



MEGHALAYA CEMENTS LIMITED

CIN- U26942ML2003PLC007125



Ref: MCL/ENV/MoEF&CC/Compliance LS-II/2022-23/05

Date:-08/06/2022

To,

The Addl. Director General (Central),
Ministry of Environment Forest & Climate Change,
North Eastern Regional Office, Shillong,
Meghalaya.

Sub: - Submission of half yearly compliance report for limestone mines for an area of 31.05 Ha for the period of October'2021 to March'2022.

Dear Sir,

We are hereby furnishing the half yearly compliance report (hard copy and soft copy) for the period from **October'2021 to March'2022** on Environmental Stipulations for limestone mining for an area of 31.05 Ha, at South Khliehji at Village- Thangskai, East Jaintia Hills District, Meghalaya, vide your Environment Clearance letter no SEIAA/ (PR-19/2012) PT/PR-05/2015/444 dated: 9th Jan 2017.

This is for your kind information and perusal. You are requested to kindly acknowledge the receipt of the same.

Thanking You,

Yours Faithfully,

For MEGHALAYA CEMENTS LIMITED


(Authorized Signatory)

Encl: As stated above.

Copy to:

- 1) The Member Secretary, Meghalaya State Pollution Control Board, Shillong.
- 2) The Member Secretary, State Environment Impact Assessment Authority, Shillong.



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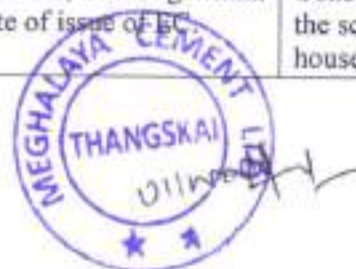
Half yearly Compliance Report (for the period October'2021 to March'2022) on Environmental Stipulations for limestone mining for an area of 31.05 Ha, at South Khliehjeri, Thangskai Village, Khliehriat, East Jaintia Hills by M/s – Meghalaya Cements Ltd.,(MCL) – Environmental Clearance Letter No. SEIAA/ (PR-19/2012) PT/PR-05/2015/444; Dated 9th Jan 2017.

Sl. No. as per letter dated 09.01.2017 of State Environment Impact Assessment Authority.

Compliance Status

A. SPECIFIC CONDITIONS

(i)	The Project proponent (PP) shall obtain the requisite Wildlife Clearance from the National Board for Wildlife before operationlising the project.	Complied With The project area does not fall within the area of Eco Sensitive zone and the Project Proponent (PP) has obtained the requisite Wildlife Clearance from Divisional Forest Officer (Wildlife), Jaintia Hills, Wildlife Division, Jowai, (through office of APCC govt. of Meghalaya, Letter No. FWC/G/278/pt/928, Dated 6 th June 2018) has already been submitted earlier.
(ii)	Mining activities shall be restricted to the 31.05Ha. Which is identified as the 'non – forest area' and shall not be extended to any other area.	Agreed to Comply. Mining activities is restricted to the 31.05Ha, which is identified as the 'non – forest area' and will not be extended to any other area at any condition.
(iii)	The revised mining plan is valid for 5 years only. After its expiry, The PP shall submit another mining plan duly approved by the authorized agency.	Agreed to Comply. The PP will submit review of mining plan duly approved by the authorized agency before the validity period of 5 years.
(iv)	The PP shall obtain Consent to Operate(CTO) from the State Pollution Control Board, Meghalaya, within 2 (two) months from the date of issue of the EC and copy of the same shall be forwarded to the SEIAA, Meghalaya and the MoEF&CC, Regional Office, Shillong. The PP shall effectively implement all the conditions stipulated therein in the CTO.	Complied with. The PP has obtained Consent to Operate (CTO) from the State Pollution Control Board, Meghalaya, vide CTO No. MPCB/CON-191-2016/2021-2022/9 dated 11 th February'2022 & it is valid upto 28 th February 2023.
(v)	The Project Proponent should ensure that the mining activities shall not disturb the caves existing nearby the mining lease area.	No caves have been observed nearby the mining lease area.
(vi)	The PP shall ensure that a Biodiversity Conservation Plan with focus on conservation of the schedule –I species in the area, is prepared in consultation with the Forests and Environment Department, Meghalaya. The PP shall ensure adequate budgetary provisions and indicate a timeline for the implementation of the plan. The plan shall be submitted to the SEIAA and the NE regional office of the MoEF & CC, Shillong within a period of 1 year from the date of issue of EC.	Complied with. The company has already doing work on Biodiversity Conservation of Schedule-I species in co-ordination with Environment Department of North Eastern Hill University (NEHU), Shillong since 05 (five) years. The NEHU, officials have already appointed a Project fellow for the Project and they are working at our site on Biodiversity Conservation Plan with focus on conservation of the schedule – I species in the area. The green house already developed and conservation of three



		<p>flora species namely: Fimbristylis nigrobrunnea, Cyperaceae, Begonia rubrovenia, Begoniaceae and Ceologyne ovalis, Orchidaceae has been initiated. Project report has been submitted earlier vide Letter No – MCL/Env/MOEF&CC/2021-22/05, Dated 19th May 2021.</p> <p>Also Company has approached to Forest and Environment Department for better conservation of Biodiversity.</p>
(vii)	<p>The Action Plan as spelt out in the EIA Report and on the issues raised during the Public Hearing dated 17/12/2014 shall be implemented by the PP with adequate budgetary provisions. The PP shall complete all the tasks within 1 (one) year and submit a Report to the SEIAA, Meghalaya, and the NE Regional Office, MoEF&CC.</p>	<p>Agreed to Comply.</p> <p>The PP has undertaken and completed all the tasks related to the issues raised during the Public Hearing accordingly and submit the report to the SEIAA, Meghalaya, and the NE Regional Office, MoEF&CC.</p> <p>(Annex –i)</p>
(viii)	<p>Proponent shall be appoints an Occupational Health Specialist for the medical examination of the workers engaged in the project. Occupational Health check-ups shall be undertaken once in six months for workers and necessary remedial / preventive measures shall be taken. The Recommendations of National Institute for ensuring a good occupational environment for mine workers shall be implemented. The prevention measures for burns, material, and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.</p>	<p>Complied with.</p> <p>Proponent has appointed an Occupational Health Specialist for the medical examination of the workers engaged in the project. Occupational Health check-ups schedule is being followed as per the guideline and necessary remedial/ preventive measures are taken. The Recommendations of National Institute for ensuring a good occupational environment for mine workers are implemented. All other paramedical safeguards are already provided to the workers for mining activities.</p> <p>(Annex –ii)</p>
(ix)	<p>The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment, Forest and Climate Change and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out; The Report on six monthly basis on changes in Groundwater level and quality shall be submitted to the SEIAA, Meghalaya and the Regional Office of the Ministry.</p>	<p>Agreed to Comply.</p> <p>We have done detailed Hydro geological survey by a CGWS approved third party & as per the report no ground water found in our mining lease area. Detailed Hydro geological survey report already submitted to the Authorities vide Letter No.- MCL/ENV/MoEF&CC/Compliance LS-I/2021-22/24; Date:-19/11/2021. The utilization of ground water has not being done by the Project Proponent for any activities. Company has planning to establish a monitoring well to interface drawn about the depth of ground water level in the mining lease hold area and it will be completed by March-2023.</p>
(x)	<p>The Pollution due to transportation shall be effectively controlled. Vehicles with Meghalaya Pollution Control Board pollution clearance certificate only shall be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded.</p>	<p>Complied with.</p> <p>Pollution due to transportation is being effectively controlled by proper maintenance of haul roads. PUC certified vehicles are being used by PP. The mineral transportation is carried out through covered trucks only and the vehicles carrying the mineral not allowed being overloaded. (Annex –iii)</p>



(xi)	The PP shall put in place proper rainwater harvesting measures at the site and shall also undertake conservation measures to augment groundwater resources in the area in consultation with the Central Ground water Board.	Complied with. Rainwater recharge measures are already being practiced at the site and will also undertake conservation measures to augment groundwater resources in the area.
(xii)	The Project Proponent shall adopt Best mining Practices for the giving mining conditions. In the mining area adequate number of check dams, retaining walls / structures, garland drains and settling ponds should be provided to arrest the wash-off with rain water in catchment area.	Complied with. Best mining practices are being adopted by the Project Proponent for the giving mining conditions. In the mining area adequate number of check dams, retaining walls / structures, garland drains and settling ponds are provided to arrest the wash-off with rain water in catchment area.
(xiii)	Use of effective sprinkler system to suppress fugitive dust on hauls roads and other transport roads shall be ensured, and cleaning of transport vehicles shall not be done outside the project area. Main haulage roads and other roads should be regularly wetted using water tankers fitted with sprinklers. Crusher and material transfer points should invariable be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust.	Being complied with Mitigation measures to control dust emission including provision of water sprinkling, bag filters, are in place on crushing operations done, belt-conveyors are covered to avoid air borne dust. Regular water sprinkling through using water tanker filled with sprinklers is being practiced to suppress fugitive dust on Main haulage roads and other roads. Company has planning to install Permanent water sprinkler on Mines haul road & other transport road. Necessary planning & arrangement is going on it will be completed by March-2023.
(xiv)	The project Proponent shall ensure that no natural water course and / or water resources shall be obstructed due to any mining operations. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of water scarcity in the area, the Project Proponent shall not use local water for the project and also shall assist in arranging water to the villagers for their use.	Agreed to comply. The project Proponent ensures that no natural water course and / or water resources will be obstructed due to any mining operations. In case of water scarcity in the area, the Project Proponent will not use local water for the project also will arrange water to the villagers for their use.
(xv)	The PP shall ensure that the lights and sounds at night at the project site do not disturb the villages and the also animals. The PP shall must ensure that the biological clock of the village(r)s is not disturbed; by orienting the floodlights / masks away from the villagers and keeping the noise levels well within the prescribed limits for day light / night hours.	Being complied with The PP is operating the mine in daylight hours only and maintaining the noise levels within the prescribed limits.
(xvi)	The PP shall not transport the minerals by road through the village, without their consent. A 'bypass' road shall preferable be constructed for the purpose of transportation of the minerals so that the impact of sounds, dust and accidents could be mitigated. The PP shall bear the cost towards the widening and strengthening of existing public road	Agreed to comply. Mineral is being transported by our own haul road without using any public/village road.



	network in case the same is proposed to be used for the project.	
(xvii)	Necessary permission as per Acts & Rules shall be obtained from the Competent Authorities for Storage and use of explosives and detonators. The instructions and Rules specified therein shall be strictly adhering to.	Complied with. Necessary permission as per Acts & Rules has already been obtained from the Competent Authorities for Storage and use of explosives and detonators. (Letter No. - Ghy.R/South Khliehjar/Perm-17(2017)/855. The instructions and Rules specified therein are being strictly adhering to. (Annex -iv)
(xviii)	As per the Companies Act, 2013 and the CSR Rules, 2% of average net profit of last three years shall be made available by the PP for the socio economic development of the neighborhood habitats. This shall be properly planned by the PP with the help of expert institutes and implemented through registered Agency as per the CSR Rules. Compliance report shall be submitted to the SEIAA, Meghalaya, the NE Regional Office of the MoEF & CC, and Shillong on a six monthly basis.	Agreed to comply. 2% of average net profit of last three years is being made available by the PP for the socio economic development of the neighborhood habitats. Compliance report will be submitted to the SEIAA, Meghalaya, the NE Regional Office of the MoEF & CC, and Shillong on a six monthly basis. Meghalaya Cements Limited has already engaged socio economic development of the neighborhood habitant. (Annex -v)
(xix)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval, with a copy to Mining & Geology Department, Meghalaya and the SEIAA, Meghalaya.	Agreed to comply. Final Mine Closure Plan with Corpus Fund as approved by IBM shall be submitted to MoEF& CC 5 years in advance of final mine closure for approval.

B. GENERAL CONDITIONS

(i)	No change in mining technology and scope of working shall be made without prior approval of the SEIAA, Meghalaya. No deviation shall be made in the calendar plan including excavation, quantum of mineral and waste.	Agreed to comply. Mining is being done as per mining plan approved by Indian Bureau of Mines. There will be no change in technology and scope of work without prior approval of MoEF & CC.
(i)-a	The Project Proponent shall not violate applicable provisions of any Acts, Rules Orders of the Government and judicial orders issued by the Hon'ble Supreme Court/High Courts/NGT, applicable to the project.	Agreed to comply. The Project Proponent is implementing all applicable provisions of any Acts, Rules Orders of the Government and judicial orders issued by the Hon'ble Supreme Court/High Courts/NGT, applicable to the project.
(ii)	Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).	Agreed to comply. Mining is carried out as per the provisions outlined in mining plan approved by Indian Bureau of mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).



(iii)	Sufficient number of Gullies / drainage channels shall be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the NE Regional Office, MoEF & CC, Shillong and Meghalaya State Pollution Control Board (MSPCB) on six monthly basis.	Sufficient numbers of Gullies / drainage channels are provided for better management of water. Regular Monitoring of pH is being done and reports are submitted to the NE Regional Office, MoEF & CC, Shillong and Meghalaya State Pollution Control Board (MSPCB) on six monthly basis. (Annex -vi)
(iv)	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient air parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried and record should be maintained.	Complied with. Water sprinkling is provided through water sprinkler on haul roads, loading /unloading points and transfer points and records are maintained and PM10 and PM2.5 monitoring report submitted to the State Pollution Control Board. (Annex -vii)
(v)	The limestone shall be preferably transported by covered conveyor belts to the cement plants which shall be set up by the PP. The vehicles carrying the mineral shall not be overloaded. Vehicular emissions shall be kept under control and regular monitored.	Being complied with All the HEMM (Heavy Earth Moving Machinery) are being serviced as per periodical as well as routine maintenance. The results are remained well within the prescribed limit. Smoke density emission testing analyzed by MSPCB for each HEMM and has been included in the compliance report.
(vi)	The top soil, if any, shall temporarily be stored at earmarked site (s) only and shall be used for land reclamation and plantation at the earliest. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site (s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. During closure of the time the over circumstances the PP shall bring top soil from other areas to fill the pit. In the partially filled pit, the maintenance of terraces should be strictly followed to allow soil to stabilize on the terraces. It is preferable that the orchard is raised by the PP on the reclaimed. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Status shall be reflected in the six monthly compliance reports.	Complied with. Top soil is being stored at earmarked site as per the mining plan approved by the Indian Bureau of Mines and is utilizing in greenbelt development. The soil and over burden (OB) generated during the mining operation is being stacked at designated dump site as per the approved mining plan. The height, width and angle of repose of dumps are maintaining as per the condition stipulated in the environmental clearance. OB dumps will be vegetated with native species.



(vii)	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off or water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted and maintained properly. The sump capacity shall be designated keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site, and it shall allow adequate retention period for proper settling of silt material.	Complied with. Catch drain and siltation ponds has been constructed to prevent the run-off water and flow of sediments. Water collected in mine pits is being used for dust suppression and green belt development. Sedimentation tank are constructed to ensure that proper retention period for settling of silt.
(viii)	Plantation shall be raised in a 7.5 m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting native species, following the CPCB guidelines for green belt plantation and in consultation with the DFO (Social Forestry). Greenbelt shall be developed all along the mine lease in a phased manner and shall be completed within first five years.	Being complied with. Project Proponent has also being carrying out plantation by maintaining a green belt of 7.5m safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc by planting native species, following the CPCB guidelines. Greenbelt is being developed all along the mine lease in a phased manner and will be completed within first five years. (Annex –viii)
(ix)	Regular monitoring of water quality, both upstream and downstream of water bodies shall be carried out; records / data shall be maintained and submitted to the NE Regional Office, MoEF&CC, Shillong and MSPCB.	Complied with. Monitoring of water quality both upstream and downstream are being maintained and records are submitted to the NE Regional Office, MoEF&CC, Shillong and MSPCB. (Annex –vi)
(x)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by stabling a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to the Regional Office, MoEF&CC, Shillong, and MSPCB.	We have done detailed Hydro geological survey by a CGWS approved third party & as per the report no ground water found in our mining lease area. Detailed Hydro geological survey report already submitted to the Authorities. The utilization of ground water has not being done by the Project Proponent for any activities. Company has planning to establish a monitoring well to interface drawn about the depth of ground water level in the mining lease hold area and it will be completed by March-2023.
(xi)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora and fauna in the project area.	Agreed to comply. The PP has taken all precautionary measures during mining operation for conservation and protection of endangered flora and fauna in the project area.
(xii)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe	No Contract labours are employed in the mines.



	drinking water, medical health care, creche etc.	
(xiii)	Critical parameters such as $PM_{2.5}$, NO_x , SO_x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per MoEF's notification in 2009. Further, quality of discharged water shall also be monitored (TDS, DO, pH and Total suspended Solids-TSS). The data shall be uploaded on the website of the company and also prominently displayed at the project site. The circular No-J20012/1/2006-IA-II(M) dated 27.05.2009 issued by the MoEF&CC, which is available on the website of the Ministry www.envfor.nic.in shall also be referred to in this regard for its compliance.	Noted for compliance. During operation phase, periodically the critical parameter is being monitored. The monitoring data is being uploaded on the company website and displaying at the main gate of the project. (Annex -vi) & (Annex -vii)
(xiv)	Industrial waste water (workshop and waste water from the mine) shall be properly collected, treated so as to conform to the standard prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of effluents.	Agreed to comply. Effluent Treatment Plant has already been installed at HEMM workshop. Workshop waste water is being reuse after treatment and oil sludge are being properly collected and utilize as alternative fuel.
(xv)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	Complied with. PPEs are being provided to all workers. Safety and health training are given to them regularly.
(xvi)	A separate environmental management cell with suitable qualified personnel shall be set-up. The PP shall put in place an administrative mechanism to deal with environmental issues, to ensure compliance to the EC conditions and to implement the EMP, biodiversity action plan, etc. The PP shall inform the details along with the name of such responsible officials, to the SEIAA, MSPCB and the Regional Office of the MoEF & CC, Shillong. In case of any change in respect of the officials responsible, the same shall be intimated by the PP.	Complied with. A separate environmental management cell with suitable qualified personnel is already set up and they are reporting directly to the Head of the Plant. The environmental Cell is prepared with the guidance of Indian Bureau of Mines (IBM) and the cell is looking after all the compliances of EC conditions, CTO conditions of MSPCB and sustainable development of mining activities and also responsible for the said works.
(xvii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purposes. Year wise expenditure shall be reported to the SEIAA, Meghalaya and the Regional Office, MoEF&CC, Shillong.	Agreed to comply. The funds earmarked for environment protection measure are kept in the separate account. Year wise expenditure is being reported to SEIAA, Meghalaya and Regional Office, MoEF & CC, Shillong. Detailed expenditures for the year 2021-22 is being attached as (Annex -ix)
(xviii)	Environment Statement for each financial year ending 31 st March in Form - V as mandated shall	Agreed to comply.



	be submitted to MPSCB with copy of the same to SEIAA, Meghalaya and Regional Office, MoEF&CC, Shillong	
(xix)	The Project Proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Regional Office, MoEF&CC, Shillong, Central Pollution Control and State Pollution Control Board. The certified copy of the same shall be forwarded to the SEIAA and SEAC, Meghalaya.	Agreed to Comply.
(xx)	A copy of clearance letter shall be marked to concerned local bodies / NGOs, if any, from whom suggestion / representation has been received while processing the proposal.	Complied With.
(xxi)	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance. A copy of the clearance letter shall be made available on the website of the PP.	Complied With.
(xxii)	Official from the Regional Office of MoEF & CC, Shillong, MSPCB or any authorized officials, who would be monitoring the implementation of the conditions mentioned herein, shall be given full cooperation, facilities and documents / data by the PP during their inspection.	Agreed for compliance. Full co-operation are given to the official from Regional Office of the MoEF& CC, Shillong, MSPCB by furnishing the documents / data / information / monitoring reports during their inspection.
(xxiii)	The Project Proponent shall not violate applicable provisions of any Acts, Rules, Orders of the Government and judicial orders issued by the Hon'ble Supreme Court / High Courts/ NGT, applicable to the project.	Agreed for compliance. The PP do not violate applicable provisions of any Acts, Rules, Orders of the Government and judicial orders issued by the Hon'ble Supreme Court / High Courts/ NGT, applicable to the project.
(xxi)	The SEIAA reserves the right to add or delete any conditions or safeguarding measures found necessary, and to take action including revoking the clearance granted, if conditions stipulated are not implemented by the PP or in case of submission of false document / wrong declaration.	Noted. Agreed to compile with.
(xxv)	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green tribunal Act, 2010.	Noted.



Details of Action Plan for the issues raised during the Public Hearing by the stakeholders of the Elaka Narpuh for 31.05 ha Limestone mines area (as per ELA) and agree to comply.

Annex-I

Sl.No.	Issues	Action Plan	Status / Compliance
1.	During the Public Hearing concern was raised by the stakeholders that as per the environmental conditions granted to Meghalaya Cements Limited for 31.05 ha, limestone mines that the company should allocate about 40 lakh as a capital cost & 25 lakh as annual recurring cost will be kept for the various CSR activities like Health facilities (Ambulance), Education (Development School), Welfare of youth and community development.	M/s Meghalaya Cements Limited will allocate about 40 lakh as a capital cost & 25 lakh as annual recurring cost will be kept for the various CSR activities like Health facilities (Ambulance), Education (development School), welfare of youth and community development.	The detail CSR activities for financial year 2018-2019 have attached. (Annexure -II) Attached herewith as CSR detail - (Annexure -IV)
2.	Local residents have demand from the company to provide the cement at cheap rate.	The company will provide cement at cheap price to local residents.	The detail of cement distribution has attached. (Annexure -II)
3.	The local residents has raised the concern and requested the officials of M/s Meghalaya Cements Limited to take appropriate mitigative measures to avoid pollution to the neighboring village due to mining activities.	M/s Meghalaya Cements Limited has taken appropriate mitigative measures to avoid pollution to the neighboring village due to mining activities.	The detail of action plan has attached (Annexure -II (a))
4.	The local residents has raised the concern and demanded that M/s Meghalaya Cements Limited should generate 60% employment for local people also the Meghalaya Cements Limited should not emit any air pollution from its plant and should not discharge any waste into rivers bodies.	M/s Meghalaya Cements Limited will provide 60% employment to local people also will not emit any air pollution from plant and should not discharge any waste into rivers bodies.	Detailed employment record for mines has attached, The employment given in the mines is controlled by the department mining of our company and the list of employee working under the mining department is already submitted. Detail action plan to mitigate air and water pollution has attached. Annexure -II (a).



ACTION PLAN FOR MITIGATION OF ENVIRONMENTAL POLLUTION

Annex-I – (a)

Sl.No.	Environmental Impact	Action Plan	Status / Compliance	Cost	
				Capital cost	Recurring Cost
1.	Water pollution due to surface run-off from mines area.	a) M/s Meghalaya Cements Limited will construct check dam to avoid water contamination of local water body due to carry over sedimentation from mines area due mining activities.	The company have constructed check dam of length about 160 m at the upstream to control the runoff water to the mines and another two check dams is constructed below the waste dam and soil dam having length of about 580 m and 530 m (the last one is in progress) at the downstream.	Check dam construction – Rs 2.1 Lacs	Cleaning – once in a year – Rs 0.25
		b) M/s Meghalaya Cements Limited will construct garland drain on both side of the haul road and around the soil dump and OB dump to avoid mixing of sediments from mines area to surface run –off.	To avoid mixing of sediments from mines area to surface run –off the company have constructed garland drain of about 1125 m long on both side of the haul roads and dumping yards.	Garland Drain construction – Rs 2.8 lacs	Cleaning – once in a year – Rs 0.25 Lacs
2.(a)	Air pollution due to generation of fugitive dust.	a) M/s Meghalaya Cements Limited will take necessary measures to avoid generation of fugitive dust due to movement of vehicles by providing water sprinkler on haul road for dust suppression.	Water sprinkling is being carried out regularly at the loading point and unloading points, haul roads regularly to suppress the fugitive dust.	i) Water Tanker – Rs 12.0 Lacs	i) Maintenance Cost- 0.4 Lacs ii) Driver Salary – Rs-4.08 Lacs ii) Diesel & Lubricants- Rs- 2.0 lacs



(b)	b) Plantation of native species to minimize the generation of air born dust due to movement of vehicles.	The afforestation is being carried out as per the approved mining plan and EIA and EMP. A total of 2324 nos. saplings of local species have been planted as on September, 2019 with survival rate of about 77.41%.	Area preparation, Sapling cost, Fertilizer and Fencing – Rs 2.75 lacs	Watch & ward – Rs- 3.25 Lacs
(c) & (d)	Air pollution due to dust generation during mining operation.	c) M/s Meghalaya Cements Limited will use wet drilling system to avoid fugitive emission due to drilling process.	The Meghalaya Cements Limited is using wet drilling from the inception of mining activities and the drilling machines are well equipped with the process.	i) Installation of Wet drilling system to ROC – Rs 0.7 Lacs. ii) Purchase of Real-time Air Sampler – Rs 4.2 Lacs.
	d) Construction of metallic Haul Road to minimize fugitive dust generation	Metallic haul road has been prepared to transport/carryout limestone as well as Overburden.	Construction Cost – Rs 7.2 Lacs	Maintenance Cost – Rs 3.5 Lacs.
3.	Modification of exhaust system of mining machineries.	M/s Meghalaya Cements Limited will upgrade the exhaust of drilling and excavation machine to mitigate exhaust emission from the machines.	Continuously and periodically we are monitoring the emission of CO ₂ gases and we are taking necessary initiatives as and when required.	i) Flue Gas Analyzer Cost- Rs 2.15 Lacs i) Spare & maintenance – Rs 0.1 Lacs
4.	Vibration due to use of traditional explosives.	M/s Meghalaya Cements Limited will use advance explosive (NONEL) to minimize the vibration generated during the explosion activity.	i) The Meghalaya Cements Limited is using NONEL/ (bottom initiations system) resulting least vibration.	i) Purchase of Minimate to measure ground vibration – Rs 2.47 Lacs/- i) Cost of Nonel – Rs 4.7 Lacs
5.	Maintenance of Soil Dump, OB Dump and Haul road.	Compaction of dumps and Haul roads to maintain the Stability.	JCB Compactor is used to maintain the stability of dumps and haul roads.	i) JCB Compactor – Rs 12.0 Lacs i) Maintenance Cost- 1.5/- Lacs ii) Driver Salary – Rs- 2.2 Lacs ii) Diesel & Lubricants- Rs- 0.8 lacs



M/s Meghalaya Cements Limited
Vill: Thangskai, P.O: Lumshnong, East Jaintia Hills
Meghalaya - 793210

List of Occupational Health Checkup of Manpower's working in the South Khlichjari
Limestone Mine (31.05 Ha) from 1st October 2021 to 31st March 2022

SL No	Name of Employee	Designation	Check - up date	Remarks
1	Umesh Kumar	Manager	14.10.2021.	
2	K. Arvind	Asst. Manager	14.10.2021.	
3	Abdul Motin Barbhuiya	Geologist	14.10.2021.	
4	Balaram Roy	Surveyor	14.10.2021.	
5	Adarsh Kumar Saket	Surveyor	14.10.2021.	
6	Ashok Kumar	Foreman	14.10.2021.	
7	Uday Kumar Jha	Foreman	14.10.2021.	
8	Sudarsan Dasgupta	Foreman	14.10.2021.	
9	Pankaj Kumar	Mechanical Engineer	14.10.2021.	
10	Raj Kumar	Mechanical Engineer	14.10.2021.	
11	Sanjay Kumar Singh	Mining Mate	14.10.2021.	
12	Rakesh Kumar Sharma	Mining Mate	14.10.2021.	
13	Vakil Pandit	Mining Mate	20.12.2021.	
14	Bikky Kumar	Supervisor	20.12.2021.	
15	Chandra Mohan Jha	Supervisor	20.12.2021.	
16	Nabajit Nath	Supervisor	20.12.2021.	
17	Mintu Malakar	Supervisor	20.12.2021.	
18	Sitaram Chetri	Dumper Opt	20.12.2021.	
19	Samuel Rymbai	Dumper Opt	20.12.2021.	
20	Pyniohlad Dkhar	Dumper Opt	20.12.2021.	
21	Noril Shylla	Dumper Opt	20.12.2021.	
22	Prosper Rymbai	Dumper Opt	20.12.2021.	
23	Deibormi Lapasam	Dumper Opt	20.12.2021.	
24	Oniton Pajat	Dumper Opt	20.12.2021.	
25	Amar (Dkhar) Kalita	Dumper Opt	20.12.2021.	
26	Sunil Singh	Dumper Opt	20.12.2021.	
27	Jay Govind Bhuiyan	Dumper Opt	04.02.2022.	
28	Eveningson Swer	Dumper Opt	04.02.2022.	
29	Talky Suting	Dumper Opt	04.02.2022.	
30	Hemanta Borah	Drill Opt	04.02.2022.	
31	Upendra Prassad	Drill Opt	04.02.2022.	
32	Arun Kumar Swargiary	Drill Opt	04.02.2022.	
33	Binay Sinha	Excavator Opt	04.02.2022.	



34	Ganesh Chandra Mahto	Excavator Opt	04.02.2022.	
35	Jeetendra Kumar Singh	Excavator Opt	04.02.2022.	
36	Hansraj Pal	Blaster	04.02.2022.	
37	Ajay Kumar Thakur	Blaster	04.02.2022.	
38	Bashemphang Nongrum	B. Helper	04.02.2022.	
39	Nazrul Islam Laskar	Diesel Mech	04.02.2022.	
40	Arun Sinha	Auto Electrician	04.02.2022.	
41	Manoj Kumar Yadav	Welder	04.02.2022.	
42	Nanhe Kr. Singh	Blasting Helper	04.02.2022.	
43	Ram Kalesh Pal	Blasting Helper	04.02.2022.	
44	Abhay Kumar	Helper	04.02.2022.	
45	Nirbhay Kumar	Helper	04.02.2022.	


 Dr. N. Ranjit Singh
 Medical Officer
 Meghalaya Cements Ltd.
Medical Officer
Meghalaya Cements Ltd


 Umesh Kumar
 Manager
 South Khliehri Mines
 Mines Division
 South Khliehri Mines
 M/s Meghalaya Cements Ltd
 Thangskai, L. L. L. L.
 East Jaintia Hills
 Meghalaya - 793210



POLLUTION TESTING STATION

LADTHALABOH, JAINTIA HILLS

Name of Licence Holder:-
M/s JASPER I S LONG
 Ladthalaboh, Jaintia Hills
 Jowai - 793150



LICENCE NO. Com/Trans/74/2004/5
 DATE OF ISSUE :- 21ST March, 2005

Book No. **67**

SI No. **6769**

Date **25-11-2021**

SMOKE EMISSION TEST REPORT
(DIESEL DRIVEN VEHICLES)

The Vehicle No **ML 11 3152** is tested for emission level and reading is as under.

Type of Vehicle other than agriculture tractors		Notified Standard of Maximum smoke density			Actual Reading	
		Light absorption co-efficient	Hatidye Units	Bosch Unit	Light absorption co-efficient	Hatidye Units
1.	Full load at 60 to 70% of maximum engine rated rmp declared by the manufacture. or	3.25	75	5.2		40.02
2.	Free acceleration	2.45	65	5.2		

Certified that the vehicle meets the emission standard fixed under Rule 115 (2) of the Central Motor Vehicles Rules 1989. This Certificate is valid **24-05-2022**

Com/ Trans/PTS (JIS)/44/2005/74, dated: 17.05.2017



Authorized Signature
 Seal of the Testing Station

POLLUTION TESTING STATION

LADTHALABOH, JAINTIA HILLS

Name of Licence Holder:-
M/s JASPER I S LONG
Ladthalaboh, Jaintia Hills
Jowai - 793150



LICENCE NO. Com/Trans/74/2004/5
DATE OF ISSUE :- 21ST March, 2005

Book No. 67

SI No. 6768

Date 25-11-2021

SMOKE EMISSION TEST REPORT
(DIESEL DRIVEN VEHICLES)

The Vehicle No Mk 11 3151 is tested for emission level and reading is as under.

Type of Vehicle other than agriculture tractors	Notified Standard of Maximum smoke density			Actual Reading	
	Light absorption co-efficient	Hatidye Units	Bosch Unit	Light absorption co-efficient	Hatidye Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture. or	3.25	75	5.2		39.16
2. Free acceleration	2.45	65	5.2		

Certified that the vehicle meets the emission standard fixed under Rule 115 (2) of the Central Motor Vehicles Rules 1989. This Certificate is valid 24-05-2022

Com/ Trans/PTS (JIS)/44/2005/74, dated: 17.05.2017



Authorized Signature
Seal of the Testing Station

POLLUTION TESTING STATION

LADTHALABOH, JAINTIA HILLS

Name of Licence Holder:-
M/s JASPER I S LONG
Ladthalaboh, Jaintia Hills
Jowai - 793150



LICENCE NO. Com/Trans/74/2004/5
DATE OF ISSUE :- 21ST March, 2005

Book No. 67

SI No. 6766

Date 25-11-2021

SMOKE EMISSION TEST REPORT
(DIESEL DRIVEN VEHICLES)

The Vehicle No ML 11 1801 is tested for emission level and reading is as under.

Type of Vehicle other than agriculture tractors	Notified Standard of Maximum smoke density			Actual Reading	
	Light absorption co-efficient	Hatidye Units	Bosch Unit	Light absorption co-efficient	Hatidye Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture. or	3.25	75	5.2		45.07
2. Free acceleration	2.45	65	5.2		

Certified that the vehicle meets the emission standard fixed under Rule 115 (2) of the Central Motor Vehicles Rules 1989. This Certificate is valid 24-05-2022

Com/ Trans/PTS (JIS)/44/2005/74, dated: 17.05.2017



Authorized Signature
Seal of the Testing Station

POLLUTION TESTING STATION

LADTHALABOH, JAINTIA HILLS

Name of Licence Holder:-
M/s JASPER I S LONG
 Ladthalaboh, Jaintia Hills
 Jowai - 793150



LICENCE NO. Com/Trans/74/2004/5
 DATE OF ISSUE :- 21ST March, 2005

Book No. 67

SI No. 6765

Date ..25-11-2021.....

SMOKE EMISSION TEST REPORT
(DIESEL DRIVEN VEHICLES)

The Vehicle NoML 11 1800..... is tested for emission level and reading is as under.

Type of Vehicle other than agriculture tractors		Notified Standard of Maximum smoke density			Actual Reading	
		Light absorption co-efficient	Hatidye Units	Bosch Unit	Light absorption co-efficient	Hatidye Units
1.	Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture. or	3.25	75	5.2		43.10
2.	Free acceleration	2.45	65	5.2		

Certified that the vehicle meets the emission standard fixed under Rule 115 (2) of the Central Motor Vehicles Rules 1989. This Certificate is valid24-05-2022.....

Com/ Trans/PTS (JIS)/44/2005/74,dated: 17.05.2017



Authorized Signature
 Seal of the Testing Station



Govt. of India
Ministry of Labour & Employment
Directorate-General of Mines Safety
Guwahati Region



BY POST

No. Ghy.R/South Khliehjeri/Perm-17(2017)/ 855

Guwahati, Dated, 28/4/2017

From:

The Director of Mines Safety,
Guwahati Region, House No.16,
By Lane-10, Ganesh Mandir Path,
P.O. Noganmati, Guwahati-20

To

The Agent,
South Khliehjeri Lime Stone Mine,
M/s Meghalaya Cements Limited,
Lumshnong, P.O. Khliehriat, Dist: East Jaintia Hills, Meghalaya- 793200

Sub: Permission under Regulation 155(1) and 162(5) of the Metalliferous Mines Regulations, 1961 for using Ammonium Nitrate Fuel Oil Explosive at South Khliehjeri Lime Stone Mine, M/s Meghalaya Cements Limited in Meghalaya State.

Dear Sir,

Please refer to your application sent to this Directorate, vide letter no. MCL/MINES/DGMS/SKH/ANFO/2017/01 dated 29.3.2017 on the above subject.

The matter has since been examined in the light of what has been stated in your application and plans/sections submitted therewith. In exercise of the powers conferred on the Chief Inspector of Mines (now designated as Director-General of Mines Safety) under Regulation 155(1) and 162(5) of Metalliferous Mines Regulations, 1961 and by virtue of authorization granted to me by him under Section 6(1) of the Mines Act, 1952, I, hereby extend the permission to use Ammonium Nitrate Fuel Oil Explosive at South Khliehjeri Limestone mine of M/s Meghalaya Cements Limited in Meghalaya State for period of 5 years, as per location Plan No. AN/MAY/2013-02 Dated 1.05.2013 showing the position of mixing shed and ammonium nitrate store, fuel oil store etc, submitted along with the application and those as stipulated in the enclosed annexure to this letter:

- 1.0. In the event of any change in the circumstances connected with this relaxation which is likely to endanger life or property, the operations for which this relaxation has been granted shall be stopped forthwith and intimation shall be sent to the Director of Mines Safety thereof. The said operations shall not be resumed without express and fresh permission in writing.
- 2.0. If at any time, any one of the conditions subject to which this relaxation has been granted is violated or not complied with, this relaxation shall be deemed to have been revoked with immediate effect.



- 3.0. This permission may be amended, modified or withdrawn at any time if considered necessary in the interest of safety.
- 4.0. This permission shall remain valid for a period of 5 (five) years from the date of issue of this letter.
- 5.0. Please intimate this Directorate as soon as the work is commenced as per this permission.
- 6.0. This permission is issued without prejudice to any other law.

Yours faithfully,

67/2814/17
(Vidhyapati)

Director of Mines Safety,
Guwahati Region, Guwahati



ANNEXURE TO PERMISSION LETTER No Memo No. Ghy.R/ South Khliehjeri /Perm-17(2017) 855
Guwahati, Dated the 28/4/2017.

Precautions recommended for the storage Mixing and use of field mixed Ammonium Nitrate/Diesel Oil Non-Cap sensitive blasting Agent at South Khliehjeri Limestone Mine, M/s Meghalaya Cements Limited.

Storage and Handling:

1. Ammonium nitrate should not be stored with explosives in magazine or stores. It should be stored until used in water- proof bags, and in quantities not exceeding 40000 kilograms.
- 2(i). The storage building should be water proof construction and constructed of non-combustible or fire resistant materials. It should be on ground not liable to flooding and should be kept dry and clean inside.
- 2(ii) The floor of the building should be of concrete and its design and construction should be such as to eliminate open, piped drains into which molten ammonium nitrate could flow and be confined in case of fire.
3. Metallic substances in powder form, combustible materials (including diesel oil and other fuels) or acids should not be kept in the same storage premises.
4. There should be no possible sources of heating, such as steam pipes or electric wiring inside the store. The interior should be kept cool and well ventilated.
5. The containers (normally bags) of ammonium nitrate should be stacked in piles not more than one meter in height and which are readily accessible in case of fire. As water is essential in combating a fire where ammonium nitrate is directly involved, adequate supplies of water and fire fighting appliances should be readily available. Where possible, it is desirable for the storage building to be equipped with an adequate capacity automatic fire control system.
6. The ammonium nitrate should be used in sequence of delivery to prevent accumulation of old material.
7. No smoking, naked light or open flame should be allowed in the vicinity of ammonium nitrate.
8. Before being mixed in a Mixing shed, the ammonium nitrate should be stacked well clear of the diesel oil supply and there should be no fires within the working area.
9. As ammonium nitrate will pick up moisture from the atmosphere, care should be taken to prevent bags being torn. Under no circumstances should caked ammonium nitrate in bags or bulk be loosened by blasting with explosives.
10. Broken bags of ammonium nitrate should be cleaned up and properly disposed off immediately.
11. The unprocessed ammonium nitrate when transported in vehicles should be carried in a vehicle separate from explosives or combustible materials (including diesel oil).
12. Vehicles used for the transport of ammonium nitrate should be in a safe operating condition and should be driven by competent, licensed drivers.



13. Any tarpaulin or other materials used to cover the load of ammonium nitrate should be fire resistant.
- 14.1. Semi-trailer or full trailer vans may be used for the on-site transportation of the ammonium nitrate fuel oil composition, and for temporary storage of the explosive. Such vans should be kept in isolated locations while loaded.
- 14.2. The vans should be well ventilated and locked except during times of placement and removal of stocks of blasting agents.
- 14.3. No smoking and no open flames should be permitted in or near the vans containing blasting agents.
- 14.4. The area surrounding the vans (when used as temporary storage) not less than 9 meters in all directions should be kept free of rubbish, dry grass, other materials of combustible nature.
- 14.5. Not more than one day's production of field mixed ammonium nitrate should be permitted to be temporarily stored in the vans at any one time.

Mixing Etc.

15. The mixing or impregnating of ammonium nitrate or a non-explosive mixture of ammonium nitrate with other substances, with diesel oil should be carried out at or close to the shot holes before immediate use only.
16. No liquid hydrocarbon fuels with higher volatile than No.2 diesel fuel should be used. The most sensitive mixture of ammonium nitrate/diesel oil contains 2 % oil, while a 5-6 % mixture gives the maximum power. Percentage of oil in excess of 10% tends to lower sensitiveness. Excess oil should, therefore be avoided.
17. No person should smoke when mixing, carrying, handling or using the explosive or when near any person carrying on such work.
18. No person when mixing, charging or handling the explosive should allow any naked light or fire to be within 9m of the shot hole or the explosives.
19. The surrounding the place of mixing for a distance of at least 9m should be kept free of rubbish, dry grass or other combustible materials.
20. All detonators, priming cartridges and cortex should be kept in secure receptacles at a safe distance from the explosive until actually required for use.
21. Not more than the quantity of mixture required for immediate use should be prepared. If from unforeseen circumstances explosive in excess of that required for immediate use is mixed, it should be packed in inner and outer packages and stores in a magazine duly approved by the Licensing Authority under the Indian Explosives Act. The inner packages must prevent the escape of the explosive or oil. A suitable package is a thick polythene bag. The outer package can be of wood, soil, fiber board or aluminum, but not of iron/steel.
22. A suitable container should be used for premixing near the shot holes to prevent accidental contamination by grit or other foreign material as such a contamination may be dangerous. It is suggested that the container should take the form of a portable wooden box.



23. The mixing should not take place in the building where bulk ammonium nitrate is stored.
24. When the mixture has been made, it should be kept in water proof bag until the time of use. The bags should be kept separate from all other materials and no smoking, naked lights or open fires should be permitted within a distance of at least 9m there from.
25. The prepared mixture should be carried only in wooden or similar containers and not in a metallic container.
26. Discarded empty ammonium nitrate bags should be disposed off daily in a safe manner such as by burning in an isolated area, burying and so forth.
27. Only the necessary minimum number of persons should be allowed to be present at or within 9m of the premises where the process of mixing is being done.
28. The cap sensitivity of the field mixed ammonium nitrate/fuel oil mixture should be tested at regular intervals. The test is as follows:
 "Insert an electric detonator in the cartridge, sack or other package of mixed fuel/ammonium nitrate (or any other approved composition) placed on soft ground in an isolated area provided with an amply safe guarded spot for the shot firer and others, and fire the detonator. A crater in the ground indicates a cap-sensitive mixture)".

Charging and Firing

29. As soon as is possible after the mixing of ammonium nitrate with diesel oil, the holes to be blasted should be charged and fired and all normal practices of charging and firing of explosives as laid down in the Regulations should be observed.
30. The ammonium nitrate/diesel oil mixture may either be poured free in dry conditions of use, or it may be packaged in polythene bags for use in wet holes.
31. When poured free, a suitable funnel of fiber board or wood may be inserted over the shot hole for charging the mixture and a wooden stemmer may be used to aid the flow.
32. Since the mixture is not as sensitive as conventional high explosive, detonating fuse cannot be relied upon to initiate it. Primer cartridges of high explosive equal to 5 to 25% of the total charge should therefore be used. (A small diameter hole will require a high proportion by weight of the initiating charge. All initiating and booster charges should, as far as possible, be of the non-nitroglycerine type. In holes of 0.1m (4" dia) diameter or less, only one line of detonating fuse should pass through the mixture.
33. Before entering a blast area, the shot firer and other personnel should make certain that it is completely free of visible reddish brown fumes, which is an indication of highly toxic concentrations of nitrogen dioxide gas. Where fumes are observed after blasting, an adequate period of time should be allowed for them to disperse before returning to the blasting area.



Misfires:

34. Precautions for misfires should be taken in accordance with the provisions of the Regulations in this regard.

Supervision

35. The entire operations of mixing of ammonium nitrate and diesel oil on-site near the place of its use and its charging and blasting in the shot holes should be placed under the overall charge of a competent person, holding a manager's certificate competency and appointed in writing by the Manager for the purpose.

L. A. 4/17

(Vidyapathi)
Director of Mines Safety,
Guwahati Region, Guwahati



MEGHALAYA CEMENTS LIMITED

Village –Thangskai, P.O.-Lumshnong, District- East Jaintia Hills,
Meghalaya, PIN – 793210.

Expenditure Incurred for Socio-Economic Development under CSR activities for 31.05 Ha
Mines Project
From 01st October'2021 to 31st March'2022.

Sl.No	Heading	Amount in Rs.
1.	Emphasis on Education	66,000.00
2.	Sports Activity	5,000.00
3.	Encouraging/Felicitation program for Students.	5,000.00
4.	Polio Immunization Camps, family planning, etc.	427,896.00
5.	Infrastructure development of Hospitals / Schools	81,557.00
6.	Cement Distribution Programme.	2,705,054.00
7.	Plant Distribution programme	4,385.00
8.	Donation to Churches, Road & House Repairing etc.	23,800.00
9.	Community Feast	10,000.00
10.	Drinking water supplying scheme.	77,467.00
11.	Village development funds.	237,500.00
12.	Corona Pandemic	00.00
Gross Total		3,643,659.00

For MEGHALA CEMENTS LIMITED

R.K Pareek
(President)



Meghalaya cements limited

Thangskail, Meghalaya

UPSTREAM WATER ANALYSIS REPORT FOR THE YEAR 2021-22 (Near toilet area)
Name of the Mine:- SOUTH KHLEHURI LIMESTONE MINES

Date:- 22.03.2022

Sl. No.	Parameters	Observed Values in						Average	Permissible Limit
		Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022		
1	pH	6.9	7.3	7.4	7.5	7.2	7.3	7.23	6.5 - 8.5
2	Dissolved Oxygen (mg/ltr)	11.8	12.4	11.9	12.1	13.1	11.7	12.20	-
3	Total Dissolve Solids (mg/ltr)	148	162	171	136	149	172	156.31	<500
4	Conductivity (mg/Ltr)	169	197	171	142	1432	154	369.17	-
5	Total Hardness (mg/Ltr)	230	215	251	235	216	222	229.03	<300
6	Calcium Hardness (mg/Ltr)	154	147	171	164	149	163	150.06	<200
7	Magnesium Hardness (mg/Ltr)	84	68	82	71	67	59	72.93	<100
8	Alkalinity (mg/Ltr)	76	62	74	63	58	61	66.83	<200

Prepared By


Arif Singh


Checked & Verified By


Ujjwal Anurag

Meghalaya cements limited

Thangskai, Meghalaya

DOWNSTREAM WATER ANALYSIS REPORT FOR THE YEAR 2021-22 (Southern side of reject dump)

Name of the Mine:- SOUTH KHLEHURI LIMESTONE MINES

Date:-25.03.2022

Sl. No.	Parameters	Obtained Values In					Average	Permissible Limit
		Oct'2021	Nov'2021	Dec'2021	Jan'2022	Feb'2022	Mar'2022	
1	pH	7.1	7.5	7.3	7.4	7.2	7.5	7.33
2	Dissolved Oxygen (mg/lit)	13.25	10.29	11.48	11.76	10.07	12.31	11.53
3	Total Dissolved Solids (mg/Lit)	182	149	172	146	161	173	163.83
4	Conductivity (mg/Lit)	129	175	126	168	145	173	152.67
5	Total Hardness (mg/Lit)	224	231	202	228	236	222	223.83
6	Calcium Hardness (mg/Lit)	142	167	131	159	172	164	155.83
7	Magnesium Hardness (mg/Lit)	82	64	71	69	64	58	68.00
8	Alkalinity (mg/Lit)	91	58	74	75	73		73.00
Prepared By								
Checked & Verified By								

Prepared By
Atul Singh

Checked & Verified By
Ujjwal Anurag

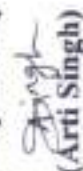


MEGHALAYA CEMENTS LIMITED

Six Monthly Ambient Air Quality Survey Report,
South Khliehjeri Limestone Mine (31.05 Ha), 2021-2022

Pollutants	Location	Oct' 2021	Nov' 2021	Dec' 2021	Jan' 2022	Feb' 2022	Mar' 2022	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
Particulate Matters PM10 ($\mu\text{g}/\text{m}^3$)	A1. North -East (Near Soil Dump)	59.26	63.48	59.68	53.26	49.73	52.39	56.30	100 $\mu\text{g}/\text{m}^3$
	A2. North - West(Near Haul Road)	56.34	60.17	54.31	48.74	47.33	49.27	52.69	100 $\mu\text{g}/\text{m}^3$
	A3.Southern side (Near Lease Boundary)	48.21	58.34	55.49	41.37	51.32	54.08	51.47	100 $\mu\text{g}/\text{m}^3$
Particulate Matters PM2.5 ($\mu\text{g}/\text{m}^3$)	A1. North -East (Near Soil Dump)	35.18	38.79	32.94	33.24	28.28	26.18	32.44	60 $\mu\text{g}/\text{m}^3$
	A2. North - West(Near Haul Road)	32.89	35.21	32.18	29.43	34.53	32.59	32.81	60 $\mu\text{g}/\text{m}^3$
	A3.Southern side (Near Lease Boundary)	29.64	31.09	28.47	23.64	31.99	33.24	29.68	60 $\mu\text{g}/\text{m}^3$

Prepared By


 (Arti Singh)

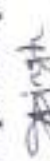
 Checked & Verified By
 (Ujjwal Anurag)

MEGHALAYA CEMENTS LIMITED

Six Monthly Ambient Air Quality Survey Report,
South Khliehleri Limestone Mine (31.05 Ha), 2021-2022

Pollutants	Location	Oct' 2021	Nov' 2021	Dec' 2021	Jan' 2022	Feb' 2022	Mar' 2022	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
SO ₂	A1. North -East (Near Soil Dump)	12.54	11.69	10.38	13.04	12.99	14.37	12.50	80 µg/m ³
	A2. North - West(Near Haul Road)	10.39	08.54	09.08	8.59	11.19	10.13	09.65	80 µg/m ³
	A3.Southern side (Near Lease Boundary)	08.67	09.87	12.81	10.49	09.73	13.48	10.84	80 µg/m ³
NO _x	A1. North -East (Near Soil Dump)	06.92	07.02	06.64	7.79	10.55	09.15	08.01	80 µg/m ³
	A2. North - West(Near Haul Road)	09.21	04.38	05.43	6.27	10.42	08.67	07.40	80 µg/m ³
	A3.Southern side (Near Lease Boundary)	06.82	06.41	08.97	5.34	09.47	08.31	07.55	80 µg/m ³

Prepared By


(Arti Singh)

Checked & Verified By


(Ujjwal Anurag)

SOUTH KHLIEHJARI LIMESTONE MINE

AFFORESTATION REPORT- OCT'2021 TO MAR'2022

1.	Name of the Mine	South Khliehjar Limestone Mine
2.	Owner's Name	Ramesh Kumar Pareek
3.	District / State	East Jaintia Hills/Meghalaya
4.	Mineral Worked	Limestone
5.	Category of the Mine	A

AFFORESTED DURING THE QUARTER ENDING DECEMBER
(1st Oct to 31st December, 2021)

No. of trees planted		Area covered (in Ha.)		No. of trees survived		Survival rate	
WML	OML	WML	OML	WML	OML	WML	OML
1	2	3	4	5	6	7	8
Nil	Nil	N/A	N/A	N/A	N/A	N/A	N/A

AFFORESTED DURING THE QUARTER ENDING DECEMBER
(1st January to 31st March, 2022)

No. of trees planted		Area covered (in Ha.)		No. of trees survived		Survival rate	
WML	OML	WML	OML	WML	OML	WML	OML
1	2	3	4	5	6	7	8
250	Nil	Nil	N/A	198	N/A	79.20%	N/A

AFFORESTED DURING THE YEAR 2020-21

No. of trees planted		Area covered (in Ha.)		No. of trees survived		Survival rate	
WML	OML	WML	OML	WML	OML	WML	OML
595	Nil	0.2725	N/A	467	N/A	78.48%	N/A

Note: - WML - Within Mining Lease; OML - Outside Mining Lease



Umesh Kumar
Mines Manager

M/s MEGHALAYA CEMENTS LIMITED

Vill- Thangskai, P.O - Lumshnong
East Jaintia Hills, Meghalaya-793210

Expenditure incurred against Enviromental Protection Measures of South Khliehjarì during the year 2021-22 (from October ,2021 to March,2022)			
1	2	3	4
Sl no	Head	Subhead	Total Expenditure incurred (in lakh)
1	Plantation	Pre plantation cost to develop the area for ready for plantation i. Dumping & dozing of soil to make the area plain ii. Spreading of Topsoil Sappling & Plantation cost Maintenance cost i. Manuring ii. Watering iii. Watching iv. Fencing	2.19
2	Dust suppression	Cost against Water sprinkler used in haul road, loading & unloading point	13.64
3	Preparation of Retaining wall, Checkdam, Siltation Tanks and Garland drains	Maintenance of Siltation Tanks Contruccion of Retaing wall Preparation of Garland drains	2.08
5	PPE supply to mine workers	Nose Mask Ear Muffs Safety Shoe Safety Helmet Safety Goggles Safety Hand Gloves Reflective Jacket	0.95
6	Water Treatment	Captial investment for Water Treatment Plant Recurring cost for water treatment	0.80
7	Maintenance of Effluent Treatment Plant	Chemical consumption for treatment of effluents (lime, bleaching powder, alum etc.) Power cost Manpower cost	
8	Dump Compaction	Compection of Dumps by compactor	1.35
		Total	21.01

