

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-8

Mine code : 38RAJ09006

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri N.K. Sharma, Mine Manager, Sri KN Paliwal, Mining
Official with
Designation
- (iv) Date of Inspection : 13-DEC-19
- (v) Prev.inspection date : 05-JAN-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ADITYA**
- (b) **Registration NO.** : **IBM/441/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : CHITTORGARH
Village : NEAR MEDIKA AMARANA
Taluka : CHITTORGARH
Post office : ADITYAPURAM SHAMBHUPURA
Pin Code : 312612
FAX No. : 01477-220289
E-mail : adityacement@adityabirla.co
Phone : 01472-220192-97
- (f) Police Station : Shambhupura
- (g) First opening date : 24-AUG-95
- (h) Weekly day of rest : SUN
2. Address for : ADITYA CEMENT WORKS
correspondance : POST-ADITYAPURAM, Sawa, Amarpura, sindaudi
DISTT-CHITTORGARH (Raj.)
3. (a) Lease Number : RAJ0394
- (b) Lease area : 760.69
- (c) Period of lease : 50
- (d) Date of Expiry : 28-APR-44
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : Aditya Cement
 (Grasim Ind. Limited)
 Adityapuram, Sawa
 Shambhupura, Chittorgarh
 CHITTORGARH RAJASTHAN
 Phone:
 FAX :

Owner : O.P. Puranmalka
 Aditya Birla Centre, S. K.
 Ahire Marg, Worli Mumbai
 MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone: 022 - 66917800/
 FAX : 022 - 66928109

Agent : RAJESH SAMBREY
 ADITYAPURAM ADITYA CEMENT
 CHITTORGARH RAJASTHAN
 Phone: 01472-220289
 FAX : 01472-22019

Mining Engineer

Name : Shri Kamal Paliwal, Full Time
 Qualification : B E Mining FCC
 Appointment/ : 29-JUN-10
 Termination date

Geologist

Name : P.S.MISHRA, Full Time
 Qualification : M.SC. M. TECH.
 Appointment/ : 21-JUN-96 30-SEP-17
 Termination date

Geologist

Name : B.K.GANGAWAT, Full Time
 Qualification : M.SC.(GEOLOGY)
 Appointment/ : 30-SEP-17
 Termination date

Manager

Name : Naval Kishore Sharma
 Qualification : B. E. Mining, FCC (R)
 Appointment/ : 15-DEC-11
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Mining Scheme rule 12 MCDR1988 25-MAY-00
 Modif.approved Mining Scheme 23-SEP-04
 Mining Scheme rule 12 MCDR1988 03-MAR-05
 Modif.approved Mining Scheme 28-NOV-05
 Renewal under rule 24 MCR1960 20-NOV-13
 Renewal under rule 24 MCR1960 20-NOV-13
 MP modif under 17(3) MCR 2016 25-FEB-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal of drilling during the previous year i.e. 2017-18.	During the previous year 14 BH have been drilled with 1516 mts of drilling.	No back log of previous year.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration during the reporting year i.e. 2018-19.	No drilling has been carried out during the reporting year 2018-19.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable as no proposal of exploration.	Not applicable.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal of exploration during the reporting year i.e. 2018-19.	As per approved document dated 25/02/2019, an area of 206.839 Ha. of G4 level has to bring under G1/G2 level of exploration.	No exploration during the reporting year 2018-19.
1e	Balance reserve as on 01/04/20	As per approved document dated 25/02/2019, the position of reserve and resource as on 01/04/2018 was 260.11 million tonnes and 299.37 million tonnes respectively.	The position of reserve and resources as on 01/04/2019 was 251.21 million tonnes and 299.37 million tonnes respectively.	Depletion of 8.89 million tonnes of Limestone.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration during the reporting year i.e. 2018-19.	No exploration during the reporting year 2018-19.	No comments to offer as no proposal of exploration during the reporting year.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Pit 1: Row between A to Y/ Column between 0 to 31. Pit1A: Row between N to T/ Column between 33 to 43. Pit 2: Row between M to JJ/ Column between 57 to 97. Pit 2A: Row between AA to KK/ Column between 96 to 102.	Development has been carried out within the proposed area. However, deviation in development location has been observed for the year 2019-20 and Violation of MCDR issued vide letter dated 24/12/2019.	Details of proposed development have been furnished showing information under development plan of the year 2018-19.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposal for Separate removal of Top soil, OB and Mineral has been given.	Top Soil, OB/waste and Mineral has been removed separately.	NIL.
2c	Stripping ratio or ore to OB ratio	1:0.32 tonnes/ tonnes	1:0.23 tonnes/ tonnes	Low stripping ratios is due to less generation of waste.
2d	Quantity of topsoil generation in m3	88000 Tonnes.	35000 Tonnes.	As anticipated Top Soil has not been generated.
2e	Quantity of overburden generation in m3	2254435 Tonnes.	1796575 Tonnes.	Less generation of waste is due to less production.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Four locations have been proposed for the development through open cast method.	As the mineral occurs near to surface, open cast method of development is suitable.	Deviation in development location has been observed for the year 2019-20 and Violation of MCDR issued vide letter dated 24/12/2019.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Four (2018-19).	Four 2018-19). It is observed that dumping and excavation has been carried out at non-approved area for the year 2019-20.	Violation of rule 11(1) issued vide letter dated 24/12/2019.

3b	Quantity of ROM mineral production proposed	10869565.00 Tonnes.	8897941.00 Tonnes.	NIL.
3c	Recovery of sailable/usable mineral from ROM production	10000000.00 Tonnes.	8653012.00 Tonnes.	NIL.
3d	Quantity of mineral reject generation	869565.00 Tonnes.	244929.00 Tonnes.	NIL.
3e	Grade of mineral rejects generation and threshold value declared.	<34% CaO	25-33% CaO	Clay fraction separated from Limestone by mechanical screening.
3f	Quantity of sub grade mineral generation.	No Proposal of Sub-grade generation.	Sub-grade has not been generated during the year.	NIL.
3g	Grade of sub grade mineral generation	Not applicable as no proposal of Sub-grade generation.	Not applicable as no Sub-grade has been generated.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Crushing and screen through mechanical means.	Crushing and screen through mechanical means has been observed.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No beneficiation study has been proposed.	Not applicable as no proposal.	NIL.
3j	Provision of drilling and blasting in mineral benches	Drill size: 115mm and 165 mm, Burden & spacing of 4-6m & 6-9m respectively.	Drilling and blasting has been carried out as per proposal.	NIL.
3k	Provision of mining machineries in mineral benches	Drill machine, Backhoe Hyd. Excavators, Tippers, Dozer, Water Tanker etc.	Mining Machinery has been deployed as per proposal.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches have been proposed between 9 to 11 mts.	Yes suitable for the type of deposit and benches have been maintained as per proposal.	NIL.

3m	Total area covered under excavation/pits	As per approved document dated 20/11/2013, area put under excavation at the end of the plan period was 245.55 Ha.	As on 01/04/2019, area put under excavation was 193.84 Ha.	As per AR 2018-19.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.32 tonnes/ tonnes	1:0.23 tonnes/ tonnes	Low stripping ratios is due to less generation of waste.
3o	Total area put in use under different heads at the end of year	As per approved document dated 20/11/2013 total area proposed to put under different heads at the end of the plan period was 357.82 Ha.	As on 01/04/2019, total area put under different heads at the end of the year was 268.78 Ha.	As per AR 2018-19.
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 10869565 2015-16: 10869565 2016-17: 10869565 2017-18: 10869565 2018-19: 10869565	2014-15: 6693380 2015-16: 8511583 2016-17: 7991770 2017-18: 9683358 2018-19: 8897941	All figures in tonnes.
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining has been proposed.	Open cast Mining method is being practiced.	No issues related to method of mining.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of the top soil, OB/waste and Mineral reject has been proposed.	Separate dumping of the top soil, OB/waste and Mineral reject has been obsrevd and carried out.	NIL.

4b	Location of topsoil, OB and mineral reject dumps	Dumping of the Rock Waste and Mineral Reject has been proposed at five locations: (1) Between Row CC AA/ column 17 to 21 (3) to II/ column 16 to 22 (2) Between Row V to AA/ column 17 to 21 (3) Between Row EE to II/ column 35 to 41 (4&5) Between Row EE to OO/ column 50 to 66.	Dumping of the Rock Waste and Mineral Reject has been observed as per proposal and locations area: (1) Between Row EE to II/ column 17 to 19 (2) Between Row V to AA/ column 17 to 21 (3) Between Row EE to HH/ column 36 to 41 (4&5) Between Row FF to OO/ column 49 to 66.	NIL.
4c	Number of dumps within lease area and outside of lease area	Total six (including existing dump).	Toatl Six.	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed outside UPL.	Outside UPL.	NIL.
4e	Number of active and alive dumps.	Active dumping has been proposed over five dumps.	All proposed dumps area active.	NIL.
4f	Number of dead dumps.	One.	One.	NIL.
4g	Number of dumps established.	One.	One.	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal of retaining wall and garland drain during the year.	Retaining wall and garland drain observed along the dumps.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No proposal of retaining wall and garland drain during the year.	Not applicable as no proposal.	NIL.
4j	Number of settling ponds	No proposal of construction of settling pond.	Not applicable as no proposal.	NIL.
4k	Specific comments of inspecting officer on waste dump management	Dumping of the waste has been proposed over five locations.	Dumping of the waste has been carried out as per proposal.	No issue related to waste dump management. Terracing has been done for stabilization of the dumps.

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 of backfilling during the year as no pit area is fully exhausted.	Not applicable as no proposal.	NIL.
5b	Area under backfilling of mined out area	No proposal of backfilling during the year.	Not applicable as no proposal.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	It is proposed that generated top soil will be used for plantation purpose.	A quantity of 35000 tonnes has been generated during the year and 34500 tonnes has been consumed.	NIL.
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and rehabilitation	No area is matured for reclamation and rehabilitation.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal of backfilling and reclamation.	Backfilling has not been observed.	No pit area is matured for backfilling.

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).	As per rule 26 of MCDR, 2017 holder of mining lease shall submit PMCP before 1st day of July every year.	PMCP report for the year 2018-19 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	An area of 6.0 Ha has been proposed afforestation/ rehabilitation	An area of around 6.00 Ha has been afforestation/ rehabilitation.	NIL.

6c	afforestation done (ha).	An area of 6.0 Ha has been proposed afforestation/ rehabilitation	An area of around 6.00 Ha has been afforestation/ rehabilitation.	NIL.
6d	No. of saplings planted during the year	It was plan to plant 9000 numbers of saplings.	During the year 9475 number of saplings have been planted within lease area and 3900 saplings outside lease area.	NIL.
6e	Cumulative no .of plants	No specific proposal about cumulative number of planation.	As reported cumulatively 260971 Nos. of plants have been planted.	NIL.
6f	Any other method of rehabilitation	Other than plantation, no specific proposal of any other method of rehabilitation	Plantation has been carried out as per proposal.	NIL.
6g	Cost incurred on watch and care during the year	Rs. 2700000.00/-	Rs. 1510000.00/-	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal of backfilling.	No work related to backfilling has been carried out during the year.	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal of backfilling.	Not applicable as no proposal of backfilling.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposal of backfilling.	Not applicable as no proposal of backfilling.	NIL.

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal making reservoir.	Not applicable as no proposal of making reservoir.	NIL.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No any other specific proposal.	Not applicable as no proposal.	NIL.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	An area of 6.0 Ha has been proposed afforestation/ rehabilitation	An area of around 6.00 Ha has been afforestation/ rehabilitation.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	An area of 6.0 Ha has been proposed afforestation/ rehabilitation	An area of around 6.00 Ha has been afforestation/ rehabilitation.	NIL.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation.	Plantation.	NIL.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular Monitoring of environment parameters.	Environment monitoring has been carried out	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	An area of 6.0 Ha has been proposed to plant with 9000 numbers of saplings within lease area.	An area of 6.00 Ha has been planted with 9475 number of saplings within lease area.	No issue related to PMCP compliance.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Crushing and screening has been proposed.	No proposal of grade wise sorting as entire ROM is useable after separating screen reject through crushing and screening.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Crushing and screening.	Crushing and screening.	NIL.
7c	Different grade of mineral sorted out at mines.	>34% CaO <34% CaO	As per proposal.	NIL.
7d	Any beneficiation process at mines .	No proposal of any beneficiation at Mine site. Only crushing and screening has been proposed.	Crushing and screening has been observed.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Entire limestone above threshold value has been proposed to utilized.	Limestone is being utilized as per proposal.	No issues related to mineral conservation.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposal for separate removal has been given.	Top soil has been removed separately.	NIL.
8b	Concurrent use or storage of topsoil	In plantation work.	In plantation work. A total of 34500 tonnes of top soil has been consumed for plantation work.	NIL.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping has been proposed for waste material, Mineral Reject and top soil.	Separate dumping has been observed for Waste, top soil and Mineral reject.	NIL.

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal of use of overburden/ waste rock for restoring the land to its original use.	Overburden, waste rock and Rejects are dumped at earmarked location.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	An area of 6.0 Ha of waste/barren land has been proposed to rehabilitate/a fforestation during the year 2018-19 within lease area by the way of plantation.	An area of 6.0 Ha waste/barren land has been rehabilitation by plantation.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	It was plan to plant 9000 numbers of saplings within lease area.	During the year 9475 number of saplings have been planted.	NIL.
8g	Survival rate	No specific proposal of survival rate	85.10 %	As per AR 2018-19.
8h	Water sprinkling on roads to control airborne dust	To control the air born dust particle, water sprinkling has been proposed.	Water sprinkling has been observed during the mine inspection.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	It is propose to plant 9000 number of sapling over an area of 6.0 Ha.	A total of 9475 number of plant has been planted over an area of 6.0 Ha.	Aesthetic beauty around the mine is maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, monthly and annual returns to be submitted.	Monthly and annual returns have been submitted for reporting year.	NIL.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information has been furnished about Mining Engineer, Geologist, and Manager.	Mining engineer and Geologist are appointed as per information furnished.	NIL.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mine working: 193.84 Ha, Dumps: 39.93 Ha, Roads, Plants, Buildings, Township: 24.55 Ha, Reclaimed/Rehabilitated: 0.55 Ha, Other Plantation: 6.0 Ha.	The land use pattern furnished in the return appears to be correct.	NIL.
9d	Scrutiny of Annual return on afforestation	Within ML: 9475 Nos, Outside ML: 3900 Nos	The information furnished is found to correct.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject quantity of 244929.00 Mt with 25 to 33% CaO grade has been furnished.	The furnished information in annual return is actually screen reject.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM and graded stock quantity furnished is NIL.	Found to be in order.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Captive Use. Ex. Mine Price & Production cost is Rs. 258.79 per tonne.	No sale of the mineral as it is a captive mine.	Violation of MCDR issued for error in royalty details furnished in cost of production vide letter dated 24/12/2019.
9h	Scrutiny of Annual return on fixed assets	The value of fixed asset furnished is Rs. 1114720814.00	Found to be in order.	NIL.

9k	Scrutiny of Annual return on mining machineries	Shovel, Blast hole Drill, Excavator, Dumper, Tanker, Dozer, Grader, Explosive Van, Water Tanker, Crane, Pumps, Jeep, Air compressor, Crusher etc.	The information furnished in respect of mining machineries found in order.	NIL.
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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)	24-DEC-19			
MCDR17	Rule 45(7)(a)	24-DEC-19			

Date :

(DILIP JAIN)

Indian Bureau of Mines