



MEGHALAYA CEMENTS LIMITED

CIN-U26942ML2003PLC007125



Ref: MCL/ENV/MoEF&CC/Compliance-I/2025-26/27

Date-12/11/2025

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'2025 to September'2025**.

Dear Sir,

We are hereby furnishing the half yearly compliance report (hard copy and soft copy) for the period from **April'2025 to September'2025** on Environmental Stipulations for limestone mining for an area of 31.05 Ha, at South Khliehjri 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

Mr. ...
(Authorized Signatory)

Encl: As stated above.

Copy to:

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



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Half yearly Compliance Report (for the period April'2025 to September'2025) on Environmental Stipulations for limestone mining for an area of 31.05 Ha, at South Khliehjeri, Thangskai Village, Khliehriat, East Jaintia Hills by M/s – Meghalaya Cements Ltd., (MCL) – Environmental Clearance Letter No. SEIAA/ (PR-19/2012) PT/PR-05/2015/444; Dated 9th Jan 2017.

Sl. No. as per letter dated 09.01.2017 of State Environment Impact Assessment Authority.	Compliance Status
A. SPECIFIC CONDITIONS	
(i) The Project proponent (PP) shall obtain the requisite Wildlife Clearance from the National Board for Wildlife before operationlising the project.	Complied With The project area does not fall within the area of Eco Sensitive zone and the Project Proponent (PP) has obtained the requisite Wildlife Clearance from Divisional Forest Officer (Wildlife), Jaintia Hills, Wildlife Division, Jowai, (through office of APCC govt. of Meghalaya, Letter No. FWC/G/278/pt/928, Dated 6 th June 2018). Copy of the Wildlife Clearance is attached as an (Annexure-I)
(ii) Mining activities shall be restricted to the 31.05Ha. Which is identified as the 'non – forest area'and shall not be extended to any other area.	Agreed to Comply. Mining activities is restricted to the 31.05Ha,which is identified as the 'non – forest area'and will not be extended to any other area at any condition. 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.	Agreed to Comply. 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 Khliehjari 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.	Complied with. The PP has obtained 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 th June'2023& it is valid upto 28 th February 2026under 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. 28.02.2026, Renewal of Consent to Operate to MePCB. Application details is attached as an annexure-II .
(v)	The Project Proponent should ensure that the mining activities shall not disturb the caves existing nearby the mining lease area.	<p>Complied with.</p> <p>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 11th Jan 2023.</p>
(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.	<p>Complied with.</p> <p>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: Orchidceae, Cattelya Orchidceae, Cymbidium Orchidceae, Nepenthes Khasiana and Begonia rubrovenia has been initiated.</p> <p>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.</p>



(vii)	<p>The Action Plan as spelt out in the EIA Report and on the issues raised during the Public Hearing dated 17/12/2014 shall be implemented by the PP with adequate budgetary provisions. The PP shall complete all the tasks within 1 (one) year and submit a Report to the SEIAA, Meghalaya, and the NE Regional Office, MoEF&CC.</p>	<p>Agreed to Comply. 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 SEIAA, Meghalaya, and the NE Regional Office, MoEF & CC. Detailed budgetary report against the individual action taken is attached here as Annex – III & III-a.</p>
(viii)	<p>Proponent shall appoint an Occupational Health Specialist for the medical examination of the workers engaged in the project. Occupational Health check-ups shall be undertaken once in six months for workers and necessary remedial / preventive measures shall be taken. The Recommendations of National Institute for ensuring a good occupational environment for mine workers shall be implemented. The prevention measures for burns, material, and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.</p>	<p>Complied with. Proponent has appointed Competent Occupational Health Specialist including Medical Officer, Dentist, Nurse, Compounder, Lab Technician & 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. 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, Homocytometer etc. Company has 02 (Two) Ambulance in which one is Advanced life support with Cardiac monitor & 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 (Annexure-IV& V)</p>
(ix)	<p>The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment, Forest and Climate Change and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out; The Report on six monthly basis on changes in Groundwater level and quality shall be submitted to the SEIAA, Meghalaya and the</p>	<p>Agreed to Comply. We have done detailed Hydro geological survey by a CGWS approved third party & as per the report no ground water found in our mining lease area. 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& Piezometer) to interface drawn about the depth of ground water level in the mining lease hold area.</p>



	Regional Office of the Ministry.	Detailed Hydro geological Survey report has submitted to IRO-Shillong vide letter no.- MCL/ENV/MoEF&CC/Compliance LS-I/2022-23/ 33, dated 2nd Dec 2022. No ground water level observed during the period of October-2024 to March-2025. 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.	Complied with. 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 Annexure- VI&VII .
(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. Inspection done for verification of Action Taken Report. Action taken report is attached as an Annexure-VIII . Thereafter, Site visit has been done by CGWB-Shillong, now waiting for their closure report.
(xii)	The Project Proponent shall adopt Best mining Practices for the giving mining conditions. In the mining area adequate number of check dams, retaining walls / structures, garland drains and settling ponds should be provided to arrest the wash-off with rain water in catchment area.	Complied with. Best mining practices are being adopted by the Project Proponent for the giving mining conditions. 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 invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust.	<p>Being compiled with Mitigation measures to control fugitive dust emission are being done through permanent sprinklers & 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 Annexure-VI. Adequate Bag filters and dry fogging system provided at Crushing & 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>Agreed to comply. The project Proponent ensures that no natural water course and / or water resources will be obstructed due to any mining operations. In case of water scarcity in the area, the Project Proponent will not use local water for the project also will arrange water to the villagers for their use.</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>Being compiled with 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"> <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-2025</td> <td>60.5</td> <td>73.5</td> <td>66.9</td> <td>48.5</td> <td>534</td> <td>51.1</td> </tr> <tr> <td>May-2025</td> <td>56.2</td> <td>66.8</td> <td>63.0</td> <td>46.9</td> <td>51.9</td> <td>49.5</td> </tr> <tr> <td>June-2025</td> <td>58.9</td> <td>72.0</td> <td>66.2</td> <td>49.8</td> <td>54.7</td> <td>52.4</td> </tr> <tr> <td>July-2025</td> <td>47.7</td> <td>76.4</td> <td>66.5</td> <td>38.8</td> <td>52.2</td> <td>43.9</td> </tr> <tr> <td>Aug-2025</td> <td>47.9</td> <td>75.3</td> <td>67.6</td> <td>37.9</td> <td>48.1</td> <td>42.0</td> </tr> <tr> <td>Sep-2025</td> <td>43.9</td> <td>75.9</td> <td>65.6</td> <td>40.5</td> <td>51.0</td> <td>44.6</td> </tr> </tbody> </table>	Months	Day Hrs			Night hrs			Min	Max	Avg	Min	Max	Avg	Apr-2025	60.5	73.5	66.9	48.5	534	51.1	May-2025	56.2	66.8	63.0	46.9	51.9	49.5	June-2025	58.9	72.0	66.2	49.8	54.7	52.4	July-2025	47.7	76.4	66.5	38.8	52.2	43.9	Aug-2025	47.9	75.3	67.6	37.9	48.1	42.0	Sep-2025	43.9	75.9	65.6	40.5	51.0	44.6
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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>Agreed to comply. 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 & 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>																																																							



(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.	<p>Agreed to comply. The Project Proponent is implementing all applicable provisions of any Acts, Rules Orders of the Government and judicial orders issued by the Hon'ble Supreme Court/High Courts/NGT, applicable to the project.</p>								
(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).	<p>Agreed to comply. 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).</p>								
(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.	<p>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.</p> 								
(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.	<p>Complied with. 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:-</p> <table border="1" data-bbox="821 1830 1435 1976"> <thead> <tr> <th>Pollutants</th> <th>Location</th> <th>Avg. of Last 06 months</th> </tr> </thead> <tbody> <tr> <td data-bbox="821 1897 972 1942" rowspan="2">Particulate</td> <td data-bbox="972 1897 1220 1942">A1. North -East (Near Soil Dump)</td> <td data-bbox="1220 1897 1435 1942">61.37</td> </tr> <tr> <td data-bbox="972 1942 1220 1976">A2. North - West</td> <td data-bbox="1220 1942 1435 1976">68.99</td> </tr> </tbody> </table>	Pollutants	Location	Avg. of Last 06 months	Particulate	A1. North -East (Near Soil Dump)	61.37	A2. North - West	68.99
Pollutants	Location	Avg. of Last 06 months								
Particulate	A1. North -East (Near Soil Dump)	61.37								
	A2. North - West	68.99								



Matters	PM10	(Near Haul Road)	
	($\mu\text{g}/\text{m}^3$)	A3. Southern side (Near Lease Boundary)	62.05
Particulate Matters	PM2.5	A1. North -East (Near Soil Dump)	28.41
		A2. North - West (Near Haul Road)	33.14
		A3. Southern side (Near Lease Boundary)	29.39
		Fugitive dust emissions ($\mu\text{g}/\text{m}^3$)	1206.33
		A1. Drilling	1875.83
		A2. Blasting	2993.17
		A3. Loading	1113.83
		A4. Unloading	

Report for the same attached as Annexure-XII

(v)	The limestone shall be preferably transported by covered conveyor belts to the cement plants which shall be set up by the PP. The vehicles carrying the mineral shall not be overloaded. Vehicular emissions shall be kept under control and regular monitored.	Being complied with 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 Annexure-VII
(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	Complied with. Top soil is being stored at earmarked site as per the mining plan approved by the Indian Bureau of Mines and is utilizing in greenbelt development. The soil and over burden (OB) generated during the mining operation is being stacked at designated dump site as per the approved mining plan. The height, width and angle of repose of dumps are maintaining as per the condition stipulated in the environmental clearance. OB dumps will be vegetated with native species 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



	<p>orchard is raised by the PP on the reclaimed. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Status shall be reflected in the six monthly compliance reports.</p>	<p>management of rehabilitated areas will be maintained by the PP until the vegetation becomes self-sustaining.</p>
(vii)	<p>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>	<p>Complied with. <p>Catch drain and siltation ponds hasbeen constructedaround the mine working, mineral and OB dumps to prevent the run-off water and flow of sedimentsdirectly 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 areconstructed to ensure that proper retention period for settling of silt. The Sump capacity is being maintained by the PP within safety margin.</p>  </p>
(viii)	<p>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 phasedmanner and shall be completed within first five years.</p>	<p>Being compiled with. <p>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 phasedmanner.Detailed report is attached herewith which is earlier submitted to The Indian Bureau of Mines.</p> </p>

Duration	No. of trees planted	Area covered (in Ha.)	No. of trees survived	Survival rate
Apr-June 2025	220	0.1760	152	69.09%
July-Sep 2025	80	0.0639	56	70.00%
Total	300	0.2399	208	69.33%

Detailed report attached as an**Annexure-XIII**



(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>Complied with. Monitoring of water quality both upstream and downstream are being maintained and records are submitted to the NE Regional Office, MoEF&CC, Shillong and MSPCB. Detailed report attached as an Annexure-XI</p>																		
(x)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by stabling a networkof existing wellsand 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>Agreed to Comply. We have done detailed Hydro geological survey by a CGWS approved third party & as per the report no ground water found in our mining lease area. 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 & 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&CC/Compliance LS-I/2022-23/ 33, dated 2nd Dec 2022. No ground water level observed during the period of October-2024 to March-2025. Whenever the Ground water level will be observed, Company will submit the Groundwater level and quality report to IRO-Shillong on six monthly basis.</p>																		
(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.	<p>Agreed to comply. The PP has taken all precautionary measures during mining operation for conservation and protection of endangered flora and fauna in the project area.</p>																		
(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 activates 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 $PM_{2.5}$, NO_x , SO_x , in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per MoEF's notification in 2009. Further, quality of discharged water shall also be monitored (TDS,DO, pH and Total suspended Solids-TSS). The data shall be uploaded on the website of the company and also prominently displayed at the project site. The circular No-J20012/1/2006-IA-II (M) dated 27.05.2009 issued by the MoEF&CC, which is available on the website of the Ministry www.envfor.nic.in shall also be referred to in this regard for its compliance.	<p>Noted for compliance. Critical parameters such as $PM_{2.5}$, NO_x, SO_x, in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer 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).</p> <table border="1" data-bbox="834 1680 1373 1974"> <thead> <tr> <th data-bbox="834 1680 1086 1713">Parameters</th><th data-bbox="1086 1680 1373 1713">Obtained value</th></tr> <tr> <th data-bbox="834 1713 1086 1747"></th><th data-bbox="1086 1713 1373 1747">April-25</th></tr> </thead> <tbody> <tr> <td data-bbox="834 1747 1086 1781">pH</td><td data-bbox="1086 1747 1373 1781">6.79</td></tr> <tr> <td data-bbox="834 1781 1086 1814">TSS</td><td data-bbox="1086 1781 1373 1814">16</td></tr> <tr> <td data-bbox="834 1814 1086 1848">BOD</td><td data-bbox="1086 1814 1373 1848">24</td></tr> <tr> <td data-bbox="834 1848 1086 1882">COD</td><td data-bbox="1086 1848 1373 1882">78</td></tr> <tr> <td data-bbox="834 1882 1086 1915">Temperature</td><td data-bbox="1086 1882 1373 1915">25.2</td></tr> <tr> <td data-bbox="834 1915 1086 1949">Oil & Grease</td><td data-bbox="1086 1915 1373 1949"><4.0</td></tr> <tr> <td data-bbox="834 1949 1086 1983">Total Residual Chlorine</td><td data-bbox="1086 1949 1373 1983"><0.01</td></tr> </tbody> </table>	Parameters	Obtained value		April-25	pH	6.79	TSS	16	BOD	24	COD	78	Temperature	25.2	Oil & Grease	<4.0	Total Residual Chlorine	<0.01
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Total Residual Chlorine	<0.01																			



Ammonical Nitrogen	9.6
Free Ammonia	<0.01
Total Kjeldahl Nitrogen	21

The monitoring data is being uploaded on the company website <https://topcem.in/> and displaying at the main gate of the project. Detailed reports are attached as **Annexure- XII&XIV.**

Agreed to comply.

Effluent Treatment Plant (ETP) with 25 KLD Capacity has already been installed at HEMM 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				
	Jan-25	Jun-25	Jul-25	Aug-25	Sep-25
pH	6.78	6.82	6.76	6.74	6.72
TSS	19	6.2	19	21	26
BOD	21	6	23	24	23
COD	68	42	76	78	83
Temperature	25.2	25.8	25.4	25.2	25.2
Oil & Grease	<4.0	<4.0	<4.0	<4.0	<4.0
Total Residual Chlorine	<0.01	<0.0	<0.0	<0.0	<0.0
Ammonical Nitrogen	17	1.2	9.9	9.7	10.3
Free Ammonia	<0.01	<0.0	<0.0	<0.0	<0.0
Total Kjeldahl Nitrogen	32	5.1	25	27	29

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

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.

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, 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.



		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, Shillong.	<p>Agreed to comply.</p> <p>The funds earmarked for environment protection measure are kept in the separate account.</p>																								
		<table border="1"> <thead> <tr> <th>SL. No.</th> <th>Head</th> <th>Total Expenditure (in lakh)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Plantation</td> <td>6.58</td> </tr> <tr> <td>2</td> <td>Dust suppression</td> <td>3.98</td> </tr> <tr> <td>3</td> <td>Preparation of Retaining wall, Checkdam, Siltation Tanks and Garland drains</td> <td>5.88</td> </tr> <tr> <td>4</td> <td>PPE supply to mine workers</td> <td>0.72</td> </tr> <tr> <td>5</td> <td>Water Treatment & Maintenance of Effluent Treatment Plant</td> <td>0.50</td> </tr> <tr> <td>6</td> <td>Dump Compaction</td> <td>3.54</td> </tr> <tr> <td colspan="2">Total</td><td>20.95</td></tr> </tbody> </table>	SL. No.	Head	Total Expenditure (in lakh)	1	Plantation	6.58	2	Dust suppression	3.98	3	Preparation of Retaining wall, Checkdam, Siltation Tanks and Garland drains	5.88	4	PPE supply to mine workers	0.72	5	Water Treatment & Maintenance of Effluent Treatment Plant	0.50	6	Dump Compaction	3.54	Total		20.95
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		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 April-2025 to September-2025 are attached as an Annexure-XVI .																								
(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: 2024-25 was submitted to MsPCB vide letter no. MCL/Env/MsPCB/2025-2026/08, dated 05/05/2025. Copy of the Form-V is attached as an Annexure-XVII																								
(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.	<p>Agreed to Comply.</p> <p>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.</p>																								
(xx)	A copy of clearance letter shall be marked to concerned local bodies / NGOs, if any, from whom suggestion / representation has been received while processing the proposal.	Complied With.																								
(xxi)	The project authorities shall advertise at least in	Complied With.																								



	two local newspapers widely circulated, one of which shall in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance. A copy of the clearance letter shall be made available on the website of the PP.	PP has advertised in two local newspapers i.e The Shillong times and Mawphor on dated 30 th May 2018 and 26 th May 2018 respectively widely circulated regarding the accorded of environmental clearance. A copy of the clearance letter available on the Company website https://topcem.in Newspaper advertisement are attached as an Annexure-XVIII
(xxii)	Official from the Regional Office of MoEF& CC, Shillong, MSPCB or any authorized officials, who would be monitoring the implementation of the conditions mentioned herein, shall be given full cooperation, facilities and documents / data by the PP during their inspection.	Agreed for compliance. Full co-operation 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.	Agreed for compliance. The PP do not violate applicable provisions of any Acts, Rules, Orders of the Government and judicial orders issued by the Hon'ble Supreme Court / High Courts/ NGT, applicable to the project.
(xxi)	The SEIAA reserves the right to add or delete any conditions or safeguarding measures found necessary, and to take action including revoking the clearance granted, if conditions stipulated are not implemented by the PP or in case of submission of false document / wrong declaration.	Noted. Agreed to compile with.
(xxv)	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green tribunal Act, 2010.	Noted.



Received
16/6/18

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 14th June, 2018.

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

To, The Meghalaya Cement Limited.

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.

ans
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.

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.

Blank
Additional Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden
Meghalaya, Shillong.

RECEIPT

Regd No. 168

Date 8.6.18

Rept. From _____



Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya
 'ARDEN' Lumpyngngad, Shillong - 793014
 Website : <http://megspcb.gov.in>



No. MPCB/ONLINE/RCTO(R-1)/EJHD/2021/2025-2026/103 Dated Shillong, the 4th July, 2025



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 28th February 2025 is hereby renewed for a period of 1(one) year i.e upto 28th February 2026 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 28th February 2026 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

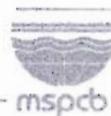
7. The caves should be preserved, in case any cave or cave's routes are encountered in the area the same shall have to be reported to the Board immediately.
8. To maintain the environment and ecology of the area, development of green belt by planting selected species of trees, the height of which should 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;



Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya

'ARDEN' Lumpyngngad, Shillong - 793014

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

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 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;

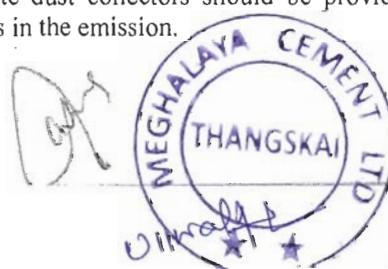
II. Specific Conditions:**A. Water & Soil Aspect:**

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 be 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.



Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya

'ARDEN' Lumpyngngad, Shillong - 793014

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



E34
10/07/2025

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.
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 boulder 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.

Memo No. MPCB/ONLINE/RCTO(R-1)/EJHD/2021/2025-2026/1030 Dated: 14 July 2025
Copy to:-

1. The Director of Industries, Meghalaya, Shillong for kind information.

2. ~~M/S~~ MEGHALAYA CEMENTS LIMITED, C/o The Director, Village Thangskai, Lumshnong P.O. & P.S.; Khliehriat, East Jaintia Hills District. The Firm is instructed to apply for further renewal of the Consent to Operate prior to expiry of the validity date.

3. TB-ONLINE-RCTO-EJHD-2025.

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 allocates 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

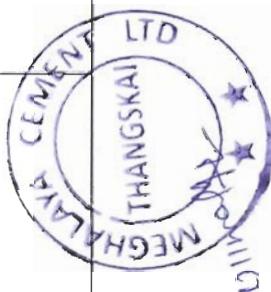


ACTION PLAN FOR MITIGATION OF ENVIRONMENTAL POLLUTION

Annexure-III – (a)

Sl.No.	Environmental Impact	Action Plan	Status / Compliance	Capital cost	Cost	Recurring Cost
1.	<p>Water pollution due to surface run-off from mines area.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>	<p>Check dam construction – Rs 2.1 Lacs</p> <p>Garland Drain construction – Rs 2.8 lacs</p>	<p>Cleaning – once in a year – Rs 0.25 Lacs</p>	<p>Cleaning – once in a year – Rs 0.25 Lacs</p>	<p>Cleaning – once in a year – Rs 0.25 Lacs</p>
2.(a)	<p>Air pollution due to generation of fugitive dust.</p>	<p>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.</p>	<p>Water sprinkling is being carried out regularly at the loading point and unloading points, haul roads regularly to suppress the fugitive dust.</p>	<p>i) Water Tanker – Rs 12.0 Lacs</p>	<p>i) Maintenance Cost- 0.4 Lacs ii) Driver Salary – Rs- 4.08 Lacs ii) Diesel & Lubricants- Rs- 2.0 lacs</p>	<p>Annexure -III</p> 

(b)	<p>b) Plantation of native species to minimize the generation of air born dust due to moment of vehicles.</p>	<p>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%.</p>	<p>Area preparation, Sapling cost, Fertilizer and Fencing – Rs 2.75 lacs</p>	<p>Watch & ward – Rs- 3.25 Lacs</p>
(c) & (d)	<p>c) M/s Meghalaya Cements Limited will use wet drilling system to avoid fugitive emission due to drilling process.</p>	<p>The Meghalaya Cements Limited is using wet drilling from the inception of mining activities and the drilling machines are well equipped with the process.</p>	<p>i) Installation of Wet drilling system to ROC – Rs 0.7 Lacs.</p> <p>ii) Purchase of Real-time Air Sampler – Rs 4.2 Lacs.</p>	
	<p>d) Construction of metallic Haul Road to minimize fugitive dust generation</p>	<p>Metallic haul road has been prepared to transport/carryout limestone as well as Overburden.</p>	<p>Construction Cost – Rs 7.2 Lacs</p>	<p>Maintenance Cost – Rs 3.5 Lacs.</p>
3.	<p>Modification of exhaust system of mining machineries.</p>	<p>M/s Meghalaya Cements Limited will upgrade the exhaust of drilling and excavation machine to mitigate exhaust emission from the machines.</p>	<p>Continuously and periodically we are monitoring the emission of CO₂ gases and we are taking necessary initiatives as and when required.</p>	<p>i) Flue Gas Analyzer Cost- Rs 2.15 Lacs</p>
	<p>4.</p>	<p>Vibration due to use of traditional explosives.</p>	<p>M/s Meghalaya Cements Limited will use advance explosive (NONEL) to minimize the vibration generated during the explosion activity.</p>	<p>i) Spare & maintenance – Rs 0.1 Lacs</p>
5.	<p>Maintenance of Soil Dump, OB Dump and Haul road.</p>	<p>Compaction of dumps and Haul roads to maintain the Stability.</p>	<p>JCB Compactor is used to maintain the stability of dumps and haul roads.</p>	<p>i) Cost of Nonel – Rs 4.7 Lacs</p>
				<p>i) Purchase of Minimate to measure ground vibration – Rs 2.47 Lacs/-</p>
			<p>i) JCB Compactor – Rs 12.0 Laks</p>	<p>i) Maintenance Cost- 1.5/- Lacs</p> <p>ii) Driver Salary – Rs- 2. 2 Lacs</p> <p>ii) Diesel & Lubricants- Rs- 0.8 lacs</p>



(FORM - O)
(See rule 29F (2) and 29L)
Report of medical examination under rule 29B
(To be issued in triplicate)**

Certificate No.

Certified that Shri/Shrimati* ASHISH LAXMAN MATURWAR

employed as. ASSIST. MANAGER has been examined for an initial/periodical medical examination.

He/she* appears to be 28 years of age. The findings of the examining authority are given in the attached sheet. It is considered that

Shri/Shrimati* ASHISH LAXMAN MATURWAR

(a)* is medically fit for any employment in mines.

(b)* is suffering from and is medically unfit for

- (I) any employment in mine; or
- (II) any employment below ground; or
- (III) any employment or work.....

(c)* is suffering from..... is should get this disability* cured/months. *He/She will appear for re -examination within the period of

..... of *and the opinion of

..... Specialist from.....
He/She* may be permitted/not permitted* to carry on his duties his period.



Place: Thangskai
Date 02/05/2015



Signature of examining
Authority

Dr. LANU AKASH AIMOL.
Name and Designation in
Block Letter
DR. LANU AKASH AIMOL
RMC Regd. No. 31651
MOBS, SPMC, Bikaner (Raj.)

Medical Officer
Meghalaya Cement Ltd

(FORM - O)
(See rule 29F (2) and 29I.)
Report of medical examination under rule 29B
(To be issued in triplicate)**

Certificate No.

Certified that Shri/Shrimati* employed as Inmine, Form B No. has been examined for an initial/periodical medical examination. He/she* appears to be 28 years of age. The

findings of the examining authority are given in the attached sheet. It is considered that
Shri/Shrimati* Ashish Laxman Matunwar

(a)* is medically fit for any employment in mines.

(b)* is suffering from and is medically unfit for

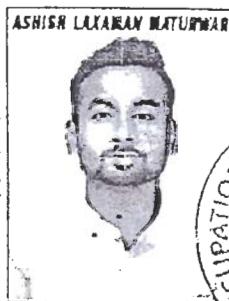
(b) any employment in mine; or

(c) any employment below ground; or

(d) any employment or work.....

..... is suffering from is should get this disability* cured/controlled and should be again examined

within a period ofmonths. He/She will appear for re-examination with the result of test of and the opinion of Specialist from He/She may be permitted to carry on his duties during this period.



Place : Thangskar.

Date : 02/05/25

Signature of the examining authority
....DR...LANU...AKASH...RUMCL....

DR. LANU AKASHAIMOL
RMC Regd. No. 31651

Name: MUNSIPALI BIKAP RAI (in Ranchi letters)

Medical Officer

Meghalaya Cements Ltd

* Delete whatever is not applicable.

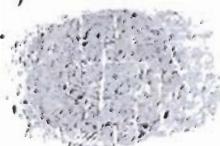
** One copy of the certificate shall be handed over to the person concerned and another copy shall be sent to the manager of the mine concerned by registered post, and the third copy shall be retained by the examining authority.



Report of the examining authority
 (to be filled in for every medical examination whether initial or periodical or re-examination or
 after
 cure/control of disability).

Annexure to Certificate No. as result of medical examination on .../.../25
 Identification Mark. Black mole on left upper forehead.

Left thumb impression of
 The candidate



1. General development- Good/Fair/Poor

2. Height. 172 Cms

3. Weight... 71 ...kg

4. Eyes :
 (i) Visual acuity-Distant vision (with or without glasses).
 Right eye. 6/6. Left eye.... 6/6....
 (ii) any organic disease of eyes } None
 (iii) night blindness }
 (iv) Colour blindness }
 (v) Squint }

DR. BAPYAKASHAIMOL
 RMC Regd. No. 31651
 MBBS, SPMC, Bikaner (Raj.)
 Medical Officer
 Meghalaya Citizens

(* to be tested in special cases)

1. Inserted vide notification No. GSR 656 dated 5.6.1980

(e) Ears :
 (f) Hearing : right ear ... N left ear ... N
 (g) Any organic diseases — No.

DR. BAPYAKASHAIMOL
 RMC Regd. No. 31651
 MBBS, SPMC, Bikaner (Raj.)
 Medical Officer
 Meghalaya Citizens

6. Respiratory system.

Chest measurement :

(i) after full inspiration 96 cms.
 (ii) After full expiration. 90 cms.

DR. BAPYAKASHAIMOL
 RMC Regd. No. 31651
 MBBS, SPMC, Bikaner (Raj.)
 Medical Officer
 Meghalaya Citizens

7. Circulatory system:

Blood Pressure 136/54 mm Hg.
 Pulse 83/min

8. Abdomen : Soft, BS⁺
 Tenderness. Non-tender
 Liver. } Not palpable
 Spleen. }
 Tumour.



Major symptoms	80
Histoical fits or epilepsy	56
Paralysis	16
Mental health	Great

10.1 Examples of stem
11. Step

12. Rydberg

15.00 min. \rightarrow 30.00

16. Any other abnormalities? None

Introduction

Review
Albumin

112

16. Sketch of chest (or Study)

17 Any other test considered necessary by the examining authority. No

8. Any opinion of specialist considered necessary. — No

Place Thangkha

Signature of DR. UDAYAKASHI AHOL
DR. UDAYAKASHI AHOL
RMC Regd. No: 31651
MBBS, SPMC, Bikaji (FMS)
Medical Officer
Meghalaya Cements Ltd



REPORT OF MEDICAL EXAMINATION AS PER THE RECOMMENDATIONS OF
 NATIONAL SAFETY CONFERENCES IN MINES
 (TO BE USE IN CONTINUATION WITH FORM O)

Certificate No

Name ASHISH LAXMIN MAFUR WAK

Identification Marks. Black mole on left upper forehead

1. Cardiological Assessment

Auscultation	S1	(N)
	S2	
	Additional sound	
Electrocardiograph(12leads)findings		Absent Normal/Abnormal

Enclosed ECG

2. Neurological assessment

Findings	Normal/Abnormal
Superficial reflexes	
Deep Reflexes	(N)
Peripheral circulation	
Vibrational Syndromes	

3. ILO classification of chest Radiograph: (N) Study.

Profusion of Pneumoconiotic opacities	Grades	Types
Present/Absent		


 Medical Officer
 Meghalaya CCE

Enclosed chest radiograph

4. Audiometry Findings: B/L Hearing sensitivity UNL.

Conduction type	Left Ear	Right Ear
Ear conduction	Normal/Abnormal	Normal/Abnormal
Bone conduction	Normal/Abnormal	Normal/Abnormal

Enclosed Audiometry Report



5. Pathological /Microbiological Investigations:

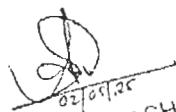
S.No.	Tests	Findings
1.	Blood-Tc, Dc, Hb, ESR, Platelets	WNL/Abnormal
2.	Blood Sugar Fasting & PP	WNL/Abnormal
3.	Lipid Profile	WNL/Abnormal
4.	Blood urea ,Creatinine	WNL/Abnormal
5.	Urine Routine	WNL/Abnormal
6.	Stool routine	WNL/Abnormal

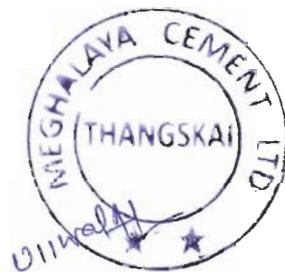
Enclosed Investigation Reports

6. Special test for Min Exposure:

Behavioral Disturbances		Present/Not Present
Neurological Disturbances	Speech Defect	Present/Not Present
	Tremor	Present/Not Present
	Adiadiocokinesia	Present/Not Present
	Emotional Changes	Present/Not Present

7. Any Other Special Test Required: None


 Signature of Dr. L. N. KASHAIMOL
 DR. L. N. KASHAIMOL
 RMC Regd. No. 34661 Authority
 MBBS, SPMC, Bikaner (Raj) Authority
 Medical Officer
 Meghalaya Cements Ltd



Anaemia - D



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. ASHISH LAXMAN MATORWAR

Invoice No: 963

Case No: M973

Age/Sex: 28 Years / Male

Registered On: 22-05-2025 05:46 PM

Referrer: DR. LANU AKASH AIMOL

Haematology

COMPLETE BLOOD COUNT

TEST	RESULT	UNIT	REFERENCE RANGE
BLOOD COUNT & INDICES			
Hemoglobin	16.6	gm%	13 - 17
Total RBC Count	5.1	mil/cmm	4.35 - 5.65
Total WBC Count	8.5	1000/ cumm	4 - 11
HCT (PCV)	41	%	39 - 54
MCV	82	fL	78 - 98
MCH	H 32.55	pg	27 - 32
MCHC	H 40.49	g/dL	32 - 36
R.D.W - CV	13	%	11.5 - 14.5
RDW - SD	41	fL	39 - 55
DIFFERENTIAL WBC COUNT			
LYMPHOCYTES	40	%	20 - 40
MONOCYTES	8	%	3 - 15
GRANULOCYTES	52	%	50 - 70
ABSOLUTE WBC COUNT			
LYMPHOCYTES	3	1000/ cumm	0.8 - 4
MONOCYTES	1.2	1000/ cumm	0.1 - 1.5
GRANULOCYTES	4	1000/ cumm	2 - 7
PLATELET COUNT			
Platelet Count	250	1000/ cumm	150 - 450
MPV	8	fL	7 - 12
PDW	15		14 - 17
PCT	2.1	mL/L	1.08 - 2.82
P-LCC	45	1000/ cumm	30 - 90
P-LCR	30	%	11 - 45
ERYTHROCYTE SEDIMENTATION RATE			
Method: WESTERGREN	16	mm/hr	0 - 20



Bunker Singha
Lab Technician DTC MCL



Medical Office
Meghalaya Cements Ltd.
Dr. Lanu Akash Aimol
RMO OMC MCL



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. ASHISH LAXMAN MATURWAR

Invoice No: 963

Case No: M973

Age/Sex: 28 Years / Male

Registered On: 22-05-2025 05:46 PM

Referrer: DR. LANU AKASH AIMOL

Clinical Pathology

COMPLETE URINE ANALYSIS

TEST	RESULT	UNIT	REFERENCE RANGE
------	--------	------	-----------------

SAMPLE	URINE	ML	
--------	-------	----	--

PHYSICAL EXAMINATION

QUANTITY	10	ML
----------	----	----

TRANSPARENCY	Clear
--------------	-------

SPECIFIC GRAVITY	1.0	1 - 1.03
------------------	-----	----------

COLOUR	Pale Yellow
--------	-------------

Chemical Examination(URINE)

PROTEIN	ABSENT
---------	--------

SUGAR	ABSENT
-------	--------

MICROSCOPIC EXAMINATION(URINE)

Pus Cells	0-1	Cells / hpf	0-5 WBC / hpf
-----------	-----	-------------	---------------

Epithelial cells	0-2	Cells / hpf	0-5 Cells / hpf
------------------	-----	-------------	-----------------

RBC	ABSENT	Cells / hpf	0 - 2 Rbc / hpf
-----	--------	-------------	-----------------

Casts	ABSENT
-------	--------

Crystals	ABSENT
----------	--------

Amorphous Material	ABSENT
--------------------	--------

Fungus	ABSENT
--------	--------

Bacteria	ABSENT
----------	--------

Yeast Cells	ABSENT
-------------	--------



Sonkar Singha
Lab Technician OHC MCL



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

Annawale - 10



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. ASHISH LAXMAN MATURWAR
Age/Sex: 28 Years / Male
Referrer: DR. LANU AKASH AIMOL

Invoice No: 963

Case No: M973

Registered On: 22-05-2025 05:46 PM

Others

STOOL Routine & Micro

TEST	RESULT	UNIT	REFERENCE RANGE
Physical Examination			
Consistency	Semi Solid		
Blood	Absent		
Mucus	Absent		
Parasites	Absent		
Quantity	150	mL	100 - 200
Colour	Brown		
Chemical Examination			
Occult Blood Test	Absent		
Reducing Sugar Test	Absent		
Reaction	Alkaline		
Microscopic Examination (Stool)			
Pus Cells	1-2	Cells / hpf	
Macrophages	0-1	Cells / hpf	
Ova	ABSENT		
RBC	ABSENT	Cells / hpf	
Epithelial cells	1-2	Cells / hpf	
Bacteria	0-3		



Sunker Singh
Lab Technician OHC MCL



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



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. ASHISH LAXMAN MATURWAR

Invoice No: 962

Case No: M972

Age/Sex: 28 Years / Male

Registered On: 22-05-2025 05:23 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Biochemistry

LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	134.4	mg/dl	< 200
TRIGLYCÉRIDE	H 156.4	mg/dl	<150
HDL Cholesterol	H 66.8	mg/dl	40 - 60
LDL / HDL Ratio	L 1.33		1.5 - 3.5
LDL Cholesterol	88.6	mg/dl	< 100
VLDL	H 31.28	mg/dl	0 - 30
CHOL/HDL Chol. Ratio	L 2.01		3 - 5
TGL / HDL Ratio	2.34		<3.12



Sankar Singh
Lab Technician OHC MCL



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



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. ASHISH LAXMAN MATURWAR

Invoice No: 962

Case No: M972

Age/Sex: 28 Years / Male

Registered On: 22-05-2025 05:23 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
CREATININE	1.18	mg/dl	0.5 - 1.4
BLOOD UREA	33.3	mg/dl	13 - 43



Sankar Singh
Lab Technician OHC MCL



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



OCCUPATIONAL HEALTH CENTRE

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

Annexure - IV



Name: MR. ASHISH LAXMAN MATURWAR

Invoice No: 962

Case No: M972

Age/Sex: 28 Years / Male

Registered On: 22-05-2025 05:23 PM

Referrer: DR. LANU AKASH AIMOL

Spec/Remark: Healthray Patient

Others

HBsAg RAPID TEST

TEST	RESULT	UNIT	REFERENCE RANGE
HbsAg Test	Negative		Negative

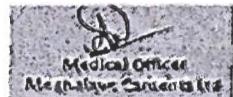
Interpretation :

Remarks:

This test is a only screening test. All positive test results should be confirmed with other available confirmatory tests. Earliest indicator of active HBV infection. Usually appears in 27 to 41 days (as early as 14 days). Appears 7 to 26 days before biochemical abnormalities. Peaks as ALT rises. Persists during the acute illness. Usually disappears 12 to 20 weeks after onset of symptoms or laboratory abnormalities in 0% of cases. Is the most reliable serologic marker of HBV infection. Persistence >6 months defines carrier state. May also be found in chronic infections. HB vaccination does not cause a positive HBsAg. Titers are not of clinical value. Present sensitive assays detect <1.0 ng/mL of circulating antigen, which is the level needed to find 10% to 15% of reactive blood donors who carry antigen but express only low levels. Is never detected in some patients and diagnosis is based on the presence of HBc-IgM.



Sankar Singh
Lab Technician OHC MCL



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



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. ASHISH LAXMAN MATURWAR Invoice No: 962 Case No: M972
 Age/Sex: 28 Years / Male Registered On: 22-05-2025 05:23 PM
 Referrer: DR. LANU AKASH AIMOL
 Type/Remark: Healthy Patient

Miscellaneous

TEST	RESULT	UNIT	REFERENCE RANGE
SUGAR TEST			
FASTING BLOOD SUGAR	99.0	mg/dl	70 - 100
POST PRANDIAL BLOOD SUGAR	116.0	mg/dl	70 - 140

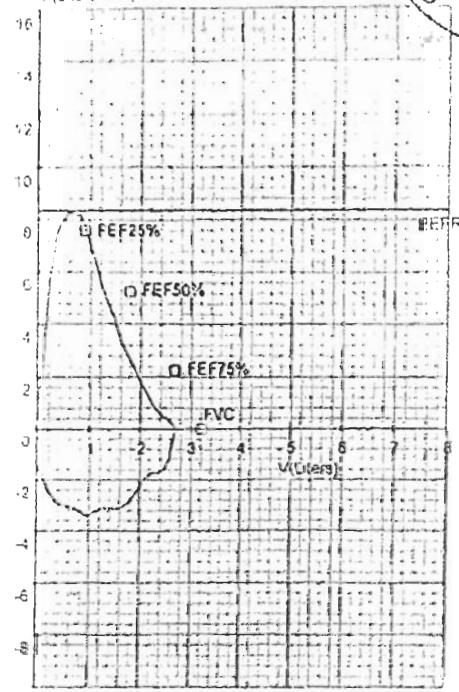


Occupational Health Centre, MCL.
Vill- Thangska, P O-Lumshong, Dist-East Jaintia Hills, Meghalaya-793210

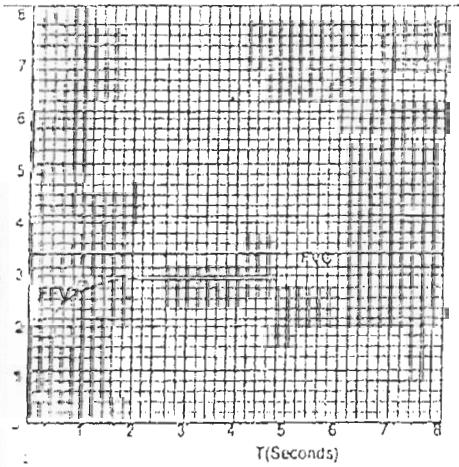
PVC TEST
Date 02-05-2025 (T2)

Pred Eqn CLARITY Eth Corr 100 Temp 72
Ref By NONE

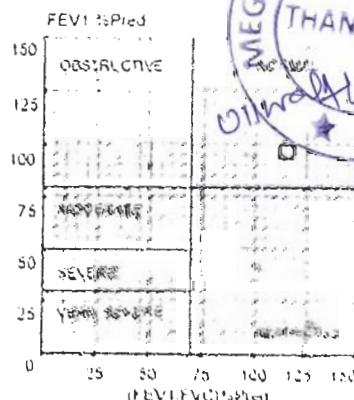
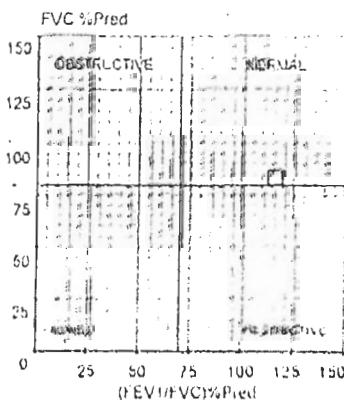
F(Liters/Sec)



V(Liters)



Parameter	Pred	Pre	Pre%	Post	Post%	Imp%
FVC [L]	3.21	2.65	90	--	--	--
FEV1 [L]	2.51	2.47	97	--	--	--
FEV5 [L]	..	2.11	--	--	--	--
FEV3 [L]	3.11	2.47	79	--	--	--
FEV6 [L]	--	--	--	--	--	--
PEFR [L/s]	8.36	8.34	100	--	--	--
FEF25-75 [L/s]	3.45	5.10	148	--	--	--
FEF75-85 [L/s]	--	1.37	--	--	--	--
FEF 2-1.2 [L/s]	6.11	7.14	117	--	--	--
FEF25% [L/s]	7.61	9.36	123	--	--	--
FEF50% [L/s]	5.27	5.45	103	--	--	--
FEF75% [L/s]	2.28	1.74	76	--	--	--
FEV5/FVC [%]	--	78.61	--	--	--	--
FEV1/FVC [%]	79.13	91.85	116	--	--	--
FEV3/FVC [%]	97.00	91.85	95	--	--	--
FEV6/FVC [%]	--	--	--	--	--	--
FEV1/FEV6 [%]	--	--	--	--	--	--
FET [S]	--	4.62	--	--	--	--
ExplTime [S]	--	0.11	--	--	--	--
LungAge [Y]	50.00	52.00	104	--	--	--
FIVC [L]	--	2.79	--	--	--	--
PIFR [L/s]	--	3.39	--	--	--	--
FIF25% [L/s]	--	9.49	--	--	--	--
FIF50% [L/s]	--	5.97	--	--	--	--
FIF75% [L/s]	--	2.18	--	--	--	--
FIV.5 [L]	--	0.93	--	--	--	--
FIV1 [L]	--	2.46	--	--	--	--
FIV3 [L]	--	--	--	--	--	--
FIV.5/FIVC [%]	--	33.33	--	--	--	--
FIV1/FIVC [%]	--	88.17	--	--	--	--
FIV3/FIVC [%]	--	--	--	--	--	--



- Pre Medication Report :

Spirometry within Normal range as FVC% ≥ 80 And FEV1/FVC% > 70

- Pre COPD Severity Report:

COPD Severity within Normal range

- Doctor's Comments :

WNL

Dr. L. LALI
M.C.P.C. Regd. No. 11858
M.C.C. Regd. No. 11858
113







OCCUPATIONAL HEALTH CENTER
 MEGHALAYA CEMENT LTD. THANGSKAI

X-Ray Report

Name Of Patient	ASHISH	LAXMAN	MATURWAR
Age/Sex	23 Male		
Department	MINES		
Date	9/09/25		
View	CXR - PA		

Trachea:

(Normal)

Lungs Field:

Clear No opacities, infiltrates seen.

Cardiac Field:

No cardiomegaly.

Diaphragm:

Normal outline.

CP Angle:

Not obliterated

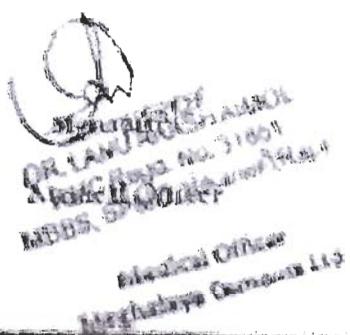
Ribs & Other osseous structure:

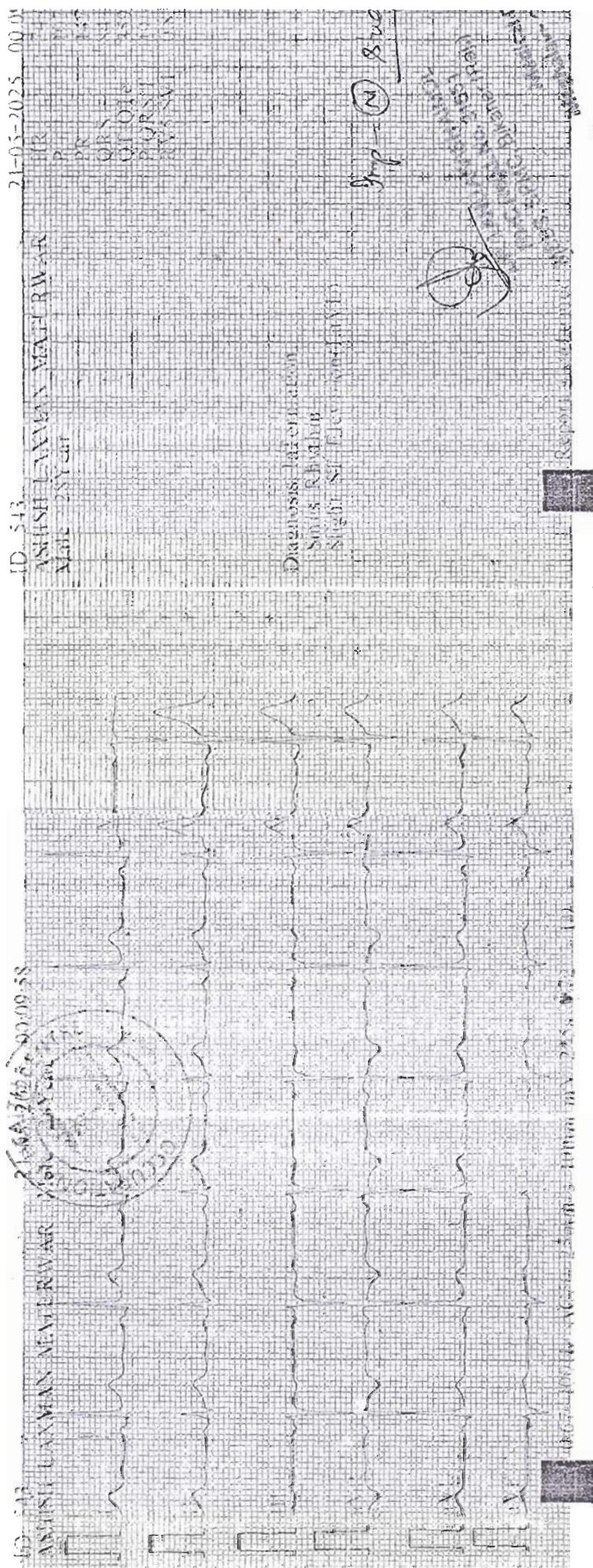
{ (N) Normal

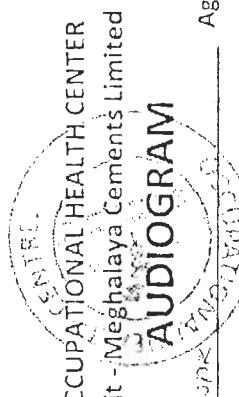
Soft Tissue:

IMPRESSION:

Normal (N).

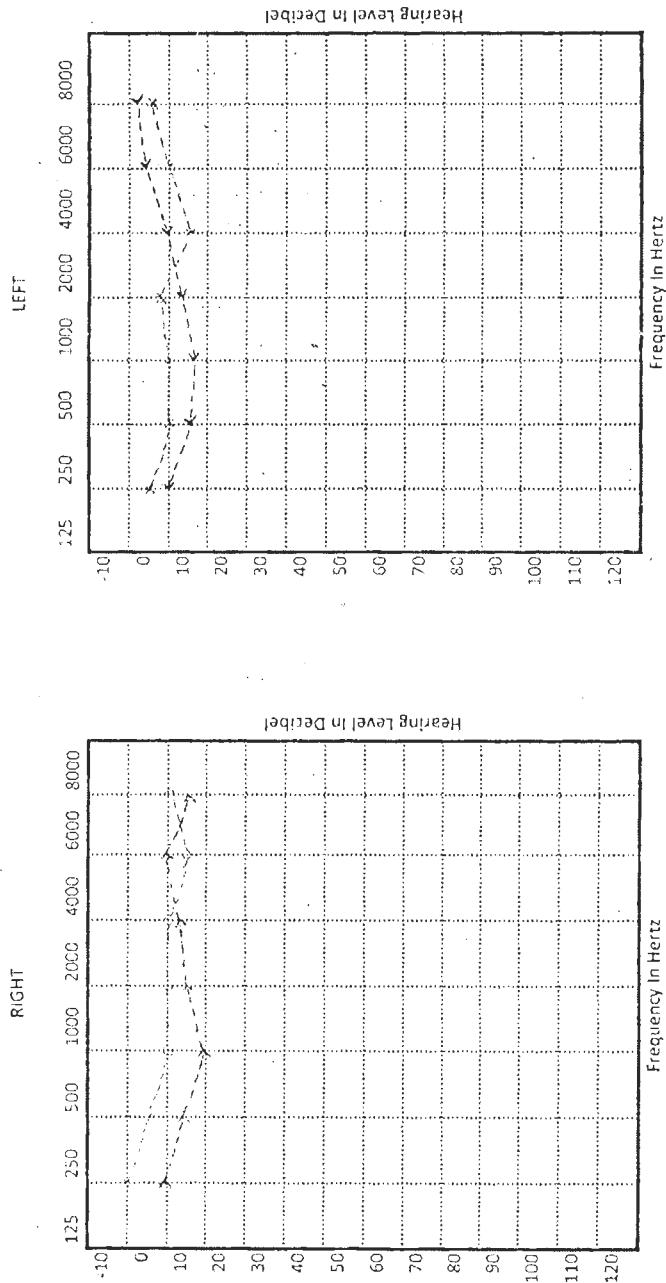






AUDIOGRAM

Name : ASHISH Age : 28 Sex : Male
 Department : MINES Employee code : 6180 Date : 26/05/2012



	AC	BC
Right	0	>
Left	x	<

	AC	BC
Right	0	>
Left	x	<
Source:		

Complaints	Deafness/Otorrhoea/Thinitis/ Nausea/
Past Illness	TB/Typhoid/Malaria/mesities/jaundice/Meningitis
Ototoxic Drugs	STP/Gentamycin/Salicylates/Antimalaria
Noise Exposure	Years: Use PPE:Yes/no Source: /Duration:

Remarks:	<u>Both Hearing deviation within normal limits</u>
Place:	<u>Thangsuk</u>
Date:	<u>02/05/2012</u>



Annexure - IV

Signature of Medical Officer, Shillong (Ran)
 DR. R.N. SPARKS
 M.B.B.S., F.R.C.P., D.M.R.D., D.M.R.C.,
 M.R.C.P., M.R.C.P.L.

(FORM - O)
(See rule 29F (2) and 29L)
Report of medical examination under rule 29B
(To be issued in triplicate)**

Certificate No. .

Certified that Shri/Shrimati SUMIT BCHERA

employed as MINES SURVEYOR has been examined for an initial/periodical medical examination

He/she appears to be 29 years of age. The

findings of the examining authority are given in the attached sheet. It is considered that

Shri/Shrimati SUMIT BCHERA

is medically fit for any employment in mines

(b) is suffering from and is medically unfit for

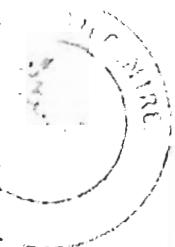
- (I) any employment in mine, or
- (II) any employment below ground; or
- (III) any employment or work

(c) is suffering from .. is should get this disability* cured/months. He/She will appear for re-examination within the period of

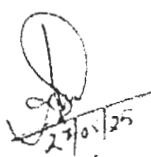
of .. and the opinion of

Specialist from ..

He/She* may be permitted/not permitted* to carry on his duties his period



Place: Thangskai
Date: 27/07/2015


Signature of examining
Authority

DR. LANU AKASH AIMOI
Name and Designation in
Block Letter
DR. LANU AKASH AIMOI
RMC Reg. No. 31901
MBBS, BPHC, Bikaner (Raj.)

Medical Officer
Meghalaya Cements Ltd

(FORM - O)
(See rule 29F (2) and 29L)
Report of medical examination under rule 29B
(To be issued in triplicate)**

Certificate No.

SUMIT BEHERA

Certified that Shri/Shrimati* employed as ~~Surveyor~~ Inmine, Form B No. has been examined for an initial/periodical medical examination. He/she* appears to be ... 29 ... years of age. The

findings of the examining authority are given in the attached sheet. It is considered that Shri/Shrimati* *SUMIT BEHERA*

(a)* is medically fit for any employment in mines.

- (b)* is suffering from..... and is medically unfit for
- (b) any employment in mine; or
- (c) any employment below ground; or
- (d) any employment or work

(*) is suffering from..... is should get this disability* cured/controlled and should be again examined

within a period of months. He/She will appear for re-examination with the result of test of..... and the opinion of Specialist from..... He/She may be permitted to carry on his duties during this period.



Date : *Thangshai, 27/05/25.*

[Signature]
27/05/25

Signature of the examining authority
..... DR. LANU AKASH AIMOL
DR. LANU AKASH AIMOL
RMC Regd. No. 31651
MBBS, SPMC, Bikaner (Raj)
Name and designation in Block letters

Medical Officer

Meghalaya Cements Ltd

* Delete whatever is not applicable.

** One copy of the certificate shall be handed over to the person concerned and another copy shall be sent to the manager of the mine concerned by registered post; and the third copy shall be retained by the examining authority.



Report of the examining authority

(to be filled in for every medical examination whether initial or periodical or re-examination or after cure/control of disability)

Annexure to Certificate No as result of medical examination on ... 27/05/25
 Identification Mark: Black mole on Right cheek.

Left thumb impression of
 The candidate



1. General development: Good/Fair/Poor

2. Height ... 169 ... Cms.

3. Weight ... 64 ... kg.

4. Eyes:

(i) Visual acuity-Distant vision (with or without glasses).

Right eye ... 6/6. Left eye ... 6/6.....

(ii) any organic disease of eyes? None

(iii) night blindness No

(iv) Colour blindness No

(v) Squint No

(* to be tested in special cases)

1. Inserted vide notification No. GSR 656 dated 5.6.1980

(e) Ears:

(f) Hearing: right ear ... N Left ear ... N

(g) Any organic diseases. No

6. Respiratory system:

Chest measurement:

(i) after full inspiration ... 94 ... cms.

(ii) After full expiration ... 88 ... cms.

7. Circulatory system:

Blood Pressure 116/73 mm Hg
 Pulse 87/min.

8. Abdomen: Soft, BS
 Tenderness. Non-tender

Liver. not palpable
 Spleen. Tumour.

DR. LANU AKASH AIMOL
 RMC Regd. No. 31651
 MBBS, SPMC, Bikaner (Raj.)
 27/5/25

Medical Officer
 Meghalaya Commandos HQ



9. Nervous system
 History of fits or epilepsy No
 Paralysis No
 Mental health Good

10. Locomotory system N
 N
 11. Skin N
 12. Hydrocele N
 13. Hernia N
 14. Any other abnormality N/A
 15. Urine
 Reaction N
 Albumin N
 Sugar N
 16. Skiagram of chest N
 17. Any other test considered necessary by the examining authority: None
 18. Any opinion of specialist considered necessary: No


 27/5/25
 Signature of the examining authority

DR. LANU AKASHAIMOL
 RMC Regd. No. 31651
 MBBS, SPMC, Bikaner (Raj.)

Medical Officer
 Meghalaya Cement Ltd

Place: Thangskai



REPORT OF MEDICAL EXAMINATION AS PER THE RECOMMENDATIONS OF
NATIONAL SAFETY CONFERENCES IN MINES
(TO BE USE IN CONTINUATION WITH FORM O)

Certificate No

Name SUMIT BEHURA

Identification Marks. Black mdc. on Right cheek

1. Cardiological Assessment

Auscultation	S1		
	S2		
	Additional sound		
Electrocardiograph(12leads)findings		(N) (N) Absent	Normal/Abnormal

Enclosed LEG

2. Neurological assessment:

Findings	Normal/Abnormal
Superficial reflexes	<input checked="" type="radio"/> N
Deep Reflexes	<input checked="" type="radio"/> N
Peripheral circulation	<input checked="" type="radio"/> N
Vibrational Syndromes	<input checked="" type="radio"/> N

3.ILO classification of chest Radiograph:

Study

Profusion of Pneumoconiotic opacities	Grades	Types
Present/Absent		

Enclosed chest radiograph

4 Audiometry Findings: Bilateral Hearing Sensitivity within normal limits MBS, S1

Conduction type	Left Ear	Right Ear	Megha
Ear conduction	Normal/Abnormal	Normal/Abnormal	
Bone conduction	Normal/Abnormal	Normal/Abnormal	

Enclosed Audiometry Report

A circular stamp with the text "MEGHALAYA CEMENT LTD" around the perimeter and "THANGSKAI" in the center. A signature is written across the center of the stamp.

— 27 —
R. LANU AKASH AIMOL
RMC Regd. No. 31651
BBS, SPMC, Bikaner (Raj.)
Medical Officer
Meghalaya Command

Medical Officer
Meghalaya Council

5 Pathological Microbiology and Investigations

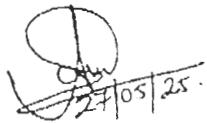
S No	Tests	Findings
1	Blood Uc, Ur, DB, ESR, Platelets	WNL/Abnormal
2	Blood Sugar, Fasting & PP	WNL/Abnormal
3	Lipid Profile	WNL/Abnormal
4	Blood urea, Creatinine	WNL/Abnormal
5	Urine Routine	WNL/Abnormal
6	Stool routine	WNL/Abnormal

4 Closed Investigation Reports

6 Special test for Mx Exposure

Behavioral Disturbances	Speech Defect	Present/Not Present
Neurological Disturbances	Tremor	Present/Not Present
	Adiadiocokinesia	Present/Not Present
	Emotional Changes	Present/Not Present
		Present/Not Present

7 Any Other Special Test Required. None


 27/05/25
 Signature of the Examination Authority

DR. LANU AKASHAIMOL
 RMC Regd. No. 31651
 MBBS, SPMC, Bikaner (Raj.)

Medical Officer
 Meghalaya Cement Ltd





OCCUPATIONAL HEALTH CENTRE

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



Name: MR. SUMIT BEHERA(6182)

Invoice No: 966

Case No: M976

Age/Sex: 29 Years / Male

Registered On: 27-05-2025 05:04 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

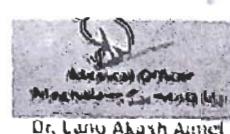
Haematology

COMPLETE BLOOD COUNT

TEST	RESULT	UNIT	REFERENCE RANGE
BLOOD COUNT & INDICES			
Hemoglobin	13.2	gm%	13 - 17
Total RBC Count	4.75	mil/cmm	4.35 - 5.65
Total WBC Count	7.6	1000/ cumm	4 - 11
HCT (PCV)	44.1	%	39 - 54
MCV	92.84	fL	78 - 98
MCH	27.79	pg	27 - 32
MCHC	29.93	g/dL	32 - 36
R.D.W - CV	14.1	%	11.5 - 14.5
RDW - SD	49.2	fL	39 - 55
DIFFERENTIAL WBC COUNT			
LYMPHOCYTES	38.2	%	20 - 40
MID CELLS	4.2	%	3 - 15
GRANULOCYTES	57.6	%	50 - 70
ABSOLUTE WBC COUNT			
LYMPHOCYTES	3.1	1000/ cumm	0.8 - 4
MID CELLS	0.5	1000/ cumm	0.1 - 1.5
GRANULOCYTES	4.0	1000/ cumm	2 - 7
PLATELET COUNT			
Platelet Count	181	1000/ cumm	150 - 450
MPV	11.2	fL	7 - 12
PDW	16.8		14 - 17
PCT	2.33	mL/L	1.08 - 2.82
P-LCC	86	1000/ cumm	30 - 90
P-LCR	42.4	%	11 - 45



Sankar Singh
Lab Technician OHC MCL



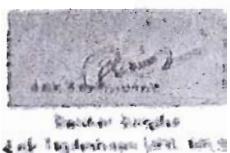
Medical Officer
Occupational Health Centre
Dr. Lanu Akash Aimol
RMO OHC MCL



OCCUPATIONAL HEALTH CENTRE

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

TEST	RESULT	UNIT	REFERENCE RANGE
ERYTHROCYTE SEDIMENTATION RATE	12.0	mm/hr	0 - 20
Method : WESTERGREN			
Interpretation :			
1. HCT- % of RBCs in blood. Low HCT means anaemia. 2. MCV - Average size of RBCs - Low - Microcytic anaemia d/t iron deficiency., Thalassemia. High MCV - Vit B12/folic acid def., T2DM, CLD, Alcohol, smoking. 3. MCHC-Average weight in Hb per unit RBC volume. 4. MCH-Average amount of Hb per RBC. 5. RDW CV- Variation in RBC size. High- Anaemia, Vit B12/folate defc,etc. 6. RDW-SD-Actual variation in RBC size 7. P-LCC-No. of large platelets in circulation (12-30 fl). 8. P-LCR-% of large platelets in total circulating platelets. High P-LCR is associated with Hyperlipidemia & risk of thrombosis. 9. If Mentzer Index is > 13, there is likelihood of IDA. If value <13, there is likelihood of Beta-Thalassemia trait			





OCCUPATIONAL HEALTH CENTRE

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

Annexure - II



Name: MR. SUMIT BEHERA(6182) Invoice No: 966 Case No: M976
Age/Sex: 29 Years / Male Registered On: 27-05-2025 05:04 PM
Referrer: DR. LANU AKASH AIMOL
Type/Remark: Healthray Patient

Biochemistry

LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	125.0	mg/dl	< 200
TRIGLYCERIDE	H 210.3	mg/dl	<150
HDL Cholesterol	53.0	mg/dl	40 - 60
LDL / HDL Ratio	1.55		1.5 - 3.5
LDL Cholesterol	82.0	mg/dl	< 100
VLDL	H 42.06	mg/dl	0 - 30
CHOL /HDL Chol. Ratio	L 2.36		3 - 5
TGL / HDL Ratio	H 3.97		<3.12



Sankar Singh
Lab Technician OHC NCL



Medical Officer
Meghalaya Cement Ltd
Dr Lanu Akash Aimol
RMO OHC NCL



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. SUMIT BEHERA(6182)

Invoice No: 966

Case No: M976

Age/Sex: 29 Years / Male

Registered On: 27/05/2025 05:04 PM

Referrer: DR. LANU AKASH AIMOL

Re/Remark: Healthray Patient

Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
CREATININE	1.24	mg/dl	0.5 - 1.4
FASTING BLOOD SUGAR			
Fasting Blood Sugar	99.0	mg/dl	70 - 100
BLOOD UREA	32.2	mg/dl	13 - 43



Anneade - IV



OCCUPATIONAL HEALTH CENTRE

MICHALE CEMENT LTD., Thangskai, PO: Jamshedpur
Dist: Jharkhand, India, Pincode: 791210



Name	MR. SUMIT BEHERA(6182)	Invoice No	966	Case No	M976
Age/Sex	30 Years / Male			Registered On	27-05-2025 05:28 PM
Referrer	DR. LALU AKASH AIYAR				
Type/Remark	Healthy Patient				

Clinical Pathology

COMPLETE URINE ANALYSIS

TEST	RESULT	UNIT	REFERENCE RANGE
SAMPLE	URINE	ML	
PHYSICAL EXAMINATION			
QUANTITY	10	ML	
TRANSPARENCY	Clear		
SPECIFIC GRAVITY	1.0		1 - 1.03
COLOUR	Pale Yellow		
Chemical Examination(URINE)			
PROTEIN	ABSENT		
SUGAR	ABSENT		
MICROSCOPIC EXAMINATION(URINE)			
Put. Cell:	0.2	Cells / hpf	0-5 WBC / hpf
Epithelial cells	0.1	Cells / hpf	0-5 Cells / hpf
RBC	0.1110	Cells / hpf	0 - 2 Rbc / hpf
Cast	ABSENT		
Crystals	ABSENT		
Amorphous Material	ABSENT		
Fungus	ABSENT		
Bacteria	ABSENT		
Yeast Cells	ABSENT		



Sanchar Singh
Lab. Technican Date: 16/05



Dr. Lalu Akash Aiyar
MAIN OFFICE



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. SUMIT BEHERA(6182)

Invoice No: 966

Case No: M976

Age/Sex: 29 Years / Male

Registered On: 27-05-2025 05:04 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Others

STOOL Routine & Micro

TEST	RESULT	UNIT	REFERENCE RANGE
Physical Examination			
Consistency	Semi Solid		
Blood	Absent		
Mucus	Absent		
Parasites	Absent		
Quantity	110	mL	100 - 200
Colour	Brown		
Chemical Examination			
Occult Blood Test	Absent		
Reducing Sugar Test	Absent		
Reaction	Alkline		
Microscopic Examination (Stool)			
Pus Cells	0-2	Cells / hpf	
Macrophages	0-1	Cells / hpf	
Ova	Absent		
RBC	0-1	Cells / hpf	
Epithelial cells	0-1	Cells / hpf	



Sankar Singh
Lab Technician OHC MCL



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



OCCUPATIONAL HEALTH CENTRE

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



Name: MR. SUMIT BEHERA(6182)

Invoice No: 967

Case No: M977

Age/Sex: 29 Years / Male

Registered On: 27-05-2025 05:37 PM

Referrer: DR. LANU AKASH AIMOL

Others

HBsAg RAPID TEST

TEST	RESULT	UNIT	REFERENCE RANGE
HBsAg Test	Negative		Negative

Interpretation:

Remarks:

This test is a only screening test. All positive test results should be confirmed with other available confirmatory tests. Earliest indicator of active HBV infection. Usually appears in 27 to 41 days (as early as 14 days). Appears 7 to 26 days before biochemical abnormalities. Peaks as ALT rises.

Persists during the acute illness. Usually disappears 12 to 20 weeks after onset of symptoms or laboratory abnormalities in 90% of cases. Is the most reliable serologic marker of HBV infection. Persistence >6 months defines carrier state. May also be found in chronic infections. HB vaccination does not cause a positive HBsAg. Titers are not of clinical value. Present sensitive assays detect <1.0 ng/mL of circulating antigen, which is the level needed to find 10% to 15% of reactive blood donors who carry antigen but express only low levels. Is never detected in some patients and diagnosis is based on the presence of HBc-IgM.



Sankar Singh
Lab Technician OHC MCI



Medical Officer
Meghalaya Cement Ltd

RECORDER & MEDICARE SYSTEMS

Plot # 196, Industrial Area, Phase-1, Panchkula, Haryana INDIA - 134113

Patient: SUMIT BEHERA
 Ad. By:
 Ad. Eqns. RECORDERS
 Date: 27-May-2025 10:20 AM

Age: 44 Yrs
 Height: 170 Cms
 Weight: 64 Kgs
 ID: 384

Gender: Male
 Smoker: No
 Eth. Corr: 100
 Temp: 98.6



FEV1 %Pred COPD SEVERITY			FVC %Pred Interpretation		
150			150		
125	OBS	NORM	125	OBS	NORM
100			100		
75	MODERATE		75		
50	SEVERE		50		
25	VERY SEVERE	RES	25	MIXED	RES
0	25 50 75 100 125 150		0	25 50 75 100 125 150	
(FEV1/FVC) %Pred			(FEV1/FVC) %Pred		

FVC Results						
	Parameter	Pred	M. Pre	%Pred	M. Post	%Pred
	FVC (L)	03.60	03.32	99.2	-----	---
	FEV1 (L)	03.06	02.99	99.8	-----	---
	FEV1/FVC (%)	85.00	90.06	106	-----	---
	FEF25-75 (L/s)	04.44	03.70	88.3	-----	---
	PEFR (L/s)	09.24	10.07	109	-----	---
	FIFC (L)	-----	03.21	---	-----	---
	FEV.5 (L)	-----	02.42	---	-----	---
	FEV3 (L)	03.50	03.32	99.5	-----	---
	PIFR (L/s)	-----	06.57	---	-----	---
	FEF75-85 (L/s)	-----	01.29	---	-----	---
	FEF.2-1.2 (L/s)	07.64	07.56	99.9	-----	---
	FEF 25% (L/s)	08.10	07.15	88.8	-----	---
	FEF 50% (L/s)	05.95	04.16	70.0	-----	---
	FEF 75% (L/s)	03.17	01.84	58.0	-----	---
	FEV.5/FVC (%)	-----	72.89	---	-----	---
	FEV3/FVC (%)	97.22	100.00	103	-----	---
	FET (Sec)	-----	01.65	---	-----	---
	ExplTime (Sec)	-----	00.04	---	-----	---
	Lung Age (Yrs)	029	030	103	-----	---
	FEV6 (L)	03.60	-----	---	-----	---
	FIF25% (L/s)	-----	04.96	---	-----	---
	FIF50% (L/s)	-----	06.43	---	-----	---
	FIF75% (L/s)	-----	06.09	---	-----	---
	Test COPD Severity					

Test within normal limits



Pred Medication Report Indicates -
 Spirometry within normal limits as (FEV1/FVC) %Pred >95 and FVC %Pred >80

Group - (N) Study

Dr. LALU AKASH AIMOL
 RMC Regd No. 31651
 MBUS, SPMC, Bokul (Kali)
 Medical Officer
 Meghalaya Cement, Ltd



OCCUPATIONAL HEALTH CENTRE

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

Annexure - IV



Name: MR. SUMIT BEHERA(6182)

Invoice No: 968

Case No: M978

Age: 29 Years / Male

Registered On: 28-05-2025 08 18 AM

Referrer: DR. LANU AKASH AIMOL

Others

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



Sankar Singh
Lab Technician OHC MCL



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



OCCUPATIONAL HEALTH CENTER

MEGHALAYA CEMENT LTD, THANGSKAI

X-Ray Report

Name Of Patient	SUMIT	BCHRA
Age/Sex	29/M	
Department	MINES	
Date	27/05/25	
View	CXR - (PA)	

Trachea : Midline

Lungs Field : B/L clear. No infiltrates, opacities, pneumothorax seen.

Cardiac Field : No Cardiomegaly.

Diaphragm : Outline clear

CP Angle : not obliterated.

Ribs & Other osseous structure : Bony structures no deformity or fracture seen.

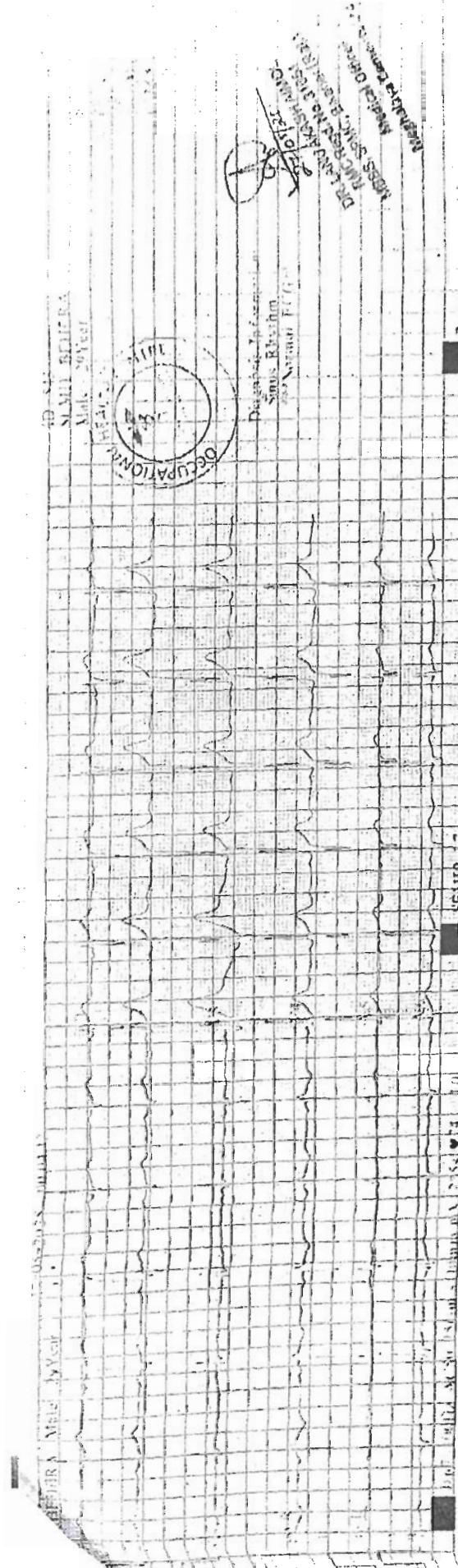
Soft Tissue : (N)

IMPRESSION : (N) Study



27/05/25
Signature
DR. LANUAKASH AIMOL
MBBS, FRCP, No. 31651
MBBS, SPMB, FRCP
Medical Officer
Meghalaya Cement

Annexeure - IV





$$x_0 + x_1 p_0 + x_2 p_1 + \cdots + x_{n-1} p_{n-1} \in \mathbb{F}_{p^n}$$

AUDIOGRAM



Gravitational
Field
Magnetic
Field



Occupational Health Center Details

MCL OHC Staff Details			
Sl.No.	Name of Staff	Course	Designation
1	Dr. Lanu Akash Aimol	MBBS	Medical Officer
2	Dr. Fedelis Lungdin	BDS	Dental Officer
3	Sabir Hussain	GNM	Male Nurse
4	Shilpi Nath	ANM	Female Nurse
5	Wanpali Heimon B Talang	ANM	Female Nurse
6	Tarini Bezburah	RMP	Compounder
7	Shankar Kumar Singha	MLT	Lab Technician
8	Jyotishman Kashyap	Certificate Course	X-ray Technician
9	Deimonmi Suiam	10th	Dresser
10	Genevolin Lamare	10th	Office Assistant
11	Rajdeep Bezbaruah	D.Pharma	Pharmacist

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	
X-Ray Equipment's			
1	X-RAY machine	1	
2	Radiography CR system	1	
3	Xray Lead Barrier	1	
4	Lead thyroid collar	1	
5	Lead Vest	1	
Ambulance Service @ 24x7			
1	BLS Ambulance	1	
2	Mini Ambulance	1	
Lab Equipment details			
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	
	Fully Automatic Immunofluorescence		
5	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	Haemocytometer	1	
14	Test Tube Rack	3	
15	ESR Stand	1	
Lab Testing Facility			
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 Protein Latex Test		
11	R.F. (Latex Test)		
12	VDRL		
13	HBsAg (Hepatitis-B)		

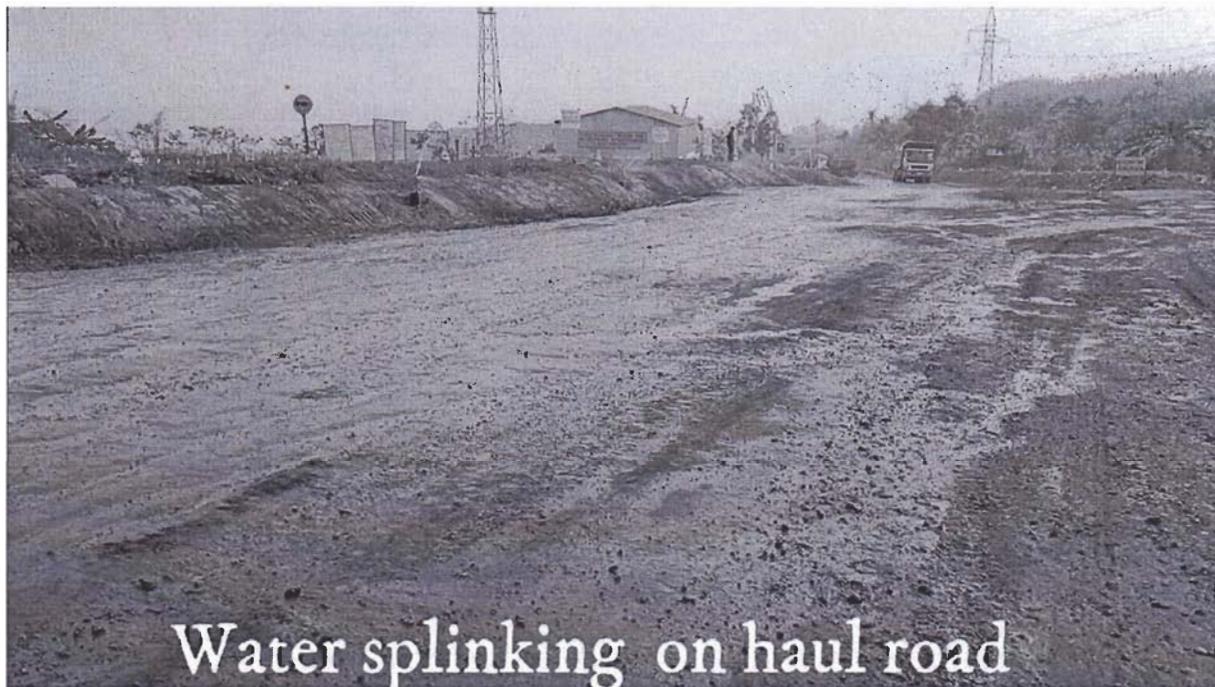


14	HCV (Hepatitis-C)
15	A.B.O. Grouping
16	Rh Type
17	Malaria Test
18	Widal Test
19	Dengue Kit
20	Serum Uric Acid
21	HCG
22	ECG
23	SPIROMETRY (PFT)
24	AUDIOMETRY
25	Trop-T
26	ASO
27	CKMB
28	CARDIAC TROP I
29	PROCALCITONIN
30	MICROALBUMIN
31	SERUM TOTAL CALCIUM
32	Urine Routine Examination
33	Stool Routine Examination

Hospital Emergency Services

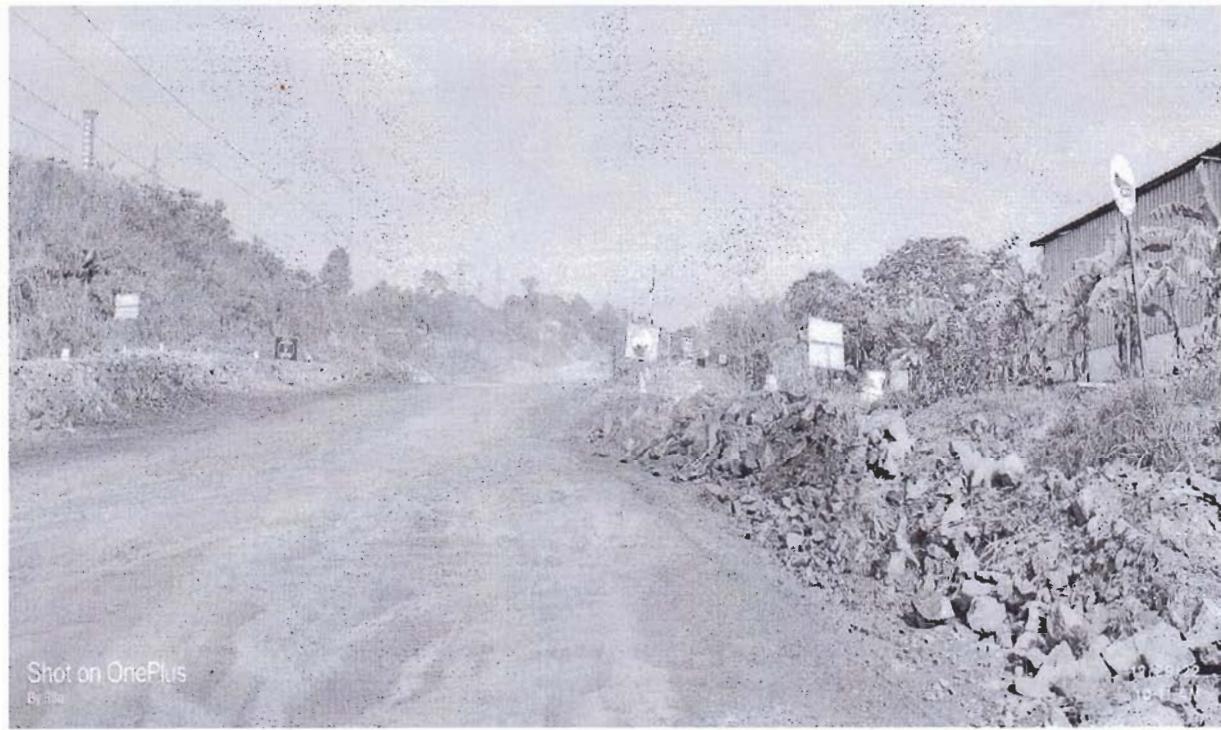
1	24 X 7 Doctor Availability
2	24 X 7 BLS Ambulance Service
3	24 X 7 Mini Ambulance Service





Water splinking on haul road

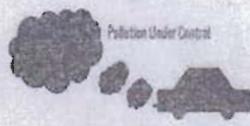




POLLUTION TESTING STATION

LADTHALABOH, JANTIA HILLS

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



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

Book No. **168**

Sl.No.

8396

Date. **01/07/25**

SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. **ML 11 5565** 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 manufacturer.	3.25	75	5.2		
2. or Free acceleration	2.45	65	5.2		35.1%

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 **30/12/25**.

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

Authorised Signature
Jasper IS LONG
 Seal of the Testing Station

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:- 21st March, 2005

Book No.

168

SLNo.

8400

Date 01/07/25

SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 115628 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	Hartide Units	Bosch Unit	Light absorption co-efficient	Hartide Units
1. Full load at 60 to 70% of maximum engine rated rpm declared by the manufacturer.	3.25	75	5.2		38.1%
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 30/12/25

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

Authorised Signature
Jasper I. Slong
Seal of the Testing Station
Approved

Pollution Testing Station
Ladthalaboh, Jowai, Meghalaya



POLLUTION TESTING STATION

LADTHALABOH, JANTIA HILLS

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



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

Book No.

168

Sl.No.

8339

Date 01/07/25

SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 11 5626 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		37.1%
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 30/12/25

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

C. Gove
 Authorised Signature upto
 30/12/25
 Seal of the Testing Station
 J.S. Govt. Approved
 Pollution Control Board
 Pollution Testing Station
 Ladthalaboh, Jaintia Hills
 Meghalaya, India



POLLUTION TESTING STATION

LADTHALABOH, JANTIA HILLS

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



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

168
 Book No.

8398
 Sl.No.

Date 01/07/25

SMOKE EMISSION TEST REPORT (DIESEL DRIVEN VEHICLES)

The Vehicle No. **ML II 5629** 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		
2. Free acceleration	2.45	65	5.2		29.9%

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 **30/12/25**

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

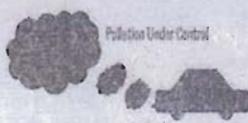
C. J. S. St. Long
 Authorised Signature
Jasper I. Long
 Seal of the Testing Station
 Govt. Approved
 Pollution Testing Station
 Ladthalaboh, Jowai, Meghalaya



POLLUTION TESTING STATION

LADTHALABOH, JANTIA HILLS

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



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

Book No. 168

Sl.No. 8397

Date 01/07/25

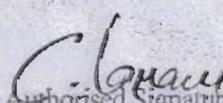
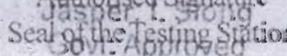
SMOKE EMISSION TEST REPORT
 (DIESEL DRIVEN VEHICLES)

The Vehicle No. ML 11 5570 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 manufacturer	3.25	75	5.2		26.9%
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 30/12/25

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


 Authorised Signature
 Jasper IS LONG

 Seal of the Testing Station
 30/12/25 Approved
 Pollution Testing Station
 Ladthalaboh, Jowai, Meghalaya





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,
Betuchi, 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 13th 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*

Authorized Signatory

Encl: as above.



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

HELPLINE NO : 18001233666



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 09509
E-mail : meghalaya@topcem.in

*21/6/24
Dispatcher
Government of India
Central Ground Water Board
North Eastern Region
Regional Office, Guwahati (Opp-ISBT)
Dated: 21/06/2024
Ref. No: 2024-731-025*



Action Taken Report

Meghalaya Cements Limited

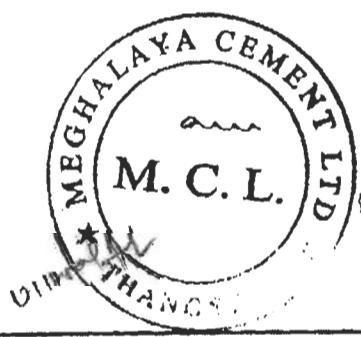
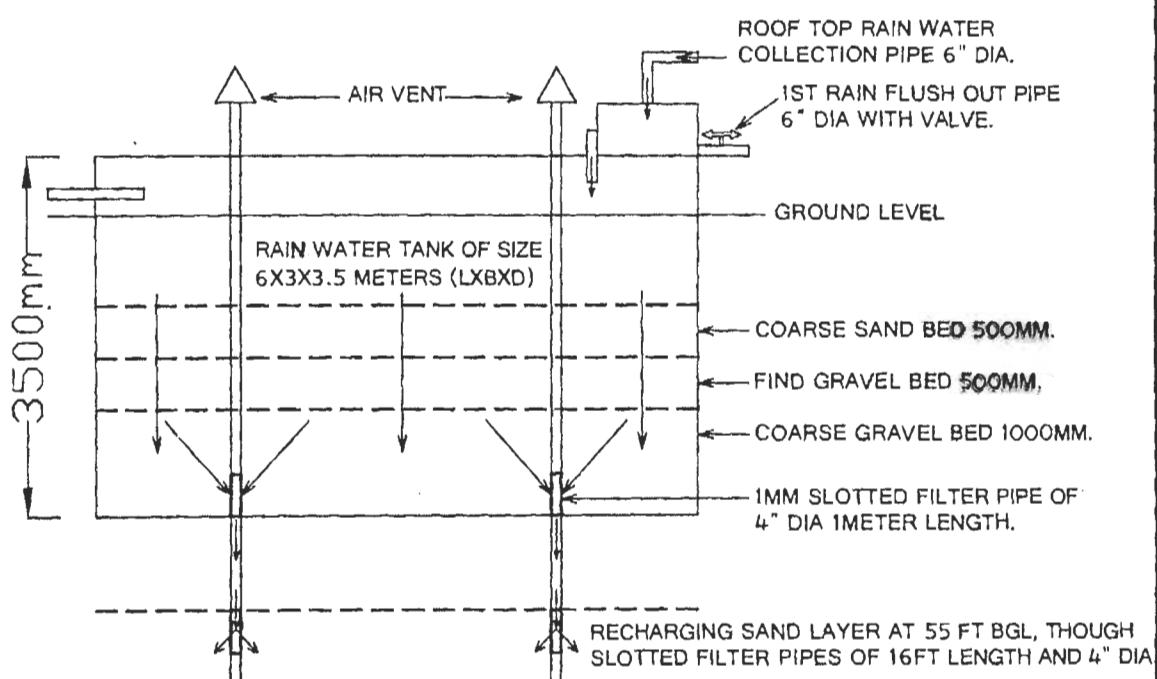
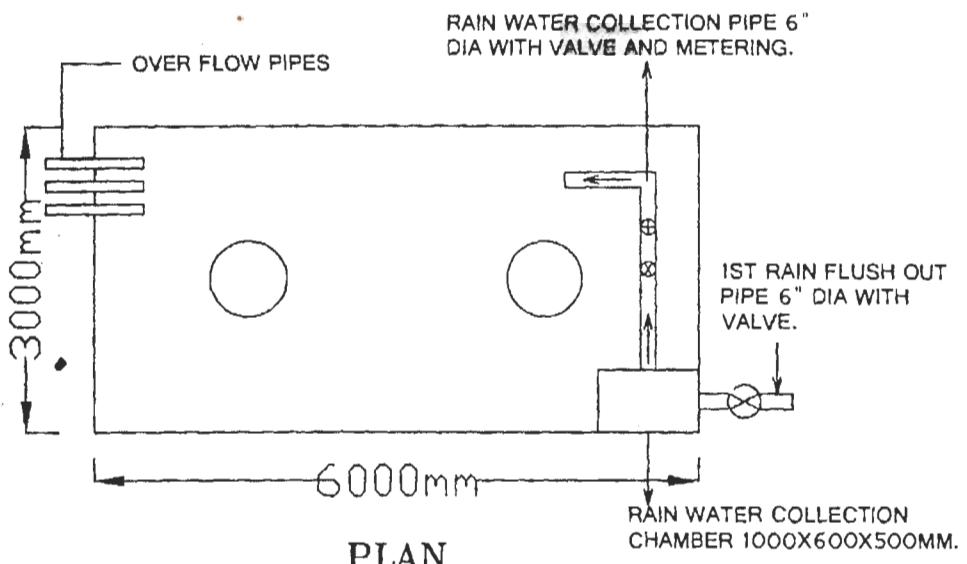
Details of Storage tank along with roof area, roof materials, volume of rain water and number of recharge structures on Rain water Harvesting measures implemented by M/s Meghalaya Cements Limited at Village- Thangskai, Po- Lumshnong, Dist- East Jaintia Hills, Meghalaya to comply the EC stipulation of 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 m ³ For Residential Colony building = 4777.194 * 6.683 * 0.80 = 25540.79 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.

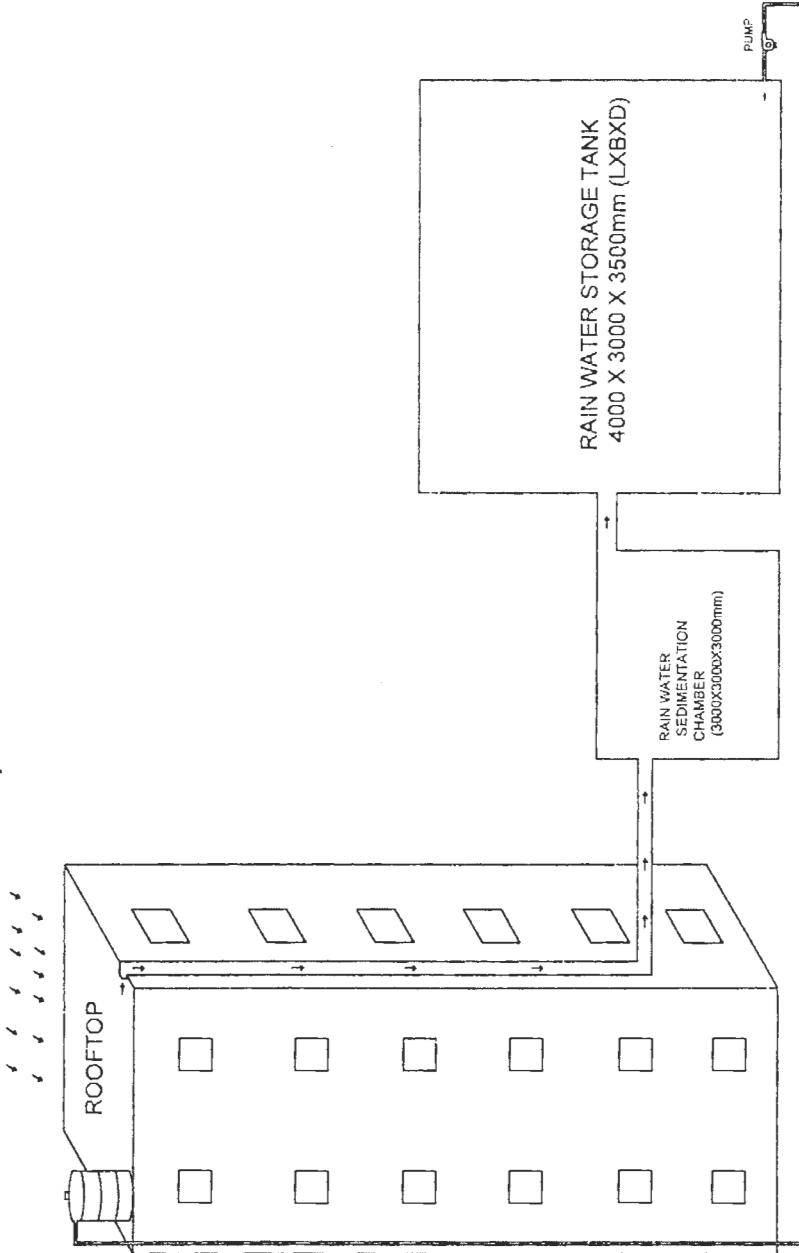


6	How many recharge structures you have constructed to recharge what volume of water?	05 no. of recharge structures with total 1863.49 m ³ capacity have been constructed to recharge the water. All are operational. Collected rain water is being used in process.
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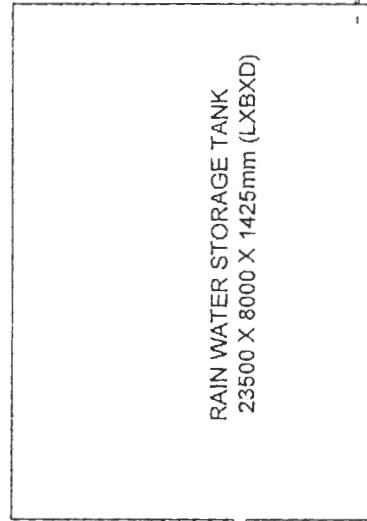
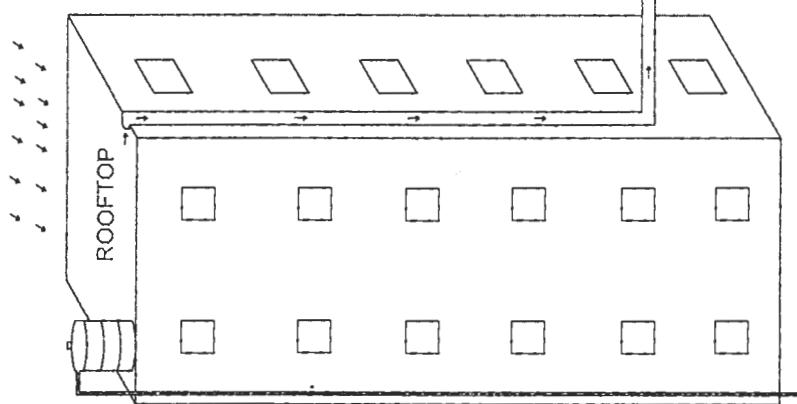


RAIN WATER HARVESTING SYSTEM				
MCL				
SCALE NTS	DRAWN BY K.A.	DATE 06.02.16	CHKD. BY	APPD. BY
DRG. NO. MCL/LAYOUT/RWHS/001				REV 0



MEGHALAYA				
CEMENTS LIMITED				
Scale NTS	Date 26.09.22	Drawn V.M	Ch.BY K.A	App.By
Dwg. No. MCLAY/MISC/002	Rev. No. 0			



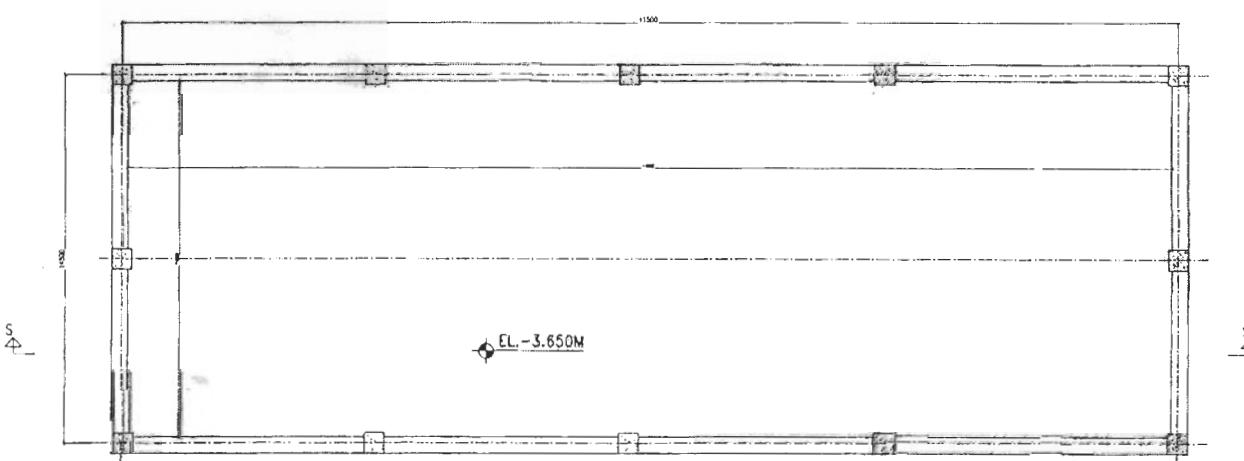


RAIN WATER HARVESTING SYSTEM
TOPGEM COLONY

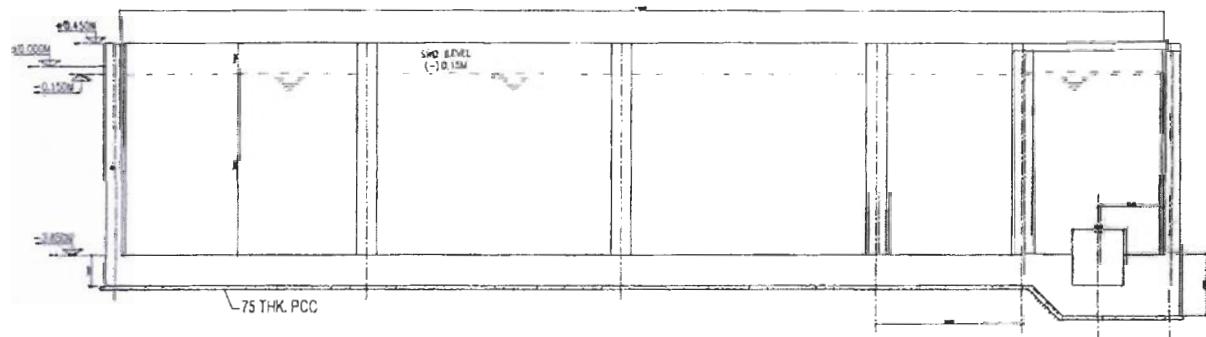
**MEGHALAYA
CEMENTS LIMITED**

Scale	Date	Drawn	Ch.BY	App.By
NTS	26.09.22	V.M.	K.A.	
Dwg. No.	MCLAY/MISC/J003			
	Rev. No. 0			



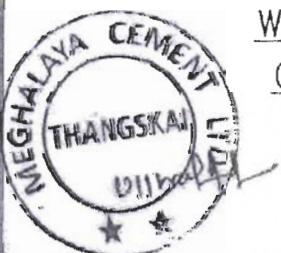


TANK BOTTOM PLAN

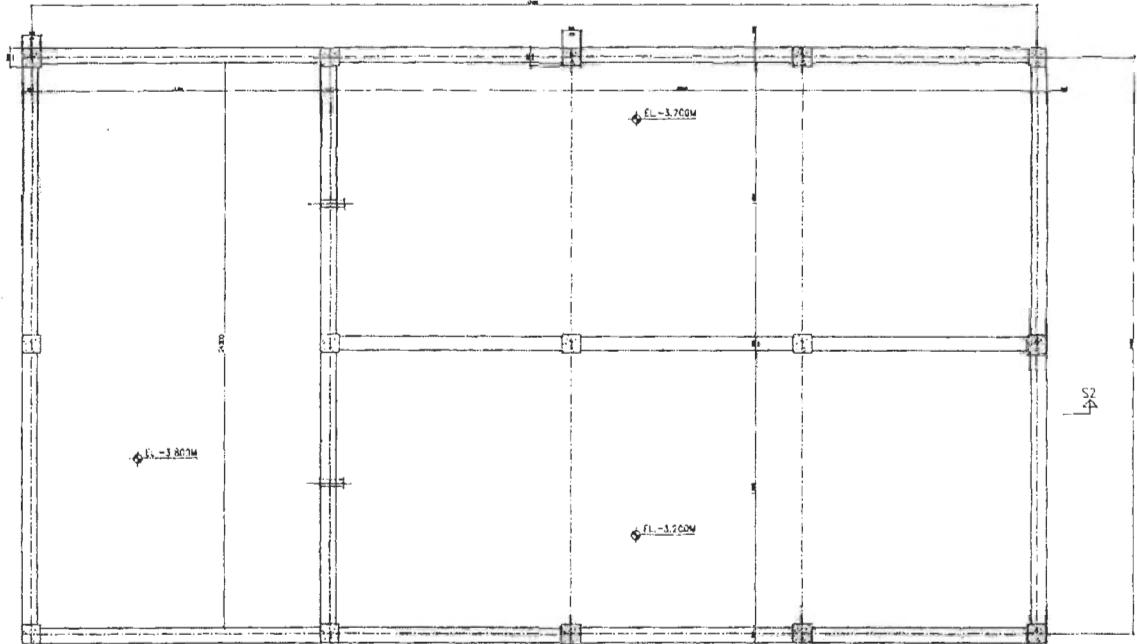


Elevation view (S-S)

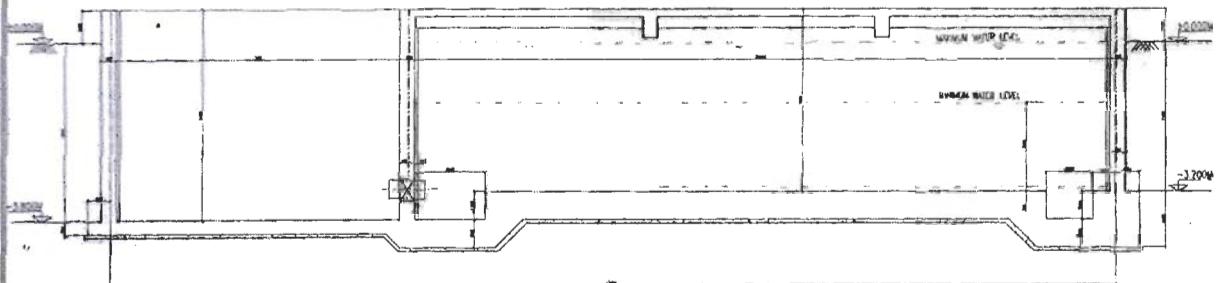
WATER STORAGE TANK
CAPACITY - 500 CUM



CT BLOWDOWN WATER STORAGE TANK			
	MEGHALAYA CEMENTS LIMITED	DRAWN BY G.K	CH. BY U.A
SCALE N.T.S.	APPD.BY		
DATE 4.03.2024			
DRG. NO - MCL/MISC/C.T.B/W.TANK-0C1		REV 0	



TANK BOTTOM PLAN



Elevation view(S2-S2)



WATER STORAGE TANK
CAPACITY- 990.59 CUM

RAW 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/RAW/W.TANK-002			REV 0

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सरकारी उपयोग के लिए केवल

Technical series



Central Ground Water Board

केन्द्रीय भूजल बोर्ड

Ministry Of Water Resources, River Development & Ganga Rejuvenation
जल संसाधन, नदी विकास 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 JANTIA 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 JANTIA 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 7th 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 25th 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.

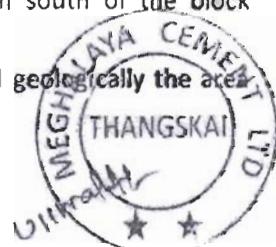
Introduction

The Meghalaya Cement Company wants expansion of cement plant by **increasing** its production capacity from existing 900TPD 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.

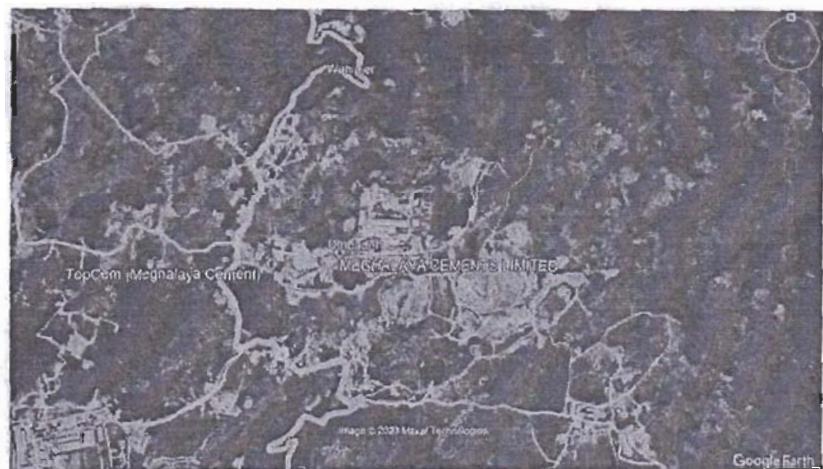


Fig.1: Location of M/s Meghalaya Cement Limited.

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 63m³ of water.



Fig.2:Raw Material Yard

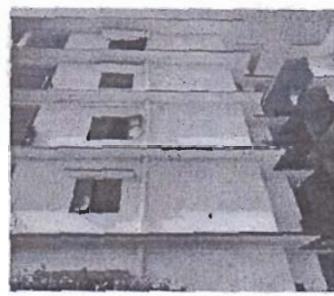


Fig.5: Residential Quarters

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.

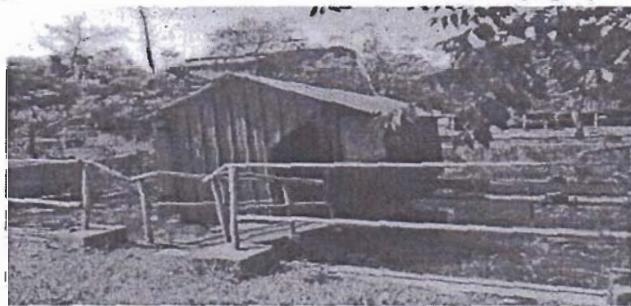


Fig.2: Spring water collection tank with power generation chamber.

(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 ³)
Raw Material Shed	Tin	0.9	31557.42	55423.55
Residential Colony building	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 m³). 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 m³ (Table: 4)

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

S. N.	Particulars	Area (Sqm) (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
	Total (Sqm)	477825	Total Quantum of available runoff (Cum/Year)		185826.55

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 63m³ 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 63m³ 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 9th 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)
 पर्याप्त समर्थन के सिलसिला | Department of Explosives

पर क्रमांक २१६ दूसरी मंजिल, १०० बैंक के ऊपर घोटमारी House No. 216, 2nd Floor, above IDBI, Ghati, Assam - 781021
 गुवाहाटी असम - ७८१०२१ गुवाहाटी Gauhati, Assam 781021
 फोन (Phone) - ३६५२२८१ फैक्स (Fax) - ३६५२२५०३

संख्या No. AVEC/MG/PJ/5(1271)

दिनांक / Dated 25/03/2023

Rey & Co.
M/s Meghalaya Ceramics Ltd.,
Thangkhar, East Jaintia Hills
Town Village - East Jaintia Hills
Dibr. EAST JINTIA HILLS 786001

विषय / Subject Licence to possess for use of Ammonium Nitrate from a store house attached to explosives manufacturing unit (ANFO) situated at Survey No.: Umph Area, Village/Town, Village: Lumshnong, Distt. EAST JAIN TIA HILLS, State Meghalaya Licence No.: AEC/MG/P3/S(N271) granted in Form P-3 of Ammonium Nitrate Rules, 2012 - Renewal regarding

महोदय (८०४).

आपके पास संख्या ६०९३६ दिनांक २२/०३/२०२२ के सन्दर्भ में अमोनियम लाइसेंस नियम २०१२ के अनुच्छेद ३-३ से आरी विधायक अनुसन्दिल स दिनांक ३३/३/२०२७ तक विधायक नवीनीकृत कई आपको प्रेषित की जा रही है। कृपया अनुसन्दिल की पालनी हड्डीमालार करें। | Reference to your letter No. ६०९३६ dated २२/०३/२०२२, the subject license duly renewed upto ३१/३/२०२७ and issued in Form P-३ of Ammonium Nitrate Rules, २०१२ is forwarded herewith. Please acknowledge receipt of the license.

अनुग्रहित के आधारी नवीनीकरण हेतु कृपया निम्नलिखित दस्तावेज़ इस प्रकार देखिये कि छह दिनांक 31/3/2027 को या उससे पूर्व this office में पारेज़ हो जाए। For further renewal of license, please submit the following documents to us to reach this office on or before 31/3/2027.

- विधिवत अरा हाउ एवं हम्मानपक्षरित प्रक्रम आर - 1 / Application in Form R-1 duly filled in and signed
- एक से पांच वर्ष के अनुनादित शुल्कों का अमोनियम नाइट्रेट नियम, 2012 के तहत ऑनलाइन ऑफिल फ़ीटेन पर उपलब्ध ई-भुगतान सुविधा के माध्यम से लाइसेंस शुल्क अनुनादित 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 अनुनादित शुल्क अनुनादित अरेलाण / Original licensee with approved plan
- हाउ सम्बन्धित मूल शुल्क अमोनियम नाइट्रेट नियम, 2012 के नियम 36 का भी सन्दर्भ में । In this connection, please also refer to Rule 36 of Ammonium Nitrate Rules, 2012
- नीतीय पासपोर्ट शुल्क के १० प्रतीटोराफ़ तिल पर सामग्री की ओर करने रेंग की अमिट स्थापिती वाली ऑफिशियल अमोनियम नाइट्रेट नियम, 2012 के नियम 2 (३) के अन्तर्गत यथा परिभ्रान्ति १द्वारा विधिवत हस्ताक्षर विद्यु ग्रहण हो। (सर्व जमा दरही किया गया हो) । See copies of colour passports duly signed by the occupier (as defined under Rule 2 (३) of Ammonium Nitrate Rules, 2012) in black or black color ink (not submitted)

सलग्नक / Enclosures:

ମୁଦ୍ରଣ / Printed in India

(एस. के. एसी. एसी. एसी.)
विस्फोट नियंत्रक । Controller of Explosives
For Design Civil Controller of Explosives
दृष्टि कंट्रोलर एसी. एसी. एसी. (इंडिया)
For M. Chief Controller of Explosives
— मुख्य कंट्रोलर एसी. एसी. एसी.

प्रतिलिपि प्रेषित / Copy forwarded to

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

कृते सयुक्त मुख्य विस्फोटक नियंत्रक । For Joint Chief Controller of Explosives
मुख्यविस्फोटक ॥ 6 ॥

प्रतिक्रिया देने के लिए यह अपार्टमेंट का नाम और वासी का नाम लिखें। यह अपार्टमेंट का नाम और वासी का नाम लिखें। यह अपार्टमेंट का नाम और वासी का नाम लिखें। यह अपार्टमेंट का नाम और वासी का नाम लिखें।

http://19.9.59.1/EPnUsp/RNCovering.aspx?india.asp?LetterGeneratedYN=0

25-28

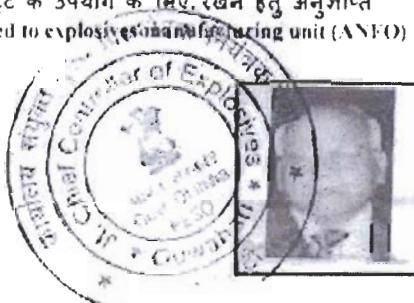


अनुमति प्रक्रम P-3
अमोनियम नाईट्रेट नियम, २०१२ की अनुसूची १ की तात्त्व संख्या ३ और नियम ३५ देखें।

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

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

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



अनुमति एवं दारा जारी की जाती है।

License is hereby granted to :

M/s. Meghalaya Cements Ltd. (अधिकारी : Ramesh Kumar Pareek)
Thangsing, East Jaintia Hills,
शहर / गाँव - East Jaintia Hills
विला- EAST JAINITA HILLS, राज्य- Meghalaya, पिन कोड - 793210
Phone - , Email - , फैक्स -

- अनुमतिदारी का स्तर Company
Status of licence holder Company
- अनुमति के बावजूद निम्नलिखित प्रयोगन हेतु वैध है विस्फोटक विनिर्माण इकाई (एएफओ) से जुड़े गोदाम से, अमोनियम नाईट्रेट के उपयोग के लिए, रखने हेतु अनुमति
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)
- अनुमति अमोनियम नाईट्रेट 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 क्य की जाने वाली अमोनियम नाईट्रेट की मात्रा(कि.ग्रा.) Quantity of Ammonium Nitrate to be purchased in a financial Year (Kg.)
Ammonium Nitrate (Solid)	40000	180000

- अनुमति परिसर निम्नलिखित अवैधानिकों के अनुरूप होगा
The licensed premises shall conform to the following कानूनानुसार

अरेकाण संख्या | Drawing No. : A/EC/MG/P3/5 (A271) दिनांक | Dated : 13/06/2014

- अनुमति परिसर निम्नलिखित पाले पर स्थित है
The Licensed premises are situated at following address
Survey No. Umphu Area, शहर/गाँव | Town/Village: Lumshnong
पुलिस स्टेशन | Police Station: Lumshnong विला | District: EAST JAINITA HILLS राज्य | State: Meghalaya
पिन कोड | PinCode : 793210 फोन | Phone: ईमेल | E-Mail: mines@topeent.in फैक्स | Fax:

- अनुमति परिसर में निम्नलिखित सुविधाएं उपलब्ध हैं
The licensed premises consist of following facilities
Consist of one store house.
- अनुमति समय-समय पर यथा संवैधित विस्फोटक अधिनियम १९८४, एवं उसके अधीन बनाए गए अमोनियम नाईट्रेट नियम, २०१२ की तरीं, अन्तरिक्ष वर्त तथा निम्नलिखित उपकरणों के उपयोग जारी की जाती हैं
उपकरण कम शाखा ५ में उन्नियित अरेकाण विसर्ग स्थल नियम एवं अन्य विवरण दर्शाएं गए हैं।
अनुमति जारी करने वाले प्राधिकारी द्वारा हस्ताक्षरित अनुमति वी लॉ एवं अतिरिक्त गति।

The licence is granted subject to the provision of Explosives Act, 1984 as amended from time to time and the Ammonium Nitrate Rules, 2012 framed there under and the conditions, additional conditions and Annexures
(i) Drawings (showing site, constructional and other details) as stated in serial No. 5 above
(ii) Conditions and Additional Conditions of this licence signed by the licence issuing authority



(A 271)

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

यह अनुमति विस्फोटक अधिनियम, 1884 या उसके अधीन, व्यापार एवं अमोनियम नाइट्रेट नियम, 2012 या इस अनुमति की वित्ती शर्तों का उल्लंघन करने पर या यदि अनुमति परिसर, आरेखण और उससे सतत उपायद दृष्टिकोण के अनुष्ठय मही पाए जाने पर नियमित का प्रतिसंहित 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 license if the licensed premises are not found conforming to the description shown in the plans and structure attached hereto.

दिनांक | Date : 14/06/2014

Sd/-
संयुक्त मुद्र्य विस्फोटक नियंत्रक
Joint Chief Controller of Explosives
पूर्वीचक, 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 : 04/03/2014

अनुमति नवीकरण के लिए पंजांकन | Endorsement for renewal of licence

नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुमति प्राप्तिकारी के हस्ताक्षर Signature of licensing authority
23/03/2022	31/03/2027	J. Chief Controller of Explosives, East Circle office, Guwahati कूर्ता मुद्रा कुर्ता

सावित्रिक वेतावनी: अमोनियम नाइट्रेट कानून का उल्लंघन करने वाली को वित्ती शर्तों का अवृत्त अवलम्बन 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.



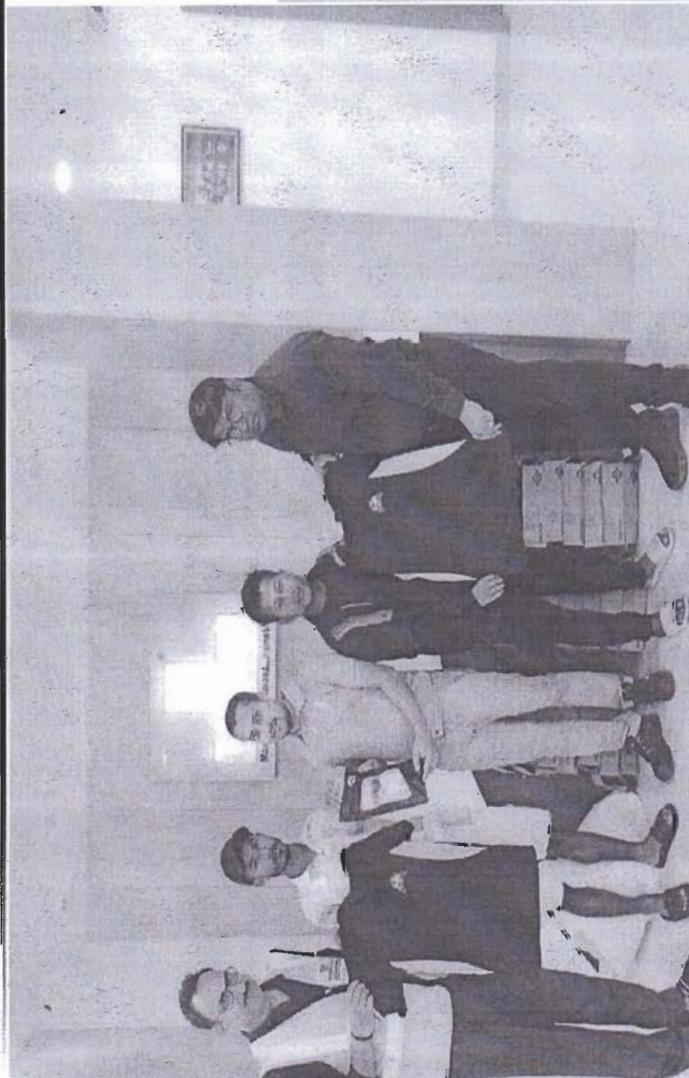


MEGHALAYA CEMENTS LIMITED
VILL-THANGSKAI, P.O.-LUMSHNONG, DIST.- EAST JAITIA HILLS,
MEGHALAYA-793210

WELFARE & CSR ACTIVITIES
FROM
APRIL 2025 to SEPTEMBER 2025



DONATED FOOTBALL KIT TO WAHIAJER SPORTS CLUB



WORLD ENVIRONMENT DAY: PLASTIC BAN AWARENESS & PLANTATION DRIVE- INSIDE PLANT PREMISES

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PLASTIC BAN AWARENESS & PLANTATION DRIVE AT THANGSKAI VILLAGE

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PLASTIC BAN AWARENESS & PLANTATION DRIVE AT CHIETHRUPHI VILLAGE

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Ma2t

Annexure-X



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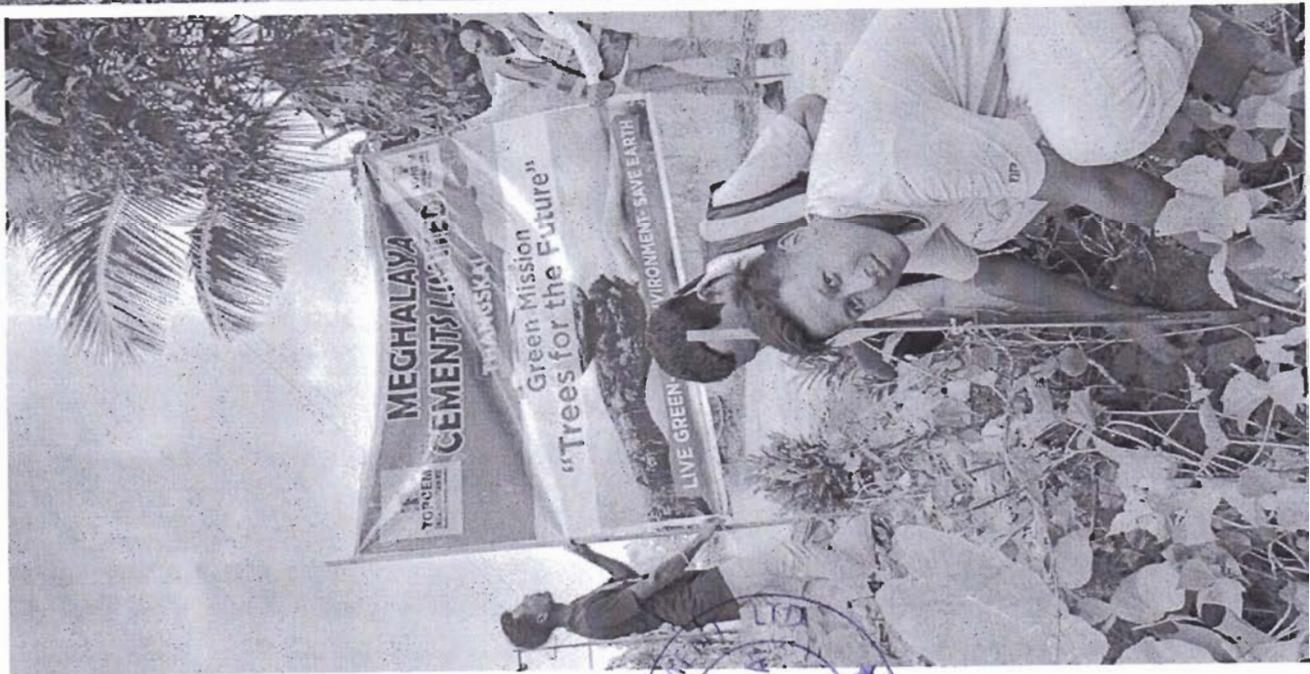
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**PLASTIC BAN AWARENESS & PLANTATION DRIVE AT
WAHIAJER VILLAGE**

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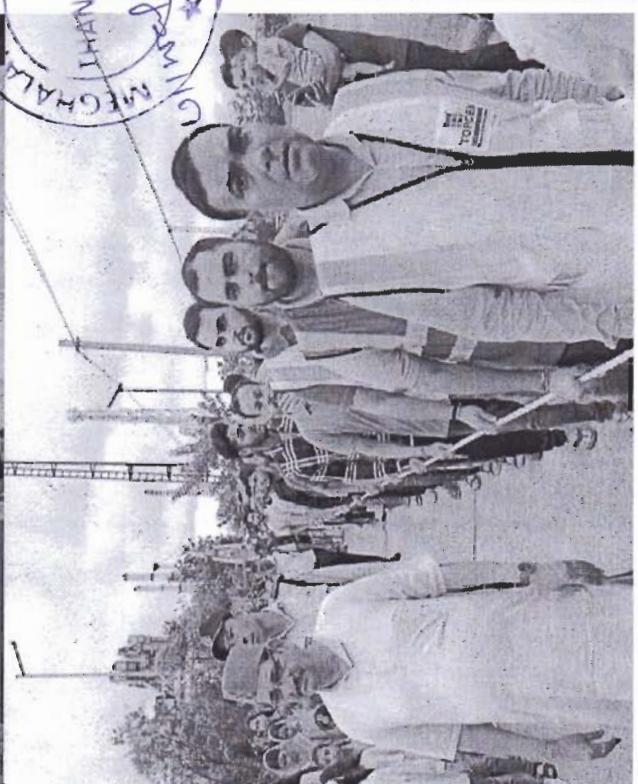
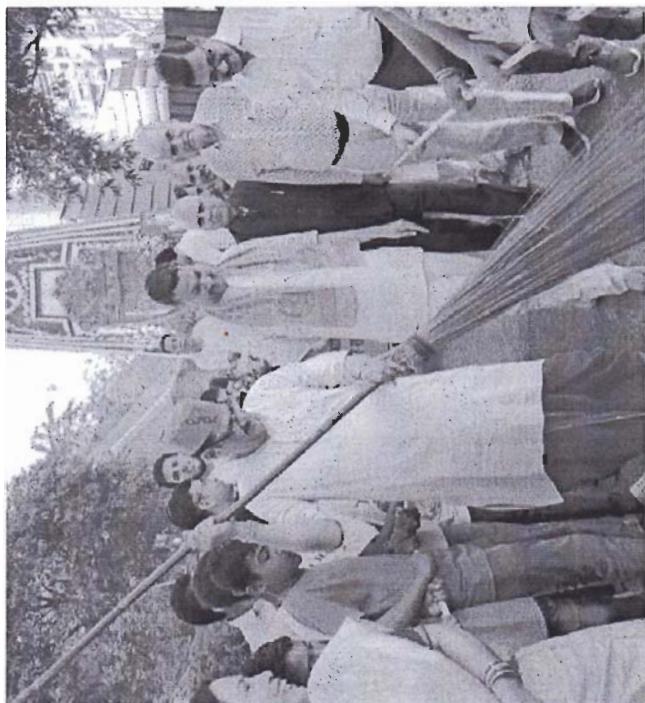


Annexure-X



LORD JAGANNA'S RATH YATRA

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FINANCIAL SUPPORT TO POOR FAMILY FOR MEDICAL
TREATMENT

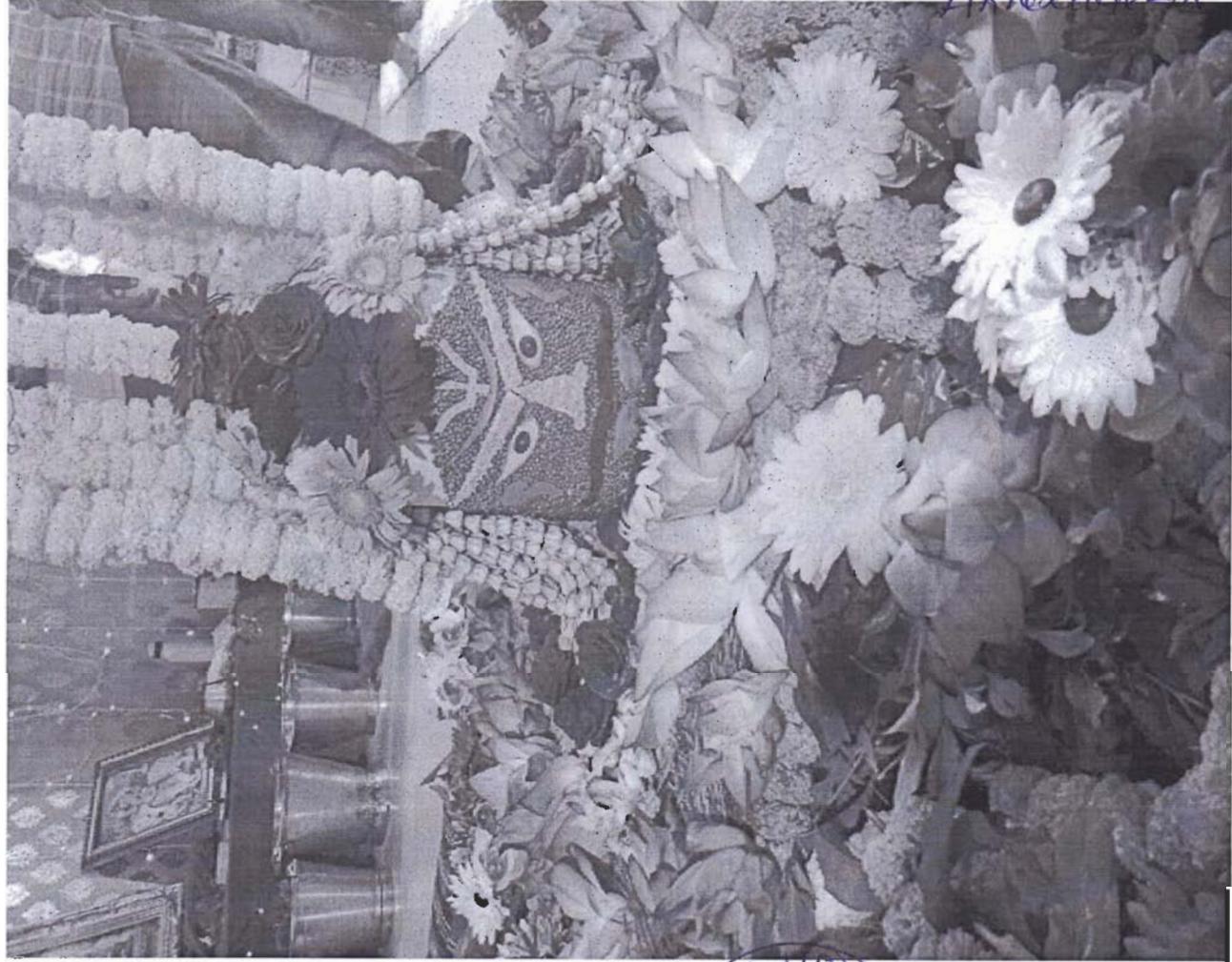
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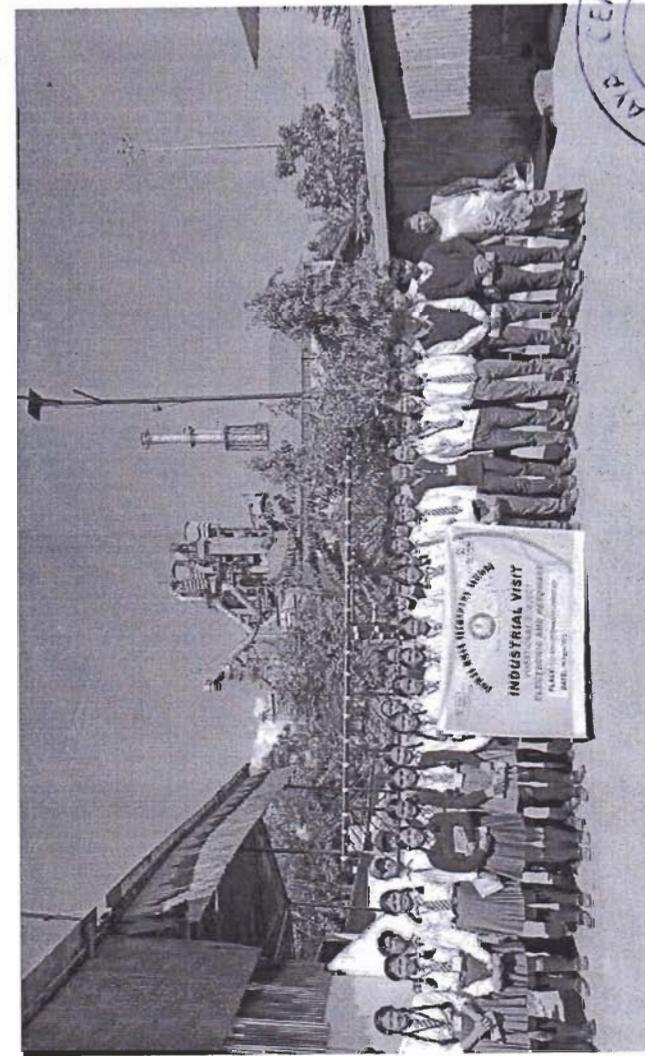
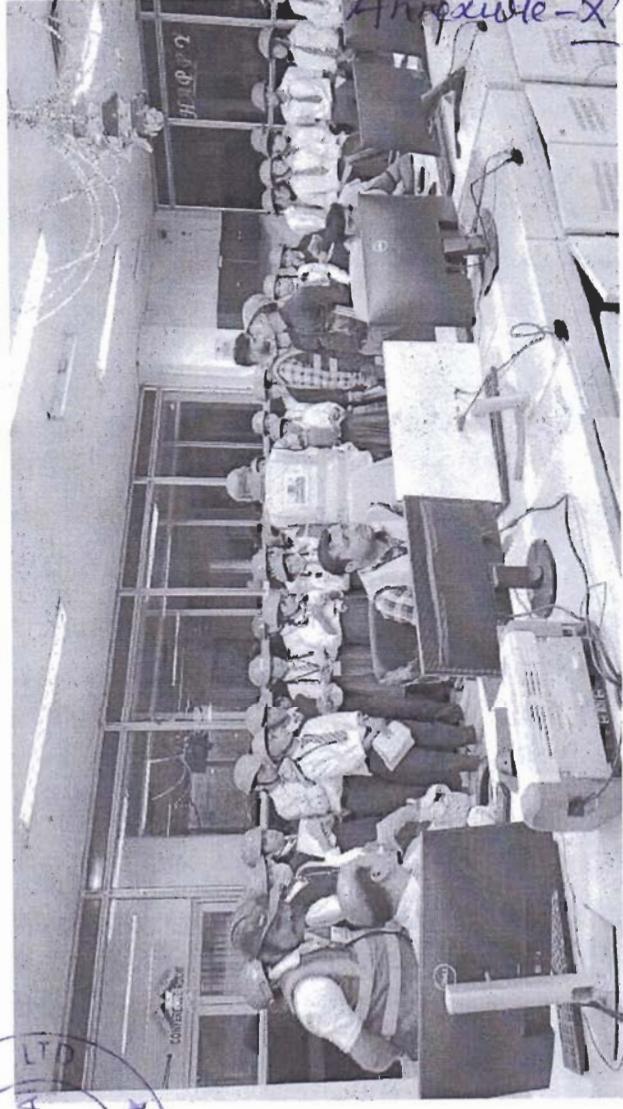
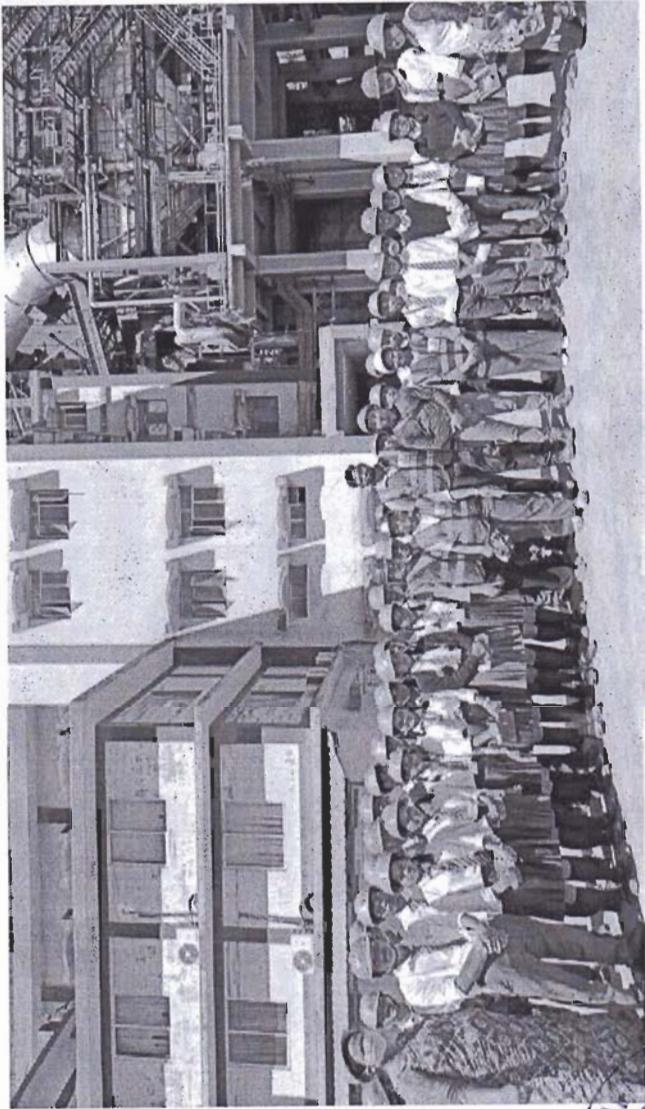


SAWANI MASS KUDKA ABHISHEK

T C M.22

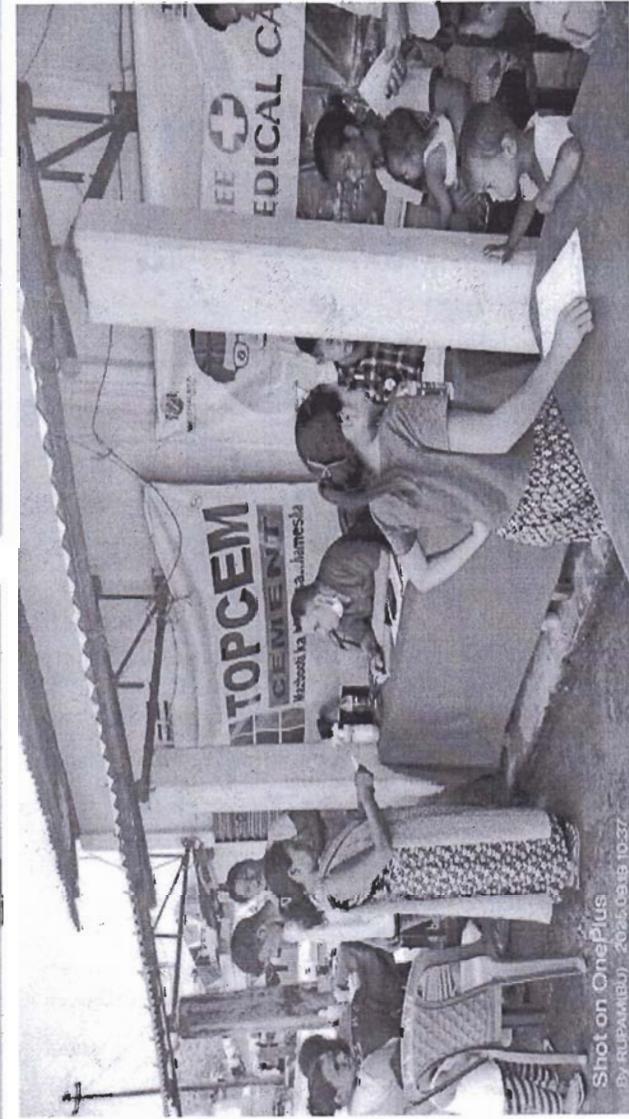
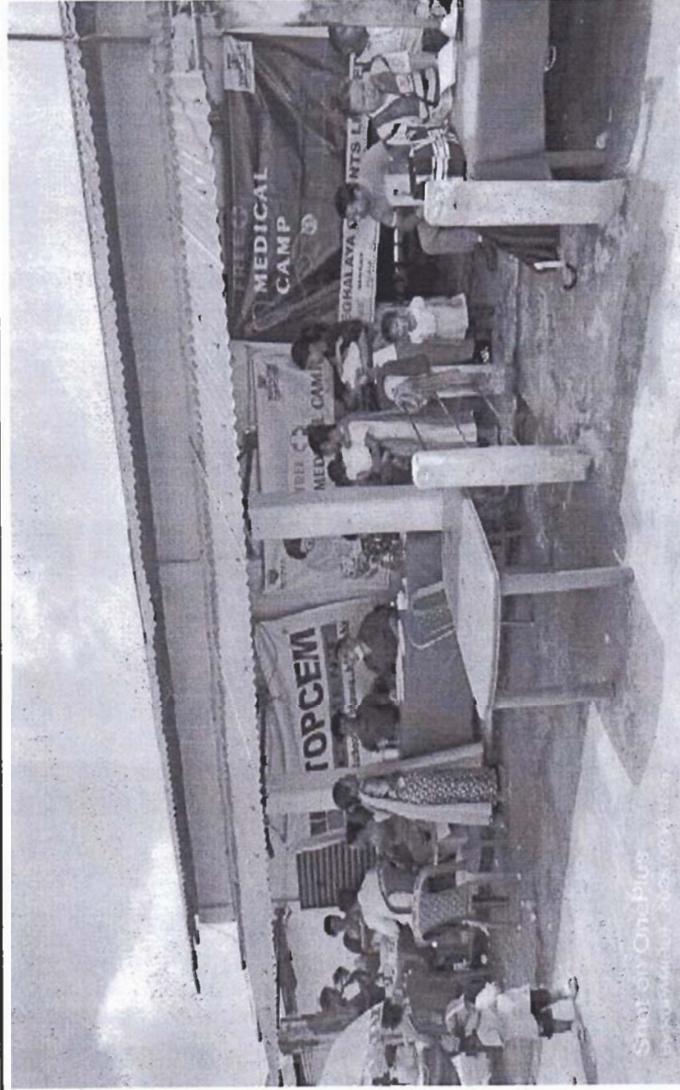


STUDEN'I INDUSTRIAL VISIT (JOWAI RMSA SECONDARY SCHOOL)



**FREE MEDICAL HEALTH CHECK – UP CAMP AI WAHIAJER
VILLAGE ON 19.09.2025**

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©
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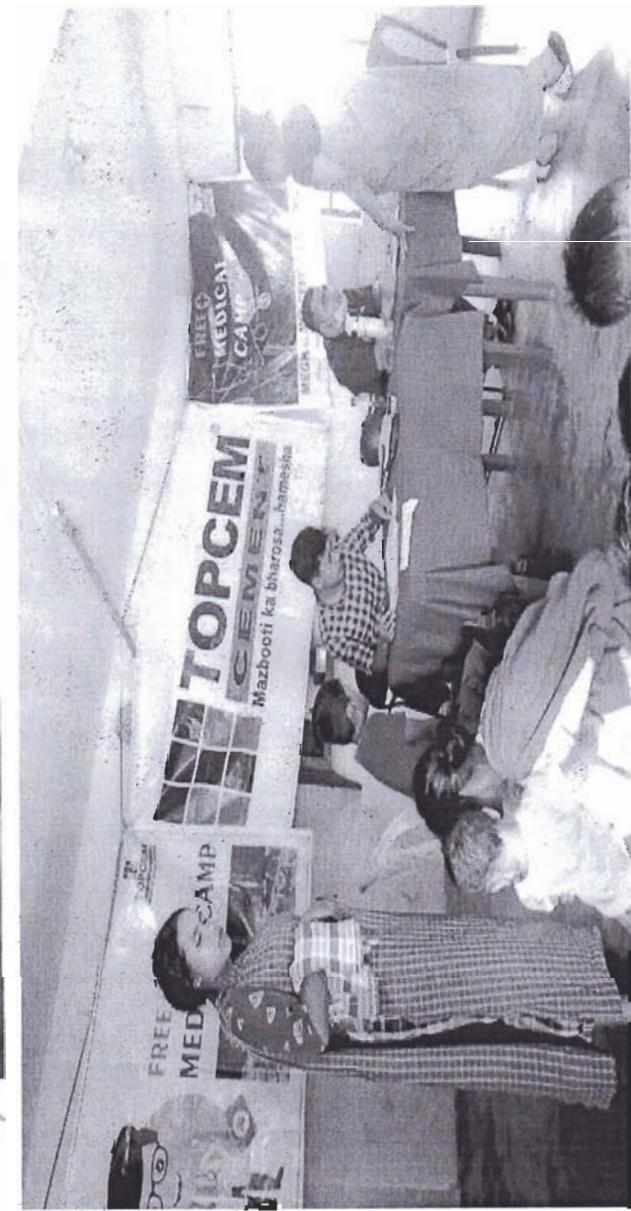


Annexure -x

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By RUPAMALI - 2025-09-19 10:37

**FREE MEDICAL CHECK – UR CAMP AI THANGSKAI
VILLAGE ON 20.09.2025**

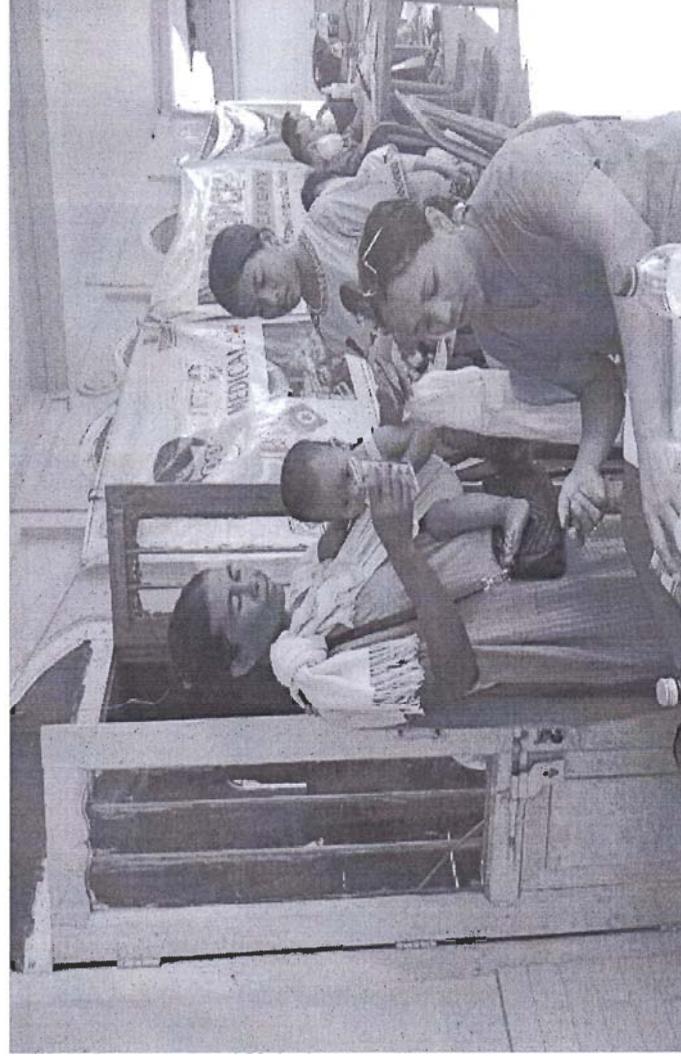
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Annexure -x

**FREE MEDICAL HEALTH CHECK – UR CAMERAI CHENKURPHI
VILLAGE ON 25.09.2025**

T **C**
Mast

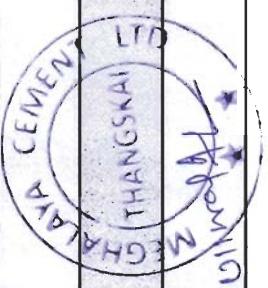


Annexure -X

**EXPENDITURE INCURRED FOR SOCIO-ECONOMIC DEVELOPMENT
UNDER CSR (FROM 01.04.2025 TO 30.09.2025)**

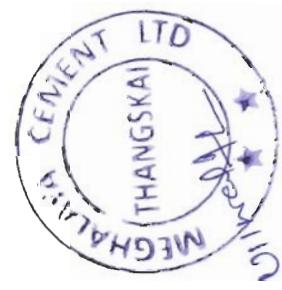
SL.NO.	HEADING	AMOUNT
1	Emphasis on Education	1,38,000
2	Sports Activity	100,700
3	Encouraging/Felicitation prog. For Students.	40,000
4	Polio Immunization Camps, Family planning, etc.	4,41,624
5	Infrastructure development of Hospitals/Schools	21,000
6	Cement Distribution Programme.	45,41,388
7	Plant Distribution Programme.	17,233
8	Donation to Churches, Road & House Repairing etc.	1,05,700
9	Community Feast	42,950
9	Drinking water supplying scheme.	1,98,322
10	Village Development Funds.	3,12,500
Total (In Rs.)		59,59,471

Anexure - X



10/10/2025

THANK YOU



Report No.: ENV/MCL/25-26/SW-01/01

Order No.: 4700034384

Date : 09/05/2025

Date : 14/04/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-3004/01

Sample Source : Um-Lunar River Upstream

Sample Type : Surface Water

Collected On : 30-04-2025

Received On : 02-05-2025

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	25.4	--	--
4.	pH Value	6.62	6.5 - 8.5	No Relaxation
5.	Suspended Solids	45	--	--
6.	Total Dissolved Solids, mg/l, Max.	77	500	2000
7.	Conductivity, μ S/cm	162	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
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_3), mg/l, Max.	18	200	600
14.	Calcium (as Ca), mg/l, Max.	7	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.	0.6	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	2.2	--	--
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

NOTE:

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Report No.: ENV/MCL/25-26/SW-01/02

Date : 09/05/2025

Order No.: 4700034384

Date : 14/04/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-3004/02

Collected On : 30-04-2025

Sample Source : Um-Lunar River Downstream

Received On : 02-05-2025

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	25.4	--	--
4.	pH Value	6.55	6.5 - 8.5	No Relaxation
5.	Suspended Solids	43	--	--
6.	Total Dissolved Solids, mg/l, Max.	89	500	2000
7.	Conductivity, μ S/cm	151	--	--
8.	Dissolved Oxygen, mg/l, Min.	5.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	29	--	--
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_3), mg/l, Max.	20	200	600
14.	Calcium (as Ca), mg/l, Max.	9	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.	1.2	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	3.6	--	--
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/25-26/SW-06/01

Date : 08/07/2025

Order No.: 8700034852

Date : 06/06/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-2906/01

Collected On : 29-06-2025

Sample Source : Um-Lunar River Upstream

Received On : 02-07-2025

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	25.9	--	--
4.	pH Value	6.71	6.5 - 8.5	No Relaxation
5.	Suspended Solids	43	--	--
6.	Total Dissolved Solids, mg/l, Max.	81	500	2000
7.	Conductivity, μ S/cm	166	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.3	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	29	--	--
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_3), mg/l, Max.	17	200	600
14.	Calcium (as Ca), mg/l, Max.	10	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.	0.9	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	2.5	--	--
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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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs

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

Report No.: ENV/MCL/25-26/SW-06/02

Date : 08/07/2025

Order No.: 8700034852

Date : 06/06/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-2906/02

Sample Source : Um-Lunar River Downstream

Sample Type : Surface Water

Collected On : 29-06-2025

Received On : 02-07-2025

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	25.9	--	--
4.	pH Value	6.59	6.5 - 8.5	No Relaxation
5.	Suspended Solids	49	--	--
6.	Total Dissolved Solids, mg/l, Max.	87	500	2000
7.	Conductivity, μ S/cm	175	--	--
8.	Dissolved Oxygen, mg/l, Min.	5.9	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	31	--	--
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_3), mg/l, Max.	24	200	600
14.	Calcium (as Ca), mg/l, Max.	13	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.	1.5	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	3.2	--	--
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/25-26/SW-07/01

Date : 07/08/2025

Order No.: 4700035547

Date : 21/07/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-2907/01

Sample Source : Um-Lunar River Upstream

Sample Type : Surface Water

Collected On : 29-07-2025

Received On : 31-07-2025

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	25.6	--	--
4.	pH Value	6.73	6.5 - 8.5	No Relaxation
5.	Suspended Solids	46	--	--
6.	Total Dissolved Solids, mg/l, Max.	88	500	2000
7.	Conductivity, μ S/cm	169	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	28	--	--
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_3), mg/l, Max.	19	200	600
14.	Calcium (as Ca), mg/l, Max.	12	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.	0.8	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	2.7	--	--
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/25-26/SW-07/02

Date : 07/08/2025

Order No.: 4700035547

Date : 21/07/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No.: MCL/2025/SW-2907/02

Collected On : 29-07-2025

Sample Source : Um-Lunar River Downstream

Received On : 31-07-2025

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.	16	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.4	--	--
4.	pH Value	6.62	6.5 - 8.5	No Relaxation
5.	Suspended Solids	52	--	--
6.	Total Dissolved Solids, mg/l, Max.	89	500	2000
7.	Conductivity, μ S/cm	183	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.2	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	33	--	--
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_3), mg/l, Max.	26	200	600
14.	Calcium (as Ca), mg/l, Max.	17	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.	1.9	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	3.2	--	--
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/25-26/SW-09/01

Date : 06/10/2025

Order No.: 4700036231

Date : 10/09/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-1509/01

Collected On : 15-09-2025

Sample Source : Um-Lunar River Upstream

Received On : 20-09-2025

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.	16	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.2	--	--
4.	pH Value	6.72	6.5 - 8.5	No Relaxation
5.	Suspended Solids	49	--	--
6.	Total Dissolved Solids, mg/l, Max.	88	500	2000
7.	Conductivity, μ S/cm	171	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.4	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1.0	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	28	--	--
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_3), mg/l, Max.	23	200	600
14.	Calcium (as Ca), mg/l, Max.	18	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.	0.9	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	2.7	--	--
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/25-26/SW-09/02

Order No.: 4700036231

Date : 06/10/2025

Date : 10/09/2025

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

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/SW-1509/02

Sample Source : Um-Lunar River Downstream

Sample Type : Surface Water

Collected On : 15-09-2025

Received On : 20-09-2025

Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	20	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.2	--	--
4.	pH Value	6.64	6.5 - 8.5	No Relaxation
5.	Suspended Solids	56	--	--
6.	Total Dissolved Solids, mg/l, Max.	97	500	2000
7.	Conductivity, μ S/cm	188	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.6	--	--
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_3), mg/l, Max.	31	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.	1.9	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	3.7	--	--
20.	Free Ammonia (as NH_3), mg/l, Max.	<0.01	--	--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



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

MEGHALAYA CEMENTS LIMITED

**Six Monthly Ambient Air Quality Survey Report,
South Khliehieri Limestone Mine (31.05 Ha), 2025-2026**

Pollutants	Location	Apr' 2025	May' 2025	June' 2025	July' 2025	Aug' 2025	Sep' 2025	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
Particulate Matters PM10 (µg/m3)	A1. North -East (Near Soil Dump)	55.2	54.83	62.9	64.8	65.8	64.7	61.37	100 µg/m ³
	A2. North - West(Near Haul Road)	65.2	58.36	73.5	75.2	71.3	70.4	68.99	100 µg/m ³
	A3. Southern side (Near Lease Boundary)	49.6	54.52	64.8	66.9	69.2	67.3	62.05	100 µg/m ³
Particulate Matters PM2.5 (µg/m3)	A1. North -East (Near Soil Dump)	26.4	21.85	28.6	29.8	31.3	32.5	28.41	60 µg/m ³
	A2. North - West(Near Haul Road)	31.2	26.65	33.9	34.7	35.6	36.8	33.14	60 µg/m ³
	A3. Southern side (Near Lease Boundary)	22.5	25.35	29.5	31.3	33.5	34.2	29.39	60 µg/m ³

Prepared By

Abhigyan Gautam

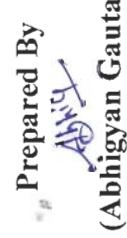
Checked & Verified By

Ujjwal Anurag

MEGHALAYA CEMENTS LIMITED

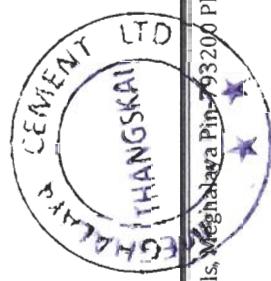
Six Monthly Ambient Air Quality Survey Report, South Khliehier Limestone Mine (31.05 Ha), 2024-2025

Pollutants	Location	Apr' 2025	May' 2025	June' 2025	July' 2025	Aug' 2025	Sep' 2025	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
SO ₂	A1. North -East (Near Soil Dump)	6.3	6.5	6.6	6.9	6.7	6.9	6.650	80 $\mu\text{g}/\text{m}^3$
	A2. North - West(Near Haul Road)	9.2	9.3	9.4	9.7	9.5	9.4	9.417	80 $\mu\text{g}/\text{m}^3$
	A3. Southern side (Near Lease Boundary)	<5.0	<5.0	<5.0	6.2	6.4	6.6	6.400	80 $\mu\text{g}/\text{m}^3$
NO _x	A1. North -East (Near Soil Dump)	9.6	9.4	9.2	9.5	9.3	9.2	9.367	80 $\mu\text{g}/\text{m}^3$
	A2. North - West(Near Haul Road)	13.2	13.2	13.6	13.8	13.2	12.6	13.267	80 $\mu\text{g}/\text{m}^3$
	A3. Southern side (Near Lease Boundary)	7.2	7.3	7.2	7.5	7.2	7.3	7.283	80 $\mu\text{g}/\text{m}^3$

Prepared By

(Abhigyan Gautam)

Checked & Verified By

(Ujjwal Anurag)



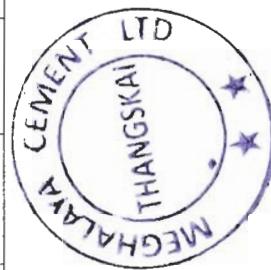
MEGHALAYA CEMENTS LIMITED

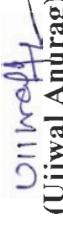
Six Monthly Fugitive Emission Report, South Khliehjeri Limestone Mine (31.05 Ha), 2024-2025

Location	Apr' 2025	May' 2025	June' 2025	July' 2025	Aug' 2025	Sep' 2025	Avg.	Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
Drilling Area	1039	1038	1049	988	1789	1335	1206.33	5000 μ g/m ³
Blasting Point	1745	1750	1788	1934	1893	2145	1875.83	5000 μ g/m ³
Loading Point	2350	2477	2586	2345	4061	4140	2993.17	5000 μ g/m ³
Unloading Point	998	1217	1288	985	1162	1033	1113.83	5000 μ g/m ³

Prepared By

 (Abhigyan Gautam)



Checked & Verified By

 (Ujjwal Anurag)

SOUTH KHLIEHJARI LIMESTONE MINE
AFFORESTATION REPORT, 2025-26
(1st April'2025 to 30th September'2025)

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 MARCH (1st April to 30th June, 2025)

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
220	Nil	0.1760	N/A	152	N/A	69.09 %	N/A

AFFORESTED DURING THE QUARTER ENDING SEPTEMBER (1st July to 30th September, 2025)

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
80	Nil	0.0639	N/A	56	N/A	70.00 %	N/A

AFFORESTED DURING THE YEAR 2025-26

No. of trees planted		Area covered (in Ha.)		No. of trees survived		Survival rate	
WML	OML	WML	OML	WML	OML	WML	OML
300	Nil	0.2399	N/A	208	N/A	69.33%	N/A

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

K C Sahu
Mines Manager

South Khliehjari Limestone Mine



Report No.: ENV/MCL/25-26/WW-01/01

Date : 09/05/2025

Order No.: 4700034384

Date : 14/04/2025

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/ETP-3004/01

Sample Source : ETP Outlet (MCL)

Sample Type : ETP Treated Water

Collected On : 30-04-2025

Received On : 02-05-2025

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	25.2	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	16	100
4	Biochemical Oxygen Demand (as BOD), mg/l	24	30
5	Chemical Oxygen Demand (as COD), mg/l	78	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	9.6	50
9	Total Kjeldahl Nitrogen (as NH ₃), mg/l	21	100
10	Free Ammonia (as NH ₃), 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.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs

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

Report No.: ENV/MCL/25-26/WW-06/01

Date : 08/07/2025

Order No.: 8700034852

Date : 06/06/2025

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/ETP-2906/01

Sample Source : ETP Outlet (MCL)

Sample Type : ETP Treated Water

Collected On : 29-06-2025

Received On : 02-07-2025

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	25.8	shall not exceed 50°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	6.2	100
4	Biochemical Oxygen Demand (as BOD), mg/l	6	30
5	Chemical Oxygen Demand (as COD), mg/l	42	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	1.2	50
9	Total Kjeldahl Nitrogen (as NH ₃), mg/l	5.1	100
10	Free Ammonia (as NH ₃), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/MCL/25-26/WW-07/01

Order No.: 4700035547

Date : 07/08/2025

Date : 21/07/2025

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/ETP-2907/01

Sample Source : ETP Outlet (MCL)

Sample Type : ETP Treated Water

Collected On : 29-07-2025

Received On : 31-07-2025

Collected By : ENVIROCON Representative

Sl. No.	Parameters	Results	Limit [G.S.R. 422(E), 19.05.1993]
1	Ph	6.76	6.5 – 9.0
2	Temperature, °C	25.4	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	19	100
4	Biochemical Oxygen Demand (as BOD), mg/l	23	30
5	Chemical Oxygen Demand (as COD), mg/l	76	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	9.9	50
9	Total Kjeldahl Nitrogen (as NH ₃), mg/l	25	100
10	Free Ammonia (as NH ₃), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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

Report No.: ENV/MCL/25-26/WW-08/01

Order No.: 4700035885

Date : 06/09/2025

Date : 18/08/2025

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/ETP-2308/01

Sample Source : ETP Outlet (MCL)

Sample Type : ETP Treated Water

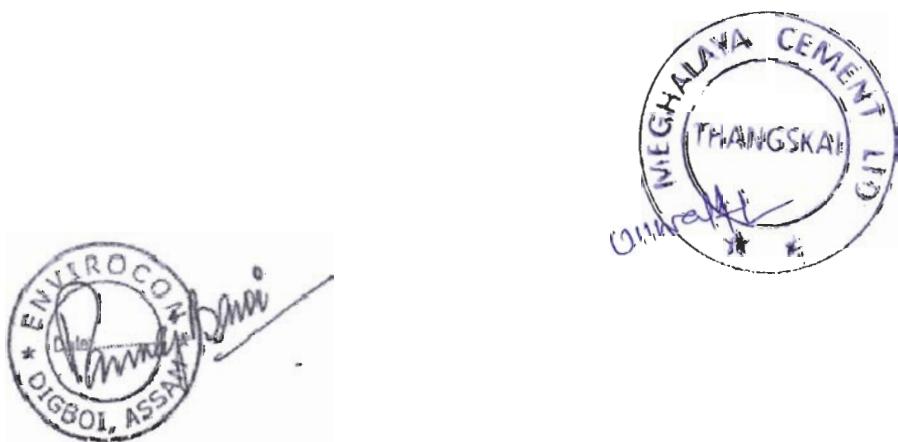
Collected On : 23-08-2025

Received On : 26-08-2025

Collected By : ENVIROCON Representative

Sl. No.	Parameters	Results	Limit [G.S.R. 422(E), 19.05.1993]
1	Ph	6.74	6.5 – 9.0
2	Temperature, °C	25.2	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	21	100
4	Biochemical Oxygen Demand (as BOD), mg/l	24	30
5	Chemical Oxygen Demand (as COD), mg/l	78	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	9.7	50
9	Total Kjeldahl Nitrogen (as NH ₃), mg/l	27	100
10	Free Ammonia (as NH ₃), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

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Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs.

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

Report No.: ENV/MCL/25-26/WW-09/01

Date : 06/10/2025

Order No.: 4700036231

Date : 10/09/2025

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

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : MCL/2025/ETP-1509/01

Sample Source : ETP Outlet (MCL)

Sample Type : ETP Treated Water

Collected On : 15-09-2025

Received On : 20-09-2025

Collected By : ENVIROCON Representative

Sl. No.	Parameters	Results	Limit [G.S.R. 422(E), 19.05.1993]
1	Ph	6.72	6.5 – 9.0
2	Temperature, °C	25.2	shall not exceed 5°C above the receiving water temperature
3	Total Suspended Solids (as TSS), mg/l	26	100
4	Biochemical Oxygen Demand (as BOD), mg/l	23	30
5	Chemical Oxygen Demand (as COD), mg/l	83	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	10.3	50
9	Total Kjeldahl Nitrogen (as NH ₃), mg/l	29	100
10	Free Ammonia (as NH ₃), mg/l	<0.01	5.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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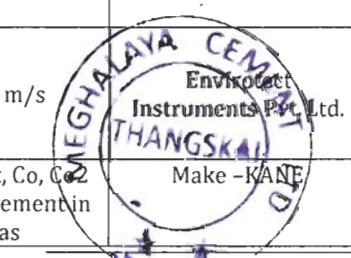
Meghalaya Cements Ltd.
Vill: Thangskai, P.O. Lumshnong, East Jaintia Hills, Meghalaya-793210

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	Envirotect Instruments Pvt. Ltd
3	Stack Sampler	APM -620 / 797- DTJ- 05 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotect Instruments Pvt. Ltd
4	Stack Velocity Monitor	APM -602 / 835 DTJ - 05 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotect 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	Envirotect 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	Envirotect 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 ³ /mn	Envirotect 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	Envirotect Instruments Pvt. Ltd.
12	L Type Pitot Tube	For Flow measurement	03 to 30 m/s	Envirotect Instruments Pvt. Ltd.
13	Flue Gas Analyzer	Model No. 054218002	For SO ₂ , NO _x , CO ₂ & O ₂ measurement in Flue gas	Make - KANE



Ujjwal HOD

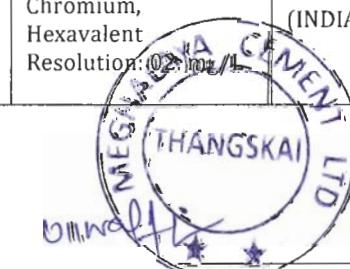
Meghalaya Cements Ltd.
Vill: Thangskai, P.O. Lumshnong, East Jaintia Hills, Meghalaya-793210

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: 0.1 mg/L	HANNA EQUIPMENTS (INDIA) PVT. LTD.



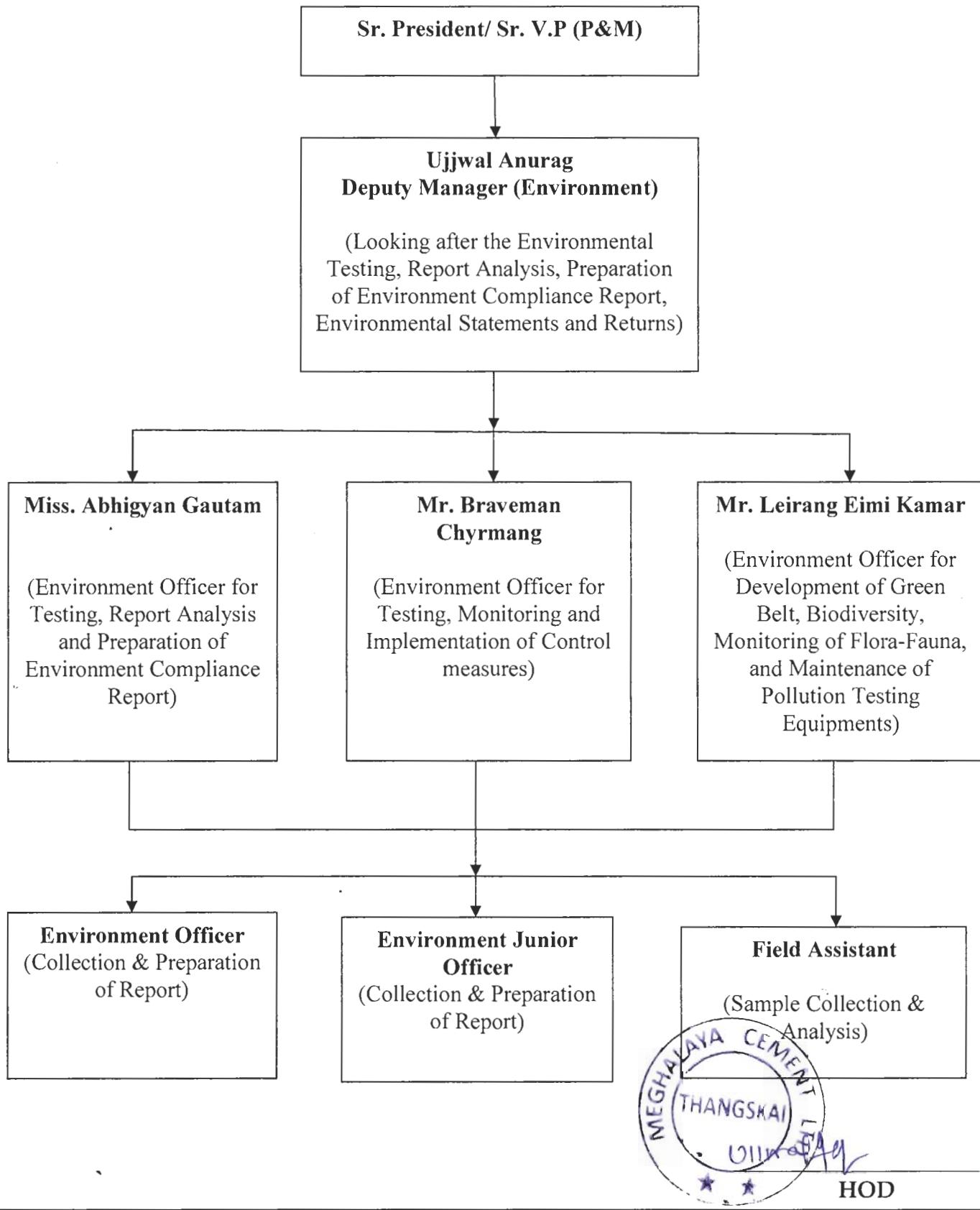
HOD

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



Annexure -xvi

M/s MEGHALAYA CEMENTS LIMITED

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

Expenditure incurred against Environmental Protection Measures of South Khliehjari Limestone Mine(31.05 Ha) during the year 2025-26 (from April-2025 to Sept-2025)

1	2	3	4
Sl no	Head	Subhead	Total Expenditure incurred (in lakh)
1	Plantation	Pre plantation cost to develop the area for ready for plantation	
		i. Dumping & dozing of soil to make the area plain	
		ii. Spreading of Topsoil	
		Sappling & Plantation cost	6.58
		Maintenance cost	
		i. Manuring	
		ii. Watering	
		iii. Watching	
		iv. Fencing	
		Cost against Water sprinkler used in haul road, loading & unloading point	3.98
3	Preparation of Retaining wall, Checkdam, Siltation Tanks and Garland drains	Maintenance of Siltation Tanks -(2 no)	
		Mentainance of Retaining wall (1245 m)	5.88
		Mentainance of Garland drains (1245 m)	
5	PPE supply to mine workers	Nose Mask	
		Ear Muffs	
		Safety Shoe	
		Safety Helmet	0.72
		Safety Goggles	
		Safety Hand Gloves	
		Reflective Jacket	
6	Water Treatment	Capatial investment for Water Treatment Plant	
		Recurring cost for water treatment	0.25
7	Maintenance of Effluent Treatment Plant	Chemical consumption for treatment of effluents (lime , bleaching powder, alum etc.)	
		Power cost	0.25
		Manpower cost	
8	Dump Compaction	Compection of dumps by compactor	3.54
		Total	20.95





MEGHALAYA CEMENTS LIMITED
CIN- U26942ML2003PLC007125



Annexure - XVII

Ref: - MCL/Env/MsPCB/2025-2026/08

Date: - 05/05/2025

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

Subject: Submission of Form 'V' of 31.05 Ha. South Khliehjri Limestone Mine for the financial year 2024- 2025.

Dear Sir,

We are herewith submitting the Annual Environmental Statement of 31.05 Ha. South Khliehjri Limestone Mine for the financial year 2024-2025.

Thanking You,

Yours faithfully,

For Meghalaya Cements Limited

R.K. Pareek
R.K. Pareek
(Sr. President)



Sales & Marketing Office :
Mega Plaza, 4th Floor, Christian Basti
G.S. Road, Guwahati - 781 005
Tel. : 0361 2345421/2223, Fax : 0361 2345419
E-mail : guwahati@topcem.in
Web : www.topcem.in

HELPLINE NO : 18001233666

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. Lumsnong
District: East Jaintia Hills, Meghalaya, PIN: 793210
Tel. : +91 89742 17765 / 70850 58469 / 98625 09599
E-mail : meghalaya@topcem.in



ENVIRONMENT PROTECTION RULES 1986

[FORM-V]

(See rule 14)

Environmental Audit report for the period
[From 01-04-2024 to 31-03-2025]

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 Khliehjari Lime Stone Mine- 31.05 ha.

[Primary (STC Code-AACDM8079PST001)

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: - 29th May'2024.

PART - B

Water and Raw Material Consumption

(i) Water consumption m³/d

Process : - Not Applicable
 Cooling : - Not Applicable
 Domestic : - Not Applicable

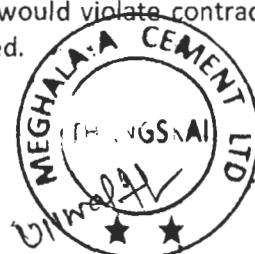
Process water consumption per unit of products output

Name of products	During the current financial year 2023-24		During the current financial year 2024-25	
	(1)	(2)	(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 2023-24	During the current financial year 2024-25
Limestone	Cement grade Limestone	1119141 MT	1114455 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)

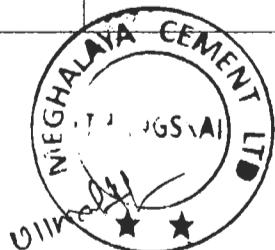
(i) Pollutants	Quantity of pollutants discharged mass / day	Concentrations of pollutants discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	Not Applicable	Not Applicable	Not Applicable
(b) Air			Concentration of pollutants is within the prescribed limit.
i) PM ₁₀	100 µg/m ³	76.86µg/m ³	
ii) PM _{2.5}	60 µg/m ³	42.15 µg/m ³ (Average of last three months)	

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

Hazardous Wastes	Total Quantity (kg)	
	During the current financial year 2023-24	During the current financial year 2024-25
(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 2023-24	During the current financial year 2024-25
(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 730 nos. of species of different plants upto 31st March, 2025 since inception within and outside the mining lease area and their rate of survival is satisfactory.**



