

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

**Inspection under SDF for star rating of mines REPORT**

**Bangalore regional office**

**Mine file No :** KNT/GLB/LST-47/BNG

**Mine code :** 38KAR10013

- (i) Name of the Inspecting : **278** ) **KRISHNENDU CHATTERJEE**  
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Shri G. Narasimham- Mines Manager and other mining of  
Official with  
Designation
- (iv) Date of Inspection : 12/10/2018
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **CHITTAPUR**
- (b) **Registration NO.** : **IBM/378/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State** : **KARNATAKA**
- District** : **GULBARGA**
- Village** : **CHITTAPUR**
- Taluka** : **CHITTAPUR**
- Post office** :
- Pin Code** :
- FAX No.** : **022-66306510**
- E-mail** : **amitkumar.roy@lafarge.com**
- Phone** : **022-67692595**
- (f) **Police Station** : **WADI**
- (g) **First opening date** : **03/10/2016**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **LAFARGE INDIA LTD**  
**correspondance** **eQUINOX BUSINESS PARK, tOWER3, EAST WING,4TH FLO**  
**OFF BANDRA KURLA COMPLEX LBS MARG MUMBAI - 40007**
3. (a) **Lease Number** : **KAR1615**
- (b) **Lease area** : **796.43**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **17/11/2028**
4. **Mineral worked** : **LIMESTONE** **Main**

## 5. Name and Address of the

Lessee : LAFARGE INDIA PRIVATE LTD.  
 APM SQUARE, 2ND FLOOR,OPP.  
 IIPM P-6-3-  
 252/1/7/1/1,ADJ.TO.TAJ  
 DECCAN ERAMANZIL  
 COLONY,BANJARA HILLS  
 HYDERABAD TELANGANA  
 Phone:040-23320016  
 FAX :040-23320016

## Geologist

Name : ALOK DWIVEDI,Full Time  
 Qualification : M.TECH (APPLIED GEOLOGY)  
 Appointment/ :  
 Termination date

## Manager

Name : G NARASIMHAM  
 Qualification : DIPLOMA IN MINING ENGINEERING  
 Appointment/ : 18/07/2016  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	23/03/2000
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	24/10/2000
	:	MP review under 17(1) MCR 2016	19/04/2018

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil exploration during 2017-18.	
1b	Exploration over lease area for geological axis 1 or 2	G1 & G2	G2 & G3.	60 nos. of bore holes covering total meterage of 1956.8m were drilled in the ML area during 1995-96.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil during 2017-18	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1 proposed.	G2 & G3	118 nos. of boreholes proposed by the lessee during 2018-19 to 2022-23 period.
1e	Balance reserve as on 01/04/20	No proposal	221.22 million tonnes under UNFC Cat. 122.	
1f	General remarks of inspecting officers on geology, exploration etc		Date of opening of mining operation was 03.10.2016, no deviation in respect of exploration was observed during the course of inspection.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Western side of the ML area.	Western side of the ML area. N 1888900 to N 1889400, & E 714800 to E 715300	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for top soil and mineral proposed.	One bench in top soil and one bench in mineral was opened.	
2c	Stripping ratio or ore to OB ratio	1: 0.25	1:7.5	27000 tonnes of top soil generated during F.Y. 2017-18
2d	Quantity of topsoil generation in m3	25000 m3	13500 m3	

2e	Quantity of overburden generation in m3	No proposal	No OB generation.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Top soil was used for concurrent afforestation.

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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single working pit	Single working pit measuring 200m (L) x 120m (W) x 6m (D).	Another old pit exists in the ML area near BP No. 67; measuring 100m (L) x 60m (W) x 5m (D)
3b	Quantity of ROM mineral production proposed	200000 tonnes of ROM	3600 tonnes of ROM	
3c	Recovery of sailable/usable mineral from ROM production	No proposal	50% usable mineral from ROM.	only one mineral bench has been opened so far.
3d	Quantity of mineral reject generation	No proposal	1812 tonnes.	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	+34 to 36% CaO, SiO2 12% to 15 %.	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Not Applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	mechanized method.	mechanized method.	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed.	Drilling and blasting was carried out.	
3k	Provision of mining machineries in mineral benches	Mining machineries proposed.	No change.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed.	So far one top soil bench and only one mineral bench have been opened in the mine pit.	
3m	Total area covered under excavation/pits	Not specified.	2.4 Ha. area by the working pit.	
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.25	1: 7.5	Waste handling during F.Y. 2017-18 was more due to top soil generation associated with lateral pit expanding.
3o	Total area put in use under different heads at the end of year	Not specified.	5.7 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 200000 2017-18: 200000 (in tonnes)	2016-17: Nil 2017-18: 3600 (in tonnes)	Date of opening of mining operation was 03.10.2016.
3q	General remarks of inspecting officers on method of mining etc.		During F.Y. 2017-18, only 3,600 tones of ROM production have been reported, deviation is - 98.2%. Violation of rule 11(1) was issued to the lessee dated 24.10.2018.	

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Seperate dumping of top soil proposed.	Seperate dumping of top soil and mineral reject was maintained.	
4b	Location of topsoil, OB and mineral reject dumps	Western side of the ML area.	Western side of the ML area.	
4c	Number of dumps within lease area and outside of lease area	01 top soil and 01 waste rock dump.	01 top soil and 01 waste rock dump within ML.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal	Dumping along the ML boundary at western side.	
4e	Number of active and alive dumps.	01 top soil dump and 01 waste rock dump.	01 active top soil dump.	OB generated was mainly top soil during 2017-18.
4f	Number of dead dumps.	No proposal	Nil	
4g	Number of dumps established.	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Top soil bund constructed along the waste dump.	Dumps were in initial stage and height of the dumps were 2 to 3m only.
4i	Length of Retaining wall or garland drain all along dumps	Not specified.	50m garland drain constructed during 2017-18.	
4j	Number of settling ponds	01 no.	01 no. constructed outside ML.	
4k	Specific comments of inspecting officer on waste dump management		Both top soil and waste rock dumps were in very initial stage and height of the dumps were 2 to 3m only, top soil embankment and garland drain were constructed along the periphery of waste rock dump. Top soil also being utilized for concurrent afforestation.	

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Solid Waste Management - Backfilling:

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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 such proposals as mined out pits were not matured for back-filling	Nil
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)	Top soil utilised for plantation purpose.	Top soil utilised for plantation purpose.
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Mined out pit is not matured for back-filling and water reservoir.

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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).	The Annual Report on PMCP to be submitted within the stipulated time for FY 2017-18 within 1st July 2018.	The Annual Report on PMCP submitted.	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	Mine was newly opened mine, opened on 03.10.2016.
6c	afforestation done (ha).	0.5 Ha.	0.5 Ha. during 2017-18.	
6d	No. of saplings planted during the year	1000 nos.	1500 nos. within ML.	
6e	Cumulative no .of plants	Not specified.	3000 nos. within ML.	
6f	Any other method of rehabilitation	No proposal	Nil	

6g	Cost incurred on watch and care during the year	No proposal	Rs. 50,000/-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	No proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	No proposal	Not Applicable.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not Applicable.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No Proposal	Not Applicable.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	No waste land within ML.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal	Not Applicable.



6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not Applicable.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Season-wise Environmental monitoring	Season-wise Environmental monitoring were carried out and parameters are within the permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Mined out pit was not matured for back-filling and for water reservoir. Mining operation for this mine was commenced on 03.10.2016.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Direct ROM dispatch to proposed captive cement plant.	Captive cement plant was not installed, ROM was stocked within ML area at designated places.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical.	
7c	Different grade of mineral sorted out at mines.	Cement grade.	Cement grade and mineral reject.	
7d	Any beneficiation process at mines	No such proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		The lessee proposed to install two million tonnes capacity captive cement plant about 2 km distance from the mine.	

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and utilization/stacking of topsoil for plantation purpose.	Separate removal and utilization/stacking of topsoil for plantation purpose.	
8b	Concurrent use or storage of topsoil	Concurrent use of top soil proposed.	Top soil was used for plantation purpose.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Nil as no overburden waste except top-soil waste.	Nil as no overburden waste except top-soil waste.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Only top soil stacking and councurrent using .	Part of the top soil utilized for green belt development along western side of the ML boundary.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil as mined out pit was not matured for back-filling and for water reservoir.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Entire ML area is non-forest. There was proposal of planation of 1000 nos of saplings in 0.5 Ha area within ML during year 2017-18.	About 3000 nos of saplings were planted so far.	
8g	Survival rate	80%	70 to 80% within ML.	
8h	Water sprinkling on roads to control airborne dust	Proposed	The regular dust suppression by sprinkling of water was being made in the mine.	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty in and around mine was good as lessee had carried out afforestation and other environmental protective measures as per approved Mining Plan.
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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. Submitted up to Nov. 2018, A.R. submitted upto FY 2017-18	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager: G. NARASIMHAM Geologist: ALOK DWIVEDI	Mines Manager: G. NARASIMHAM Geologist: ALOK DWIVEDI	No Mining Engineer was appointed, voilation of rule 55(1) was issued to the lessee dated 24.10.2018
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit/Mining: 3.1 Ha; Dumps: 0.2 Ha Infrastructure /plant/buildin gs: 1.75 Ha Green belt and Mineral stock: 0.7 Ha.	Actual also same at that time.	
9d	Scrutiny of Annual return on afforestation	1000 nos.	1000 nos.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	1812 tonnes.	Stacked seperately near westen side of the mine pit.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	3600 tonnes of ROM stock	Stacked western side of the mine pit.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine Price Rs. 735/per tonne and cost of production: Rs 3131.88/per tonne.	Appear to be correct, ROM stacked within ML for captive consumption.	Captive cement plant was not installed till date of inspection.

9h	Scrutiny of Annual return on fixed assets	Rs. 250942500/-	Appeared to be correct including land value and office infrastructure.
9k	Scrutiny of Annual return on mining machineries	Excavator (0.7 cum): 1 no. Dumpers/ Tipper (1 cum): 1no. Water Tanker (9000 liters): 1 no.	No change.

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**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)	24/10/2018	17/12/2018				
	Rule 45(5)	24/10/2018	17/12/2018				
MCDR17	Rule 55(1)(3)	24/10/2018	17/12/2018				

**Date :**

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines