INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/KNL/LST-190/HYD Mine code : 38APR11130

(i) Name of the Inspecting : KQ07) SHAIVAL KARTIKEYA

Officer and ID No.

(ii) Designation : Senior Mining Geologist

(iii) Accompaning mine : Shri Sachin Tonge, DGM (Mines)

Official with Designation

(iv) Date of Inspection : 10-AUG-23
(v) Prev.inspection date : 07-OCT-22

PART-I : GENERAL INFORMATION

. (a) Mine Name : JSW LIMESTONE MINE

(b) Registration NO. : IBM/106/2011

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : ANDHRA PRADESH

District : KURNOOL

Village : BILAKALAGUDUR
Taluka : GADIVEMULA
Post office : GADIVEMULA

Pin Code : 518508

FAX No. : 02226502001

E-mail : jswcement.mines@jsw.in
Phone : 08514253514, 8886601442

(f) Police Station : Gadivemula
(g) First opening date : 01-APR-08

(h) Weekly day of rest : SUN

Address for : Bilakalqudur village,

correspondance Gadivemula Mandal

Kurnool district.

3. (a) Lease Number : APR2820 (b) Lease area : 617.57

(c) Period of lease : 50

(d) Date of Expiry : 24-APR-58

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : JSW CEMENTS

403, SAI RAM ENCLAVE SRINIVAS NAGAR NANDYAL KURNOOL ANDHRA PRADESH

Phone: FAX:

Owner : NILESH NARWEKAR

MUMBAI (SUBURBAN)

MAHARASHTRA

Phone: FAX:

Agent : ARPAN PAREKH

KURNOOL ANDHRA PRADESH

Phone: FAX:

Mining Engineer

Name : Sharwan Kumar Shukla, Full Time

Qualification : BE. Mining Appointment/ : 01-SEP-16

Termination date

Geologist

Name : Ritesh Chattaraj,Full Time

Qualification : MSC, Applied Geology

Appointment/ : 01-JAN-15

Termination date

6.	Date of approval of Mining	:	Fresh under rule 22 MCR1960	16-OCT-07
	Plan/Scheme of Mining		Modif.of approved Mining Plan	02-DEC-08
			Modif.of approved Mining Plan	21-AUG-12
			Mining Scheme rule 12 MCDR1988	07-OCT-13
			MP review under 17(1) MCR 2016	27-NOV-17
			MP review under 17(1) MCR 2016	19-DEC-22

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	Nil, Out of 617.57 Ha. mining lease area, 350.57 Ha. area has been explored under G1 level of exploration.	
1b	Exploration over lease area for geological axis 1 or 2	No proposal.	-do-	-do-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal.	-do-	-do-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal.	-do-	-do-
1e	Balance reserve as on 01/04/20	Balance reserves/reso urces as on 01.04.2023 Under (111): 113.266 Million Tonnes Under (211): 211.894 Million Tonnes	Balance reserves/resources as on 01.04.2023 Under (111): 113.266 Million Tonnes Under (211): 211.894 Million Tonnes	Updated reserves and resources has been obtained from the latest approved Review of Mining Plan dated 20/12/2022. Average grade of Limestone: CaO: 44.37% SiO2: 17.35% MgO: 0.44% Al2O3: 1.36%

1f General remarks of inspecting officers on geology, exploration etc This deposit belongs to the Vempalle stage of Papagani series of lower Cuddapah. It is a simple deposit with considerable continuity and homogeneity. The following litho units distinguished based on the physical characteristi cs of flaggy limestone, i.e. bedded limestone.

However, on the basis of These are massive, chemical characteristic the following litho units have been established Soil Flaggy, Siliceous Limestone Gray, Dark gray limestone and Siliceous Limestone. The thickness of the limestone of these limestone beds are varying from 10cm to towards western 60cm. The color of limestone is mainly gray tectonic to dark gray. Chemically disturbance. silica content varies from 7% to 18%.

uniform, bedded and homogeneous in nature. The strike of the limestone beds are mainly Northwest South East and the dip is 10 to 70 degree side due to the

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In between UTM Co-ordinates	F.Y. 2022-23: In between UTM Co-ordinates N1734376 to N1735904 and E225960 to E227220	Violation has been pointed out for area deviation.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil: 01 no. Overburden/Was te: 01 no. Mineral/Ore: 04 nos.	Topsoil: 01 no. Overburden/Waste: 01 no. Mineral/Ore: 04 nos.	-
2c	Stripping ratio or ore to OB ratio	1 : 0.01	1 : 0.093	193365.42 CuM of OB/Waste generated during F.Y. 2022-23 without
2d	Quantity of topsoil generation in m3	No proposal.	1158.49 CuM of topsoil has been generated during F.Y. 2022-23.	Deviation has been pointed out.
2e	Quantity of overburden generation in m3	No Proposal.	193365.42 CuM of OB/Waste generated during F.Y. 2022-23 without	-do-

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc

The development and production is being done through fully mechanized means.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02 nos.	02 nos.	-
3b	Quantity of ROM mineral production proposed	4269360.00 Metric Tonnes	2072333.000 Metric Tonnes	Less production has done due to lack of market demand.
3с	Recovery of sailable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	75840.00 Metric Tonnes	Not generated.	Deviation has been pointed out.
3e	Grade of mineral rejects generation and threshold value declared.	Above 34% CaO And Above 18% SiO2	Nil.	-do-
3f	Quantity of sub grade mineral generation.	7320.00 Metric Tonnes	Not generated.	-do-
3g	Grade of sub grade mineral generation	CaO: 35 to 43% SiO2: 14% to 18%	Nil.	-do-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised crushing and screening have been proposed.	Mehanised crushing and screening is being done.	-
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	Nil.	-

Provision of Diameter: Diameter: 115.0 mm Зİ drilling and 115.0 mm Spacing: 5.0 m blasting in Spacing: 5.0 m Burden: 3.0 m mineral benches Burden: 3.0 m Depth: 8.0 m - 9.0 m Depth: 8.0 m - Explosive: AFNO 9.0 m Explosive: AFNO Provision of 3k 1. Shovel 03 1. Shovel 06 nos. with mining nos. with 2.30 3.1 CuM (03 nos.), 1.10 machineries in CuM bucket CuM (02 nos.) and 1.70 mineral benches CuM (01 no.) capacity. capacity. 2. Tippers 27 nos. with 2. Tippers 34 nos. with 18.0 18.0 CuM (14 nos.) and CuM (8 nos.) 16.0 CuM (13 nos.) and 16.0 CuM carrier capacity. 3. Water Tanker 02 nos. carrier with 8000.0 Kilo Liters capacity. 3. Water capacity. Tanker 01 no. 4. Wheel Loader 02 nos. with 8000 KL with 2.70 CuM bucket capacity. capacity. 4. Wheel 5. Rock Drill 02 nos. Loader 1.480 with 115. Mm bit CuM bucket diameter capacity. capacity. 6. Explosive Van 02 nos. with 6.75 Tonnes 5. Rock Drill 01 nos. 0.300 capacity. mm bit 7. Air Compressor 02 nos. with 750 CuM/Mn capacity 6. Explosive capacity. 8. Pumps 03 nos. with Van 01 no. with 10.0 5000 liters/Mn capacity. Tonnes capacity. 7. Air Compressor 01 no. with 8.00 CuM/Mn capacity. 8. Pumps 02 nos. with 5000.00 Liters/Mn (01 no.) and 7000.00 Liters/Mn (01 no.).

31 Whether height Topson of benches in OB/Was overburden and Mineral mineral suitable 8.0 m for method of mining proposed in MP/SOM

Topsoil: Nil. Topsoil: 0.50 m to 1.0 OB/Waste: Nil. OB/Waste: 1.0 m to 3.0 Mineral/Ore: m.

nerar/ore: ii

Mineral/Ore: 8.0 m

Topsoil: 0.50 m to 1.0 m Deviation has been OB/Waste: 1.0 m to 3.0 pointed out.

Total area 103.20 Ha. up 83.050 Ha. up to end of covered under to end of F.Y. F.Y. 2022-23 excavation/pits 2022-23 Ore to OB ratio 1: 0.01 1: 0.093 193365.42 CuM of 3n for the pit/mine OB/Waste generated during F.Y. 2022during the year. 23 without any approved proposal. Pit: 103.20 Pit: 69.989 Ha. 30 Total area put in use under Waste/reject- 16.60 Ha. different heads Waste/reject-Ha.Nil. at the end of 4.07 Ha. Others- 120.30 Ha. Others- 143.28 Up to end of F.Y. 2022year Ha. 23 Up to end of F.Y. 2022-23 3p Production of Yr. 2018-19: Yr. 2018-19: 2054984.00 Less production ROM mineral 2817240.00 Metric Tonnes has been done due during the last Metric Tonnes Yr. 2019-20: 2262434.00 to lack of market five year period Yr. 2019-20: Metric Tonnes demand. as applicable 3406920.00 Yr. 2020-21: 2320806.00 Metric Tonnes Metric Tonnes Yr. 2020-21: Yr. 2021-22: 2629631.00 .00 3725520.00 Metric Tonnes Metric Tonnes Yr. 2022-23: 2072333.00 Yr. 2021-22: Metric Tonnes 3954360.00 Metric Tonnes Yr. 2022-23: 4269360.00 Metric Tonnes General remarks 3q Mining has been of inspecting carried out officers on through the method of mining opencast method etc. with fully mechanized means using conventional drilling and blasting. Solid Waste Management - Dumping:

Actual work

Remarks

Sl.No.

Item

Propasals

4a Separate dumping Proposal has Separate stacking has Deviation has been of topsoil, OB been given in been done for pointed out. and mineral the approved mineral/ore, mineralsrejects (Rule document for reject, sub-grade ore 32,33) separate and waste/overburden stacking of within lease area. mineralreject, waste/overburd en and mineral/ore within lease area. 4b Location of Mineral/Ore: N1734950 to Mineral/Ore: -dotopsoil, OB and (i) N1734975 N1375025 and E227150 to mineral reject to N1735075 E227255 and E220755 to dumps Sub-grade: N1734955 to E227175 (ii) N1735200 1735040 and E227040 to to N1735370 E227120 and E227060 to E227155 Mineral-reject: (iii) N1735530 (i) N1735125 to N1735265 and E225950 and E226090 to N1735760 and E227060 to (ii) N1735050 to E227280 N1735160 and E226120 to E226275 (iii) N1735355 to Mineral-N1736075 and E225955 to reject: E226340 N1735590 to N1736040 and E226020 to Waste/overburden: E226315 (i) N1735540 to N1735755 and E227010 to E227270 Waste/Overburd (ii) N1735750 to N1735910 and E227210 to en: (i) N1735080 to E227280 (iii) N1736390 to N1735160 and N1736445 and E227210 to E226130 to E226170 N226730 (ii) N1735120 (iv) N1736490 to to N1735240 N1736550 and E227430 to and E226030 to E227270 E226210 (iii) N1735330 to N 1735425 and E226190 to E226235 (iv) N1735545 to N1735635 and E226030 to E226205 (v) N1736390 to N1736445 and E226550 to

E226730

4c	Number of dumps within lease area and outside of lease area		Mineral/Ore: 01 no. Sub-grade: 01 no. Mineral-reject: 03 nos. OB/Waste: 04 nos.	-do-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Mineral/Ore: Within ultimate pit limit. OB/Waste: Beyond ultimate pit limit. Mineral- reject: Beyond ultimate pit limit.	Mineral/Ore: Situated within ultimate pit limit. OB/Waste: O1 no. within ultimate pit limit and 03 nos. are situated beyond ultimate pit limit. Mineral-reject: Beyond ultimate pit limit. Mineral Sub-grade: Within ultimate pit limit.	-do-
4e	Number of active and alive dumps.	·	OB/Waste: 01 no. Mineral-reject: 01 no.	-
4f	Number of dead dumps.	OB/Waste: 03 nos. Mineral- reject: 01 no.	OB/Waste: 03 nos. Mineral-reject: 01 no.	_
4 g	Number of dumps established.	No proposal.	Nil.	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal has been given in the approved document for construction of 250 meters long retaining wall along the waste dump.	250 meters long retaining wall has been constructed along the waste dump.	-
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall: 250 meters.	Retaining wall: 250 meters.	-
4 ј	Number of settling ponds	No proposal.	Nil.	-
4k	Specific comments of inspecting officer on waste dump management	-	-	Nil.

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.	Nil.	_
5b	Area under backfilling of mined out area	No proposal.	Nil.	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal.	Nil.	-
5d	Total area fully reclaimed and rehabilitated	5.65 Ha. area will be utilized for plantation of 5000 nos. of saplings at green belt (500 nos.) and vacant area (4500 nos.).	5.00 Ha. area has been utilized for plantation of 6240 nos. of saplings at green belt (3240 nos.) and vacant area (3000 nos.)	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Nil.

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).	26(2), lessee has to submit the annual	Annual report on PMCP for F.Y. 2022-23 has been submitted before due date.	Given information has been cross verified during inspection.
6b	Area available for rehabilitation (ha) .	No proposal.	Nil.	-
6с	afforestation done (ha).	No proposal.	Nil.	-
6d	No. of saplings planted during the year	No proposal.	Nil.	-

6e	Cumulative no .of plants	No	proposal.	Nil.	_
6f	Any other method of rehabilitation	No	proposal.	Nil.	_
69	Cost incurred on watch and care during the year	No	proposal.	Nil.	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No	proposal.	Nil.	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No	proposal.	Nil.	_
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No	proposal.	Nil.	_
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No	proposal.	Nil.	_
61	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No	proposal.	Nil.	_
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	500	00 nos.	6240 nos.	_
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	5.6	65 На.	5.00 На.	_

60	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation.	By plantation.	-
бр	Compliance of environmental monitoring (core zone and buffer zone)	been given in	Being done as per proposal.	All the parameters are within the permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Nil.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM/Ore will be dispatched directly to the crusher plant without sorting.	Being done as per proposal.	_
7b	Method of grade- wise mineral sorting i.e. manual or mechanical.		ROM/Ore is being dispatched to the captive plant without sorting.	-
7c	Different grade of mineral sorted out at mines.	-do-	-do-	-
7d	Any beneficiation process at mines .	No Proposal.	Nil.	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	_	Nil.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal.	1158.49 CuM of topsoil has been generated and utilized for plantation.	-
8b	Concurrent use or storage of topsoil	No proposal.	-do-	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal has been given in the approved document for separate stacking of mineral-reject, waste/overburd en and mineral/ore within lease area.	Separate stacking has been done for mineral/ore, minerals-reject, sub-grade ore and waste/overburden within lease area.	Deviation: Mineral/Ore: N1734950 to N1375025 and E227150 to E227255 Sub-grade: N1734955 to 1735040 and E227040 to E227120 Mineral-reject: (i) N1735125 to N1735265 and E225950 and E226090 (ii) N1735050 to N1735160 and E226120 to E226275 (iii) N1735355 to N1736075 and E225955 to E226340 Waste/overburden: (i) N1735755 and E227010 to E227270 (ii) N1735750 to N1735910 and E227210 to E227280 (iii) N1736390 to N1736445 and E227210 to N226730 (iv) N1736490 to N1736550 and E227430 to E227270
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Nil.	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	F.Y. 2022-23: 5.65 Ha. area will be utilized for plantation of 5000 nos. of saplings.	F.Y. 2021-22: 5.00 Ha. area has been utilized for plantation of 6240 nos. of saplings.	Planation has been done at green belt (3240 nos.) and vacant area (3000 nos.)

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)		6240 nos. of saplings have been planted over 5.00 Ha. area.	-do-
8g	Survival rate	No proposal.	Approximate 80%	-
8h	Water sprinkling on roads to control airborne dust	been given in		-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-		Nil.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	up to August	A.R. Submitted up to	Nil.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sachin Tonge Mining	Manager: Shri Sachin Tonge Mining Engineer: Shri Shrawan Kumar Shukla Geologist: Shri Ritesh Chattaraj	Nil.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Ha. Waste/reject- 16.60 Ha.Nil. Others- 120.30	Pit: 69.989 Ha. Waste/reject- 16.60 Ha.Nil. Others- 120.30 Ha.	Nil.

9d	Scrutiny of Annual return on afforestation	Within lease area: 6240 nos. of saplings with 80% survival rate. Outside lease area: 500 nos. of saplings with 75% survival rate.	Outside lease area: 500 nos. of saplings with approx. 75% survival rate.	Nil.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject: Nil. Grade: Nil.	Mineral Reject: 75840.00 Metric Tonne Grade: CaO: Above 34% SiO2: Above 18%	Deviation has been pointed out.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	38587.00	ROM Closing Stock: 38587.00 Metric Tonnes. Cement Grade Limestone Closing stock: Nil.	Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Cost of Production: Rs. 213.70 Per Metric Tonne	Nil.
9h	Scrutiny of Annual return on fixed assets	Rs. 149486832/-	Rs. 149486832/-	Nil.

9k Scrutiny of mining machineries

1. Shovel 06 capacity. and 16.0 CuM capacity. (13 nos.) carrier capacity. 3. Water with 8000.0 Kilo Liters capacity. 4. Wheel bucket capacity. 02 nos. with 115. Mm bit diameter capacity. 6. Explosive Van 02 nos. with 6.75 Tonnes capacity. 7. Air Compressor 02 nos. with 750 CuM/Mn capacity.

8. Pumps 03 nos. with 5000 liters/Mn capacity.

1. Shovel 06 nos. with Annual return on nos. with 3.1 3.1 CuM (03 nos.), 1.10 \mbox{CuM} (03 nos.), \mbox{CuM} (02 nos.) and 1.70 1.10 CuM (02 CuM (01 no.) capacity. nos.) and 1.70 2. Tippers 27 nos. with CuM (01 no.) 18.0 CuM (14 nos.) and 16.0 CuM (13 nos.) 2. Tippers 27 carrier capacity. nos. with 18.0 3. Water Tanker 02 nos. CuM (14 nos.) with 8000.0 Kilo Liters 4. Wheel Loader 02 nos. with 2.70 CuM bucket capacity. 5. Rock Drill 02 nos. Tanker 02 nos. with 115. Mm bit diameter capacity. 6. Explosive Van 02 nos. with 6.75 Tonnes capacity. Loader 02 nos. 7. Air Compressor 02 with 2.70 CuM nos. with 750 CuM/Mn capacity. 8. Pumps 03 nos. with 5. Rock Drill 5000 liters/Mn capacity. Cross verified from the machinery logbooks.

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Issued on Compliance on

Details of violations observed of violation pointed out	during current inspection and compliance position of
Violation observed	Show couse position

Rule NO.

Date : (SHAIVAL KARTIKEYA)

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Rule NO.

Indian Bureau of Mines