

Indian Bureau of Mines
Minerals Development and Regulation Division
MCDR Inspection Report
Hyderabad Regional Office.

Mine File No: AP/KSN/Lst-12/HYD

Mine Code: 38APR10004

1) Name of Inspecting officer:	Shri. M.K. Kalmata
2) Designation	Regional Mining Geologist
3) Accompanying mine official with designation	Mr.R.K.Kulkarni, AGM Mines, S.Naresh Kumar, Geologist
4) Date of Inspection	21.03.2024.
5) Date of previous inspection	31-JAN-2023

Part-I: General

S.No.	Particulars	Details
1	Name of the Mine	Kakatiya Limestone Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	121.41Ha(Forest)
3	Mine code	38APR10004
4	IBM Registration Number under rule 45 of	IBM/985/2011
5	Name of the lessee, Address, phone, email and fax number	M/s .Kakatiya Cement Sugar & Industries Ltd., Gurukrupa, 1-10-140/1, Ashok Nagar, Hyderabad-500020.
6	Village	Budavada
7	Taluka/Mandal	Jaggaayyapet
8	District	Krishna
9	Pin code	521175
10	State	Andhra Pradesh
11	Post office	Srinivasanagar
12	Nearest police station	Chillakalu
13	Nearest Railway station	Bonakallu
14	Date of Grant of Mining Lease	19-03-1982
15	Date of Execution	20-05-1982
16	Period	50 years. valid up to 18-05-2032

17	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sri. P. Veeraiah, M/s. Kakatiya Cement Sugar & Industries Ltd. Grurukrupq, 1-10-140/1, Ashok Nagar, Hyderabad-500020. Phone:- 040-27637717, E-mail:- info@kakatiyacements.com
18	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri D.G.K Raju, M/s. Kakatiya Cement Sugar & Industries Ltd. Grurukrupq, 1-10-140/1, Ashok Nagar, Hyderabad-500020. Ph:-9492124319 E-mail:-kcsilc@kakatiyacements.com. Date of Appointment:- 29-11-2013.
19	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines, qualification	Shri.R.K.Kulkarni, Q.No.A-3, KCSIL, Srinivasa Nagar, Jaggayyapet-521175, NTR-Dist, Andhra Pradesh. Ph:-984923439, E-mail:- kcsilc@kakatiyacements.com Date of Appointment:- 09-04-2022.
20	Name of the Mining Engineer & Geologist, Qualification and date of appointment in mine,	Mining Engineer:-Mr. K.Sai Prasanna, Qualification: B.Tech.Mining, DOA:- 09-04-2022. Geologist:- Mr. S.Naresh Kumar, Msc, Geology. DOA:- 24-07-2022. Mines Manager:- Mr.R.K.Kulkarni, B.E.Mining, DOA:- 09.04.2022.
21	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Review of Mining plan: AP/KSN/MP/Lst-28/Hyd, dated 01-04-2022 for the period 2022-23 to 2026-27.
22	Name of the Mineral	Limestone
23	Method of Mining(Open cast, Underground)	Open cast
24	Category (Fully Mechanized, Others or Manual)	Category – A (Fully Mechanized)
25	Captive/Non Captive	Captive

PART-II**Exploration :**

Sl. No.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	There was a proposal to drill 15 boreholes in the year 2023-24	Lessee has drilled 15 boreholes in the year 2023-24	The exploration is carried out as per the proposal.
1b	Exploration over lease area for geological axis 1 or 2	Exploration was proposed to convert to G-2 and G-2 level area under G-1.	Lessee has drilled 30 boreholes in the present five year block period (15 each in 2022-23 and 2023-24).	Converted 11.95Ha G-2 level and 29.419Ha G-3 level area into G-1 level by drilling 30 boreholes in the present five year block period.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	None.	Exploration is carried out by lessee only engaging hired DTH drilling machine. In the year 2023-24 Expenditure incurred on exploration is Rs-157500 for 15 DTH holes to a total depth of 450 mtr.	Expenditure incurred so far is Rs-1360675 for 109 (DTH) bore holes with total meterage of 3270.

1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration was proposed to convert 11.95 Ha G-2 areas and 29.419Ha G-3 area under G-1 Level.	The said G-2 and G-3 level area are converted under G-1 level by drilling 30 exploratory boreholes in the present block period.	15 boreholes drilled in the year 2022-23 and 15 in 2023-24.
1e	Balance reserves as on 01/04/2023	Reserves/resources as per the approved document dated 01-04-2022 are as follows (As on 30-09-2021) (in Million tonnes) Proved Mineral Reserves (111) - 46.551 Pre-feasibility M Resources(221) - 5.703, Total :- 52.254	Reserves/resources as on 01.04.2024 is as follows. (In million tonnes) Proved Mineral Reserves (111) - 45.638 Pre-feasibility M Resources(221) - 5.703, Total :-51.341	Reserves/resources were updated by depleting 0.912 million tonnes of production achieved from 1.10.2021 to 31.03.2024.
1f	General remarks of inspecting officers on geology, exploration etc.		The formation falls in the kadapa basin and forms the eastern most extent of the palnad sub basin, comprises jammalamadugu series. Entire lease	Total lease area is 121.41Ha and entire lease area is explored under G-1 level by drilling 109 DTH exploratory boreholes to a total meterage of 3270.

			area is occupied by craggy outcrops of Narji limestone. The General strike of the formation is NNE to SSW and dip 5 to 15 degree towards ESE.	
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Development :				
Sl.No.	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	In the year 2023-24, there was a proposal to work between the co-ordinates N 1663810 to 1864270 and E 398915 to 399440.	In the year 2023-24, actual working is carried out between the co-ordinates N 1864000 to N 1864270 and E 398900 to 399460.	The working is almost carried out within the proposed limit only.
2b	Separate benches in topsoil, overburden and minerals (Rule-15)	Benches are proposed in Ore only.	Existing benches are in ore only.	No OB and topsoil handling is proposed in the present block period (2022-23 to 2026-27)
2c	Stripping ratio of ore to OB ratio	1:0	1:0	No OB is handled in the year 2023-24. However, about 9642 cum intercalated waste is handled in the year 2023-24. If we consider ore to waste handling the ratio will be

				1:0.688.
2d	Quantity of topsoil generation in m3	None in the year 2023-24.	None in the year 2023-24.	
2e	Quantity of overburden generation in m3	No OB was proposed in the year 2023-24. However, proposed generation of 10341 tonnes of waste rock generation as intercalated waste.	Waste rock generated from intercalated waste is 9642	No OB handling is proposed in the present block period.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc.		Working has been almost carried out as per the proposal. Pit advancement was made in the North and East direction as proposed. Bench height is maintained average 5.00 to 6.00 mtr and width more than 15 mtr. The formation is regular bedded deposit and bench parameters maintained are suitable for the nature of the deposit.	In some places bench height was little more than the proposal and advised lessee to rectify the same.
Exploitation :				

Sl.N o.	Item	Proposals	Actual Work	Remarks
3a	Number of pit proposed for production	One pit	One pit.	Dimension of the pit is 615m(L) x 556m(w) x 28m(H)
3b	Quantity of ROM mineral production proposed	517050 tonnes in the year 2023-24.	350000 tonnes in the year 2023-24.	
3c	Recovery of saleable / usable mineral from ROM production	95%	Recovery is shown 100% in the year 2023-24	
3d	Quantity of mineral reject generation	None in the year 2023-24.	None in the year 2023-24.	
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable.	Not applicable.	
3f	Quantity of subgrade mineral generation.	None in the year 2023-24.	None in the year 2023-24.	
3g	Grade of subgrade mineral generation.	Not applicable.	Not applicable.	
3h	Manual / Mechanized method adopted for segregating from ROM	None in the lease area.	None in the lease area.	Lessee is sending Entire ROM (under Cement grade) to crushing and screening plant existing outside the

				lease area
3i	Any analysis or beneficiation study proposed and carried out for subgrade mineral and rejects	None	None.	
3j	Provision of drilling and blasting in mineral benches	Yes, proposed drilling and blasting in mineral benches.	Lessee is using loose ammonium nitrate and slurry explosive for blasting and 115mm drilling machine for drilling blast hole.	
3k	Provision of mining machineries in mineral benches	Yes proposed.	Lessee is using combination of excavator and tippers for production and development.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed 6.00 mtr bench height in mineral.	Maintained average bench height of 5.00 to 6.00 mtrs.	The bench height proposed and maintained is suitable for the nature of the deposit and method adopted for mining.
3m	Total area covered under excavation / pits	35.845Ha up to 31.03.2024.	34.00Ha up to dec 2023.	

3n	Ore to OB ratio for the pit/mine during the year.	1:0	1:0	No OB is handled in the year 2023-34. However, about 9642 cum intercalated waste is handled in the year 2023-24. If we consider ore to waste handling the ratio will be 1:0.688.
3o	Total area put in use under different heads at the end of year	Area under mining- 35.845Ha, Waste dump:-2.77Ha, Infrastructure:- 4.09Ha	Area under mining:- 34.00Ha, Waste dump:-2.77Ha, Infrastructure:- 4.09Ha	
3p	Production of ROM mineral during the last five year period as applicable	2023-24 - 517050T 2022-23 - 516435T 2021-22 - 513285T 2020-21 - 516855T 2019-20 - 491775T	2023-24 - 350000T 2022-23 - 365000T 2021-22 - 432500T 2020-21 - 292223T 2019-20 - 393253T	
3q	General remarks of inspecting officers on method of mining etc.		The Method of mining adopted is fully mechanized. Lessee is using combination of exactors and tippers for production and development. Adopted deep hole drilling and blasting for loosening of strata.	

Solid Waste Management - Dumping :

Sl.No.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32, 33)	Yes proposed, separate dump for waste rock.	The waste rock generated is dumped separately.	Only intercalated waste rock is generated in the present block period and same is dumped separately in the proposed area.
4b	Location of topsoil, OB and mineral reject dumps	N-1863500 to N 1863630 & E 399340 to 399560	N-1863500 to N 1863560 and E 399560 to 399610	The waste dumping is almost made in the proposed dump area in the present block period.
4c	Number of dumps within lease area and outside of lease area	One	One	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL	
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	None.	None.	
4g	Number of dumps established.	None.	None.	
4h	Whether	None in the present	None in the present	One retaining wall

	retaining wall or garland drains all along dumps are there.	block period.	block period.	is existing along the toe of the dump (Eastern side.)
4i	Length of retaining wall or garland drain all along dumps.	None in the present block period.	None in the present block period.	One retaining wall of approximately 200 mtr is existing at the toe of the waste dump.
4j	Number of settling ponds	None.	None.	
4k	Specific comments of inspecting officers on waste dump management .		Only one waste dump is proposed and maintained in the present block period. Only one terrace is made at present and height of the dump is 3.00 to 4.00 mtr only. Retaining wall is provided along the toe of the dump in the eastern side.	

Solid Waste Management - Backfilling :

Sl.N o.	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting	Not proposed.	Nil	No backfilling is proposed in the present plan period.

	backfilling			
5b	Area under backfilling of mined out area	Not proposed.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not proposed.	Nil	
5d	Total area fully reclaimed and rehabilitated	Not proposed.	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Present working is not reached up to the proved depth and no proposals were made for reclamation and rehabilitation in the present plan period.	

Progressive Mine Closure Plan :

Sl.No.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 26(2)	Before 1st July of every year.	Submitted yearly report on PMCP within the prescribed time limit.	PMCP report submitted on 28.06.2023 along with the Annual returns submitted for the year 2022-23.

6b	Area available for rehabilitation (ha)	None.	None	
6c	Afforestation done (ha)	0.2Ha in the year 2023-24	0.12Ha in the year 2022-23	
6d	No. of saplings planted during the year	400 in the year 2022-23	258 saplings in the year 2023-24.	Natural vegetation was already exists in the proposed area so lessee has planted only 258saplings in the year 2023-24 as gap filling.
6e	Cumulative no. of plants	2000 in the present block period (2022-23 to 2026-27)	658 saplings in the present block period up to 31.03.2024.	Total plantation made so far is 18228 saplings covering an area of 11.00Ha.
6f	Any other method of rehabilitation	None.	None.	
6g	Cost incurred on watch and care during the year	None.	Rs 50000 in the year 2023-24.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for	Nil	Nil	

	backfilling (LxBxD)			
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Nil	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	
6l	Compliance on reclamation and rehabilitation by	Nil	Nil	

	backfilling (v) any other specific means.			
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 (ii) Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, Air, Water and Noise monitoring was proposed in Core and Buffer zone.	Environmental monitoring in the core and buffer zone is carried out as per the proposal and results are within permissible limits.	Environmental monitoring is carried out by Navega Enviro Engineers & Consultants, Kakinada, A.P.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Only plantation was proposed in the present plan period .lessee has made 258 plantations in the year 2023-24 against the proposal of 400. Since plantation was already exists in the proposed area plantation was made less. Further, lessee is maintaining the retaining wall existing all along the toe of waste dump. Doing environmental monitoring in core and buffer zone and results are within permissible limits.	
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Mineral Conservation:-				
Sl.N o.	Item	Proposals	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 Crushing plant existing outside the lease area and after crushing feed to Captive Cement

				plant .
7c	Different grade of mineral sorted out at mines	Cement Grade.	Cement Grade.	
7d	Any beneficiation process at mines	None.	None.	
7e	General remarks of inspecting officers on mineral conservation and beneficiation issues.		Lessee is not doing any mineral processing at the mine site at present and Dispatching ROM (Cement grade) to Crushing plant existing outside the lease area and after crushing feed to Captive Cement plant .	

Environment:-

Sl.No	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	None in the year 2023-24.	None in the year 2023-24.	No topsoil is removed in the present block period.
8b	Concurrent use or storage of topsoil	None in the year 2023-24.	None in the year 2023-24.	The topsoil removed earlier is utilized for plantation purpose.
8c	Separate dumps for	Yes proposed.	The waste rock	

	overburden , waste rock, rejects and fines (Rule 33)		generated is dumped separately.	
8d	Use of overburden , waste rock, rejects and fines dumps for restoring the land to its original use	None in the year 2023-24.	None in the year 2023-24.	
8e	Phased restoration, reclamation and rehabilitation of land affected by mining operations (pits, dumps etc.)	None in the year 2023-24.	None in the year 2023-24.	
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 18228 saplings so far within the lease area.	
8g	Survival rate	75%	80-85%	

8h	Water sprinkling on roads to control airborne dust	yes proposed.	Regularly spraying water on the working benches, Haul road etc.	Using hired water tanker for dust suppression.
8i	General remarks of inspecting officers on aesthetic beauty in and around mine areas.		About 34 Ha area is covered by pit. Only one pit is existing within the lease area and benches are systematically maintained. Lessee has made huge plantation within the lease area. Total 18228 saplings were planted and survival rate is 80 to 85%.	

Compliance of Rule 45 :

Sl.N o.	Item	Proposals	Actual Work	Remarks
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.	Submitting Monthly and Annual returns within the time limit.	Submitted Annual returns for the year 2022-23 on 28-06-2023.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The details furnished in the Annual returns submitted for the year 2022-23 are as follows. Mining Engineer:- V.Saikumar. Geologist:-P.Ramesh and Mines Manager:- R.K.Kulkarni.	The details furnished in the Ar submitted for the year 2022-23 is found correct. However, recently Mr.S.Naresh Kumar is appointed as Geologist in place of P.Ramesh.	Lessee has Sent notice of appointments to this office.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining- 34.627Ha, Waste dump:-2.77Ha, Infrastructure:- 4.09Ha	The information furnished in the AR submitted for the year 2022-23 is almost found correct.	
9d	Scrutiny of Annual return on afforestation	400 saplings with survival rate 85%	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.	Entire ROM is dispatched under Cement Grade.
9f	Scrutiny of Annual return on ROM stock and/or	ROM; Opening and closing stock: 0 , Production 365000 tonnes. Cement	The information furnished in the AR submitted for the year 2022-23 is found	Entire ROM is dispatched under Cement Grade.

	graded ore	Grade:- Opening and closing stock :0, Production and dispatch;- 365000 tonnes.	correct.	
9g	Scrutiny of Annual return on Sale value, Ex Mine price and production cost	Ex-mine price and cost of production:- Rs 238.18/ton	The information furnished in the AR is found correct.	
9h	Scrutiny of Annual return on fixed assets	Rs-653543	The information furnished in the AR is found correct.	
9k	Scrutiny of Annual return on mining machineries	Back hoe-0.9cum capacity-02, Tippers of 9.0cum capacity-04, Loader-01, Rockdrill-01.	The information furnished in the AR is found correct.	

Date:-

(KALMATA.M.K)

Indian Bureau of Mines