

MCDR INSPECTION REPORT 2021-22

General:

Sl .No.	Particulars	Details
	File No.	CHG/RAP/LST/40/NGP/38MPR28010
1	Name of the Mine	Sonadih Limestone Mines
2	Date of Inspection	08.09.2022
3	Name of Inspecting Officer	Arun Kumar , Regional Controller of Mines and Prasant Kuamr Sahu, Assistant Mining Engineer
4	Name of official accompanying inspection	1. Mr. Ashok Kumar Singh, Mine Manager 2. Mr. Rajesh Singh, Geologist 3. Mr. Kranti Dewangan, Mining Engineer 4. Mr. G. Sasi Kishore, Mine Surveyor
5	Last date of Inspection & Officer	Mr. Rajesh Kumar Das, Sr. Asst. Controller of Mines, Dt - 25.06.2021
6	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest land : NIL Non forest Land : 444.763 ha Total lease area : 444.763 Ha
7	Mine code	38MPR28010
8	IBM Registration Number under rule 45 of MCDR, 1988/2017	IBM/378/2011
9	Name of the Lessee, Address, Phone, email and fax number	Nuvoco Vistas Corp Ltd Sonadih Cement Plant Nuvoco Vistas Corp. Limited PO-Raseda, Tehsil-Balodabazar District-Balodabazar-Bhatapara State-Chhattisgarh, Pin code- 493332 Phone- 07727-72226 Fax-07727-72227 Email-ramesh.warke@nuvoco.com
10	Village	Rasedi
11	Taluka/Mandal	Balodabazar
12	District	Balodabazar – Bhatapara
13	Pin code	493332
14	State	Chhattisgarh
15	Post Office	Raseda
16	Nearest Police Station	Baloda Bazar
17	Nearest Railway Station	Bhatapara
18	Date of Grant of Mining Lease	20 Dec''1985
19	Date of Execution	15 Jan''1986
20	Weekly day of rest	Staggered
21	Date of opening of Mine	12 Dec''1989
22	Date of First Renewal, if applicable and its period & expiry	23 June''2010 For the period 15.01.2006 to 14.01.2026 (20 years)

23	Date of Second Renewal, if applicable and its period & expiry	17 April''2017 For the period 15.01.2026 to 14.01.2036 (10 years)
24	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
25	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Name : Mr. Jayakumar Krishnaswamy Designation : Managing Director Date of appointment : 01.11.2018 Address : Equinox Business Park (Peninsula Techno Park), Tower 3, East Wing, 4th Floor, Off Bandra-Kurla Complex, LBS Marg, Kurla-West , Mumbai, Maharashtra-400070 +91 (0) 22 61202628
26	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Name : Mr Ramesh Warke Designation : Sr. Vice President Date of appointment : 01.01.2018 Address : Sonadih Limestone Mines, PO-Raseda, Distt:Balodabazar- Bhatapra, Chhattisgarh-493332 +91-7727272226
27	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Name : Mr Ashok Kumar Singh Designation : GM Qualification : BE_Mining Date of appointment : 22.07.2019 Work Experience : >25 years Address : Sonadih Limestone Mines PO-Rased,Distt: Balodabazar-Bhatapra Chhattisgarh-493332 +91-9893497184
28	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Name : Mr Kranti Dewangan Designation : Manager Qualification : B.E. Mining Engineering Date of appointment : 15.10.2012 Work Experience : >13 years Address : Sonadih Limestone Mines PO-Raseda, Distt: Balodabazar-Bhatapra Chhattisgarh-493332 +91-9755015344
29	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 &	Name : Mr Rajesh Singh Designation : DGM Qualification : M Tech_Applied

	carrying out their duties as per rule 43 & 44.	Geology Date of appointment : 01.09.2017 Work Experience : >25 Years Address : Sonadih Limestone Mine PO-Raseda, Distt: Balodabazar-Bhatapra Chhattisgarh-493332 +91-9163323296
30	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	05.01.2018 (Modified Mine Plan) BALODAB/CHUP/KHAYO-1130/2017-RAIPUR/897 No any specific condition.
31	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	10.12.2020 (Review of Mining Plan approved) BALODABAZAR/CHUP/KHAYO-1250/2020-RAIPUR
32	Mineral(s) granted in lease and approved for Mining	Limestone
33	Method of Mining (Opencast, Underground)	Opencast
34	Category (Fully Mechanized, Others or Manual)	Fully Mechanised
35	Captive/Non-Captive	Captive
36	Present EC Status	Valid upto 14.01.2036, capacity 5.5 million ton
37	Status of Financial Assurance	BG valid for amount Rs. 80281200/- upto 31.03.2026

Scientific Mining: Compliance of proposals of approved Mining Plan/Review of Mining Plan:

1.0 Exploration:

S.N.	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
1a	Backlog of previous year proposals	No proposal	Nil	196 core bore holes at an grid interval of 150m. X150 m. With a total meterage of 7983.68 mt. Have been drilled in the past.
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1-444.763 ha.	Entire lease area has been explored at G1 level as per the approved document.
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Nil	Not applicable	Rs.31,20,993/- had been incurred for prospecting during the

				year 2018-19.
1d	Balance area to be explored to bring Geological axis in 1 or 2.	No proposal	Nil	
1e	Balance reserves as on 01.04.2022 (in Million Tonnes)	17 million tonnes with average cement grade Cao-41.7%, Mgo-3.05%		As per AR submitted for the year 2021-22
1f	General remarks of Inspecting officer on geology, exploration etc.	The deposit belongs to Chandi Limestone formation of Raipur group of Chhattisgarh super group. The entire lease area has been explored at G1 level as per the approved document.		

2.0 Development:

S.N	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
2a	Location of Development w.r.t. lease area	(i) NW- E624968 to E625181, N2405746 to 2405910, (ii) NW- E624250 to E624769, N2405185 to N2405397 (iii) NE- E625076 to E625296, N2404944 to N2405233 (iv) SW- E624195 to E624220, N2404323 to N2404161	(i) NW- E624977 to E625114, N2405760 to N2405891 (ii) NW- E624278 to E624630, N2405200 to N2405287 (iii) NE- E625083 to E625248, N2405134 to N2405237 (iv) SW- E624192 to E624217, N2404319 to N2404158	Development was carried out within the proposed grids.
2b	Separate benches in topsoil ,overburden and mineral (Rule 15)	Separate benches proposed in OB & mineral.	Separate benches were maintained in OB & mineral.	Overburden-1 bench Mineral Bench-4 benches; 04 th bench was water logged
2c	Stripping ratio or ore to OB ratio	1: 0.045	1: 0.029	TCF: OB- 1.4, Shale- 2.2 & Limestone- 2.5
2d	Quantity of topsoil generation in m ³	No proposal	Nil	No topsoil generated.
2e	Quantity of overburden generation in m ³	223032 tons	134032 tons	Violation issued for less handling of OB
2f	General remarks of Inspecting officer	Overall development was carried out within the		

on development of pit w.r.t type of deposit etc.	proposed grid however violation was issued for lower handling of OB.
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3.0 Exploitation:

S. N.	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
3a	Number of pits proposed for production	2 pits proposed	Actual working was carried out in 2 pits	
3b	Quantity of ROM mineral production proposed in tonne	5000000 tons	4598145 tons	
3c	Recovery of Salable/usable mineral from ROM production tonne	100%	100%	
3d	Quantity of mineral reject generation tonne	No Proposal	Nil	No generation of mineral reject.
3e	Grade of mineral reject generation and threshold value declared	No Proposal	Not applicable	
3f	Quantity of sub-grade mineral generation	No Proposal	Nil	
3g	Grade of sub-grade mineral generation	No Proposal	Not applicable	
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanized method proposed for segregating from ROM	Mechanized method adopted for segregating from ROM	Blasted material from the mines is fed to the crusher (900 TPH, Single stage, impact crusher)
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposal	No such study carried out	
3j	Provision of drilling & blasting in mineral benches	Deep hole drilling and Blasting proposed in mineral benches.	Deep hole drilling and blasting is carried out in mineral benches as proposed.	Drill machine - 105/115 mm dia Spacing-4.8 mt., burden- 3.5 mt., depth- 8 mt. Emulsion explosive in combination with ANFO is used
3k	Provision of mining machineries in mineral benches	Shovel dumper combination	Mining is done using Shovel	Five excavators & 12 Dumpers

		proposed	dumper combination.	were observed in operation on the day of inspection. Lower benches were water logged.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height- 6 to 8 meters Bench width-20 to 30 meters	Bench height and width found to be adequate	
3m	Total area covered under excavation /pits	191.727 Ha. At the end of plan period	138.805 ha. At the end of reporting year	
3n	Ore to OB ratio for the pit/mine during the year	1:0.045	1:0.029	
3o	Total area put in use under different heads at the end of year	Area under mining-191.727 ha, OB dumping-6.627 ha, Infrastructure-0.5 ha, roads-3.5 ha, Railways-1.2 ha, Plants-60.25 ha, others-3.8 ha	Covered under current workings-138.805 ha, Reclaimed/Rehabilitated-12.3 ha, Infra/Plant/Building/Roads-61.45 ha, Others (Plantations)-88.50 ha	
3p	Production of ROM mineral during last five-years period, as Applicable (tonne)	2017-18: 4200000	2017-18: : 3793870	.Violation issued for lower production. Actual production was within the proposed quantity .All units in MT
		2018-19: 5500000	2018-19: 4302100	
		2019-20: 5500000	2019-20: 3960813	
		2020-21: 5500000	2020-21: 4133015	
		2021-22: 5000000	2021-22: 4598145	
3q	General remarks of inspecting officer on method of mining etc	Two pits had been developed as proposed. Production is carried out using deployment of HEMM with the help of drilling & blasting.		

4.0 Solid Waste Management-Dumping:

S.N.	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	No separate dumping of Topsoil, OB & mineral reject proposed.	No separate dumping done	All the OB and waste generated has been backfilled in existing pit as proposed.
4b	Location of topsoil, OB & mineral	No Proposal	Nil	OB and Waste

	reject dumps			generated was used for backfilling.
4c	Number of dumps within lease area and outside lease area	WML- 02 (01 OB dump and 01 Waste dump) OML- Nil	WML- 02 (01 OB dump and 01 Waste dump) OML- Nil	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Old OB dump and waste dump proposed outside UPL	OB and waste dumping was carried out outside UPL in the past.	Existing OB dump: 15 meter outside of UPL in SW direction within ML area. Existing waste dump: 40 meter outside of UPL in North direction within ML area.
4e	Number of Active & Alive dumps	Alive dump OB-1 Nos., waste dump-1 Nos.	Alive dump OB-1 Nos., waste dump-1 Nos.	No dumping proposed in the reporting year
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps stabilized	No proposal	Nil	No dumps have been matured for stabilisation
4h	Whether Retaining wall or garland drain all along dumps are there	No proposal	Nil	802 meter garland drain provided on periphery of existing OB dump and waste dump in the past.
4i	Length of Retaining wall or garland drain all along dump	No proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management	Waste dump management was satisfactory. Protection measures for waste dump in form of garland drain and retaining wall had been provided.		

5.0 Solid Waste Management-Backfilling:

S.N.	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Backfilling proposed after full extraction of mineral	Backfilling carried out after full extraction of mineral	

5b	Area under backfilling of mined out area	3 ha. Proposed in the plan period.	0.88 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	Nil	No topsoil generated during the year.
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil	12.3 Ha has been fully reclaimed and rehabilitated as per the approved document.
5e	General remarks of inspecting officer on backfilling, reclamation etc	12.3 Ha has been fully reclaimed by making protecting bund along the river.		

6.0 Progressive Mine Closer Plan:

S. N.	Item	Proposals (2021-22)	Actual Work (2021-22)	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	To be submitted before 01 st July every year	PMCP report received in time	Annual return submitted on 12.05.2022.
6b	Management of worked/mined out benches			
	Area available for rehabilitation (Ha)	No proposal	Nil	Cumulative 12.3 Ha rehabilitated within Lease area.
	Afforestation done (ha)	1 Ha	1.2 Ha	
	No. of saplings planted during the year	2500 saplings proposed	3000 saplings planted	
	Cumulative no. of plants	377875 number of plants within mining lease area.	378375 numbers of plants planted within mining lease area.	
	Any other specific method of rehabilitation	Backfilling proposed	Backfilling carried out as per proposal	
	Cost incurred on watch & care during the year	Not specified	Rs. 500000	Includes sapling, watch and ward cost
6c	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L*B*D) (ii) Void filled by waste/tailings (iii) Afforestation on the backfilling (iv) Rehabilitation by making water reservoir (v) Any other specific means	(i) Available till year 2021-22 200*300*16 cum. (ii) Mining OB/waste, 200*150*16 cum proposed	(i) 200*300*16 (ii) 90*98*16 cum. filled by OB and waste. (iii) Nil (iv) Nil (v) Nil	

		in five year plan. (iii)No proposal (iv)No proposal in year 2021-22 (v) No proposal.		
6d	Compliance of Rehabilitation of waste land within lease i. Afforestation ii. Area rehabilitation (ha) iii. Method of rehabilitation	No proposal	Nil	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Environmental monitoring of air, water & noise proposed	Environmental monitoring of air, water & noise was carried out as per the proposal	All values of environment monitoring are within permissible limits.
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	The lessee has carried out the PMCP activities as per the proposal. Monitoring of environmental parameters were done regularly.		

7.0 Mineral Conservation:

S.N.	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Direct ROM dispatch to their captive plant	Blasted material is sent to the crusher for further sizing & dispatched to their captive cement plant	Single state crushing
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	No proposal	Bench wise blending as per the requirement of cement plant	
7c	Different grade of mineral sort out at mine	No proposal	Nil	Above 34% CaO
7d	Any beneficiation process at mines	No proposal	No beneficiation is done in	Only crushing is done, after which mineral is

			mines except crushing	conveyed to plant through covered belt conveyors
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No beneficiation is warranted in case of Limestone. The run of mine are fed to crusher for sizing and screening for further feeding to the captive cement plant.		

8.0 Environment:

S.N.	Item	Proposals (2021-22)	Actual Work (2021-22)	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	No proposal	Nil	Topsoil generated in the past was utilized for plantation.
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	No proposal	Nil	Backfilling proposed in the reporting year
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling proposed by waste and OB.	Backfilling was carried out as per proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation Proposed : WML: 2500 saplings OML: Nil	Plantation done WML : 3000 saplings OML : 250 saplings	Cumulative plantation. WML : 378375 OML : 286406
8g	Survival rate	Not specified	70%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to suppress the dust	Continuous water sprinkling done on haul roads to suppress the	Sprinklers along with two nos. of 28KL water tanker deployed for suppression of air borne dust

			dust generated	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Aesthetic beauty in & around the mine area was good as the lessee had carried out afforestation & environmental protection measures as per the proposal.		

9.0 Compliance of Rule 45:

S N	Item	Comments		Remarks
9a	Status of submission of monthly and Annual returns	MR submitted up to –August 2022		AR submitted on 27.06.2022
		Annual return submitted upto – 2021-22		
S N	Item	Details GIVEN in A.R.	Observation of I/Officer	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining engineer- Kranti Dewangan Geologist- Rajesh Singh Manager- Ashok Kumar Singh	Same mine officials were present during the course of inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. (Hect.)	Covered under current workings- 138.805 ha, Reclaimed/Rehabilitated-12.3 ha, Infra/Plant/Building/Roads-61.45 ha, Others (Plantations)- 88.50 ha	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	WML- 3000 @ 70% survival , OML-250@ 70% survival	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or grade ore	ROM: Opening stock- Nil, Production- 4598145 tonnes, Closing stock- Nil	Appears to be correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Ex mine price & cost of production- Rs 280.57/Ton Sale Value: Nil	Limestone from the mine is used for captive consumption in cement plant	

9i	Scrutiny of Annual return on Fixed assets	Rs 1541012114 including land, machinery & building	Appears to be correct.	
9k	Scrutiny of Annual return on mining Machinerics	Excavator-3 nos, back hoe-02 nos. Dumper- 12 Nos. Tippres-7 Nos. Drill machine-2 Nos. Dozer- 1 Nos.	Appears to be correct.	

10- (a) Compliance position of earlier violation pointed out: - Violation of Rule 11(1) pointed out. No outstanding violations.

Date: 22.09.2022

अरुण कुमार / Arun Kumar
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines
भारतीय खान ब्यूरो / Indian Bureau of Mines