

**MCDR inspection REPORT**

**Jabalpur regional office**

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

**Mine code :** 38MPR35071

- (i) Name of the Inspecting : **M009** ) **SUDIP RANJAN MAZUMDAR**  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri Rajesh Chaubey, Agent  
Official with  
Designation
- (iv) Date of Inspection : 17-AUG-23
- (v) Prev.inspection date : 19-SEP-22

**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 : RAGHURAJNAGAR
- Post office : SAGMANIA
- Pin Code : 485114
- FAX No. : 07672257456
- E-mail : Kumar.rajjan@birlacorp.com
- Phone : 07672412772
- (f) Police Station : Kolgawan
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for : M/S SATNA CEMENTS WORKS  
correspondance : P.O.BIRLA VIKAS, SANTA (M.P.) 485005
3. (a) Lease Number : MPR0379
- (b) Lease area : 852.50 Ha
- (c) Period of lease :
- (d) Date of Expiry : 31.03.2030
4. Mineral worked : LIMESTONE Main

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## 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/Nominated

Owner : SHRI SANDIP GHOSE  
 1, SHAKESPEARE  
 SARANI, A.C. MARKET  
 (2<sup>ND</sup> FLOOR), KOLKATA  
 WEST BENGAL-700071  
 Phone: 033-66033379  
 FAX : N. A.  
 DATE OF APPOINTMENT: 01.01.2023  
 Email: coordinator@birlacorp.com

Agent : SHRI RAJESH SABHANAND CAUBEY  
 BIRLA COLONY, SATNA-485005  
 MOBILE NO- 9998967315  
 DATE OF APPOINTMENT: 16.01.2020  
 EMAIL: rajesh.chaubey@birlacorp.com

## Mining Engineer

Name : SHRI KUMAR RAJAN, Full Time  
 Qualification : BE (Mining)  
 Appointment/ : 01.02.2020  
 Termination date

## Geologist

Name :  
 Qualification : SHRI GAURAV TRIPATHI, Full Time  
 Appointment/ : M.SC. (APPLIED GEOLOGY)  
 Termination date 20.07.2022

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	21-AUG-01
Plan/Scheme of Mining	:	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

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In 2020-21, there was no exploration proposal	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	In 2022-23, there was no proposal for exploration.	In 2022-23, 37 nos of boreholes were drilled.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Proposed	Exploration Agency: M/s Synergy Geotech. Expenditure Incurred: Rs 44.64 lakhs	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	In 2022-23, there was no exploration proposal.	The first band of limestone has been explored in G1 level in th entire lease area.	Nil
1e	Balance reserve as on 01/04/20	At the beginning of the year 1.4.2022, reserves was 71,342,779 tones and resources under 221 category of UNFC was 55,640,000 tones.	Balance reserves as on 01.04.2023 reported is 68,443,010 and resources is 55,640,000 tones is incorrect. The deviation has been pointed out to the lessee in form of violation letter.	Data furnished as per Annual Return submitted for 2022-23
1f	General remarks of inspecting officers on geology, exploration etc	Nil	There is no backlog in exploration. In 2022-23, there was no exploration proposal. First Band of limestone has been explored at G1 level in the entire lease area. However, during the year 2022-23, the lessee has drilled 37 nos of boreholes. Further, lessee has submitted Form I for 174 numbers of boreholes as per exploration proposal prosed during the year 2023-24 to 2025-26 in the Review of Mining Plan approved dated 24.12.2020.	Nil

Development :

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Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In 2022-23, development proposed in Block Bharjuna North (Development No-1), Block Bharjuna South (Development No-2), Block A Quarry (Development No-3 to 7), Block D-Cutting (Development no-8) and Block N1 (Development no-9)	In 2022-23, no development work carried out in Block Bharjuna North. In Block Bharjuna South, development extended beyond the proposed limit of development no-2. In Block A Quarry, no development done in proposed development no 3 & 5 whereas the development extended beyond the proposed limits in development no 4, 6 & 7.in Block D-cutting (development no-8) and Block N1 (Development no-9), the excavation extended beyond the proposed boundary limits.	The deviation has been pointed out to lessee through violation letter.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil overburden and mineral has been proposed	Separate benches in topsoil overburden and mineral has been maintained	Nil
2c	Stripping ratio or ore to OB ratio	1: 0.74 cum/cum	1: 0.19 cum/cum	Nil
2d	Quantity of topsoil generation in m3	In 2022-23, the proposal for top soil generation was 140818 cum	In 2022-23, top soil generated was less i.e., 107424 cum	The deviation has been pointed out to lessee in form of violation letter
2e	Quantity of overburden generation in m3	In 2022-23, the proposal for overburden generation was 1184415 cum	In 2022-23, the Overburden quantity generated was very less i.e., 113514 cum	The deviation has been pointed out to lessee in form of violation letter
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		In 2022-23, there exists deviation in the actual area put for development. The quantity of top soil and overburden generation was less than proposed. The deviations has been pointed out to lessee through violation letter.	Nil

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	Four numbers of Pits proposed for production	Production done from four number of pits	Block Bharjuna North was proposed only for Development work where only overburden generation was proposed. Hence, this pit is excluded from proposed and actual number of pits put for production.
3b	Quantity of ROM mineral production proposed	In 2022-23, ROM production proposed was 4505000 tones	In 2022-23, actual ROM production was less i.e., 2974481 tones. However, the ROM reported quantity in annual return submitted for 2022-23 is 2899769 tones in which the screen reject quantity generated from ROM screening has not been considered as part of ROM production.	The deviation has been pointed out to lessee in form of violation letter for less production of ROM than proposed for the year 2022-23.
3c	Recovery of sailable/usable mineral from ROM production	97% recovery of usable mineral from ROM	97% recovery of usable mineral from ROM	Nil
3d	Quantity of mineral reject generation	Mineral reject has been considered 3% of ROM production from crusher screening as per requirement of cement grade limestone quantity. Quantity Proposed: 135150 tones	Actual generation of mineral reject from crusher screening is 74712 tones	Mineral reject quantity generated was less as actual ROM processed quantity was less.
3e	Grade of mineral rejects generation and threshold value declared.	Below 34% CaO	Below 34% CaO	Nil
3f	Quantity of sub grade mineral generation.	Not proposed	Nil	Nil
3g	Grade of sub grade mineral generation	Not proposed	Nil	Nil

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3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Proposed	Carried Out	Nil
3k	Provision of mining machineries in mineral benches	Proposed	Mining machineries deployed in mineral benches	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes suitable	Yes suitable	Nil
3m	Total area covered under excavation/pits	Total area proposed under excavation /pits at the end of plan period 2025-26 is 421.62 Ha	Lease area (surface area) utilization as at the end of year (hectares) reported in annual return for 2022- 23 in incorrect.	The deviation has been pointed out to lessee in form of violation letter
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.74 cum/cum	1: 0.19 cum/cum	Nil
3o	Total area put in use under different heads at the end of year	Total area proposed to be put in use under different heads at the end of plan period 2025-26 is 467.21 Ha	Lease area (surface area) utilization as at the end of year (hectares) reported in annual return for 2022- 23 in incorrect.	The deviation has been pointed out to lessee in form of violation letter
3p	Production of ROM mineral during the last five year period as applicable	2021-22: 4499340 tones	2021-22: 2995675 tones	Applicable proposal period 2021-22 to 2025-26

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3q	General remarks of inspecting officers on method of mining etc.	In 2022-23, actual ROM production was less. The deviation has been pointed out to lessee in form of violation letter for less production of ROM than proposed for the year 2022-23.	Nil
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil and overburden generated will be partially stacked and partially used in protective bunds. No mineral reject dump proposed.	Top soil generated has been utilized. Overburden generated has been partially stacked and partially used in protective bunds. There is no mineral reject dump.	Nil
4b	Location of topsoil, OB and mineral reject dumps	The OB/waste generated from N1 block, D-Cutting and Bharjuna North pit will be utilized for preparation of bund all long the PWD road passing through the ML are and in pit/trenches area and Overburden waste generated from A-quarry in first two year will be stacked in A quarry second bench floor for temporary basis. Utilization of OB for backfilling has been proposed from 2023-24 to 2025-26.	Top soil has been utilized for soil coating over backfilled area. Overburden generated has been temporarily stacked in A-Quarry as per proposal. However, overburden/waste generated during the year 2022-23 has also been utilized in backfilling at locations such as in area between the boundary pillars BP97 & BP-98, and in three different locations in C-Quarry which were not in proposals.	The deviation has been pointed out to lessee in form of violation letter

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4c	Number of dumps within lease area and outside of lease area	Existing 05 nos of dumps within lease area	Existing 05 nos of dumps within lease area	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	Outside the UPL	Nil
4e	Number of active and alive dumps.	Not proposed	Nil	Nil
4f	Number of dead dumps.	Not proposed	There exists five numbers of dead dumps in the lease area	Nil
4g	Number of dumps established.	Not proposed	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	Not proposed	Nil	Nil
4j	Number of settling ponds	Not proposed	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		Top soil has been utilized for soil coating over backfilled area. Overburden generated has been temporarily stacked in A-Quarry as per proposal. However, overburden/waste generated during the year 2022-23 has also been utilized in backfilling at locations such as in area between the boundary pillars BP97 & BP-98, and in three different locations in C-Quarry which were not in proposals. The deviation has been pointed out to lessee in form of violation letter	Nil

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Solid Waste Management - Backfilling:

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Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	In 2022-23, there was no proposal for backfilling	In 2022-23, backfilling has been done at locations such as in area between the boundary pillars BP97 & BP-98, and in three different locations in C-Quarry which were not in proposals.	The deviation has been pointed out to lessee in form of violation letter
5b	Area under backfilling of mined out area	Not Proposed	12.99 Ha.	The deviation has been pointed out to lessee in form of violation letter
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil and overburden generated will be partially stacked and partially used in protective bunds.	Top soil has been utilized for soil coating over backfilled area.	Nil
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		In 2022-23, there was no proposal for backfilling. However, backfilling has been done at locations such as in area between the boundary pillars BP97 & BP-98, and in three different locations in C-Quarry which were not in proposals. The deviation has been pointed out to lessee in form of violation letter	Nil

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Progressive Mine Clousre Plan:

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Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	The holder of a mining lease shall submit to the competent authority a yearly report as per the format specified by the Indian Bureau of Mines, before 1st day of July report every year	The annual return on PMCP has been submitted timely.	Nil
6b	Area available for rehabilitation (ha) .	Not Proposed	Nil	Nil
6c	afforestation done (ha).	0.5 Ha	7.0 Ha	Nil
6d	No. of saplings planted during the year	800Nos of saplings proposed for plantation	18550 Nos of saplings planted	Nil
6e	Cumulative no .of plants	1600 nos during 2021-22 & 2022-23	273550 Nos of plantation till 2022-23	Nil
6f	Any other method of rehabilitation	Not Proposed	Nil	Nil
6g	Cost incurred on watch and care during the year	Rs 16000	Rs 2001875	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	2.4 Ha	12.99 Ha.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	12.99 Ha.	Nil

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6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not Proposed	3.0 Ha.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried Out	Nil

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6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	In 2022-23, there was no proposal for backfilling. However, backfilling has been done at locations such as in area between the boundary pillars BP97 & BP-98, and in three different locations in C-Quarry which were not in proposals. The deviation has been pointed out to lessee in form of violation letter.	Nil
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	Cement Grade	Cement Grade	Nil
7d	Any beneficiation process at mines	Not Proposed	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		ROM limestone is crushed in the crusher installed within ML area. The material from mines is passed through vibrating screen and reject fraction is separated out.	Nil

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Top soil generated will be partially stacked and partially used in protective bunds.	Top soil has been utilized for soil coating over backfilled area	Nil
8b	Concurrent use or storage of topsoil	Top soil generated will be partially stacked and partially used in protective bunds.	Top soil has been utilized for soil coating over backfilled area.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	The OB/waste generated from N1 block, D-Cutting and Bharjuna North pit will be utilized for preparation of bund all long the PWD road passing through the ML are and in pit/trenches area and Overburden waste generated from A-quarry in first two year will be stacked in A quarry second bench floor for temporary basis. Utilization of OB for backfilling has been proposed from 2023-24 to 2025-26.	Overburden generated has been temporarily stacked in A -Quarry as per proposal. However, overburden/waste generated during the year 2022-23 has also been utilized in backfilling at locations such as in area between the boundary pillars BP97 & BP-98, and in three different locations in C-Quarry which were not in proposals.	The deviation has been pointed out to lessee in form of violation letter
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	In 2022-23, there was no proposal for backfilling	In 2022-23, backfilling was carried out.	The deviation has been pointed out to lessee in form of violation letter

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	In 2022-23, there was no proposal for backfilling	In 2022-23, backfilling was carried out.	-do-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	800Nos of saplings proposed for plantation	18550 Nos of saplings planted	Nil
8g	Survival rate	Not Proposed	70% within lease area	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Carried out	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Aesthetic beauty in and around mines is maintained.	Nil

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Annual return for 2022-23 and Monthly returns for 2022-23 has been submitted timely.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer, Geologist and Manager have been employed in the mines.	Mining Engineer, Geologist and Manager have been employed in the mines.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area (surface area) utilization as at the end of year (hectares) reported in annual return for 2022-23 in incorrect.	Lease area (surface area) utilization as at the end of year (hectares) reported in annual return for 2022-23 in incorrect.	The deviation has been pointed out to lessee through violation letter.

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9d	Scrutiny of Annual return on afforestation	18550 Nos of saplings planted	18550 Nos of saplings planted	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Subgrade-Mineral Reject (in tonnes) (LIMESTONE) (Information to be given in respect of mineral fractions generated and stacked-dumped below cut-off grade and above threshold value, if prescribed, having no immediate sale value); Generated and disposed quantity during the year is 74712 tones	In Para 3 of Part V of annual return 2022-23, the information furnished about generation and disposal of Subgrade-Mineral Reject (in tones) during the year is incorrect. The deviation has been pointed out to lessee in form of violation letter	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of ROM is Nil	Closing stock of ROM is Nil	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production per tonne of ore-mineral produced is Rs 378.04	In 2022-23, 37 numbers of boreholes have been drilled, but the cost of exploration has not been considered in Cost of production per tonne of ore-mineral produced.	The deviation has been pointed out to lessee through violation letter.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets Rs 1883705467	Value of Fixed Assets Rs 1883705467	Nil
9k	Scrutiny of Annual return on mining machineries	Dumper 6 nos; Shovel : 2 Nos; Loader: 1no; Rock drill: 3 Nos etc.	Dumper 6 nos; Shovel : 2 Nos; Loader: 1no; Rock drill: 3 Nos etc.	Nil

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

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17 Rule 11(1)	06-SEP-23				
Rule 45(7)	06-SEP-23				

**Date :****(SUDIP RANJAN MAZUMDAR)**

Indian Bureau of Mines