

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-7

Mine code : 38RAJ09010

- (i) Name of the Inspecting : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : SH. SOMNATH BANERJEE, MINE MANAGER
Official with
Designation
- (iv) Date of Inspection : 06-MAR-19
- (v) Prev.inspection date : 05-SEP-17

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SITARAMJI KA KHERA**
- (b) **Registration NO.** : **IBM/378/2011**
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : RAJASTHAN
- District : CHITTORGARH
- Village :
- Taluka :
- Post office :
- Pin Code :
- FAX No. :
- E-mail : somnath.banerjee@nuvoco.in
- Phone : 09893497199
- (f) **Police Station** : Mangrol
- (g) **First opening date** : 21-MAY-15
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : VILLAGE- SITA RAM JI KA KHERA
DISTT- CHITTORGARH
RAJASTHAN
3. (a) **Lease Number** : RAJ5429
- (b) **Lease area** : 602
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 07-JUL-43
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : LAFARGE INDIA PVT. LTD.
 VILLAGE BHAVLIYA TAHSIL
 NIMBAHERA DIST.
 CHITTORGARH(RAJ.)
 CHITTORGARH RAJASTHAN
 Phone:
 FAX :

Owner : Mr. Ujjwal Batria
 Equinox Business Park
 Towers-3 East Wing,4th
 Floor,Bandra Kurla
 Complex,LBS Road,Kurla
 West,Mumbai MUMBAI
 (SUBURBAN) MAHARASHTRA
 Phone:
 FAX : 02266306511

Agent : Ramesh Warke
 Nuvoco Vistas Corp Ltd
 (formerly Lafarge),Village
 - Bhawaliya Tehsil -
 Nimbahera CHITTORGARH
 RAJASTHAN
 Phone: 09771496196,
 FAX :

Mining Engineer
 Name : Rajesh Goyal,Full Time
 Qualification : BE(Mining)
 Appointment/ : 07-MAY-17
 Termination date

Geologist
 Name : Mrinmoy Chakraborty,Full Time
 Qualification : M.Sc.(Applied Geology)
 Appointment/ : 28-MAR-16 12-JAN-19
 Termination date

Manager
 Name : SOMNATH BANERJEE
 Qualification :
 Appointment/ : 10-AUG-15
 Termination date

6. Date of approval of Mining :
Plan/Scheme of Mining

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|--|---|
| 1a | Backlog of previous year | 49 bore holes | 49 bore holes during the year 2017-18. | |
| 1b | Exploration over lease area for geological axis 1 or 2 | 2018-19 - 32 nos. | 2018-19 - 31 nos.(up to Jan. 2019) | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Noo specified. | 2017-18 - M/s Shreeram Gemicon Pvt. Ltd. - Rs.52.51 Lakh 2018-19 - M/s Shreeram Gemicon Pvt. Ltd. - Rs. 37 Lakh | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | As per approved Review of MP approved on 23/03/2018 During the year 2018-19 exploration was proposed by 32 bore holes which will cover 123.5 hecatre area for G1 level. | Drilling of 31 bore holes have been carried out in this year. | |
| 1e | Balance reserve as on 01/04/20 | Balance reserves as on 01.04.2018 72 million tonnes | Balance reserves as on 01.04.2018 72 million tonnes | |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | This exploration work is going as per proposal. |

Development :

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

| | | | | |
|----|---|--|---|---|
| 2a | Location of development w.r.t.lease area | Western part of the lease area in Block A | Western part of the lease area in Block A | During the year 2017-18 mine development location changes which was observed during the previous inspection. However during this current year 2018-19 mine development is going on proposed location. |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | There are no existing separate benches for top soil and overburden at present. | As per proposal | |
| 2c | Stripping ratio or ore to OB ratio | 2017-18: 1:0.04 | 2017-18: 1:0.14 | |
| 2d | Quantity of topsoil generation in m3 | No proposal | Nil | |
| 2e | Quantity of overburden generation in m3 | 2017-18 :115304 m3 | 2017-18: 126708 m3 | |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | | |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---------------------|---------------------|---------|
| 3a | Number of pit proposed for production | One | One | |
| 3b | Quantity of ROM mineral production proposed | 2017-18: 2600000 MT | 2017-18: 2298004 MT | |
| 3c | Recovery of sailable/usable mineral from ROM production | 100% | 100% | |

| | | | |
|----|---|--|-------------------------|
| 3d | Quantity of mineral reject generation | No proposal during the year 2017-18 | 59495 MT screen reject. |
| 3e | Grade of mineral rejects generation and threshold value declared. | No proposal | CaO<34% |
| 3f | Quantity of sub grade mineral generation. | 2017-18: No proposal | Nil |
| 3g | Grade of sub grade mineral generation | No proposal | N/A |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanised | Mechanised |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No beneficiation study proposed during 2017-18 & 2018-19 | None |
| 3j | Provision of drilling and blasting in mineral benches | The drilling of blast holes is being done by down the hole drill machines of 115 mm. diameter operated by compressed air. For blasting slurry cap sensitive explosives will be used. | As per proposal. |

| | | | | |
|----|--|---|---|---|
| 3k | Provision of mining machineries in mineral benches | 1. Drill machine 115 mm. dia 3 2. Air Compressor 450 cfm 3 3. Excavator 2.4 cum capacity 5 4. Dumpers 35 T -10 5. Dozer 2 6. Rock Breaker 2 7. Water Tanker - 2 | 1. Drill machine 115 mm. dia 3 2. Air Compressor 450 cfm 3 3. Excavator 2.4 cum capacity 5 4. Dumpers 35 T -10 5. Dozer 2 6. Rock Breaker 2 7. Water Tanker - 2 | |
| 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 | 2017-18: 21.55 ha | 2017-18: 21.16 ha | |
| 3n | Ore to OB ratio for the pit/mine during the year. | 2017-18: 1:0.04 | 2017-18: 1:0.14 | |
| 3o | Total area put in use under different heads at the end of year | 2017-18: Pit : 21.55 ha Mineral storage : 8.5 ha Dump :6.5 ha | 2017-18: Pit : 21.16 Ha Waste Dump : 5 ha Plants, Building, Roads :8.86 ha Others:11.80 ha. | Reviwe of Mining Plan approved by this office on 26.03.2018 and this is the first year of approved review of mining plan. |

| | | | |
|----|--|---|--|
| 3p | Production of ROM mineral during the last five year period as applicable | Production of ROM mineral during last five-year period, as applicable 2013-14: 2.27 million tonnes 2014-15: 2.23 million tonnes 2015-16: 2.15 million tonnes 2016-17: 2.25 million tonnes 2017-18: 2.6 million tonnes 2018-19: 2.6 million tonnes | Actual Production of ROM mineral during last five-year period, as applicable 2013-14: Nil 2014-15: Nil 2015-16: 1.53 million tonnes 2016-17: 1.83 million tonnes 2017-18: 2.298 million tonnes 2018-19: 2.07 million tonnes (up to Jan 2019) |
|----|--|---|--|

| | | |
|----|---|--|
| 3q | General remarks of inspecting officers on method of mining etc. | Method of mining is suitable to the deposit. |
|----|---|--|

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-----------|--|---------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | Yes | During the last year dumping has not been carried out as per proposal violation was issued in previous inspection now this is the first year of approved review of mining plan and dumping is going as per proposal. | |

| | | | | |
|----|--|---|--|---|
| 4b | Location of topsoil, OB and mineral reject dumps | 2017-18: One waste dump near the working pit. 2018-19: Screen dump and one waste dump proposed southern part of the lease area & another waste dump & subgrade waste dump proposed Northern central portion of the lease area. | 2017-18: Screen dump and one waste dumping southern part of the lease area & another waste dumping in Northern central portion of the lease area. 2018-19: As per proposal. No subgrade dumping have been carried out in central northern part of the lease area. | During the year 2017-18 waste dumping & screen reject dump has not been carried out as per proposal and during the previous inspection violation was issued but after approval of review of mining plan now during this year waste dumping and screen reject dumping is going as per approved proposal. |
| 4c | Number of dumps within lease area and outside of lease area | 2017-18: 01 Waste dump, 01 Screen Reject dump, 01 Subgrade dump | 2017-18: 03(02 waste dump & 01 screen reject dump) 2018-19: 03(02 waste dump & 01 screen reject dump) | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Outside of UPL | Outside of UPL | |
| 4e | Number of active and alive dumps. | 03 | 02 | |
| 4f | Number of dead dumps. | 01 | 01 | |
| 4g | Number of dumps established. | No proposal | Nil | |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | No proposal | Garland drain made. | |
| 4i | Length of Retaining wall or garland drain all along dumps | No proposal | Garland drain made. | |
| 4j | Number of settling ponds | 01 | 01 | |

Solid Waste Management - Backfilling:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
|--------|------|-----------|-------------|---------|

| | | | |
|----|---|-------------------------|--------------------------|
| 5a | Status of part or full extraction of mineral from mined out area before starting backfilling. | No backfilling proposal | Nil |
| 5b | Area under backfilling of mined out area | No backfilling proposed | N/A |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | For plantation | For plantation |
| 5d | Total area fully reclaimed and rehabilitated | No proposal | None |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | No backfilling proposed. |

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). | Submitted for the year 2017-18. | Submitted | |
| 6b | Area available for rehabilitation (ha) . | 2.0 Hect. within lease area | 1.86 hect. within lease +4.94 hect. outside of the lease area. | |
| 6c | afforestation done (ha). | 2.0 Hect. within lease area | 1.86 hect. within lease +4.94 hect. outside of the lease area. | |
| 6d | No. of saplings planted during the year | 2000 within lease area. | 1488 within lease + 3951 outside of the lease area. | |
| 6e | Cumulative no .of plants | Not specified. | 20481 (Till March-18) | |
| 6f | Any other method of rehabilitation | No proposal | None | |
| 6g | Cost incurred on watch and care during the year | Rs 3 lacks | Rs. 3.56 lacks | |

| | | | |
|----|--|-------------------------------------|--|
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No proposal | Nil |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No proposal | Nil |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area | No backfilling proposal | Not applicable. |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No such proposal | N/A |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | No proposal | None |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | 2000 nos. within lease area | 1488 within lease + 3951 outside of the lease area. |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | 2 hect. within lease by plantation. | 1.86 hect. within lease +4.94 hect. outside of the lease area. |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Plantation | Plantation |

| | | | | |
|----|---|---|---|------------------------------------|
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Regularly monitoring as per the condition of mining plan as well as Environment Clearance and SPCB. | Periodic compliance report is regularly submitted to concerned authorities. | |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | | | PMCP compliances are satisfactory. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Cement grade limestone feed to captive cement plant. | Cement grade limestone feed to captive cement plant. | |
| 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 & Subgrade | Cement grade | |
| 7d | Any beneficiation process at mines | No proposal | Nil | |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|------------|-------------|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Yes | Yes | |
| 8b | Concurrent use or storage of topsoil | Plantation | Plantation | |

| | | | | |
|----|---|--|---|---|
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Yes | Yes | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | No such proposal | Nil | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal | Nil | |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 2000 nos. plantation proposed within lease area. | 1488 within lease + 3951 outside of the lease area. | |
| 8g | Survival rate | Not specified | 85% | |
| 8h | Water sprinkling on roads to control airborne dust | Regular water sprinkling will be done | Water sprinkling is being done. | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | | Aesthetic beauty is good in and around the mine area. |

Compliance of Rule 45:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|---|---|---------|
| 9a | Status of submission of Monthly and Annual returns | M.R Submitted upto Feb-19 A.R. Submitted upto FY 2017-18 | M.R Submitted upto Feb-19 A.R. Submitted upto FY 2017-18 | |

| | | | | |
|----|---|--------------|--|---|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Detail given | Mining Engineer: Mr. Rajesh Kumar Goyal Geologist: Mrinmoy Chakraborty Manager: Somnath Banerjee | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Detail given | Pits: 21.16 ha. Waste Disposal: 5 ha Plant, Buldings, Road etc. :8.86 ha. Others (Plantation, ANFO storage, Crusher, ramp): 11.80 ha. | |
| 9d | Scrutiny of Annual return on afforestation | Detail given | 5439 Survival Rate : 85% | Under item 4.4 of part V total plantation of 5439 trees has been shown within lease area but actual plantaion has not been carried out within the lease area as reported in the return hence violation of rule 45(7) issued to the lesse. |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Detail given | Mineral Reject: 59495 MT SiO ₂ >20% | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Detail given | ROM stock: Nil | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Detail given | Cost of production per tonne: 224.74 | Information in Part-VII (Cost of production)-The information about DMF, NMET etc has not been given.hence violation of rule 45(7) issued to the lessee. |
| 9h | Scrutiny of Annual return on fixed assets | Detail given | Fixed asset shown in Return of Arniya Joshi Mine (mine Code: 38RAJ09011) | |
| 9k | Scrutiny of Annual return on mining machineries | Detail given | found in order. | |

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 31(4) | 26-MAR-19 | | | |
| MCDR17 | Rule 45(5)(e) | 26-MAR-19 | | | |
| MCDR17 | Rule 46(b) | 26-MAR-19 | | | |
| MCDR17 | Rule 55(1)(1) | 26-MAR-19 | | | |

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines