

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/KTN/LST-16

Mine code : 38MPR18050

- (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 : 03-SEP-21
- (v) Prev.inspection date : 03-FEB-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KYMORE & BAMANGAON**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : KATNI
Village : KYMORE&BAMANGAON
Taluka : VIJAYRAGHAVGARH
Post office : KYMORE
Pin Code : 483880
FAX No. : 07626-272303
E-mail : N. A.
Phone : 07626-272301
- (f) Police Station : Kymore
- (g) First opening date : 18-NOV-49
- (h) Weekly day of rest : SUN
2. Address for : ACC Limited
correspondance P.O. KYMORE, VIA JUKEHI
DIST. KATNI (M.P.) 483501
3. (a) Lease Number : MPR1694
(b) Lease area : 4568.08
(c) Period of lease : 10
(d) Date of Expiry : 16-OCT-99
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : ACC Limited
 P.O. KYMORE VIA JUKEHI
 KATNI MADHYA PRADESH
 Phone:N. A.
 FAX :N. A.

Owner : ACC Limited
 P.O. KYMORE VIA JUKEHI
 KATNI MADHYA PRADESH
 Phone: N. A.
 FAX : N. A.

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	02-FEB-95
Plan/Scheme of Mining		Modif.approved Mining Scheme	13-FEB-04
		Mining Scheme rule 12 MCDR1988	06-JUN-06
		FMCP under 23C(1)	24-MAY-07
		Modif.of approved Mining Plan	14-JUN-07
		Renewal under rule 24 MCR1960	03-JAN-10
		Modif.of approved Mining Plan	05-JAN-12
		Mining Scheme rule 12 MCDR1988	05-MAY-14
		Modif.approved Mining Scheme	13-JUN-16
		MP review under 17(1) MCR 2016	28-MAR-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the year 2020-21 no exploration was proposed	Nil	Detailed exploration already carried out over 596 Ha area of ML by the lessee
1b	Exploration over lease area for geological axis 1 or 2	G1-596.23 Ha G2/G3-291.80 Ha Non Mineralized-632.19Ha	G1-596.23 Ha G2/G3-291.80 Ha Non Mineralized-632.19Ha	Further exploration for conversion of G2 to G1 level required
1c	Exploration Agencies and Expenditure in lakh rupees during the year	During the year 2020-21 no exploration was proposed	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G2-164.97 Ha	G2-164.97 Ha	At village Amraiya
1e	Balance reserve as on 01/04/20	Reserves in Million Tonnes Proved(111) - 110.29 Probable (122)- 25.0 Resources in Million Tonnes Pre-Feasibility(21): 51.79 Inferred(333) : 10 As per ROMP dtd 28.03.2019	Reserves in Million Tonnes Proved(111) - 102 Probable (122)- 27.50 Resources in Million Tonnes Pre-Feasibility(21): 51.79 Inferred(333): 10 As per Annual Return for the year 2020-21	Reserves/resources have been re-estimated based on previous exploration & as per MEMC Rules, 2015 provisions

1f	General remarks of inspecting officers on geology, exploration etc	No exploration proposals given	Nil	Detailed exploration carried out by the lessee in past. Limestone of ML area belongs to vidhyan Supergroup. Mostly semari group of rocks comprises in the ML area.
----	--	--------------------------------	-----	--

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	MGH NP MLN 18A- MLN 33 OP MLN 10 - MLN 16 MLN A - MLN 2 DEOSARI MLN B - MLN H. BMG BLOCK I ML 4 - ML 6 BLOCL II ML 4 - ML 6 BLOCK III ML 18 - ML 23 ML 25 - ML 27	MGH NP MLN 18A- MLN 33 OP MLN 10 - MLN 16 MLN A - MLN 2 DEOSARI MLN B - MLN H. BMG BLOCK I ML 4 - ML 6 BLOCL II ML 4 - ML 6 BLOCK III ML 18 - ML 23 ML 25 - ML 27	Excavation carried out at proposed locations
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	In OB bench height of 5mts & in limestone bench height of 10m proposed	Working benches heights are maintained as per the proposals	Updated projections of benches height marked on surface plan
2c	Stripping ratio or ore to OB ratio	1:0.39 (MHG), 1:0.42 (BMG),	1:0.41 (MHG), 1:0.38 (BMG)	MHG stands for block- Mahegaon, BMG for Bhamangaon block
2d	Quantity of topsoil generation in m3	During the year 2020-21 total 8778 CuM proposed	NA	details not provided in document/AR

2e	Quantity of overburden generation in m3	13.84 Lakh T(MHG), 4.749 Lakh T(BMG)	8.98 Lakh T (MHG) , 4.24 Lakh T (BMG)	OB generation on lower side due to less development
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	Mining lease comprised into different working blocks. Block wise working depicted on development/excavation plan.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Production in six pits	Working carried out in six pits	Production planning given in different places in view of annual production target
3b	Quantity of mineral production proposed	30.10 lakh T (MHG) , 14.99 lakh T (BMG)	22.15 lakh T (MHG) , 10.40 lakh T (BMG)	Acheived production on lower side
3c	Recovery of sailable/usable mineral from ROM production	100% recovery	About 95-100%	Entire ROM is consumable in captive cement plant
3d	Quantity of mineral reject generation	Not Proposed	Nil	No mineral reject generation proposed
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No mineral reject generation proposed
3f	Quantity of sub grade mineral generation.	Not Proposed	No	No sub-grade generation proposed
3g	Grade of sub grade mineral generation	Not Proposed	Nil	No sub-grade generation proposed

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical	Mechanical	800 TPH crusher installed in Mehgaon & 400 TPH crusher in Bamangaon installed.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	ROM crushing proposed in installed crusher
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & blasting proposed	Deep hole drilling & blasting carried out 115mm dia machine	
3k	Provision of mining machineries in mineral benches	Excavator L&T Komatsu, 2.6Cum capacity Shovel Hitachi/EX400 of 2.8 CuM capacity TATA Dumper model 2515, 40 T capacity Tractor mounted Air Compressor Drill ATLAS COPCO - 115mm dia Water Tank & Diesel Tanker Water pump with Diesel engine	Excavator L&T Komatsu, 2.6Cum capacity Shovel Hitachi/EX400 of 2.8 CuM capacity TATA Dumper model 2515, 40 T capacity Tractor mounted Air Compressor Drill ATLAS COPCO - 115mm dia Water Tank & Diesel Tanker Water pump with Diesel engine	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	
3m	Total area covered under excavation/pits	302.5 Ha	300.25 Ha	

3n	Ore to OB ratio for the pit/mine , during the year.	1:0.39 (MHG) , 1:0.42 (BMG),	1:0.41 (MHG), (BMG)	1:0.38	As per OB generation from respective blocks
3o	Total area put in use under different heads at the end of year	Pits- 318 Ha Storage of Top soil-2.22Ha Waste Dumps- 26.47Ha Infrastructure -85.07Ha Road-18 Ha	Pits- 297 Ha Reclaimed/Rehabilitated- 122.75Ha Infrastructure-118.87Ha Road-18 Ha Plantation-51.370Ha		Details as per annual return
3p	Production of ROM mineral during the last five year period as applicable	2016-17 46.5 lakh T 2017-18 45.6 lakh T 2018-19 45.6 lakh T 2019-20 47.88 lakh T 2020-21 43.89 lakh T	2016-17 -: 35.98 Lakh T, 2017-18 -: 26.07 Lakh T (MHG), 13.44 Lakh T (BMG) 2018-19 -: 23.63 Lakh T (MHG), 9.59 Lakh T (BMG) 2019-20 -: 26.58 Lakh T (MHG), 14.12 Lakh T (BMG) 2020-21 -: 22.15 Lakh T (MHG), 10.40 Lakh T (BMG)		Production details from annual return. Production within proposed limits
3q	General remarks of inspecting officers on method of mining etc.	NA	NA		Modern and scientific mining methods are in practice for optimal exploitation of mineral wealth. Production proposed in different blocks & open cast mechanised operations being practised

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	The top soil proposed to be utilised simultaneously for topping of the backfilled area in east of Bamangaon quarry	Top Soil not generated during the year	
4b	Location of topsoil, OB and mineral reject dumps	Concurrent use of top soil proposed	No top soil generated during the year	
4c	Number of dumps within lease area and outside of lease area	No active dumps in the lease area	NA	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No active dumps in ML area	Nil	
4e	Number of active and alive dumps.	No active dumps in ML area	Nil	
4f	Number of dead dumps.	No dead dumps in lease area	Nil	
4g	Number of dumps established.	11 Nos of dumps stabalised	11 Nos of dumps stabalised	Dumps stablited by means of plantation
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	Cumulative length about 2800 mts
4i	Length of Retaining wall or garland drain all along dumps	About 2800m cumulative at present	About 2800m cumulative at present	About 2800m cumulative at present
4j	Number of settling ponds	Not Proposed	One settling ponds existing in ML area	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	In ML area OB is mostly top soil and intercalated interburden also encountered during the course of mining operations

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.	Backfilling in fully extracted mineral land	Backfilling in fully extracted mineral land	
5b	Area under backfilling of mined out area	NA	NA	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of top Soil generated proposed for plantation	Utilized as per the proposals	
5d	Total area fully reclaimed and rehabilitated	About 2.25 Ha	About 1.10 Ha acheived	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Some of mineral exhausted pits/blocks are suitable for reclamation & rehabilitation purpose.

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	Yes, submitted within time limit as per the provisions of Rule 26 of MCDR,2018	
6b	Area available for rehabilitation (ha) .	Proposed 2.25 Ha	Rehabilated about 1.10Ha	
6c	afforestation done (ha) .	NA	Over about 8.0 Ha	
6d	No. of saplings planted during the year	4000 Saplings	7500 Saplings planted	

6e	Cumulative no .of plants	NA	682000	
6f	Any other method of rehabilitation	No Proposals	Nil	Nil
6g	Cost incurred on watch and care during the year	NA	310000 + 144000 incurred in two different blocks	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	About 2.20 Ha proposed during the year	About 1.10 Ha backfilled	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	About 2.20 Ha proposed during the year	About 1.10 Ha backfilled	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	NA	About 8700 saplings planted over backfilled areas	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposals	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	Yes, Compliances of environmental monitoring is being carried out.		Analysis reports were provided
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA		PMCP proposals are given in systematic manner in approved document. sss

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	30.10 lakh T (MHG) , 14.99 lakh T (BMG) proposed as total ROM production for despatch. No grade wise sorting proposed	931568 MT dispatched in captive cement plant & no grade wise sorting carried out	Dedicated crusher in both Bamengaon & Mehgaon blocks installed for crushing purpose
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Dedicated crusher in both Bamengaon & Mehgaon blocks installed for crushing purpose

7c	Different grade of mineral sorted out at mines.	No Proposals	Nil	Entire recovered limestone from ROM being fed to the captive cement plant. Manual sorting not required.
7d	Any beneficiation process at mines .	No Proposals	Nil	Crusher of required capacity installed
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Entire recovered limestone from ROM being utilized/consumed in captive cement plant. Systematic conservation of limestone beign practised

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	The top soil proposed to be utilised simultaneously for topping of the backfilled area and for forestation.	Carried out as per the proposals	
8b	Concurrent use or storage of topsoil	Concurrent use	Concurrently used for plantation purpose	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Proposed	Nil	Concurrent use of OB for reclamation of mined pits area proposed
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling in worked out Pits	Backfilling in worked out Pits in Block-I and at Old Pit carried out	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Total 2.25 Ha proposed for reclamation & rehabilitation	Carried out over 1.8Ha area	In worked out pits
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	15000 nos. of saplings proposed	20000 saplings planted	
8g	Survival rate	Proposed as 90%	Acheived as about 85%	
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	Different proposals for Env. protection were given	Working carried out as per the proposals	Aesthetic beauty in and around mine area is very good as mass plantation carried out in ML area. No immediate threat to surrounding environment except land degradation by working pits.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto- Octo- 2021 A.R. submitted upto- 2020-21	Monthly & annual returns submitted online in stipulated time	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Mr Mukesh Prasad appointed as Mining Eng. & Mr Sanjiv Sharma as Geologist	Both Mining Eng. & Geologist were present during inspection
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Working pits- 297Ha, Reclaimed/Rehabilitated- 122Ha, Infrastructure- 118Ha, Plantation/Green belt-51Ha	
9d	Scrutiny of Annual return on afforestation	Given	7000 Saplings planted in ML & 2000 nos. in outside ML	Details of plantation being maintained at site
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	Nil	No mineral rejects generated during the year 2020-21
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Opening Stock- Nil Dispatches-931568 tonnes Closing Stock- Nil	Production & dispatches of limestone being maintained at site
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: Limestone Cement Grade - Rs 222.21/MT Sale Value - NA (Captive consumption)	Captive consumption in cement plant
9h	Scrutiny of Annual return on fixed assets	Given	Rs 570803843	Fixed assets given in respect of the mine, mine workshop, power and water installation

9k	Scrutiny of Annual return on mining machineries	Given	Excavator L&T Komatsu, 2.6Cum capacity Shovel Hitachi/EX400 of 2.8 CuM capacity TATA Dumper model 2515, 40 T capacity Tractor mounted Air Compressor Drill ATLAS COPCO - 115mm dia Water Tank & Diesel Tanker Water pump with Diesel engine
----	--	-------	--

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 :

(SANJAY M. GIRHE)

Indian Bureau of Mines