



# MEGHALAYA CEMENTS LIMITED

CIN-U26942ML2003PLC007125



Ref: MCL/ENV/MoEF&CC/Compliance-I/2024-25/21

Date- 05/12/2024

To,

The Deputy Director General of Forest (C),  
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 April'2024 to September'2024.

Dear Sir,

We are hereby furnishing the half yearly compliance report (hard copy and soft copy) for the period from April'2024 to September'2024 on Environmental Stipulations for limestone mining for an area of 31.05 Ha, at South Khliehri 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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Registered Office :  
Village: Thangskai, P.O. & P.S. Lumshnong  
District : East Jaintia Hills, Meghalaya, PIN: 793210  
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HELPLINE NO : 18001233666



**Half yearly Compliance Report (for the period April'2024 to September'2024) 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 9<sup>th</sup>Jan 2017.**

Sl. No. as per letter dated 09.01.2017 of State Environment Impact Assessment Authority.	Compliance Status
<b>A. SPECIFIC CONDITIONS</b>	
(i) The Project proponent (PP) shall obtain the requisite Wildlife Clearance from the National Board for Wildlife before operationlising the project.	<b>Complied With</b> 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 <sup>th</sup> June 2018). Copy of the Wildlife Clearance is attached as an <b>(Annexure-I)</b>
(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.	<b>Agreed to Comply.</b> 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. The bounded co-ordinates for the 31.05 Ha South Khliehjeri Limestone Mining are as below: - Latitude: - N 25,11,50.0 to N 25,12,21.8 Longitude: - E 92,23,20.8 to 92,23,44.1
(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.	<b>Agreed to Comply.</b> Review of Mining Plan with Progressive Mine Closure Plan has been submitted under Rule 17(2) of MCR, 2016 to the authorized agency (Indian Bureau of Mines) for South Khliehjeri Limestone Mine (Area-31.05 Ha) vide letter no IBM/GHY/MEG/EJNH/MP-81, dated 07/09/2021. The Lease period of Mines is 10/01/2017 to 09/01/2067 and Period of Proposal is 2021-22 to 2025-26.After its expiry, the revises mining Plan will be submitted to the Indian Bureau of Mines.
(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.	<b>Complied with.</b> The PP hasobtained Consent to Operate(CTO) from the State Pollution Control Board, Meghalaya, vide CTO No.-ONLINE RCTO(R-1) EJHD 2021/2024-2025/57, Dated Shillong the 26 <sup>th</sup> June'2023& it is valid upto 28 <sup>th</sup> February 2025under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, as amended and under Section 21 of the Air (Prevention & Control of Pollution) Ac, 1981, as amended (to be referred as Water Act & Air Act respectively). The Consent to Operate granted in favour of the Project vide TO Order no. MPCB/CON-191-2016/2016-2017/15, dated



		24.02.2018 for operating a 31.05 Ha Limestone Mines and subsequent renewal located at Thangskai, East Jaintia Hills District. The PP has effectively maintaining the General and Specific conditions and submitted to MsPCB. Consent to Operate is valid for 1 (one) year i.e. 28.02.2025, Copy of the CTO is attached as an <b>annexure-II</b> .
(v)	The Project Proponent should ensure that the mining activities shall not disturb the caves existing nearby the mining lease area.	<b>Complied with.</b> We have conducted Scientific study and designing of controlled blasting pattern for carrying out safe and scientific blasting operation to combat environmental pollution such as Air, Noise and Land within permissible limit by Central Institute of Mining and Fuel Research (CIMFR) Jharkhand. As per report no ground vibration in term of peak particle velocity measured by using seismographs beyond a distance of 500 meters from the mine lease boundary of South Khliehjari limestone mines. And we are following controlled blasting as per guidelines provided by CIMFR. Detailed report for the Scientific study has been submitted to IRO-Shillong vide letter no. MCL/Env/MoEF&CC/2022-23/39, dated 11 <sup>th</sup> Jan 2023.
(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.	<b>Complied with.</b> 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 flora species namely: Orchidaceae, Cattelya Orchidaceae, Cymbidium Orchidaceae, Nepenthes Khasiana and Begonia rubrovenia has been initiated. Also, Company has approached to Forest and Environment Department for better conservation of Biodiversity. Project report on Biodiversity Inventorization and Conservation through Assisted Regeneration of RET Species has submitted to IRO-Shillong vide letter no.- MCL/ENV/MoEF&CC/ Compliance LS-I/2022-23/33, dated 2nd Dec 2022.
(vii)	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	<b>Agreed to Comply.</b> The PP has undertaken and completed all the tasks related to the EIA Report and issues raised during the Public Hearing dated 17/12/2014 accordingly and submitted the detailed report with action plan and compliance status and its implementation to the



	NE Regional Office, MoEF&CC.	SEIAA, Meghalaya, and the NE Regional Office, MoEF&CC. Detailed budgetary report against the individual action taken is attached here as <b>Annex - III &amp; III-a.</b>
(viii)	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><b>Complied with.</b></p> <p>Proponent has appointed Competent Occupational Health Specialist including Medical Officer, Dentist, Nurse, Compounder, Lab Technician &amp; Dresser 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.</p> <p>The following equipments has setup in Occupational Health for examination of workers: - ECG Machine, Audiometry, Spirometry (PFT), Cardiac Monitor, Oxygen Cylinder, Suction Machine, Nebulizer machine, Semi auto Analyzer, Micro Scope, Incubator, Centrifuge machine, Haemometer, Accuchek machine, Blood cell counter, Homocyto Meter etc. Company has 02 (Two) Ambulance in which one is Advanced life support with Cardiac monitor &amp; Defibrillator and another one is only with Oxygen support. The prevention measures for burns, material, and provision of anti-snake venom including all other paramedical safeguards are already implemented to the workers for mining activities. List of Occupational Health check-ups of mines employees working in the South Khliehjari Limestone Mine (31.05 Ha) and details of Occupational health center including Medical staff, Equipments and testing facilities attached as an (<b>Annexure-IV&amp; V</b>)</p>
(ix)	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><b>Agreed to Comply.</b></p> <p>We have done detailed Hydro geological survey by a CGWS approved third party &amp; as per the report no ground water found in our mining lease area. The utilization of ground water has not been done by the Project Proponent for any activities. As per the Hydro geological survey recommendation Company has established a monitoring well (Borewell &amp; Piezometer) to interface drawn about the depth of ground water level in the mining lease hold area. Detailed Hydro geological Survey report has submitted to IRO-Shillong vide letter no.- MCL/ENV/MoEF&amp;CC/Compliance LS-I/2022-23/33, dated 2nd Dec 2022. No ground water level observed during the period of October-2023 to</p>



		March-2024. Whenever the Ground water level will be observed, Company will submit the Groundwater level and quality report to IRO-Shillong on six monthly basis.
(x)	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.	<b>Complied with.</b> Pollution due to transportation is being effectively controlled by proper maintenance of haul roads. Installation work for Permanent water sprinklers on Mines haul road has been done and working effectively. PUC certified vehicles are being used for transportation & other activities in mining by the PP. The mineral transportation is carried out through covered trucks only and the overloaded vehicles are not allowed for minerals transportation. Photographs of Permanent water sprinklers and PUC certificates for the vehicle using in mines is attached as an <b>Annexure- VI&amp;VII.</b>
(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.	Preparation & implementation of Rainwater Harvesting Scheme has been done and plan has submitted to Central Ground Water Board, Guwahati vide Letter No. - MCL/ENV/CGWB/Comm./2022-23/31, dated: 07.11.2022. Further, CGWB-Guwahati has issued Report and give their recommendation. MCL has taken action on it and made appropriate no. of Rain water harvesting tanks and submitted Action Taken Report to Regional Director, CGWB vide letter no. MCL/ENV/CGWB/Comm./2024-24/12, Dated-08.06.2024. Action taken report is attached as an <b>Annexure-VIII.</b>
(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.	<b>Complied with.</b> Best mining practices are being adopted by the Project Proponent for the giving mining conditions. Systematic opencast mechanized mining method being implemented to win the limestone minerals which have involved deep hole drilling and blasting, excavator and blasting by slurry explosive. Loading and hauling from the mine face being done mechanically by excavators and tipper combination. The method involves the removal of huge quantities of overburden, dumping, and backfilling of the excavated area. 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.	<p><b>Being compiled with</b> Mitigation measures to control fugitive dust emission are being done through permanent sprinklers &amp; Mobile Water Tankers filled with sprinklers on hauls roads and other transport road. Main haulage roads and other roads always keep wetted to suppress fugitive dust. Photographs of Permanent Water Sprinklers are attached as an <b>Annexure-VI</b>. Adequate Bag filters and dry fogging system provided at Crushing &amp; material transfer points. Belt conveyors are fully covered with proper shed to avoid air borne dust.</p>																																																							
(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.	<p><b>Agreed to comply.</b> 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.</p>																																																							
(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.	<p><b>Being compiled with</b> The PP is operating the mine in daylight hours only and maintaining the noise levels within the prescribed limits for day light / night hours. Monitoring report of the Noise Level is as mentioned below: -</p> <table border="1" data-bbox="873 1205 1464 1594"> <thead> <tr> <th rowspan="2">Months</th> <th colspan="3">Day Hrs</th> <th colspan="3">Night hrs</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Avg</th> <th>Min</th> <th>Max</th> <th>Avg</th> </tr> </thead> <tbody> <tr> <td>Apr-2024</td> <td>51.1</td> <td>66.6</td> <td>61.1</td> <td>36.0</td> <td>41.57</td> <td>38.9</td> </tr> <tr> <td>May-2024</td> <td>52.4</td> <td>68.6</td> <td>62.9</td> <td>37.6</td> <td>43.13</td> <td>40.04</td> </tr> <tr> <td>June-2024</td> <td>51</td> <td>67.7</td> <td>62.0</td> <td>39.4</td> <td>44.93</td> <td>42.2</td> </tr> <tr> <td>July-2024</td> <td>49.2</td> <td>65</td> <td>59.4</td> <td>33.5</td> <td>39.1</td> <td>36.4</td> </tr> <tr> <td>Aug-2024</td> <td>50.9</td> <td>67</td> <td>61.4</td> <td>36.3</td> <td>41.88</td> <td>39.2</td> </tr> <tr> <td>Sep-2024</td> <td>52.6</td> <td>69.4</td> <td>63.6</td> <td>40.6</td> <td>46.16</td> <td>43.5</td> </tr> </tbody> </table>	Months	Day Hrs			Night hrs			Min	Max	Avg	Min	Max	Avg	Apr-2024	51.1	66.6	61.1	36.0	41.57	38.9	May-2024	52.4	68.6	62.9	37.6	43.13	40.04	June-2024	51	67.7	62.0	39.4	44.93	42.2	July-2024	49.2	65	59.4	33.5	39.1	36.4	Aug-2024	50.9	67	61.4	36.3	41.88	39.2	Sep-2024	52.6	69.4	63.6	40.6	46.16	43.5
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(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 network in case the same is proposed to be used for the project.	<p><b>Agreed to comply.</b> The entire Mineral is being transported by our own haul road without using any public/village road. A 'bypass' road has been constructed for transportation of material &amp; mineral to avoid the impact of sounds, dust and mitigation of accidents. The PP are not using existing public road network for the project activates.</p>																																																							




(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 "Petroleum & Explosives Safety Organization PESO", (Ministry of Commerce & Industries) for Storage and use of explosives and detonators. License for possess for use of Amonium Nitrate from a store house attached to explosive manufacturing unit (ANFO) situated at Survey no.: Umpeh area at East Jaintia Hills district, Meghalaya. Renewal of License no.: A/EC/MG/P3/5(A271) granted in form-3 of Ammonium Nitrate Rules, 2012 on Dated 23.03.2022 and valid upto 31.03.2027. The instructions and Rules specified therein are being strictly adhering to by the PP. The copy of License for the same attaches as <b>Annexure-IX</b> .
(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.	<b>Agreed to comply.</b> 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 being 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. Detailed expenditure of CSR activities attaches as <b>Annexure-X</b>
(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.	<b>Agreed to comply.</b> 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.	<b>Agreed to comply.</b> 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. The PP has followed the calendar plan including excavation, quantum of mineral and waste as per approved mining plan vide letter no IBM/GHY/MEG/EJNH/MP-81, dated
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		07/09/2021. The Lease period of Mines is 10/01/2017 to 09/01/2067 and Period of Proposal is 2021-22 to 2025-26.															
(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.	<b>Agreed to comply.</b> 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).	<b>Agreed to comply.</b> Mining is carried out as per the provisions outlined in mining plan approved by Indian Bureau of mines (IBM) vide letter no IBM/GHY/MEG/EJNH/MP-81, dated 07/09/2021 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. Testing Report is attached as an <b>Annexure-XI</b> .															
(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.	<b>Complied with.</b> Effective safeguard measures such as regular water sprinkling being done through Permanent water sprinklers & Mobile water tankers on the critical areas such as haul road, loading and unloading point and transfer points. Regular monitoring of PM10 and PM2.5 are being done in critical areas. To control the Fugitive dust emissions from all the sources, PP is taking effective safeguard measures such as regular water sprinkling, development of green belts and fogging at unloading point and transfer points. Details of PM10, PM2.5 & Fugitive dust emissions are mentioned below: -															
		<table border="1"> <thead> <tr> <th>Pollutants</th> <th>Location</th> <th>Avg. of Last 06 months</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Particulate Matters PM10 (µg/m3)</td> <td>A1. North -East (Near Soil Dump)</td> <td>50.85</td> </tr> <tr> <td>A2. North - West (Near Haul Road)</td> <td>55.27</td> </tr> <tr> <td>A3. Southern side (Near Lease Boundary)</td> <td>49.88</td> </tr> <tr> <td rowspan="2">Particulate Matters PM2.5</td> <td>A1. North -East (Near Soil Dump)</td> <td>28.15</td> </tr> <tr> <td>A2. North - West (Near Haul Road)</td> <td>33.27</td> </tr> </tbody> </table>	Pollutants	Location	Avg. of Last 06 months	Particulate Matters PM10 (µg/m3)	A1. North -East (Near Soil Dump)	50.85	A2. North - West (Near Haul Road)	55.27	A3. Southern side (Near Lease Boundary)	49.88	Particulate Matters PM2.5	A1. North -East (Near Soil Dump)	28.15	A2. North - West (Near Haul Road)	33.27
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		<b>Report for the same attached as Annexure-XII</b>												
(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.	<p>Being complied with</p> <p>The Limestone mines are located nearby and within a peripheral distance of 1.5 km to 2.0 km from the Cement Plant and Crusher. Hence, the cost to establish the Belt conveyor system of Limestone Transportation to crusher is more and not economical viable. Hence, the PP has been adopted the road transport deploying Shovel-Dumper combination of loading covered with enclosure to ensure minimum emission of dust while carrying of Limestone from Mines to Crusher. It is also monitored effectively to ensure that the Limestone carrying vehicles are not overloaded and vehicular emissions are under control. 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 Pollution Testing Station, Ladthalaboh, Jowai, Meghalaya for each HEMM and has been included in the compliance report as an <b>Annexure-VII</b></p>												
(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-	<p><b>Complied with.</b></p> <p>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 to prevent erosion and surface run off. Geo textiles will be used by the PP for stabilization of the dump in critical areas. During closure of the time the over circumstances the PP will bring top soil from other areas to fill the pit. In the partially filled pit, the maintenance of terraces will be strictly followed to allow soil to stabilize on the terraces. Monitoring and management of rehabilitated areas will be maintained by the PP until the vegetation becomes self-sustaining.</p>												



	monthly compliance reports.																					
(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.	<p><b>Complied with.</b> Catch drain and siltation ponds has been constructed around the mine working, mineral and OB dumps to prevent the run-off water and flow of sediments directly into the river. Water collected in mine pits is being used for dust suppression and green belt development. Maintenance of drains is being done as and when required. Sedimentation tank are constructed to ensure that proper retention period for settling of silt. The Sump capacity is being maintained by the PP within safety margin.</p>																				
(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.	<p><b>Being complied with.</b> Project Proponent has also been 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. Detailed report is attached herewith which is earlier submitted to The Indian Bureau of Mines.</p> <table border="1"> <thead> <tr> <th>Duration</th> <th>No. of trees planted</th> <th>Area covered (in Ha.)</th> <th>No. of trees survived</th> <th>Survival rate</th> </tr> </thead> <tbody> <tr> <td>Apr-June 2024</td> <td>205</td> <td>0.1600</td> <td>141</td> <td>68.78%</td> </tr> <tr> <td>July-Sept 2024</td> <td>75</td> <td>0.0522</td> <td>47</td> <td>62.66%</td> </tr> <tr> <td><b>YTD</b></td> <td><b>280</b></td> <td><b>0.2122</b></td> <td><b>188</b></td> <td><b>67.14%</b></td> </tr> </tbody> </table> <p>Detailed report attached as an <b>Annexure-XIII</b></p>	Duration	No. of trees planted	Area covered (in Ha.)	No. of trees survived	Survival rate	Apr-June 2024	205	0.1600	141	68.78%	July-Sept 2024	75	0.0522	47	62.66%	<b>YTD</b>	<b>280</b>	<b>0.2122</b>	<b>188</b>	<b>67.14%</b>
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(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.	<p><b>Complied with.</b> Monitoring of water quality both upstream and downstream are being maintained and records are submitted to the NE Regional Office, MoEF&amp;CC, Shillong and MSPCB. Detailed report attached as an <b>Annexure-XI</b></p>																				
(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.	<p><b>Agreed to Comply.</b> We have done detailed Hydro geological survey by a CGWS approved third party &amp; as per the report no ground water found in our mining lease area. The utilization of ground water has not been done by the Project Proponent for any activities. As per the Hydro geological survey recommendation Company has established a monitoring well (Borewell &amp; Piezometer) to interface drawn about the depth of ground water level in the mining lease hold area. Detailed Hydro geological Survey report has submitted to IRO-Shillong vide letter no.-</p>																				



		MCL/ENV/MoEF&CC/Compliance LS-I/2022-23/33, dated 2nd Dec 2022. No ground water level observed during the period of April-2024 to September-2024. Whenever the Ground water level will be observed, Company will submit the Groundwater level and quality report to IRO-Shillong on six monthly basis.																																															
(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.	<b>Agreed to comply.</b> 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 drinking water, medical health care, creche etc.	No Contract labours are employed in the mines. However, Provision has been made for the housing of company employees involved in mining activities within the site with all necessary infrastructure and facilities such as fuel for cooking, toilets, STP, safe drinking water, medical health care, creche etc.																																															
(xiii)	Critical parameters such as PM <sub>2.5</sub> , No <sub>x</sub> , So <sub>x</sub> , 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 <a href="http://www.envfor.nic.in">www.envfor.nic.in</a> shall also be referred to in this regard for its compliance.	<b>Noted for compliance.</b> Critical parameters such as PM <sub>2.5</sub> , No <sub>x</sub> , So <sub>x</sub> , in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer is being monitored periodically as per MoEF's notification in 2009. Further, quality of ETP discharged water is being also be monitored (TDS, DO, pH and Total suspended Solids-TSS).																																															
		<table border="1"> <thead> <tr> <th rowspan="2">Parameters</th> <th colspan="3">Obtained value</th> </tr> <tr> <th>Apr-24</th> <th>July-24</th> <th>Sept-24</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>6.79</td> <td>6.82</td> <td>6.81</td> </tr> <tr> <td>TSS</td> <td>39</td> <td>39</td> <td>38</td> </tr> <tr> <td>BOD</td> <td>24</td> <td>24</td> <td>23</td> </tr> <tr> <td>COD</td> <td>79</td> <td>77</td> <td>75</td> </tr> <tr> <td>Temperature</td> <td>25.5</td> <td>25.5</td> <td>25.6</td> </tr> <tr> <td>Oil &amp; Grease</td> <td>&lt;4.0</td> <td>&lt;4.0</td> <td>&lt;4.0</td> </tr> <tr> <td>Total Residual Chlorine</td> <td>&lt;0.01</td> <td>&lt;0.01</td> <td>&lt;0.01</td> </tr> <tr> <td>Ammonical Nitrogen</td> <td>26</td> <td>24</td> <td>26</td> </tr> <tr> <td>Free Ammonia</td> <td>&lt;0.01</td> <td>&lt;0.01</td> <td>&lt;0.01</td> </tr> <tr> <td>Total Kjeldahl Nitrogen</td> <td>39</td> <td>38</td> <td>42</td> </tr> </tbody> </table> <p>The monitoring data is being uploaded on the company website <a href="https://topcem.in/">https://topcem.in/</a> and displaying at the main gate of the project. Detailed reports are attached as <b>Annexure- XII&amp;XIV</b>.</p>	Parameters	Obtained value			Apr-24	July-24	Sept-24	pH	6.79	6.82	6.81	TSS	39	39	38	BOD	24	24	23	COD	79	77	75	Temperature	25.5	25.5	25.6	Oil & Grease	<4.0	<4.0	<4.0	Total Residual Chlorine	<0.01	<0.01	<0.01	Ammonical Nitrogen	26	24	26	Free Ammonia	<0.01	<0.01	<0.01	Total Kjeldahl Nitrogen	39	38	42
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(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	<b>Agreed to comply.</b> Effluent Treatment Plant (ETP) with 25 KLD Capacity has already been installed at HEMM																																															



GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of effluents.

workshop. Workshop waste water is being reuse in vehicle washing and green belt development after treatment and oil sludge are being properly collected and utilize as alternative fuel in Kiln. The Testing report of Workshop waste water after treatment mentioned below: -

Parameters	Obtained value		
	Apr-24	July-24	Sept-24
pH	6.79	6.82	6.81
TSS	39	39	38
BOD	24	24	23
COD	79	77	75
Temperature	25.5	25.5	25.6
Oil & Grease	<4.0	<4.0	<4.0
Total Residual Chlorine	<0.01	<0.01	<0.01
Ammonical Nitrogen	26	24	26
Free Ammonia	<0.01	<0.01	<0.01
Total Kjeldahl Nitrogen	39	38	42

Detailed testing report is attached as **Annexure-XIV**.

(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 (like Nose Mask, Safety Goggles and other protective equipments) are being provided to all workers. Safety and health training and Awareness are given to the workers regularly by Safety Officers.

(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 deal with environmental issues, to ensure compliance to the EC conditions and to implement the EMP, biodiversity action plan, CTO conditions of MSPCB and sustainable development of mining activities etc. and also responsible for the said works. The details of the environmental management cell and name of such responsible officials are attached as an **Annexure-XV**.

(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,

**Agreed to comply.**  
The funds earmarked for environment protection measure are kept in the separate account.



Shillong.	<b>SL. No.</b>	<b>Head</b>	<b>Total Expenditure (in lakh)</b>
	1	Plantation	5.95
	2	Dust suppression	6.40
	3	Preparation of Retaining wall, Checkdam, Siltation Tanks and Garland drains	4.60
	4	PPE supply to mine workers	0.84
	5	Water Treatment & Maintenance of Effluent Treatment Plant	0.70
	6	Dump Compaction	2.30
	<b>Total</b>		<b>20.79</b>
	Detail of expenditure is being reported to SEIAA, Meghalaya and Regional Office, MoEF& CC, Shillong on Six monthly bases. Detailed expenditures for the period of Apr-2024 to Sep-2024 are attached as an <b>Annexure-XVI</b> .		
(xviii)	Environment Statement for each financial year ending 31st March in Form – V as mandated shall be submitted to MPSCB with copy of the same to SEIAA, Meghalaya and Regional Office, MoEF&CC, Shillong	Environment Statement for each financial year ending 31st March in Form – V as mandated is being submitted to MPSCB with copy of the same to SEIAA, Meghalaya and Regional Office, MoEF&CC, Shillong. Environment Statement in Form-V for FY: 2023-24 was submitted to MsPCB vide letter no. MCL/Env/MsPCB/2024-2025/08, dated 29/05/2024. Copy of the Form-V is attached as an <b>Annexure-XVII</b>	
(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.	<b>Agreed to Comply.</b> Six monthly reports on the status of the implementation of the stipulated environmental safeguards are being submitted to the Regional Office, MoEF&CC, Shillong, Central Pollution Control and State Pollution Control Board. Also submitting the certified copy of the same to the SEIAA and SEAC, Meghalaya.	
(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.	<b>Complied With.</b>	
(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	Complied With. PP has advertised in two local newspapers i.e The Shillong times and Mawphor on dated 30 <sup>th</sup> May 2018 and 26 <sup>th</sup> May 2018 respectively widely circulated regarding the accorded of environmental	



	accorded environmental clearance. A copy of the clearance letter shall be made available on the website of the PP.	clearance. A copy of the clearance letter available on the Company website <a href="https://topcem.in">https://topcem.in</a> Newspaper advertisement are attached as an <b>Annexure-XVIII</b>
(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.	<b>Agreed for compliance.</b> Full co-operation is 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.	<b>Agreed for compliance.</b> 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.	<b>Noted.</b> <b>Agreed to compile with.</b>
(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.	<b>Noted.</b>



Annexure -I

Received.  
16/8/18

GOVERNMENT OF MEGHALAYA  
OFFICE OF THE DIVISIONAL FOREST OFFICER JAINTIA HILLS WILDLIFE  
DIVISION :::::::::::::: JOWAI.

NO.MWL/JH/228/Cemt.Factory/2017-18/ 307

Dated Jowai, the 14<sup>TH</sup> June, 2018.

From: - The Divisional Forest Officer,  
Jaintia Hills Wildlife Division,  
Jowai.

To, The Meghalaya Cement Limited.

sum  
18/6/18

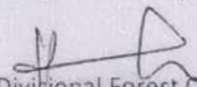
Sub :- Issue of Wildlife Clearance Certificate regarding South Khliehjri lime Stone Mine 31.05 ha at Thangskai, east Jaintia Hills, Meghalaya of Meghalaya Cement Limited.

Sir,

With reference to the subject cited above, as per your letter No Ref MCL/Comm/DFO (Wildlife)/2018/14 Dt.30/04/2018, please find enclosed herewith the letter from the Additional principal Chief Conservator of Forests, Wildlife & Chief Wildlife Warden, Meghalaya, Shillong Dt. 06/06/2018 for information and necessary action

Enclosed: - as above.

Yours faithfully,

  
Divisional Forest Officer,  
Jaintia Hills Wildlife Division, Jowai.



**GOVERNMENT OF MEGHALAYA  
OFFICE OF THE ADDITIONAL PRINCIPAL CHIEF CONSERVATOR  
OF FORESTS, WILDLIFE & CHIEF WILDLIFE WARDEN,  
MEGHALAYA, SHILLONG**

No.FWC/G/278/Pt/928

Dated Shillong, the 6 June, 2018.

To,

✓ The Divisional Forest Officer,  
Jaintia Hills WL Division,  
Jowai.

am  
18/6/18

Sub ;-

Issue of wildlife Clearance certificate regarding South  
Khliehji Lime Stone Mine 31.05 ha at thangskaì, East  
Jaintia Hills, Meghalaya of Meghalaya cement limited.

Ref:

No. MWL/JH/228/Cemt.Factory/2016-17/20  
Dt, 18.04.2018.

With reference to your letter cited above, I am to inform you that since the project in question does not fall within a Protected Area or Eco- Sensitive Zone, the approval of Standing Committee of National Board for wildlife is not required.

This is for your information and Necessary action.

*P. Singh*  
Additional Principal Chief Conservator of Forests,  
Wildlife & Chief Wildlife Warden  
Meghalaya, Shillong. P.

**RECEIPT**Regd No. 168Date 8.6.18

Rept. From \_\_\_\_\_







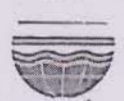
# Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya

'ARDEN' Lumpynggad, Shillong - 793014

Website : <http://megspcb.gov.in>

Annexure - II



ONLINE RCTO (R-1)EJHD 2021/ 2024-2025/ 57

Dated Shillong, the 26 June, 2024

## RENEWAL OF CONSENT TO OPERATE

**CONSENT TO OPERATE** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, as amended and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, as amended (to be referred as Water Act and Air Act respectively).

The **CONSENT to OPERATE** granted in favour of M/S MEGHALAYA CEMENTS LTD. vide T.O. Order No. MPCB/CON-191-2016/2016-2017/15 dated 24.02.2018 for operating a 31.05 Ha. LIMESTONE MINE and subsequent renewals located at Thangskai, East Jaintia Hills District with a Project cost of Rs. 9.00 (Rupees Nine Crores) only and which expired on 28<sup>th</sup> February 2024 is hereby renewed for a period of 1(one) year i.e upto 28<sup>th</sup> February 2025 under the following terms and conditions under the following terms and conditions:

### I. General Conditions:

1. This Consent has been accorded based on the particulars furnished by the applicant on behalf of M/S MEGHALAYA CEMENTS LTD. and subject to addition of further or more conditions if so warranted by subsequent developments. The Consent will automatically become invalid if any change or alteration or deviation is made in actual practice;
2. The Consent to Operate is valid for a period upto 28<sup>th</sup> February 2025 unless otherwise suspended or revoked.
3. This Consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to the following:-
  - (a) Violation of any Terms and Conditions of this Consent;
  - (b) Obtaining the Consent by misrepresentation or failure to disclose fully all relevant facts;
  - (c) A change in any condition that require temporary or permanent reduction or elimination of the authorized discharge/emission;
4. This Consent does not convey any property right in either real or personal property or any exclusive privileges, nor does it authorizes any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local Laws or Regulation;
5. No air, water and soil pollution shall be created by the Industry beyond the prescribed permissible limits;
6. The industry shall take adequate measures for control of noise from its own source so as to comply with the Standards below:

LIMIT in dB (A) LEQ	
DAY TIME (6:00AM-9:00PM)	NIGHT TIME (9:00PM-6:00AM)
75	70

7. The caves should be preserved, in case any cave or cave's routes are encountered in the area the same shall have to be reported to the Board immediately.
8. To maintain the environment and ecology of the area, development of green belt by planting selected species of trees, the height of which should not be less than 5 (five) metres when matured and at a spacing of 1 (One) metre should be made invariably at an area of 15 ha around the Cement Plant and 2.0 ha around the colony;
9. As per the provisions of the Water (Prevention and Control of Pollution) Act, 1974 as amended and the Air (Prevention and Control of Pollution) Act, 1981 as amended that any Officer empowered by the

Contact details : Email : memsecy.spcb-meg@gov.in, megspcb@rediffmail.com; Telephone Numbers- Chairman-0364-2521217; Member Secretary-2522802; Scientific-2521514; Engineering-2521533; Legal-2520044; Laboratory-2521726; Administration-2520073; Accounts-2522124; Telefax-2521764





# Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya

'ARDEN' Lumpyngngad, Shillong - 793014

Website : <http://megspcb.gov.in>

Annexure-II



mspcb

Board on its behalf shall have without interruption, the right at any time to enter the Plant/factory/for inspection, collection of sample for analysis and may call for any information as deemed necessary. Denial this right will cause withdrawal of the Consent Order;

10. The Company shall comply with all the environment protection measures and safeguards recommended in the EIA/EMP;

## II. Specific Conditions:

### A. Water & Soil Aspect:

The following measures should be taken up by the industry for prevention and control of water pollution:

1. Check dams/tailing dams should be provided wherever necessary to prevent the direct discharge of mine's effluent/run off etc. into the natural water courses.
2. Facilities should be maintained for utilizing the water collected in the dams for spraying of the mine, haul roads, etc. but not to discharge directly into the natural streams without proper treatments so as to conform to the prescribed effluent standards.
3. Dumping of overburden, mine spoils etc. should be properly made in identified and demarcated Sites. Such dumping sites should be on impervious and stable ground to avoid percolation of contaminations into the water table and for prevention of landslides.
4. Proper planning should be made so that the dumps are to be done in steps for better stabilization and the dumping sequence should be planned in such a way that plantation over the dumps can be done simultaneously with dumping.
5. Continuous compacting of the dumps should be done to ensure its stability.
6. Sedimental basin below the overburden dumps including plantation and vegetation over the dumps should be maintained to prevent siltation of the natural water courses.
7. Facilities should be maintained for storing the top soil separately so that the same be utilised for afforestation/plantation over the dumps and excavated mines pits.
8. Setting up of requisite number of permanent water quality monitoring stations on the natural water courses both upstream & down stream and selection of sampling points/stations should be made in consultation with this Board at the earliest.

### B. Air & Noise Aspect:

1. A well equipped mechanical workshop should be maintained for proper maintenance of heavy earth movable machineries (HEMM). Fuel/air burning ratio of all the HEMM is to maintained at an optimum condition so as to reduce air pollution from the exhaust emission of these machineries.
2. Regular checking of the exhaust emission from HEMM should be conducted by using requisite instruments for the purpose.
3. If dry drilling is to be employed, appropriate dust collectors should be provided to control the concentration of suspended particulate matters in the emission.
4. Plantation along the haul roads to reduce dust retention in the air should be maintained.
5. Setting up & operation of at least three ambient air quality monitoring station with 120° angle between stations for monitoring the ambient air quality including micro meteorological data should be done immediately. Selection of station should be done in consultation with this Board.

Contact details : Email : [memsecy.spcb-meg@gov.in](mailto:memsecy.spcb-meg@gov.in), [megspcb@rediffmail.com](mailto:megspcb@rediffmail.com); Telephone Numbers: Chairman-0364-2521217; Member Secretary-2522802; Scientific-2521514; Engineering-2521533; Legal-2520044; Laboratory-2521726; Administration-2520873; Accounts-2522124; Telefax-2521764



# Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya

'ARDEN' Lumpynggad, Shillong - 793014

Website : <http://megspcb.gov.in>

Annexure-II



mspcb

6. Proper maintenance, lubrication etc. of all moving machineries should be maintained and all engines should be provided with high efficiency silencers.
7. Primary blasting methods should be chosen in such a way so as to have a minimum impact of noise and vibration on the environment.
8. Usage of hydraulic rock breaker for limestone breaking instead of conventional secondary blasting to minimize noise pollution should be adopted as far as practicable.
9. Adequate measures taken should be made to minimize the air blast so that the blast size is kept at the optimum for less noise.
10. Periodic monitoring of noise and vibration level should be conducted by following prescribed norms & measuring instruments for the purpose.
11. The optimum stemming column is to be maintained so that explosives are blasted in confinement stage.
12. Monitoring of the Ambient Air Quality including micro-meteorological data in at least three ambient air quality monitoring stations established around the Plant premises should be carried out weekly for 24 hours and submit the report to the MSPCB on monthly basis.
13. A detailed Report of Compliance to all the Terms and Conditions stipulated in this Consent should be submitted annually along with the application for grant of Renewal of Consent to Operate.

Dr. G.H Chyrmang, MFS)

**MEMBER SECRETARY**

Meghalaya State Pollution Control Board

Shillong

No/TB ONLINE RCTO (R-1)EJHD 2021/ 2024-2025/57-A Dated Shillong, the 26<sup>th</sup> June, 2024  
Copy to: -

1. The Director of Mineral Resources, Meghalaya, Shillong for information and necessary action with regard to Mining Lease issued.
2. M/S MEGHALAYA CEMENTS LTD., C/o The Director, Thangskai, East Jaintia Hills District - 793200 for information and necessary action.
3. Guard File No. TB-CON-2023-RCTO.

**MEMBER SECRETARY**



**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 EIA) and agree to comply.**

**Annexure-III**

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-IV-a)  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-IV-a)
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-IV-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-IV-a)



*Annexure-III*

Annexure - III

**ACTION PLAN FOR MITIGATION OF ENVIRONMENTAL POLLUTION**

**Annexure-III – (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.  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.	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.  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.	Check dam construction – Rs 2.1 Lacs	Cleaning – once in a year – Rs 0.25 Lacs
				Garland Drain construction – Rs 2.8 lacs	Maintenance Cost- 0.4 Lacs Driver Salary – Rs- 4.08 Lacs Diesel & Lubricants- Rs- 2.0 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.	Water Tanker – Rs 12.0 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. d) Construction of metallic Haul Road to minimize fugitive dust generation	The Meghalaya Cements Limited is using wet drilling from the inception of mining activities and the drilling machines are well equipped with the process. Metallic haul road has been prepared to transport/carryout limestone as well as Overburden.	i) Installation of Wet drilling system to ROC – Rs 0.7 Lacs. ii) Purchase of Real-time Air Sampler – Rs 4.2 Lacs. 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 <sub>2</sub> gases and we are taking necessary initiatives as and when required.	i) Spare & maintenance – Rs 0.1 Lacs i) Cost of Nonel – Rs 4.7 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






# OCCUPATIONAL HEALTH CENTRE MEGHALAYA CEMENTS LTD.

VILL. THANGSKAI, P.O. LUMSHNONG, DIST. EAST JAINTIA HILLS, MEGHALAYA

DATE 21/9/24

C/C	NAME: <u>AMIT KUMAR</u> AGE: <u>31</u> SEX: <u>M</u>
O/E	Wt - <u>89 kg</u>
B.P	Height - <u>173 cm</u>
PULSE	BP - <u>123/79 mmHg</u>
P/A	Adw — LFT
CVS	LFT
INVESTIGATION	FBS
	PPBS
	Lipid profile
	ECG
	

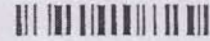


Annexure - IV



# MCL Dispensary

Meghalaya Cements Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. AMIT KUMAR

Invoice No: 22

Case No: M32

Age/Sex: 31 Years / Male

Registered On: 21-09-2024 05:21 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

## Haematology LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.77	mg/dl	0.3 - 1.2
SGOT	19.2	U/L	15 - 40
SGPT	H 64.2	U/L	10 - 49
S. Alkaline Phosphatase	116.4	U/L	30 - 120
SERUM PROTEIN			
Total Protein	7.8	g/dL	5.7 - 8.2
Albumin	4.67	g/dL	3.2 - 4.8
Globulin	3.13	g/dL	2.5 - 3.4
A/G Ratio	1.49		0.9 - 2

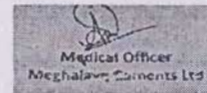
### Interpretation :

#### Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST, ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia. In a patient with Chronic liver disease, AST: ALT ratio > 1 is highly suggestive of advanced liver fibrosis.
3. In known cases of Chronic Liver disease due to Viral Hepatitis B & C, Alcoholic liver disease or NAFLD, Enhanced liver fibrosis (ELF) test may be used to evaluate liver fibrosis.
4. In a patient with Chronic Liver disease, AFP and Des-gamma carboxyprothrombin (DCP)/PIVKA II can be used to assess the risk for the development of Hepatocellular Carcinoma.



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL

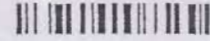






## MCL Dispensary

Meghalya Cements Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. AMIT KUMAR

Invoice No: 22

Case No: M32

Age/Sex: 31 Years / Male

Registered On: 21-09-2024 05:21 PM

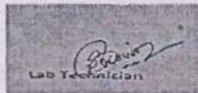
Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

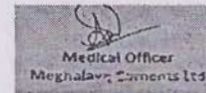
### Biochemistry

#### LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	153.7	mg/dl	< 200
TRIGLYCERIDE	H 174.2	mg/dl	<150
HDL Cholesterol	H 80.4	mg/dl	40 - 60
LDL Cholesterol	H 101.5	mg/dl	< 100
VLDL	H 34.84	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	L 1.91		3 - 5
TGL / HDL Ratio	H 118		<3.12



Sanker Singha  
Lab Technician OHC MCL



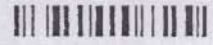
Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



# MCL Dispensary

Meghalya Cements Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. AMIT KUMAR

Invoice No: 22

Case No: M32

Age/Sex: 31 Years / Male

Registered On: 21-09-2024 05:21 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

## Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
FASTING BLOOD SUGAR			
Fasting Blood Sugar	H 118.0	mg/dl	70 - 100
CREATININE	1.0	mg/dl	0.5 - 1.4
BLOOD UREA	18.2	mg/dl	13 - 43



Sankar Singha  
Lab Technician OHC MCL

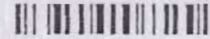


Dr. Lanu Akash Aimol  
RMO OHC MCL



### MCL Dispensary

Meghalya Cements Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. AMIT KUMAR

Invoice No: 22

Case No: M32

Age/Sex: 31 Years / Male

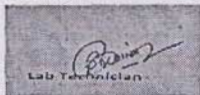
Registered On: 21-09-2024 05:21 PM

Referrer: DR. LANU AKASH AIMOL

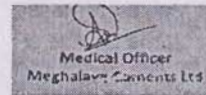
Type/Remark: Healthray Patient

#### Others

TEST	RESULT	UNIT	REFERENCE RANGE
POST PRANDIAL BLOOD SUGAR			
Post Prandial Blood Sugar	114.0	mg/dl	70 - 140



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL



# OCCUPATIONAL HEALTH CENTRE MEGHALAYA CEMENTS LTD.

VILL. THANGSKAI, P.O. LUMSHNONG, DIST. EAST JAINTIA HILLS, MEGHALAYA

DATE 21/9/24

C/C	NAME: Rakesh K. Sharma	AGE: 46	SEX: (M)
O/E	Ht = 177 cm		
B.P	wt = 76 kg		
PULSE	Bp = 124/82 mmHg		
PIA	Adv - LFT		
CVS	- KFT		
	- Lipid profile		
	- FBS		
	- PPBS		
INVESTIGATION			





MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAKESH KUMAR SHARMA

Invoice No: 34

Case No: M44

Age/Sex: 46 Years / Male

Registered On: 23-09-2024 12:06 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

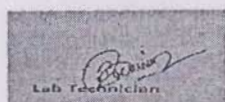
Haematology  
LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.82	mg/dl	0.3 - 1.2
SGOT (AST)	25.2	U/L	15 - 40
SGPT (ALT)	30.4	U/L	10 - 49
S. Alkaline Phosphatase	113.6	U/L	30 - 120
SERUM PROTEIN			
Total Protein	7.2	g/dL	5.7 - 8.2
Albumin	4.3	g/dL	3.2 - 4.8
Globulin	2.90	g/dL	2.5 - 3.4
A/G Ratio	1.48		0.9 - 2

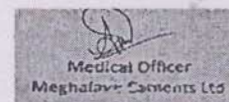
Interpretation :

Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST & ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia.
3. In a patient with Chronic liver disease, AST: ALT ratio > 1 is highly suggestive of advanced liver fibrosis.



Sankar Singha  
Lab Technician OHC MCL

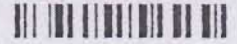


Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAKESH KUMAR SHARMA

Invoice No: 34

Case No: M44

Age/Sex: 46 Years / Male

Registered On: 23-09-2024 12:06 PM

Referrer: DR. LANU AKASH AIMOL

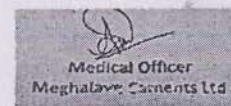
Type/Remark: Healthray Patient

Biochemistry  
LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	166.2	mg/dl	< 200
TRIGLYCERIDE	136.8	mg/dl	<150
HDL Cholesterol	55.4	mg/dl	40 - 60
LDL / HDL Ratio	1.52		1.5 - 3.5
LDL Cholesterol	84.2	mg/dl	< 100
VLDL	27.36	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	3.00		3 - 5



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAKESH KUMAR SHARMA  
Age/Sex: 46 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 34

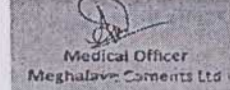
Case No: M44  
Registered On: 23-09-2024 12:06 PM

Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
BLOOD UREA	21.6	mg/dl	13 - 43
FASTING BLOOD SUGAR			
Fasting Blood Sugar	94.0	mg/dl	70 - 100
CREATININE	0.98	mg/dl	0.5 - 1.4



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure-IV



MEGHALAYA CEMENTS Ltd., VIII - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAKESH KUMAR SHARMA  
Age/Sex: 46 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 34

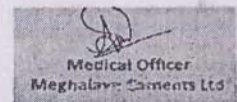
Case No: M44  
Registered On: 23-09-2024 12:06 PM

Others

TEST	RESULT	UNIT	REFERENCE RANGE
POST PRANDIAL BLOOD SUGAR			
Post Prandial Blood Sugar	120.0	mg/dl	70 - 140



Sankar Singha  
Lab Technician OHC MCL



Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL



Annexure -TV



# OCCUPATIONAL HEALTH CENTRE MEGHALAYA CEMENTS LTD.

VILL. THANGSKAI, P.O. LUMSHNONG, DIST. EAST JAINTIA HILLS, MEGHALAYA

DATE 21/9/24

C/C

NAME: Ashok Kumar Pandey AGE: 49 SEX: (M)

Ht = 165 cm

wt = 72 kg

Bp = 124/91 mm Hg

O/E

B.P

PULSE

PIA

CVS

Adh - LFT

- RFT

- Lipid Profile

- FBS

- PPBS

INVESTIGATION



Annexure - IV



# OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. ASHOK KUMAR PANDAY  
Age/Sex: 49 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 27

Case No: M37  
Registered On: 22-09-2024 05:33 PM

## Haematology LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.75	mg/dl	0.3 - 1.2
SGOT (AST)	22.4	U/L	15 - 40
SGPT (ALT)	26.2	U/L	10 - 49
S. Alkaline Phosphatase	102.6	U/L	30 - 120
<b>SERUM PROTEIN</b>			
Total Protein	7.2	g/dL	5.7 - 8.2
Albumin	4.2	g/dL	3.2 - 4.8
Globulin	3.00	g/dL	2.5 - 3.4
A/G Ratio	1.40		0.9 - 2

Interpretation :

Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST, ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia. In a patient with Chronic liver disease, AST: ALT ratio >1 is highly suggestive of advanced liver fibrosis.
3. In known cases of Chronic Liver disease due to Viral Hepatitis B & C, Alcoholic liver disease or NAFLD, Enhanced liver fibrosis (ELF) test may be used to evaluate liver fibrosis.
4. In a patient with Chronic Liver disease, AFP and Des-gamma carboxyprothrombin (DCP)/PIVKA II can be used to assess the risk for the development of Hepatocellular Carcinoma.



Sankar Singha  
Lab Technician OHC MCL



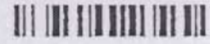
Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL



Annexure - IV



**OCCUPATIONAL HEALTH CENTRE**  
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210




Name: MR. ASHOK KUMAR PANDAY  
Age/Sex: 49 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 27

Case No: M37  
Registered On: 22-09-2024 05:33 PM

Biochemistry  
LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	165.2	mg/dl	< 200
TRIGLYCERIDE	126.4	mg/dl	<150
HDL Cholesterol	48.8	mg/dl	40 - 60
LDL / HDL Ratio	1.56		1.5 - 3.5
LDL Cholesterol	76.2	mg/dl	< 100
VLDL	25.28	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	3.39		3 - 5

  
Sankar Singha  
Lab Technician OHC MCL



  
Medical Officer  
Meghalaya Cements Ltd.  
Dr. Lanu Akash Aimol  
RMO OHC MCL

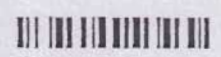


Annexure - IV



# OCCUPATIONAL HEALTH CENTRE

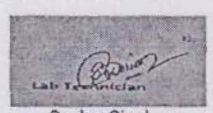
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



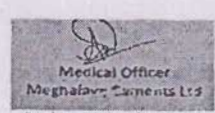
Name: MR. ASHOK KUMAR PANDAY Invoice No: 27 Case No: M37  
Age/Sex: 49 Years / Male Registered On: 22-09-2024 05:33 PM  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

### Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
CREATININE	1.0	mg/dl	0.5 - 1.4
BLOOD UREA	26.6	mg/dl	13 - 43
FASTING BLOOD SUGAR			
Fasting Blood Sugar	96.0	mg/dl	70 - 100



Sankar Singha  
Lab Technician OHC MCL



Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL



Annexure - IV



# OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. ASHOK KUMAR PANDAY

Invoice No: 27

Case No: M37

Age/Sex: 49 Years / Male

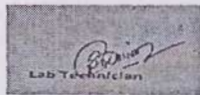
Registered On: 22-09-2024 05:33 PM

Referrer: DR. LANU AKASH AIMOL

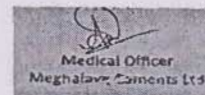
Type/Remark: Healthray Patient

## Others

TEST	RESULT	UNIT	REFERENCE RANGE
POST PRANDIAL BLOOD SUGAR			
Post Prandial Blood Sugar	123.0	mg/dl	70 - 140



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL





# OCCUPATIONAL HEALTH CENTRE MEGHALAYA CEMENTS LTD.

VILL. THANGSKAI, P.O. LUMSHNONG, DIST. EAST JAINTIA HILLS, MEGHALAYA

DATE 22/9/24

C/C	NAME: <u>Abhay Kumar</u> , AGE: <u>28</u> , SEX: <u>(M)</u>
	Ht = 170 cm
	wt = 70 kg
O/E	Bp = 132/83 mm Hg
B.P	
PULSE	
P/A	Adv - LFT
CVS	- KFT
	- lipid profile
	- FBS
	- PPBS

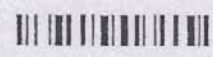
INVESTIGATION



Annexure - IV



**OCCUPATIONAL HEALTH CENTRE**  
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. ABHAY KUMAR  
Age/Sex: 28 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 31

Case No: M41  
Registered On: 22-09-2024 06:18 PM

Haematology  
LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.72	mg/dl	0.3 - 1.2
SGOT (AST)	26.5	U/L	15 - 40
SGPT (ALT)	32.2	U/L	10 - 49
S. Alkaline Phosphatase	110.2	U/L	30 - 120
SERUM PROTEIN			
Total Protein	6.8	g/dL	5.7 - 8.2
Albumin	4.2	g/dL	3.2 - 4.8
Globulin	2.60	g/dL	2.5 - 3.4
A/G Ratio	1.62		0.9 - 2

Interpretation :

Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST, ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia. In a patient with Chronic liver disease, AST: ALT ratio >1 is highly suggestive of advanced liver fibrosis.
3. In known cases of Chronic Liver disease due to Viral Hepatitis B & C, Alcoholic liver disease or NAFLD, Enhanced liver fibrosis (ELF) test may be used to evaluate liver fibrosis.
4. In a patient with Chronic Liver disease, AFP and Des-gamma carboxyprothrombin (DCP)/PIVKA II can be used to assess the risk for the development of Hepatocellular Carcinoma.

Sankar Singha  
Lab Technician OHC MCL



Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL



Annexure - IV



**OCCUPATIONAL HEALTH CENTRE**  
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



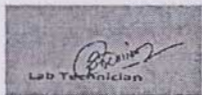
Name: MR. ABHAY KUMAR  
Age/Sex: 28 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 31

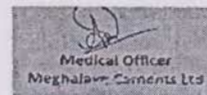
Case No: M41  
Registered On: 22-09-2024 06:18 PM

**Biochemistry**  
**LIPID PROFILE**

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	144.8	mg/dl	< 200
TRIGLYCERIDE	120.2	mg/dl	<150
HDL Cholesterol	44.6	mg/dl	40 - 60
LDL / HDL Ratio	1.74		1.5 - 3.5
LDL Cholesterol	77.6	mg/dl	< 100
VLDL	24.04	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	3.25		3 - 5



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL

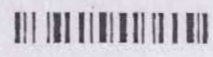


Annexure - IV



# OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210




Name: MR. ABHAY KUMAR Invoice No: 31 Case No: M41  
Age/Sex: 28 Years / Male Registered On: 22-09-2024 06:18 PM  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

### Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
BLOOD UREA	23.4	mg/dl	13 - 43
CREATININE	0.94	mg/dl	0.5 - 1.4
FASTING BLOOD SUGAR			
Fasting Blood Sugar	94.0	mg/dl	70 - 100



  
Sankar Singha  
Lab Technician OHC MCL



  
Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



**OCCUPATIONAL HEALTH CENTRE**  
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210




Name: MR. ABHAY KUMAR Invoice No: 31 Case No: M41  
Age/Sex: 28 Years / Male Registered On: 22-09-2024 06:18 PM  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Others

TEST	RESULT	UNIT	REFERENCE RANGE
POST PRANDIAL BLOOD SUGAR			
Post Prandial Blood Sugar	122.0	mg/dl	70 - 140



  
Sankar Singha  
Lab Technician OHC MCL



  
Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



# OCCUPATIONAL HEALTH CENTRE MEGHALAYA CEMENTS LTD.

VILL. THANGSKAI, P.O. LUMSHNONG, DIST. EAST JAINTIA HILLS, MEGHALAYA

DATE 21/9/24

C/C

NAME: Anshuman Deo AGE: 28 SEX: (M)

O/E

Ht = 175 cm

B.P

Wt = 83 kg

Bp = 133/85 mm Hg

PULSE

Adv - LFT  
KFT  
Lipid profile

P/A

CVS

FBS

PPDS

INVESTIGATION

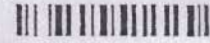


Annexure - IV



# OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. ANSHUMAN DEO

Invoice No: 30

Case No: M40

Age/Sex: 28 Years / Male

Registered On: 22-09-2024 06:10 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

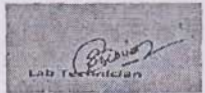
## Haematology LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.68	mg/dl	0.3 - 1.2
SGOT (AST)	32.2	U/L	15 - 40
SGPT (ALT)	24.6	U/L	10 - 49
S. Alkaline Phosphatase	112.4	U/L	30 - 120
SERUM PROTEIN			
Total Protein	6.8	g/dL	5.7 - 8.2
Albumin	3.6	g/dL	3.2 - 4.8
Globulin	3.20	g/dL	2.5 - 3.4
A/G Ratio	1.13		0.9 - 2

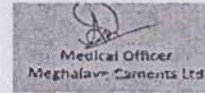
### Interpretation :

#### Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST, ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia. In a patient with Chronic liver disease, AST: ALT ratio >1 is highly suggestive of advanced liver fibrosis.
3. In known cases of Chronic Liver disease due to Viral Hepatitis B & C, Alcoholic liver disease or NAFLD, Enhanced liver fibrosis (ELF) test may be used to evaluate liver fibrosis.
4. In a patient with Chronic Liver disease, AFP and Des-gamma carboxyprothrombin (DCP)/PIVKA II can be used to assess the risk for the development of Hepatocellular Carcinoma.



Sankar Singha  
Lab Technician OHC MCL



Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL

Annoyure - IV



**OCCUPATIONAL HEALTH CENTRE**  
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210




Name: MR. ANSHUMAN DEO Invoice No: 30 Case No: M40  
Age/Sex: 28 Years / Male Registered On: 22-09-2024 06:10 PM  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Biochemistry  
LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	155.6	mg/dl	< 200
TRIGLYCERIDE	128.2	mg/dl	<150
HDL Cholesterol	48.6	mg/dl	40 - 60
LDL / HDL Ratio	1.62		1.5 - 3.5
LDL Cholesterol	78.5	mg/dl	< 100
VLDL	25.64	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	3.20		3 - 5



  
Lab Technician  
Sankar Singha  
Lab Technician OHC MCL



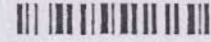
  
Medical Officer  
Meghalaya Cements Ltd  
Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



# OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. ANSHUMAN DEO

Invoice No: 30

Case No: M40

Age/Sex: 28 Years / Male

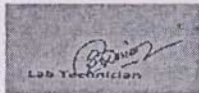
Registered On: 22-09-2024 06:10 PM

Referrer: DR. LANU AKASH AIMOL

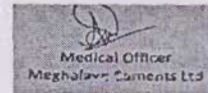
Type/Remark: Healthray Patient

## Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
CREATININE	0.92	mg/dl	0.5 - 1.4
BLOOD UREA	16.8	mg/dl	13 - 43
FASTING BLOOD SUGAR			
Fasting Blood Sugar	92.0	mg/dl	70 - 100



Sankar Singha  
Lab Technician OHC MCL

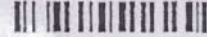


Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



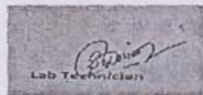
**OCCUPATIONAL HEALTH CENTRE**  
MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



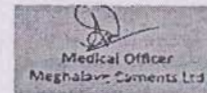
Name: MR. ANSHUMAN DEO Invoice No: 30 Case No: M40  
Age/Sex: 28 Years / Male Registered On: 22-09-2024 06:10 PM  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Others

TEST	RESULT	UNIT	REFERENCE RANGE
POST PRANDIAL BLOOD SUGAR			
Post Prandial Blood Sugar	118.0	mg/dl	70 - 140



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



# OCCUPATIONAL HEALTH CENTRE MEGHALAYA CEMENTS LTD.

VILL. THANGSKAI, P.O. LUMSHNONG, DIST. EAST JAINTIA HILLS, MEGHALAYA

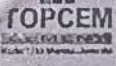
DATE ~~23~~ 23/9/24

C/C	NAME: <u>Rahul Kumar</u> AGE: <u>23y</u> SEX: <u>(M)</u>
O/E	Ht = 170 cm
B.P	Wt = 63 kg
PULSE	Rbp = 115/68 mm Hg.
P/A	Adv - LFT
CVS	KFT
	Lipid Profile
	FBS.
	PPBS.
INVESTIGATION	

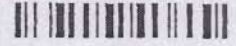




Annexure - IV



MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAHUL KUMAR

Invoice No: 33

Case No: M43

Age/Sex: 23 Years / Male

Registered On: 23-09-2024 11:18 AM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Haematology  
LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.72	mg/dl	0.3 - 1.2
SGOT (AST)	20.6	U/L	15 - 40
SGPT (ALT)	28.4	U/L	10 - 49
S. Alkaline Phosphatase	109.2	U/L	30 - 120
SERUM PROTEIN			
Total Protein	7.3	g/dL	5.7 - 8.2
Albumin	4.2	g/dL	3.2 - 4.8
Globulin	3.10	g/dL	2.5 - 3.4
A/G Ratio	1.35		0.9 - 2

Interpretation :

Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST, ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia. In a patient with Chronic liver disease, AST: ALT ratio >1 is highly suggestive of advanced liver fibrosis.
3. In known cases of Chronic Liver disease due to Viral Hepatitis B & C, Alcoholic liver disease or NAFLD, Enhanced liver fibrosis (ELF) test may be used to evaluate liver fibrosis.
4. In a patient with Chronic Liver disease, AFP and Des-gamma carboxyprothrombin (DCP)/PIVKA II can be used to assess the risk for the development of Hepatocellular Carcinoma.



Sankar Singha  
Lab Technician OHC MCL

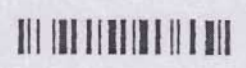


Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAHUL KUMAR  
Age/Sex: 23 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 33

Case No: M43  
Registered On: 23-09-2024 11:18 AM

Biochemistry  
LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	152.6	mg/dl	< 200
TRIGLYCERIDE	136.8	mg/dl	<150
HDL Cholesterol	46.4	mg/dl	40 - 60
LDL / HDL Ratio	1.86		1.5 - 3.5
LDL Cholesterol	86.2	mg/dl	< 100
VLDL	27.36	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	3.29		3 - 5



Sankar Singha  
Lab Technician OHC MCL

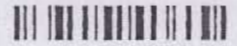


Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong, East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAHUL KUMAR

Invoice No: 33

Case No: M43

Age/Sex: 23 Years / Male

Registered On: 23-09-2024 11:18 AM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
CREATININE	0.86	mg/dl	0.5 - 1.4
BLOOD UREA	23.4	mg/dl	13 - 43
FASTING BLOOD SUGAR			
Fasting Blood Sugar	90.0	mg/dl	70 - 100



Sankar Singha  
Lab Technician OHC MCL

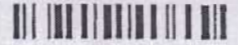


Dr. Lanu Akash Aimol  
RMO OHC MCL

Annexure - IV



MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,  
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. RAHUL KUMAR  
Age/Sex: 23 Years / Male  
Referrer: DR. LANU AKASH AIMOL  
Type/Remark: Healthray Patient

Invoice No: 33

Case No: M43

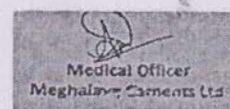
Registered On: 23-09-2024 11:18 AM

Others

TEST	RESULT	UNIT	REFERENCE RANGE
POST PRANDIAL BLOOD SUGAR			
Post Prandial Blood Sugar	116.0	mg/dl	70 - 140



Sankar Singha  
Lab Technician OHC MCL



Dr. Lanu Akash Aimol  
RMO OHC MCL

## Occupational Health Center Details

MCL OHC Staff Details			
Sl.No.	Name of Staff	Course	Designation
1	Dr. LanuAkashAimol	MBBS	Medical Officer
2	Dr. FedelisLungdin	BDS	Dental Officer
3	Sabir Hussain	GNM	Male Nurse
4	Shilpi Nath	ANM	Female Nurse
5	Wanpali	ANM	Female Nurse
6	TariniBezburah	RMP	Compounder
7	Shankar Kumar Singha	MLT	Lab Technician
8	JyotishmanKashyap	Certificate Course	X-ray Technician
9	DeimonmiSuiam	10th	Dresser
10	GenevolinLamare	10th	Office Assistant
Hospital Equipment & Services			
Sl. No.	Hospital Equipments	Quantity	Remarks
1	ECG Machine	1	
2	Audiometry Machine	1	
3	Spirometry Machine	1	
4	Nebulizer machine	2	
5	Suction Machine	2	
6	AUTOMATIC EXTERNAL DEFIBRILLATOR	1	
7	Multipara monitor	2	
7	Multipara monitor-2	2	
8	Manual BP Machine -2	2	
9	Digital BP machine-2	2	
10	Minor OT light-2	2	
11	Hospital Bed (Fowler, Semi fowler, Plain)	10	
12	Bedside curtain screen	3	
13	Auto-clave Machine	2	
14	Digital otoscope	1	
15	Instrument Boiler	1	
16	Needle Cutter	1	
17	Foldable Stretcher	5	
18	Wheel Chair	3	
19	Steel Stretcher Trolley	1	
20	B-Type Oxygen Cylinder	6	
21	D-Type Oxygen Cylinder	5	
22	C-PAP	1	
Dental Equipment's			
1	Dental Chair	1	
2	UV STERILIZER	1	
3	Dental air compressor	1	
4	Dental Scalers Set	1	



5	Dental Glass Bead Sterilizer	1	
<b>X-Ray Equipment's</b>			
1	X-RAY machine	1	
2	Radiography CR system	1	
3	Xray Lead Barrier	1	
4	Lead thyroid collar	1	
5	Lead Vest	1	
<b>Ambulance Service @ 24x7</b>			
1	BLS Ambulance	1	
2	Mini Ambulance	1	
<b>Lab Equipment details</b>			
Sl. No.	Name of Equipments	Quantity	Remarks
1	Microscope	2	
2	Centrifuge Machine	2	
3	Semi Auto Analyzer	1	
4	Fully Automatic Hematology Analyzer	1	
5	Fully Automatic Immunofluorescence Quantitative Analyzer	1	
6	Fully Automatic Electrolyte Analyzer	1	
7	Haemo Meter	2	
8	Blood Glucose Meter	2	
9	Micropipette 100-1000 Micro Litre	1	
10	Micropipette 5-50 Micro Litre	1	
11	Incubator	1	
12	Blood cell Counter	1	
13	Haemocyto Meter	1	
14	Test Tube Rack	3	
15	ESR Stand	1	
<b>Lab Testing Facility</b>			
Sl. No.	Lab Testing Facility		
1	Blood Glucose:- Fasting, Random &PP		
2	COMPLETE BLOOD COUNT (CBC)		
3	ESR		
4	KIDNEY FUNCTION TEST (KFT)		
5	LIVER FUNCTION TEST (LFT)		
6	LIPID PROFILE		
7	SERUM ELECTROLYTES		
8	THYROID PROFILE		
9	HbA1C		
10	C-Reactive Protien Latex Test		
11	R.F. (Latex Test)		
12	VDRL		
13	HBsAg (Hepatitis-B)		
14	HCV (Hepatitis-C)		



15	A.B.O. Grouping
16	Rh Type
17	Malaria Test
18	Widal Test
19	Dengue Kit
20	Serum Uric Acid
21	HCG
22	ECG
23	SPIROMETRY (PFT)
24	AUDIOMETRY
25	Trop-T
26	ASO
27	CKMB
28	CARDIAC TROP I
29	PROCALCITONIN
30	MICROALBUMIN
31	SERUM TOTAL CALCIUM
32	Urine Routine Examination
33	Stool Routine Examination
<b>Hospital Emergency Services</b>	
1	24 X 7 Doctor Availability
2	24 X 7 BLS Ambulance Service
3	24 X 7 Mini Ambulance Service





Water splinking on haul road







MEGHALAYA CEMENT LTD  
THANGSKAI  
Bilimadal

# POLLUTION TESTING STATION

## LADTHALABOH, JAINTIA HILLS

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



LICENCE NO. Com/Trans/74/2004/5  
DATE OF ISSUE:- 21<sup>st</sup> March, 2005

Book No. 140

Sl.No. 6990

Date. 15/10/24

### SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 04 A 7615 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	Hartidye Units	Bosch Unit	Light absorption co-efficient	Hartidye Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture.	3.25	75	5.2		21.10%
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 valid upto 14/04/25

Jasper I. Slong  
Govt. Approved  
Pollution Testing Station  
Ladthalaboh, Jowai, Meghalaya

Com/Trans/PTS(JIS)/44/2005/140, Dated : 17.10.2019



# 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:- 21<sup>st</sup> March, 2005

Book No. **140**

Sl.No. **6991**

Date 15/10/24

## SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 04A 7614 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	Hartidye Units	Bosch Unit	Light absorption co-efficient	Hartidye Units
1. Full load at 60 to 70% of maximum engine rated rmp declared by the manufacture.	3.25	75	5.2		19.8%
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 upto 14/04/25

Com/Trans/PTS(JIS)/44/2005/140, Dated : 17.10.2019

**Jasper I S Long**  
 Govt. Approved  
 Pollution Testing Station  
 Ladthalaboh, Jowai, Meghalaya



# POLLUTION TESTING STATION

## LADTHALABOH, JAINTIA HILLS

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



LICENCE NO. Com/Trans/74/2004/5  
DATE OF ISSUE:- 21<sup>st</sup> March, 2005

Book No. **140**

SLNo. **6998**

Date 15/10/24

### SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 04 B 6903 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	Hartidye Units	Bosch Unit	Light absorption co-efficient	Hartidye Units
1. Full load at 60 to 70% of maximum engine rated rmp declared by the manufacture.	3.25	75	5.2	21.8%	
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 upto 14/04/25

Jasper I. Slong  
Govt. Approved  
Pollution Testing Station  
Ladthalaboh, Jowai, Meghalaya

Com/Trans/PTS(JIS)/44/2005/140, Dated : 17.10.2019



# POLLUTION TESTING STATION

## LADTHALABOH, JAINTIA HILLS

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



LICENCE NO. Com/Trans/74/2004/5  
DATE OF ISSUE:- 21<sup>st</sup> March, 2005

Book No. **140**

Sl.No. **6999**

Date 15/10/24

### SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 04 B 6902 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	Hartidye Units	Bosch Unit	Light absorption co-efficient	Hartidye Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacture.	3.25	75	5.2		19.9%
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 upto 14/04/25

Com/Trans/PTS(JIS)/44/2005/140, Dated : 17.10.2019

Jasper. I. Slong  
Govt. Approved  
Authorised Signatory  
Pollution Testing Station  
Seal of the Testing Station  
Ladthalaboh, Jowai, Meghalaya



Annexure - VII

# POLLUTION TESTING STATION

## LADTHALABOH, JAINTIA HILLS

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



LICENCE NO. Com/Trans/74/2004/5  
DATE OF ISSUE:- 21<sup>st</sup> March, 2005

Book No. 140

Sl.No. 7000

Date 15/10/24

### SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 04 B 6901 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	Hartidye Units	Bosch Unit	Light absorption co-efficient	Hartidye Units
1. Full load at 60 to 70% of maximum engine rated rmp declared by the manufacture.	3.25	75	5.2		29.10 %
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 valid upto 14/04/25

Jasper. I. Slong  
Govt. Approved  
Pollution Testing Station  
Ladthalaboh, Jowai, Meghalaya  
Seal of the Testing Station

Com/Trans/PTS(JIS)/44/2005/140, Dated : 17.10.2019



Annexure - VII



**MEGHALAYA CEMENTS LIMITED**

CIN- U26942ML2003PLC007125



Ref.: -MCL/ENV/CGWB/Comm./2024-25/12

Date: 08.06.2024

To,

*The Regional Director*

Central Ground Water Board,  
4P7C+7RQ, NH-37, OPP-ISBT,  
Betkuchi, Gaurchuk,  
Guwahati, Assam.

**Sub: - Submission of Action Taken Report on Rainwater harvesting measures implemented by Meghalaya Cements Limited at Village -Thangskai.**

**Ref: - Report issued by Central Ground Water Board, Regional Office- Guwahati in December, 2023.**

Dear Sir,

With reference to subject cited above, we are hereby submitting the Action Taken Report on Rainwater harvesting measures as per recommendation given by you though mail on 13<sup>th</sup> December-2023 (report enclosed). Further we wish to inform you that we have constructed appropriate numbers of storage tank to catch & use of the roof top rain water and established the Piezometer to monitor the ground water level & quality in our 2600TPD Cement Plant & 31.05 Ha Limestone Mines to comply the EC Stipulation.

Detail layout of Storage tanks along with roof area, roof materials, volume of rain water and number of recharge structures are attached herewith for your kind consideration.

On view of the above we request you to kindly provide us closure report on Rainwater harvesting measures implemented by the company.

Thanking You Sir,

Yours Faithfully,

For *Meghalaya Cements Limited*

*Nutan*  
Authorized Signatory

Encl: as above.



*12/6/24*  
Deputy  
Government of India  
Central Ground Water Board  
North Eastern Region  
Nalbari (Opp-ISBT)  
Guwahati-781 035



**Sales & Marketing Office :**  
Mega Plaza, 4th Floor, Christian Basti  
G.S. Road, Guwahati - 781 005  
Tel. : 0361 2345421/22/23, Fax : 0361 2345419  
E-mail : guwahati@topcem.in  
Web : www.topcem.in

**Kolkata :**  
BE-77, Salt Lake City  
Sector-1, Kolkata - 700 064  
Tel. : 033 2334 0666 / 0004  
Fax : 033 2334 0505  
E-mail : kolkata@topcem.in

**Registered Office :**  
Village: Thangskai, P.O. & P.S. Lumshnong  
District : East Jaintia Hills, Meghalaya, PIN: 793210  
Tel. : +91 89742 17765 / 70850 58469 / 98625 09599  
E-mail : meghalaya@topcem.in



ISO 9001:2015 & 14001:2015  
50001:2011 Certified Company

HELPLINE NO : 18001233666

## Action Taken Report

### Meghalaya Cements Limited

Details of Storage tank along with roof area, roof materials, volume of rain water and number of recharge structures on Rain water Harvesting measures implemented by M/s Meghalaya Cements Limited at Village- Thangskai, Po- Lumshnong, Dist- East Jaintia Hills, Meghalaya to comply the EC stipulation of 2600 TPD Cement Plant & 31.05 Ha Limestone Mines: -

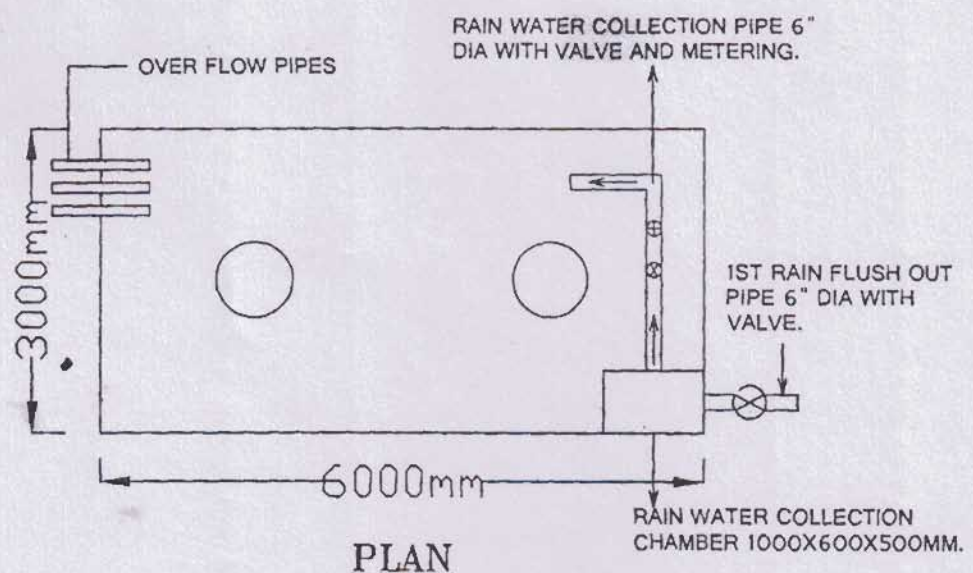
SL. No.	Queries	Reply or Clarification
1	What is the total roof area of the entire site?	Raw Material Shed area- 31557.42 sqmtr & Residential Colony building roof area- 4777.194 sqmtr  Total roof area is 36334.614 sqmtr.
2	How many sectors are in the project area and name? (i.e., raw material yard, colony building, etc.)	There are two sectors i.e raw material yard and colony building.
3	What is the roof area in each sector and what is the roof of materials?	Raw Material Shed area- 31557.42 sqmtr Residential Colony building roof area- 4777.194 sqmtr.  CGI Sheets are used for Raw Material Shed and RCC for Colony building.
4	What is the volume of rain water in each sector and how many storage tanks you have already built in each sector?	Volume of rain water  For Raw Material Shed area = 31557.42 $*6.683*0.80= 168718.6 \text{ m}^3$  For Residential Colony building= 4777.194 $*6.683*0.80= 25540.79 \text{ m}^3$  01 storage tank has made for Raw Material Shed area and 02 storage tanks has made for Colony building. Additional 2 storage tanks constructed newly at WHRS Area.
5	How many storage tanks you planned to construct to capture the entire volume of rain water in how many days?	So far total 05 nos. of Storage tank start functioning to capture the entire volume of rain water.



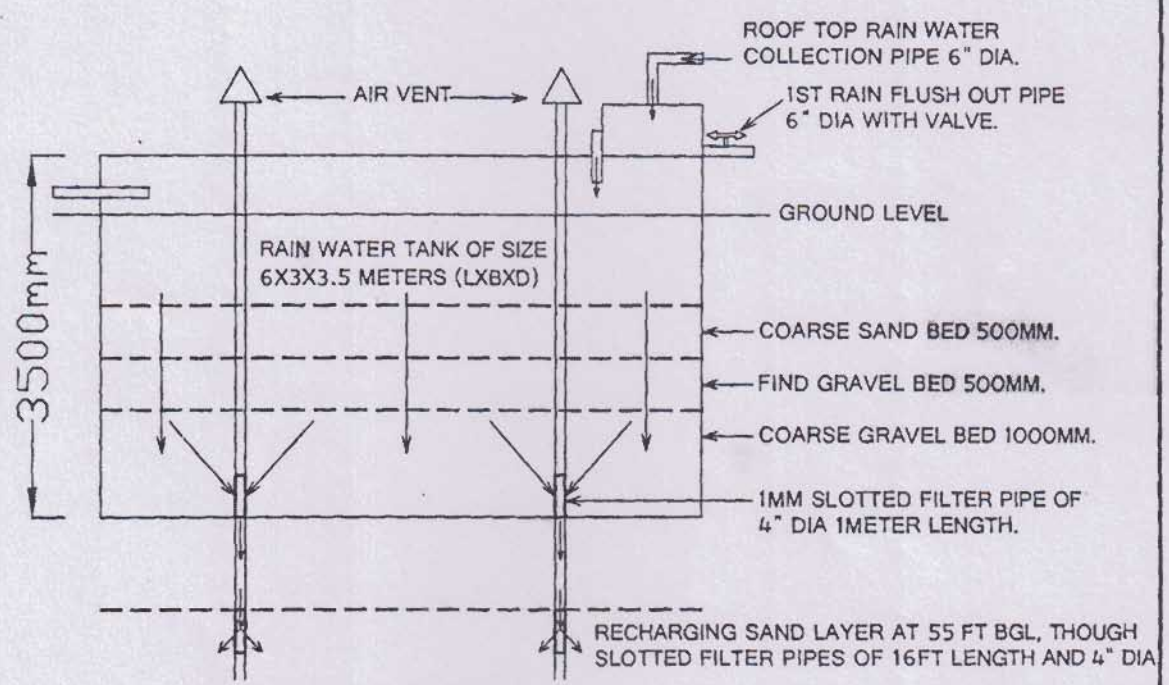


6	How many recharge structures you have constructed to recharge what volume of water?	05 no. of recharge structures with total 1863.49 m <sup>3</sup> capacity have been constructed to recharge the water. All are operational. Collected rain water is being used in process.
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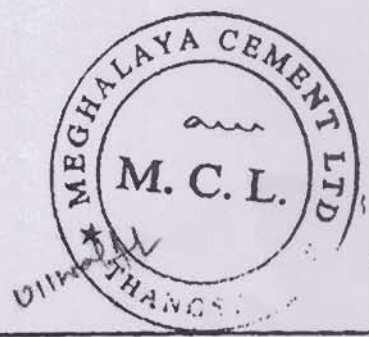




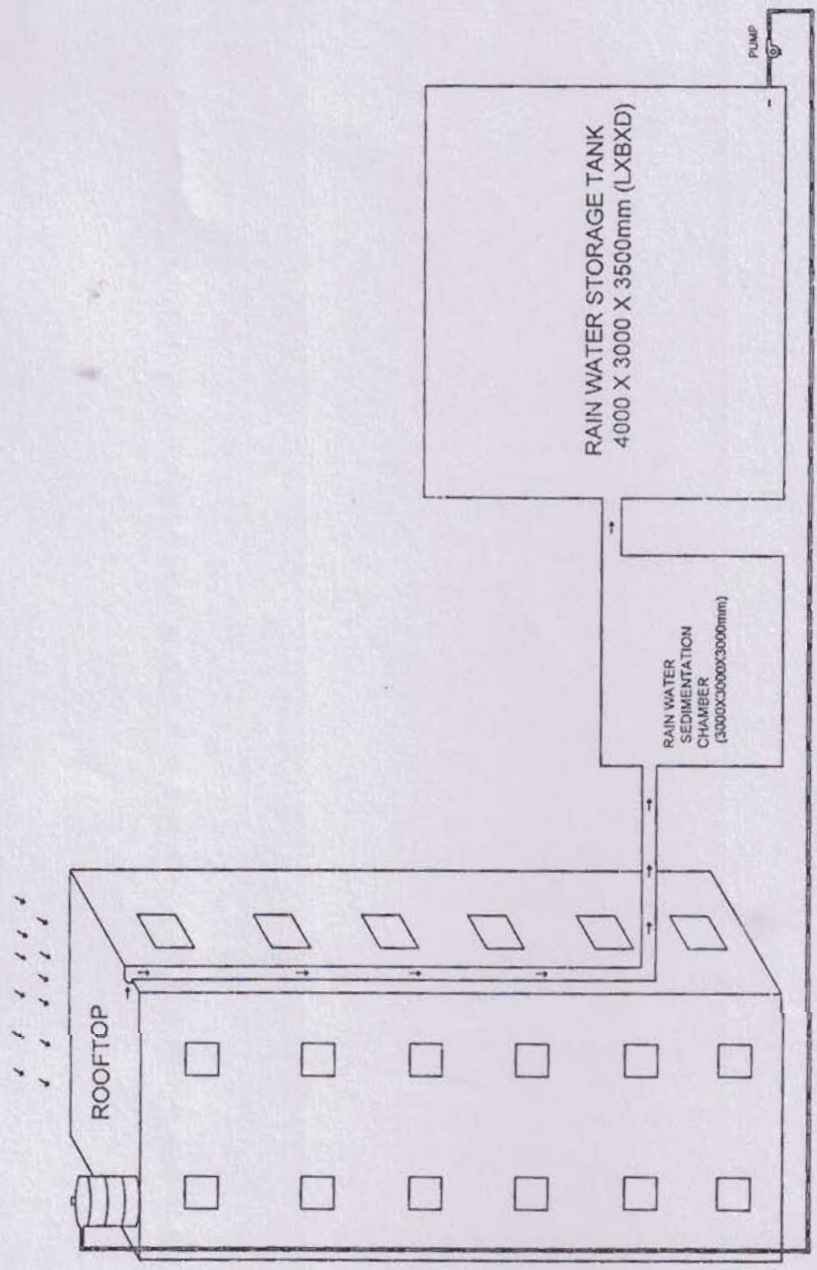
PLAN



ELEVATION

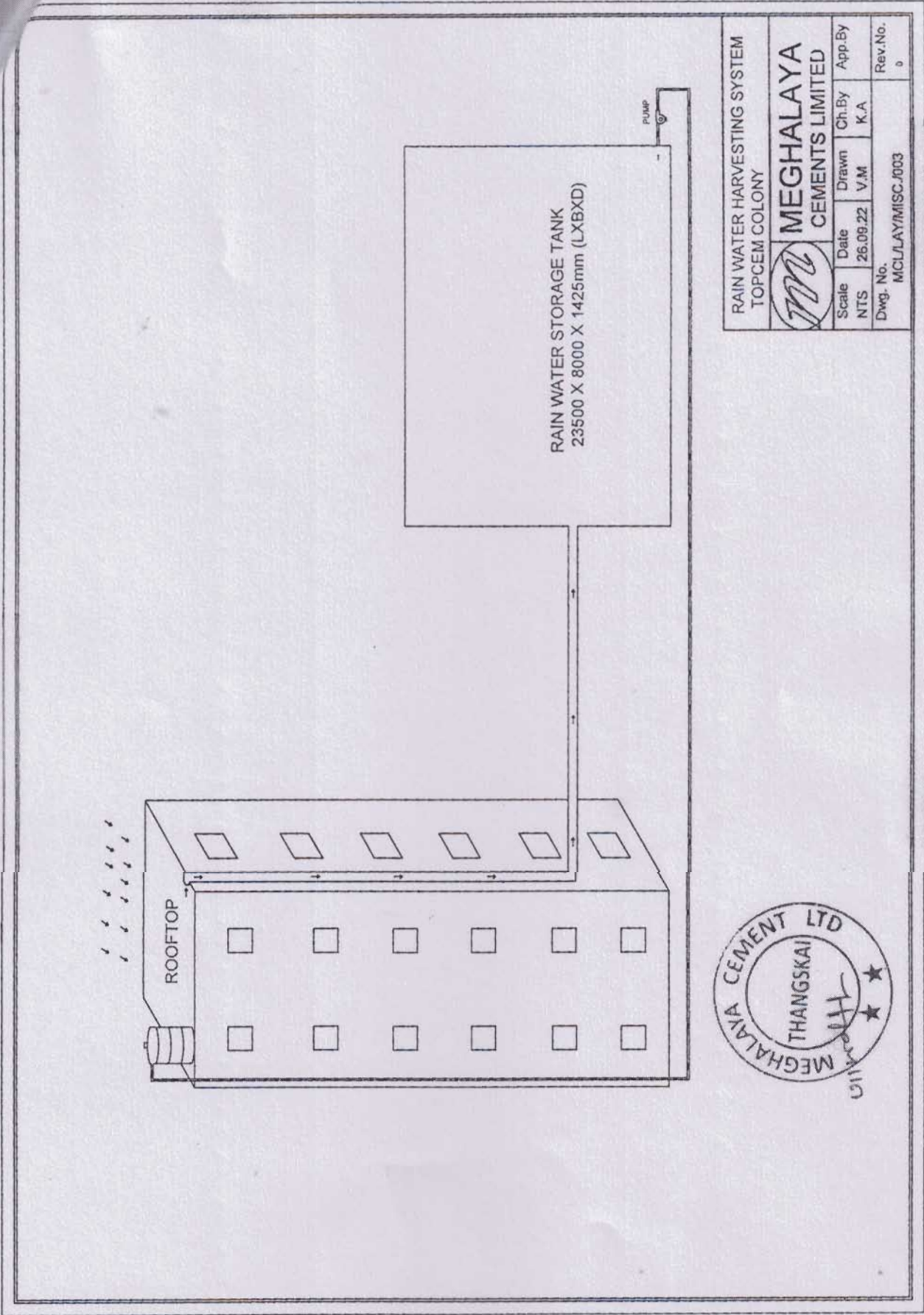


RAIN WATER HARVESTING SYSTEM				
		MEGHALAYA CEMENTS LIMITED		
SCALE NTS	DRAWN BY K.A.	DATE 06.02.16	CHKD. BY	APPD. BY
DRG. NO. MCL/LAYOUT/RWHS/001				REV 0



RAIN WATER HARVESTING SYSTEM-E BLOCK			
<b>MEGHALAYA CEMENTS LIMITED</b>			
Scale	Date	Drawn	App. By
NTS	25.09.22	V.M	K.A
Dwg. No. MCL/LAY/MISC/JDD2			Rev.No. 0

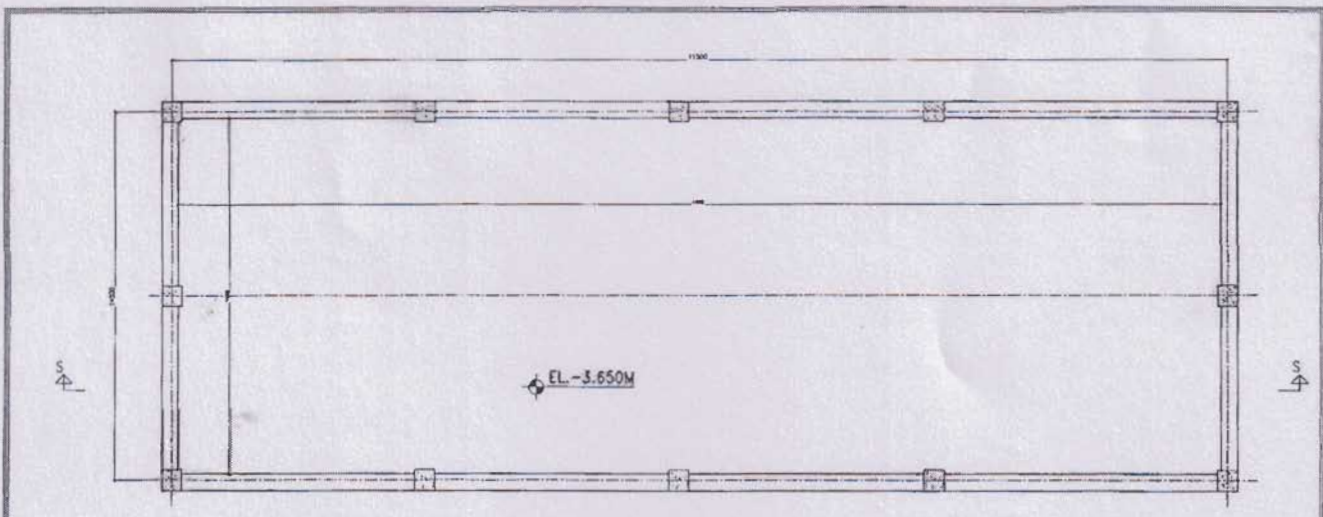




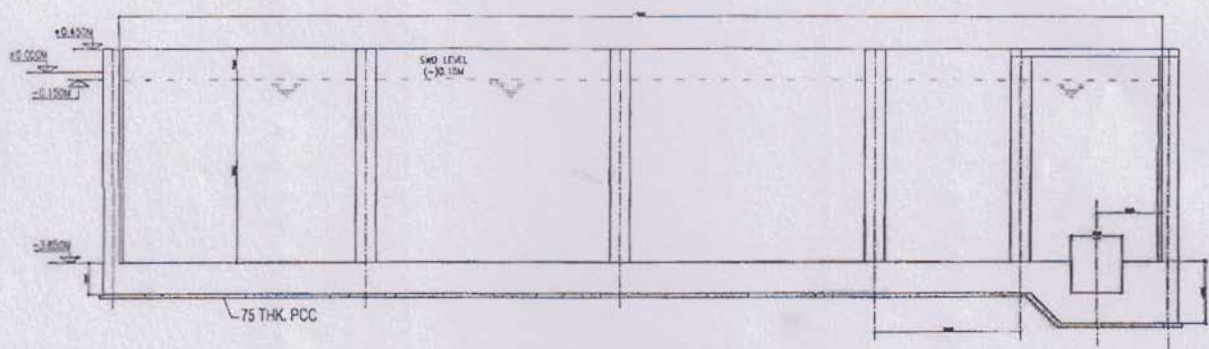
RAIN WATER HARVESTING SYSTEM  
TOPCEM COLONY

	Scale	Date	Drawn	Ch.By	App.By	Rev.No.
	NTS	26.09.22	V.M	K.A		
Dwg. No. MCL/LAY/MISC./003						0





TANK BOTTOM PLAN

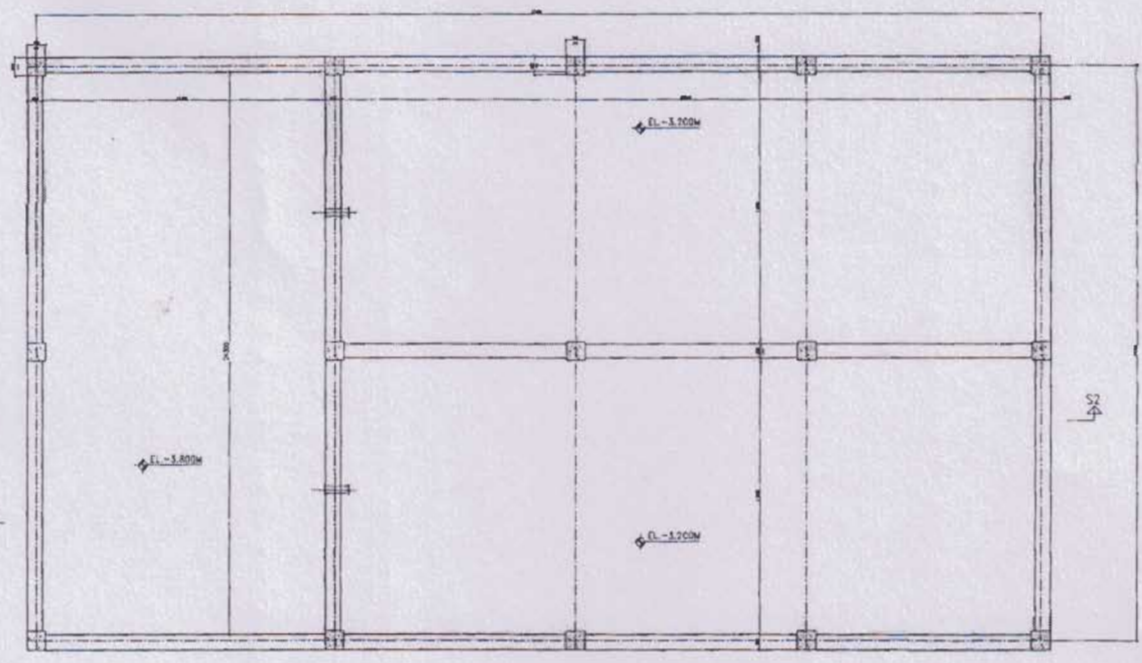


Elevation view (S-S)

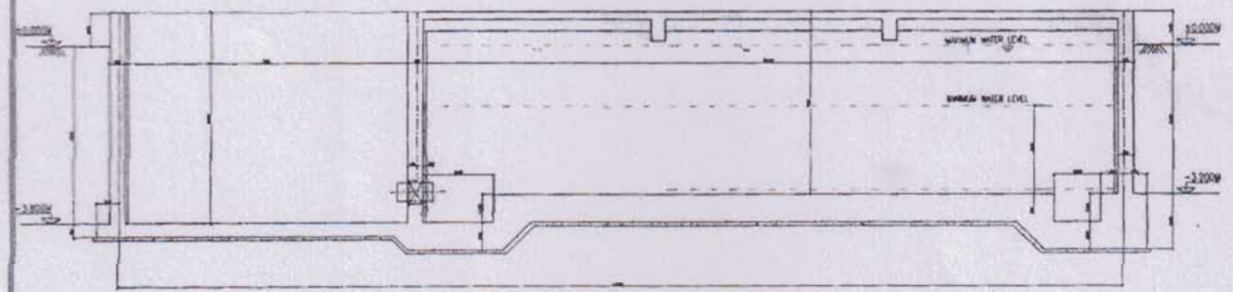


WATER STORAGE TANK  
CAPACITY - 500 CUM

CT BLOWDOWN WATER STORAGE TANK			
		MEGHALAYA CEMENTS LIMITED	
SCALE N.T.S.	DRAWN BY G.K	CH. BY U.A	APPD. BY
DATE 14.03.2024			
DRG. NO - MCL/MISC/C.T.B/W.TANK-001			REV 0




TANK BOTTOM PLAN



Elevation view(S2-S2)



WATER STORAGE TANK  
CAPACITY- 990.59 CUM

RAW WATER STORAGE TANK			
 <b>MEGHALAYA CEMENTS LIMITED</b>		SCALE	APPD. BY
		N.T.S.	
DATE	DRAWN BY	CH. BY	
14.03.2024	G.K.	U.A.	
DRG. NO			REV
MCL/MISC/RAW/W.TANK-002			0

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सरकारी उपयोग के लिए केवल

Technical series



Central Ground Water Board

केंद्रीय भूमिजल बोर्ड

Ministry Of Water Resources, River Development & Ganga Rejuvenation

जलसंसाधन, नदीविकास और गंगा संरक्षण मंत्रालय

GOVERNMENT OF INDIA

भारत सरकार

REPORT ON RAIN WATER HARVESTING MEASURES IMPLEMENTED  
BY M/s MEGHALAYA CEMENTS LIMITED AT VILLAGE- THANGSKAI,  
SOUTH KHLIEJHARI, PO-LUMSHNONG,  
DIST-EAST JAINTIA HILLS, MEGHALAYA

State Unit Office

राज्य इकाई कार्यालय

Shillong

शिलांग

December, 2023



**REPORT ON RAIN WATER HARVESTING MEASURES IMPLEMENTED BY M/s MEGHALAYA CEMENTS LIMITED AT VILLAGE- THANGSKAI, SOUTH KHLIEJHARI, PO-LUMSHNONG, DIST-EAST JAINTIA HILLS, MEGHALAYA**

A request had been received from Meghalaya Cements Limited, Thangskai, East Jaintia Hills district vide letter No MCL/ENV/CGWB/Comm/2022-23/31 dated 7<sup>th</sup> November, 2022 to approve the Rainwater Harvesting scheme/project being carried out in their campus. The Regional Director, Central Ground Water Board, North Eastern Region, deputed officers of SUO, Shillong to carry out the inspection of the above mentioned ongoing project. Accordingly, the inspection had been carried out in a reason 25<sup>th</sup> April, 2023.

Inspection Team : Ms. Dakshina Rabha, Scientist-D(HG)  
Ms. Anenuo Pienyu, Scientist-C (HG)

Location details : **Meghalaya Cements (Topcem Cement).**  
Village -Thangskai  
District -East Jaintia Hills  
State -Meghalaya

Co-ordinates : 25°12'12.60" North Latitude  
92°22'47.83" East Longitude

Altitude : 798m.

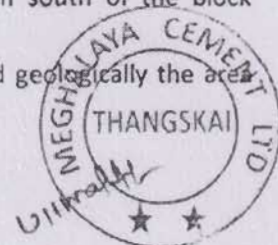
**Introduction**

The Meghalaya Cement Company wants expansion of cement plant by increasing its production capacity from existing 900 TPD to 2600 TPD along with 18MW Captive Power Plant at Thangskai, East Jaintia Hills district, Meghalaya. For this it requests amendment of Environmental Clearance relating to reduction of existing land area. On accepting the proposal of the company, State Environment Impact Assessment Authority impose some conditions for protecting the environment by developing green belt, restricting ground water extraction and recharging aquifer, recycling and reusing waste water, etc.

**Scope of the Survey:** State Environment Impact Assessment Authority in its environmental clearance report specifically instructed the company to practice rain water harvesting. It advised the company to prepare a detailed scheme for rain water harvesting to recharge the GW aquifer in consultation with CGWA/state GW Board within six months of receipt of Environmental Clearance. Accordingly this study was undertaken to examine the scope of rain water harvesting as well as possibility of recharging aquifer.

Location: M/S Meghalaya Cement Limited is located at village Thangskai, PO- Lumshnong, Dist- East Jaintia Hills, Meghalaya. Its distance from the state capital Shillong is 104 Kms on the National Highway number 44 connecting the capital and the eastern part of Assam passing through the district. The study area is located at a distance of 18 km south of the block headquarters Khliehriat.

M/s Meghalaya Cements Limited is located (in an undulatory terrain and geologically the area





predominantly consists of Jaintia Group (Age: Paleocene-Eocene) of rocks which is comprised of Sandstone and Limestone of Shella Formation. The depth of weathered zone is 1-2 m followed by hard massive rocks.

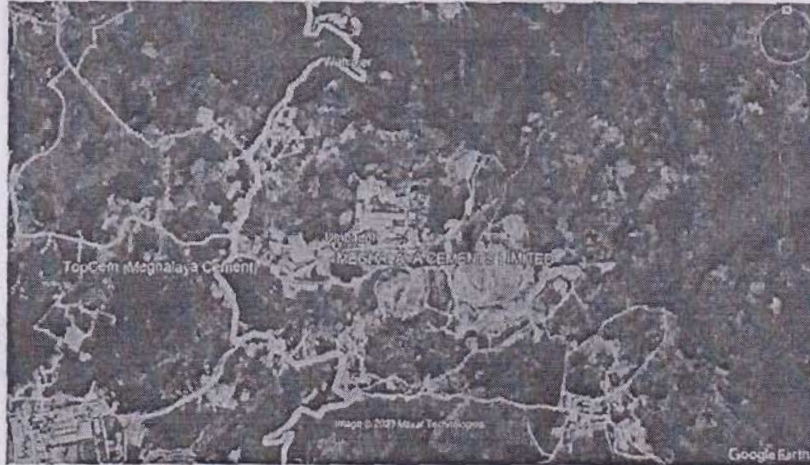


Fig.1: Location of M/s Meghalaya Cement Limited.

At present the total population of the premises are 2214 (Office: 1358, Residential Quarter: 843, Floating Population, Guest House: 13). There is no groundwater abstraction structure in the campus to cater domestic need. The company does not have any plan to construct any groundwater structure in the campus.

At present the water supply in the campus, is provided from a nearby stream. Water harvested from rooftop of buildings is also used for domestic purposes which are collected in storage tanks and recharge pits. One depression spring is located in the campus. The spring water is collected in a tank and utilized for electricity generation.

**Rain water harvesting scheme:** To comply conditions of State Environment Impact Assessment Authority, the company compiled following data for preparations of rainwater harvesting schemes.

- (i) **Rainfall data:** The company collected rainfall data of Shillong rain gauge station for last 5 years due to non-availability of continuous time series data of nearby Jowai station (Table 1). The average annual rainfall is 6683mm while average monsoon rainfall is 4758mm.

Table1: 5 years rainfall data of IMD, Shillong station.

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
2016	13.7	8.8	83.7	1026.9	661.2	796.4	2603.8	318.6	644.4	335.6	25.7	7.5
2017	0.6	214.4	313.4	887.4	395.9	1537.9	1433	1523.6	854	471.9	11.8	35.8
2018	3.6	18.1	67.7	264.6	691.5	1129.7	1431.7	746.6	617.5	73.9	6.1	14.9
2019	0.1	28.9	22.5	271.9	913.5	1474.5	2210.6	731.3	1016.6	508.3	25.8	3.3
2020	28.1	14.9	31.2	265.1	1533.2	1465.5	1668.2	224.2	1361.4	327.7	17.2	0.0

- (ii) **Roof area:** The entire area is divided into two sectors, viz., Raw Material Shed and Residential Colony building. The roof area, roof materials, volume of rain water available and storage tank constructed of each sectors are as follows:



Sector	Roof materials	Roof area (Sq.m)	volume of rain water (m3)	Storage tank constructed	Capacity of storage tanks (m3)
Raw Material Shed	Tin	31557.42	168718.6	1	42
Residential Colony building	RCC	4777.194	25540.79	2	267.9x2=535.8

(iii) Recharge structure: The company constructed only one recharge structure to recharge 63m<sup>3</sup> of water.



Fig.2:Raw Material Yard



Fig.5: Residential Quarters

**Observation on compliance of State Environment Impact Assessment Authority conditions pertaining to Central Ground Water Board:**

State Environment Impact Assessment Authority besides other conditions instructed the company for compliance of following conditions:

(1) Special conditions no. vi) debarred the company from use of groundwater for power productions.

Observations of CGWB: At present the company is not extracting groundwater from bore well or dug well. However, spring water is utilized for power production. Spring water is in fact is groundwater oozing out due to intersection of water table with topographic contour.

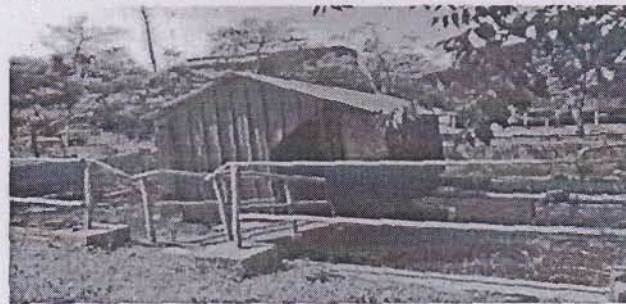


Fig.2: Spring water collection tank with power generation chamber.

(2) The company has prepared and implemented roof top rain water harvesting and recharging plan as mentioned earlier. However, the scheme is flawed due to use of excess rainfall data and choosing of wrong runoff coefficient. If IMD rainfall data of Jowai station was not available then they should use IMD grid data of Jaintia Hills. The IMD Grid data of Jaintia Hills for 10 years (2013-2022) is shown in Table: 3.

Table 3: Rainfall (mm) data of Jaintia Hills District, Meghalaya (source: India WRIS)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	0	10.12	60.41	98.51	440.32	210.86	299.4	282.57	194.63	120.77	0	1.9
2014	0.08	21.17	32.07	53.51	301.87	245.43	429.09	292.69	339.86	21.76	0.18	0.09
2015	16.14	15.36	28.64	258.55	214.52	357.91	290.41	333.3	266.12	53.93	19.21	4.78
2016	18.19	32.61	48.38	433.52	498.54	189.49	295.96	147.23	277.01	85.63	127.98	7.98
2017	0.25	48.43	237.77	444.39	261.56	426.47	299.33	341.97	319.22	280.34	18.38	55.23
2018	11.33	13.41	78.47	115.34	205.11	419.98	211	256.86	212.03	61.11	9.36	46.92
2019	0.12	18.61	37.16	137.79	291.51	291.2	366.88	220.35	211.67	231.89	25.66	0.68
2020	8.89	2.83	26.73	135.28	269.95	437.56	226.83	172.83	261.52	169.24	26.26	0.34
2021	2.07	0.21	66.45	120.33	200.05	244.69	230.54	315.36	109.11	185.47	0.05	21.66
2022	25.47	47.54	97.87	395.75	672.53	700.2	258.65	126.45	134.6	126.96	0.36	7.09

Runoff coefficient of tin and R.C.C. are 0.9 and 0.7 respectively (Source: Manual of Artificial Recharge of Groundwater (2007 & page: 118). With these data the total rain water volume available in the two sectors are as follows:

Sector	Roof materials	Runoff coefficient	Roof area (Sq.m)	volume of rain water (m <sup>3</sup> )
Raw Material Shed	Tin	0.9	31557.42	55423.55
Residential building Colony	RCC	0.7	4777.194	6525.61

The storage tanks that are currently being built and those that are planned will collect approximately 1% of the total amount of rainwater that can be collected from the roof (61949.16 m<sup>3</sup>). If the volume of rainwater is not stored in toto, it may flow as surface runoff and breach the restrictions set forth in special condition number xxi.

(3) The total quantity of run-off that is generated in the site is 185826.56 m<sup>3</sup> (Table: 4)

Table 4: Quantum of runoff available through Rainwater harvesting (within premises) for 2600 TPD Cement Plant

S. N.	Particulars	Area (Sq.m) (To be filled)	Rainfall (m) (To be filled)	Runoff Coefficient*	Quantum of runoff available (Cum/Year)
	1	2	3	4	5(2*3*4)
1	Roof Top of building/Shed	36334.6	1.95142	0.85	60268.41682
2	Road/Paved area	49560	1.95142	0.65	62862.97945
3	Open Land (Rest of Area)	29540	1.95142	0.20	11528.97754
4	Green Belt (Plantation)	174800	1.95142	0.15	51166.17996
	<b>Total (Sq.m)</b>	<b>477825</b>	<b>Total Quantum of available runoff (Cum/Year)</b>		<b>185826.55</b>

It is necessary to manage 70% of the non-committed run-off after classifying 30% as committed run-off (committed to fill roof top rainwater harvesting structure). 10% of the total non-committed run-off can be considered to be infiltrated by natural process. So at least half of the remaining 60% non-committed run-off needs to be managed either by recharge or storage. In either case recharging 63m<sup>3</sup> of surface run-off is too small amount

and it will not serve any purpose.

Before recharging, water level condition of the site needs to be measured periodically. The general criteria of recharge is that if post-monsoon water level is deeper than 5 mbgl (metre-below-ground-level) then only the artificial recharge technique can be applied. Since there is no mechanism to measure groundwater level in the site, the company should construct some ground water monitoring wells (preferably piezometers that can tap the sandstone aquifer) and measure the water level periodically as mentioned in the environmental clearance letter. After that only artificial recharge plan should be prepared. However, some ponds/tanks of appropriate dimensions should be constructed to conserve the non-committed surface run-off.

#### **CONCLUSION AND RECOMMENDATION:**

The rain water harvesting schemes is prepared with flawed data set. The constructed as well as proposed storage tanks will store nearly one percent of available rooftop rain water. It is determined that the 63m<sup>3</sup> of rainwater intended for recharge is insufficient when taking into account of the volume of non-committed run-off. .

#### **Recommendations:**

- i. Appropriate numbers of storage tanks need to be constructed to catch the roof top rain water.
- ii. Dug wells/piezometer networks should be establish to monitor GW level and quality as per directions issued by ENVIRONMENTAL CLEARANCE letter (No.SEIAA/(PR-19/2012)/PT/PR-05/2015/444 dated Shillong the 9<sup>th</sup> June 2017)
- iii. Artificial recharge plan should be prepared to recharge the aquifer if the post-monsoon water level is deeper than 5 mbgl.
- iv. Tanks/ponds with appropriate dimensions connected with storm water drains should be constructed to conserve the non-committed run-off.

#### **Acknowledgement**

The authors gratefully acknowledge Sh. Ujjal Anurag, Dy. Manager (Env.) and other senior officers of M/s Meghalaya Cements Limited for their kind co-operation during the course of the site inspection.





भारत सरकार | Government of India  
 वाणिज्य और उद्योग मंत्रालय | Ministry of Commerce & Industry  
 पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो) | Petroleum & Explosives Safety Organisation (PESO)  
 पूर्व नाम: विस्फोटक विभाग | Formerly- Department of Explosives  
 घर क्रमांक- २१६, दूसरी मंजिल, IDBI बैंक के ऊपर, चांदमारी | House No. 216, 2nd Floor, above IDBI, Chandmari,  
 गुवाहाटी, आसाम - ७८१०२१ गुवाहाटी | Guwahati, Assam Guwahati 781021  
 फोन (Phone):- 2652783 फैक्स (Fax):- 2652503

संख्या/ No. A/EC/MG/P3/S(A271)

दिनांक / Dated : 23/03/2022

सेवा में / To,  
 M/s. Meghalaya Cements Ltd.,  
 Thangskai, East Jaintia Hills  
 Town/Village - East Jaintia Hills  
 Distt. EAST JAINTIA HILLS, State: Meghalaya. Pincode-793210

26/3/22

विषय / Subject: Licence to possess for use of Ammonium Nitrate from a store house attached to explosives manufacturing unit (ANFO) situated at Survey No.: Umpeh Area, Village/Town. Village: Lumshnong, Distt. EAST JAINTIA HILLS, State Meghalaya  
 Licence No.: A/EC/MG/P3/S(A271) granted in Form P-3 of Ammonium Nitrate Rules, 2012 - Renewal regarding

महोदय / Sir(s),

आपके पत्र संख्या 60936 दिनांक 22/03/2022 के सन्दर्भ में अमोनियम नाइट्रेट नियम 2012 के प्ररूप पी-3 में जारी विषयक अनुज्ञप्ति दिनांक 31/3/2027 तक विधिवत नवीनीकृत कर आपको प्रेषित की जा रही है। कृपया अनुज्ञप्ति की पावती स्वीकार करें। / Reference to your letter No. 60936 dated: 22/03/2022, the subject licence duly renewed upto 31/3/2027 and issued in Form P-3 of Ammonium Nitrate Rules, 2012 is forwarded herewith, Please acknowledge receipt of the licence.

अनुज्ञप्ति के आगामी नवीनीकरण हेतु कृपया निम्नलिखित दस्तावेज इस प्रकार प्रेषित करें कि वह दिनांक 31/3/2027 को या उससे पूर्व this office में प्राप्त हो जाएं / For further renewal of licence, please submit the following documents so as to reach this office on or before 31/3/2027.

- विधिवत भरा हुआ एवं हस्ताक्षरित प्ररूप आर - 1 / Application in Form R-1 duly filled in and signed
- एक से पाँच वर्ष के अनुज्ञप्ति शुल्को का, अमोनियम नाइट्रेट नियम, 2012 के तहत ऑनलाइन आवेदन पोर्टल पर उपलब्ध ई-भुगतान सुविधा के माध्यम से लाइसेंस शुल्क ऑनलाइन जमा किया जाना है।  
Licence fees renewable for one to five years, to be submitted online through e-payment facility available on online application portal under the Ammonium Nitrate Rules, 2012.
- मूल अनुज्ञप्ति मय अनुमोदित आरेखण / Original licence with approved plan
- इस सम्बन्ध में कृपया अमोनियम नाइट्रेट नियम, 2012 के नियम 36 का भी सन्दर्भ लें / In this connection, please also refer to Rule 36 of Ammonium Nitrate Rules, 2012
- रंगीन पासपोर्ट साइज के 6 फोटोग्राफ जिन पर सामने की ओर काले रंग की अमिट स्याही से आंक्यपायर (अमोनियम नाइट्रेट नियम, 2012 के नियम 2 (O) के अन्तर्गत यथा परिभाषित) द्वारा विधिवत हस्ताक्षर किया गया हो (यदि जमा नहीं किया गया हो) / Six copies of colour passport size photographs duly signed by the occupier (as defined under Rule 2 (O) of Ammonium Nitrate Rules, 2012) 'in front' by 'black color indelible ink' (if not submitted).

संलग्नक / Enclosures :

भवदीय / Yours faithfully,  
 (एस. के. भोले) (S. K. Bhole)  
 विस्फोटक नियंत्रक | Controller of Explosives  
 For Joint Chief Controller of Explosives  
 कृते संयुक्त मुख्य विस्फोटक नियंत्रक  
 गुवाहाटी  
 For Jt. Chief Controller of Explosives  
 गुवाहाटी Guwahati

प्रतिलिपि प्रेषित / Copy Forwarded to

1. District Magistrate, EAST JAINTIA HILLS (Meghalaya) for information

कृते संयुक्त मुख्य विस्फोटक नियंत्रक | For Joint Chief Controller of Explosives  
 गुवाहाटी | Guwahati

[स्टेटस शुल्क, एवं अन्य विवरणों के बारे में अधिक जानकारी हेतु कृपया संगठन का वेबसाइट <http://peso.gov.in> देखें / For more information regarding status, fees and other details, please visit our web site <http://peso.gov.in>]



अनुज्ञप्ति प्ररूप P-3  
(अमोनियम नाइट्रेट नियम, 2012 की अनुसूची 1 की क्रम संख्या-3 और नियम 35 देखें )

LICENCE FORM P-3  
(See Sr.No.-3 of Schedule I and rule 35  
of Ammonium Nitrate Rules, 2012 )

विस्फोटक विनिर्माण इकाई (एएनएफओ) से जुड़े गोदाम से, अमोनियम नाइट्रेट के उपयोग के लिए, रखने हेतु अनुज्ञप्ति  
Licence to possess for use of Ammonium Nitrate from a store house attached to explosives manufacturing unit (ANFO)

अनुज्ञप्ति संख्या | Licence No. : A/EC/MG/P3/5(A271)  
वार्षिक अनुज्ञप्ति शुल्क | Annual license Fee Rs. 1000/-



अनुज्ञप्ति एतद्वारा जारी की जाती है  
Licence is hereby granted to :  
M/s. Meghalaya Cements Ltd. (अधिष्ठाता : Ramesh Kumar Pareek )  
Thangskai, East Jaintia Hills,  
शहर | गाँव - East Jaintia Hills  
जिला- EAST JAINTIA HILLS, राज्य- Meghalaya, पिन कोड - 793210  
Phone - , Email- , फैक्स-

- अनुज्ञप्तिधारी का स्तर Company  
Status of licence holder- Company
- अनुज्ञप्ति केवल निम्नलिखित प्रयोजन हेतु वैध है विस्फोटक विनिर्माण इकाई (एएनएफओ) से जुड़े गोदाम से, अमोनियम नाइट्रेट के उपयोग के लिए, रखने हेतु अनुज्ञप्ति  
Licence is valid only for the following purpose- Licence to possess for use of Ammonium Nitrate from a store house attached to explosives manufacturing unit (ANFO)
- अनुज्ञप्ति अमोनियम नाइट्रेट की निम्नलिखित मात्रा के लिए वैध है :  
Licence is valid for the following quantity of Ammonium Nitrate

नाम तथा विवरण Name and Description	किसी एक समय में मात्रा (कि.ग्रा.) Quantity at a time (Kg )	किसी एक वित्तीय वर्ष में क्रय की जाने वाली अमोनियम नाइट्रेट की मात्रा(कि.ग्रा.) Quantity of Ammonium Nitrate to be purchased in a financial Year (Kg )
Ammonium Nitrate (Solid)	40000	480000

- अनुज्ञप्त परिसर निम्नलिखित आरेखण(णों) के अनुरूप होगा  
The licensed premises shall conform to the following drawing(s)  
आरेखण संख्या | Drawing No : A/EC/MG/P3/5 ( A271 ) दिनांक | Dated : 13/06/2014
- अनुज्ञप्त परिसर निम्नलिखित पते पर स्थित है  
The Licensed premises are situated at following address  
Survey No. Umpeh Area, शहर/गाँव | Town/Village - Village: Lumshnong  
पुलिस स्टेशन | Police Station Lumshnong जिला | District : EAST JAINTIA HILLS राज्य | State Meghalaya  
पिन कोड | PinCode : 793210 फोन | Phone : ईमेल | E-Mail : mines@topcem.in फैक्स | Fax :
- अनुज्ञप्त परिसर में निम्नलिखित सुविधाएँ उपलब्ध हैं  
The licensed premises consist of following facilities  
Consist of one store house .
- अनुज्ञप्ति, समय-समय पर यथा संशोधित विस्फोटक अधिनियम 1884, एवं उसके अधीन बनाए गए अमोनियम नाइट्रेट नियम, 2012 की शर्तें, अतिरिक्त शर्तें तथा निम्नलिखित उपबन्धों के अधीन जारी की जाती हैं  
(i) उक्त क्रम संख्या 5 में उल्लिखित आरेखण (जिसमें स्थल निर्माण एवं अन्य विवरण दर्शाए गए हैं) ।  
(ii) अनुज्ञप्ति जारी करने वाले प्राधिकारी द्वारा हस्ताक्षरित अनुज्ञप्ति की शर्तें एवं अतिरिक्त शर्तें ।

The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Ammonium Nitrate Rules, 2012 framed there under and the conditions, additional conditions and Annexures.

- Drawings (showing site, constructional and other details) as stated in serial No. 5 above.
- Conditions and Additional Conditions of this licence signed by the license issuing authority



(271)

8. यह अनुज्ञप्ति 31 मार्च 2019 तक वैध रहेगी ।  
This licence shall remain valid till 31st day of March 2019

यह अनुज्ञप्ति विस्फोटक अधिनियम 1884 या उसके अधीन बनाए गए अमोनियम नाइट्रेट नियम, 2012 या इस अनुज्ञप्ति की किसी शर्तों का उल्लंघन करने पर या यदि अनुज्ञप्त परिसर, आरेखण और उससे संलग्न उपाबद्ध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलम्बित या प्रतिसंहत की जा सकती है ।

This licence is liable to be suspended or revoked for any violation of the Explosives Act 1884 or Ammonium Nitrate Rules, 2012 framed there under or the conditions of this licence, if the licensed premises are not found conforming to the description shown in the plans and annexure attached hereto.

दिनांक | Date: 13/06/2014

Sd/-  
संयुक्त मुख्य विस्फोटक नियंत्रक  
Joint Chief Controller of Explosives  
पूर्वांचल, कोलकाता | East Circle office, Kolkata

**Amendments :**

- Change in Authorized Signatory/Occupier/Partners/Directors dated : 26/08/2015
- Change in Authorized Signatory/Occupier/Partners/Directors dated : 04/03/2019

अनुज्ञप्ति नवीकरण के लिए पृष्ठांकन | Endorsement for renewal of licence:

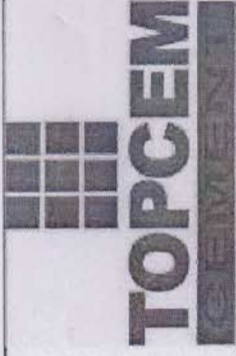
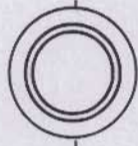
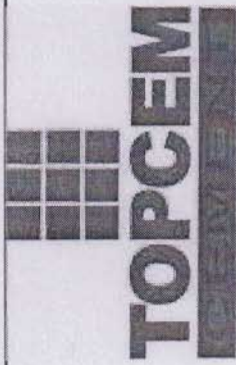
नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुज्ञापन प्राधिकारी के हस्ताक्षर Signature of licensing authority
23/03/2022	31/03/2027	Jt. Chief Controller of Explosives, Guwahati Circle, Guwahati. कृत संयुक्त मुख्य नियंत्रक

सांविधिक चेतावनी: अमोनियम नाइट्रेट कानून का दुरुपयोग गंभीर अपराध है ।

Statutory Warning : Misuse of Ammonium Nitrate shall constitute serious criminal offence under the law.

**Note :- This is system generated document does not require physical signature. Applicant may take printout for their records.**





PRESENTATION

ON

# CSR ACTIVITIES

FROM

**APRIL 2024 TO SEPTEMBER' 2024**

ORGANIZED BY

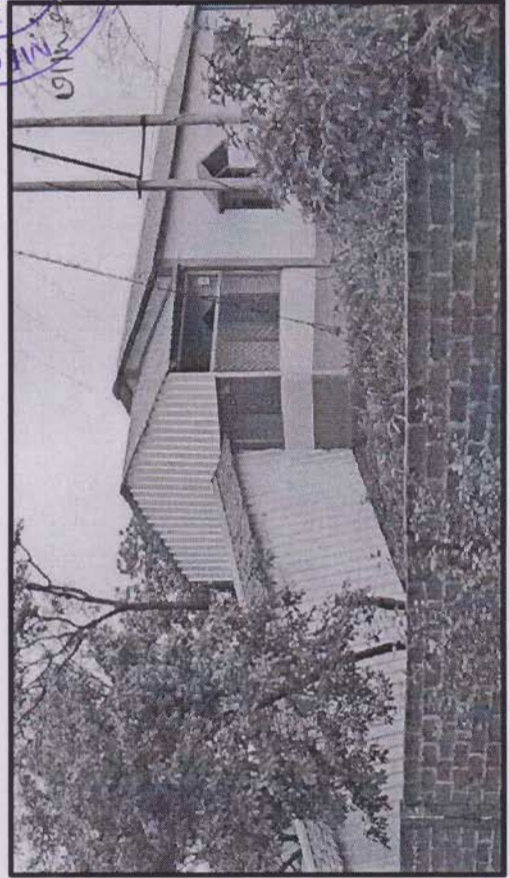
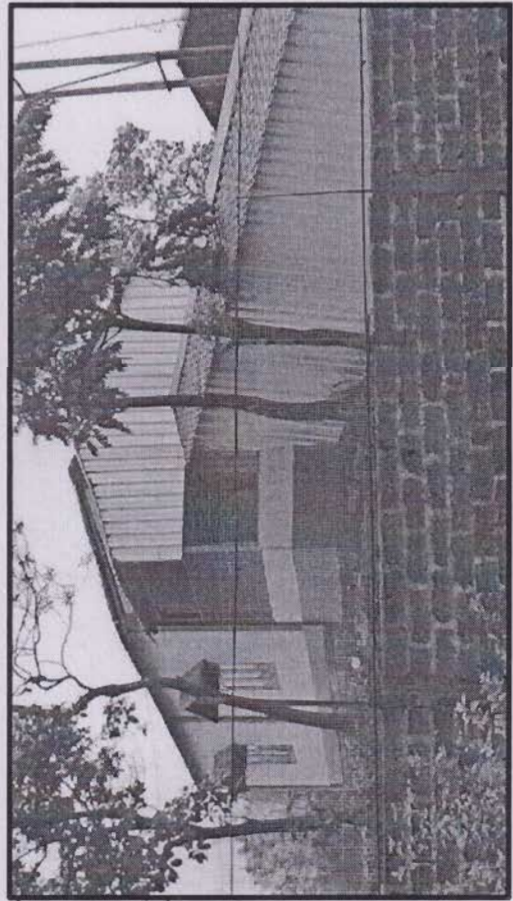
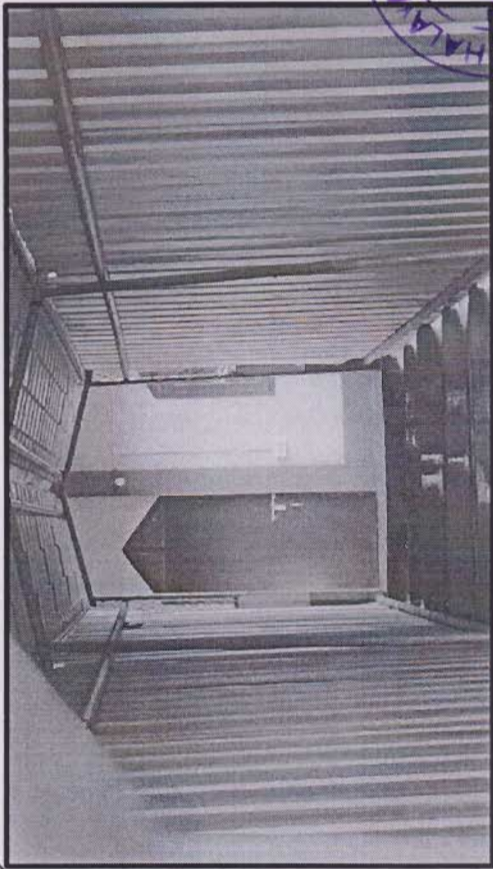
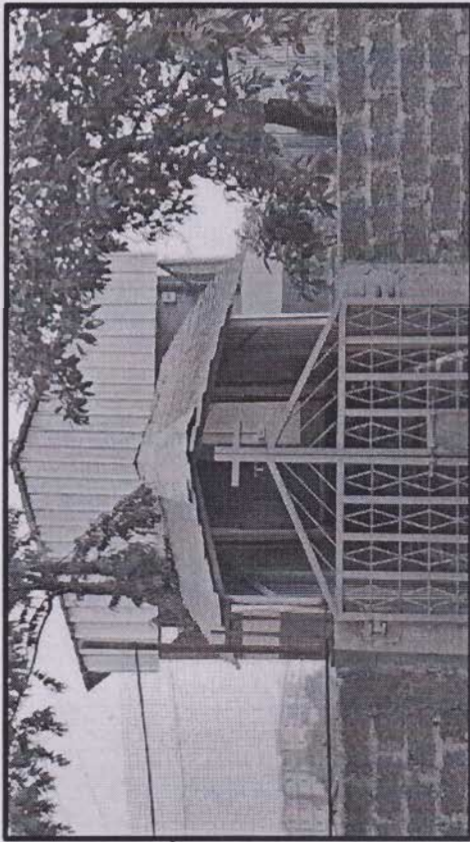
**MEGHALAYA CEMENTS LIMITED,**

**THANGSKAI**



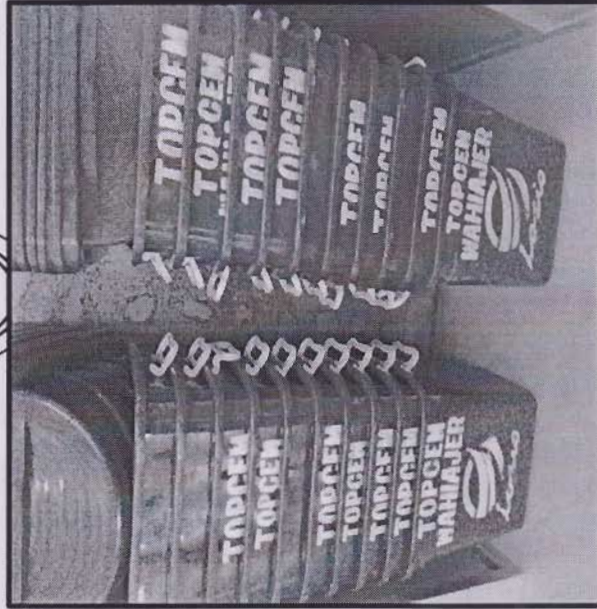


**CONSTRUCTED CHURCH AT COMPANY PREMISES FOR LOCAL COMMUNITIES. -(APL'2024)**



Annexure - X

**DUSTBIN DISTRIBUTION TO WAHAJER, THANGSKAI & CHIEHRUPHI VILLAGE (20 NOS. FOR EACH VILLAGE).**

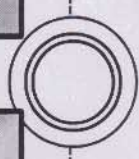


**PROVIDED BARRICADES & SIGN BOARD TO THE UMTTRA  
INFILTRATION CHECK POST.**



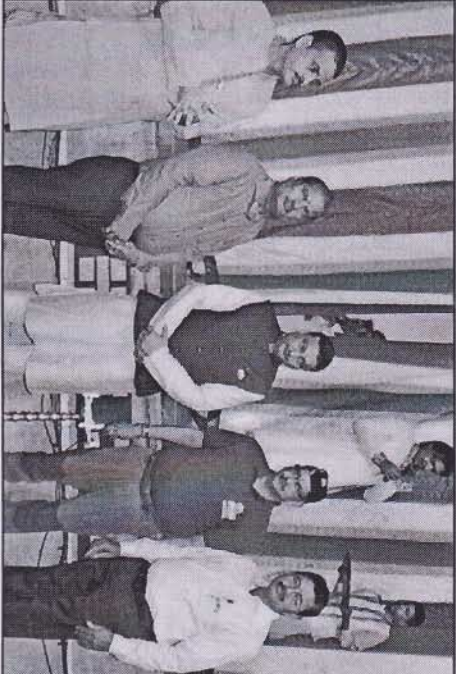
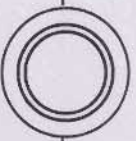
*Annexure - B*

FOOTBALL BOOT DISTRIBUTION TO THREE VILLAGE THANGSKIA,  
WAHIAJER & CHIEHRUPHI CHILDREN.



*Shreeraj - 2*

**Honoring Freedom with Unity and Pride: A Tribute to the Nation by  
Topcem Public School Students.  
-(15<sup>th</sup> AUG'2024)**



Annexure - 2

**Meghalaya Cements Limited (Topcem Cement) Officials, along with Headman, Assistant Headman, Secretary and other people of Wahiajer Village joined hands to initiate a **Plantation Drive**, fostering a sense of community and environmental responsibility.**

**-(20<sup>th</sup> Aug'2024)**



*Amrusee - 18*

Organized a Rudrabhishek ceremony at our MCL Plant Temple, bringing our team together in a shared moment of devotion and gratitude. Wishing peace, prosperity, and success for all.

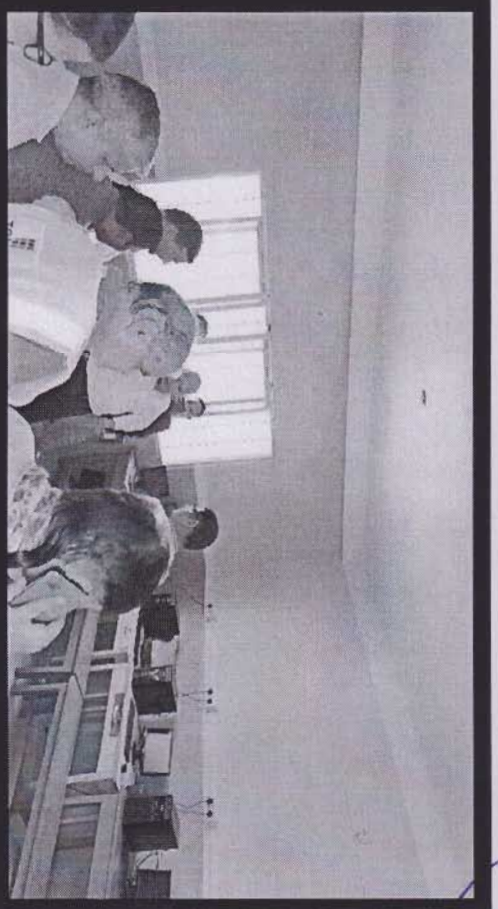
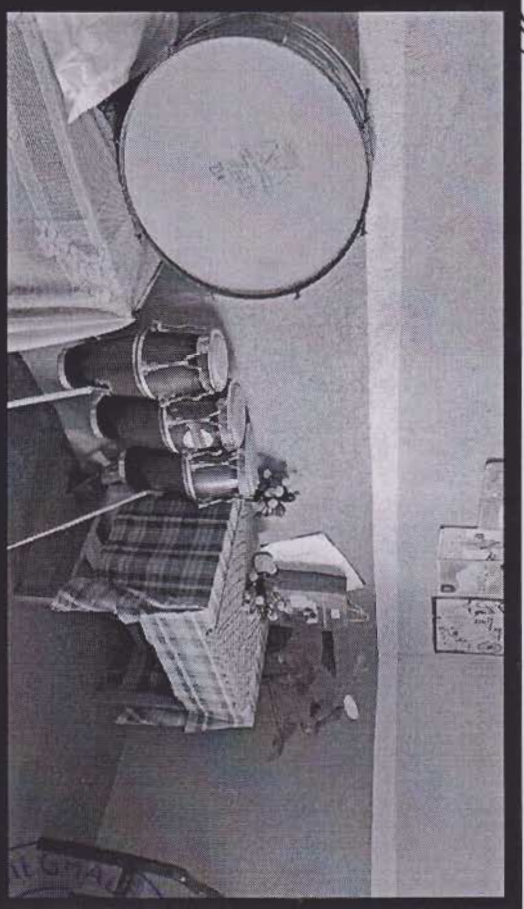
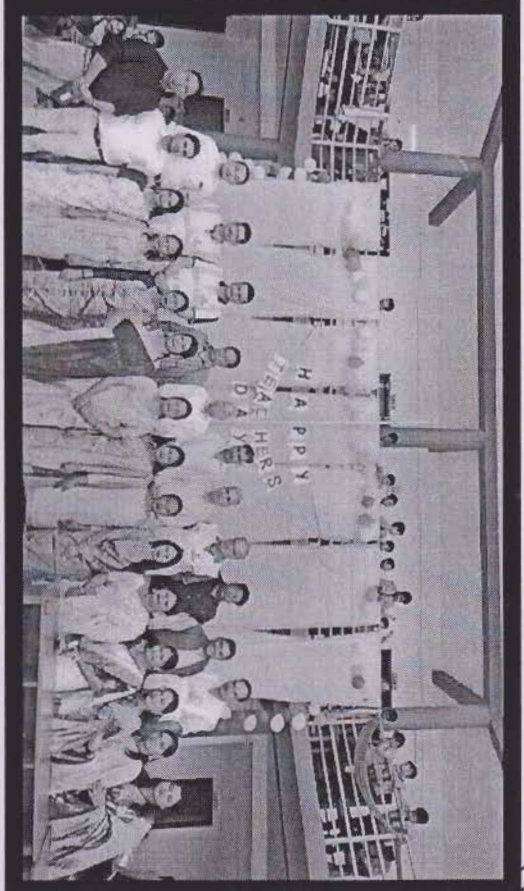
-(20<sup>th</sup> AUG'2024)



Annexure - 2

On the auspicious Teacher's Day, we honors the dedication and passion of educators with the inauguration of two pioneering facilities at Topcem Public School: 1. Art & Music Class & 2. Advanced Computer Laboratory.

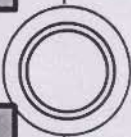
-(05<sup>th</sup> Sept'2024)



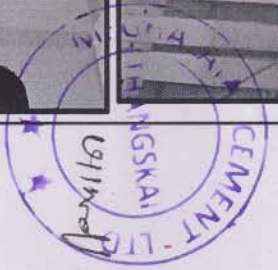
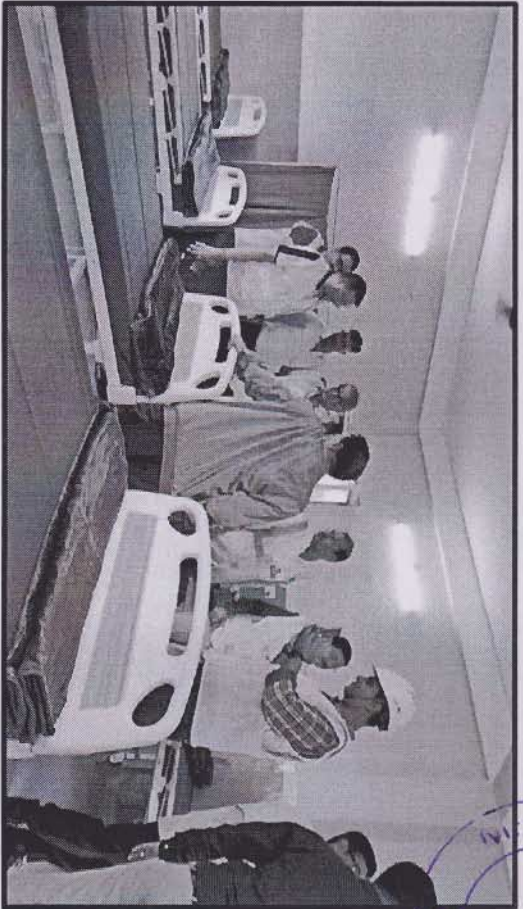
*Annuise - R*



Inaugurated X-ray and Laboratory Facility at the MCL Occupational Health Center, to deliver top-quality healthcare services to both our employees and the surrounding community.



-(05<sup>th</sup> September 2024)



Annexure - 8

Celebrates the achievements of students from Thangskai, Wahiajer & Chiehruphi with the SSIC Awards 2023 & 2024 for their stellar performance in the SSIC exams of 2023 & 2024. We extend financial assistance to these bright young minds, supporting their educational journey and also provide the financial assistance to poor students to pursue their education.

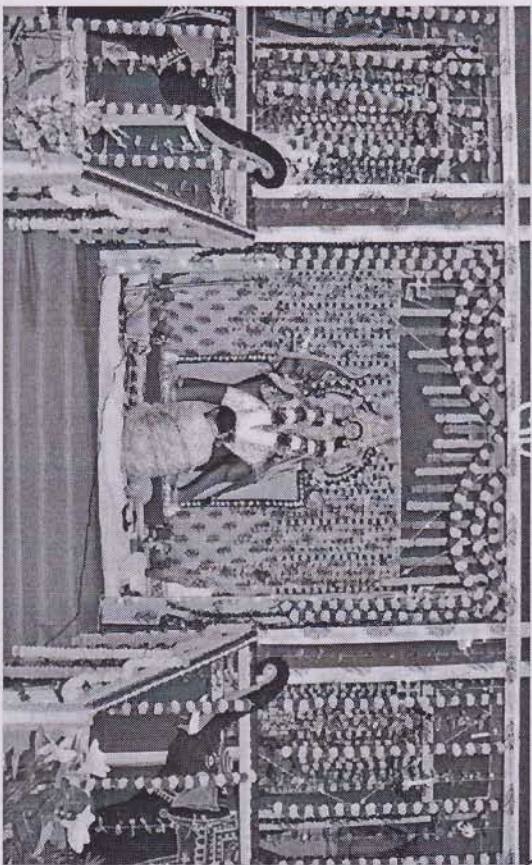
-(14 SEPT'2024)



Signature X

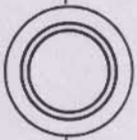
Vishwakarma Puja is a significant day of celebration, dedicated to Lord Vishwakarma, the divine architect and engineer of the universe.

-(17 Sept'24)



*Amreese-R*

**PEST CONTROL SERVICE AT THANGSKAI, WAHIAJER & CHIEHRUPHI VILLAGE.**  
-(Sept'2024)

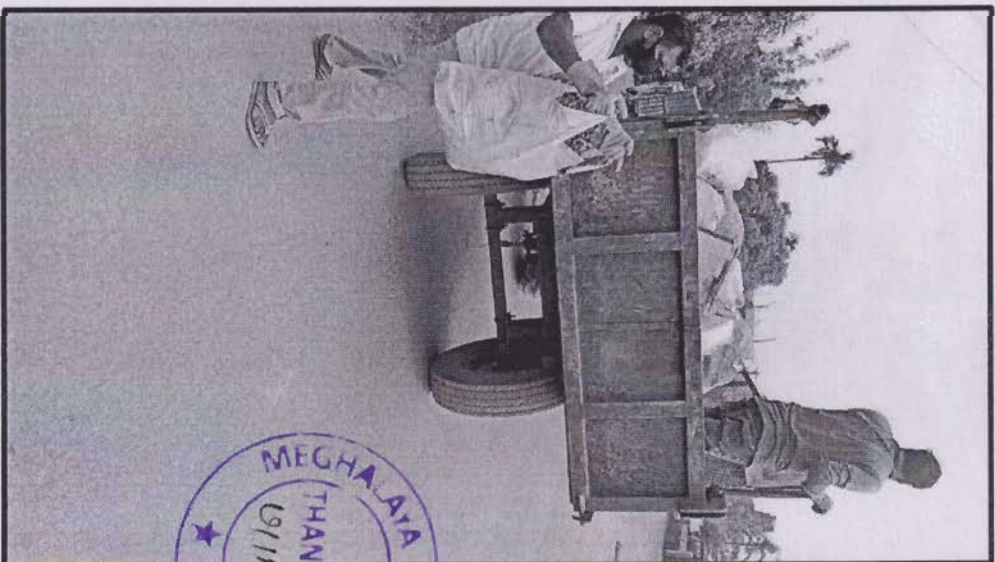
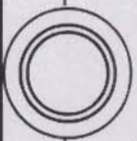


CEMENTI  
THANGSKAI  
09/11/2024

Annexure - 2

ORGANIZED WEEKLY CLEAN DRIVE PROGRAMME FOR THREE VILLAGE  
(THANGSKAI, WAHIAJER& CHIEHRUPHI).

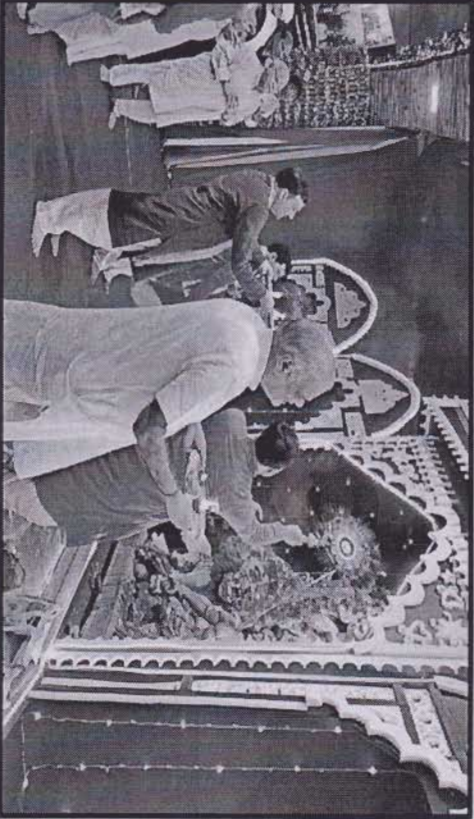
-(Sept'2024 to till date)



*Anwesha*

NAVRATRI & DURGA PUJA AT MCL CAMPUS (TOPCEM RECREATION CLUB)

- (03<sup>rd</sup> - 12<sup>th</sup> Oct'2024)



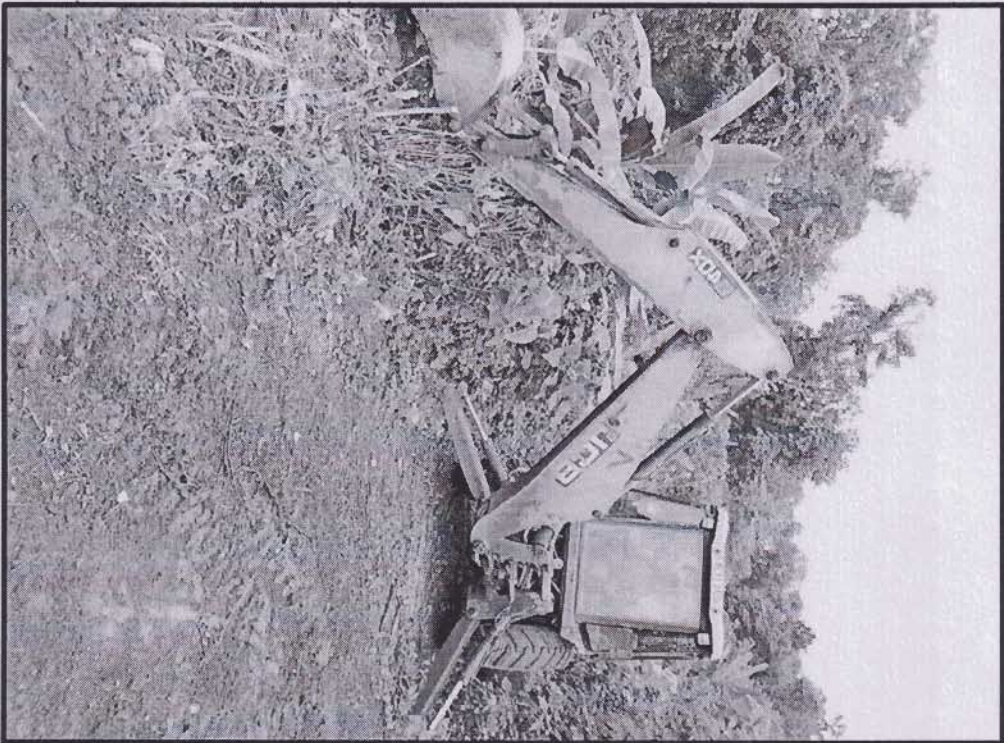
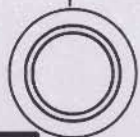
Annexure - 2

SWACHH BHARAT ABHIYAN AT COMPANY CAMPUS AND THREE VILLAGES  
(THANGSKAI, WAHIAJER & CHIEHRUPHI VILLAGE) - (02<sup>nd</sup> Oct'2024)



Annexure - 2

VILLAGE ROAD DEVELOPMENT WORK PROGRESS AT CHIEHRUPHI VILLAGE.  
-(Oct'2024)



Annexure - 8



# EMPHASIS ON EDUCATION (April 2024 to Sep

2024)

- Monthly Salary for 01 TEACHER OF Chiehruphi Higher Secondary School.
- Rs. 31000/- per month
- Apr'24 to Sep'24 (06 month X 31000/-)
- Total Rs. = 186000/-



Answer - 2

**Expenditure Incurred for Socio-Economic Development  
under CSR (From 01.04.2024 to 30.09.2024)**

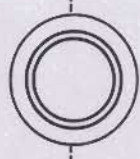
SL.NO.	HEADING	AMOUNT
1	Emphasis on Education	1,84,500
2	Sports Activity	55,000
3	Encouraging/Felicitation prog. For Students.	96,525
4	Polio Immunization Camps, Family planning, etc.	3,91,848
5	Infrastructure development of Hospitals/Schools	21,000
6	Cement Distribution Programme.	43,53,496
7	Plant Distribution Programme.	27,225
8	Donation to Churches, Road & House Repairing etc.	59,500
9	Community Feast	43,740
9	Drinking water supplying scheme.	2,02,453
10	Village Development Funds.	3,12,500
	<b>Total (In Rs.)</b>	<b>57,47,787</b>



*Annexure 2*

THANK

YOU



*Ameyare - 18*

Annexure - XI

Report No.: ENV/MCL/24-25/SW-04/01

Date : 08/05/2024

Order No.: 4700030261

Date : 24/04/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

### SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2024/SW-3004/01

Sample Source : Um-Lunar River Upstream

Sample Type : Surface Water

Collected On : 30-04-2024

Received On : 02-05-2024

Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	42	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.4	--	--
4.	pH Value	6.67	6.5 - 8.5	No Relaxation
5.	Suspended Solids	43	--	--
6.	Total Dissolved Solids, mg/l, Max.	132	500	2000
7.	Conductivity, $\mu$ S/cm	183	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.3	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	31	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.6	200	600
14.	Calcium (as Ca), mg/l, Max.	19	75	200
15.	Magnesium (as Mg), mg/l, Max.	3	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	1.9	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	5.8	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Annexure - XI

Report No.: ENV/MCL/24-25/SW-04/02  
Date : 08/05/2024

Order No.: 4700030261  
Date : 24/04/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-3004/02      Sample Source : Um-Lunar River Downstream      Sample Type : Surface Water  
Collected On : 30-04-2024      Received On : 02-05-2024      Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	51	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.4	--	--
4.	pH Value	6.69	6.5 - 8.5	No Relaxation
5.	Suspended Solids	54	--	--
6.	Total Dissolved Solids, mg/l, Max.	135	500	2000
7.	Conductivity, µS/cm	186	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	35	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.8	200	600
14.	Calcium (as Ca), mg/l, Max.	20	75	200
15.	Magnesium (as Mg), mg/l, Max.	4	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.3	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	6.7	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/MCL/24-25/SW-06/01  
Date : 08/07/2024

Order No.: 4700030976  
Date : 24/06/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2806/01  
Collected On : 28-06-2024

Sample Source : Um-Lunar River Upstream  
Received On : 30-06-2024

Sample Type : Surface Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	11	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	23.9	--	--
4.	pH Value	6.69	6.5 - 8.5	No Relaxation
5.	Suspended Solids	46	--	--
6.	Total Dissolved Solids, mg/l, Max.	134	500	2000
7.	Conductivity, $\mu$ S/cm	186	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	30	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as $CaCO_3$ ), mg/l, Max.	8.8	200	600
14.	Calcium (as Ca), mg/l, Max.	21	75	200
15.	Magnesium (as Mg), mg/l, Max.	6	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.1	--	--
19.	Total Kjeldahl Nitrogen (as $NH_3$ ), mg/l, Max.	6.1	--	--
20.	Free Ammonia (as $NH_3$ ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/MCL/24-25/SW-06/02  
Date : 08/07/2024

Order No.: 4700030976  
Date : 24/06/2024

Report Issued To: **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2806/02  
Collected On : 28-06-2024

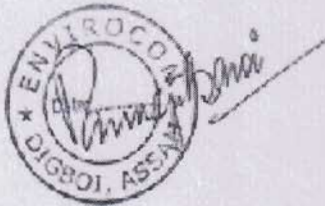
Sample Source : Um-Lunar River Downstream  
Received On : 30-06-2024

Sample Type : Surface Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	15	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	23.9	--	--
4.	pH Value	6.65	6.5 - 8.5	No Relaxation
5.	Suspended Solids	57	--	--
6.	Total Dissolved Solids, mg/l, Max.	140	500	2000
7.	Conductivity, $\mu\text{S}/\text{cm}$	188	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.9	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	37	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as $\text{CaCO}_3$ ), mg/l, Max.	8.9	200	600
14.	Calcium (as Ca), mg/l, Max.	23	75	200
15.	Magnesium (as Mg), mg/l, Max.	6	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.6	--	--
19.	Total Kjeldahl Nitrogen (as $\text{NH}_3$ ), mg/l, Max.	6.8	--	--
20.	Free Ammonia (as $\text{NH}_3$ ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON



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Report No.: ENV/MCL/24-25/SW-07/01  
Date : 07/08/2024

Order No.: 4700031168  
Date : 09/07/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2307/01  
Collected On : 23-07-2024

Sample Source : Um-Lunar River Upstream  
Received On : 27-07-2024

Sample Type : Surface Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	10	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.5	--	--
4.	pH Value	6.68	6.5 - 8.5	No Relaxation
5.	Suspended Solids	45	--	--
6.	Total Dissolved Solids, mg/l, Max.	133	500	2000
7.	Conductivity, $\mu$ S/cm	185	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.3	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	29	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.7	200	600
14.	Calcium (as Ca), mg/l, Max.	20	75	200
15.	Magnesium (as Mg), mg/l, Max.	5	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.0	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	5.9	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/MCL/24-25/SW-07/02  
Date : 07/08/2024

Order No.: 4700031168  
Date : 09/07/2024

Report Issued To: **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2307/02      Sample Source : Um-Lunar River Downstream      Sample Type : Surface Water  
Collected On : 23-07-2024      Received On : 27-07-2024      Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	14	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.5	--	--
4.	pH Value	6.64	6.5 - 8.5	No Relaxation
5.	Suspended Solids	56	--	--
6.	Total Dissolved Solids, mg/l, Max.	139	500	2000
7.	Conductivity, $\mu$ S/cm	187	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.8	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	36	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.8	200	600
14.	Calcium (as Ca), mg/l, Max.	22	75	200
15.	Magnesium (as Mg), mg/l, Max.	5	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.5	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	6.7	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Annexure-XI

Report No.: ENV/MCL/24-25/SW-08/01  
Date : 09/09/2024

Order No.: 4700031573  
Date : 14/08/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2808/01  
Collected On : 28-08-2024

Sample Source : Um-Lunar River Upstream  
Received On : 31-08-2024

Sample Type : Surface Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	12	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.2	--	--
4.	pH Value	6.69	6.5 - 8.5	No Relaxation
5.	Suspended Solids	43	--	--
6.	Total Dissolved Solids, mg/l, Max.	131	500	2000
7.	Conductivity, $\mu$ S/cm	183	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	27	--	--
11.	Oil and Grease, mg/l, Max.	<4.0	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.5	200	600
14.	Calcium (as Ca), mg/l, Max.	21	75	200
15.	Magnesium (as Mg), mg/l, Max.	6	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	1.8	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	5.7	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Annexure - XI

Report No.: ENV/MCL/24-25/SW-08/02  
Date : 09/09/2024

Order No.: 4700031573  
Date : 14/08/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2808/02  
Collected On : 28-08-2024

Sample Source : Um-Lunar River Downstream  
Received On : 31-08-2024

Sample Type : Surface Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	15	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.2	--	--
4.	pH Value	6.63	6.5 - 8.5	No Relaxation
5.	Suspended Solids	58	--	--
6.	Total Dissolved Solids, mg/l, Max.	141	500	2000
7.	Conductivity, µS/cm	189	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.9	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	38	--	--
11.	Oil and Grease, mg/l, Max.	<4.0	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.9	200	600
14.	Calcium (as Ca), mg/l, Max.	23	75	200
15.	Magnesium (as Mg), mg/l, Max.	6	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.7	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	6.9	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

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2. Results refer only to the particular parameters tested.
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**Core Services:** Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs  
**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/MCL/24-25/SW-09/01  
Date : 07/10/2024

Order No.: 4700031994  
Date : 23/09/2024

Report Issued To: **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

### SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2024/SW-2609/01  
Collected On : 26-09-2024

Sample Source : Um-Lunar River Upstream  
Received On : 28-09-2024

Sample Type : Surface Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	14	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.6	--	--
4.	pH Value	6.67	6.5 - 8.5	No Relaxation
5.	Suspended Solids	42	--	--
6.	Total Dissolved Solids, mg/l, Max.	128	500	2000
7.	Conductivity, $\mu\text{S/cm}$	181	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.3	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	26	--	--
11.	Oil and Grease, mg/l, Max.	<4.0	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as $\text{CaCO}_3$ ), mg/l, Max.	8.3	200	600
14.	Calcium (as Ca), mg/l, Max.	22	75	200
15.	Magnesium (as Mg), mg/l, Max.	7	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	1.7	--	--
19.	Total Kjeldahl Nitrogen (as $\text{NH}_3$ ), mg/l, Max.	5.6	--	--
20.	Free Ammonia (as $\text{NH}_3$ ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

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Report No.: ENV/MCL/24-25/SW-09/02  
Date : 07/10/2024

Order No.: 4700031994  
Date : 23/09/2024

Report Issued To: **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**SURFACE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/SW-2609/02      Sample Source : Um-Lunar River Downstream      Sample Type : Surface Water  
Collected On : 26-09-2024      Received On : 28-09-2024      Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	16	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.6	--	--
4.	pH Value	6.62	6.5 - 8.5	No Relaxation
5.	Suspended Solids	56	--	--
6.	Total Dissolved Solids, mg/l, Max.	142	500	2000
7.	Conductivity, $\mu$ S/cm	188	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.8	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	39	--	--
11.	Oil and Grease, mg/l, Max.	<4.0	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max.	8.8	200	600
14.	Calcium (as Ca), mg/l, Max.	24	75	200
15.	Magnesium (as Mg), mg/l, Max.	8	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.9	--	--
19.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l, Max.	6.7	--	--
20.	Free Ammonia (as NH <sub>3</sub> ), mg/l, Max.	<0.01	--	--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Annexure - XII

## MEGHALAYA CEMENTS LIMITED

### Six Monthly Ambient Air Quality Survey Report, South Khliehjeri Limestone Mine (31.05 Ha), 2024-2025

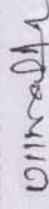
Pollutants	Location	April 2024	May' 2024	June' 2024	July 2024	Aug' 2024	Sept' 2024	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
Particulate Matters PM10 ( $\mu\text{g}/\text{m}^3$ )	A1. North -East (Near Soil Dump)	47.6	48.6	46.8	52.1	53.7	56.3	50.85	100 $\mu\text{g}/\text{m}^3$
	A2. North - West(Near Haul Road)	53.1	52.5	49.5	55.4	57.2	63.9	55.27	100 $\mu\text{g}/\text{m}^3$
	A3.Southern side (Near Lease Boundary)	46.9	42.6	48.2	53.6	52.9	55.1	49.88	100 $\mu\text{g}/\text{m}^3$
Particulate Matters PM2.5 ( $\mu\text{g}/\text{m}^3$ )	A1. North -East (Near Soil Dump)	26.9	24.2	23.9	29.7	30.5	33.7	28.15	60 $\mu\text{g}/\text{m}^3$
	A2. North - West(Near Haul Road)	39.4	29.2	29.4	32.6	33.8	35.2	33.27	60 $\mu\text{g}/\text{m}^3$
	A3.Southern side (Near Lease Boundary)	25.3	21.5	25.2	28.2	29.4	32.9	27.08	60 $\mu\text{g}/\text{m}^3$

Prepared By



(AbhigyanGautam)

Checked & Verified



(Ujjwal Anurag)




Annexure - XII

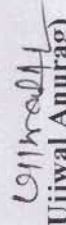
**MEGHALAYA CEMENTS LIMITED**

Six Monthly Ambient Air Quality Survey Report,  
South Khlichjeri Limestone Mine (31.05 Ha), 2024-2025

Pollutants	Location	April 2024	May' 2024	June' 2024	July 2024	Aug' 2024	Sept' 2024	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
SO <sub>2</sub>	A1. North -East (Near Soil Dump)	7.2	7.1	6.9	7.3	7.5	7.9	7.32	80 µg/m <sup>3</sup>
	A2. North - West(Near Haul Road)	8.3	8.3	7.2	8.5	8.7	8.8	8.30	80 µg/m <sup>3</sup>
	A3.Southern side (Near Lease Boundary)	6.7	6.9	6.4	7.1	7.3	7.5	6.98	80 µg/m <sup>3</sup>
NO <sub>x</sub>	A1. North -East (Near Soil Dump)	7.9	7.4	7.1	7.6	7.9	8.2	7.68	80 µg/m <sup>3</sup>
	A2. North - West(Near Haul Road)	9.1	9.1	8.3	9.2	9.3	9.6	9.10	80 µg/m <sup>3</sup>
	A3.Southern side (Near Lease Boundary)	7.1	7.2	6.8	7.4	7.6	7.9	7.33	80 µg/m <sup>3</sup>

Prepared By  
  
(AbhigyanGautam)



Checked & Verified By  
  
(Ujjwal Anurag)

Annexure - XII


## MEGHALAYA CEMENTS LIMITED

Six Monthly Fugitive Emission Report,  
South Khliehjeri Limestone Mine (31.05 Ha), 2024-2025

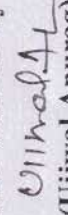
Location	April 2024	May' 2024	June' 2024	July 2024	Aug' 2024	Sept' 2024	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
Drilling Area	1235	985	915	2054	1352	1024	1260.83	5000 $\mu$ g/m <sup>3</sup>
Blasting Point	1047	1762	1584	1924	1564	1254	1522.50	5000 $\mu$ g/m <sup>3</sup>
Loading Point	1368	1489	1658	1456	1785	1458	1535.67	5000 $\mu$ g/m <sup>3</sup>
Unloading Point	1492	1368	1161	1327	1359	1145	1308.67	5000 $\mu$ g/m <sup>3</sup>



Prepared By

  
(Abhigyan Gautam)

Checked & Verified By

  
(Ujjwal Anurag)



**SOUTH KHLIEHJARI LIMESTONE MINE  
ANNUAL AFFORESTATION REPORT, 2024-25**

1.	Name of the Mine	South Khliehjari 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 JUNE (1<sup>st</sup> April to 30<sup>th</sup> June, 2024)**

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
205	Nil	0.1600	N/A	141	N/A	68.78	N/A

**AFFORESTED DURING THE QUARTER ENDING SEPTEMBER (1<sup>st</sup> July to 30<sup>th</sup> September, 2024)**

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
75	Nil	0.0522	N/A	47	N/A	62.66	N/A

**AFFORESTED DURING THE YEAR 2024-25 (upto September 2024)**

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
280	Nil	0.2122	N/A	188	N/A	67.14%	N/A

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

K C Sahu

Mines Manager  
South Khliehjari Limestone Mine



Report No.: ENV/MCL/24-25/WW-04/01  
Date : 08/05/2024

Order No.: 4700030261  
Date : 24/04/2024

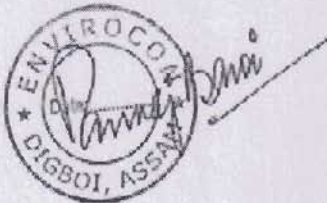
Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**WASTE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/ETP-3004/01      Sample Source : ETP Outlet (MCL)      Sample Type : ETP Treated Water  
Collected On : 30-04-2024      Received On : 02-05-2024      Collected By : ENVIROCON Representative

Sl. No.	Parameters	Results	Limit [G.S.R. 422(E), 19.05.1993]
1	Ph	6.79	6.5 – 9.0
2	Temperature, °C	25.5	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	39	100
4	Biochemical Oxygen Demand (as BOD), mg/l	24	30
5	Chemical Oxygen Demand (as COD), mg/l	79	250
6	Oil & Grease, mg/l	<4.0	10.0
7	Total Residual Chlorine, mg/l	<0.01	1.0
8	Ammonical Nitrogen (as N), mg/l	26	50
9	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l	39	100
10	Free Ammonia (as NH <sub>3</sub> ), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:** 1. Results reported are valid at the time of and under the prevailing conditions of measurement.  
2. Results refer only to the particular parameters tested.  
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**Core Services:** Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs  
**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Annexure -xiv

Report No.: ENV/MCL/24-25/WW-07/01

Order No.: 4700031168

Date : 07/08/2024

Date : 09/07/2024

Report Issued To: **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**WASTE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/ETP-2307/01  
Collected On : 23-07-2024

Sample Source : ETP Outlet (MCL)  
Received On : 27-07-2024

Sample Type : ETP Treated Water  
Collected By : ENVIROCON Representative

Sl. No.	Parameters	Results	Limit [G.S.R. 422(E), 19.05.1993]
1	Ph	6.82	6.5 – 9.0
2	Temperature, °C	25.5	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	39	100
4	Biochemical Oxygen Demand (as BOD), mg/l	24	30
5	Chemical Oxygen Demand (as COD), mg/l	77	250
6	Oil & Grease, mg/l	<4.0	10.0
7	Total Residual Chlorine, mg/l	<0.01	1.0
8	Ammonical Nitrogen (as N), mg/l	24	50
9	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l	38	100
10	Free Ammonia (as NH <sub>3</sub> ), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
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**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Annexure - XIV

Report No.: ENV/MCL/24-25/WW-09/01  
Date : 07/10/2024

Order No.: 4700031994  
Date : 23/09/2024

Report Issued To : **M/S. MEGHALAYA CEMENTS LIMITED**  
Village: Thangskai; PO: Lumshnong, Meghalaya

**WASTE WATER ANALYSIS RESULTS**

Sample Ref. No. : MCL/2024/ETP-2609/01      Sample Source : ETP Outlet (MCL)      Sample Type : ETP Treated Water  
Collected On : 26-09-2024      Received On : 28-09-2024      Collected By : ENVIROCON Representative

Sl. No.	Parameters	Results	Limit [G.S.R. 422(E), 19.05.1993]
1	Ph	6.81	6.5 - 9.0
2	Temperature, °C	25.6	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	38	100
4	Biochemical Oxygen Demand (as BOD), mg/l	23	30
5	Chemical Oxygen Demand (as COD), mg/l	75	250
6	Oil & Grease, mg/l	<4.0	10.0
7	Total Residual Chlorine, mg/l	<0.01	1.0
8	Ammonical Nitrogen (as N), mg/l	26	50
9	Total Kjeldahl Nitrogen (as NH <sub>3</sub> ), mg/l	42	100
10	Free Ammonia (as NH <sub>3</sub> ), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

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**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

## Meghalaya Cements Ltd.

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

## Environment Management Cell Details

Dept: Environment

Doc. No: MCL/IMS /PA/MR/DS

Sl. No.	Equipments Name	Model	Range	Make
1	B.O.D Incubator -1	BTI - 06 / 73514, Bio Technique India	Site -6 Cu.Ft., Temp. Range - 5° to 60°C., Accuracy - ± 0.5°C.	Innovative Instruments & Controls CLP,
2	Stack Sampler	VSS - 1 - PLS / 01-DTH-2016 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotech Instruments Pvt. Ltd
3	Stack Sampler	APM -620 / 797- DTI-05 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotech Instruments Pvt. Ltd
4	Stack Velocity Monitor	APM -602 / 835 DTJ - 05 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotech Instruments Pvt. Ltd
5	Fine Particulate Sampler (03 Nos.)	APM-550 / 583 - DTK-2010, 586-DTK-2010, 563-DTK-2010 / Envirotech Instrumentation	Range of flow Rate - 16.54-16.50, 16.56-16.48, 16.54-16.52	Envirotech Instruments Pvt. Ltd.
6	Gaseous Pollutant Sampler (02 Nos.)	APM-433 / 1.146 - DTK-2010, 2.150-DTK-2010 / Envirotech Instrumentation	Range -0 to 3 LPL	Envirotech Instruments Pvt. Ltd.
			Range -0 to 10 Micro meter in Diameter.	
7	High Volume Sampler (03 Nos.)	APM-430 / 1.640-DTL-05, 2.641-DTL-05, 3.642-DTL-05 / Vayubodhan Envirotech Instrumentation	Range of Flow rate - 1.1 to 1.7 Cu M <sup>3</sup> /mn	Envirotech Instruments Pvt. Ltd.
8	COD- Digestion	Cat No. CE-HC-011 / 11007 / Commercial	Up to 15°C., Least Count-1°C	Commercial
9	Hot Air Oven	Internal ID-MCL/Env/HAO-1	Up to 250°C., Least Count-0.1°C	Commercial
10	Digital Balance	/ 4114676 / Cy.304 CE	0 to 220 grms	Indian Calibration Services
11	S Type Pitot Tube	For Flow measurement	03 to 30 m/s	Envirotech Instruments Pvt. Ltd.
12	L Type Pitot Tube	For Flow measurement	03 to 30 m/s	Envirotech Instruments Pvt. Ltd.
13	Flue Gas Analyzer	Model No. 054218002	For SO <sub>2</sub> , Nox, Co, Co <sub>2</sub> & O <sub>2</sub> measurement in Flue gas	Make -KANE Ullmal

HOD

**Meghalaya Cements Ltd.**

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

**Environment Management Cell Details**

Dept: Environment

Doc. No: MCL/IMS /PA/MR/DS

14	Respirable dust samplers	Serial No. 640-DTL-2005, . 641-DTL-2005, . 642-DTL-2005	For Measurement of PM 10 & PM 2.5	Make- Envirotech Inst. (P) Ltd.
15	Automatic station for recording of micrometeorological parameter	DT-	For Rain fall, temperature, RH & wind speed measurement	AIMIL LTD
16	Sound pressure level meter	Model No. 05D101013	For noise level monitoring	Make- Raytheon Tech.
17	Stack monitoring kits	01-DTH-2016	For Measurement of Dust emission form Stacks	Make- Envirotech Inst. (P) Ltd.
19	Automatic station for recording of Ambient Quality Monitoring	Installed near gate no. 03	Form real time monitoring of Ambient air quality	Supplied Swan Environmental
20	Automatic station for recording of Stack Emission Monitoring	For RABH, Cooler ESP, Cement Mills and CPP stack emission monitoring	Form real time monitoring of stack emission	Supplied by Glens
21	Portable Air Quality Analyzer	For Real time Ambient air quality monitoring	Form real time monitoring of stack emission	Supplied by M/s. Swan Environmental
23	Temperature Gun	Model No. IRX-63	Range (-) 50°C to 1850°C	Make- HTC
24	pH Meter	Sl. No, 361/7928	Range 0 to 14	Systronics
25	Nephlo Meter	Sl. No, 1307138	Range 0 to 200 NTU	
26	Conductivity	Sl. No. S/6117-01-17		
27	CHROMIUM VI CHEMICAL TEST KIT	-----	Chromium, Hexavalent Range: 0.0 to 1.0 mg/L Chromium, Hexavalent Resolution: 02. mg/L	HANNA EQUIPMENTS (INDIA) PVT. LTD.



*Signature*

HOD

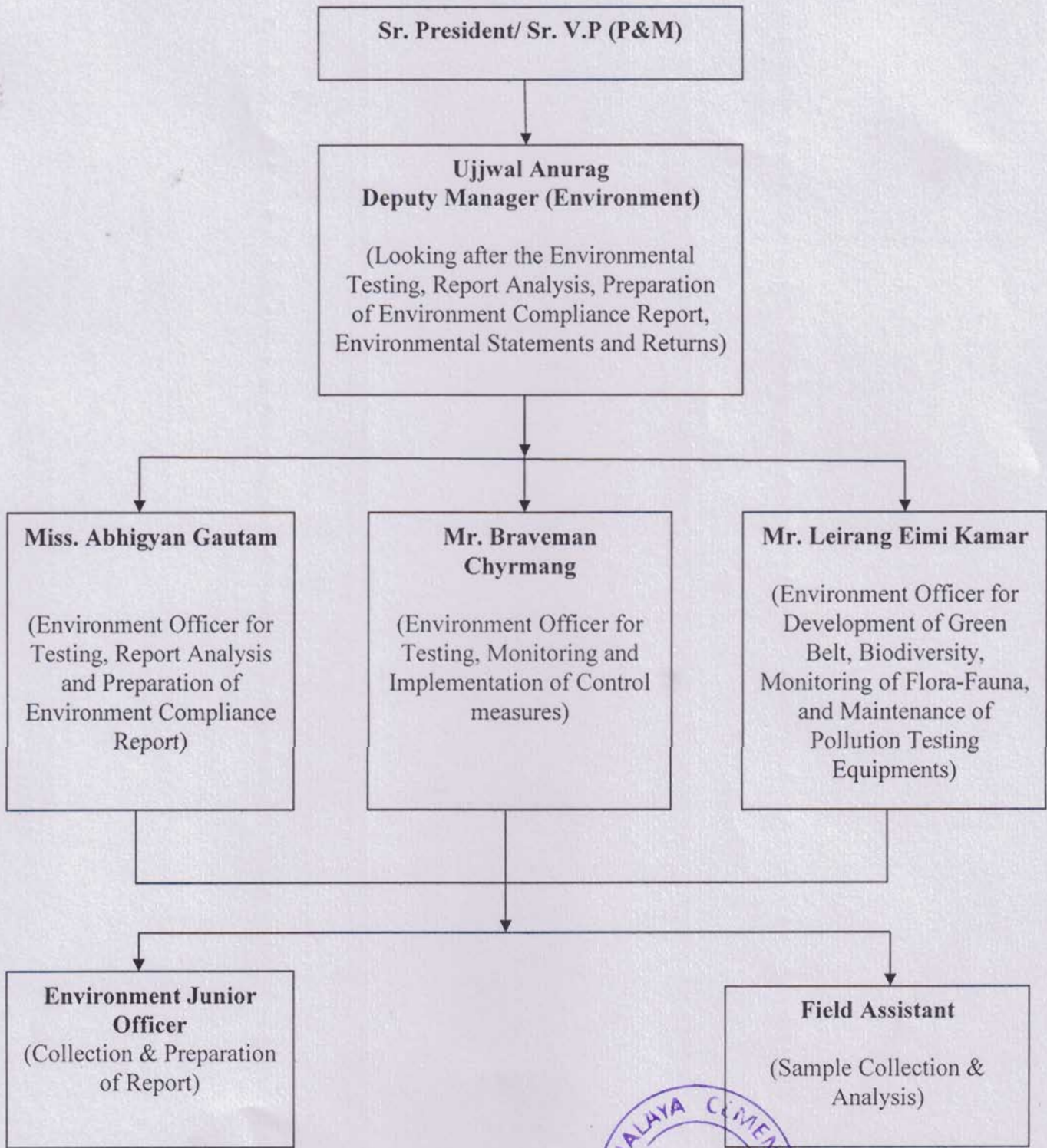
**Meghalaya Cements Ltd.**

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

**Environment Management Cell Details**

Dept: Environment

Doc. No: MCL/IMS /PA/MR/DS



*Ujjwal Anurag*

HOD

## M/s MEGHALAYA CEMENTS LIMITED

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

Expenditure incurred against Enviromental Protection Measures of South Khliehjari during the year 2023-24 (From April to September 2024)			
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	5.95
		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	Dust suppression	Cost against Water sprinkler used in haul road, loading & unloading point	6.40
3	Preparation of Retaining wall, Checkdam, Siltation Tanks and Garland drains	Maintenance of Siltation Tanks	4.60
		Maintenance of Retaing wall	
		Maintenance of Garland drains	
5	PPE supply to mine workers	Nose Mask	0.84
		Ear Muffs	
		Safety Shoe	
		Safety Helmet	
		Safety Goggles	
		Safety Hand Gloves	
		Reflective Jacket	
6	Water Treatment	Capitil investment for Water Treatment Plant	0.70
		Recurring cost for water treatment	
7	Maintenance of Effluent Treatment Plant	Chemical consumption for treatment of effluents (lime, bleaching powder, alum etc.)	0.70
		Power cost	
		Manpower cost	
8	Dump Compaction	Compection of dumps by compactor	2.30
		Total	20.79



Ummal





**MEGHALAYA CEMENTS LIMITED**

CIN-U26942ML2003PLC007125



Ref: - MCL/Env/MsPCB/2024-2025/08

Date: - 29/05/2024

To,  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
'ARDEN' LUMPYNGGAD  
Shillong.

Subject: Submission of Form 'V' of 31.05 Ha. South Khliehji lime stone mine for the financial year 2023- 2024.


Dear Sir,

We are herewith submitting the Annual Environmental Statement of 31.05 Ha. South Khliehji Limestone Mine for the financial year 2023-2024.

Thanking You,

Yours faithfully,

For Meghalaya Cements Limited

  
R.K. Pareek  
(Sr. President)



Sales & Marketing Office :  
Mega Plaza, 4th Floor, Christian Basti  
G.S. Road, Guwahati - 781 005  
Tel. : 0361 2345421/22/23, Fax : 0361 2345419  
E-mail : guwahati@topcem.in  
Web : www.topcem.in

Kolkata : Page 1 of 4  
BE-77, Salt Lake City  
Sector-1, Kolkata - 700 064  
Tel. : 033 2334 0666 / 0004  
Fax : 033 2334 0505  
E-mail : kolkata@topcem.in

Registered Office :  
Village: Thangskai, P.O. & P.S. Lumshnong  
District : East Jaintia Hills, Meghalaya. PIN: 793210  
Tel. : 03655 278324 / 363 / 364  
Fax : 03655 278327  
E-mail : meghalaya@topcem.in



HELPLINE NO : 18001233666

## ENVIRONMENT PROTECTION RULES 1986

[FORM-V]

(See rule 14)

Environmental Audit report for the period  
[From 01-04-2023 to 31-03-2024]

## PART - A

(i) Name and address of the owner/occupier of the industry, operation or process:-

Shri R.K. Pareek  
M/s Meghalaya Cements Limited,  
Vill: - Thangskai,  
P.O: - Lumshnong  
Meghalaya, Pin-793210

(ii) Industry category: - South Khliehjar Lime Stone Mine- 31.05 ha.

[Primary (STC Code-AADCM8079PST001)

Secondary (SIC Code-3241)

(iii) Production capacity(per Year): - 2240740 Unit: - MT

(iv) Year of establishment: - 2017

(v) Date of the last environmental statement submitted: - 21<sup>st</sup> June'2023.

## PART - B

## Water and Raw Material Consumption

(i) Water consumption m<sup>3</sup>/d

Process : - Not Applicable

Cooling : - Not Applicable

Domestic : - Not Applicable

## Process water consumption per unit of products output

Name of products	During the current financial year 2022-23	During the current financial year 2023-24
	(1)	(2)
(1)	Not Applicable	Not Applicable
(2)	Not Applicable	Not Applicable
(3)	Not Applicable	Not Applicable

(ii) Raw Material consumption

*Name of raw material	Name of products	Consumption of Raw material per unit of output (MT)	
		During the previous financial year 2022-23	During the current financial year 2023-24
Limestone	Cement grade Limestone	1159894 MT	1119141 MT

\*Industry may use codes disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw materials used.



**PART - C**  
**Pollution discharged to environment / unit of output**  
 (Parameters as specified in the consent issued)

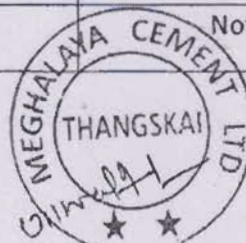
(i) Pollutants	Quantity of pollutants discharged mass / day	Concentrations of pollutants discharges (mass/ volume)	Percentage of variation from prescribed standards with reasons
(a) Water	Not Applicable	Not Applicable	Not Applicable
(b) Air i) PM <sub>10</sub> ii) PM <sub>2.5</sub>	100 µg/m <sup>3</sup> 60 µg/m <sup>3</sup>	48.09 µg/m <sup>3</sup> 27.43 µg/m <sup>3</sup> (Average of last three months)	Concentration of pollutants is within the prescribed limit.

**PART - D**  
**Hazardous Waste**  
 [As specified under Hazardous Wastes (Management and Handling) rules, 1989]

Hazardous Wastes	Total Quantity (kg)	
	During the current financial year 2022-23	During the current financial year 2023-24
(a) From process	Not Applicable	Not Applicable
(b) From pollution control facilities	Not Applicable	Not Applicable

**PART - E**  
**Solid Waste**

Solid Wastes	Total Quantity	
	During the current financial year 2022-23	During the current financial year 2023-24
(a) From process	Not Applicable	Not Applicable
(b) From pollution control facilities	Not Applicable	Not Applicable
(c) (1) Quantity recycled or re-utilized within the unit	Not Applicable	Not Applicable
(2) Sold	Not Applicable	Not Applicable
(3) Disposed	Not Applicable	Not Applicable



**PART - F**

Please specify the characteristics (in terms of composition of quantum) of Hazardous as well as Solid waste and indicate disposal practice adopted for both the categories of wastes :- **Not Applicable.**

**PART - G**

Impact of pollution abatement measures taken on conservation of natural resources and on the cost of production: - **The low grade limestone is being used along with the high grade limestone through blending as per need of lime content for maintaining the raw-mix quality. Hence the material is consumed in totality.**

**PART - H**

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution: -**Already pollution control measures are taken and functioning properly .Thus regular maintenance will be done as and when required.**

**PART - I**

Any other particulars for improving the quality of environment: - **We are adopting plantation activities for improving the environment. We have planted total of 385nos. of species of different plants upto 31<sup>st</sup> March, 2024since inception within and outside the mining lease area and their rate of survival is satisfactory.**



bad behaviour and ball tampering

CLAS  
FOR BOARD  
PHYSICS, CHEM  
& BIOLOGY BY  
LABORATO  
AUDIO VISUA  
FREE STUD  
SACRED HE  
ACA  
NEAR FIRST BLDG  
PHONE-938422

# The Shillong Times

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**ACS**  
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SHILLONG, WEDNESDAY, MAY 30, 2018

ISSUE NO. 287

## Unprecedented security for counting of votes in Amnati

Have to respect people: P  
MDA justifi

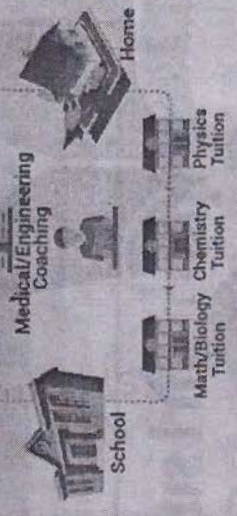
Information Office, Shillong : Re-do-na Complex, MG Road,  
Near Meghalaya High Court, Shillong-793001, Ph. 938630-50400

"Meghalaya Cements Limited has started the mining activity in South Khliehjari Mines over an area of 31.05 Ha. falling under the village Thangskai of Elaka Narpuh and they are conducting their activity in good manner and maintaining the environmental hazards within the limit."

**RIGID E-TENDER NOTICE**  
at 28.05.2018  
Ving, Assam Rifles works in the states of North East are  
in charge of DGAR.  
Availability or Bidding Documents to download from E proc portal :-  
From 31.05.2018 Upto 14.06.2018 Upto 14.06.2018  
[10:00Hrs] [17:00Hrs] [18:30Hrs]  
will be available at website <https://inproc.eproc.in>  
& [www.inproc.gov.in](http://www.inproc.gov.in)  
in & <https://inproc.eproc.in>.  
ZONAL MANAGAR

RT OF SMTL L.W. PHIRA :: PRESIDING OFFICER :: SUBORDINATE COUNCIL COURT :: AT SHILLONG  
Electoral Smt No. 2. of 2016  
Plaintiff

MEGHALAYA MOBILE BANK  
Ref No. 03/019/2018-19-52  
Dated: 09-05-2018  
Possession Notice  
(For Immovable Property)  
(Under Rule-8(1) of Security Interest Enforcement) Rule, 2002



Regular Education VS  
Separate classes-School | Tuition | Coaching

Time wastage in travel  
NO TIME for self study

Separate Teaching Approach in School and Coaching  
Synchronized Teaching Approach for Board-Ent



Integrated Board-Coaching  
Time Saving  
Adequate time for self study

Annexure - XVIII

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 • B.A. / B.Com / B.Ed / M.A.  
 • B.Pharm / M.Pharm / Ph.D.

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 0361 8178215/8157045  
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VOL. XXIX (29) NO. 142 RIN REED. NO. 7068/89/99 SHILLONG - 26 JYMMANG (MAY) SNGI SAITJAIN (SATURDAY) 2018 www.mswphor.com Postal Regn. No. NE - 851 8/- TYNGKA

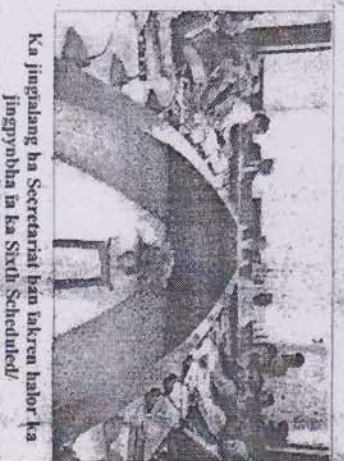
# M SWPHOR

Khabor Khasi Ba Nynghkong Ba Man Ka Sngi



**Hador ka jingyirwa pyntbei thymmai ia ka Sixth Scheduled Tyrwa ki lai ADG ia ka Sorkar jyla ban khot iakren shuwa ban shim ia ka rai khaduh**

**Shillong, Jymang, 25:** Ki lai ylli ki Autonomous District Councils ki la tyrwa ia ka Sorkar Meghalaya Democratic Alliance ha ka khot tairid bad harylok jumat shwa ban shim nai khaduh ia ka jingyirwa shwa ban phan sha Sorkar Pientg Kabo ia tyrwa ban pyntbei thymmai ia ka Sixth Scheduled jong ka Riti Symbhar ka Ri hada. Ia hane la pyntpaw ha ka jinglang ba la pyntad da u Bah Prestone Tymsong.



Ka jinglang ba Secretariat ban iakren hador ka jingyirwa ia ka Sixth Scheduled/

**Symbhar Mynti Kangbah ka jyla ha ka jinglang ba la hadonlang u Sanyentri Gang ia ka Sorkar Meghalaya (North East), ka Ministry of Home Affairs (MHA) myna ka sngi thohlang.**

**Nador ki mongmakhmat jong ki lai ylli ki Councils ha kynthop ia ka Khasi Hills Autonomous District Council (KHADC), Jantia Hills Autonomous District Council (JHADC) bad ka**

**Shillong:** Ka Sherwood School, Tura ka la long ka skul kaba la yanlakhmat ei ha ka result SSLC ne eikam Mark ba la pyntba da ka MBASE ha ka sngi lankhmat na kine udel u thohlang. Kame ka skul ka la lankhmat ha ki saw ylli ki kyrdan kiba lankhmat ei ha ka thup jong ki 20 neut kiba la wan shakhmat. Uba/ia Patra, u Siddhi Agwala had

**Anang Tywai uba la toh 881 mark, angba bad sa ka Trisha Seal Sharma, u Yash Khandelwal, u Pratyush Patra, u Siddhi Agwala had**

**Beng Sia 7**

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**CONTACT IMMEDIATELY**

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 Ph. No. 9207090915, 13, 11  
**SILCHAR:** sonal road Silchar, 90850081908, 9854033314

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**NOTICE**

M/S. Meghalaya Cements Limited has started the mining activity in South Khliehri Mines, over an area of 31.05 Ha, falling under the village Thangskari of Elaka Nairpuh and they are conducting their activity in good manner and maintaining the environmental hazards within the limit.

**Save environment. Think before you pour.**

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**Prof. (Dr) Sangeta Tripathi, Director, NERMA Group of Institutions**  
 Pashu Nara Samal Bhasan, Jati Nagar, Kamrupa, Guwahati-781022  
 Ph. : 9854197848, 98541519, 9854150000 : www.nerma.org : nerma.edu@gmail.com

**ANEXURE - XVIII**

**MEGHALAYA CEMENT LTD**

**THANGSKARI**

**0119611111**