

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

**MCDR inspection REPORT
Hyderabad regional office**

Mine file No : AP/KSN/LST-17/HYD

Mine code : 38APR10010

- (i) Name of the Inspecting : **K007**) **SHAIVAL KARTIKEYA**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : S Sri KK Dhruvw, Mining Engineer & K Srinivas rao Geol
Official with
Designation
- (iv) Date of Inspection : 01-SEP-21
- (v) Prev.inspection date : 17-DEC-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JAGGAYYAPETA**
- (b) **Registration NO.** : **IBM/1071/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **ANDHRA PRADESH**
- District : **KRISHNA**
- Village : **BUDDAWADA**
- Taluka : **JAGGAYYAPETA**
- Post office : **LIMESTONE TOWNSHIP**
- Pin Code : **521175**
- FAX No. : **08652- 222358**
- E-mail : **vspjlm@yahoo.co.in**
- Phone : **08652-222358, 222373**
- (f) **Police Station** : **jaggayyapet**
- (g) **First opening date** : **23-MAR-89**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **RINL LIMESTONE MINE**
correspondance **JAGGAYYAPET**
KRISHNA DIST.
3. (a) **Lease Number** : **APR0199**
- (b) **Lease area** : **1295**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **07-AUG-30**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : RASHTRIYA ISPAT NIGAM LTD.
 VISAKHAPATNAM STEEL PLANT
 VISAKHAPATNAM
 VISAKHAPATNAM ANDHRA
 PRADESH
 Phone:0891-
 FAX :0891-

Owner : Ajit Kumar Saxena
 RINL/VSP VISAKHAPATNAM
 VISAKHAPATNAM ANDHRA
 PRADESH
 Phone:
 FAX :

Agent : B U V N Raju
 BUDAWADA VILLAGE
 JAGGAYYAPETA MANDAL KRISHNA
 DIST KRISHNA ANDHRA PRADESH
 Phone:
 FAX :

Mining Engineer

Name : Krishna Kumar Dhruw, Full Time
 Qualification : B TECH MINING
 Appointment/ : 14-SEP-19
 Termination date

Manager

Name : VIJAY KUMAR
 Qualification : B.SC ENGG & FCC
 Appointment/ : 31-MAR-09
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	30-NOV-01
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	16-MAY-05
		Modif.approved Mining Scheme	06-JUL-06
		Mining Scheme rule 12 MCDR1988	19-OCT-10
		Mining Scheme rule 12 MCDR1988	21-OCT-15
		MP review under 17(1) MCR 2016	31-MAR-20
		MP review under 17(1) MCR 2016	28-MAY-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	F.Y. 2020-21 to 2021-22: 10 numbers of core boreholes with cumulative depth of 917.0 meters.	None of the boreholes have been drilled so far.	Deviation has been pointed out.
1b	Exploration over lease area for geological axis 1 or 2	315.0 Ha. G3 area in to G2 level.	Not converted.	-do-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned in the approved document.	Not applicable.	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	315.0 Ha. G3 area in to G2 level.	Not converted.	Deviation has been pointed out.
1e	Balance reserve as on 01/04/20	As on 01/04/2021 Within Forest: Under (111): 59.683 Million Tonnes Under (121 & 122): 254.06 Million Tonnes Non-Forest: Under (121 & 122): 14.34 Million Tonnes	As on 01/04/2021 Within Forest: Under (111): 60.209 Million Tonnes Under (121 & 122): 254.06 Million Tonnes Non-Forest: Under (121 & 122): 14.34 Million Tonnes	-

1f	General remarks of inspecting officers on geology, exploration etc	The limestone area forms a gently undulating plain with elevations ranging from 40 m to 80 m above MSL and an average elevation of about 70 m. The lithounits of Jaggayyapeta and adjacent areas comprise limestone, shale, quartzite and phyllite which belong to the Precambrian sedimentary formations which constitute the north eastern part of the Palnad Basin.	They are flanked in the west, north and est by the granite gneiss of Archean age. The Jaggayyapeta limestone form a part of the Narji Limestone unit belonging to to the Jammalamadugu sub-group of the Kurnool Group. Regionally, they dip at low to moderate angles (2 to 5 degree) towards a general SSE to ESE direction. The rock types at Jaggayyapeta are shales, overlain by the limestone and at places there are intermediate transition comprising argillaceous limestone.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	F.Y. 2020-21: In between UTM co-ordinates Pit no. 1: N679441 to N679610 and E2748768 to 2748717 Pit no. 2: N679893 to N680238 and E2749463 to E2749698	F.Y. 2020-21: In between UTM co-ordinates Pit no. 1: No production and development has been done during F.Y. 2020-21 Pit no. 2: N679893 to N680238 and E2749463 to E2749698	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposal has been given in the approved document for separate benching of Topsoil/OB and Mineral/Ore Topsoil/OB: NIL Mineral/Ore: 02 nos.	Negligible quantity of Topsoil and OB is present in the proposed area. Mineral/Ore: 02 nos.	-
2c	Stripping ratio or ore to OB ratio	1 : 0.0	1 : 0.0	-
2d	Quantity of topsoil generation in m3	No topsoil will be generated during F.Y. 2020-21	No topsoil has been generated during F.Y. 2020-21	-
2e	Quantity of overburden generation in m3	No overburden will be generated during F.Y. 2020-21	No overburden has been generated during F.Y. 2020-21	-
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.	01 no.	-
3b	Quantity of ROM mineral production proposed	F.Y. 2020-21: 780000.00 Metric Tonnes.	F.Y. 2020-21: 235989.00 Metric Tonnes.	Less production due lack of demand from the captive plant.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	No mineral reject will be generated during F.Y. 2020-21	No mineral reject has been generated during F.Y. 2020-21	-
3e	Grade of mineral rejects generation and threshold value declared.	Not mentioned in the approved document.	Not applicable.	-
3f	Quantity of sub grade mineral generation.	No mineral sub-grade will be generated during F.Y. 2020-21	No mineral sub-grade has been generated during F.Y. 2020-21	-
3g	Grade of sub grade mineral generation	Not mentioned in the approved document.	Not applicable.	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised screening and crushing have been proposed for segregation and sizing.	Being done as per proposal.	-
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No beneficiation study proposed has been proposed during plan period.	Not applicable.	-

3j	Provision of drilling and blasting in mineral benches	Mineral Benches: Dia.: 100 - 115 mm Spacing: 4.0 - 5.0 m Burden: 3.0 - 4.0 m Depth: 8.0 - 9.0 m Explosive: Site Mixed Emulsion (SME), slurry cartridge.	Mineral Benches: Dia.: 100 - 115 mm Spacing: 4.0 - 5.0 m Burden: 3.0 - 4.0 m Depth: 8.0 - 9.0 m Explosive: Site Mixed Emulsion (SME), slurry cartridge.	-
3k	Provision of mining machineries in mineral benches	1. Shovel 01 no. with 4.5 CuM bucket 2. Dumpers 04 nos. with 35 Tonnes capacity 3. Drilling Machine 01 no. with 1100/115 mm diameter bit 4. Bulldozer 01 no. with 320 HP capacity 5. Diesel Boozer 01 no. with 1100 liters capacity	1. Shovel 02 no. with 4.5 CuM bucket 2. Shovel 01 no. with 3.2 CuM bucket 3. Front end loader 01 no. with 4.8 CuM bucket 4. Dumpers 06 nos. with 35.0 Tonnes 5. Rocker Shovel Loader 01 no. with 0.9 CuM bucket 6. Drilling Machine 02 no. with 115 mm dia bit 7. Dozer 01 no. with 320 HP 8. Electric Pumps 07 nos. with 2207.0 LPM capacity 9. Crane 01 no. with 25.0 Tonnes capacity 10. Crane 01 no. with 20.0 Tonnes capacity 11. Crane 01 no. with 10.0 Tonnes capacity Continue..	12. Crane 01 no. with 9.0 Tonnes capacity 13. Explosive Van 01 no. with 9.725 Tonnes capacity 14. Crusher 01 no. with 280 TPH capacity 15. Crusher 01 no. with 550 TPH capacity 16. Air Compressor 01 no. with 5.0 CuM/Min capacity 17. Air Compressor 01 no. with 10.0 CuM/Min capacity 18. Conveyor 02 nos. with 175.0 Tonnes/Hr.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height: Pit No. 1: Avg. 8.0 m Pit No. 2: 3.0 m to 9.0 m	Bench Height: Pit No. 1: Avg. 8.0 m Pit No. 2: 3.0 m to 9.0 m	-
3m	Total area covered under excavation/pits	Pit: 51.20 Ha. up to end of F.Y. 2024-25	Pit: 41.78 Ha. up to end of F.Y. 2020-21	-

3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.004 say 1 : 0.00	1 : 0.0	NIL OB/Waste generated during F.Y. 2020-21
3o	Total area put in use under different heads at the end of year	Pit- 51.20 Ha. Waste/reject- 13.95 Ha. Others- 43.99 Ha. Up to end of F.Y. 2024-25	Pit- 41.78 Ha. Waste/reject- 7.20 Ha. Others- 43.99 Ha. Afforestation/Plantation : 101.320 Ha. Up to end of F.Y. 2020-21	-
3p	Production of ROM mineral during the last five year period as applicable	Yr. 2016-17: 780000.00 Metric Tonnes Yr. 2017-18: 780000.00 Metric Tonnes Yr. 2018-19: 780000.00 Metric Tonnes Yr. 2019-20: 1040000.00 Metric Tonnes Yr. 2020-21: 780000.00 Metric Tonnes	Yr. 2016-17: 348102.00 Metric Tonnes Yr. 2017-18: 342108.00 Metric Tonnes Yr. 2018-19: 315005.00 Metric Tonnes Yr. 2019-20: 287634.00 Metric Tonnes Yr. 2020-21: 235989.00 Metric Tonnes	-
3q	General remarks of inspecting officers on method of mining etc.			Mining is being done through the opencast method with fully mechanized means using conventional method of drilling and blasting.

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)	Proposal has been given in the approved document for separate stacking of Screen Reject (-6mm) and Waste/Overburden in the earmarked locations within lease area.	No screen reject dump and waste dump has been found, as the entire produced limestone has been dispatched to the captive plant.	-
4b	Location of topsoil, OB and mineral reject dumps	In between UTM Co-ordinates Screen Reject (Mineral Sub-grade with -6mm size): N679940 to N680065 and E2750000 to E2750300 Waste/Overburden: N679940 to N680065 and E2748750 to E2748904	No waste and screen rejects have been generated during F.Y. 2020-21.	-
4c	Number of dumps within lease area and outside of lease area	Within Lease area: Screen Reject: 01 no. Waste/Overburden: 01 no.	Within Lease area: Screen Reject: 01 no. Waste/Overburden: 01 no.	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed within ultimate pit limit.	No dumps are present within lease area.	-
4e	Number of active and alive dumps.	02 nos.	No dumps are present within lease area.	-
4f	Number of dead dumps.	No proposal.	NIL	-
4g	Number of dumps established.	No proposal.	NIL	-

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal.	NIL	-
4i	Length of Retaining wall or garland drain all along dumps	No proposal.	NIL	-
4j	Number of settling ponds	No proposal.	NIL	-
4k	Specific comments of inspecting officer on waste dump management			NIL

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.	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, as no topsoil will be generated during Review period.	Nil	-
5d	Total area fully reclaimed and rehabilitated	No proposal.	NIL	-
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).	Submitted before due date.	Information has been cross verified during inspection.	No major deviation has been found.
6b	Area available for rehabilitation (ha) .	No proposal.	NIL	-
6c	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	-
6g	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	-
6l	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	1200 nos.	3793 nos.	-
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.80 Ha.	2.42 Ha.	-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation	By plantation	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal has been given in the approved document for regular monitoring of the environmental parameters.	Being done as per proposal.	All the parameters are within the prescribed limit.
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	Proposal has been given in the approved document for grade wise sizing and sorting of the ROM though the mechanized screening and sizing.	Being done as per proposal.	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized crushing and screening have been proposed for -6mm ore/mineral.	Being done as per proposal.	-
7c	Different grade of mineral sorted out at mines.	Proposal has been given in the approved document for sizing and sorting of limestone with above 38 % Cao.	Being done as per proposal. The entire produced limestone is being utilized in the captive plant after sizing. -6mm screen reject is being utilized after blending with the high grade limestone.	-
7d	Any beneficiation process at mines .	No beneficiation study has been proposed in the approved document during review period. Dry crushing and screening have been proposed for segregation of the mineral/ore from the ROM.	Not applicable. Dry crushing and screening is being done for segregation of the mineral/ore from the ROM.	-
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 topsoil will be generated during review period.	No topsoil has been produced during F.Y. 2020-21.	-
8b	Concurrent use or storage of topsoil	No proposal.	NIL	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of the screen reject (Sub-grade with -6mm size) and waste/overburden have been proposed in between UTM co-ordinates Screen Reject (Mineral Sub-grade with -6mm size): N679940 to N680065 and E2750000 to E2750300 Waste/Overburden: N679940 to N680065 and E2748750 to E2748904	No dumps of screen reject (Sub-grade with 6mm size) and waste/overburden have been made.	-
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)	No proposal.	NIL	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1200 nos. of saplings will be planted over 0.80 Ha. area.	3793 nos. of saplings have been planted over 2.42 Ha. area.	-
8g	Survival rate	Not mentioned in the approved document.	Approx 80%	-
8h	Water sprinkling on roads to control airborne dust	Proposal has been given in the approved document for water sprinkling on roads to control airborne dust through the water tanker.	Being done as per proposal.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			NIL

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to August 2021 Annual returns: F.Y. 2020-21	M.R. Submitted up to August 2021 Annual returns: F.Y. 2020-21	NIL

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Shri G. V. Subba Rao Mining engineer: Shri Vijay Kumar Geologist: Shri P Rama Krishna	Manager: Shri Vijay Kumar Mining engineer: Shri Krishna Kumar Dhruvw Geologist: Shri K. Shrinivas	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 41.78 Ha. Waste/reject- 7.20 Ha. Others- 43.99 Ha. Afforestation/ Plantation: 101.320 Ha.	Pit- 41.78 Ha. Waste/reject- 7.20 Ha. Others- 43.99 Ha. Afforestation/Plantation : 101.320 Ha.	NIL
9d	Scrutiny of Annual return on afforestation	Within lease area: 3793 nos. of saplings have been planted over 2.42 Ha. area.	Within lease area: 3793 nos. of saplings have been planted over 2.42 Ha. area.	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject: Nil Grade: Nil	Mineral reject: Nil Grade: Nil	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing Stock: NIL BF Grade Limestone: 15602.41 Metric Tonnes	ROM Closing Stock: NIL BF Grade Limestone: 15602.41 Metric Tonnes	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value: NIL Ex-mine Price: Rs. 1152.84 Per Metric Tonne Cost of Production: Rs. 1353.88 Per Metric Tonne	Sale Value: NIL Ex-mine Price: Rs. 1152.84 Per Metric Tonne Cost of Production: Rs. 1353.88 Per Metric Tonne	For Captive Users, Ex-mine price should be reported similar to the Cost of Production as computed in Part VII

9h	Scrutiny of Annual return on fixed assets	Fixed Assets: Rs. 312437673.00	Fixed Assets: Rs. 312437673.00	NIL
9k	Scrutiny of Annual return on mining machineries	Given in the annual returns.	Cross verified from the field logbooks.	NIL

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)	09-SEP-21			
MCDR17	Rule 26(1)	09-SEP-21			
	Rule 45(7)	09-SEP-21			

Date :

(SHAIVAL KARTIKEYA)

Indian Bureau of Mines