

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

Review and updation of Mining Plan REPORT

Hyderabad regional office

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

Mine code : 38APR10010

- (i) Name of the Inspecting : **M001**) **S K MUDULI**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Sri Vijay Kumar-DGM(Mines), Shri K. Srinivasa Rao-Dy.
Official with
Designation
- (iv) Date of Inspection : 21-FEB-20
- (v) Prev.inspection date :

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 : 20
- (d) Date of Expiry : 08-AUG-20
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 Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	30-NOV-01
		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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2018-19- 15 no's of boreholes proposed for a combined depth of 600m .	2018-19- NIL.	The entire Exploration prosed in the five year block has already been completed in the year 2017-18 for 83 No's of Boreholes with 4000 meter of core drilling.
1b	Exploration over lease area for geological axis 1 or 2	Entire lease area was proposed to be converted into G2 level of exploration.	The drilling activity carried out in the entire lease of 1295 Hectares Under G2 Axis.	Rule 12(3) of MCDR requires to convert the entire lease area under G1 level of exploration.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	2018-19-NIL	2018-19-NIL	Total Cost for Exploration work at JLM is Rs.72,52,200/- as per work order.
1d	Balance area to be explored to bring Geological axis in 1 or 2	-----	Entire lease area has been explored under G2 level of exploration.	
1e	Balance reserve as on 01/04/20	As on 31/3/2015, Proved Mineral Reserves(111) - 32.80 mT Prefeasibilit y Mineral Reserves(221) - 3.60 mT Measured Mineral Resource(331) - 40.02 mT Indicated Mineral Resource(332) - 86.50 mT Reconnaissanc e Mineral Resource(334) - 181.00 mT	Reserves/ resource after depletion- Proved Mineral Reserves(111) - 31.28 m.T Prefeasibility Mineral Reserves(221) - 3.60 m.T Measured Mineral Resource(331) - 40.02 m.T Indicated Mineral Resource(332) - 86.50 m.T Reconnaissance Mineral Resource(334) - 181.00 m.T	

1f	General remarks of inspecting officers on geology, exploration etc	By recent exploration (in 2017-18) of 4000 mtrs the Total Estimated Reserves & Resources are reported to be 990.90 Million Tons and the same may be verified during review of mining plan. Rule 12(3) of MCDR requires to convert the entire lease area under G1 level of exploration.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E2748502-2749091 N679270-679950	Broadly in the same area	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	-----	No topsoil bench.Separate bench for mineral are being maintained.	
2c	Stripping ratio or ore to OB ratio	No proposal as there is no OB	Nil	Area is devoid of overburden
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	No proposal	Nil	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	---		Mechanised mining method has been adopted.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	2018-19-2 No's	Though there are two pits, but due to less requirement of limestone to plant, excavation has been done from one pit only.	
3b	Quantity of ROM mineral production proposed	2018-19-7,80,000 Tons	2018-19-3,15,005 Tons	
3c	Recovery of sailable/usable mineral from ROM production	2018-19= 100% Recovery	2018-19=100% Recovery	The entire Rom is crushed to -70mm size and dispatched to steel plant through rail wagons.
3d	Quantity of mineral reject generation	2018-19- Not Applicable	2018-19- Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable	Not Applicable	
3f	Quantity of sub grade mineral generation.	2018-19- Not Applicable	2018-19- Nil	
3g	Grade of sub grade mineral generation	Not Applicable	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal	Segregation is not required at present.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	

3j	Provision of drilling and blasting in mineral benches	Deep hole drilling-blasting method is proposed	115mm drill,Depth of hole-8m,Burden-3 to 4m, Spacing- 4 to 5m. Deep hole drilling and blasting method is adopted for rock fragmentation.The site mixed emulsion explosive is being used with emulsion booster, delay detonators and et. fuse/or nonels is being used for blasting. The powder factor of 4 is being obtained.
3k	Provision of mining machineries in mineral benches	a) Shovel: 4.5 m3 - 2 (supported by 3.2 m3 standby) b) Dumpers 35 T - 4 no's c) Drill machine - Revathi C-60H, 115mm dia - 1	a) Shovel: 4.5 m3 - 2 (supported by 3.2 m3 standby) b) Dumpers 35 T - 4 no's c) Drill machine - Revathi C-60H, 115mm dia - 1
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	---	Height of mineral bench is in compliance of max digging height of excavator deployed.
3m	Total area covered under excavation/pits	50.40 hectare proposed till 8/8/2020	Only 39.88 hectare is under pit at present due to less production excavation.
3n	Ore to OB ratio for the pit/mine during the year.	Not Applicable Nil	

3o	Total area put in use under different heads at the end of year	As on 8/8/2020 a) Covered under current (O/C) Workings - 50.4 Ha. b) Used for waste disposal(Fines) - 7.20 Ha. c) Occupied by plant, buildings, residential, welfare buildings, afforestation & roads - 144.49 Ha. (Including afforestation area of 98.90 Ha.,)	As on 01.04.2019 a) Covered under current (O/C) Workings - 39.88 Ha. b) Used for waste disposal(Fines) - 7.20 Ha. c) Occupied by plant, buildings, residential, welfare buildings, afforestation & roads - 143.39 Ha. (Including afforestation area of 98.90 Ha.,)
3p	Production of ROM mineral during the last five year period as applicable	Year Production 2015-16 7,80,000 T 2016-17 7,80,000 T 2017-18 7,80,000 T 2018-19 7,80,000 T 2019-20 7,80,000 T	Year Production 2015-16 3,54,764 T 2016-17 3,48,102 T 2017-18 3,42,108 T 2018-19 3,15,005 T 2019-20 1,91,065 T (As on 01.12.19)
3q	General remarks of inspecting officers on method of mining etc.	Mining is done through mechanised open cast mining method by deploying HEMM and using deep hole drilling and blasting technique for rock fragmentation.	

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)	Not Applicable	Not Applicable	
4b	Location of topsoil, OB and mineral reject dumps	Not Applicable	Not Applicable	largely devoid of top soil
4c	Number of dumps within lease area and outside of lease area	Only one old mineral reject dump is there.	The same dump is still there but no fresh dumping is being done over there.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No fresh dumping proposal	The old dump is located out side UPL.	
4e	Number of active and alive dumps.	One old dead dump of mineral reject is there.	Nil	
4f	Number of dead dumps.	One dump is established for mineral reject	Already stabilized mineral reject (fine) dump is there.	
4g	Number of dumps established.	No proposal	The retaining wall is already there	
4h	Whether Retaining wall or garland drain all along dumps are there.	-----	The retaining wall is already there	
4i	Length of Retaining wall or garland drain all along dumps	No proposal	NIL	
4j	Number of settling ponds	No proposal	NIL	The bottom bench in pit-1 is used for water catchment ..
4k	Specific comments of inspecting officer on waste dump management	-----	-----	Mineral reject dump has been stabilised.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Mining has not reached upto ultimate pit limit.
5b	Area under backfilling of mined out area	No proposal	-do-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	-do-
5d	Total area fully reclaimed and rehabilitated	No proposal	-do-

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).	To be submitted	Annual report on PMCP submitted	
6b	Area available for rehabilitation (ha) .	No proposal	No part of the mine has reached its conceptual stage to take up the work of reclamation and rehabilitation.	
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	Area is not mature for reclamation and rehabilitation	
6f	Any other method of rehabilitation	No proposal	Area is not mature for reclamation and rehabilitation	
6g	Cost incurred on watch and care during the year	No proposal	Area is not mature for reclamation and rehabilitation	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Area is not matured for reclamation and rehabilitation by backfilling
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings		
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	Area is not matured for reclamation and rehabilitation by backfilling
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Area is not matured for reclamation and rehabilitation by backfilling
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Area is not matured for reclamation and rehabilitation by backfilling
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1000 saplings over 1.00 Hectare area proposed	the plantation proposed over 5 hectare has been done in the first year of the present five year block.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1000 saplings over 1.00 Hectare area proposed	The plantation proposed over 5 hectare has been done in 2017-18 of the five year block(2015-16 to 2019-20).
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring proposed	Environment monitoring being done regularly and the readings are reported to be within prescribed limits.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	-----	Entire mineral being used in steel plant at Viskhatnam after crushing to -70mm size	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Not done	
7c	Different grade of mineral sorted out at mines.	No proposal	Not done	
7d	Any beneficiation process at mines	No proposal	Not done	No beneficiation except crushing
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		The plant requirement has reduced due to import of sms grade limestone as a result exploitation and the corresponding requirement has also reduced. As a result the utility of the limestone fines may now be explored in the interest of mineral conservation	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Applicable	Nil	Area is largely devoid of top soil
8b	Concurrent use or storage of topsoil	Not Applicable	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed	Separate mineral reject dump is there. Though there is no fresh mineral reject generation in 2019-20	No overburden & waste generated from mines

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not done.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not done.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	--	About 98.90 hect plantation with about 70% survival
8g	Survival rate	---	About 70%
8h	Water sprinkling on roads to control airborne dust	proposed	Regular water sprinkling is done with water tanker.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	----	Submitted the Monthly returns upto November 2019 and Annual returns for 2018-19.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Sh Vijay Kumar Geologist - Sh Y Ramesh Kumar	Mining Engineer - Sh K.K.Dhruw Geologist -Sh K Srinivas rao	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	a) Covered under current (O/C) Workings - 39.88 Ha. b) Used for waste disposal (Fines Dump) - 7.20 Ha. c) Occupied by plant, buildings, residential, welfare buildings & roads - 143.39 Ha.	Broadly as per submission	
9d	Scrutiny of Annual return on afforestation	NIL Plantation within ML	As per submission.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil generation in 2018-19	As per submission	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock @ 25930.41 Tons Production @ 3,15,005 Tons Dispatch @ 3,15,628.50 Tons Closing stock @ 25306.21 Tons	As per submission	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value @ Nil , Ex. Mine price & Production cost @ Average per year Rs.787.73/- per tone	-----	Lessee is undertaking mining, crushing and wagon loading by mechanized means and an employment of 130 persons appx are there as per AR
9h	Scrutiny of Annual return on fixed assets	Submitted	-----	
9k	Scrutiny of Annual return on mining machineries	Submitted	Machineries have been deployed as submitted.	

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 :

(S K MUDULI)

Indian Bureau of Mines