

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

**Mining Plan Modification REPORT**

**Bangalore regional office**

**Mine file No :** KNT/GLB/LST-54/BNG

**Mine code :** 38KAR10019

- (i) Name of the Inspecting : **S19** ) **SANDEEP KUMAR SINGH**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri.K. Arunachalam-Mine Manager, Mr. Amarnath Reddy-M  
Official with  
Designation
- (iv) Date of Inspection : 21/03/2022
- (v) Prev.inspection date : 14/12/2017

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **ITAGI LIMESTONE MINE**
- (b) **Registration NO.** : **IBM/20026/2015**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : KARNATAKA
- District : GULBARGA
- Village : ITAGI & MOGLA
- Taluka : CHITTAPUR
- Post office : MALKHED ROAD
- Pin Code : 585211
- FAX No. : 040-23688754, orientmines@
- E-mail : chittapur.mines@orientcemen
- Phone : 040-23688600 08474-236710
- (f) Police Station : CHITTAPUR
- (g) First opening date : 12/08/2015
- (h) Weekly day of rest : SUN
2. Address for : M/S ORIENT CEMENT LIMITED,  
correspondance Village: Itagi and Mogla, Post: Malkhed,  
Taluk: Chittapur, District: Gulbarga-585211
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : M/S ORIENT CEMENT LIMITED  
 5-9-22/57/D, 2nd & 3rd  
 Floor, G P Birla Centre,  
 Adarsh nagar Hyderabad  
 HYDERABAD ANDHRA PRADESH  
 Phone:040-23688600  
 FAX :040-23688754

Owner : DESH DEEPAK KHETRAPAL  
 M/S ORIENT CEMENT LIMITED  
 5-9-22/57/D, 2nd & 3rd  
 FLOOR, ADARSH NAGAR,  
 HYDERABAD HYDERABAD  
 TELANGANA  
 Phone:  
 FAX :

Agent : Satybrata Sharma  
 M/s Orient Cement Limited  
 Village-Itagi Tq-\_Chittapur  
 GULBARGA KARNATAKA  
 Phone: 08474-236716  
 FAX :

## Mining Engineer

Name : M. Amarnath Reddy, Full Time  
 Qualification : BE (Mining)  
 Appointment/ : 24/09/2015  
 Termination date

## Geologist

Name : BANGARU VINOD KUMAR, Full Time  
 Qualification : M.Sc GEOLOGY  
 Appointment/ : 19/04/2021  
 Termination date

## Manager

Name : K. Arunachalam  
 Qualification : BE Mining  
 Appointment/ : 15/07/2015  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Fresh under rule 22 MCR1960 03/12/2012  
 MP modif under MCR 1960 28/09/2015  
 MP modif under 17(3) MCR 2016 12/01/2018  
 MP review under 17(1) MCR 2016 15/11/2019

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No backlog	NIL	NIL
1b	Exploration over lease area for geological axis 1 or 2	No proposal	NIL	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	NIL	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	G-1: 408.46 Ha G-2/G-3: Ha	G1: 408.46 Ha G2: 98.49 Ha G3: 12.05 Ha	Exploration proposals incorporated in the Modified mining plan to upgrade G3/G-2 area to G-1 for pit 1 & pit 2 only both lateral and vertical extents in accordance with Minerals (Evidence of Mineral Contents) Rules 2015) as per the existing statutory permissions. Portion of Potentially mineralized area (G-2/G-3) also includes different safety zones and No mining zone- Pit-3.
1e	Balance reserve as on 01/04/20	218.38 million tonnes as on 1.09.2019 with 173.34 million tonnes with grade $\geq 40\%$ CaO & 45.64 million tonnes with grade $\geq 34\%$ and $< 40\%$ CaO.	214.46 million tonnes as on 1.04.2021 after depleting the production of 2019-20 & 2020-21.	As reported in AR 2020-21. The Reserve figures were re-estimated in the modified mining plan as per the current statutory permissions i.e. 7.5 m barrier zone of ML, safety zone of Railway line, Village and Stream, Pit-3 (No Mining Zone).

1f	General remarks of inspecting officers on geology, exploration etc	<p>i) No Exploration backlog and the Reserve/Resource figure have been reported correctly in AR 2020-21.</p> <p>ii) The Reserve figures were re-estimated/updated in the modified mining plan as per the current statutory permissions i.e. 7.5 m barrier zone of ML, safety zone of Railway line, Village and Stream, Pit-3 (No Mining Zone).</p>	<p>iii) Exploration proposals incorporated in the Modified mining plan to upgrade G3/G-2 area to G-1 for pit 1 &amp; pit 2 only both lateral and vertical extents in accordance with Minerals (Evidence of Mineral Contents) Rules 2015) as per the existing statutory permissions. Portion of Potentially mineralized area (G-2/G-3) also includes different safety zones and No mining zone- Pit-3.</p>
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	E728310 to 729011 N 1893660 to 1894360  Pit no 2- E 728489 to 728538 N 1893500 to 1893570	i) It was observed during site inspection that development of the South western portion of the pit were proposed between E-728325, N-1893838 to E-728369, N-1893654 till the year 2021-22 against which actual development has been carried out only till E-728363 N-1893836 to E-728381, N-1893698. For pit no 2-development carried out within the proposed extent as per the proposal.	The lateral extent of the top benches at South western portion of the pit has not been developed as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in topsoil/OB and Mineral.	Separate benches maintained in topsoil/OB and mineral.	Topsoil/OB - 1 bench and Mineral -5 benches.

2c	Stripping ratio or ore to OB ratio	1:0.01  (in tons)	1:0.01  (in tons)	ROM production from opencast working- 2321245 tons OB generated corresponding to ROM production from opencast working- 28044 tons~ 15580 Cum Total Production including ROM production and dump handling- 2346850 tons Total OB generation including from pit and dump rehandling- 87789 tons.
		Excluding dump re-handling	Excluding dump re- handling)	
2d	Quantity of topsoil generation in m3	6,600 Cum	5218 Cum	Nil
2e	Quantity of overburden generation in m3	10,400 Cum	10362 Cum	NIL
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			It was observed during site inspection that development of the South western portion of the pit were proposed between E-728325, N-1893838 to E- 728369, N-1893654 till the year 2021-22 against which actual development has been carried out only till E-728363 N-1893836 to E- 728381, N-1893698. The lateral extent of the top benches at South western portion of the pit has not been developed as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 pits proposed.	2 pits	NIL
3b	Quantity of ROM mineral production proposed	29,98,650 MT including ROM production and dump rehandling.	23,46,850 tons including ROM production and dump rehandling.  (ROM: 23,21,245.34MT& DUMP RE-HANDLING: 25,604.66MT TOTAL: 2346850 MT	Less production due to Covid-19 Pandemic.  As reported in AR 2020-21
3c	Recovery of sailable/usable mineral from ROM production	94% from ROM production proposed.	100%achieved from ROM production.	NIL
3d	Quantity of mineral reject generation	1,70,450 tons of Mineral Reject generation proposed.	Nil mineral Reject generation.	100 % ROM produced utilized through blending, as reported by the Lessee during inspection.
3e	Grade of mineral rejects generation and threshold value declared.	Siliceous/Flaggy Limestone and Shaly limestone (CaO content above threshold value of IBM but Silica Content is higher)	Nil Mineral Reject generation.	As reported in AR 2020-21. 100 % ROM produced utilized through blending.
3f	Quantity of sub grade mineral generation.	No proposal	NIL	NIL
3g	Grade of sub grade mineral generation	No proposal	NIL	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal for segregating from ROM. Only Mechanized crushing proposed for sizing of ROM.	All excavated ROM is sent to the crusher for sizing.	Double rotor impact crusher with 1200 TPH, Feed Size: 1m X 1m Output: -50mm.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	NIL	NIL
3j	Provision of drilling and blasting in mineral benches	Provision made for Deep hole drilling and blasting.	Deep hole drilling and blasting is carried by as per proposal.	152mm drill dia. used, blasting carried out using AN/Slurry explosive in conjunction with NONEL.
3k	Provision of mining machineries in mineral benches	Tippers in combination with excavator proposed.	i)Excavators -3 Cum-3 nos. ii) Tippers -19.5 Cum-15 Nos. iii)Drill-152 mm-1 no. iv)Wheel Loader- 1.7 Cum-1 no. v)Water tanker-10 KL-1 no. vi)Dozer- 1no.	As reported in AR 2020-21.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Bench height in mineral is 8m.	Bench height maintained 8m in mineral. 0.5 m bench height in OB.	5 benches in mineral and 1 bench in Waste.
3m	Total area covered under excavation/pits	40.49 ha till end of plan period (31.03.2025).	31.41 ha as on 1.04.2021.	As reported in AR 2020-21.

3n	Ore to OB ratio for the pit/mine during the year. (in tons)	1:0.01 (in tons)	1:0.01 (in tons)	ROM production from opencast working- 2321245 tons OB generated corresponding to ROM production from opencast working- 28044 tons~ 15580 Cum Total Production including ROM production and dump handling- 2346850 tons Total OB generation including from pit and dump rehandling- 87789 tons.
3o	Total area put in use under different heads at the end of year	i)Mining- 40.49 ha ii) Top soil + waste dump- 11.11 ha iii)Infrastruc ture & Roads- 9.03 ha (Till end of plan period 31.03.2025).	i)Covered under current (O/C) Workings: 31.41Ha ii)Used for waste disposal: 3.07 Ha iv)Occupied by plant, buildings, residential, welfare buildings & roads: 9.56 Ha.	As reported in AR 2020-21.
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 2171000 2017-18: 3040000 2018-19: 2998125 2019-20: 2998775 2020-21: 2998650 (in tons)	2016-17: 2121251 2017-18: 2189772 2018-19: 2584207 2019-20: 2656315 2020-21: 2346850 (in tons)	For the year 2020-21, 79 % of the production target achieved due to Covid 19-pandemic.
3q	General remarks of inspecting officers on method of mining etc.			Mining production carried out within the proposed extent as per the proposal.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB proposed. (OD-3 dump for OB).	Separate dumping carried out at OD-3 dump for OB.	Mineral reject generated for the year 2020-21 utilized with blending as per the proposal.
4b	Location of topsoil, OB and mineral reject dumps	OD-3 dump for OB dumping E- 727377 to 727815, N- 1893890 to 1894100	OD-3 dump for OB dumping E 727392 727591 N 1893932 1893968 OB Dumping carried out at the earmarked location at OD-3 dump along Village safety zone, within the proposed extent as per the proposal .	Mineral reject generated for the year 2020-21. utilized with blending as per the proposal.
4c	Number of dumps within lease area and outside of lease area	Within ML - 04 nos. of OB dump and 1 Mineral Reject dump Outside ML area - Nil.	Within ML - 04 nos. of OB dump and 1 Mineral Reject dump Outside ML area - Nil.	(OD-1, OD-2, OD-3 & OD-4) waste dumps & MR-1 Mineral Reject dump within Lease.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps proposed inside the UPL.	Dumps located inside UPL.	Entire area is mineralized.
4e	Number of active and alive dumps.	1 active dump, OD-3 proposed for the year 2020-21.	1 dump, OD-3 is active for OB-dumping for the year 2020-21.	The generated Top soil is directly utilized for plantation purpose. For the year 2020-21 mineral Reject generation is nil.
4f	Number of dead dumps.	NIL	NIL	NIL
4g	Number of dumps established.	No proposal	NIL	NIL

4h	Whether Retaining wall or garland drain all along dumps are there.	The construction of 345 m of embankment and 700 m garland drain was proposed along village safety zone for the year 2021-21.	Construction initiated however could not be completed due to local village issues.	Violation issued in previous inspection. The Lessee has communicated that due to local issues of the villagers, the construction could not be done and the Lessee is in communication with the local bodies to solve the problem. The proposals have also been included accordingly in the modified mining plan.
4i	Length of Retaining wall or garland drain all along dumps	The construction of 345 m of embankment and 700 m garland drain was proposed along village safety zone for the year 2021-21.	Construction initiated however could not be completed due to local village issues.	Violation issued in previous inspection. The Lessee has communicated that due to local issues of the villagers, the construction could not be done and the Lessee is in communication with the local bodies to solve the problem. The proposals have also been included accordingly in the modified mining plan.
4j	Number of settling ponds	No proposal	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management			The waste dumping have been carried out at the earmarked location as per the proposal.

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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.	No proposal	NIL	Existing pit is not matured for back filling.
5b	Area under backfilling of mined out area	No proposal	NIL	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	NIL	NIL
5d	Total area fully reclaimed and rehabilitated	No proposal	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No Backfilling proposals as the mineral has not exhausted at any portion of the pit.

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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 before 1st of July every year.	PMCP report for the year 2020-21 has been submitted on 22nd June 2021.	NIL
6b	Area available for rehabilitation (ha) .	1.5 ha (1.22 ha on Dump & 0.22 ha within 7.5 m barrier zone of ML)	1.8 ha (Including dump & 7.5 m Safety zone)	NIL
6c	afforestation done (ha).	1.5 ha (1.22 ha on Dump & 0.22 ha within 7.5 m barrier zone of ML)	1.8 ha (Including dump & 7.5 m Safety zone)	Including dump & 7.5 m safety zone within ML.

6d	No. of saplings planted during the year	Total 3750 Nos. of saplings plantation proposed including 3200 nos. at dumps and 550 nos. at 7.5 m barrier zone within ML.	6726 nos. of saplings planted including dump & 7.5 m safety zone within ML.	As reported in AR 2020-21.
6e	Cumulative no .of plants	4850 nos. including dump & Green belt.	24127 nos. including dump & Green belt.	As reported by the Lessee.
6f	Any other method of rehabilitation	No proposal	NIL	NIL
6g	Cost incurred on watch and care during the year	Rs 800000.00/- for dump management.	As per proposal.	Maintaining of existing plants by watering with 2 No's of 4KL water tankers, installation of drip system & watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	NIL	NIL

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	550 nos. of saplings proposed with afforestation.	700 nos. of saplings plantation carried out.	Plantation done at 7.5m safety zone.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.22 Ha proposed.	0.22 Ha carried out.	Plantation done at 7.5m safety zone.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	550 nos. of saplings proposed with afforestation.	700 nos. of saplings plantation carried out.	Plantation done at 7.5m safety zone.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring proposed.	Environmental monitoring of Air , Water and Noise carried out. All parameters are within Limits.	Environmental monitoring Report of Feb-2022 available and checked.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The PMCP proposals have been implemented in the mine as per the proposal.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Only Crushing of ROM proposed for sizing. No grade wise sorting proposed.	Only Crushing of ROM carried out for sizing. No grade wise sorting carried out.	Double rotor impact crusher with 1200 TPH, Feed Size : 1m X 1m Output: -50mm. The sized mineral dispatched to captive cement plant.

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No grade wise sorting proposed.	No grade wise sorting carried out. All the blasted material is transported to crusher for further sizing .	Double rotor impact crusher with 1200 TPH, Feed Size : 1m X 1m Output: -50mm.
7c	Different grade of mineral sorted out at mines.	No proposal	NIL	NIL
7d	Any beneficiation process at mines .	No proposal	NIL	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No specific comments. The mine is captive to the cement plant and all limestone after sizing is dispatched to the Captive cement plant.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	6600 Cum of topsoil generation proposed and to be used concurrently for plantation for the year 2020-21.	5218 Cum of Topsoil generated and used concurrently for plantation over dump and 7.5 m safety zone within ML for the year 2020-21.	NIL
8b	Concurrent use or storage of topsoil	6600 Cum of topsoil generation proposed and to be used concurrently for plantation for the year 2020-21.	5218 Cum of Topsoil generated and used concurrently for plantation over dump and 7.5 m safety zone within ML for the year 2020-21.	Topsoil is concurrently used for plantation.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB proposed for the year 2020-21 at dump OD-3. The Mineral Reject generated during the year 2020-21 is proposed to be used concurrently with blending.	Separate dumping of OB carried out the earmarked location at dump OD-3.	For the year 2020-21 there is no mineral Reject generation.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	NIL	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	NIL	NIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	4850 nos. including dump & Green belt.	24127 nos. including dump & Green belt.	As reported in Annual PMCP Report 2020-21.
8g	Survival rate	Not mentioned.	96% within ML area.	As reported in AR 2020-21.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul road to control dust is proposed.	Regular spraying of water is done to control fugitive dust emission through permanent sprinkler along the main haulage road and in addition to that 10KL water sprinkler is used for roads inside the mine.	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in and around the mine looks very good.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Feb-2022 on 08.03.2023. A.R. for the year 2020-21 Submitted on 07.06.2021.	NIL	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager - Mr. K. Arunachalam, Mine Engineer - Mr. M. Amarnath Reddy and Mine Geologist - Mr. Arjun Singh	Appears to be correct	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	i)Covered under current (O/C) Workings: 31.41Ha ii)Reclaimed/R ehabilitated- 0.00 ha. iii)Used for waste disposal: 3.07 Ha iv)Occupied by plant, buildings, residential, welfare buildings & roads: 9.56 Ha v)Other Purpose (Plantation, Mineral Stock, Environment Works Like Stone Pitching On Nala Banks, Garland Drains): 19.71 Ha	Appears to be correct.	NIL
9d	Scrutiny of Annual return on afforestation	Within ML - 6726 No of saplings @ 96% of survival rate	Appears to be correct.	NIL

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Appears to be correct	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM O/s- 0 tons ROM Production- 23,21,245 tons ROM C/s- 0 tons Graded ore Cement Grade O/s- 52430.62 tons Production- 23,46,850 tons Dispatched- 23,46,850 tons C/s- 52430.62 tons.	Appears to be correct	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production - 167.12 Rs/Ton, Ex-mine price = 167.12 Rs/ton	Appears to be correct.	The mine is captive.
9h	Scrutiny of Annual return on fixed assets	Rs. 6,72,62,229 including land, industrial, plant and machinery.	Appears to be correct.	NIL
9k	Scrutiny of Annual return on mining machineries	i)Excavators - 3 Cum-3 nos. ii) Tippers - 19.5 Cum- 15 No's, iii)Drill-152 mm-1 no. iv)Wheel Loader- 1.7 Cum-1 no. v)Water tanker-10 KL-1 no. vi)Dozer- 1no.	Appears to be correct	NIL

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**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)	11/04/2022			

**Date :**

(SANDEEP KUMAR SINGH)

Indian Bureau of Mines