Proposal	Not Applicable	No topsoil
5d	Total area fully reclaimed & rehabilitated	No Proposal	Not Applicable	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	There was no proposal and not done.		

6.0 Progressive Mine Closure Plan

SN	Item	Proposals (2023-24)	Actual work (2023-24)	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	Along with Annual Return	
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	Afforestation -0.01 Ha No. of saplings- 100 Cost- Rs. 60000 Survival rate- 60%	Afforestation -0.15 Ha No. of saplings- 330 Cumulative no of plants- 665 Survival rate- 50%	330 plants are planted against proposal of 100 plants.

	vi) Cost incurred on watch & care during the year			
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 Proposal	Not Applicable	

6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No Proposal	Not Applicable	
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 half yearly basis and soil monitoring on yearly basis.	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Co-ordinates taken near plantation: N21° 45' 2.39" and E69° 40' 31.67". No violation found. 330 plants are planted against proposal of 100 plants		

7.0 Mineral Conservation

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	90000 MT	41346.550 MT	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	No Proposal	Not Applicable	
7c	Different grade of mineral sorted out at mines	No Proposal	Not Applicable	
7d	Any beneficiation process at mines	No Proposal	Not Applicable	
7e	General remarks of inspecting officer on Mineral conservation &	Mineral conservation issue has not found during inspection.		

	beneficiation issues	
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8.0 Environment

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	Not Applicable	
8b	Concurrent use or storage of topsoil	Not Applicable	Not Applicable	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Applicable	Not Applicable	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Applicable	Not Applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Applicable	Not Applicable	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	-	Cumulative no of plants- 665	
8g	Survival rate	60 %	50 %	330 plants are planted against proposal of 100 plants.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on road will be done through water tanker	Water sprinkling on road is being done through water tanker	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	There was no proposal of topsoil generation. Water sprinkling was seen in the mines during inspection.		

9.0 Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
	Status of submission of Online Monthly and Annual returns	January-2025 Monthly Return was submitted -06.02.2025 2023-24 Annual Return was submitted on 13.06.2024.	

S.N.	Item	Details GIVEN in A.R.	Observation of	Remarks
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		(2023-24)	I/Officer /Actual reported in Returns	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri Ajay Jotava (Mining Engg) Shri Mehul Sharma(Geologist) Shri Rakesh P Patel (Mine manager)		Violation under Rule 45(5) (c) is found.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit-11.110 Ha Waste disposal - 0.160 Ha Occupied by plant, buildings, residential, welfare buildings and roads- 3.250 Ha Reclamation- 9.150 Ha Work done under PMCP- 0.610 Ha		
9d	Scrutiny of Annual return on afforestation	Afforestation -0.15 Ha No. of saplings- 330 Cumulative no of plants- 665 Survival rate- 50%		
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock- Nil Grade wise(Chemical grade)- O/S- 33168 MT, C/S- 49668.000 MT , Dispatch- 24846.550 MT		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value-0 (captive) Ex. Mine price- ₹ 439.60 per tonne Production cost- ₹ 439.60 per tonne		
9i	Scrutiny of Annual return on fixed assets	0/-		
9k	Scrutiny of Annual return on mining machineries	Dumper, Hydraulic Shovel, Front end loader		

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

- a. No violations were pointed out during last inspection.
- b. The Drone data has been submitted on 25-06-2024. It has been checked and referred back to the Lessee.
- c. Self-assessment date of Star Rating is 27/06/2024 and Rating given the Lessee is 4. It has been evaluated and given 4 Star.
- d. Violation under Rule 45(5) (c) read with 45(7) is found.

Sanjaya Kumar Sahoo
Junior Mining Geologist
Indian Bureau of Mines