

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPMENT AND REGULATION DIVISION**

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/STN/LST-49

**Mine code :** 38MPR35071

- (i) Name of the Inspecting Officer and ID No. : **NQ07** ) **PUKHRAJ NENIVAL**
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine Official with Designation : Mr. Rajesh Chaubey, Agent, Mr. Kumar Rajan - mining E
- (iv) Date of Inspection : 24-JUL-21
- (v) Prev.inspection date : 13-JAN-20

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SAGMANIA**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : SATNA  
Village : SAGMANIA  
Taluka : RAGHURAJ NAGAR  
Post office : SAGMANIA  
Pin Code : 485114  
FAX No. : N. A.  
E-mail : scwl@vsnl.com  
Phone : N. A.
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for correspondance : M/S SATNA CEMENTS WORKS  
P.O.BIRLA VIKAS, SANTA (M.P.) 485005
3. (a) Lease Number : MPR0379  
(b) Lease area : 1000  
(c) Period of lease :  
(d) Date of Expiry :
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : SATNA CEMENTS WORKS  
 UNIT OF M/S BIRLA COR. LT  
 P.O.BIRLA VIKAS SATNA  
 MADHYA PRADESH  
 Phone:23581,23584  
 FAX :7672-25396

Owner : Mr. Arvind Pathak  
 M/s Birla Corporation  
 Limited Add. 1, Shakespeare  
 Sarani,Kolkata, West Bengal  
 -700071 SATNA MADHYA  
 PRADESH  
 Phone: 033-66033379  
 FAX : 033-66033379

Agent : Mr. Rajesh Chaubey  
 M/s Birla Corporation  
 Limited Birla Colony, Satna  
 - 485005 SATNA MADHYA  
 PRADESH  
 Phone: 7272412774  
 FAX : 7272412774

## Mining Engineer

Name : Mr. Kumar Rajan, Full Time  
 Qualification : BE Mining  
 Appointment/ :  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	21-AUG-01
		Modif.approved Mining Scheme	03-DEC-04
		Mining Scheme rule 12 MCDR1988	05-JUL-06
		Modif.approved Mining Scheme	31-OCT-08
		Modif.of approved Mining Plan	08-AUG-11
		Mining Scheme rule 12 MCDR1988	18-NOV-11
		MP modif under MCR 1960	01-APR-16
		MP modif under 17(3) MCR 2016	27-MAR-20
		MP review under 17(1) MCR 2016	24-DEC-20

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	5 no of borehole	Not Done	Not drilled due to Covid-19
1b	Exploration over lease area for geological axis 1 or 2	5 no of borehole	Not Done	Not drilled due to Covid-19
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Exploration not done.	
1d	Balance area to be explored to bring Geological axis in 1 or 2		Balance 652.50 Ha area is to be proposed for exploration at G1 level for second band limestone.	The entire lease area has been explored at G1 level for first band and 200 Ha area for second band
1e	Balance reserve as on 01/04/20		Particular UNFC Code Qty in Million tonnes Reserves 111 10.07 121 33.9 122 31.38 Resources 211 24.75 221 13.59 222 17.3 331 0 332 0 333 0 334 0	
1f	General remarks of inspecting officers on geology, exploration etc			Violation has been pointed out.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	A-Quarry, D-Cutting and N1 Block, B & C Quarry	A-Quarry, D-Cutting and N1 Block, B & C Quarry
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for top soil, HOB, and mineral	Yes, maintains as per the Proposals
2c	Stripping ratio or ore to OB ratio	Ore to OB ratio for the mine during the respective year	Ore to OB ratio for the mine during the respective year
		2016-17 1:0.89	2016-17 1:0.35
		2017-18 1:0.67	2017-18 1:0.17
		2018-19 1:0.58	2018-19 1:0.23
		2019-20 1:0.59	2019-20 1:0.21
		2020-21 1:0.30	2020-21 1:0.28
2d	Quantity of topsoil generation in m3	Quantity of topsoil removed in m3	Quantity of topsoil removed in m3
		2016-17 489525	2016-17 303641
		2017-18 347962	2017-18 115504
		2018-19 252318	2018-19 65080
		2019-20 188286	2019-20 131248
		2020-21 137013	2020-21 181347
2e	Quantity of overburden generation in m3	Not Generated	Not Generated
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		

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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	7 no of pit proposed	5 No.s pit	Violation has been pointed out.

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3b	Quantity of ROM mineral production proposed	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes) 2016-17 3680000 2017-18 3760000 2018-19 3760000 2019-20 3600000 2020-21 4573214	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes) 2016-17 3239755 2017-18 3279147 2018-19 3105737 2019-20 3500985 2020-21 2811546	Lesser production is pointed out
3c	Recovery of sailable/usable mineral from ROM production	90%	90% recovery of usable mineral from ROM	No record is maintained & recovery has been enhanced.
3d	Quantity of mineral reject generation	Quantity of mineral reject generation 2016-17 Nil 2017-18 Nil 2018-19 Nil 2019-20 Nil 2020-21 457321	Quantity of mineral reject generation 2016-17 147096 2017-18 149370 2018-19 85950 2019-20 131228 2020-21 125421	
3e	Grade of mineral rejects generation and threshold value declared.	Low grade below threshold value	Low grade below threshold value	
3f	Quantity of sub grade mineral generation.	Not Proposed.	Not applicable.	
3g	Grade of sub grade mineral generation	Not Proposed.	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Not Proposed.	Not applicable.	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Not applicable.
3j	Provision of drilling and blasting in mineral benches	" IBH-10, ROC-L8 (Atlas,100m Dia"	"IBH-10, ROC-L8 (Atlas, 100mm dia drill) "
3k	Provision of mining machineries in mineral benches	Excavator Volvo - 4.65CuM, Tata Hitachi 3.4 cu.m, CAT Loader 6.3 cu.m, Dumper-55Tonnes	"Excavator Volvo - 4.65CuM, Tata Hitachi 3.4 cu.m, CAT Loader 6.3 cu.m, Dumper-55Tonnes"
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes, As per proposal.
3m	Total area covered under excavation/pits	378.51 ha.	376 ha
3n	Ore to OB ratio for the pit/mine during the year.	Ore to OB ratio for the mine during the respective year 2016-17 1:0.89 2017-18 1:0.67 2018-19 1:0.58 2019-20 1:0.59 2020-21 1:0.30	Ore to OB ratio for the mine during the respective year 2016-17 1:0.35 2017-18 1:0.17 2018-19 1:0.23 2019-20 1:0.21 2020-21 1:0.28
3o	Total area put in use under different heads at the end of year	413.84 ha	406.03 ha

3p	Production of ROM mineral during the last five year period as applicable	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes)	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes)
		2016-17	3239755
		2017-18	3279147
		2018-19	3105737
		2019-20	3500985
		2020-21	2811546
		2016-17	3680000
		2017-18	3760000
		2018-19	3760000
		2019-20	3600000
		2020-21	4573214

3q	General remarks of inspecting officers on method of mining etc.	Violation has been pointed out for lesser production & distorting stripping ration.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	2 no. of Bench in mineral and waste, Saperate bench for over burden.	
4b	Location of topsoil, OB and mineral reject dumps	Yes,	As per proposal	
4c	Number of dumps within lease area and outside of lease area	Within lease area.	Within lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within lease area.	Within lease area.	
4e	Number of active and alive dumps.	05 numbers	05 numbers	
4f	Number of dead dumps.	05 numbers	05 numbers	

4g	Number of dumps established.	05 numbers	05 numbers
4h	Whether Retaining wall or garland drain all along dumps are there.		Garland drain 1500M along the dump.
4i	Length of Retaining wall or garland drain all along dumps	1500 mtrs	1500 mtrs
4j	Number of settling ponds	Not proposed.	Not applicable.
4k	Specific comments of inspecting officer on waste dump management		

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Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not Proposed	Not applicable	
5b	Area under backfilling of mined out area	Not Proposed	Not applicable	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	34013 m3 for Protective bunding for plantation	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No comments.

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## Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted within prescribed time limit	Submitted within time limit	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	2.5 ha	2.5 ha	
6d	No. of saplings planted during the year	5000 numbers	5000 numbers	
6e	Cumulative no .of plants			
6f	Any other method of rehabilitation	Not proposed	Not applicable	
6g	Cost incurred on watch and care during the year	1 Lakh	1 Lakh	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Nil	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	3.50 ha	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Nil	2.0 ha	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	By Plantation	By Plantation
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Within prescribed limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		

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**Mineral Conservation:**


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Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Not Proposed	Not applicable.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not Proposed	Not applicable.
7c	Different grade of mineral sorted out at mines.	Not Proposed	Not applicable.
7d	Any beneficiation process at mines .	Not Proposed	Not applicable.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed for Plantation	Protective bunding for plantation	
8b	Concurrent use or storage of topsoil	Proposed for Plantation	Protective bunding for plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, 1 bench for top soil, and 2 seperate bench for minral and reject proposed in mining plan	As per proposal.	

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8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden proposed for restoring the land by backfilling (reclamation & rehabilitation method)	Overburden proposed for restoring the land by backfilling (reclamation & rehabilitation method)
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phase wise proposals were given	Every year reclamation and rehabilitation carried out by means of backfilling and plantation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not proposed.	Total 4000 saplings planted over backfilled area & 1000 saplings planted within & outside lease area.
8g	Survival rate	90%	80%
8h	Water sprinkling on roads to control airborne dust	Water sprinkling in Haul road, wet drilling, Covered belt conveyor, curtains in Crusher hopper, Huge plantation	Water sprinkling in Haul road, wet drilling, Covered belt conveyor, curtains in Crusher hopper, Huge plantation
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Aesthetic beauty in and around mine area is very good and extensive plantation have been carried out by the lessee over backfilled area and within and outside ML area.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Statutory monthly and annual returns are being submitted online regularly by the lessee	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Both the mining engineer and geologist were present there during mine inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		Scrutinised and found in order.	
9d	Scrutiny of Annual return on afforestation		Total 4000 saplings planted over backfilled area & 1000 saplings planted within & outside lease area.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		Found in order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore		Found in order.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Ex-mine price is on lower side compare to the avg. sale price given by IBM.	
9h	Scrutiny of Annual return on fixed assets		Found in order	
9k	Scrutiny of Annual return on mining machineries		Excavator Tata Hitachi 3.4 cu.m Excavator Volvo 4.6 cu.m CAT Loader 6.3 cu.m Drill IBH-10 (Atlas) Dumper-55Tonnes	

**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	29-JUL-21			

**Date :**

**(PUKHRAJ NENIVAL)**

Indian Bureau of Mines