

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/KTN/LST-52

Mine code : 38MPR18132

- (i) Name of the Inspecting : **G005**) **SANJAY M. GIRHE**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 17-JAN-20
- (v) Prev.inspection date : 11-FEB-17

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NANHWARA [7.035 HA]**
- (b) **Registration NO.** :
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : KATNI
Village : NANHWARA
Taluka : VIJAYRAGHAVGARH
Post office : NANHWARA
Pin Code : 483775
FAX No. : N. A.
E-mail : N. A.
Phone : N. A.
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for : Shri Ashok Kumar Katare, Partner / Nominated Own
correspondance M/S ASSOCIATED LIME COMPANY
P.B.NO.164, KATNI (M.P.) 483501
3. (a) Lease Number : MPR1697
(b) Lease area : 7.03
(c) Period of lease : 20
(d) Date of Expiry : 04-DEC-15
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : ASSOCIATED LIME COMPANY
P.B.NO.164 KATNI MADHYA
PRADESH
Phone:N. A.
FAX :N. A.

Owner : ASSOCIATED LIME COMPANY
P.B.NO.164 KATNI MADHYA
PRADESH
Phone: N. A.
FAX : N. A.

Mining Engineer

Name : KRISNA NAND OJHA,Part Time
Qualification : B.E.(MINING)
Appointment/ : 22-MAY-02
Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	27-MAY-03
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	18-AUG-06
		Mining Scheme rule 12 MCDR1988	30-JUN-10
		Mining Scheme rule 12 MCDR1988	14-JAN-15
		MP modif under MCR 1960	03-DEC-15

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed during the year 2018-19	Nil	Excavation/Mining reached to its Ultimate Pit limit
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed during the year 2018-19	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration was proposed during the year 2018-19	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not Proposed	Entire mining lease area of 7.035Ha explored in G1 level by working pits	
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 623352 Probable (122)-258081 Resources in tonnes Pre-Feasibility(211): 940928 Pre-Feasibility(222): 2966815 As per MMP approved on 03/12/2015	Reserves in Tonnes Proved(111) -318302 Probable (122)-258081 Resources in tonnes Pre-Feasibility(211): 940928 Pre-Feasibility(222): 2966815 As per Annual Return for 2018-19	No additional reserves estimated

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Entire mineralised lease area has not been explored in G1 level by working pits. Mineralisation proved up to 55 to 60m depth. No additional exploration was proposed.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to work in southern area of Pit-A with bench RLs from 390m to 342 as earmarked in 3C Plate for the year 2018-19	Mine working was carried out as per the proposed locations but deviation was observed at some extent laterally as well as vertical.	Violation under rule 11(1) of MCDR was pointed out & issued
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in top soil & OB were proposed	Working carried out as per the proposals	
2c	Stripping ratio or ore to OB ratio	Proposed as 1:0.64 tonne/CuM	Acheived as 1:0.53	During the year 104268 OB generated
2d	Quantity of topsoil generation in m3	Proposed as 24960 CuM	Acheived as 18665 CuM	
2e	Quantity of overburden generation in m3	Proposed as 45753 CuM	Acheived as 104268 tonnes	OB generation reported as per annual return 2018-19
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There is single working centralised pit & its dimensions are (5.025 Ha x 40 to 60m depth)

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working were proposed in single centralised Pit-A	Working carried out in Pit-A	
3b	Quantity of ROM mineral production proposed	1,97,570 Tonnes proposed in 2018-19	1,93,090 tonnes limestone production acheived during 2018-19	
3c	Recovery of sailable/usable mineral from ROM production	100% recovery proposed	Acheived 100% recovery	Out of 100% total 90% of BF grade limestone & rest 10% cement grade limestone
3d	Quantity of mineral reject generation	Not Proposed	Nil	No mineral reject generation
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	
3g	Grade of sub grade mineral generation	Not Proposed	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	Manual sizing & sorting carried out	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	NA	
3j	Provision of drilling and blasting in mineral benches	Small dia 32mm shallow depth drilling & blasting is proposed by Jack hammer	Drilling carried out as per the proposals	

3k	Provision of mining machineries in mineral benches	Hydraulic Shovel-1 CuM capacity TATA Dumper model 2515, 24 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	TATA Dumper model 2515, 24 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 5m was proposed in OB Bench height of 6m proposed in limestone	Working carried out as per the proposals
3m	Total area covered under excavation/pits	5.51 Ha area was proposed in approved MMP period i.e. 2015-16 to 2019-20	5.64 Ha as on 01.04.2019 as per annual return 2018-19
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:1.64	Acheived as 1:0.53
3o	Total area put in use under different heads at the end of year	As per the previous approved MMP Pits-5.51Ha Waste dumps-0.65Ha Road-0.194Ha Others-0.092Ha	Pits-5.64Ha Waste dumps-1.20Ha Reclaimed/Rehabilitated-0.895Ha Others-0.194Ha As per annual return 2018-19 as on 01.04.2019

3p	Production of ROM mineral during the last five year period as applicable	2014-15-: 57834 MT 2015-16-:60676 MT 2016-17-: 200847 MT 2017-18-: 220377 MT 2018-19-:197,570 MT 2019-20-: 192160 MT	2014-15-: 57700 MT 2015-16-: 55097 MT 2016-17-: 43680 MT 2017-18-: 62280 MT 2018-19-: 193090 MT 2019-20-: 181700 MT	Production details as per approved Plan & annual returns
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Semi-Mechanised open cast working proposed by using Excavator /JCB & dumper combination with shallow drilling & blasting using jack hammer.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not proposed	Concurrent use of top soil & OB material for backfilling proposed	Backfilling in mined out area was proposed
4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	NA	
4c	Number of dumps within lease area and outside of lease area	Not Proposed	Presently single OB dump exisiting between E300 to E380 & S170 to S280	Dump size 6500m2 x 6m height & approx quantity 39000 CuM
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not Proposed	Presently single OB dump exisiting between E300 to E380 & S170 to S280	Dump is outside ultimate Pit limit
4e	Number of active and alive dumps.	Not Proposed	Singl dump i.e. Dump-1	
4f	Number of dead dumps.	Not Proposed	No dead dumps within ML area	

4g	Number of dumps established.	Not Proposed	NA	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Nil	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	Nil	
4j	Number of settling ponds	Not Proposed	Nil	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	OB material in the form of shale & weathered siliceous material being used for backfilling in mined out area

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.	Western part of the Pit-1, some area fully mineral exhausted	Full extraction of limestone not occued in any pit	
5b	Area under backfilling of mined out area	About 6400 Sq.M area backfilled towards western part of pit area	About 6400 Sq.M area backfilled towards western part of pit area	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Conceurrent use of top soil proposed	Work carried out as per the proposals	
5d	Total area fully reclaimed and rehabilitated	About 6400 Sq.M area reclaimed & rehabilitated	About 6400 Sq.M area reclaimed & rehabilitated	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	OB generated during the plan period proposed for backfilling. OB generated ML area is shale & siliceous material
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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 before 1st July of every year	Sumitted within time limit	
6b	Area available for rehabilitation (ha) .	Some area towards western part of Pit-A is available	Some area towards western part of Pit-A is available	
6c	afforestation done (ha).	NA	NA	
6d	No. of saplings planted during the year	NA	About 200 saplings planted in ML area & 50 nos outside ML area	
6e	Cumulative no .of plants	NA	NA	
6f	Any other method of rehabilitation	Not Proposed	Rehabilitation by plantation method being practised	
6g	Cost incurred on watch and care during the year	NA	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Reclamation & rehabilitation proposed backfilling	Carried out as per the proposals	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Reclamation & rehabilitation proposals proposed backfilling	Carried out as per the
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not Proposed	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not Proposed	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not Proposed	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not Proposed	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not Proposed	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Carried out as per the proposals	Analysis reports were provided
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	OB generation proposals given in approved and scope of backfilling/reclamation & rehabilitation very well existed in ML area.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	197570 MT limestone proposed for despatch.	198224 MT of SMS grade limestone were despatched during the year 2018-19.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual method for sizing & sorting proposed	Manual method for sizing & sorting done for SMS & Cement grade limestone	
7c	Different grade of mineral sorted out at mines.	Manual method for sizing & sorting proposed for cement & SMS grade of limestone	Sorting carried out as per the proposals	
7d	Any beneficiation process at mines .	Not Proposed	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Limestone is being conserved by grade wise sorting in the lease area. SMS & Cement grade limestone .

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Conceurrent use for platation purpose proposed	Carried out as per the proposals	
8b	Concurrent use or storage of topsoil	Conceurrent use for platation purpose proposed	Carried out as per the proposals	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Proposed	NA	Concurrent use for backfilling being practised
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed for backfilling	Working carried out as per the proposals	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phase wise reclamation & rehabilitation proposed	Working carried out as per the proposals	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	200 saplings planted in ML & 50 saplings outside ML area planted	
8g	Survival rate	Proposed as 80%	Acheived as 70%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is done by water tanker	Water tanker of 5KL capacity is provided for the purpose

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	NA	Aesthetic beauty in and around mine area is not much satisfactory as plantation not done up to that extent. Hence, it was instructed to propose at least 200 sapling/year.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. not submitted upto- January-2020 A.R. submitted upto- 2018-19	Annual Return for the year 2018-19 was submitted within time limit.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri K.N. Oza was appointed as Mining Eng.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Working Pit-5.64Ha Reclaimed/Rehabilitated-5.64Ha Waste dumps-1.20Ha Other-0.194Ha	
9d	Scrutiny of Annual return on afforestation	Given	Total 200 saplings planed in ML area & 50 saplings outside ML area	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral reject generation proposed	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	SMS Grade Limestone: O/S-1338.10 MT Despatch-198224 MT C/S-8203 MT	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Give	Ex-Mine price of SMS grade limestone reported as -Rs 250/Tonne
9h	Scrutiny of Annual return on fixed assets	Given	Nil
9k	Scrutiny of Annual return on mining machineries	Given	Machineries proposed as the method of working

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
MCDR17	Rule 11(1)	25-MAR-20			
MCDR17	Rule 47(c)	25-MAR-20			
MCDR17	Rule 45(5) (c	25-MAR-20			

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines