

Sl.N	PARTICULARS	DETAILS
1	File No.	CHG/RAP/LST-50/NGP
2	Name & Designation of the inspecting officer	Arun Kumar, Regional Controller of Mines Indian Bureau of Mines, Raipur
3	Date of Inspection	01.09.2022
4	Date of Last Inspection & Officer	09.09.2021, Rajesh Kumar Das, Sr. Asst. Controller of Mines, Indian Bureau of Mines, Raipur
5	Accompanying mine personnel	MayankSaini, GM(Mines Operation), KamleshChandrakar- Sr. Manager (Planning &Geology)
6	Name of the Mine	Rawan-Jhipan Limestone Mine
7	Total Lease Area (Ha) with breakup of Non-forest and forest land	Lease area – 722.834 hect, Non Forest area – 722.834 hect, Forest Area – Nil
8	Mine code	38MPR28018
9	IBM Registration Number under rule 45 of MCDR, 1988	IBM/441/2011
10	Name of the lessee, Address, phone, email and fax number	M/s UltraTech Cement Limited Address - ‘B’ Wing, Ahura Centre 2nd floor, caves Road, Andheri (E), Mumbai 400093 Fax No - 02266928109 Phone No- 02266917800 Email - ajit.ostwal@adityabirla.com
	Village	Rawan, Jhipan, Pendri, Kadhidi and Phunserdih
	Taluka/Mandal	Simga
	District	BalodaBazar - Bhatapara
	Pincode	493196
	State	Chhattisgarh
	Post office	Grasim Vihar, Rawan
11	Nearest police station	Suhela
12	Nearest Railway station	Bhatapara
13	Date of Grant of Mining Lease	01.11.1993
14	Date of Execution	04.12.1993
15	Date of opening of Mine	05.02.1994
16	Weekly day of rest	Sunday
17	Date of first Renewal, if applicable and its period & expiry	Not applicable
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	<b>K.C. Jhanwar</b> , M/s UltraTech Cement Limited Ahura Centre, A Wing, First Floor, Mahakali Caves Road, Andheri East, Mumbai 400093 Email: ajit.ostwal@adityabirla.com Phone No.: 022-66917421 Date of Appointment – 19/10/2018

19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	<b>VinaySharadChitale,</b> M/S UltraTech Cement Limited, Unit :Rawan Cement Works, Village Rawan, Post office: Grasim Vihar, distt. Baloda Bazar –Bhatapara (C.G.) 493196, Phone No- 9922413048 Fax - 07726-281572, Email: <a href="mailto:vinay.chitale@adityabirla.com">vinay.chitale@adityabirla.com</a> , Date of appointment: 12.11.2021
20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	<b>MayankSaini,</b> RawanJhipan Limestone Mine, Grasim ViharRawan, District: Baloda Bazar-Bhatapara (Chhattisgarh), Phone no: 9669074604 Email: mayank.saini@adityabirla.com Date of Appointment: 06/05/2018
21	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	<b>MayankSaini,</b> Qualification: BE (Mining) Total Experience: 15 years RawanJhipan Limestone Mine, Grasim ViharRawan, District: Baloda Bazar-Bhatapara (Chhattisgarh) Email: mayank.saini@adityabirla.com Phone no: 9669074604 Date of Appointment: 06/05/2018
22	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Both Geologist and mining engineer have been appointed as per Rule 42. <b>ShriKamlesh Kumar Chandrakar</b> M. Tech.-Applied Geology, Total Experience 20 years
23	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Date of Approval of Modified Mining Plan: 17.11.2017 andfor the period from 2018-19 to 2022-23 valid up to March 2023.
24	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Modification not done in this plan period.
25	Mineral(s) granted in lease and proved for mining	Limestone
26	Method of Mining (Opencast, Underground)	Open cast
27	Category (Fully Mechanized, Others or Manual)	Fully mechanized
28	Captive/Non-Captive	Captive
29	EC for ROM Prod: Date of Issue:	7.5 Million Tonnes 29.06.2011
30	FA amount Rs Valid up to:	Rs-9,39,00,000/- and Rs.6, 26, 00,000/- Valid up to 31 <sup>st</sup> March 2023

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

**1.0 EXPLORATION**

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
1a	Backlog of previous year	No proposal	Nil	546 core drill holes have been drilled to a total of 18350.5 Mts. from 1991 to 2017.
1b	Exploration over lease area for Geological axis 1 or 2.	G1 & G2	G1- 722.8 Ha,	Entire potential mineralised zone has been explored under G1 scale up to depth of 40 depth.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No proposal	Nil	Phase wise exploration was carried out by different agencies in the past
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Nil	G2 area of 26.993 Ha was explored in 2019-20 to convert G1 into G2 level.
1e	Balance reserves as 01.04.2022 (million tonnes)	Nil	131 Million Tonnes with an average grade of 41.81 CaO	As per Annual Returns submitted for the year 2021-2022
1f	General remarks of inspecting officer on geology, exploration etc.	The deposit is a regular stratified type deposit with dip of 1-2 degree. During the previous year 26 bore holes were drilled to a total meterage of 2952 Mts.		

**2.0 DEVELOPMENT**

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
2a	Location of development w.r.t. lease area	X=601600-603200 Y=2383900- 2386500	X=602000-603200 Y=2384100-2386300	Less development due to less demand from captive plant.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches proposed in OB & mineral.	Separate benches were maintained in OB & mineral.	Overburden-01 Mineral-4. Bottom bench i.e 4 <sup>th</sup> bench was water logged on the day of inspection.
2c	Stripping ratio or ore to OB ratio	1:0.22	1:0.23	All units in tons

2d	Quantity of topsoil generation in Tonnes	66483	75194	TCF: Top Soil-1.6,OB-1.8,Shale-2.2 & Limestone-2.5
2e	Quantity of overburden generation in MT	1665195	1542680	Due to less limestone production.
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The development of quarry is on lower side due to less production demand from their captive cement plant. Due to rainy season, the bottom benches were found water logged on the day of inspection.		

### **3.0 EXPLOITATION**

S.N.	ITEM	PROPOSAL (2021-22)	ACTUAL WORK (2021-22)	REMARK
3a	Number of pits proposed for production	01pit proposed	Working carried out in 01pit only	
3b	Quantity of mineral production proposed	75,00,000 MT	68,04,149 MT	As per plant demand.
3c	Recovery of saleable/usable mineral from production	99%	96.29%	High contamination of interstitial Clay in top benches
3d	Quantity of mineral reject generation	60000 MT	261892MT	High contamination of Clay in top benches
3e	Grade of mineral reject generation and threshold value declared	CaO grade in Mineral reject - 26.8% Threshold – 34%	CaO grade in Mineral reject - 29.31% Threshold – 34%	
3f	Quantity of sub-grade mineral generation	15000MT	15142MT	Blended partly with high grade limestone and fed to the plant.
3g	Grade of sub-grade mineral generation	CaO- 36.17 %	CaO-36.52%	Blendable cement grade Limestone.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating from ROM	Mechanized method adopted for segregating from ROM	Wobbler with screening system installed in crusher for segregation of clay and limestone.
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	Provision of drilling & blasting made in mineral benches	Drilling & blasting is carried out in the mineral benches	Drilling & Blasting Dia of Hole -152 & 112 mm Drilling Pattern (Spacing*Burden*Depth) Dev -(3*3*2.5)

				Ore-(6.5*4*8)	
3k	Provision of mining machineries in mineral benches	Shovel dumper combination proposed	Mining is done using Shovel dumper combination.	Two excavators & 06 Dumpers 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 proposals: In OB-4 Mts In Mineral-8-10 Mts	Bench height maintained. Broken boulders & blasted materials were stacked on the benches, thereby reducing the width of the benches.	Violation issued for not maintaining adequate bench width.	
3m	Total area covered under excavation/pits	265 Ha at the end of plan period	218.180 Ha. At the end of reporting year		
3n	Ore to OB ratio for the pit/mine during the year	1:0.22	1:0.23	All units in Tons	
3o	Total area put in use under different heads at the end of year	Area under mining-265 Ha, Storage of top soil-2.66 Ha, Waste dump site-24.12 Ha, Mineral storage-0.4 Ha, Infrastructure-0.96 Ha, Roads-6.28 Ha, Mineral separation Plant-0.76 Ha, Others(Screen Reject Dump): 12.624 Ha at the end of plan period	Area covered in OC mining-218.18 ha. Reclaimed & rehabilitated-2.68- ha. Used for waste disposal- 34.33 ha. Occupied by plant, buildings etc- 8.0 Ha. Other purpose (mineral reject/subgrade stock)-0.4 Ha. Work done under PMCP- 1.3 Ha.at the end of reporting year		
3p	Production of mineral during last five year period, as applicable (tones)	2017-18	7500000	6386548	Actual production is with in the proposed quantity .All units in MT
		2018-19	7500000	6899169	
		2019-20	7500000	7016800	
		2020-21	7500000	6167014	
		2021-22	7500000	6804149	
3q	General remarks of inspecting officer on method of mining etc.	A single quarry has been developed as proposed. Production is carried out using deployment of HEMM with the help of drilling & blasting.			

#### **4.0 SOLID WASTE MANAGEMENT-DUMPING**

<b>SN</b>	<b>ITEM</b>	<b>PROPOSALS (2021-22)</b>	<b>ACTUAL WORK (2021-22)</b>	<b>REMARKS</b>
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of Topsoil, OB & mineral reject proposed	Separate dumping of topsoil, OB and mineral reject carried out .	Nil
b	Location of topsoil, OB & mineral reject dumps	Top soil along the MLB South OB- 2384142-238446 N & 602985-603579 E North OB 2385323- 2385523N & 602093 -602563 E Screen Reject- 602438-602773E, 2383966- 2384188N	Top soil staking along the lease boundary. South OB- 2384467 -2384142 N & 603042 - 603560 E North OB- 2385326-2385519 N & 602171 -602465 E Screen Reject- 602550-602770E, 2383984-2384180N	Nil
4c	Number of dumps within lease area and outside lease area	WML-06 Dumps  OML-Nil	WML-06 Dumps  OML-Nil	Includes top soil, screen reject & OB dump.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Temporary dumps proposed within the UPL	Dumps are located within the UPL as the entire area is mineralized.	North OB- 2385326- 2385519 N & 602171 - 602465 E Temporary in nature
4e	Number of active & alive dumps	04 dumps	04dumps	
4f	Number of dead dumps	02 dumps	02 dumps	
4g	Number of dumps stabilized	01dump	01dump	Stabilized by plantation
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	No proposal	Constructed 200mtr of Retaining wall	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer	Top soils, over burden waste and mineral rejects have been separately dumped. Protection measures for waste dump in form of garland drain and retaining wall have been provided.		

## **5.0 SOLID WASTE MANAGEMENT-BACKFILLING**

<b>SN</b>	<b>ITEM</b>	<b>PROPOSALS (2021-22)</b>	<b>ACTUAL WORK (2021-22)</b>	<b>REMARKS</b>
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No proposal	Nil	No area is mined out fully.
5b	Area under backfilling of mined out area	No proposal	Nil	Not warranted at present.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Based on the availability – used for spreading for Plantation	Top soil stored along the lease boundary and it is being used for plantation.	Concurrent use of top soil. During 2021-22 total 75194 MT quantity is being used.
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil	1.45 Ha waste dump area is fully reclaimed and rehabilitated as per approved document.
5e	General remarks of inspecting officer on backfilling, reclamation etc	No area is devoid of mineral, thus no proposal given for backfilling. The generated top soil is being used for plantation purpose.		

## **6.0 PROGRESSIVE MINE CLOSURE PLAN**

<b>SN</b>	<b>ITEM</b>	<b>PROPOSALS (2021-22)</b>	<b>ACTUAL WORK (2021-22)</b>	<b>REMARKS</b>
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.	To be submitted before 01 <sup>st</sup> July every year	PMCP report received in time	Annual return submitted on 29.06.2022.
6b	Management of worked/mined out benches	No Proposal	Nil	No area is devoid of mineral.
	i) Area available for rehabilitation (ha)			
	ii) Afforestation done (ha)	No Proposal	Nil	
	iii) No. of saplings planted during the year	No Proposal	Nil	
	iv) Cumulative no. of plants	No Proposal	Nil	
	v) Any other specific method of rehabilitation	No Proposal	Nil	

	vi) Cost incurred on watch & care during the year	No Proposal	Nil	
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	Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Nil	i) 3300Nos of Saplings ii) 1.23 (ha) iii) Plantation	Re plantation done in the year 2021-22
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environmental monitoring of air, water, soil & noise proposed	Environmental monitoring of air,water,soil & 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	The lessee has carried out the PMCP activities as per the proposal. Environmental monitoring of parameters were carried out regularly.		

## **7.0 MINERAL CONSERVATION**

<b>SN</b>	<b>ITEM</b>	<b>PROPOSALS (2021-22)</b>	<b>ACTUAL WORK (2021-22)</b>	<b>REMARKS</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	Clay and limestone segregation is being done through wobbler and screen combination



				installed in crusher.
7c	Different grade of mineral sorted out at mines	15000 MT	15142 MT	Mineral reject is sorted out and used for blending.
		60000 MT	261892 MT	High contamination of Clay in top benches
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 ROM is fed to the crusher for further sizing and screening and feeding to their captive cement plant.		

## **8.0 ENVIRONMENT**

<b>SN</b>	<b>ITEM</b>	<b>PROPOSALS (2021-22)</b>	<b>ACTUAL WORK (2021-22)</b>	<b>REMARKS</b>
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and utilization of topsoil proposed	Top soil stored along the lease boundary and it is being used for plantation	Concurrent use of top soil.
8b	Concurrent use or storage of topsoil	Separate stacking and utilisation during plantation	Top soil generated is being used .	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for overburden, waste rock, rejects is proposed	Separate dump for all type of waste is being maintained.	Violation issued for change in location of mineral reject under Rule 11(1) of MCDR, 2017

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	In approved Mining Plan, green belt area of 101.67 ha is cited.	Year wise plantation record is being maintained and Native species of trees is being planted as approved by DFO.	
8g	Survival rate	Not specified	79%	
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 by water tankers. Bag filters installed in crushing units	28KL and 12KL water tanker were deployed for suppression of dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	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	Details Given in A.R.	Observation of I/Officer	Remarks
9 a	Status of submission of monthly and Annual returns	Monthly Returns submitted up to – July 2022, Annual Return submitted up to -2021-22	submitted on 29.06.2022	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager & Mining Engineer: Mayank Saini Geologist: Kamlesh Chandrakar	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.	Area covered in OC mining- 218.18 ha. Reclaimed & rehabilitated- 2.68- ha. Used for waste disposal-	Violation of Rule 45(5)(c) of MCDR, 2017 for furnishing incorrect information on	

		34.33 ha. Occupied by plant, buildings etc- 8.0 Ha. Other purpose (mineral reject/subgrade stock)-0.4 Ha. Work done under PMCP- 1.3 Ha.	area fully reclaimed and rehabilitated	
9d	Scrutiny of Annual return on afforestation	WML- 3300 saplings @ 79% survival rate OML- 600 saplings @ 76% survival rate.	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	261892 MT with 29.31 % CaO	Appears to be correct.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: Opening stock- Nil, Production-6804149 tonnes, Closing stock- Nil	Appears to be correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex mine price & cost of production- Rs 237.17/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 243790251/-including land, machinery & building	Appears to be correct.	
9k	Scrutiny of Annual return on mining machineries	Excavators-08 Nos, Dumpers-14 Nos, Drills-3 Nos, Loaders-1No., Dozers-2Nos., Water Tankers-03 Nos.	Appears to be correct.	

10- Details of violations observed during current inspection and compliance position of earlier violation: Violation of Rule 11(1) & 45(5) (c) pointed out. No outstanding violations.

Date: 13.09.2022

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