

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1	Name of inspecting office & designation, Accompanying person	Rajesh Kumar Das, Senior Assistant Controller of Mines, Shri Vedprakash Devangan, Mining Engineer
2	Date of inspection	16.05.2019
3	Name of the Mine	Sonadih Limestone Mines
4	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
5	Minecode	38MPR28010
6	IBM Registration Number under rule 45 of MCDR, 1988	IBM/378/2011
7	Name of the lessee, Address, phone, email and fax number	Nuvoco Vistas Corp Ltd (Formerly Lafarge India 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.in
8	Village	Raseda
8	Taluka/Mandal /District	Balodabazar
10	State	Chhattisgarh
11	Post office & PIN	493332
12	Nearest police station	Balodabazar
13	Nearest Railway station	Bhatapara
14	Date of Grant of Mining Lease	20 Dec''1985
15	Date of Execution	15 Jan''1986
16	Date of opening of Mine	12 Dec''1989
17	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)
18	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)
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, Mob:+91 (0) 22 61202628
21	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-Bhatapara, Chhattisgarh-493332 +91-7727272226

22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Name : Mr Nitesh Raghuvanshi Designation : DGM Qualification : BE_Mining Date of appointment : 05.01.2015 Work Experience : 16+ years Address : Sonadih Limestone Mines, PO-Raseda Distt: Balodabazar-Bhatapra, Chhattisgarh-493332 Mob:+91-7869962751
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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	Name : Mr Vedprakash Dewangan Designation : Manager Qualification : BE_Mining Date of appointment : 09.05.2016 Work Experience : 10+ years Address : Sonadih Limestone Mines, PO-Raseda Distt: Balodabazar-Bhatapra, Chhattisgarh-493332 Mob:+91-9893019629
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Name : Mr Rajesh Singh Designation : AGM Qualification : M Tech_Applied Geology Date of appointment : 01.09.2017 Work Experience : 20+ Years Address : Sonadih Limestone Mines, PO-Raseda Distt: Balodabazar-Bhatapra, Chhattisgarh-493332 Mob:+91-9163323296
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Modified Mining Plan approval letter no: Balodabazar/chu.pa/kha yo-1130/2017-Raipur. Dated: 05.01.2018 For the period up to 31-March-2021
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Approved Mining scheme: For the period 1-Dec''2017 to 31-March-2021  Date of Approval : 05.01.2018
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)	Fully Mechanised
30	Captive/Non Captive	Captive
31	Existing EC Limit and validity	5.5 million tons
32	Status of Financial Assurance	Rs 75153000/- upto 31.03.2021

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

### **1.0 Exploration**

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	08 nos bore holes proposed	44 nos bore holes drilled	-

		upto 30 meter depth		
1b	Exploration over lease area for Geological axis 1 or 2.	18 Ha (for Geological axis 1)	58.30 Ha (for Geological axis 1)	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Gem Consultants INR 3176943/-		
1d	Balance area to be explored to bring Geological axis in 1 or 2	40 Ha.	NIL.	
1e	Balance reserves as on 01.04.2019	23.894	25.088	
1f	General remarks of inspecting officer on geology, exploration etc.	The limestone deposit belongs to Chandi Limestone formation of Raipur group of Chhattisgarh super group. The limestone strata have a general strike of NE-SW with gentle dip of 5-6 degree due NW. The lease area is broadly explored in G1.		

## 2.0 Development

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Western Part of ML area	Broadly within proposed area.	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes	Yes 0.5 to 1.0 Mtr OB	
2c	Stripping ratio or ore to OB ratio	1:0.014	1:0.027	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	55000	84267	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The development is broadly as per proposal but OB/IB generation is on higher side.		

## 3.0 Exploitation

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	1	1	
3b	Quantity of ROM mineral production proposed	5.5 Million tonne	4.30 Million	
3c	Recovery of salable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	160000 Tonnes	164740 Tonnes	
3e	Grade of mineral reject generation and threshold value declared	CaO < 34% MgO > 4%	CaO < 34% MgO > 4%	
3f	Quantity of sub-grade mineral generation	NIL	NIL	
3g	Grade of sub-grade mineral	NA	NA	

	generation			
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method of working for blending high grade and sub grade mineral using multiple excavators	Mechanized method of working for blending high grade and sub grade mineral using multiple excavators	
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	Yes Spacing x Burden 4.5(m) x 3.5(m) Blasting – Non Electrical Sequential firing with SME Drill – 115 mm	Yes Deephole drilling & Blasting, Spacing x Burden 4.5(m) x 3.5(m) Blasting – Non Electrical Sequential firing with SME Drill – 115 mm	
3k	Provision of mining machineries in mineral benches	Shovel – 4 Nos. Dumper- 12 Nos.	Shovel – 4 Nos. Dumper- 12 Nos.	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes Proposed – 8-10 M in ore body	Yes Proposed – 8-10 M	
3m	Total area covered under excavation/pits	-	123.639 Hect	
3n	Ore to OB ratio for the pit/mine during the year	1:0.014	1:0.027	
3o	Total area put in use under different heads at the end of year	Waste/reject- 5.72 Hect Others- 85.100 Hect	Waste/reject- 5.72 Hect Others- 85.100 Hec	
3p	Production of ROM mineral during last five-year period, as applicable	Yr 2014-15: 5200000 Yr 2015-16: 5500000 Yr 2016-17: 5500000 Yr 2017-18: 4200000 Yr 2018-19: 5500000	Yr 2014-15: 3414313 Yr 2015-16: 3973931 Yr 2016-17: 3416172 Yr 2017-18: 3793870 Yr 2018-19: 4302098	
3q	General remarks of inspecting officer on method of mining etc.	The method of mining is by opencast method as per proposal using shovel-Dumper combination and deep hole drilling and blasting.		

#### 4.0 Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject(waste) (Rule 32, 33)	Within the lease area	OB Dump: E 624700-624500 N 2406350 – 2406100 Waste Dump: E 624520-624679 N 2406121-2406331	
4b	Location of topsoil, OB & mineral reject dumps	NW	NW	OB dump
4c	Number of dumps within	Inside – 2	Inside – 2	

	lease area and outside lease area	Outside - 0	Outside - 0	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed outside ultimate pit limit	OB Dump: E 624700-624500 N 2406350 – 2406100 Waste Dump: E 624520-624679 N 2406121-2406331	
4e	Number of active & alive dumps	OB - 1 Waste - 1	OB - 1 Waste – 1	
4f	Number of dead dumps	0	0	
4g	Number of dumps stabilised	NA	NA	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Yes	Yes 4.1 Km Retaining Wall with garland drain	
4j	Number of settling ponds	NA	NA	
4k	Specific comments of inspecting officer on waste dump management	The waste dumping is broadly as per proposal.		

#### 5.0 Solid Waste Management-Backfilling

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Backfilling will be done at mined out area	Backfilling done at mined out area	
5b	Area under backfilling of mined out area	At location E 624810-624878 N 2405013-2405127	0.5 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Topsoil will be used for plantation purpose	Topsoil is being used for plantation purpose	
5d	Total area fully reclaimed & rehabilitated	NA	12.300 Hec. (Protective Bund Along the River)	
5e	General remarks of inspecting officer on backfilling, reclamation etc	The backfilling is done as per proposal		

#### 6.0 Progressive Mine Closure Plan

SN	Item	Proposals	Actual work	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 *Plantation – 2500 *Land to be Degraded- - *Land to be reclaimed- - *OB Quantity – 55000 M3	*To be send *Plantation – 5500 (WML+OML) *Land Degraded- 2.989 hect *Land to be reclaimed- 164740 Tonnes *OB Quantity – 84267 M3	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha)	i)NIL	i)NIL	

	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	ii)85.1 Hect iii)- saplings  iv) NA	ii)86.1 Hect iii)3000 saplings (WML) 2000 saplings (OML)  iv)6.25 lakhs	
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	NA	NA	

6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) Nil ii) Nil iii) Nil	i) Nil ii) Nil iii) Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air- Wet Drilling Water-Check Dams Noise-Control Blasting In house environment monitoring cell.	Air- Within Permissible Limit Water- Within Permissible Limit Noise- Within Permissible Limit	
6f	General remarks of inspecting officer on PMCP compliance & progressive	PMCP proposals are implemented and broadly as per proposal.		

#### 7.0 Mineral Conservation

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	YES – Different benches to be opened	YES – Operating 4 benches	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanised	Mechanised	
7c	Different grade of mineral sorted out at mines	YES	The low grade material and high grade material blended in such a way to meet the requirement.	
7d	Any beneficiation process at mines	NA	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The grade is vary from bench to bench9horizontally as well as vertically) therefore blending is done to cater the required grade as well as optimum utilisation of limestone of various grade.		

#### 8.0 Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	YES Plan – 55000 M3 ( Top Soil + OB)	YES Actual – 84267 M3 ( Top Soil + OB)	
8b	Concurrent use or storage of topsoil	Use for Plantation	Use for Plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	YES	YES	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	YES	YES	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation on WML and OML proposed	Plantation WML: 366875 nos OML: 290356 nos	
8g	Survival rate	75 %	80%	
8h	Water sprinkling on roads to control airborne dust	YES	YES	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The lessee as per proposal complied all environment protection measures i.e. plantation, water sprinkling for dust suppression, monitoring of Air, water, noise, etc therefore no such adverse impact observed on aesthetic beauty in and around mines area.		

#### 9.0 Compliance of Rule 45

S. N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto – April''2019 A.R. submitted upto- FY 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	Yes given	Shri Ved prakash Devangan, Mining Engineer, Shri Nitesh Raghuwanshi, Mines Manager, Shri Rajesh Singh, Geologist.	
9c	Scrutiny of Annual return on land use pattern for area under		Covered under o/c working-120.651 ha, Reclaimed & Rehabilitated- 12.3 ha., Waste Disposal –5.727 ha.,	

	pits, reclaimed area, dumps etc.		Infrastructure- 61.45 ha.						
9d	Scrutiny of Annual return on afforestation	Yes given	Within Lease area-3100 nos saplings, outside lease area-10000 nos.						
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)		135000						
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil							
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost		Ex. Mine price & production cost is Rs 229.02/-						
9i	Scrutiny of Annual return on fixed assets	Yes given	Rs 13410285011/-						
9k	Scrutiny of Annual return on mining machineries	Yes given	SHOVEL (HYDRAULIC)	3.500 CUM	1	Non Electrical			
			SHOVEL (HYDRAULIC)	5.100 CUM	3	Non Electrical			
			DUMPER	35.000 TONNE	12	Non Electrical			
			BLAST HOST DRILL	112.000 MM	2	Non Electrical			
			FRONT END LOADER	3.500 CUM	1	Non Electrical			
			DOZER	450.000 HP	1	Non Electrical			
			MOTOR GRADER	112.000 HP	1	Non Electrical			
			EXPLOSIVE VAN	1.910 TONNE	1	Non Electrical			
			PUMPS (ELEC.)	105.000 L/MN	1	Electrical			

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:- There is no violation pending for compliance and during present inspection Rule 37(1),37(2) and 48 found violated and accordingly violation letter issued.