

1/12357/2023

MCDR INSPECTION REPORT

SN	Particulars	Details
	Date of Inspection-	06.04.2023
	Name of Inspecting Officer-	Subrata Kumar Muduli,SMG
1	Name of the Mine	BRISHYRNOT LIMESTONE MINE-I
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	42.051 Ha. (Total Lease Area) Forest Land : Nil Non-Forest Land: 42.051 Ha.
3	Mine Code	38MEG657001
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/5483/2011
5	Name of the lessee, Address, phone, email and fax number	STAR CEMENT MEGHALAYA LIMITED Village/P.O./P.S. - Lumshnong East Jaintia Hills District, Meghalaya - 793 210
6	Village	Lumshnong
7	Taluk/Mandal	Khliehriat
8	District	East Jaintia Hills
9	Pin Code	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	01.07.2022
15	Date of Execution	15.09.2022
16	Date of opening of Mine	20.12.2022
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 Meghalaya Limited, Village/P.O./P.S. - Lumshnong East Jaintia Hills District, Meghalaya-793210 E-mail: pankajkejriwal@hotmail.com Date of appointment: 08.02.2021
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	SH. D. V. RAMANAYYA Star Cement Meghalaya Limited, Village/P.O./P.S. - Lumshnong East Jaintia Hills District, Meghalaya-793210 Mobile No. 94901-88024 E-mail: dvramanayya@starcement.co.in Date of appointment: 18.12.2022
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	SH. DINESH CHANDRA SINHA Star Cement Meghalaya Limited, Village/P.O./P.S. - Lumshnong East Jaintia Hills District, Meghalaya-793210 Mobile No. 89740-10167 E-mail: dineshsinha@starcement.co.in Date of appointment: 07.03.2023
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SH. DINESH CHANDRA SINHA Qualification: B.E (Mining Engineering) Total Experience: 28 years Address: Star Cement Meghalaya Limited, Village/P.O./P.S. - Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 89740-10167 E-mail: dineshsinha@starcement.co.in Date of appointment: 07.03.2023
24	Whether Geologist and Mining Engineer	Yes

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SN	Particulars	Details
	appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Mining Plan: Letter No. IBM/GHY/MEG/EJH/LST/MP-88, dated 14.09.2022
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Not applicable
27	Mineral(s) granted in lease and proved for mining	Limestone & Shale
28	Method of Mining(Open cast, Underground)	Open cast
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.)

1. EXPLORATION

S.N	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such proposal approved for 2022-23.	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	-do-	38.8580 Ha explored in G1 level. Balance 3.1930 Ha to be explored.	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	-do-	Nil	No proposal in the year
1d	Balance area to be explored to bring Geological axis in 1 or 2	-do-	Nil	Fresh Mining Lease area. Balance 3.1930 Ha to be explored in G1 level within 5 years from date of opening of the mine and proposal of exploration by 13 nos of Core Bore hole upto end of mineralization has already been approved in MP.
1e	Balance reserves as on 01.04.2023	--	Mineable Reserve: 16.94 Millon Tonnes (111)	
1f	General remarks of inspecting officer on geology, exploration etc.	As per the exploration done upto the date of inspection of the mine, the mining lease area consists of ore max upto 127m from ground level.		

2. DEVELOPMENT

S.N	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	<u>Easting</u> 441036-441386 <u>Northing</u>	<u>Easting</u> 441060-441186 <u>Northing</u>	

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2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No such proposal approved.	Benches developed only in mineral.	
2c	Stripping ratio or ore to OB ratio	1:0	1:0	
2d	Quantity of topsoil generation in m ³	No such proposal approved.	Nil	
2e	Quantity of overburden generation in m ³	No such proposal approved as there is no OB.	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Mine has started operation in the year 2022-23. Pit is being formed. Road to access has been made. Benches are being formed.		

3. EXPLOITATION

S. N.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	01	01	
3b	Quantity of ROM mineral production proposed	1021440.90 tonnes	400147.650 tonnes	As on closing of 31.03.2023
3c	Recovery of salable/usable mineral from ROM production	93.65%	100%	Fresh case of Mining Lease and the mine has been opened on 20.12.2022. 2022-23 is the first year of mining operation.
3d	Quantity of mineral reject generation	Entire ROM is usable hence there is no such approval for MR generation	Nil	
3e	Grade of mineral reject generation and threshold value declared	Not applicable Threshold Value-CaO %>34%,MgO%<5%	Not Applicable Threshold Value-CaO %>34%,MgO%<5%	
3f	Quantity of sub-grade mineral generation	Entire ROM is usable hence there is no such approval for sub grade generation	Nil	
3g	Grade of sub-grade mineral generation	Not applicable	Not Applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Entire ROM is directly usable hence segregation is not required.	Not Applicable	Entire ROM directly sent to Crusher
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Entire ROM is directly usable hence beneficiation is not required.	Nil	-do-
3j	Provision of drilling & blasting in mineral benches	3nos drilling machine each of 115mm dia, Air Compressor-3nos, Spacing-4.00 - 4.5m, Burden-3.00-3.5m, Bench height-9m, Staggered pattern drilling and blasting, NONEL to be used for	Deep hole drilling by deploying two nos DTH drilling machine of 115 mm dia and 2nos air compressor of each capacity 600CUM/MIN, Spacing-4.5 m, Burden-3.5m, Bench height-9m, Hole depth-	

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		bottom initiation, Slurry Explosive :ANFO use ratio-25:75,High explosive, both cap sensitive and non cap sensitive to be used.	9.5m,charging:stemming ratio-2:1,Staggered pattern drilling and blasting, NONEL is used for bottom initiation. Slurry Explosive use-100%	
3k	Provision of mining machineries in mineral benches	Mechanized mining with the combination of deep hole drilling and blasting, also by deploying 3 nos Hydraulic Excavator of 2.6m ³ with tippers of 23 tonners-13 nos.	Mechanized mining with the combination of deep hole drilling and blasting, also by deploying 3 nos Hydraulic Excavator of 2.6m ³ with tippers of 30 tonners-9 nos.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Suitable	Boom height of excavator can easily reach to the bench height.	
3m	Total area covered under excavation/pits	2.97 Ha.	1.51 Ha.	Mine opened in 20.12.2022.
3n	Ore to OB ratio for the pit/mine during the year	As there is no OB there is no such approval.	1:0	
3o	Total area put in use under different heads at the end of year	3.181 Ha	1.79 Ha	
3p	Production of ROM mineral during last five-year period, as applicable	2022-23-1021440.90 tonnes	2022-23- 400147.650 tonnes	Mine has been opened on 20.12.2022.
3q	General remarks of inspecting officer on method of mining etc.	The Mine has opened in 20 th Dec 2022. Approach road and Mining Pit are under its development stage. The mine is being operated by open cast mechanized method by adopting deep hole drilling and blasting in combination with deployment of excavators and tippers.		

4. SOLID WASTE MANAGEMENT-DUMPING

S.N	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	No such proposal approved for 2022-23 as the approved proposed mining area is devoid of topsoil, OB and MR. However separate dumping proposed in 2024-25 and 2025-26.	No dumping activity found in respect of topsoil, OB, MR.	
4b	Location of topsoil, OB & mineral reject dumps	Not applicable in respect of details mentioned at 4a.	Not Applicable	
4c	Number of dumps within lease area and outside lease area	Nil	Nil	Proposed mining area of 2022-23 is devoid of topsoil, OB and MR.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No such proposal approved for 2022-23.	Not Applicable	
4e	Number of active & alive dumps	Nil	Nil	Proposed mining area of 2022-23 is devoid of topsoil, OB and MR.
4f	Number of dead dumps	Nil	Nil	Mine opened in 20.12.2022.

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	4h	Whether Retaining wall or garland drain all along dumps	Nil	Not Applicable	
	4i	Length of Retaining wall or garland drain all along dump	Nil	Not Applicable	
	4j	Number of settling ponds	Nil	Not Applicable	
	4k	Specific comments of inspecting officer on waste dump management.	The area in which mining has been done in the year 2022-23 is devoid of topsoil, OB and MR, hence any type of waste dump management is not required.		

5. SOLID WASTE MANAGEMENT-BACKFILLING

S.N	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No such proposal approved.	Mineral is yet to exhaust. No part of the lease is matured to start backfilling.	
5b	Area under backfilling of mined out area	No such proposal approved.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No such proposal approved for 2022-23. In future Top soil to be used for Green belt development purpose.	No top soil generated during 2022-23.	In future Top soil to be used for green belt development in 7.5m safety zone area.
5d	Total area fully reclaimed & rehabilitated	No such proposal approved for 2022-23.	Nil	No part of the lease area is matured to start reclamation and rehabilitation.
5e	General remarks of inspecting officer on backfilling, reclamation etc	It is a fresh case and the Mine has opened on 20.12.2022. No part of the lease area is matured to start reclamation and rehabilitation.		

6. PROGRESSIVE MINE CLOSURE PLAN

S. N.	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.	To be submitted along with Annual Return.	To be submitted along with AR.	
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	No such proposal approved. i) Nil ii) Nil iii) Nil iv) Nil v) Nil vi) Nil	Not applicable	Mine opened on 20.12.2022 and the mining activity is going to be in dynamic stage. Mineral is yet to exhaust and no part of the lease area is matured enough. Hence, no management of worked /mined out benches.
6c	Compliance on reclamation and	No such proposal approved.	Not Applicable	Mine opened on 20.12.2022 and the mining activity is

1/12357/2023	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) Nil ii) Nil iii) Nil iv) Nil v) Nil		going to be in dynamic stage. Mineral is yet to exhaust and no part of the lease area is matured enough. Hence, no reclamation and rehabilitation by back filling.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No such proposal approved.	As there is o waste land within the ML hence no Rehabilitation of waste land.	However 470 nos saplings has been planted within the SZ of the ML.
6e	Compliance of Environmental monitoring (core zone & buffer zone)	AAQ-3 nos Core and 1 no buffer, Water-2 nos Core, 2 nos buffer, Noise-3 nos Core and 1 no buffer	Air, Noise and Water quality monitoring is being done as per the approved proposal.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Mine has opened on 20.12.2022. Mineral yet to exhaust and the mining activity is in dynamic stage. Hence, no reclamation and rehabilitation by back filling and rehabilitation of mined out benches have been done. Lessee is planting saplings in 7.5m safety zone to create a green belt and doing environmental monitoring at regular interval.		

7. MINERAL CONSERVATION

S. N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Entire produced ROM to be dispatched. No proposal in respect of grade wise sorting within the mine has been approved.	400147.650 tonnes of ROM dispatched from Mine head.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	No such proposal for grade-wise mineral sorting approved.	As the entire ROM is directly usable, no mineral sorting has been done.	
7c	Different grade of mineral sorted out at mines	No such proposal approved.	-do-	
7d	Any beneficiation process at mines	No such proposal approved as entire ROM is directly usable.	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The mine is at its initial stage and Lessee has reported 100% recovery against 93.65%. Lessee has reported Nil generation of Mineral Reject. As entire ROM is directly usable Beneficiation is not warranted.		

8. ENVIRONMENT

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S. N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	To be removed separately.	Nil during 2022-23.	
8b	Concurrent use or storage of topsoil	No proposals for 2022-23. However in future Topsoil to be used for plantation and additional quantity to be stored.	Nil during 2022-23.	Proposed mining area of 2022-23 is devoid of topsoil, OB and MR.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No such proposals approved.	Nil	-do-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use.	No such proposals approved.	Nil	As per the exploration carried out in the mining lease there is no OB, Waste, Mineral rejects.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal approved.	Not Applicable	Mineral yet to exhaust and also there is no readily available waste within the mine. Hence, no restoration, reclamation and rehabilitation proposal approved.
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	450 nos of saplings to be planted in 2022-23	470 nos saplings planted in 0.18 Ha	
8g	Survival rate	100%	About 70%	
8h	Water sprinkling on roads to control airborne dust	Yes proposed.	10KL water tanker with sprinkler provided in mine for Water sprinkling on roads.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Lessee is carrying out plantation within the mining lease to maintain the aesthetic beauty in and around the mining lease.		

9. COMPLIANCE OF RULE 45

S. N.	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted up to Feb 2023 A.R for 2022-23 to be submitted.		
S. N.	Item	Details GIVEN in A.R.	Observation of I/ Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not Applicable	Mining Engineer, Geologist and Manager appointed.	Annual Return of 2022-23 yet to be submitted.
9c	Scrutiny of Annual return on	Not Applicable	Covered under	

1/12357/2023	Land use pattern for area under pits, reclaimed area, dumps etc.		current (O-C) Workings-1.51 Ha, Reclaimed area-Nil, Dumps-Nil
9d	Scrutiny of Annual return on afforestation	Not Applicable	470 saplings planted in 0.18 Ha
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Not Applicable	No MR generated.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Not Applicable	ROM stock Nil as per register maintained at mine level.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Not Applicable	Cost of Production per tonne is ₹ 297.50.
9i	Scrutiny of Annual return on fixed assets	Not Applicable	₹ 556725799.00
9k	Scrutiny of Annual return on mining machineries	Not Applicable	3 nos Hydraulic Excavator each of 2.6m ³ capacity, 9 nos tippers each of 30 tonnes capacity, One Water tanker-10KL capacity.

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

Violation letter issued vide letter No.MCDR-MiFLOLST/1/2023-GUH-IBM_RO_GUH dated 09.05.2023.

- 1) Rule 26(1)- For not implementing protective measures including reclamation and rehabilitation works as per the proposals approved in the Mining Plan for the first year i.e 2022-23.
- 2) Rule 34A(3)- For not carrying out Drone Survey of mining lease area and upto hundred metres outside the lease boundary and for not submitting the processed output [digital elevation model (DEM) and Orthomosaic] images obtained from Drone survey.

Subrata Kumar Muduli,SMG
(Name of inspecting officer with designation and date)