

INSPECTION REPORT

Inspection Date 17/11/2018

Accompanying Mine Official : Shri H. C. Shrivastava

1.0 GENERAL

S. No.	Particulars	Details
1	Name of the Mine	RKBA Limestone & Marl Mine (having Various Survey Numbers)
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	310.3290ha { Non-Forest: 278.7937ha (Agriculture Land), 31.5353ha (Grazing Land)} Forest: Nil
3	Mine Code	38GUJ08338
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/447/201
5	Name of the lessee, Address, phone, email and fax number	M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State:Gujarat- 362 715 Tel. # : (02795) 221137, 232009 Fax # : 02795) 220328, 232032 e.mail id: md.office@ambujacement.com
6	Villages	Rampara-Kukras-Bhetali-Anandpara
7	Taluka/Mandal	Veraval & Sutrapara
8	District	Gir-Somnath
9	Pincode	362 715
10	State	Gujarat
11	Post Office	Rampara
12	Nearest Police Station	Patan
13	Nearest Railway Station	Veraval
14	Date of Grant of Mining Lease	27 th May'2005 (vide Order No. MCR-1599-1619-CHH)
15	Date of Execution	05 th September'2005
16	Date of opening of Mine	04 th October' 2005
17	Date of first Renewal, if applicable and its period & expiry	Not Applicable
18	Date of second Renewal, if applicable and its period & expiry	Not Applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Ajay Kapur, (Managing Director and CEO) M/s Ambuja Cements Ltd. Elegant Business Park, MIDC Cross Road 'B', Off Andheri-Kurla Road, Andheri (East), Mumbai-400 059. Tel. #: 022 4066700, Fax #: 022 30827790 e.mail id: md.office@ambujacement.com

		Date of appointment: 01/05/2013
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	<p>Shri S Ramarao</p> <p>M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. # : (02795) 221137, 232009 Fax # :02795) 220328, 232032</p> <p>e.mail id: ramarao.sukuru@ambujacement.com</p> <p>Date of appointment: 01/05/2013</p>
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	<p>Shri Harendra Dayal</p> <p>M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. #: (02795) 237210. e.mail id.: harendra.dayal@ambujacement.com</p> <p>Date of appointment:18.08.2015</p>
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	<p>Shri Harendra Dayal</p> <p>Qualification - B E Mining Total experience -18 years</p> <p>M/s Ambuja Cements Limited, Address-At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. # : (02795) 237210.</p> <p>e.mail id.: harendra.dayal@ambujacement.com Date of appointment in mines 18.08.2015</p>
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	<p>Shri Hem Chandra Shrivastava</p> <p>Qualification – Post Graduate (M.Sc. Geology)</p> <p>Total experience -23 years</p> <p>M/s Ambuja Cements Limited, Address-At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. # : (02795) 237202.</p> <p>e.mail id.: hem.shrivastava@ambujacement.com Date of appointment in mines 18.08.2015</p>
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific	The Mining Plan of RKBA Limestone & Marl Mine {(having Various Survey Nos.), Area: 310.3210 hectares} was approved by Controller of Mines (NZ) Ajmer vides

	condition in approval letter, if any.	<p>Letter No.682 (23) (143)/2001 – Udp, dated 28th January, 2002 for the grant of Mining Lease.</p> <p>Progressive Mine Closure Plans (component of approved Mining Plan) of the area under reference was approved by Controller of Mines (NZ) vides Letter No.682 (23) CLP-40/2004-Udp, dated 05th January, 2005.</p> <p>Due to the lease area discrepancy, Modified Mining Plan was submitted to IBM and same was approved by Controller of Mines (NZ) vides Letter No.682 (23) (431) /2005-Udp, dated 06th February, 2006 for the 1.0 MTPA production level Planning.</p> <p>Further modifications in the approved Modified Mining Plan/Modifications were proposed for increase in the production from the lease from 1.0 MTPA to 2.0 MTPA. The Modified Mining Plan along with Progressive Mine Closure Plan for the capacity expansion of the RKBA ML was submitted to IBM and same was approved by Controller of Mines (NZ) vides Letter No.682 (23) (446) /2006-Udp, dated 16th June, 2006 for the 2.0 MTPA productions level planning.</p>
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	<p>The Scheme of Mining along with Progressive Mine Closure Plan of the area under reference was approved by Regional Controller of Mines, Udaipur vide Letter No.682 (23) (MS-537)/2009-MCCM (N) Udp, dated 24-05-2010 for five year implementation period (2010-11 to 2014-15).</p> <p>Scheme of Mining & PMCP was Approved vide Letter No. 682(23) (MS-537)/ 2009- MCCM (N) Udp, Dated the 11th December, 2015.</p> <p>Validity: At the time of approval more than half year of implementation period (2015-16) was already passed therefore Scheme of Mining (approved on last occasion) was approved for four year implementation period (2016-17 to 2019-20).</p>
27	Mineral(s) granted in lease and proved for mining	<p>Limestone & Marl are included in the Lease deed.</p> <p>Applicant intends to mine only Limestone.</p>
28	Method of Mining(Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	'A' (Mechanized Opencast)
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –
Exploration

S. No.	Item	Proposals (2016-17)	Actual work	Remarks
1a	Backlog of previous year	The deposit has been adequately explored; therefore exploration was not carried out in the area.	The exploration carried out in the area encompasses topographic surveying, geological mapping, bore-hole drilling, surface sampling, well section observation and chemical analysis of samples.	
1b	Exploration over lease area for Geological axis 1 or 2.		<p>Before the grant of mining lease a total of 39 bore-holes in first stage (from October to December'2000) were drilled with a cumulative meterage of 691.95mtr. The maximum drilled depth is 25.00 mtrs, on an average the depth of the bore-hole is 18.60 mtrs.</p> <p>After the grant of Mining Lease a total of 22 bore-holes in second stage (from December'2005 to May'2006) were drilled with accumulative meterage of 396.55mtr. The maximum drilled depth is 26.00mtr, on an average the depth of bore-hole is 18.02mtr.</p> <p>With reference to reclamation of Mined-out Pits and</p>	<p>Level of Exploration:</p> <p>G1- (Detailed Exploration)</p>

			<p>establish the mineral continuity below the opened-up pit-floor a total 16 bore-holes in third stage (from May to July'2010) were drilled with a cumulative meterage of 230mtr. The maximum drilled depth is 26.00mtr, on an average the depth of bore-hole is 14.37mtr.</p>	
1c	Exploration Agency & Expenditure in lakh Rupees during the year		<p>The State Directorate of Geology and Mining has carried out preliminary prospecting work on regional scale in Junagadh region. Preliminary prospecting done by State Geological Department-Gandhinahar, Detailed prospecting was done by Maruti Core Drilling and Shivraj diamond core drilling and sampling survey by Mines and Geology Department of ACL-Ambujanagar and their details are as under.</p> <p>Subsequent explorations for infilling data were carried out by Mineral Resource department of M/s Ambuja Cements Limited, Ambujanagar with help of following agencies.</p>	

			<ul style="list-style-type: none"> • Shivraj Diamond Core Drilling, Saurashtra University Road, Opp. PanchhayatNagar, Archana Park, "Nijanand Sagar" Rajkot-360005, Rajkot-360005 (Gujarat). • Maruti Borewell, Diamond Core Drilling Contractor, At Vishal Hadmatiya, Taluka Besan, District junagadh (Gujarat). e.mail ID: bhagirat.gb82@gmail.com Mobile No.: +919924495504, +919726900210 and +919426230390 Expenditure incurred in various prospecting operations is Rs.23,39,400.00/- 	
1d	Balance area to be explored to bring Geological axis in 1 or 2		Total area / deposit have been adequately explored.	
1e	Balance reserves as on 01.04.2017 (in million tonnes).	Reserves (111) of Limestone (as on 01/04/2016): 6.890 million tonnes.	Reserves (111) of Limestone (as on 01/04/2017): 4.992 million tonnes.	
1f	General remarks of inspecting officer on geology, exploration etc.			

2.0 Development

S. No.	Item	Proposals(2016-17)	Actual work	Remarks
2a	Location of development w.r.t. lease area	<p>During Second year period (2016-17), the existing faces (Pit No.13) developed during previous working shall be advanced in western direction up to average 200mtr and 104mtr average in eastern direction {between grid lines (N24.60 to N31.18 & W1 to E5)} by formation of benches at 51.73 to 38.47mRL & 51.53 to 49.36mRL (Section E4), 49.99 to 45.23mRL (Section E2) and 49.13 to 42.34mRL & 49.55 to 36.12mRL, leaving 7.5mtr statutory boundary barrier zone from Lease boundary & existing Gauchar Land and 15mtr from existing High Tension Line.</p> <p>During Second year period (2016-17) approx. 95510 Sq. mtr (9.551ha) fresh lands (part of Private Agricultural) shall be developed up to 0.4m depth (average) and deepened up to 10.0 m depth (average). At the end of second year period old existing pits shall be merged as continuous one pit.</p>	<p>During Second year period (2016-17) proposed area near grid lines (O & N30) is developed as per proposal.</p> <p>Southern part of the {near grid lines (E4 & N28) proposed area could not be developed because NA permission & Surface right is pending.</p>	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Efforts shall be made to recover layer of soil, it shall be scrapped in separate slice and	The top soil occurring within the proposed working area is	

		kept preserved for utilization in plantation work.	removed separately and concurrently used in plantation and development of Pasture/Agri-farm).	
2c	Stripping ratio or ore to OB ratio	Limestone deposit is simple and free from any overburden.	Stripping ratio or ore to OB ratio is nil.	
2d	Quantity of topsoil generation in m ³	37371m ³	45750m ³	
2e	Quantity of overburden generation in m ³	Area proposed for mining operation is free from hard-rock OB/waste.	Overburden generation is nil.	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.			

3.0 Exploitation

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
3a	Number of pits proposed for production	Three pits was to be developed during 2016-17	Two pits along with existing pits are developed for exploitation of Limestone. Third Pits in Southern part of the {near grid lines (E4 & N28) proposed area could not be developed because NA permission & Surface right is pending.	
3b	Quantity of ROM mineral production proposed	2.000 million tonnes	1.823 million tonnes (Production) & 1.898 million tonnes (despatch)	
3c	Recovery of salable/usable mineral from ROM production	85.5% [<i>For net production {10 to 15% deviation is taken into account (Mining losses during operation, transportation & losses due to cavity /natural structure)}</i>].	Recovery of salable/usable mineral is 85.5%	
3d	Quantity of mineral reject generation	Quantity of mineral reject generation is nil	Quantity of mineral reject generation is nil	
3e	Grade of mineral reject generation and threshold value declared	Generation of Mineral reject is nil, therefore proposal was not required.	No action was taken.	
3f	Quantity of sub-grade mineral generation	Generation Sub-grade mineral is nil therefore proposal was not required.	No action was taken.	
3g	Grade of sub-grade mineral generation	Proposal was not required.	No action was taken.	
3h	Manual / Mechanised method adopted for segregating from ROM	Proposal was not required	No action was taken.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject.	Proposal was not required.	No action was taken.	
3j	Provision of drilling & blasting in mineral benches	Mining operation is carried out without adoption of drilling & blasting therefore	No action was required.	

		proposal was not required.		
3k	Provision of mining machineries in mineral benches	The excavation, loading and transport is carried out by Surface Miner (200 & 275 TPH), Hydraulic Excavator (0.96 m ³ to 4.0 m ³ bucket), Front End Loader (3.5 to 5.0 m ³) and Tippers, MAN Tip-tailors & AMW (30 tonnes) respectively.	Mining operation is carried out by deployment of proposed mining machineries.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not required (Area proposed for mining operation is free from top-soil, hard-rock OB/waste).	No action was required.	
3m	Total area covered under excavation/pits	Total 9.551ha (fresh area) along with existing Pits was proposed for 2016-17.	Out of 164.3614ha (Cumulative), 21.4744 ha area is utilized during 2016-17.	
3n	Ore to OB ratio for the pit/mine during the year	Area proposed for mining operation is free from hard-rock OB/waste).	No action was required.	
3o	Total area put in use under different heads at the end of year	Pit- 9.551ha along with existing Pits (O/c) Waste/reject:0.000ha Others:1.2365ha (mineral storage), 1.807ha (mine road)	Pit-21.4744ha along with existing Pits (O/c) Waste/reject:0.000ha Others-1.2365ha (mineral storage), 1.807ha (mine road)	
3p	Production of ROM mineral during last five-year period, as applicable (In tonne)	Proposal Yr-(2011-12) =2000000 Yr-(2012-13) =2000000 Yr-(2013-14) =2000000 Yr-(2014-15) =2000000 Yr-(2015-16) =2000000	Compliance Position Yr-(2011-12) =1022163(Production) =1067540(Despatch) Yr-(2012-13) =1236896(Production) =1233243(Despatch) Yr-(2013-14) = 1337809(Production) =1464378(Despatch) Yr-(2014-15) =1998121(Production) =1901937(Despatch) Yr-(2015-16) =1945275 (Production) =1969054 (Despatch)	
3q	General remarks of inspecting officer on method of mining etc.			

4.0 Solid Waste Management-Dumping

S.No	Item	Proposals (2016-17)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Area proposed for mining operation is free from hard-rock OB/waste). Total 37371m ³ top soil would be removed separately and concurrently utilizes for development of Pasture Land/Agri-farming	45750 m ³ top soil is utilized for development of 13.7012ha pasture land.	
4b	Location of topsoil, OB & mineral reject dumps	Proposal was not required.	No action was taken.	
4c	Number of dumps within lease area and outside lease area	Proposal was not required.	No action was required.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposal was not required.	No action was required.	
4e	Number of active & alive dumps	Proposal was not required.	No action was required.	
4f	Number of dead dumps	Proposal was not required.	No action was required.	
4g	Number of dumps stabilized	Proposal was not required.	No action was required.	
4h	Whether Retaining wall or garland drain all along dumps are there	Proposal was not required.	No action was required.	
4i	Length of Retaining wall or garland drain all along dump	Proposal was not required.	No action was required.	
4j	Number of settling ponds	Proposal was not required.	No action was required.	
4k	Specific comments of inspecting officer			

5.0 Solid Waste Management-Backfilling

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	As per proposal, mined-out area (9.551ha) after full extraction of mineral shall be reclaimed /rehabilitated by means of development of Agri-farming/Pasture Land.	At the end 2016-17, total 13.7012ha is developed as Agri-farming/pasture land.	
5b	Area under backfilling of mined out area	Area devoid of OB/waste, therefore restoration & reclamation of mined out area by means of backfilling is not possible.	No action was required.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Total 37371m ³ top soil would be removed separately and concurrently utilizes for development of Pasture Land/Agri-farming	45750 m ³ top soil is utilized for development of 13.7012ha pasture land.	
5d	Total area fully reclaimed & rehabilitated	As per proposal, mined-out area (9.551ha) after full extraction of mineral shall be reclaimed /rehabilitated by means of development of Agri-farming/Pasture Land.	At the end 2016-17, total 13.7012ha is developed as Agri-farming/pasture land.	
5e	General remarks of inspecting officer on backfilling, reclamation etc			

6.0 Progressive Mine Closure Plan

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20	First year (2016-17) proposal for implementing the protective and rehabilitation measures / proposals given in the Progressive Mine Closure Plan is furnished in tabular form (table No.14) under Item-8.3	As per rule 26(2) of MCDR, 2017 annual report on PMCP (protective & rehabilitative work carried out as envisaged in the approved Mine Closure Plan) is submitted in stipulated time bound manner.	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Proposal: (i) 9.551ha (ii) 2.0000 ha (iii) 2000 (iv) 11808 (v) Nil (vi) Rs.1077000/-	Actual: (i) 13.7071 Re-plantation in existing Planted area. (iii) 1898 (iv) 17864 (v) Nil i) Rs. 3994583/- including site restoration, watch & care	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir	Proposal was not required.	No action was required.	

	v) Any other specific means			
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Proposal was not required.	No action was required.	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environment monitoring (air quality, water quality and noise level) in core zone & buffer zone shall be done by Environment Department of M/s Ambuja Cements Limited, Ambujanagar regularly every year.	Monitoring of Air & Noise level is being done regularly in core zone & buffer zone (pl. refers Annexure-14 & 15 of approved Scheme of Mining). Air quality & noise level are well within the limits specified by the Central Pollution Control Board. Recurring Expenditure is Rs. 10.77 Lakh (Environment Protection & Environment Monitoring)	
6f	General remarks of inspecting officer on PMCP compliance & progressive			

7.0 Mineral Conservation

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Limestone:2000000 tonnes	Limestone: Production: 1822724tonnes Despatch 1897575tonnes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposal was not required.	No action was required.	
7c	Different grade of mineral sorted out at mines	Proposal was not required.	No action was required.	
7d	Any beneficiation process at mines	Proposal was not required.	No action was required.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			

8.0 Environment

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Total 37371m ³ top soil would be removed separately.	45750 m ³ top soil is removed and utilised in development of 13.7012ha pasture land.	
8b	Concurrent use or storage of topsoil	Top Soil shall be concurrently utilizes for development of Pasture Land/Agri-farming	Top Soil is concurrently utilized for development of Pasture Land/Agri-farming.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal was not required.	No action was required.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposal was not required.	No action was required.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposal was not required.	No action was required.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	It is proposed to undertake plantation of 2,000 numbers of saplings over an area of 2.0000 hectares. Location: 7.5 mtr wide statutory barrier all around the mining lease, along road & High Tension Electric Line.	During Second year period (2016-17), total 1898 number of samplings is replanted within the existing planted area. (Survival Rate: 70%). Cumulative: No. of sapling Planted: 17864	

			Total Restored area: 13.7012ha.	
8g	Survival rate	Survival Rate: 70%	No. of saplings survived: 1329 (@ 70%),	
8h	Water sprinkling on roads to control airborne dust	Proposals have been made for water sprinkling on haul road.	Water sprinkling on haul road is regularly carried out.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are			

9.0 Compliance of Rule 45

S.No.	Item	COMMENTS	Remarks
	Status of submission of Online Monthly and Annual returns	M.R. Submitted up to till date- A.R. submitted up to till date-	As per Rule 45(5) (b) (i) of MCDR, 2017 Monthly Return is submitted before the 10 th day of every month in respect of the preceding month. As per Rule 45(5) (c) (i) of MCDR, 2017 Yearly Return is submitted before the 1 st July of each year for the preceding month.

S.No.	Item	Details GIVEN in A.R.(2015-16 & 2016-17)	Observation of I/Officer /Actual reported in Returns	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager			Scrutiny comments are not issued in this regards.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.			Scrutiny comments are not issued in this regards.
9d	Scrutiny of Annual return on afforestation			Scrutiny comments are not issued in this regards.
9e	Scrutiny of Annual return on mineral reject			Scrutiny comments are not issued in this regards

	generation (Grade & quantity)			
9f	Scrutiny of Annual return on ROM stock and/or graded ore			Scrutiny comments are not issued in this regards.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost			Scrutiny comments are not issued in this regards.
9i	Scrutiny of Annual return on fixed assets			Scrutiny comments are not issued in this regards.
9k	Scrutiny of Annual return on mining machineries			Scrutiny comments are not issued in this regards.

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

Violations were not pointed out during current inspection.

During the Star Rating validation Mine Earned FIVE STAR rating
Jan 25th 2018

K.S.YADAV
Regional Controller of Mines
Indian Bureau of Mines
Gandhinagar