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Certified Company

THE RAMCO CEMENTS LIMITED

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RCL/MoEF&CC/JPM SB-239/275 Dt. 28.11.2022

Ministry of Environment, Forests and Climate Change,
Integrated Regional Office,
Green House Complex,
Gopala Reddy Road,
VIJAYAWADA – 520 010.

Dear Sir,

Sub: Submission of Half-Yearly Compliance Report for Environmental Clearances for Jayanthipuram Limestone Mine (South Band) of The Ramco Cements Limited for the period from April 2022 to September 2022 – Reg.

Ref: 1. EC Lr. No. SEIAA/AP/MIN/KRI/8/2019/1219/167.76&164.67 dated 26.10.2021.
2. EC Lr. No. J-11015/378/2006-IA.II (M) dated 08.06.2007.

We are herewith submitting the Half-Yearly Compliance for Environmental Clearance for the period from April 2022 to September 2022 along with relevant enclosures for Jayanthipuram Limestone Mine (South Band), Jaggayyapet Mandal, Krishna District, Andhra Pradesh.

Name, designation and contact details of person in-charge of environmental division are:

N. Ravi Shankar
Sr. President (Mfg.)
Phone No. 08654 – 224400,
Fax No. 08654 – 222352,
e-mail: mcljpm@ramcocements.co.in

This is for your kind information and perusal please.

Thanking you,

Yours faithfully,
For The Ramco Cements Limited,
(Formerly known as Madras Cements Ltd.,)

(N. RAVISHANKAR)
Sr. President (Mfg.)
Encl.: a.a

Cc to: Central Pollution Control Board, Nisarga Bhavan, A-Block, 1st & 2nd Floors, Thimmaiah Road, 7th D-Main, Shivanagar, Bengaluru – 560 079.

HALF-YEARLY COMPLIANCE REPORT

Environmental Clearance Letter/s No. and Date	SEIAA/AP/MIN/KRI/8/2019/1219/167.76&164.67 and dated 26.10.2021
Name of the Project	The Ramco Cements Limited (Formerly Madras Cements Ltd.,), Jayanthipuram Limestone Mine (South Band) – 0.50 to 1.75 Million TPA Capacity of Limestone
Period of Compliance Report	April 2022 to September 2022

A. SPECIAL CONDITIONS

S.No.	Condition	Compliance Status
i.	The proposal shall not attract the following acts & Rules: a. Forest Conservation Act 1980, b. Wild life (Protection) Act,1972; c. CRZ Notification, 2011; d. The Eco sensitive areas as notified under Environment (Protection) Act,1986; e. Critically polluted areas as notified by CPCB and also shall not harm live stocks and human beings and disturb their activities.	Noted.
ii.	The total production during a scheme should be limited to the approved quantity as per Mining scheme / plan.	Being complied. During the financial year 2022-2023, limestone production was about 0.45 million tonne (up to September-22).
iii.	The stipulating the condition that the project proponent shall not carry out any mining activity within 200 meters buffer zone in the mine lease area under any circumstances.	Being complied. Mining operation are not being carried out in the buffer zone of 200 m in the mine lease area.
iv.	The proponent volunteered to allocate sufficient funds for amenities to Oxygen Plant at Jayanthipuram Village as a part of Corporate Social Responsibility (CSR) activity.	Complied. Oxygen Plant at Jaggaiahpet Government Hospital is commissioned on 14.02.2022, as part of Corporate Social Responsibility (CSR) activity.
v.	The project proponent shall maintain the setback distance 7.5 meters buffer zone all around the mine lease area for greenbelt development and other conditions are to be fulfilled.	Being complied. 7.5 m safety distance maintained all along the Mining Lease boundary and green belt being developed.
vi.	The avenue plantation (tall plants), of at least 1.5 m height, for 1 km length of the approach road on either side of the road is to be developed and maintained. The entire plantation is to be completed	Being complied. As this is an existing mine, plantation has already taken up on either side of the haul roads from mine entry to exit and the plants are grown up.

S.No.	Condition	Compliance Status
	in the first year itself.	
vii.	The proponent is advised to ensure safety to animal and public life.	Being complied. All safety precautions are being taken and safety of animal and public life is being ensured.

B. SPECIFIC CONDITIONS:

S.No.	Condition	Compliance Status
1)	**Air Pollution**	
i	The proponent shall comply with the mining methodology mentioned in approved mining plan and Form I.	Being complied. The mining methodology being followed as per approved mining plan and Form I.
ii	Greenbelt shall be developed along the boundary of mining lease area and also in back filled and reclaimed areas with tall growing native species in consultation with the local DFO / Agriculture Department. The proponent of mine shall carry mining operations in such a manner so as to cause least damage to the flora of the mining area and nearby areas. He shall take immediate measures for planting in the same area or any other area selected by authorities not less than twice the number of trees going to be felled by mining operations. He shall also take measures for restoration of other flora / fauna if damaged by mining operations. In case any felling or damage to fauna and flora is involved, prior permission shall be taken from the concerned regulatory authority, by the proponent, without which mining shall not be taken up.	Being complied. • Greenbelt is being developed along the Lease boundary. • Presently there is no backfilling area and greenbelt will be developed on backfilled area in due course of time with native species in consultation with DFO / Agriculture department. • There are no trees to fell in the mining lease area and all precautions are being taken for not damaging the flora in the nearby areas.
iii	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Being complied. Fugitive dust emissions are being controlled regularly. Water spraying being done on haul roads, loading, unloading and transfer points and the same will be continued.
iv	The proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoE&F, GoI on 16.11.2009.	Being complied. Proper measures being taken to ensure the GLC as per revised NAAQ norms
v	The following measures are to be implemented to reduce air pollution during transportation of mineral:-	

S.No.	Condition	Compliance Status
	• Roads shall be graded to mitigate the dust emission.	Being complied. Roads are being maintained properly to mitigate dust emission
	• Regulatory Authority prior concurrence shall be taken for this activity.	Being complied.
	• Water shall be sprinkled at regular interval on the main haul road and other service roads by water sprinklers to suppress dust.	Being complied. Water is being sprinkled regularly on haul roads with mobile water tankers and will be continued
vi	The following measures are to be implemented to reduce Noise pollution:-	
	➢ Proper and regular maintenance of vehicles and other equipment.	Being complied. Vehicles are being maintained properly for control of noise levels and the noise levels are well below the limit.
	➢ The proponent shall ensure that there shall be no excessive noise, while taking up mining activity.	Being complied. • All precautions are being taken to avoid excess noise during mining activity. • Latest technology being used during blasting activities.
	➢ Limiting time exposure of workers to excessive noise.	Being followed. Limiting time exposure of workers to excessive noise levels.
	➢ The workers employed shall be provided with protection equipment and earmuffs etc.	Being complied. • Ear plugs / muffs are provided to respective HEMM operators. • Compiled data of Noise levels measured in the financial year 2022-2023 is enclosed as Annexure – I.
	➢ Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.	Being complied. The speed is limited to moderate speed @ 25 KMPH to prevent undue noise from empty trucks.
vii	Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010; dt. 11.01.2010 issued by the MoE&F, GOI to control noise to the prescribed levels. Workers engaged in operations of HEMM, etc should be provided with ear plugs/muffs. Regulatory authority instructions be taken if there are any better alternatives.	Being complied. • Protective measures being taken as per provisions to control noise levels. • Workers who are exposed to noise are being provided ear plugs / muffs. • Instructions of the Regulatory authority are being followed.
viii	The proponent shall not take-up mining activity unless he obtains the	Being complied. Permission is obtained from DGMS

S.No.	Condition	Compliance Status
	safety clearance certificate from the Govt. competent authority.	for carrying out mining activities in the lease under MMR 1961.
2)	**Water Pollution:-**	
i	As per records the source of water is Bore well. Total water requirement is 150 KLD, Out of that, 96.0 KLD is used for Dust suppression; 49.0 KLD is used for Development of green belt; 5.0 KLD is used for Domestic purpose.	Being complied. • The source of water is mines pit water. • The total water consumption for the mine is within specified limit. • Corrigendum request submitted to SEIAA-AP to modify the source of water as 'mines pit water' instead of 'Bore well water'.
ii	Garland drain and siltation ponds of appropriate size should be constructed for the working pit to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly. Prior concurrence of Regulatory Authority concerned shall be taken for this activity before taking up mining.	Being complied. • Garland drain made along the mine pit over a length of 1503 m. • Settling tank made for settling the suspended solids. • The tank is being de-silted and maintained regularly. • The water collected in the sump is being utilized for water sprinkling in the mine lease area, haul roads, greenbelt development, etc.
iii	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells by the project proponent in and around project area in consultation with Regional Director, CGWB, Southern Region, Hyderabad. Data thus collected should be sent at regular interval to MoEF, CGWA and CGWB, Southern, Region, Hyderabad.	Being complied. • Ground water levels are being monitored regularly by 3 Nos. of piezometers. The data submitted to the CGWB for the period April 2022 to September 2022 is enclosed as Annexure – II. • Compiled data of Ground water quality analysis is carried out by MoEF&CC approved external environmental monitoring agency (M/s Universal Enviro Associates, Hyderabad) for the same period is enclosed as Annexure – III. • The monitoring is being carried out four times in a year – Pre-monsoon (April-May), Monsoon (August), Post-Monsoon (November) and Winter (January).
iv	Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB, Southern Region, Hyderabad. Suitable measures should be taken for rainwater harvesting in consultation	Being complied. • Suitable ground water conservation measures ae being taken up such as check dams, settling tanks and rainwater harvesting pits etc. • The rain water collected in mine pit is being used for dust

S.No.	Condition	Compliance Status
	with concerned Regulatory Authority.	suppression and greenbelt development purposes after settling of silt in mine sump. • As part of the CSR activities, mine seepage water is also being supplied to Jayanthipuram village for domestic use to conserve the water resources in the vicinity.
v	Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.	Being complied. NOC obtained from Dept. of Panchayat Raj & Rural Development, Government of Andhra Pradesh (Agency authorised to issue NOC for Andhra Pradesh projects) vide letter No. PRR05-11028/13/2018-SLNA-GIS-CORD dated 07.07.2020 valid up to 06.07.2023.
3)	**Solid Waste :-**	
i	Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.	Top soil generated if any, will be utilized for plantation.
ii	The following measures are to be adopted to control erosion of dumps:-	
	➢ Retention / toe walls shall be provided at the foot of the dumps.	Retaining bund of 1.5 m height is formed at the foot of the dumps.
	➢ Worked out slopes are to be stabilized by planting appropriate shrub/grass species on the slopes.	As on date, there are no worked out bench slopes and will be stabilized accordingly as and when available.
	➢ Regulatory Authority prior concurrence shall be taken for this activity.	Being done as per approved Mining Plan.
iii	Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and transboundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by APPCB. APPCB shall monitor this aspect at regular intervals to prevent any harm to life and the proponent on his part, shall ensure that this activity shall be taken up regularly under the guidance of Regulatory Authority, as decided by that Authority.	Being complied. Being used for firing in Kilns and / or sold to APPCB authorised recyclers (with proper storage).
iv	The proponent will be squarely responsible for proper implementation of solid waste management plan, prevention of air pollution, water pollution, and any	Being complied. • Sub grade material with 34 - 41% CaO and 18% SiO_2 can be blended with Limestone as Mineral Conservation measure.

S.No.	Condition	Compliance Status
	other kind of pollution/health hazard.	• 2 Nos. of waste dumps being maintained, one is active and another is inactive. • All due precautions being taken for storage of solid waste. • Slopes are stabilized with plantation. • Two garland drains are made along the bottom of dumps with a length of 600 and 680 m.

C. GENERAL CONDITIONS:

S.No.	Condition	Compliance Status
i	This order is valid for a period of 20 years or the expiry date of mine lease or land lease period issued by the Government of A.P., whichever is earlier.	Noted
ii	While giving CFE / CFO, the APPCB is to kindly ensure compliance of guidelines issued in G.O RT No 239 dt 16.04.2020 and Memo. No/ covid-19/2020/HMFW dt 18.04.2020 issued by Medical, Health and Family welfare department, Government of AP and the Ministry of Home Affairs order No 40-3/2020/DM-DA dt 15.04.2020 scrupulously.	Noted
iii	The proponent shall scrupulously follow any conditions stipulated by Revenue department / Panchayat Raj / Municipal administration / local State government bodies (Gram panchayat / Gram secretariat) in ensuring safety to human and animal life. The APPCB to ensure the same while according CFE / CFO.	Being followed.
iv	Proponent shall ensure that there is no disturbance to flora and fauna. Serenity of nature must be protected at any cost.	Being ensured that there is no disturbance to flora and fauna.
v	In respect of government land for mining, the responsibility fixed on AD mines to check whether necessary clearances from revenue department are obtained.	Being complied. • This is the existing Mining Lease containing part of Government land and part of patta land. • Necessary clearances obtained from Revenue Department and Government during grant of Mining Lease.
vi	In case of patta land while granting mine lease ADMG should verify the land lease documents.	Being complied. This is the existing Mining Lease consisting part of patta lands owned by

S.No.	Condition	Compliance Status
		the company.
vii	In respect of forest land given in lease for mining, the proponent shall scrupulously adhere to the mining conditions stipulated by the government of Andhra Pradesh.	There is no Forest land in ML area.
vii	Any change in mining plan / production / mining methodology the proponent shall apply afresh EC.	Will be adhered to.
ix	While taking up mining activity the proponent shall meticulously follow approved mining plan/Form-1/EMP.	Being complied. Approved mining plan / Form-1 / EMP are being followed during the mining activity.
x	Once in an year proponent shall conduct impact analysis on environment by reputed institute recognized by Director General, Mines and Safety.	Will be followed. Corrigendum request submitted to SEIAA-AP to correct "impact analysis on environment by reputed institute recognized by MOEF&CC once in Five years" instead of "impact analysis on environment b reputed institute recognized by Director General, Mines and Safety".
xi	"Consent for Establishment" & "Consent for Operation" shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act to carry on mining.	Complied. • Obtained CFE order from APPCB for the same proposal vide order No. 253/APPCB/CFE/RO-VJA/HO/2009 dated 02.12.2021. • Obtained CFO order from APPCB for the same proposal vide order No. APPCB/VJA/VJA/488/HO/CFO/ 2021 dated 04.01.2022.
xii	No change in mining technology and scope of working should be made without prior approval of the SEIAA, A.P. No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, AP/ MOEF&CC, GoI, New Delhi, as applicable.	No change in mining technology.
xiii	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment & Forests, its Regional Office, Chennai, SEIAA, A.P., Zonal Office of Central Pollution Control Board, Bangalore, District Collector and A.P. Pollution Control Board. The proponent shall upload the status of compliance of the environmental	Being submitted as part of this condition. The status of compliance of the environmental clearance conditions including results of monitored data being uploaded and updated in the website periodically.

S.No.	Condition	Compliance Status
	clearance conditions including results of monitored data on their websites and shall update the same periodically.	
xiv	Post Environment Clearance Monitoring: It shall be mandatory for the project manager to submit half yearly compliance reports in respect of the stipulated prior EC terms and conditions in hard and soft copy to SEIAA on 1st June and 1st December of each calendar year. (Refer 10(i) and 10(ii) of S.O. 1533(E) of Ministry of Environment and Forests Notification, New Delhi, dt 14th September, 2006.)	Being submitted as part of this condition. Both hard and soft copies of the compliance status are being submitted periodically with in the stipulated time.
xv	The APPCB shall monitor the EC conditions stipulated by SEIAA as per GO MS No 120 dated 01.11.2018 of EFS&T Dept., and ensure the compliance.	Noted
xvi	The proponent shall obtain prior permissions and continued guidance from regulatory authorities for all the above conditions wherever it is required.	Being followed. Obtained all the permissions from respective regulatory authorities.
xvii	All safety norms as stipulated in various laws and statutes shall be scrupulously followed by the proponent. PCB shall ensure compliance to the conditions stipulated by SEIAA.	All safety norms are being followed.
xviii	The Proponent shall follow G.O. Ms 107 dated 30.07.2016 of Industries & Commerce (Mines-II) Department wherever applicable.	Noted.
xix	Consent for Establishment" shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act before the start of any activity / construction work at site.	Complied. Obtained CFE order from APPCB for the same proposal vide order No. 253/APPCB/CFE/RO-VJA/HO/2009 dated 02.12.2021.
xx	Officials from the Regional Office of MOEF&CC, Chennai / The SEIAA, Andhra Pradesh through the Regional Offices of Andhra Pradesh Pollution Control Board, who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents	Being followed.

S.No.	Condition	Compliance Status
	shall be submitted to the CCF, Regional Office to MOEF&CC, Vijayawada.	
xxi	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Being complied. 4 Nos. of Ambient air quality monitoring stations in core zone and 9 Nos. of ambient air quality monitoring stations in Buffer zone ae established based on the meteorological data, topographical features and environmentally and ecologically sensitive in consultation with State Pollution Control Board and regular monitoring (fortnightly) is being carried out through MoEF&CC approved external environmental monitoring agency.
xxii	Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Chennai and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Being complied. Compiled data of ambient air quality monitoring collected during half-year period April 2022 to September 2022 by MoEF&CC approved external environmental monitoring agency is enclosed as Annexure – IV.
xxiii	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	Being complied. Personal Protective Equipment are being provided to the personnel working in dusty areas and adequate training and information on safety and health aspects are being provided as part of Mines Vocational Training.
xxiv	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.	No natural water courses obstructed due to mining operations and no first order streams originating from the mine lease area.
xxv	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Being complied. • Occupational health surveillance programme is taken up periodically and records are being maintained. • Corrective measures will be taken to the contractions due to exposures of dust, if needed. • A full-fledged Occupational Health Centre with a qualified Occupational Health Specialist with supporting staff is established with the following facilities: o X-ray o ECG

S.No.	Condition	Compliance Status
		○ Spirometry (lung function test) ○ Audiometry ○ Semi-auto analyser to carryout bio-chemical tests ○ Clinical lab for micro-biological tests (including sputum test) ○ Checking colour blindness ○ Dental chair ○ Ambulance
xxvi	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Being complied. • Environment management cell is established with qualified personnel to look after the environment management related activities and is reporting to Head of the Unit of the company. • The organization chart is enclosed as Annexure - V.
xxvii	The funds earmarked for environmental protection measures (Capital cost Rs. 27.5 Lakhs and Recurring cost Rs. 22.0 Lakhs /annum)should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Vijayawada.	Being followed. • The funds earmarked for environment protection are not diverted for other purposes. • The details of environmental protection expenditure for the financial year 2021-2022 and funds allotted for the financial year 2022-2023 are enclosed as Annexure - VI.
xxviii	At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared in accordance to the MoEF&CC's office Memorandum No.F.No.22- 65/2017- IA.III, dated.01.05.2018 and submit to the SEIAA, A.P and Ministry's Regional Office, Vijayawada.	At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER). Corrigendum request submitted to correct 1% instead of 2% of the total project cost.
xxix	The project proponent shall submit the copies of the environmental clearance to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied. Submitted the EC copies to all concerned local bodies on 30.10.2021, accordingly.
xxx	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the	Complied. We published advertisements in 2 Nos. of newspapers (The Hans India – English & Andhra Jyothi – Telugu – vernacular language) on 31.10.2021 regarding the issuance of the

S.No.	Condition	Compliance Status
	project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and SEIAA, A.P.	
xxxi	The SEIAA or any other competent authority may alter / modify the above conditions or stipulate any further condition in the interest of environment protection.	Noted
xxxii	The proponent shall obtain all other mandatory clearances from respective departments before taking-up the mining activity.	This is the existing mine and all the clearances obtained from respective departments.
xxxiii	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
xxiv	Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
xxxv	The SEIAA may revoke or suspend the order, if implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter / modify the above conditions or stipulate any further condition in the interest of environment protection.	Noted
xxxvi	SEIAA also reserves the right to cancel the EC issued at any time, if EC has been obtained by the proponent through suppression of any information or furnishing false information.	Noted
xxxvii	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Being complied for the conditions stipulated as per Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986. Taken Public Liability Policy No. 0304008408 00 00 for the financial year 2022-2023.

(Signature)

HALF-YEARLY COMPLIANCE REPORT

Environmental Clearance Letter/s No. and Date	J-11015/378/2007-IA.II (M) dated 08.06.2007
Name of the Project	The Ramco Cements Limited (Formerly Madras Cements Ltd.,), Jayanthipuram Limestone Mine (South Band) – 0.5 Million TPA Capacity Of Limestone
Period of Compliance Report	April 2022 to September 2022

A. SPECIFIC CONDITIONS:

S.No.	Condition	Compliance Status
viii.	Top soil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area.	Noted. No topsoil generated during period from April 2022 to September 2022. Reclamation and rehabilitation are not initiated as ultimate pit level is not reached. Backfilling is not yet started.
ix.	Overburden shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and overall slope of the dump shall not exceed 28°. The mine pit area shall be reclaimed by back filling the OB in a phased manner. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the MOEF once in six months.	Being complied. • Out of 2 Nos. of overburden dumps, one is active dump and another is in-active dump. • Overburden is being dumped on the earmarked dump sites only. The height of the active dump is 19.0 m (in 2 terraces) and the slope of the dump is maintained as specified. • As the dump is still in active stage, plantation on parts of the dump is started. • Reclamation and rehabilitation are not initiated as the mineral is not exhausted. • This report is being submitted as half yearly compliance report (April 2022 to September 2022). • The copy of this half-yearly compliance report is mailed to eccompliance-ap@gov.in, vide Notice from MoEF&CC, Chennai dated 13.08.2019. • The same is also uploaded in PARIVESH portal.
x.	Garland drains shall be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, greenbelt development etc. The drains shall be regularly de-silted particularly after monsoon and maintained properly. Garland drain	Being complied. The following measures are being taken: • Garland drains are made along the bottom of waste dumps and around the mine workings. • These garland drains are made for a total length of 1503 m for the mine pit and 600 & 680 m around

S.No.	Condition	Compliance Status
	(size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall be designed 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. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.	the two waste dumps. • Settling tanks (4 Nos.) with total area of 0.27 ha are connected to the garland drains for settling the suspended solids. • These tanks are being de-silted and maintained regularly. • The sump capacity is made to take care of maximum rainfall. A sump is made with a dimension 33m*17m*4.0m size for proper settling of silt material. • The water collected is being utilized for watering the mine area, haul roads, greenbelt development, irrigation, etc. • Desilting is being carried out regularly. During the year 2022-2023, desilting was carried out during the month of May 2022 and a quantity of 31 tonne desilted.
xi.	Drilling and blasting shall be by using dust extractors / wet drilling.	Being complied. Wet drilling is being practiced. Controlled blasting is being done.
xii.	Plantation shall be raised in an area of 20.17 Ha including a greenbelt of adequate width by planting the native species around the ML area, roads, OB dump sites etc., in consultation with the local DFO / Agriculture department. The density of the trees shall be around 2500 plants per Ha. The company shall involve local people with the help of local NGOs for afforestation programme.	Being complied. • An area of 21.58 ha within ML has been covered under plantation as on September 2022 with native plant species. • Saplings have been planted along OB dump, roads. • Greenbelt development will be further extended as per the Review of Mining Plan approved by Indian Bureau of Mines, Hyderabad. • Planation of saplings and regular maintenance is being done by involving local people.
xiii.	The company shall prepare Wild Life Conservation plan in consultation with CWLW / State Forest Department for implementation.	Noted. • Wild life conservation plan is not prepared as no wild life and schedule - 1 species are present in the area and no wild life is observed, after opening the subject mine. • This mining lease area does not fall under forest area. • There are some agriculture lands and public roads in between the nearest reserve forest and the subject mining lease area.
xiv.	The project authority shall implement suitable conservation	Being complied. • Suitable ground water

S.No.	Condition	Compliance Status
	measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground water board	conservation measures are being taken up such as garland drains, check dams, settling tanks and rainwater harvesting etc. • The rain water collected in mine pit is being used for dust suppression, greenbelt development and domestic purposes after settling of silt in mine sump. • As part of the CSR activities, mine water is also being supplied to Jayanthipuram village, to conserve the water resources in the vicinity.
xv.	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing well and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year – Pre-monsoon (April-May), Monsoon (August), Post-Monsoon (November) and Winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director, Central Ground Water Board.	Being complied. • Ground water levels are being monitored regularly by 3 Nos. of piezometers. The data submitted to the CGWB for the period April 2022 to September 2022 is enclosed as Annexure – II. • Compiled data of Ground water quality analysis is carried out by MoEF&CC approved external environmental monitoring agency (M/s Universal Enviro Associates, Hyderabad) for the same period is enclosed as Annexure – III. • The monitoring is being carried out four times in a year – Pre-monsoon (April-May), Monsoon (August), Post-Monsoon (November) and Winter (January).
xvi.	Prior permission from the competent authority shall be obtained for drawl of ground water, if any.	Being complied. • NOC obtained to work below ground water table through Dept. of Panchayat Raj & Rural Development, Government of Andhra Pradesh (agency authorized to issue NOC for Andhra Pradesh projects) vide their letter No. PRR05-11028/13/2018-SLNA-GIS-CORD dated 07.07.2020. • This order is valid up to 06.07.2023.
xvii.	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operation & in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	Being complied. • Vehicles are being maintained properly at our workshop located at cement plant. • Vehicle emission levels are being monitored regularly and kept under control. • With proper supervision regularly, it is ensuring that the vehicles are

S.No.	Condition	Compliance Status
		not overloaded. • While transporting the mineral, the following measures are being taken: o Transportation of mineral is being done by moderately loading the vehicles to avoid the spillage. o The body height of the vehicle is raised by 1 foot to avoid the spillage of material.
xviii	A final mine closure plan along with details of Corpus Fund shall be submitted to the MOEF 5 years in advance of final mine closure for approval.	Noted. • The final mine closure plan will be submitted accordingly with details to MoEF&CC as suggested. • The life of the mine is estimated up to the financial year 2042-2043.
xix.	Spent oil generated from maintenance of HEMM shall be sold to the registered recyclers.	Being complied. Being used for firing in kilns and for lubrication of plant equipment / or sold to APEMC authorized recyclers (with proper storage).

B. <u>GENERAL CONDITIONS</u>:-

S.No.	Condition	Compliance Status
i.	No change in mining technology and scope of working shall be made without prior approval of the MOEF.	Being complied. No change in mining technology and the scope of working.
ii.	No change in the calendar plan including excavation, quantum of mineral and waste shall be made.	Being complied. • Obtained Environmental Clearance (EC) order to expand the production from 0.5 Million TPA to 1.75 Million TPA is obtained from State Level Environment Impact Assessment Authority (SEIAA), Andhra Pradesh vide order No. SEIAA/AP/MIN/KRI/8/2019/1219/ 167.76 & 164.67 dated 26.10.2021. • Obtained CFE order from APPCB for the same proposal vide order No. 253/APPCB/CFE/RO-VJA/HO/2009 dated 02.12.2021. • Obtained CFO order from APPCB for the same proposal vide order No. APPCB/VJA/VJA/488/HO/CFO/ 2021 dated 07.11.2022. • During the Financial year 2022-2023, Limestone production was about 0.45 million tonne (up to September 2022).
iii.	Conservation measures for	Noted.

	protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wildlife department.	• The subject area does not fall under forest area. • There are some agriculture lands and public roads in between the nearest reserve forest and the subject mining lease area. • There is no endangered species observed after opening of the mine. • Submitted a letter to Chief Wild Life Warden requesting conservative measures and reply is awaited.
iv.	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO_2, NO_X monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive in consultation with State Pollution Control Board.	Being complied. 9 Nos. of ambient air quality monitoring stations are established in buffer zone and 4 Nos. of air quality monitoring stations are established in core zone based on the meteorological data, topographical features and environmentally and ecologically sensitive in consultation with State Pollution Control Board and regular (fortnightly) manual monitoring is being done through MoEF&CC approved external environmental monitoring agency for PM_{10}, $PM_{2.5}$, SO_2, NOx monitoring.
v.	Data on ambient air quality (RPM, SPM, SO_2, NOx) should be regularly submitted to the Ministry including its RO located at Bangalore and the SPCB / CPCB once in six months.	Being complied. Compiled data of ambient air quality monitoring collected during half-year period April 2022 to September 2022 by MoEF&CC approved external environmental monitoring agency is enclosed as Annexure – IV.
vi.	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	Being complied. • Fugitive dust emission is being controlled at the source. • Permanent water sprinkling system is being operated on main haul road leading to the limestone crusher. • Mobile water spraying tanker is being used to control dust emission on other main haul road leading to the limestone crusher. • Wet drilling is being practiced. • Water is being sprayed on internal ramp roads, muck piles and unloading points (on dumps) by mobile water tankers. • Water fogging system is being operated at limestone crusher dump hopper (limestone unloading

		point at Plant) to suppress the fugitive emissions. • To avoid spillage of material while transporting, the following measures are being in practice: o Moderate loading of tippers. o The body height of the vehicle is raised by 1 foot.
vii.	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc., shall be provided with ear plugs / muffs.	Being complied. • Vehicles are being maintained properly for control of noise levels and the noise levels are well below the limit. • Ear plugs / muffs are provided to respective HEMM operators. • Compiled data of Noise levels measured in the financial year 2022-2023 (up to September-22) is enclosed as Annexure – I.
viii.	Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	Being complied. • Oil and Grease trap is installed at Workshop to treat the wastewater before let out. • Outlet water quality analysis carried out by MoEF&CC approved external environmental agency. • Compiled data for the period April 2022 to September 2022 is enclosed as Annexure – VII. • There is no wastewater generation from the mine.
ix.	Personal working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	Being complied. Personal Protective Equipment are being provided to the personnel working in dusty areas and adequate training and information on safety and health aspects are being provided as part of Mines Vocational Training.
x.	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Being complied. • Occupational health surveillance programme is taken up periodically and records are being maintained. • Corrective measures will be taken to the contractions due to exposures of dust, if needed. • A full-fledged Occupational Health Centre with a qualified Occupational Health Specialist with supporting staff is established with the following facilities: o X-ray o ECG o Spirometry (lung function test) o Audiometry

		○ Semi-auto analyser to carryout bio-chemical tests ○ Clinical lab for micro-biological tests (including sputum test) ○ Checking colour blindness ○ Dental chair ○ Ambulance
xi.	A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the organization.	Being complied. • Environment management cell is established with qualified personnel to look after the environment management related activities and is reporting to Head of the Unit of the company. • The organization chart is enclosed as Annexure - V.
xx. xxi.	The project authorities shall inform to the RO located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Complied. Date of financial closure for this project is not required as the total funding for this project is from our own funds. The same is informed to the RO on 02.06.2007.
xiii.	The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purposes. Year-wise expenditure shall be reported to the Ministry and its RO located at Bangalore.	Being complied. • The funds earmarked for environment protection are not diverted for other purposes. • The details of environmental protection expenditure for the financial year 2021-2022 and funds allotted for the financial year 2022-2023 are enclosed as Annexure - VI.
xv.	The RO of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full co-operation to the officer(s) of the RO by furnishing the requisite data / information / monitoring reports.	Being complied. • The copy of this half-yearly compliance report is mailed to eccompliance-ap@gov.in, vide Notice from MoEF&CC, Chennai dated 13.08.2019. • The same is also uploaded in PARIVESH portal. • Necessary co-operation along with relevant data is being provided.
xvi.	A copy of clearance letter will be marked to concerned Panchayat / local NGO. If any, from whom suggestion / representation has been received while processing the proposal.	Noted.
xvii.	SPCB should display a copy of the clearance letter at RO, district industries centre and Collector's Office / Tahsildar's office for 30 days.	Noted.

xviii.	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in 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 and a copy of the clearance letter is available with the SPCB and also at website of the MOEF at http://envor.nic.in and a copy of the same shall be forwarded to the RO of this Ministry located Bangalore.	Complied. Advertised in "Eenadu" Telugu daily on 15.06.2007 & "The Hindu" English daily on 14.06.2007 and a copy of the same is forwarded to RO, Bangalore vide Lr. No. MCL/Mines/South Band/501 dt. 19.06.2007.

(Signature)

ANNEXURE - I

THE RAMCO CEMENTS LIMITED, KSR NAGAR

NOISE LEVEL MONITORING - JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)

PERIOD - APRIL -2022 to SEPTEMBER-2022

Sl. No	Date of monitoring	Machine / Location	Noise Value dB(A)			
			Day time (6AM to 10PM)	Permissible Limit dB(A)	Night time (10PM to 6AM)	Permissible Limit dB(A)
1	29.09.2022	Drilling area	72.3	< 75	64.9	< 70
2	29.09.2022	Loading area	70.9	< 75	63.5	< 70
3	29.09.2022	Haul road	70.7	< 75	60.6	< 70
4	29.09.2022	Unloading area	71.4	< 75	61.4	< 70
5	29.09.2022	Mines office	54.1	< 75	37.3	< 70
6	29.09.2022	Dump Yard	53.2	< 75	55.9	< 70
7	29.09.2022	RSMS Camp	65.9	< 75	50.6	< 70
8	29.09.2022	R&B road	70.6	< 75	52.3	< 70
9	29.09.2022	Pump House	63.7	< 75	53.1	< 70
10	29.09.2022	SB Bund Area	54.6	< 75	45.4	< 70

ANNEXURE - II

ISO 9001 ISO 14001 ISO 45001 ISO 50001
Certified Company

THE RAMCO CEMENTS LIMITED

Kumarasamy Raja Nagar – 521457
Jaggayyapet Mandal, Krishna District,
Andhra Pradesh, India
Phone: 08654 224400-04
Fax: 08654 222352
E-mail: mcljpm@ramcocements.co.in

RCL/CGWB/JPMSB-239/280 Dt. 28.11.2022

Central Ground Water Board,
3-6-291, GSI Post, Bandlaguda,
Tirumala Residency Colony,
R.Krishnaiah Nagar,
Hyderabad-500 068.

Dear Sir,

Sub: Submission of Water Level Data for Environmental Clearances for Jayanthipuram Limestone Mine (South Band) for the period from April 2022 to September 2022 – reg.

Ref: 1. EC Lr. No. SEIAA/AP/MIN/KRI/8/2019/1219/167.76&164.67 dated 26.10.2021.
2. EC Lr. No. J-11015/378/2006-IA.II (M) dated 08.06.2007.

This has reference to the above cited Environmental Clearance letter issued by Ministry of Environment & Forests, New Delhi for Jayanthipuram Limestone Mine (South Band).

We herewith enclose the Water Level Data measured by Piezometers as part of Half-Yearly Compliance for Environmental Clearance for this Mining Lease located at Jaggayyapet Mandal, Krishna District, Andhra Pradesh for the period from April 2022 to September 2022.

This is for your kind information and perusal please.

Thanking you,

Yours faithfully,
for The Ramco Cements Limited,
(Formerly known as Madras Cements Ltd.)

(N. RAVISHANKAR)
Sr. President (Mfg.)

Encl.: a.a

THE RAMCO CEMENTS LIMITED
JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)
WATER LEVEL DATA

1.PIEZOMETER DETAILS: Bore Well
Location: West Side Bore Well,
Near Substation
RL - (+)36.00m
Latitude - N16^0 51' 32.4"
Longitude - E80^0 06' 36.0"
Depth of well - 35.05 m

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2022	12.71
2	30.04.2022	12.73
3	16.05.2022	12.75
4	31.05.2022	12.65
5	16.06.2022	11.98
6	30.06.2022	11.76
7	16.07.2022	11.52
8	31.07.2022	11.45
9	16.08.2022	11.32
10	31.08.2022	11.59
11	16.09.2022	11.35
12	30.09.2022	11.12

2.PIEZOMETER DETAILS: Bore Well
Location: North Side of ML, SB Office Road
RL - (+)37.00m
Latitude - N 16 51 29.0
Longitude - E 80 06 44.3
Depth of well - 50.00 m

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2022	19.42
2	30.04.2022	19.51
3	16.05.2022	19.53
4	31.05.2022	19.54
5	16.06.2022	19.25
6	30.06.2022	19.11
7	16.07.2022	18.85
8	31.07.2022	18.86
9	16.08.2022	18.42
10	31.08.2022	18.33
11	16.09.2022	18.21
12	30.09.2022	18.06

3.PIEZOMETER DETAILS: Bore Well
Location: South Side of ML
RL - (+)43.20m
Latitude - N 16 51 02.8
Longitude - E 80 06 22.3
Depth of well - 27.44 m

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2022	7.66
2	30.04.2022	7.65
3	16.05.2022	7.64
4	31.05.2022	7.65
5	16.06.2022	7.51
6	30.06.2022	7.21
7	16.07.2022	6.45
8	31.07.2022	6.28
9	16.08.2022	5.34
10	31.08.2022	5.24
11	16.09.2022	5.10
12	30.09.2022	5.15

ANNEXURE - III

THE RAMCO CEMENTS LIMITED, KSR NAGAR
GROUND WATER QUALITY DATA - SURROUNDING VILLAGES
PERIOD - APRIL -2022 to SEPTEMBER-2022

S. No	Parameter	Unit	Dharmavarapadu Thanda Bore Well Water: July-2022 to Sep-2022	Chillakallu Open Well Water: July-2022 to Sep-2022	K.Agraharam Bore Well Water: July-2022 to Sep-2022	Pochampalli Bore Well Water: July-2022 to Sep-2022	Jayanthipuram Bore Well Water: July-2022 to Sep-2022	Ravirala Bore Well Water: July-2022 to Sep-2022	Vedadri Bore Well Water: July-2022 to Sep-2022	Budawada Bore Well Water: July-2022 to Sep-2022	Jaggayyapet Bore Well Water: July-2022 to Sep-2022	Limits
			W1	W2	W3	W4	W5	W6	W7	W8	W9	
1	p^H	-	7.6	7.4	7.5	7.2	7.6	7.8	7.5	7.6	7.9	6.5 - 8.5
2	Colour	Hazen	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5-15
3	Temperature	^0C	26.3	27.6	26.5	28.0	28.3	29.1	27.6	28.2	27.4	--
4	Turbidity	NTU	1.0	1.2	1.1	1.3	1.7	1.8	1.4	1.6	1.9	1-5
5	Residual Chloride	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2-1
6	Dissolved Oxygen	mg/L	4.9	4.8	4.5	4.3	5.2	4.8	5.4	4.8	4.3	--
7	Total Suspended Solids	mg/L	28.9	27.2	29.3	26.8	27.2	31.2	39.3	34.5	35.3	--
8	Electrical Conductivity	µmhos/cm	912.0	868.0	939.0	823.0	929.0	861.0	886.0	899.0	736.0	--
9	Total Dissolved Solids	mg/L	539.0	537.0	558.0	469.0	553.0	551.0	539.0	558.0	527.0	500-2000
10	Total Hardness (as $CaCO_3$)	mg/L	238.0	269.0	288.0	212.0	296.0	231.0	269.0	262.0	251.0	200-600
11	Calcium Hardness	mg/L	135.0	131.0	139.0	102.0	174.0	151.0	163.0	137.0	111.0	--
12	Magnesium Hardness	mg/L	102.0	119.0	129.0	135.0	129.0	113.0	138.0	131.0	119.0	--
13	Calcium (as Ca)	mg/L	53.5	62.8	63.9	51.2	56.2	53.7	54.1	55.2	47.1	75-200
14	Magnesium (as Mg)	mg/L	32.7	25.1	26.3	25.1	31.2	18.2	25.2	29.1	23.6	30-100
15	Sodium (as Na)	mg/L	45.1	44.6	48.2	39.1	55.3	42.9	47.1	48.4	36.2	-
16	Potassium (as K)	mg/L	1.7	4.1	7.6	1.9	2.7	3.8	5.8	2.9	2.8	-
17	Chloride (as Cl)	mg/L	141.0	137.0	140.0	115.0	172.0	145.0	143.0	142.0	123.0	250-1000
18	Sulphate (as $SO_{4)}$	mg/L	35.2	39.1	43.5	37.2	44.1	35.2	35.8	35.3	33.7	200-400
19	Total Alkalinity (as $CaCO_3$)	mg/L	140.0	134.0	109.0	115.0	132.0	129.0	131.0	134.0	99.1	200-600
20	BOD (for 3 days at 27 ^0C)	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--
21	Chemical Oxygen Demand	mg/L	17.2	25.1	28.4	21.2	21.8	21.3	19.9	18.2	17.3	--
22	Oil & Grease	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--
23	Iron (as Fe)	mg/L	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.3
24	Fluoride (as F)	mg/L	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	1.0-1.5
25	Nitrate (as $NO_{3)}$	mg/L	0.8	1.2	0.8	0.3	0.6	0.6	0.6	0.3	0.4	45
26	Phosphates (as $PO_{4)}$	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
27	Cyanide (as CN)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
28	Pesticides (as Malathoin)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
29	Phenolic Compounds (as C_6H_5OH	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
30	Manganese (as Mn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
31	Chromium (as $Cr^{+6)}$	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
32	Copper (as Cu)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.5
33	Selenium as Se	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
34	Aluminium (as Al)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
35	Cadmium (as Cd)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
36	Arsenic as As	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05-0.2
37	Boron (as B)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2
38	Mercury (as Hg)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
39	Lead (as Pb)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1
40	Zinc (as Zn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.5 - 15
41	Percent Sodium	%	48.2	46.2	38.7	35.9	45.1	40.3	41.4	36.9	37.3	-
42	Total Coliforms	MPN/100 mL	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	50-5000
43	Faecal Coliforms	MPN/100 mL	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	-
44	E.Coil	MPN/100 mL	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	-

THE RAMCO CEMENTS LIMITED, KSR NAGAR

GROUND WATER QUALITY DATA - SURROUNDING VILLAGES

PERIOD - APRIL -2022 to SEPTEMBER-2022

S. No	Parameter	Unit	Dharmavarapadu Thanda Bore Well Water:April-22 to June-22	Chillakallu Open Well Water: April-22 to June-22	K.Agraharam Bore Well Water: April-22 to June-22	Pochampalli Bore Well Water: April-22 to June-22	Jayanthipuram Bore Well Water:April-22 to June-22	Ravirala Bore Well Water: April-22 to June-22	Vedadri Bore Well Water: April-22 to June-22	Budawada Bore Well Water: April-22 to June-22	Jaggayyapet Bore Well Water:April-22 to June-22	Limits
			W1	W2	W3	W4	W5	W6	W7	W8	W9	
1	p^H	-	7.6	7.6	7.5	7.6	7.6	7.7	7.5	7.6	7.8	6.5 - 8.5
2	Colour	Hazen	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5-15
3	Temperature	^0C	29.6	28.7	29.0	29.7	29.6	28.3	28.1	27.6	29.0	--
4	Turbidity	NTU	1.5	1.3	1.6	1.8	1.3	1.6	1.3	1.5	1.1	1-5
5	Residual Chloride	mg/L	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2-1
6	Dissolved Oxygen	mg/L	4.7	3.8	3.6	3.6	4.3	4.5	4.9	4.6	4.8	--
7	Total Suspended Solids	mg/L	29.3	28.3	33.8	24.5	25.6	33.8	29.8	30.6	34.2	--
8	Electrical Conductivity	µmhos/cm	836.0	876.0	929.0	769.0	769.0	813.0	786.0	799.0	802.0	--
9	Total Dissolved Solids	mg/L	542.0	539.0	553.0	499.0	423.0	429.0	436.0	428.0	444.0	500-2000
10	Total Hardness (as $CaCO_3$)	mg/L	241.0	255.0	296.0	181.0	189.0	222.0	196.0	201.0	236.0	200-600
11	Calcium Hardness	mg/L	141.0	139.0	145.0	112.0	149.0	156.0	143.0	158.0	161.0	--
12	Magnesium Hardness	mg/L	112.0	122.0	136.0	113.0	40.0	66.0	53.0	43.0	75.0	--
13	Calcium (as Ca)	mg/L	53.5	62.3	63.9	45.2	52.6	50.2	54.1	52.9	45.6	75-200
14	Magnesium (as Mg)	mg/L	33.6	23.6	24.1	23.6	33.9	19.2	24.5	28.9	22.3	30-100
15	Sodium (as Na)	mg/L	45.3	44.1	49.6	36.2	55.1	41.2	45.1	43.8	33.6	-
16	Potassium (as K)	mg/L	1.4	4.2	7.6	1.5	3.5	4.1	5.6	3.1	2.8	-
17	Chloride (as Cl)	mg/L	142.0	139.0	145.0	118.0	162.0	141.0	152.0	145.0	123.0	250-1000
18	Sulphate (as SO_4)	mg/L	38.6	43.6	43.9	34.6	43.6	34.8	35.1	36.2	33.9	200-400
19	Total Alkalinity (as $CaCO_3$)	mg/L	128.0	131.0	111.0	124.0	129.0	122.0	106.0	101.0	95.8	200-600
20	BOD (for 3 days at 27 ^0C)	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--
21	Chemical Oxygen Demand	mg/L	16.2	23.5	33.8	19.6	21.2	23.9	24.8	20.1	19.6	--
22	Oil & Grease	mg/L	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--
23	Iron (as Fe)	mg/L	0.17	0.15	0.22	0.09	0.17	0.09	0.13	0.18	0.06	0.3
24	Fluoride (as F)	mg/L	0.23	0.19	0.25	0.25	0.39	0.31	0.20	0.23	0.25	1.0-1.5
25	Nitrate (as NO_3)	mg/L	0.79	1.34	0.88	0.36	0.53	0.65	0.57	0.23	0.20	45
26	Phosphates (as PO_4)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
27	Cyanide (as CN)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
28	Pesticides (as Malathoin)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
29	Phenolic Compounds (as C_6H_5OH)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
30	Manganese (as Mn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
31	Chromium (as Cr^{+6})	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
32	Copper (as Cu)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.5
33	Selenium as Se	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
34	Aluminium (as Al)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
35	Cadmium (as Cd)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
36	Arsenic as As	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05-0.2
37	Boron (as B)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2
38	Mercury (as Hg)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
39	Lead (as Pb)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1
40	Zinc (as Zn)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.5 - 15
41	Percent Sodium	%	48.6	43.5	39.1	39.0	43.7	40.2	36.9	35.1	36.8	-
42	Total Coliforms	MPN/100 mL	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	50-5000
43	Faecal Coliforms	MPN/100 mL	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	-
44	E.Coil	MPN/100 mL	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	-

THE RAMCO CEMENTS LIMITED, KSR NAGAR
JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)
SURFACE WATER QUALITY DATA
PERIOD - APRIL -2022 to SEPTEMBER-2022

S. No	Parameter	Unit	Nallah Upstream: April-2022 to June-2022	Nallah Downstream: April-2022 to June-2022	Nallah Upstream: July 2022 to Sep-2022	Nallah Downstream: July-2022 to Sep-2022	Limits
1	p^H	-	7.52	7.59	7.56	7.62	6.5 - 8.5
2	Colour	Hazen	<2.0	<2.0	<2.0	<2.0	10-30
3	Temperature	^0C	30.40	30.20	28.60	30.80	--
4	Turbidity	NTU	2.70	2.60	2.30	2.50	--
5	Residual Chloride	mg/L	<0.1	<0.1	<0.1	<0.1	--
6	Dissolved Oxygen	mg/L	3.40	3.80	4.20	4.30	4.02 - 6.0
7	Total Suspended Solids	mg/L	44.60	44.10	43.80	47.10	--
8	Electrical Conductivity	µmhos/cm	736.00	838.00	727.00	839.00	--
9	Total Dissolved Solids	mg/L	396.00	536.00	364.00	523.00	500-2100
10	Total Hardness (as $CaCO_3$)	mg/L	183.00	262.00	171.00	252.00	--
11	Calcium Hardness	mg/L	95.10	147.00	93.50	149.00	--
12	Magnesium Hardness	mg/L	83.80	134.00	82.70	134.00	--
13	Calcium (as Ca)	mg/L	41.20	59.20	39.20	57.60	--
14	Magnesium (as Mg)	mg/L	18.40	24.60	17.10	25.20	--
15	Sodium (as Na)	mg/L	30.70	53.90	33.90	54.60	--
16	Potassium (as K)	mg/L	1.09	1.06	1.02	1.08	--
17	Chloride (as Cl)	mg/L	99.60	139.00	95.40	148.00	250 - 600
18	Sulphate (as SO_4)	mg/L	28.20	43.60	29.10	43.50	400 - 1000
19	Total Alkalinity (as $CaCO_3$)	mg/L	84.10	138.00	83.50	134.00	--
20	BOD (for 3 days at 27 ^0C)	mg/L	<1.0	<1.0	<1.0	<1.0	2 - 3
21	Chemical Oxygen Demand	mg/L	24.90	31.20	24.20	27.90	--
22	Oil & Grease	mg/L	<0.1	<1.0	<0.1	<0.1	--
23	Iron (as Fe)	mg/L	0.22	0.19	0.19	0.23	0.3 - 5.0
24	Fluoride (as F)	mg/L	0.24	0.42	0.26	0.42	1.0-1.5
25	Nitrate (as NO_3)	mg/L	0.69	0.91	0.67	0.88	20 - 50
26	Phosphates (as PO_4)	mg/L	<0.01	<0.01	<0.01	<0.01	--
27	Cyanide (as CN)	mg/L	<0.01	<0.01	<0.01	<0.01	--
28	Pesticides (as Malathoin)	mg/L	<0.01	<0.01	<0.01	<0.01	--
29	Phenols (as C_6H_5OH)	mg/L	<0.01	<0.01	<0.01	<0.01	--
30	Manganese (as Mn)	mg/L	<0.01	<0.01	<0.01	<0.01	--
31	Chromium (as Cr^{+6})	mg/L	<0.01	<0.01	<0.01	<0.01	--
32	Copper (as Cu)	mg/L	<0.01	<0.01	<0.01	<0.01	1.5
33	Selenium as Se	mg/L	<0.01	<0.01	<0.01	<0.01	--
34	Aluminium (as Al)	mg/L	<0.01	<0.01	<0.01	<0.01	--
35	Cadmium (as Cd)	mg/L	<0.01	<0.01	<0.01	<0.01	--
36	Arsenic as As	mg/L	<0.01	<0.01	<0.01	<0.01	0.05 - 0.2
37	Boron (as B)	mg/L	<0.01	<0.01	<0.01	<0.01	2
38	Mercury (as Hg)	mg/L	<0.01	<0.01	<0.01	<0.01	--
39	Lead (as Pb)	mg/L	<0.01	<0.01	<0.01	<0.01	0.1
40	Zinc (as Zn)	mg/L	<0.01	<0.01	<0.01	<0.01	1.5 - 15
41	Percent Sodium	%	33.90	36.20	33.50	36.10	--
42	Total Coliforms	MPN/100 mL	73.60	83.90	75.10	83.80	50-5000
43	Faecal Coliforms	MPN/100 mL	32.70	33.60	34.60	35.10	--
44	E.Coil	MPN/100 mL	17.10	19.80	15.40	17.30	--

ANNEXURE - (2)

THE RAMCO CEMENTS LIMITED, KSR NAGAR

JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)

AMBIENT AIR QUALITY MONITORING DATA - CORE ZONE

PERIOD - APRIL -2022 to SEPTEMBER-2022

Location	Parameter	Month												Limit
		April-2022		May-2022		June-2022		July-2022		August-2022		September-2022		
		I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	
Mines office	PM 10	72.3	68.3	75.2	73.3	68.3	65.3	53.8	52.7	55.1	53.8	59.6	52.6	100
	PM 2.5	29.2	27.6	30.4	29.6	27.6	26.4	21.7	21.3	22.3	21.7	24.1	21.3	60
	SO_2	15.3	17.4	16.3	18.3	17.9	19.2	12.9	15.3	14.9	16.2	16.2	16.5	80
	NO_X	17.6	20.1	18.6	21.0	20.2	21.9	15.2	18.0	17.2	18.9	18.5	19.2	80
	CO	689	651	712	696	623	549	512	487	523	521	556	539	2000
Pump House	PM 10	70.4	69.6	73.9	74.1	65.4	68.9	55.9	53.9	57.3	55.1	50.2	57.3	100
	PM 2.5	28.7	28.0	30.1	29.9	26.6	27.8	22.8	21.7	23.3	22.2	20.4	23.1	60
	SO_2	17.3	16.9	15.2	17.9	16.3	18.3	14.6	16.2	15.2	15.8	15.9	14.9	80
	NO_X	20.0	20.0	17.9	21.0	19.0	21.4	17.3	19.3	17.9	18.9	18.6	18.0	80
	CO	656	656	723	712	654	558	488	496	541	532	563	546	2000
Haul Road	PM 10	66.3	70.4	71.6	72.9	62.9	65.2	52.6	51.2	54.6	54.6	53.1	56.8	100
	PM 2.5	27.2	28.7	29.4	29.7	25.8	26.6	21.6	20.9	22.4	22.3	21.8	23.2	60
	SO_2	16.2	17.8	16.9	18.6	17.2	15.6	13.2	14.1	16.2	16.1	14.1	16.9	80
	NO_X	18.8	20.7	19.5	21.5	19.8	18.5	15.8	17.0	18.8	19.0	16.7	19.8	80
	CO	659	648	715	701	629	563	491	501	529	528	542	538	2000
RSMS Camp	PM 10	68.9	72.3	72.4	73.6	63.6	63.7	49.1	48.3	53.8	53.7	48.9	55.1	100
	PM 2.5	28.0	29.4	29.5	29.9	25.9	25.9	20.0	19.6	21.9	21.8	19.9	22.4	60
	SO_2	17.1	17.3	15.6	19.2	15.4	17.1	15.1	16.9	15.8	15.9	15.1	16.6	80
	NO_X	20.0	20.1	18.5	22.0	18.3	19.9	18.0	19.7	18.7	18.7	18.0	19.4	80
	CO	668	649	736	736	656	578	521	478	536	536	551	544	2000

Note: All values are mentioned in $\mu g/m^3$

ANNEXURE - (2)

ANNEXURE -

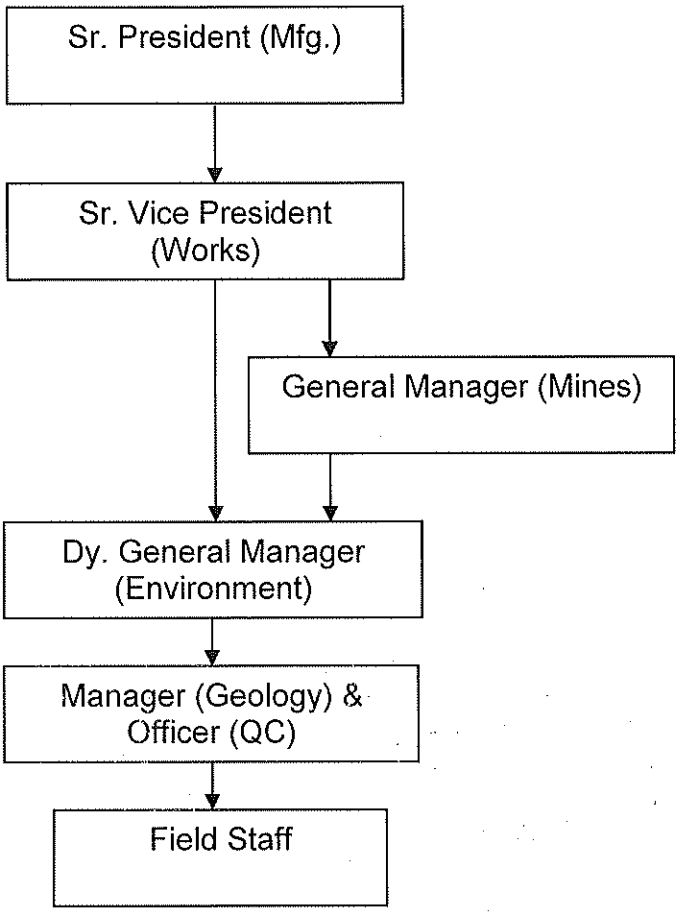
THE RAMCO CEMENTS LIMITED, KSR NAGAR
AMBIENT AIR QUALITY MONITORING DATA - BUFFER ZONE VILLAGES
PERIOD - APRIL -2022 to SEPTEMBER-2022

Location	Parameter	Month												Limit
		April-2022		May-2022		June-2022		July-2022		August-2022		September-2022		
		I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	I FORT NIGHT	II FORT NIGHT	
Dharmavarapupadu Tanda	PM 10	56.3	53.2	60.6	55.9	53.9	49.6	50.6	42.9	52.3	45.3	53.9	53.6	100
	PM 2.5	22.9	21.4	24.6	22.5	21.9	20.0	20.5	17.3	21.2	18.3	21.9	21.6	60
	SO_2	14.5	15.2	15.7	16.8	14.3	14.3	12.1	11.2	13.2	13.9	14.1	14.2	80
	NO_X	17.1	17.9	18.3	19.5	16.9	17.0	14.7	13.9	15.8	16.6	16.7	16.9	80
	CO	221.0	224.0	236.0	236.0	248.0	212.0	213	198.0	231.0	221.0	246.0	232.0	2000
Jayanthipuram	PM 10	59.1	55.1	62.3	57.3	52.7	52.3	48.3	43.8	50.4	45.2	51.6	55.1	100
	PM 2.5	23.7	22.5	25.0	23.4	21.1	21.3	19.4	17.9	20.2	18.4	20.7	22.5	60
	SO_2	13.9	15.3	15.6	16.1	15.2	15.9	13.2	10.9	12.9	11.6	13.5	12.8	80
	NO_X	16.8	18.2	18.5	19.0	18.1	18.8	16.1	13.8	15.8	14.5	16.4	15.7	80
	CO	252.0	253.0	242.0	269.0	253.0	253.0	221	187.0	238.0	229.0	252.0	241.0	2000
Chillakallu	PM 10	57.6	56.8	61.3	60.2	54.6	58.2	47.6	50.6	49.3	53.1	51.8	54.6	100
	PM 2.5	23.3	23.0	24.8	24.4	22.1	23.6	19.2	20.5	19.9	21.5	20.9	22.1	60
	SO_2	14.6	15.9	16.3	16.3	16.2	14.6	11.9	11.1	12.4	11.8	12.6	12.9	80
	NO_X	17.3	19.0	19.0	19.4	18.9	17.7	14.6	14.2	15.1	14.9	15.3	16.0	80
	CO	249.0	258.0	281.0	246.0	296.0	241.0	212	201.0	239	234.0	247.0	236.0	2000
K.Agraharam Village	PM 10	54.5	57.3	56.2	61.3	53.5	59.5	41.2	52.7	43.6	54.1	45.9	57.9	100
	PM 2.5	22.0	23.4	22.6	25.0	21.6	24.3	16.6	21.5	17.6	22.1	18.5	23.6	60
	SO_2	15.8	15.6	16.9	16.9	15.3	17.3	10.6	12.3	11.6	12.5	13.7	13.5	80
	NO_X	18.9	18.0	20.0	19.3	18.4	19.7	13.7	14.7	14.7	14.9	16.8	15.9	80
	CO	251.0	246.0	274.0	289.0	283.0	276.0	237	212.0	246	238.0	249.0	245.0	2000
Jaggayyapet	PM 10	56.8	68.2	58.9	70.2	49.6	68.3	43.1	61.9	45.1	63.8	46.2	53.6	100
	PM 2.5	23.3	27.6	24.2	28.4	20.4	27.6	17.7	25.0	18.5	25.8	19.0	21.7	60
	SO_2	14.9	15.8	16.7	16.4	15.9	15.4	11.2	11.2	12.3	11.9	13.8	12.6	80
	NO_X	17.3	18.8	19.1	19.4	18.3	18.4	13.6	14.2	14.7	14.9	16.2	15.6	80
	CO	253.0	301.0	263.0	321.0	274.0	302.0	221.0	214.0	229	226.0	239.0	233.0	2000
Budawada	PM 10	62.3	57.3	65.3	59.3	50.6	57.6	45.2	55.4	47.2	57.1	48.3	58.3	100
	PM 2.5	24.6	23.6	25.8	24.4	20.0	23.7	17.9	22.8	18.6	23.5	19.1	24.0	60
	SO_2	14.7	15.3	15.3	16.7	16.2	14.6	12.3	12.9	12.8	12.6	13.1	12.7	80
	NO_X	17.5	17.9	18.1	19.3	19.0	17.2	15.1	15.5	15.6	15.2	15.9	15.3	80
	CO	265.0	253.0	279.0	263.0	289.0	248.0	245.0	222.0	253	241.0	256.0	248.0	2000
Vedadri	PM 10	59.5	55.1	63.2	57.1	48.3	53.2	47.3	47.9	48.6	49.6	49.6	52.7	100
	PM 2.5	24.3	21.9	25.8	22.7	19.7	21.2	19.3	19.1	19.8	19.7	20.2	21.0	60
	SO_2	15.8	16.3	16.8	17.1	15.4	15.3	10.6	12.3	11.6	12.8	12.9	13.1	80
	NO_X	18.1	19.1	19.1	19.9	17.7	18.1	12.9	15.1	13.9	15.6	15.2	15.9	80
	CO	263.0	247.0	286.0	258.0	291.0	246.0	214.0	211.0	218	223.0	238.0	247.0	2000
Pochampalli	PM 10	60.2	59.6	62.3	62.3	51.2	59.3	41.8	50.6	44.1	52.1	45.3	55.1	100
	PM 2.5	24.6	24.2	25.5	25.3	20.9	24.1	17.1	20.5	18	21.2	18.5	22.4	60
	SO_2	16.2	15.8	16.9	16.3	15.3	14.9	11.1	11.6	11.5	12.1	12.6	13.7	80
	NO_X	19.1	18.1	19.8	18.6	18.2	17.2	14.0	13.9	14.4	14.4	15.5	16.0	80
	CO	264.0	256.0	274.0	262.0	283.0	236.0	215.0	199.0	221	212.0	241.0	215.0	2000
Ravirala	PM 10	58.3	57.3	60.9	60.9	52.8	58.2	40.9	48.3	43.9	49.8	44.9	52.9	100
	PM 2.5	23.7	23.4	24.8	24.8	21.5	23.7	16.6	19.7	17.9	20.3	18.3	21.6	60
	SO_2	15.3	16.8	17.1	17.4	16.2	14.6	12.4	10.9	12.9	11.6	13.7	12.9	80
	NO_X	18.3	19.7	20.1	20.3	19.2	17.5	15.4	13.8	15.9	14.5	16.7	15.8	80
	CO	258.0	257.0	263.0	263.0	277.0	212.0	223.0	183.0	233	209.0	250.0	202.0	2000

Note: All values are mentioned in $\mu g/m^3$

ANNEXURE – V

THE RAMCO CEMENTS LIMITED, KSR NAGAR
ORGANIZATIONAL CHART OF ENVIRONMENTAL CELL



THE RAMCO CEMENTS LIMITED

JAYANTHIPUAM GROUP OF LIMESTONE MINES

ENVIRONMENTAL PROTECTION ACCOUNT - CAPITAL & RECURRING EXPENDITURE DETAILS

Capital / Recurring	Description	For the year 2022-23, Lakh Rs.					Projected for 2023-24, Lakh Rs.				
		Jayanthipuram Limestone Mine (North Band)	Jayanthipuram Limestone Mine (South Band)	Ravirala Limestone Mine (Forest)	Ramco Budawada Limestone Mine (RF)	Total	Jayanthipuram Limestone Mine (North Band)	Jayanthipuram Limestone Mine (South Band)	Ravirala Limestone Mine (Forest)	Ramco Budawada Limestone Mine (RF)	Total
Recurring	Pollution Control - Nonel detonators	12.23	3.75	5.96	2.13	24.070	12.00	6.00	8.00	0.50	26.50
	Pollution Control - Water Sprinkling	28.93	7.32	16.71	4.18	57.14	22.00	7.00	20.00	1.00	50.00
	Pollution Monitoring	1.71	1.59	1.55	1.29	6.124	1.80	1.60	1.60	1.30	6.300
	Wet drilling	0.60	0.20	0.37	0.05	1.22	0.60	0.40	0.70	0.10	1.80
	Greenbelt	8.80	12.45	5.93	8.37	35.550	7.00	10.00	4.00	5.00	26.000
	Reclamation	410.69	0.00	0.00	0.00	410.690	200.00	0.00	0.00	0.00	200.000
Total		462.96	25.31	30.52	16.02	534.79	243.40	25.00	34.30	7.90	310.600

ANNEXURE - XI

THE RAMCO CEMENTS LIMITED, KSR NAGAR
AUTO GARAGE OIL & GREASE TRAP OUTLET WATER QUALITY DATA
Period - April 2022 to September 2022

S. No	Parameter	Unit	Month						Range / Average	Norm
			Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22		
1	p^H		7.79	7.83	7.91	7.99	7.91	7.84	7.79 - 7.99	5.5 - 9.0
2	Total Dissolved Solids	mg/L	912	923	936	926	938	921	929	2100
3	Total Suspended Solids	mg/L	77.3	78.9	79.6	78.3	76.9	75.4	77.8	100
4	Chemical Oxygen Demand	mg/L	129	136	129	132	129	136	132	250
5	BOD (for 3 days at 27 ^{O}C)	mg/L	40.6	42.3	41.6	40.3	42.3	43.1	41.9	100
6	Oil & Grease	mg/L	2.4	2.7	2.5	2.7	2.5	2.7	2.6	10

ANNEXURE - VII