

Mining Plan Modification REPORT

Bangalore regional office

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

Mine code : 38KAR10019

- (i) Name of the Inspecting : **S47**) **DR. Sudhakara T.L**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Mr. K. Arunachalam - Mine Manager, Mr. M. Amarnath Re
Official with
Designation
- (iv) Date of Inspection : 07/09/2023
- (v) Prev.inspection date : 21/03/2022

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

1/27311/2024

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 : B SABARILAKSHMANAN, Full Time
 Qualification : M.Sc GEOLOGY
 Appointment/ : 23/09/2022
 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
 MP modif under 17(3) MCR 2016 13/04/2022

1/27311/2024

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	13 holes-1300m	21 holes - 2100m completed	
1b	Exploration over lease area for geological axis 1 or 2	-	Global Environment & Mining Service, Hospet. Rs. 45.56 lakhs	Cumulative expenditure Rs. 244 lakhs as per Annual return
1c	Exploration Agencies and Expenditure in lakh rupees during the year	-	G3 - 12.05 Ha	
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	174019074 tonnes	In the Annual return submitted, lessee has reported 173994116 tonnes of reserves by depleting the 24958 tonnes quantity recovered from dump mining. Violation pointed out. Actual reserve as on 01/04/2024 is 174019074.
1e	Balance reserve as on 01/04/20			The limestone deposit bedded stratiform and tabular deposit of regular habit. In the last approved mining plan dated 10/11/2023, lessee has proposed 32 bore holes with a total meterage of 2974m to convert the G2 & G3 level under G1. As per EC condition, Part of G2 area near Itagi village comes under no mining zone, hence, lessee has not carried out drilling under G1 level.
1f	General remarks of inspecting officers on geology, exploration etc			

1/27311/2024

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N 1894600 - N 1893669 E 728358 - E 729100	N 1894597 - N 1893650 E 728351 - E 729099	Development carried out within the proposed extent.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	1	1	Topsoil - 1 bench and Mineral - 5 benches
2c	Stripping ratio or ore to OB ratio	1:0.016	1:0.018	
2d	Quantity of topsoil generation in m3	23909	23896	
2e	Quantity of overburden generation in m3	2531	2520	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Lessee has carried out the development systematically as per the proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1	1	
3b	Quantity of ROM mineral production proposed	2896973 tonnes (2852818 tonnes from Insitue mining and 44155 tonnes from dump).	2891614.9 tonnes (2866657 tonnes from Insitue Mining & 24958 tonnes from Dump mining)	Proposed production nearly (99.8%) achieved.
3c	Recovery of sailable/usable mineral from ROM production	100%	In-situe mining recovery 100% Recovery from Dump mining is 30%	
3d	Quantity of mineral reject generation	-	-	

1/27311/2024

3e	Grade of mineral rejects generation and threshold value declared.	No proposal	No mineral reject generated during the reporting year.	Entire ROM produced is consumed in cement production.
3f	Quantity of sub grade mineral generation.	No Proposal	No Proposal	No generation of Sub grade.
3g	Grade of sub grade mineral generation	No Proposal	Not applicable	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal for segregating from ROM	All excavated ROM is supplied to the crusher.	No grade wise segregation of ROM is proposed. Entire ROM is sent to Double rotor impact crusher with 1200 TPH, Feed size: 1m x 1m Output: -50 mm
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal	No such beneficiation study carried out.	NIL
3j	Provision of drilling and blasting in mineral benches	Provision made for Deep hole drilling and blasting.	Deep hole drilling and blasting is being carried as per proposal.	152 mm 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.	Excavator- 03 No's Tippers-15 No's, Drill Machine, Water Tanker, Rock Breaker, Compactor and Dozer.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height in mineral is 8m.	Bench height 7-8 meters and width of the bench 20-25 meters. In overburden (Topsoil) height 0.5 m -1.0 m	Height of the benches maintained as per proposal.
3m	Total area covered under excavation/pits	38.16 ha	39.03 ha	Deviation in the area pointed out during the last inspection vide violation letter dated 28/03/2023

I/27311/2024

3n	Ore to OB ratio for the pit/mine during the year.	1:0.016	1:0.018	
3o	Total area put in use under different heads at the end of year	Covered under current (O/C) Workings: 38.16 Ha. Used for waste disposal: 3.14 Ha. Occupied by plant, buildings & roads: 9.06 Ha. Other purpose(Plantation, Mineral stock, Environment Works like Stone Pitching on nala banks , Garland drains, Harvesting Pit): 24.11 Ha.	Covered under current (O/C) Workings: 39.03 Ha. Used for waste disposal: 3.14 Ha. Occupied by plant, buildings & roads: 9.06 Ha. Other purpose (Plantation, Mineral stock, Environment Works like Stone Pitching on nala banks, Garland drains, Harvesting Pit): 21.83 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 3040000 2018-19: 2998125 2019-20: 2998775 2020-21: 2998650 2021-22: 2999325 2022-23: 2896973 in tonnes)	2017-18: 2189772 2018-19: 2584207 2019-20: 2656315 2020-21: 2346850 2021-22: 2343231 2022-23: 2891615 (in tonnes)	As per Annual return
3q	General remarks of inspecting officers on method of mining etc.			Method of Mining is by open pit mechanized operations. Benches height and width maintained as proposed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

I/27311/2024

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumps for topsoil, OB & Mineral reject are proposed	Separate OB dumps are maintained at the respective locations.	
4b	Location of topsoil, OB and mineral reject dumps	OD-1 dump N 1893713 - N 1893687 E 728143 - E 728205 OD-3 dump N 1893957 - N 1893970 E 727592 - E 727728 Overburden dump (OD-4) N 1893468 - N 1893448 E 728791 - E 728750	OD-1 dump N 1893713 - N 1893687 E 728143 - E 728205 OD-3 dump Nil (OD-4) N 1893468 - N 1893448 E 728791 - E 728750	As reported by accompanied team members of lessee during inspection, lessee has not carried out dumping at OD-3 due to the objection from villagers at proposed location.
4c	Number of dumps within lease area and outside of lease area	Within ML-06 Outside ML area - Nil.	Within ML: OB dumps : 05 Outside ML area - Nil.	Mineral Waste Dump (MR-1) within ML, which is generated from plant.
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 and temporary dumping is proposed.
4e	Number of active and alive dumps.	2 active dumps are proposed	2 dumps are active.	
4f	Number of dead dumps.	NIL		
4g	Number of dumps established.	NIL		
4h	Whether Retaining wall or garland drain all along dumps are there.	Construction of Garland drain along the working pit is proposed.	N 1894098 - N 1894510 E 728560 - E 728670 Respectively.	
4i	Length of Retaining wall or garland drain all along dumps	500m length of garland drain proposed.	1311m of Garland Drain is constructed all along the working pit and 453 m of drain is also constructed below the Mineral Stock (MS-2)	
4j	Number of settling ponds	NIL	NIL	

1/27311/2024

4k	Specific comments of inspecting officer on waste dump management			Lessee has constructed toe wall and garland drain along the toe of the dumps and dumps maintained systematically.
----	--	--	--	---

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.	No Proposal	Not applicable	Existing pit is not matured for back filling.
5b	Area under backfilling of mined out area	No Proposal	Not applicable	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Topsoil proposed to be utilized for plantation purpose.	Topsoil proposed to be utilized for plantation purpose.	NIL
5d	Total area fully reclaimed and rehabilitated	No Proposal	Not applicable	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Lessee has utilized the topsoil generated during mining for plantation.

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).	PMCP report to be submitted by every year 1st of July.	PMCP for the year 2022-23 is submitted on 17th June 2023	PMCP report submitted within stipulated time.
6b	Area available for rehabilitation (ha) .	-	-	

1/27311/2024

6c	afforestation done (ha).	2.98 ha	1.27 ha	
6d	No. of saplings planted during the year	7433 No's	2333 No's	85% survival rate reported in the Annual return submitted.
6e	Cumulative no .of plants	No proposal	30331 No's	As per Annual return 2022-23.
6f	Any other method of rehabilitation	-	-	-
6g	Cost incurred on watch and care during the year	No proposal	Rs. 5,50,588/-	As report by lessee team.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not Applicable	Pit is not matured for backfilling.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not Applicable	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Not Applicable	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not Applicable	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not Applicable	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Not Applicable	

1/27311/2024

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not Applicable	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not Applicable	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Season wise environment monitoring of Air, Water, Noise, and soil proposed.	Season wise environment monitoring of Air, Water, Noise, and soil carried out. Environment report of July-2023 is available during the inspection. Ground water analysis report is available in quarterly monitoring report.	Monitoring carried out by Cosmo Environment solution, Hospet and all environment parameters were observed to be within limits and reports are submitted to IBM in every quarter.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Lessee has carried out PMCP compliance as per proposal. Pit is not matured for backfilling, further, during recent exploration, lessee has established the mineralization continuation beyond the drilled (proved) depth during previous exploration.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Direct ROM proposed to dispatch to the captive cement plant.	Direct ROM fed to crusher and crusher limestone is dispatched to our captive cement plant of 2.0 million tons per annum of clinker deposit.	Double rotor impact crusher with 1200 TPH, Feed size : 1m x 1m Output : -50mm

1/27311/2024

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No grade wise sorting proposed.	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.	Direct ROM dispatched to crusher	Direct ROM dispatched to crusher having 1200 capacity	
7d	Any beneficiation process at mines	No proposal	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Lessee is utilizing entire ROM produced for their captive plant. Practice adopted is good from the Mineral conservation point.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Topsoil proposed to be stocked and utilized for plantation.	Topsoil is being stocked and utilized for plantation.	
8b	Concurrent use or storage of topsoil	23909 m3 of top is proposed to Concurrent use and storage.	23896 m3 of top is proposed to Concurrent use and storage.	Topsoil is concurrently used for plantation, and no stock is available at mine.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	4556 m3 of overburden and 35125m3 (44155 M.T) of generated waste from dump re-handling (MR-1) is proposed.	2520 m3 of overburden and 13039 m3 (47165 M.T) of waste generated from MR-1 is handled and spread in OD-3, Nalla Safety Bund, and other bunds for plantation purpose.	Waste dumps: OD-1, OD-3, OD-4 & M.R - 2(NIL) , Nalla Safety Bund & MS-1 & MS-2

1/27311/2024

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Limestone is not exhausted and pit is not matured for back filling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	Limestone is not exhausted and pit is not matured for back filling.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	7433 no of sapling proposed within the ML.	2333 no. of saplings planted within ML.	During last inspection, for less no. of saplings planted inspecting officer has pointed out violation, lessee has replied that due to administrative issues and has committed to complete during the present financial year.
8g	Survival rate	95%	85%	
8h	Water sprinkling on roads to control airborne dust	Water tanker sprinkler on haul road to control dust is proposed.	Regular spraying of water is done to control fugitive dust emission through permanent sprinklers are laid along the main haulage road. In addition to that 4KL - 2 No's water tankers are being used for internal roads.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The asthetic beauty in and around mine is good.

 Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

1/27311/2024

9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to July-2023 on 07.08.2023. A.R Submitted for FY2022-23 on 28.06.2023.		Returns submitted with stipulated time
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Eng.: 04 Diploma Mining Eng.: 05 Geologist :01	Appears to be correct.	Mine Manager - Mr.K. Arunachalam, Mine Engineer - Mr. M. Amarnath Reddy and Mine Geologist - Mr. B.Sabarilakshmanan were present during the time of inspection
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 39.03 Ha. Used for waste disposal: 3.14 Ha. Occupied by plant, buildings & roads: 9.06 Ha. Other purpose (Plantation, Mineral stock, Environment Works like Stone Pitching on nala banks, Garland drains, Harvesting Pit): 21.83 Ha	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	Total plantation done for R.Y - 2333 Nos. of sapling @ 85% of survival rate Cumulative 30331nos.	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	No mineral reject generated	

I/27311/2024

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM - Opening stock - Nil, Production - 2896973tonnes, Closing stock - Nil	Cement Grade ROM - Opening stock - 53398.860 tones, Production - 2891614.929 tones, Dispatch - 2864231 tones and Closing stock - 80782.609 tones	63989.7 tonnes is there as Dump working stock
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Average cost of production Rs. 203.26/M.T	Appears to be correct	
9h	Scrutiny of Annual return on fixed assets	Rs. 50481218	Appears to be correct	
9k	Scrutiny of Annual return on mining machineries	SHOVEL (HYDRAULIC) 3 cum - nos.3 TIPPER 19.500 CUM - 15 nos. DOZER - 1 no. ROCK DRILL 152MM - 1 no. WATER TANKER - 1 no. WHEEL LOADER 1.700 CUM - 1 no. OTHER HEM MACHINERY 1 PUMPS (ELEC.) 9000.000 L/MN - 2 nos.	Appears to be correct	

I/27311/2024

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
Rule 45(7)(i)	13/09/2023	12/10/2023	Rule 45(7)(i)	13/09/2023	12/10/2023

Date :**(DR. Sudhakara T.L)**

Indian Bureau of Mines