

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

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/RR/LST-4/HYD

Mine code : 38APR23003

- (i) Name of the Inspecting : 160) Kalmata.M.K
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Shri N Chaitanya, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 12-JAN-24
- (v) Prev.inspection date : 13-NOV-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : SANGAMKALAN NO. 2
- (b) **Registration NO.** : IBM/613/2011
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : TELANGANA
- District : RANGAREDDY
- Village : SANGAMKALAN
- Taluka : TANDUR (MANDAL
- Post office : MALKAPUR
- Pin Code : 501147
- FAX No. : 04428572100
- E-mail : palanikumaresan.m@indiacem
- Phone : 9710911585
- (f) **Police Station** :
- (g) **First opening date** : 15-JUL-02
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : VISAKA CEMENT IND. LTD.
MALKAPUR, TANDUR(M)
RANGA REDDY DIST.
3. (a) **Lease Number** : APR1350
- (b) **Lease area** : 112.68
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 03-SEP-18
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : THE INDIA CEMENTS LTD
 DHUN BUILDING 827, ANNA
 SALAI CHENNAI CHENNAI CITY
 TAMIL NADU
 Phone:282521526
 FAX :28520638

Owner : T.S.RAGHUPATHY
 SANGAMKALAN TANDUR
 RANGAREDDY AP RANGAREDDY
 TELANGANA
 Phone: 46324
 FAX : 08411-46302

Agent : K.S.Srinivas
 Sangamkalan-Village
 Malkapur, Tandur-Tq,
 Vikarabad (d),Telangana-501146.

Mining Engineer

Name : TV Satya Prasad,Full Time
 Qualification : B.E.Mining
 Appointment/ : 16-OCT-23
 Termination date

Geologist

Name : N.JANARDHANREDDY,Full Time
 Qualification : M.SC.(GEOLOGY)
 Appointment/ : 26-APR-17
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	07-DEC-03
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	24-FEB-05
		Modif.approved Mining Scheme	07-MAR-08
		Mining Scheme rule 12 MCDR1988	04-AUG-10
		MP modif under MCR 1960	24-AUG-15

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed in the year present five year block period 2020-21 to 2024-25.	None in the present block period 2020-21 to 2024-25.	Entire mineralized area is already explore under G-1 level by drilling 73 boreholes from 1997-98 to 2018-19.
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed in the year present five year block period 2020-21 to 2024-25.	None.	Entire mineralized area is already explore under G-1 level by drilling 73 boreholes from 1997-98 to 2018-19.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration was proposed in the year present five year block period 2020-21 to 2024-25.	None.	Earlier, the exploration was carried out by Natural Resources Development Co operative Society Ltd, Hyderabad under the Suprvision of Mining Engineer and Geologist of the lessee. The expenditure incurred on the exploration carried out during period 2015-16 to 2018-19 is Rs-21,63,506.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration was proposed in the year present five year block period 2020-21 to 2024-25.	None.	Entire mineralized area is already explore under G-1 level by drilling 73 boreholes from 1997-98 to 2018-19.

1e	Balance reserve as on 01/04/20	As per the approved document dated 20.10.2019, Reserves/resources as on 01.09.2019 are as follows. (Unit-Million tonnes) Mineable Reserves : 90.85 Remaining Resources : 29.66 Total:- 120.51	Reserves/Resources as on 01.04.2023 is as follows. (Unit in million tonnes) Mineable Reserves :- 82.88 Remaining Resources:- 29.66 Total :- 112.54	" Reserves/resources are updated by depelting 7.97 million tonnes of production carried out during the period. 2019-20 (01.09.2019 onwards) to 2022-23."
1f	General remarks of inspecting officers on geology, exploration etc	The mining lease area hosts limestone of the stratigraphic horizon " kurkunta Limestone" of Bhima Basin. The deposit is bedded in nature with strike NE to SW. Lessee has explored entire mineralized area under G- 1, level by drilling 73 number of boreholes with a total meterage of 3395.		

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In the year 2023-24, proposal was given to work between the co-ordinates N-1917990 to 1918230 and E 762500 to E 763320.	Actual working has been carried out between the co-ordinates N 191780 to 1918200 and E 762530 to 763320	The workinh has been carried out within the proposed area only.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches were proposed in ore only.	Benches are existing in ore only.	No topsoil was removed in the year 2023-24, However, earlier topsoil was removed by scraping, so no benches were formed in topsoil.
2c	Stripping ratio or ore to OB ratio	1:0	1:0	No OB/waste was proposed and generated in the year 2023-24.
2d	Quantity of topsoil generation in m3	12484 in the year 2023-24.	None, No topsoil was removed in the year 2023-24.	Working was carried out in the already broken up area only, so no topsoil was removed in the year 2023-24.
2e	Quantity of overburden generation in m3	None.	None.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The deposit is bedded regular deposit and formation is hard in nature. So bench height was maintained at 7.00 to 8.00 mtr (Average) which is suitable to the method of mining adopted and nature of the deposit.	

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	One.	One.	Dimension of the pit is 765m (L) x 635m (W) x 45m(d)
3b	Quantity of ROM mineral production proposed	2998372 tonnes in the year 2023-24.	1392682 tonnes in the year 2023-24 (up to Dec 2023)	Up to dec-23 production achieved was 46%.
3c	Recovery of saleable/usable mineral from ROM production	100%	100%	

3d	Quantity of mineral reject generation	None in the year 2023-24.	None.	Recovery is 100% and entire ROM Removed was dispatched to captive cement plant linked to the mine.
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable.	Not applicable.	
3f	Quantity of sub grade mineral generation.	None in the year 2023-24.	None.	Recovery is 100% and entire ROM Removed was dispatched to captive cement plant linked to the mine.
3g	Grade of sub grade mineral generation	Not applicable.	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	None.	None.	Lessee is sending entire ROM to plant without doing any processing at the mine site. Lessee is doing crushing and screening for sizing in the plant premises which is outside the lease area.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None.	None.	
3j	Provision of drilling and blasting in mineral benches	Yes, proposed drilling and blasting.	Lessee is using 115mm rock driller for drilling and using slurry explosive for blasting.	Lessee is doing drilling and blasting as per the proposal.
3k	Provision of mining machineries in mineral benches	Proposed combination of excavators and tippers for production and development.	Using Back hoe excavator of 2.4Cum capacity and tippers of 15 cum capacity for production and development.	Additionally lesse is using dozar of 176HP capacity for cleaning of bench floor and repair of haul road.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height was proposed 8.00 mtrs in the mineral and No benches were proposed in OB.	Benches were maintained at 7.00 to 8.00 mtrs height (average) and width is maintained at more than 15 mtrs.	Bench parametrs were maintained as per the proposal and suitable for the method of mining adopted.
3m	Total area covered under excavation/pits	53.17 Ha in the present plan period i.e up to 2024-25.	48.60Ha up to 2023-24.	
3n	Ore to OB ratio for the pit/mine during the year.	1:0	1:0	No OB/waste was proposed and generated in the year 2023-24.
3o	Total area put in use under different heads at the end of year	Area under mining- 53.17Ha, Topsoil storage - 0.24Ha, Mineral storage - 0.35Ha, Roads - 2.13Ha.	Area under mining:- 48.60Ha, Roads-2.13Ha, Topsoil storage:-0.24Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2023-24 - 2998372T 2022-23 - 2995645T 2021-22 - 2990920T 2020-21 - 2987045T 2019-20 - 2278509T	2023-24 - 1392682T (up to dec 23) 2022-23 - 2072500T 2021-22 - 2323172T 2020-21 - 1570000T 2019-20 - 2251000T	In the present five years block period production achieved up to Dec 2023 is almost 67%.

3q	General remarks of inspecting officers on method of mining etc.	The mine is working by fully mechanized method. drilling and blasting is adopted for loosening the strata. Production and development has been carried out as per the proposals and benches were maintained systematically. Bench height is maintained 7 to 8 mtrs and width more than 15. mtrs. Lessee is using excavator for loading the blasted material and 15 cum capacity tippers for dispatching ROM from mine to plant. No OB is existing in the lease area and all benches were made in ore only.
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Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	None in the year 2023-24.	None.	One old topsoil dump covering an area of 0.24Ha is existing in the Western part of the lease area near pillar number-20,21 and 22. The said dump is covered with plantation.
4b	Location of topsoil, OB and mineral reject dumps	None in the year 2023-24.	None.	One old topsoil dump covering an area of 0.24Ha is existing in the Western part of the lease area.
4c	Number of dumps within lease area and outside of lease area	None in the year 2023-24.	None.	One old topsoil dump covering an area of 0.24Ha is existing in the Western part of the lease area.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	None in the year 2023-24.	None.	One old topsoil dump is existing outside the UPL.
4e	Number of active and alive dumps.	None in the year 2023-24.	None.	None.
4f	Number of dead dumps.	None in the year 2023-24.	None.	One old topsoil dump covering an area of 0.24Ha is existing in the Western part of the lease area.
4g	Number of dumps established.	None in the year 2023-24.	None.	One old topsoil dump covering an area of 0.24Ha is existing in the Western part of the lease area near pillar number-20,21 and 22. The said dump is covered with plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	None in the year 2023-24.	None.	
4i	Length of Retaining wall or garland drain all along dumps	Not applicable.	Not applicable.	
4j	Number of settling ponds	None in the year 2023-24.	None.	
4k	Specific comments of inspecting officer on waste dump management			"No dumping was proposed and made in the present plan period. One inactive old topsoil dump is existing within the lease area and it is covered with plantation. Since no OB dumps are existing within the lease area, retaining walls are not proposed and made in the present plan period."

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 backfilling is proposed in the present plan period.	No backfilling is made in the present plan period.	Mineral is not extracted up to the proved depth, so, no backfilling was proposed and made in the present plan period.
5b	Area under backfilling of mined out area	None.	None.	No area is matured for backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	None.	None.	"The topsoil removed in the past is utilized for plantation work within the lease area." "
5d	Total area fully reclaimed and rehabilitated	None.	None.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Mineral is not extracted upto the proved depth and no area is matured for backfilling, so no backfilling was proposed and made in the present plan period.	

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).	Before 1st july of every year.	Yes, submitted PMCP report for the year 2022-23 along with the annual returns submitted for the year 2022-23.	Submitted report on 29.06.2023.
6b	Area available for rehabilitation (ha) .	None.	None.	
6c	afforestation done (ha).	0.2Ha in the year 2023-24	0.34Ha in the year 2023-24	Total area covered under plantation is 9.86Ha.
6d	No. of saplings planted during the year	500 in the year 2023-24.	750 in the year 2023-24	Plantation was made morethan the proposal.

6e	Cumulative no .of plants	2000in the present five year block period up to 2023-24	6100 in the present five year block period up to 2023-24.	Total plantation made so far is 42790
6f	Any other method of rehabilitation	None.	None.	
6g	Cost incurred on watch and care during the year	None.	Approximately 1.5lakh	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	None.	None.	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	None.	None.	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	None.	None.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	None.	None.	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	None.	None.	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	None.	None.	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	None.	None.	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	None.	None.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, Air, Water and Noise monitoring was proposed in Core and Buffer zone.	Lessee is regularly monitoring air , water and noise and all the parameters are within permissible limits.	Lawn enviro associates, Hyderabad is doing the Environmental monitoring.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Under PMCP proposals were given only for plantation in the safety zone, accordingly lessee has planted 750 saplings in the 7.5 mtr safety zone and total plantation made in the present five year block period is 6100 saplings. Lessee has carried out monitoring report for the said mine and reports are within permissible limits.	

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed dispatch of Cement grade ROM to Captive Cement Plant.	Lessee is dispatching Cement grade ROM to Captive plant as proposed.	Lessee is not doing any processing at mine site.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	None.	None.	Sending ROM to Captive Cement plant with out any processing.

7c	Different grade of mineral sorted out at mines.	Cement.	Cement.	
7d	Any beneficiation process at mines .	None.	None.	Lessee is dispatching Entire ROM to Captive Cement plant with out any processing.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Lessee is not doing any mineral processing at the mine site. Dispatching ROM (Cement grade) to Captive Cement plant linked with the mine.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed removal of 12484 CUM topsoil in the year 2023-24.	None.	Working was carried out in the already broken up area only, so no topsoil was removed in the year 2023-24.
8b	Concurrent use or storage of topsoil	Proposed removal of 12484 CUM topsoil in the year 2023-24.	None.	"The topsoil removed in the past is utilized for plantation work within the lease area." "
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	None.	None.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed.	None.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	None.	None.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Baseline information was furnished in the mining plan. Additional plantation proposals are being given in the Mining Plan documents.	Additionally lessee has planted about 6100 sapling in the present five year block period.	Total plantation made so far is 42790
8g	Survival rate	None.	70 to 80%	Lessee is well maintaining plantation by regular monitoring by engaging manpower.
8h	Water sprinkling on roads to control airborne dust	Yes proposed.	Regularly spraying water on the working benches, Haul road etc.	One water tanker of 10,000 ltr capacity is in use for dust suppression.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Benches and haulage roads were maintained systematically. One water tanker is deployed for sprinkling water in the working area and on the haulage roads. Plantation was made in the 7.5 mtr safety zone and engaged manpower for monitoring plantation.	

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	A monthly return shall be submitted before the tenth day of every month in respect of the preceding month and an annual return shall be submitted before the 1st day of July each year for the preceding financial year.	Lessee is Regularly submitting Monthly and Annual returns.	Submitted Annual returns for the year 2022-23 and monthly returns up to dec 2023 within time. Annual returns submitted on 29.06.2023.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The details of Mining Engineer and Geologist as mentioned in the AR submitted for the year 2022-23 is as follows. Mining Engineer :- A.Shivakumar, Reddy, Geologist:- Janardhan Reddy and Mines Manager:- Chaitanya Nalamatta.	The information furnished on Mines Manager and Geologist is correct. However, in place of A.Shivakumar, TV Satyaprasad is appointed as Mining Engineer.	Lessee has sent notice of appointments for mining engineer , Geologist & Mines Managers to this office.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under mining 48.207Ha Topsoil storage 0.24Ha, Roads 2.13Ha. (AR 2022-23)	The information furnished on land use pattern is found correct.	
9d	Scrutiny of Annual return on afforestation	3540 saplings with survival rate of 70%	The information furnished in the AR submitted for the year 2022-23 is found correct.	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	None.	None.	Recovery is 100% and no mineral reject was reported in the year 2022-23.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM:- Opening and closing stock Nil, Production: 2072500 tonnes., Graded, Cement grade: Opening and closing stock-Nil, Production and dispatch: 2072500 tonnes.	The details furnished in the annual returns is found correct.	Entire ROM produced is Cement grade and same is dispatched to the captive cement plant for own consumption.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	"Cost of production & Ex-mine price- Rs- 197.27/Tonees, and Sale value is shownRs 0"	The details furnished in the annual returns is found correct.	During 2022-23 there was no instruction from IBM for giving sale value eventhough mineral is utilized for captive purpose so sale value is mentioned as zero in the AR submitted for the year 2022-23.
9h	Scrutiny of Annual return on fixed assets	Value of fixed asset is shown as Rs 53771010 for the year 2022-23.	The information furnished in the AR 2022-23 is found correct.	
9k	Scrutiny of Annual return on mining machineries	Backhoe- 2.4Cum-02, Tippers of 15CUM-09, Drilling machine 115mm-01, Dozer-01.	The information furnished in the AR 2022-23 is found correct.	

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

Date :

(Kalmata.M.K)

Indian Bureau of Mines