

INDIAN BUREAU OF MINES  
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION  
MCDR INSPECTION REPORT  
Guwahati Regional Office

Mine file No : IBM/GHY/MEG/EJNH/LST/MP-83

Mine Code : 38MEG03016

Date of Inspection: 12.12.2019

**General:**

S.N.	Particulars	
1	Name of the Mine	LUMSHNONG LIMESTONE MINE
2	Total Lease Area(Ha) with breakup of Non-forest and forest land	70.00 hectares, Forest : 4.82 hectares, Non Forest : 65.18 hectares
3	Mine code	38MEG03016
4	IBM Registration Number under rule 45 of MCDR , 1988	IBM/5471/2011
5	Name of the lessee, Address, phone, email and fax number	Star Cement Limited, Lumshnong Village, East Jaintia Hills District. Email: starmines@starcement.co.in
6	Village	Lumshnong
7	Taluka/Mandal	Khliehriat
8	District	East Jaintia Hills
9	Pincode	793 210
10	State	Meghalaya
11	Post office	Lumshnong
12	Nearest police station	Lumshnong
13	Nearest Railway station	Badarpur
14	Date of Grant of Mining Lease	04.01.2017
15	Date of Execution	10.01.2017
16	Date of opening of Mine	21.09.2017
17	Date of first Renewal, if applicable and its period & expiry	Nil
18	Date of second Renewal, if applicable and its period & expiry	Nil
19	Date of submission of Renewal application if Mining operations are continuing under deemed extension	Nil
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Prem Kumar Bhajanka Vill/P.O : Lumshnong Dist : East Jaintia Hills, Meghalaya - 793210 Email: pkb@plymail.com Date of appointment : 20.08.2018
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri D.V. Ramanayya Vill-Lumshnong, Dist.-East Jaintia Hills, Meghalaya-793 210 Email : dvramanayya@starcement.co.in Mob : 94901-88024 Date of appointment: 11.01.2018
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment	Shri Sangram Kishore Mallick Vill-Lumshnong, Dist.-East Jaintia Hills, Meghalaya-793 210 Email : sangrammallick@starcement.co.in Mob : 98625-71302 Date of appointment: 20.07.2018
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Vinay Rajaram Date of appointment : 11.01.2018 Qualification : Degree in Mining Experience : 12 Years Mob : 87309-48904

24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44	YES, <u>Geologist</u> : Hijam Rakesh Singh Date of appointment : 21.09.2017 Qualification : M.Sc. (Earth Science) <u>Mining Engineer</u> : Shri Vinay Rajaram Date of appointment : 11.01.2018 Qualification : Degree in Mining
25	Date of Approval of Mining Plan/Modified Mining Plan with five year period & specific condition in approval letter, if any	Approved the Modification of Mining Plan (2017-18 to 2021-22), vide letter No.IBM/GHY/MEG/EJNH/LST/MP-83, dated 19.06.2017.
26	Date of Approval of Scheme of Mining/ Modified Scheme of Mining with five year period & specific condition in approval letter, if any	NA
27	Mineral(s) granted in lease and proved for mining	Limestone
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
30	Captive/Non Captive	Captive

#### Scientific Mining :

Compliance of proposals of approved mining plan/scheme of mining (Duplication of information in existing TMIS data sheets and draft write up has been avoided)

#### Exploration:

S.N.	Items	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2	7	3	Lessee has not completely carried out exploration as per the proposal during the reporting year, a violation letter in this regard has issued on 23.12.2019 in this regard
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	12.28 Lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Depth of mineralisation has to be established during the modification plan period by drill 24 no of boreholes.
1e	Balance reserves as on 01.04.2019		3,03,35,087 tons	
1f	General remarks of inspecting officer on geology, exploration etc.	Lessee has not completely carried out exploration as per the proposal during the reporting year, a violation letter in this regard has issued on 23.12.2019.		

#### Development:

S.N.	Items	Proposals	Actual work	Remarks
2a	Location of development w.r.t lease area	<u>Easting</u> 436250 to 436651 <u>Northing</u> 2783440 to 2784102	<u>Easting</u> 436219 to 436651 <u>Northing</u> 2783480 to 2783880	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes, OB bench: 567mRL-549 mRL, Mineral: 549 mRL-522 mRL.	Yes, OB bench: 567mRL-549 mRL, Mineral: 549 mRL-526 mRL.	Lessee has carried out partially the proposal for the reporting year, due to not having EC, the targeted production could not be achieved. A violation letter in this regard has issued on 23.12.2019.



2c	Stripping ratio or ore to OB ratio	1: 0.37	1: 1.56	
2d	Quantity of topsoil generation in m <sup>3</sup>	249,434	464,286	Due to backlog of 1st year of the plan period as the mine was opened on 21.09.2017
2e	Quantity of overburden generation in m <sup>3</sup>	118,370	612884.35	
2f	General remarks of inspecting officer on development of pit w.r.t type of deposit etc.	There was a proposal for production of 2.5 million tons of limestone, but the lessee has not obtained environment clearance for the cited quantity till date, hence mine was run as per the earlier EC quantity, i.e. 9 lacs. Hence the lessee has carried as per the proposal but could not achieved the targeted proposal. A violation letter in this regard has been issued on 23.12.2019.		

**Exploitation :**

S.N.	Items	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	1	1	
3b	Quantity of ROM mineral production proposed	25,04,761 MT	8,98,721.13 MT	There was a proposal for production of 2.5 million tons of limestone, but the lessee has not obtained environment clearance for the cited quantity till date, hence mine was run as per the earlier EC quantity, i.e. 9 lacs. Hence the lessee has carried as per the proposal but could not achieved the targeted proposal.
3c	Recovery of salable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	Nil	Nil	No proposal during the reporting year
3e	Grade of mineral reject generation and threshold value declared	Nil	Nil	
3f	Quantity of sub-grade mineral generation	Nil	Nil	No proposal during the reporting year
3g	Grade of sub-grade mineral generation	Nil	Nil	No proposal during the reporting year
3h	Manual/Mechanised method adopted for segregating from ROM.	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	No proposal during the reporting year
3j	Provision of drilling & blasting in mineral benches	Yes, DTH deep hole drill, Jack Hammer 115 mm dia. Drills. Blasting proposed with LD explosives of 25mm dia. & 83mm dia. with detonating cord & milli second delay detonators.	Yes, DTH deep hole drill, Jack Hammer 115 mm dia. Drills. Blasting proposed with LD explosives of 25mm dia. & 83mm dia. with detonating cord & milli second delay detonators.	
3k	Provision of mining machineries in mineral benches	Yes, Shovel and Dumper combination. Excavator-2.6 cum with Dumper- 25 ton	Yes, Shovel and Dumper combination. Excavator-2.6 cum with Dumper- 25 ton	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM.	Yes, OB bench: 567mRL-549 mRL, Mineral: 549 mRL-522 mRL.	Yes, OB bench: 567mRL-549 mRL, Mineral: 549 mRL-526 mRL.	

3m	Total area covered under excavation / pits	16.17 Ha.	7.00 Ha.	There was a proposal for production of 2.5 million tons of limestone, but the lessee has not obtained environment clearance for the cited quantity till date, hence mine was run as per the earlier EC quantity, i.e. 9 lacs. Hence the lessee has carried as per the proposal but could not achieved the targeted proposal.
3n	Ore to OB ratio for the pit/mine during the year	1:0.37	1: 1.56	
3o	Total area put in use under different heads at the end of year	Pit: 16.17 Ha. Green Belt: 0.40 Ha.	Pit: 7.00 Ha. Green Belt: 0.40 Ha.	
3p	Production of ROM mineral during last five year, as applicable	2016-17: 1,00,012.50 MT 2017-18: 23,01,064.00 MT 2018-19: 25,00,580.00 MT	2016-17: Nil 2017-18: 8,97,192.41 MT 2018-19: 8,98,721.13 MT	
3q	General remarks of inspecting officer on method of mining etc	There was a proposal for production of 2.5 million tons of limestone, but the lessee has not obtained environment clearance for the cited quantity till date, hence mine was run as per the earlier EC quantity, i.e. 9 lacs. Hence the lessee has carried as per the proposal but could not achieved the targeted proposal. A violation letter in this regard has been issued on 23.12.2019.		

#### Solid Waste Management- Dumping:

S.N.	Items	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Proposal for separate dumping of top soil and OB	Separate dumping of OB and topsoil carried out	
4b	Location of topsoil, OB & mineral reject dumps	<u>Easting</u> 435854 to 436227 <u>Northing</u> 2784183 to 2784530	<u>Easting</u> 435882 to 436120 <u>Northing</u> 2784183 to 2784400	
4c	Number of dumps within lease area and outside lease area	2 (Soil Dump & Waste Dump)	2 (Soil Dump & Waste Dump)	
4d	Location of dumps w.r.t ultimate pit limit (Rule 16)	<u>Easting</u> 435854 to 436227 <u>Northing</u> 2784183 to 2784530	<u>Easting</u> 435882 to 436120 <u>Northing</u> 2784183 to 2784400	
4e	Number of active & alive dumps	2	2	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilised	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dump	Proposed for construction of retaining wall and garland drain over 0.4 ha area	Retaining wall and garland drain over 0.4 ha area has been constructed	
4i	Length of Retaining wall or garland drain all along dump	100	120	
4j	Number of settling ponds	Nil	Nil	No proposal during the reporting year
4k	Specific comments of inspecting officer on waste dump management	Lessee has partially carried out dumping as per the proposal during the reporting year and could not achieved the target due to non availability of EC. Garland drain and reating walls are carried out as proposed.		



**Solid Waste Management- Backfilling:**

S.N.	Items	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Nil	Nil	The mine was opened on 21.09.2017 and the mine is not mature till date for backfilling. So there was no proposal for backfilling in the reporting year.
5b	Area under backfilling of mined out area	Nil	Nil	The mine was opened on 21.09.2017 and the mine is not mature till date for backfilling. So there was no proposal for backfilling in the reporting year.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	Nil	Nil	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	The mine was opened on 21.09.2017 and the mine is not mature till date for backfilling. So there was no proposal for backfilling in the reporting year.
5e	General remarks of inspecting officer on backfilling , reclamation etc	The mine was opened on 21.09.2017 and the mine is not mature till date, scope of backfilling was not in the the reporting year.		

**Progressive Mine Closure Plan:**

S.N.	Items	Proposals	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	As per rule 26(2) Annual PMCP report to be submitted before 1 <sup>st</sup> day of July of Every Year	Submitted on 24.06.2019 for the reporting year	
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	i) NA ii) NA iii) NA iv) NA v) Nil vi) NA	i) NA ii) NA iii) NA iv) NA v) Nil vi) NA	The mine was opened on 21.09.2017 and no worked out benches were present for reclamation and rehabilitation. Hence no proposal was envisaged in the reporting year.
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 v) Any other specific means	i) NA ii) Nil iii) NA iv) NA v) Nil	i) NA ii) Nil iii) NA iv) NA v) Nil	The mine was opened on 21.09.2017 and no worked out benches were present for reclamation and rehabilitation. Hence no proposal was envisaged in the reporting year.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 1000 Nos. in safety barriers. ii) Nil iii) Nil	i) 1000 Nos. in safety barriers. ii) Nil iii) Nil	Rehabilitation program has not started yet as the mine is not mature till date.

6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air, Noise and Water quality monitoring will be done during the year within the lease area	Air, Noise and Water quality monitoring carried out as per the proposal during the reporting year.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	The lessee has carried out afforestation and environmental monitoring as per the proposal during the reporting year.		

#### Mineral Conservation:

S.N.	Items	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Produced ROM will be directly sent to the Crusher from the mine	Produced ROM has directly sent to the Crusher from the mine	
7b	Method of grade -wise mineral sorting i.e manual or mechanical	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines	Nil	Nil	
7d	Any beneficiation process at mines	Nil	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No such proposal for mineral beneficiation was proposed during the reporting year.		

#### Environment:

S.N.	Items	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes	
8b	Concurrent use or storage of topsoil	Yes	Yes	Partly used for plantation work in safety barrier
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.	Nil	Nil	
8e	Phased restoration, reclamation & rehabilitation of lands affected by mining operations (pits, dumps etc.)	Nil	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Within lease- 1000 Nos saplings	Within lease- 1000 Nos saplings	Safety zone plantation
8g	Survival rate	70%	70%	
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling on Haul roads were proposed.	Water sprinkling by water tanker over haul roads has been carried out.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Lessee has planted 1000 no of sapling within and along the lease boundary and carried out water sprinkling inside the mine over haul roads to minimize the fugitive dust emission. This sustains the aesthetic beauty of the mine area.		

#### Compliance of Rule 45:

S.N.	Item	Comments	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return submitted upto	Submitted upto Dec'19
		Annual Return submitted upto	Submitted upto FY 2018-19
S.N	Item	Details Given in Annual Return	Observation of I/Officer
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	<u>Mines Manager</u> Sangram K. Mallick <u>Mining Engineer</u> Sangram K. Mallick <u>Geologist</u> Patel Suraj Singh	<u>Mines Manager</u> Dinesh Chandra Sinha <u>Mining Engineer</u> Naredla Prakash <u>Geologist</u> Patel Suraj Singh
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit : 7.00 Ha.	Pit : 7.00 Ha.



9d	Scrutiny of Annual return on afforestation	Saplings: Within lease:1000 Nos.	Saplings: Within lease:1000 Nos. Survival rate: 70%	
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/ or graded ore	Opening Stock: Nil Production: 8,98,721.13 MT Dispatch: 8,98,721.13 MT Closing Stock: Nil There is no separate stock for graded ore	Opening Stock: Nil Production: 8,98,721.13 MT Dispatch: 8,98,721.13 MT Closing Stock: Nil There is no separate stock for graded ore	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex. Mine Price: Rs. 266.20	Cross checked from the returns found it to be correct	
9h	Scrutiny of Annual return on fixed assets	Rs. 84,49,11,407.00	Verified with Asset register during inspection & found it to be correct.	
9i	Scrutiny of Annual return on mining machineries	1) Back Hoe : 04 2) Dumper: 23 3) Dozer: 02 4) Air Compressor: 02 5) Rock Drill: 02 6) Dozzer: 01 7) Water Tanker: 01	1) Back Hoe : 04 2) Dumper: 23 3) Dozer: 02 4) Air Compressor: 02 5) Rock Drill: 02 6) Dozzer: 01 7) Water Tanker: 01	Verified from submitted annual machinery statement

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

Violations under rule 11(1) was pointed out and violation letter has been issued to the lessee on 23.12.2019. Lessee has complied the earlier violations under rule 11(1), 26(2) of vide letter dated 15.09.2018.

  
05/02/2020

Name of Inspecting Officer with Designation and Date