

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

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/KNL/LST-123/HYD

Mine code : 38APR11056

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri.N. Thulasi Reddy, Mining Engineer, Sri.Prabhakar
Official with
Designation
- (iv) Date of Inspection : 28/09/2020
- (v) Prev.inspection date : 28/11/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RACHERLA**
- (b) **Registration NO.** : **522**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : ANDHRA PRADESH
District : KURNOOL
Village : RACHERLA
Taluka :
Post office : PEAPALLY
Pin Code :
FAX No. : 08522- 249920.
E-mail :
Phone : 08522- 249918/19
- (f) Police Station : RACHERLA
- (g) First opening date : 15/01/1998
- (h) Weekly day of rest : SUN
2. Address for : M/S RAIN COMMODITIES LTD,
correspondance : BOINCHERUVUPALLY (V), PEAPULLY(M),
KURNOOL-518220
3. (a) Lease Number : APR1257
- (b) Lease area : 510.25
- (c) Period of lease : 30
- (d) Date of Expiry : 29/01/2027
4. Mineral worked : LIMESTONE Main
SHALE Associated

5. Name and Address of the

Lessee : RAIN COMMODITIES LTD
 34, GREEN TOWERS, SRINAGAR
 COLONY HYDERABAD HYDERABAD
 TELANGANA
 Phone: 08522-249918/19, 040-40401234
 FAX : 08522-249920

Owner : N.SUJITH KUMAR REDDY
 RAIN INDUSTRIES LTD, PLOT
 34 SRINAGAR COLONY HYDERABAD
 HYDERABAD TELANGANA
 Phone: 3740737, 3740747
 FAX : 3740770

Agent : M.Achi Reddy
 Rain Cements Ltd.
 Racherla(V) Kurnool dt.
 KURNOOL ANDHRA PRADESH
 Phone:
 FAX :

Mining Engineer

Name : K.NAGA THULASI REDDY, Full Time
 Qualification : B.E.MINING
 Appointment/ : 20/04/2000
 Termination date

Geologist

Name : Dr.Y.Prabhakara Reddy, Full Time
 Qualification : MSc. Geo
 Appointment/ : 24/12/2012
 Termination date

Manager

Name : k.Ramanjaneya Reddy
 Qualification :
 Appointment/ : 01/01/2016
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	22/04/2003
Plan/Scheme of Mining		Modif.approved Mining Scheme	02/05/2006
		Modif.approved Mining Scheme	19/12/2006
		Mining Scheme rule 12 MCDR1988	16/04/2008
		Fresh under rule 22 MCR1960	30/07/2009
		Mining Scheme rule 12 MCDR1988	12/09/2013
		MP review under 17(1) MCR 2016	21/03/2018
		MP modif under 17(3) MCR 2016	17/07/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2019-20 - Nil	03 Boreholes drilled for backlog of previous year (2018-19).	
1b	Exploration over lease area for geological axis 1 or 2	2019-20- Nil	Area under G1-471.0 Ha & G3-39.25	6 Nos. boreholes proposed to bring the G3 level area to G1 level in the Modified Mining Plan approved on 17.07.2020.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Nil	39.25 Ha of area under G3 exploration is proposed to bring under G1 level of exploration in 2021-22
1e	Balance reserve as on 01/04/20	As on 31/12/2017 111-316.96 million Tonnes 122-11.03 million Tonnes 211-99.90 million Tonnes 222-1.90 million Tonnes 331-24.44 million Tonnes 333-24.64 million Tonnes	Depletion from 01/01/2018 to 31/03/2019 - 1.917 million Tonnes Depletion from 01/04/2019 to 31/03/2020 - 1.2115 million Tonnes Balance: 111-313.8315 million Tonnes 122-11.03 million Tonnes 211-99.90 million Tonnes 222-1.90 million Tonnes 331-24.44 million Tonnes 333-24.64 million Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			6 Nos. boreholes proposed to bring the G3 level area to G1 level in the Modified Mining Plan approved on 17.07.2020.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1684500 - N1684950 E815800 - E816550	Work done within the proposed co-ordinates.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposed	Flaggy limestone occuring above the payzone of limestone is being worked separetely.	
2c	Stripping ratio or ore to OB ratio	-----	Ore to waste ratio - 1211500 : 370875 = 1:0.3	
2d	Quantity of topsoil generation in m3	3500 cu.m	3275 cu.m	
2e	Quantity of overburden generation in m3	No overburden genertion was anticipated	No overburden genertion reported. However the flaggy limestone occuring above the limestone is booked as mineral reject.	370875 Tonnes of flaggy limestone generated as mineral reject and no yellow ochre has been produced. 4737 MT of flaggy limestone is utilised in the year 2019-20.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The flaggy limetsone being generated as mineral reject is occuring above the payzone of limestone.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	2221680 Tonnes of limestone from payzone and 338800 Tonnes of mineral reject generation was anticipated from the mineralised zone.	1211500 Tonnes of limestone from payzone and 370875 Tonnes of mineral reject generated.	

3c	Recovery of sailable/usable mineral from ROM production	2019-20 - 85 %	1211500 Tonnes of limestone from payzone and 370875 Tonnes of mineral reject generated from mineralised zone in 2019-20. Thus a recovery of 70% is achieved.
3d	Quantity of mineral reject generation	338800 Tonnes (Flaggy limestone is generated as mineral reject).	370875 Tonnes of flaggy limestone generated as mineral reject.
3e	Grade of mineral rejects generation and threshold value declared.	No proposed	Cao - 36.48% SiO2 - 25.79%
3f	Quantity of sub grade mineral generation.	338800 Tonnes	370875 Tonnes
3g	Grade of sub grade mineral generation	Cao - 36.48% SiO2 - 25.79%	Cao - 36.48% SiO2 - 25.79%
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal	Nil
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	It is proposed to carry out drilling of blast hole by 150m drill equipped with wet drilling system .Blasting operation is proposed to be carried out using ANFO and slurry/ cast booster in combination with delay detonators .	Drilling operation is being carried out with 150m dia drill . Blasting is carried out using slurry explosives with Nonel initiation system.

3k	Provision of mining machineries in mineral benches	Hydraulic Excavator - 2.5cu.m - 2 Nos. Dumpers - 20 cu.m - 5 Nos. Dozer - 1 No. Drilling machine - 1 No. Compactor - 1 No. Water Tanker - 1 No.	Hydraulic Excavator - 2.5cu.m - 2 Nos. Dumpers - 20 cu.m - 5 Nos. Dozer - 1 No. Drilling machine - 1 No. Compactor - 1 No. Water Tanker - 1 No.	New drilling machine is procured and is deployed for drilling in benches for trial run.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No proposal	Digging height of the excavator is compatible for proposed bench height fo 8m.	
3m	Total area covered under excavation/pits	58.95 ha till 2022-23	51.70 ha till 2019-20	
3n	Ore to OB ratio for the pit/mine during the year.	No poposal	No OB produced	
3o	Total area put in use under different heads at the end of year	Total area put to use as per plan is 88.69 ha till 2022-23.	Total area put to use till 2019-20 is 77.363 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2015-16 - 1161756 T 2016-17- 2724004 T 2017-18- 2719625 T 2018-19 - 1981121 T 2019-20 - 2221680 T	cement grade limestone production: 2015-16 -1161756 T 2016-17- 1282230 T 2017-18- 1332767 T 2018-19 -1496000 T 2019-20 - 1211500 T	ROM production is less due to less market demand.
3q	General remarks of inspecting officers on method of mining etc.			New drilling machine is procured with new features like self drill rod changing and digital monitoring of drilling meterage. The machine is deployed for drilling in benches for trial run.

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Flaggy limestone generated was proposed to be dumped separately.	Being dumped separately as proposed.	
4b	Location of topsoil, OB and mineral reject dumps	In the year 2019-20, mineral reject dumping was proposed at N1685800-16585500 & E817500-817300	Mineral reject dumping was done at the same place in 2019-20.	
4c	Number of dumps within lease area and outside of lease area	Two dumps within the lease area.	Two dumps are within the lease area. Dumping is being carried out only at one dump.	Two old dumps, Mineral reject-1 & Yellow ochre-1 is noticed outside the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	UPL marked on the conceptual plan	Dumping is done at proposed site proved for the presence of mineral.	
4e	Number of active and alive dumps.	One dump proposed	Active -1 dump	
4f	Number of dead dumps.	-----	One dead dump has been noticed within the mining lease.	
4g	Number of dumps established.	Two dumps are in the lease	Two dumps within the lease area	
4h	Whether Retaining wall or garland drain all along dumps are there.	265m of Garland drain proposed along the grade dumps Retaining Wall - No proposal	Garland drain made around the sub grade dumps	
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall - No proposal Garland drain - 265m	Garland drain - 265m	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			The sub grade dumps are of flaggy limestone which is having a Cao-36.48% and SiO2-25.79%.

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	The pit is not mined out upto its ultimate pit limit to start backfilling.	
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)	Proposed	The top soil generated is used for plantation.	
5d	Total area fully reclaimed and rehabilitated	No proposal	Area under excavation is not matured for reclamation	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Area is not matured for Reclamation and Rehabilitation.

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 as per rule	Submitted	
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	15262 Nos. as per the PMCP data submitted.	
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)Afforestation on on backfilled area	No proposal	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	The bottom bench are used for water harvesting and the water is utilised for plantation and mine activities.
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	No proposal	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Environmental monitoring being carried out regularly.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	2221680 Tonnes of limestone from payzone and 338800 Tonnes of mineral reject generation was anticipated from the mineralised zone.	1211500 Tonnes of limestone from payzone and 370875 Tonnes of mineral reject generated.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Nil	
7c	Different grade of mineral sorted out at mines.	No proposal	Nil	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Flaggy limestone is considered as sub grade mineral. However it is used for blending whenever required.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Proposed	Being carried out accordingly	
8b	Concurrent use or storage of topsoil	Proposed	Top soil is used for plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Seperated dump for flaggy limestone is proposed	Seperated dump for flaggy limestone is maintained	
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)	No proposal	Nil	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling on haul road is being carried out.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation is done on the dumps and in the buffere zone.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly and Annual Returns being submitted	-----
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - K. Naga Thulasi reddy Geologist- Dr. Y Prabhakar Reddy	Mining Engineer - K. Naga Thulasi reddy Geologist- Dr. Y Prabhakar Reddy
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Opencast pit- 51.095 ha. Dump- 8.828ha.	Same as submitted.
9d	Scrutiny of Annual return on afforestation	2730 outside lease area	Broadly as submission and same quantity is verified in afforestation register maintained.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	370875 Tonnes of mineral reject is reported	370875 Tonnes of mineral reject reported is verified in the register maintained.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	1582375 Tonnes is reported as ROM production	1211500 Te (Limestone grade) + 370875 Te (sub grade) = 1582375 Tonnes
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production cost - Rs.177.23	Rs.177.23
9h	Scrutiny of Annual return on fixed assets	Rs. 295105300	-----
9k	Scrutiny of Annual return on mining machineries	Dumper, shovel, back hoe excavator, dozer etc being used as submitted	Dumper, shovel, back hoe excavator, dozer etc being used as submitted

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

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(MADHU SUDHAN YADAV M)

Indian Bureau of Mines