

**MCDR INSPECTION REPORT 2022-23**

1) Name of Inspecting officer:	Mr. Prem Prakash
2) Designation	Regional Controller of Mines, Raipur
3) Accompanying mine official with designation	Mr. Ashok Kumar Singh, GM-Mines
4) Date of Inspection	21.09.2023
5) Date of Previous Inspection	09.09.2022

**I. GENERAL INFORMATION**

<b>Sl.No</b>	<b>Particulars</b>	<b>Details</b>
1	Name of the Mine	Sonadih Limestone Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total lease area : 444.763 Ha. Forest land : NIL Non forest Land : 444.763 Ha.
3	Mine Code	38MPR28010
4	IBM Registration Number under rule 45 of MCDR, 1988/2017	IBM/378/2011
5	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-ashokkumar.singh@nuvoco.com
6	Village	Raseda
7	Taluka/Mandal	Balodabazar
8	District	Balodabazar – Bhatapara
9	Pin Code	493332
10	State	Chhattisgarh
11	Post office	Raseda
12	Nearest police station	Baloda Bazar
13	Nearest Railway station	Bhatapara
14	Date of Grant of Mining Lease	20 <sup>th</sup> Dec 1985
15	Date of Execution	15 <sup>th</sup> Jan 1986
16	Date of opening of Mine	12 <sup>th</sup> Dec 1989
17	Date of first Renewal, if applicable and its period & expiry	23th June 2010 For the period 15.01.2006 to 14.01.2026 (20 years)
18	Date of second Renewal, if applicable and its period & expiry	17 <sup>th</sup> April 2017 For the period 15.01.2026 to 14.01.2036 (10 years)

19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	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 Phone : +91 (0) 22 61202628
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Name: Mr. Arvind Kumar Patil Designation : Sr. Vice President Date of appointment : 10.06.2023 Address : Sonadih Limestone Mines, PO-Raseda, Distt: Balodabazar- Bhatapra, Chhattisgarh-493332, Phone : +91-7727272226 arvindkumar.patil@nuvoco.com
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Name : Mr Ashok Kumar Singh Designation : GM Qualification : B.E (Mining Engineering) Date of appointment : 22.07.2019 Work Experience : >25 years Address : Sonadih Limestone Mines PO-Rased, Distt: Balodabazar-Bhatapra Chhattisgarh-493332, Phone :+91-9893497184 ashokkumar.singh@nuvoco.com
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Name : Mr Kranti Dewangan Designation : Sr. Manager Qualification : B.E.(Mining Engineering) Date of appointment : 15.10.2012 Work Experience : >13 years Address : Sonadih Limestone Mines, P.O-Raseda, Distt: Balodabazar-Bhatapra, Chhattisgarh-493332, Phone :+91-9755015344 kranti.dewangan@nuvoco.com
24	Name of the Geologist , Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Name : Mr Rajesh Singh Designation : DGM (Geology) Qualification : M Tech_Applied Geology Date of appointment : 01.09.2017 Work Experience : >25 Years Address : Sonadih Limestone Mine, P.O-Raseda, Distt: Balodabazar-Bhatapra Chhattisgarh-493332, Phone :+91-9163323296 rajesh01.singh@nuvoco.com

25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55&carrying out their duties as per rule 56&57 of MCDR, 2017.	Yes
26	Date of Approval of Mining Plan/Modified Mining 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.
27	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)  BALODABAZAR/CHUP/KHAYO-1250/2020-RAIPUR (2021-22 to 2025-26)
28	Mineral(s) granted in lease and proved for mining	Limestone
29	Method of Mining(Open cast, Underground)	Open cast
30	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
31	Captive/Non-Captive	Captive

## II. SCIENTIFIC MINING

[Data in respect of financial year (2022-23) or cumulative, as applicable]

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>A. EXPLORATION:-</b>				
1a	Backlog of Previous Year	No proposal	Nil	
1b	Exploration Over Lease area for Geological Axis 1 or 2	G1	G1-444.763 ha.	Entire potential mineralised area has been explored at G1 level as per the approved Mining Plan.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Not applicable	
1d	Balance area to be explored to bring Geological axis 1 or 2	No proposal	Nil	

1e	Balance reserves as on 01/04/2023	Under 111:- 13544576 Tonnes	As per AR submitted for the year 2022-23
1f	General remarks of inspecting officer on geology, exploration etc.	No exploration has been proposed during the financial year 2022-23. The entire lease area has been explored at G1 level as per the approved Mining Plan.	

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>B. DEVELOPMENT:-</b>				
2a	Location of development w.r.t. lease area	E/W 624029-625895 N/S 2403920-2406155	E/W 624097-625885 N/S 2404161-2406157	Development in Pit-1 was carried out within the proposed grids
2b	Separate benches in topsoil, overburden and mineral	Separate benches proposed in OB & mineral	Separate benches were maintained in OB & mineral	Overburden bench- 1 Nos. Mineral Bench- 4 Nos.
2c	Stripping ratio or ore to OB ratio	1: 0.061	1:0.095	Ore and OB ratio in tonne: m3 TCF: OB-1.4, Shale- 2.2 & Limestone- 2.5
2d	Quantity of topsoil generation in m3	No proposal	Nil	No topsoil generated
2e	Quantity of overburden generation in m3	307489	361960	Make up/adjusted the backlog quantity of the FY 2021-22
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Development in Pit-1 was carried out within the proposed grid. However, Violation under Rule 11(1) of MCDR, 2017 pointed out for not developing the new pit (Pit No.02) in southern part of the lease area as envisaged in the approved Mining Plan.		

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>C. EXPLOITATION:-</b>				
3a	Number of Pit Proposed for Production	02	02	Violation under Rule 11(1) of MCDR, 2017 pointed out for not developing the new pit (Pit No.02) in southern part of the lease area as envisaged in the approved Mining Plan
3b	Quantity of ROM mineral production proposed	4000000 tones	3776424 tones	
3c	Recovery of Sailable/			

	Usable Mineral from ROM Production	100%	100%	
3d	Quantity of mineral reject generation	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	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	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	Not applicable	
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	Yes, HEMMs	HEMMs deployed	
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 are maintained as per proposal	
3m	Total area covered under excavation/pits	191.727 Ha. up to the end of plan period 2025-26	147.579 Ha. at the end of FY 2022-23	
3n	Ore to OB ratio for the pit/mine during the year	1: 0.061	1:0.095	Ore and OB ratio in Tonne : M <sup>3</sup>
3o	Total area put in use under different heads at the end of year	267.604 Ha. Up to proposal period 2025-26	231.956 Ha. at the end of FY 2022-23	
3p	Production of ROM mineral during last five-year period, as applicable	FY : 2018-19 : 5500000 FY : 2019-20: 5500000 FY :2020-21: 5500000 FY :2021-22: 5000000 FY :2022-23: 4000000	FY : 2018-19 : 4302100 FY : 2019-20 : 3960813 FY : 2020-21 : 4133015 FY : 2021-22 : 4598145 FY : 2022-23 : 3776424	All units in MT (ROM Quantity is mentioned as reported in Annual Returns submitted)
3q	General remarks of inspecting officer on method of mining etc.	Open cast working being carried out by deployment of HEMM with the help of drilling & blasting.		

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>D. SOLID WASTE MANAGEMENT - DUMPING:-</b>				
4a	Separate Dumping of Topsoil, OB and Mineral Rejects	No separate dumping of Topsoil, OB & mineral reject proposed	No separate dumping done	No dumping proposed. All the OB and Waste generated has been backfilled in center of existing pit.
4b	Location of Topsoil, OB and Mineral Rejects Dumps	No proposal	Nil	OB and Waste generated was used for backfilling
4c	Number of Dumps within Lease & Outside Lease area	WML : OB dump - 1 Nos., Waste dump - 1 Nos. OML- Nil	WML = OB dump - 1 Nos., Waste dump - 1 Nos. OML- Nil =Nil	No external dumping is proposed and carried out in year 2022-23.
4d	Location of Dumps, within Ultimate Pit Limit	Proposed beyond UPL	Beyond UPL	
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	No of Dead Dumps	Nil	Nil	No dead dumps lying.
4g	No of Dumps stabilized	No proposal	Nil	
4h	Whether Retaining Wall or Garland drain along Dumps are there	Yes	Maintained, the retaining wall and garland drain made around the dumps in the past	
4i	Length of Retaining Wall or Garland drain along Dumps	No proposal	Nil	
4j	No. of Settling tanks	Not proposed.	Nil	05 Nos. of settling tanks already constructed in the past
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.		

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>E. SOLID WASTE MANAGEMENT - BACKFILLING:-</b>				
5a	Status of 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	Backfilling continue
5b	Area under backfilling of mined out area	3 Ha. area proposed in 5 year Plan period up to 2025-26	0.72 Ha.	1.6 ha. area cumulative up to 2022-23
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	No proposal	Nil	No topsoil generated during the year.
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Backfilling being carried out at the proposed area.		

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>F. PROGRESSIVE MINE CLOSURE PLAN:-</b>				
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2)	To be submitted before 01 <sup>st</sup> July every year	PMCP report received in time	Annual return submitted on 28.06.2023
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	Nil 1 Ha. 2500 380375 No proposal Not proposed	Nil 1.2 Ha 3000 381375 Nil Rs. 7,06,000 /-	Cumulative 12.3 Ha areas rehabilitated within Lease area till date.
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D)	(i) 200x300x16 m3 at the end of plan period (ii) Void filled by	(i) - (ii) Cumulative backfilled 200x80x16 m3 (iii) Void filled by waste (iv) Not applicable	

	ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	waste  (iii) No proposal (iv) No proposal (v) No proposal	(v) Not applicable (vi) Not applicable	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation Area rehabilitated (ha) ii) Method of rehabilitation	(i) 2500 sapling (ii) 1 Ha (iii) Plantation	(i) 3000 sapling (ii) 1.2 Ha (iii) Plantation	
6e	Compliance of Environmental 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 were within the permissible limits
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Annual PMCP report has been submitted. The lessee has carried out the PMCP activities as per the proposal.		

Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>G. MINERAL CONSERVATION:-</b>				
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	
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 sorted out at mines	No proposal	Nil	
7d	Any beneficiation process at mines	No proposal	No beneficiation is done in mines except crushing	Only crushing is done, after which mineral is 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.		



Sl. No	Item	Proposals (2022-23)	Actual (2022-23)	Remarks
<b>H. ENVIRONMENT:-</b>				
8a	Separate removal and utilization of topsoil	No proposal	Nil	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines	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	3.13 Ha backfilling continue.
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	Plantation Proposes: WML-2500 Nos.	Plantation done: WML : 3000	
8g	Survival rate	Not specified	80%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to suppress the dust	Continuous water sprinkling being done on haul roads to suppress the dust generated	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty in & around the mine area was good.		

Sl. No	Item	Comments		Remarks
<b>I. COMPLIANCE OF RULE-45:-</b>				
9a	Status of Submission of Monthly & Annual Returns	MR being regularly submitted AR Submitted up to FY.2022-23		
Sl. No	Item	Details Given in A.R	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mnager- Shri Ashok Kumar Singh Geologist-Shri Rajesh Singh Mining Engineer- Shri Kranti Dewangan	Employed	
9c	Scrutiny of Annual return on land use pattern for area under	Area under pit- 147.579 Ha.	About 147 Ha.	

	pits, reclaimed area, dumps etc.			
9d	Scrutiny of Annual return on afforestation	Within lease area 2500 @ 80% survival rate	Within lease area 2500 @ 80% survival rate	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of ROM-0.00 Cement Grade-0.00	Closing stock of ROM-0.00 Cement Grade-0.00	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mine Price & Cost of production – Rs 285.27/ton	Captive Consumption	
9i	Scrutiny of Annual return on fixed assets	Rs. 629705635.00 including land, building and machinery.	Appears to be correct	
9k	Scrutiny of Annual return on mining machineries	Excavator-5 nos Dumper- 12 Nos. Tippers-7 Nos. Drill machine-2 Nos. Dozer- 1 Nos.	Observed deployed	

10- Details of violations observed during current inspection:-Violation of Rule 11(1) of MCDR 2017 is pointed out after current inspection.

Date: -

प्रेम प्रकाश / Prem Prakash  
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines  
भारतीय खान ब्यूरो, रायपुर / Indian Bureau of Mines, Raipur