

**MCDR INSPECTION REPORT**

**1.0 GENERAL**

SN	Particulars	Details
1	Name of the Mine	LUMSHNONG LIMESTONE MINE
	Date of inspection	01.06.22
	Name of inspecting officer	Sandeep Kumar Singh
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	70.00 Ha. (Total Lease Area) 4.82 Ha. (Forest) 65.18 Ha. (Non-Forest)
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 Village/P.O./P.S. – Lumshnong East Jaintia Hills District, Meghalaya - 793 210
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	Bardarpur
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	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	SH. PANKAJ KEJRIWAL Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, <a href="mailto:pankajkeiriwal@hotmail.com">pankajkeiriwal@hotmail.com</a> Date of appointment: 13.08.2021
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	SH. D. V. RAMANAYYA Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 94901-88024 <a href="mailto:dvramanayya@starcement.co.in">dvramanayya@starcement.co.in</a> Date of appointment: 11.01.2018
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	SH. SATYAJIT PALIA Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 88370-75324 <a href="mailto:satyaitpalia@starcement.co.in">satyaitpalia@starcement.co.in</a> Date of appointment: 01.06.2021
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SH. ANKURE RATHORE Qualification: B.E in Mining Engineering Experience: 6.5 years Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 73401-56429 <a href="mailto:ankuranshu9@gmail.com">ankuranshu9@gmail.com</a> Date of appointment: 01.06.2021
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<b>Mining Plan:</b> Letter No.314(3)/2010-MCCM(CZ)/MP-37, dated 10.06.2011  <b>Modification of Approved Mining Plan:</b>

SN	Particulars	Details
		Period: 2017-18 to 2020-21 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 and specific condition in approval letter, if any.	<b>Review of Mining Plan:</b> Period: 2021-22 to 2025-26 Letter No. IBM/GHY/MEG/EJNH/LST/MP-83, dated 27.08.2021
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. –

#### Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	Nil	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserves as on 01.04.2022	93.52 million tons	94.99 million tons	
1f	General remarks of inspecting officer on geology, exploration etc.	No proposal for exploration in RY 2021-22. Limestone belongs to Umladoh and Lakaday limestone of shella formation. Area is explored by CCI and DMR Meghalaya. Sandy soil and sandy stone boulders from top. This varies from 1 to 15 m an thicjness 6 mtr. Umladoh varies from 22.45 to 71 mtr. Lakaday limestone varies from 32.6 mtr to 71.5 mtrs. Strike is E-W and dip is towards south. The deposit is classified as bedded stratiform and tabular deposit of regular habit. Area is exploured by 47 BH and drilling of 3958.25 mtrs.		

#### 2.0 DEVELOPMENT

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	<b>Easting</b> 436162 to 436664 <b>Northing</b> 2783527 to 2784093	<b>Easting</b> <u>436190 to 436535</u> <b>Northing</b> 2783527 to 2783817	Extent of Existing Pit as on 01.04.2022. 1 more pit(approx 0.7 hect) is observed near B.P 35,36,37 within lease area and violation for same is pointed out.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1: 0.14	1: 0.07	Less development .lower stripping ratio violation issued
2d	Quantity of topsoil generation in m <sup>3</sup>	1,30,815	33,333.00	Proposed production could not achieved due to present EC restriction (9 lakhs TPA)
2e	Quantity of overburden generation in m <sup>3</sup>	Nil	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Proposed production could not achieved due to present EC restriction (9 lakhs TPA). One more pit is observed close to boundary pillar 35, 36,37 towards North Eastern boundary which is not as per approved plan. Violation is issued for same. Violation pointed out for lower stripping		

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### 3.0 EXPLOITATION

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	1	2	The mining has been carried out in a single pit. one more pit is seen in mine boundary near pillar numbers 35,36,37 in North Eastern Boundary. Violation is issued for same.
3b	Quantity of ROM mineral production proposed	24,99,800.00 MT	8,99,933.80 MT	Proposed production could not achieved due to present EC restriction (9 lakhs TPA) production from dump is 51495.98 against 1,25,000 as plan approved late.
3c	Recovery of saleable/usable mineral from ROM production	100%	100%	Same as proposal
3d	Quantity of mineral reject generation	No proposal	Nil	--
3e	Grade of mineral reject generation and threshold value declared	No proposal	Nil	--
3f	Quantity of sub-grade mineral generation	No proposal	Nil	--
3g	Grade of sub-grade mineral generation	No proposal	Nil	--
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Same as proposal.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	--
3j	Provision of drilling & blasting in mineral benches	Deep hole DTH drilling machine of 115 mm dia	Deep hole DTH drilling machine of 115 mm dia	Same as proposal.
3k	Provision of mining machineries in mineral benches	Hydraulic Excavator of 2.6m <sup>3</sup> with dumper of 25 MT	Hydraulic Excavator of 2.6m <sup>3</sup> with dumper of 25 MT	Same as proposal.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not mentioned	NA	Suitable 9 mtrs Bench
3m	Total area covered under excavation/ pits	25.08 Ha.	24.23 ha	There was proposal for production of 2.5 million tons of limestone, but the lessee has not obtained EC for the cited quantity till date, hence mine was run as per the earlier EC quantity, i.e. 9 lacs.
3n	Ore to OB ratio for the pit/mine during the year	1: 0.14	1: 0.07	Stripping ratio less as proposed production is 23.75 lakhs and Actual production 8,99933.80 tons & Actual New broken area is less than compared to proposed Area
3o	Total area put in use under different heads at the end of year	33.58 Ha.	33.421Ha.	
3p	Production of ROM mineral during last five-year period, as applicable	2017-18: 23,01,064.00 MT 2018-19: 25,00,580.00 MT 2019-20: 25,04,760.00 MT 2020-21: 24,95,816.00 MT 2021-22: 24,99,800.00 MT	2017-18: 8,97,192.41 MT 2018-19: 8,98,721.13 MT 2019-20: 8,99,772.42 MT 2020-21: 8,99,103.10 MT 2021-22: 8,99,933.80 MT	Production could not achieved due to awaited enhancement of EC

3q	General remarks of inspecting officer on method of mining etc.	There was a proposal for production of 2.50 million tons of limestone, but the lessee has not obtained EC for the cited quantity till date, hence mine was run as per the earlier EC quantity, i.e. 9 lacs. Review of Mining Plan has been Approved on 27.08.2021 for the year 2021-22 to 2025 -2026 for 5 years. One more pit is observed near boundary pillars 35,36,37 in north eastern side of lease which is not as per plan.violation is issued.
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#### 4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	Item	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 top soil and OB carried out.	As per proposal
4b	Location of topsoil, OB & mineral reject dumps	Temporary OBS Dump (OBS-1) Qty(T)-Coordinates N2784040 to N2784560, E435854 to E436227 Temporary OBS Dump (OBS-2) 18125.0, Coordinates N2783815 to N2783844, E436257 to E436300  Temporary Waste Dump (WD-1) , , Coordinates N2784139 to N2784425, E436170bto E436465  Temporary Waste Dump (WD-2) Qty(T)-Coordinates - N2783813 to N2783851, E436208 to E436262	Dumping done in OBS dump 1 as per plan.	
4c	Number of dumps within lease area and outside lease area	04	Outside NIL	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Na	Na	As per plan temporary dumps
4e	Number of active & alive dumps	4	4	
4f	Number of dead dumps	Nil	Not applicable	No proposal during the RY
4g	Number of dumps stabilised	Nil	Not applicable	No proposal during the RY
4h	Whether Retaining wall or garland drain all along dumps	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Retaining wall: 530m Garland drain:630m	Retaining wall: 530m Garland drain:630m	No proposal during the RY
4j	Number of settling ponds	No proposal	One	
4k	Specific comments of inspecting officer	Dumping was carried out as per the proposal during the RY. Only top soil/ soil was removed as per plan and stacked/dumped.		

#### 5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No proposals	Not applicable	The mine was opened on 21.09.2017 and the mine is not mature till date for back filling. So there was no proposal for back filling in the RY

SN	Item	Proposals	Actual work	Remarks
5b	Area under backfilling of mined out area	No proposals	Not applicable	The mine was opened on 21.09.2017 and the mine is not mature till date for back filling. So there was no proposal for back filling in the RY
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposals	Not applicable	The mine was opened on 21.09.2017 and the mine is not mature till date for back filling. So there was no proposal for back filling in the RY
5d	Total area fully reclaimed & rehabilitated	No proposals	Not applicable	The mine was opened on 21.09.2017 and the mine is not mature till date for back filling. So there was no proposal for back filling in the RY
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 for back filling. So there was no proposal for back filling in the RY		

### 6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	Item	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	Yet to be submitted	
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 RY
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 RY
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 7.5mtrs Barrier Area ii) 0.35 ha iii) Nil	i) 7.5 mtrs Barrier Area ii) 0.35ha iii) Nil	Through Afforestation Rehabilitation yet to be started as mineral is still exist
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	Monitoring is carried out, Within the limits	
6f	General remarks of inspecting officer on PMCP compliance & progressive	The lessee has carried out afforestation and environment monitoring as per the proposals during the reporting year. 7.5mtrs Barrier Zone plantation is done		

### 7.0 MINERAL CONSERVATION

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Produced ROM will be directly sent to the	Produced ROM is directly sent to the	

		Crusher from the mine	Crusher from the mine	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Not proposed	Not applicable	
7c	Different grade of mineral sorted out at mines	Not proposed	Not applicable	
7d	Any beneficiation process at mines	Not proposed	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No proposal for mineral beneficiation was proposed during the RY. ROM is sent to crusher .dump recovery was proposed and done during the year.		

Sl. No.	Name of the mine	Mineral	Production (Tons)	Remarks
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Sl. No.	Name of the mine	Mineral	Production (Tons)	Remarks
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## 8.0 ENVIRONMENT

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes	
8b	Concurrent use or storage of topsoil	Store & Use	Store & Use	Partly used for plantation purpose 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	No proposal	Not applicable	No proposal was envisaged during the RY
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not applicable	No proposal was envisaged during the RY
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Within lease-700 Nos.	Within lease-900 Nos.	Plantation was carried out in the Safety zone
8g	Survival rate	No proposals	80.00%	
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling on Haul roads was 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 are	Lessee has planted 900 Nos. of sapling within and along designated the lease boundary and carried out water sprinkling inside the mine over haul roads to minimise the fugitive dust emission. This sustained the aesthetic beauty of the mine lease area. Additional plantation is also done .		

## 9.0 COMPLIANCE OF RULE 45

SN	Item	COMMENTS		Remarks
	Status of submission of Monthly and Annual returns	Monthly Return submitted upto – April, 2022 Annual Return submitted.		
SN	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Shri Satyajit Palia Mining engineer: Shri Satyajit Palia Geologist: Shri Hijam Rakesh Singh	Details given	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	i) Already exploited & abandoned by opencast (O/C) mining : Nil ii) Covered under current (O/C) Workings: 23.530. iii) Reclaimed/Rehabilitated : Nil (iv) Used for waste disposal : 8.530 v) Occupied by plant, buildings, residential, welfare buildings & roads : Nil vi) Other Purpose (Road): 1.330 (vii) Work done under progressive mine closure plan during the year : 2.000	Pit area is 24.230 approx.	an area of approx. .7 hectare observed near BP 35,36,37. violation issued for same.
9d	Scrutiny of Annual return on afforestation	(a) Within lease area : Number of trees planted during the year : 3000	Approx. 900 observed.	

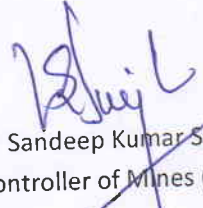


9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mineral Rejects for Limestone : Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	(a) Production in Tonne : Open Cast Workings: 848437.910 te & Dump Workings: 51495.890 te b) Opening stock (in tonne) : 690969.890 c) Closing stock (in tonne) : 639474.000	Details given
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Cost of Production (Per Tonne in Rs.): 229.91 Ex-mine price (in Rs. Per Tonne): 229.91 Sale value (in Rs.): 0.00	Details provided.
9i	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in Rs.) : 485529608	Provided in group along with following mines. KHUB 1(4.96HA)  38MEG03003, KHUB II (4.70 HECT.) 38MEG03006, WAHPYNKON LIMESTONE MINE 38MEG03007, LUMSHNONG LIMESTONE MINE 38MEG03016, WAHPYNKON LIMESTONE MINE II 38MEG03017
9k	Scrutiny of Annual return on mining machineries	i) BACK HOE -2.600 CUM-03 Nos. ii) TIPPER – 18.000 CUM -15 Nos. iii) DOZER-165.000 HP – 01 Nos. iv) AIR COMPRESSOR- 600.000 CUM-MN- 01 Nos. v) ROCK DRILL (NONELEC) - 115.000 MM- 02 Nos.	List of machinery provided.

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

Sr. no.	Date of inspection/ Violation date if based on office record	Violation letter no.	Rule violated (Details of Violation)	Compliance status
1	Earlier violation and show-cause was issued.	IBM/GHY/MEG/JN H/LST-13 dated 17.02.2021 & 31.05.2021	Violation pointed out Rule 11(1) of MCDR-2017	Complied.
2	01 June, 2022	IBM/GHY/MEG/JN H/LST-13 dated 27.06.2022	Violation pointed out Rule 11(1) of MCDR-2017	Partially complied.

Date: 03/07/22

  
Name: Sandeep Kumar Singh  
Designation: Deputy Controller of Mines (I/C),