



ASHAPURA
MINECHEM LIMITED
CIN No. L14108MH1982PLC026396

May 30, 2016

Additional Principal Chief Conservator of Forests
Ministry of Environment, Forests & Climate Change
Regional Office (WCZ),
New Secretariat Building,
Civil Lines,
Nagpur-440 001

Sub: Submission of Six monthly compliance reports for the period October 2015 – March 2016 w.r.t Rowale Bauxite Mine of M/s. Ashapura Minechem Limited, at Village- Rowale, Taluka -Dapoli, District- Ratnagiri, Maharashtra reg.

Ref: Environmental Clearance granted by MoEF vide letter No-J-11015/417/ 2013-IA.II [M] Dated 24.02.2016.

Respected Sir,

With reference to the above cited subject, please find enclosed herewith six monthly compliance reports on environmental clearance conditions for the period October - 2015 to March - 2016, stipulated for Rowale Bauxite Mine of Ashapura Minechem Ltd, at Village Rowale, Taluka Dapoli, Dist. Ratnagiri, Maharashtra.

We hope the above information will fulfill your requirement.

Thanking You,
For Ashapura Minechem Limited

Authorized Signatory

C.C: SRO, MPCB, Chiplun

**2015-
2016**

ENVIRONMENTAL COMPLIANCE STATEMENT

FOR THE PERIOD OCTOBER 2015 TO MARCH 2016

Environmental Compliance Statement for submission to Ministry of Environment & Forests as a part of Environmental Clearance issued by MoEF vide No J-11015/417/2013-IA.II [M] for Expansion of Rowale Bauxite Mine, ML Area 218.825 ha from 2.5 LTPA to 8.0 LTPA at Village Rowale, Dapoli Taluka, Ratnagiri District, Maharashtra.

BY

**ASHAPURA MINECHEM LTD
Jeevan Udyog Building, 3rd Floor, 278, D.N. Road, Fort, Mumbai-400 001**

SUBMITTED TO

MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

REGIONAL OFFICE (WESTERN REGION)

NEW SECRETARIAT BUILDING

NAGPUR

**SIX MONTHLY COMPLIANCE REPORT ON ENVIRONMENTAL CLEARANCE CONDITIONS
FOR THE PERIOD OCTOBER-2015 TO MARCH-2016**

Name of the Project: Rowale Bauxite Mine of M/s Ashapura Minechem Limited, Village- Rowale, Taluka-Dapoli, Dist.- Ratnagiri, Maharashtra State.

Reference: Environmental Clearance issued by MoEF vide letter No-J-11015/417/ 2013-IA.II [M] Dated 24.02.2016.

A. Specific Conditions

Sl. No	Condition	Compliance status
(i)	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Maharashtra and any other Court of Law, if any, as may be applicable to this project.	Not Applicable.
(ii)	Environmental clearance is subject to obtaining clearance, if any, under the Wildlife (Protection) Act, 1972 from the Competent Authority, as may be applicable to this project.	Not Applicable.
(iii)	No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.	Noted.
(iv)	The project proponent shall obtain Consent to Operate from the State Pollution Control Board, Maharashtra and effectively implement all the conditions stipulated therein.	Consent to Operate from Maharashtra Pollution Control Board has been obtained vide their letter having reference No. MPCB/ROK/SROC/193/03450/14 dated 09.04.2014 for production capacity of 2.5 LTPA. We have applied for Consent to Operate to the Maharashtra Pollution Control Board for expansion in capacity from 2.5 LTPA to 8.0 LTPA.
(v)	A study from an Institution of Repute may be conducted on the impact of Bauxite dust on Crop Productivity in agricultural land located around mines and mitigation measures to be implemented by PP to reduce the impact.	Will be complied. A study from an institution of repute will be conducted on the impact of bauxite dust on crop productivity in agricultural land and the report will be submitted to MoEFCC, Regional Office.
(vi)	Recommendation by the Institute, for crops most suited in this environment and training to the farmers to switch over to new cropping system which will sustain nutrient loading.	Will be complied.
(vii)	Proponent shall carry out occupational Health surveillance for workers engaged in the project and records maintained and necessary remedial / preventive measures to be taken accordingly. Implementation of the recommendations of National Institute for ensuring good occupational environment for mine workers.	Initial medical examination and periodic medical examination of workers is being undertaken on regular basis from authorized medical officer and records are maintained.
(viii)	Use of mechanical devices for excavating the ore and reducing use of explosives.	Noted.

Sl. No	Condition	Compliance status
(ix)	Concurrent reclamation of mined out areas shall be done.	The reclamation of exhausted pits is being carried out as per Environmental Management Plan. In the current financial year i.e. 2015-16 1.86 Ha area has been reclaimed and 1505 nos. of native plant species of fruit bearing seedlings like Mango, Cashew, Suru and Acacia have been planted. Aftercare of the plantation is being taken until it's self-sustainable.
(x)	Use of effective sprinkler system to suppress fugitive dust on haul roads and other transfer points and undertaking comprehensive study in a year's time for slope stabilization of mine benches and OB dumps.	In order to suppress fugitive dust proper sprinkling systems have been provided along the haul roads within the lease area. We have also provided ~0.160 km of Black topped metalled road inside the lease area near the weigh bridge which connects to the main transport road outside the lease. In order to reduce dust at transfer points we have provided fogging and water sprinkling system at mobile crusher units. Also, mobile water tankers are deployed on haul road and on transport road to reduce the dust generation. The haul and transport roads are maintained regularly. Truck carrying ore are being covered with Tarpaulin to arrest spillage and dust on the road. There is no generation of Over burden in the mine lease. Slope stabilization study of mine benches will be conducted and report will be submitted to MoEFCC, Regional Office.
(xi)	Implementation of action plan on the issues raised during Public Hearing. The proponent shall complete all the tasks as per the action plan submitted with the budgetary provisions during the Public Hearing.	The issues raised during public hearing are being implemented in line with the submitted action plan.
(xii)	The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.	The ground water table is present in the area is at a depth of 15-20 m below the surface. Ultimate working at mine lease will be done upto a maximum depth of 6 m from surface. Hence ground water intersection is not envisaged. We are withdrawing maximum 80 KLD of water for dust suppression (60 KLD) and other uses i.e. domestic and gardening (20 KLD) which is well below the limit of 100 KLD as specified by CGWA in its guidelines for ground water abstraction dated 15.11.2012 and our project falls under safe category. Hence permission from CGWB / competent authority is not required.
(xiii)	The project proponent shall ensure that no natural watercourse shall be obstructed due to	Will be complied.

Sl. No	Condition	Compliance status
	any mining operations.	
(xiv)	Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.	The entire mine lease area is having lateritic capping hence top soil generation is negligible & whenever encountered is being used for reclaiming the mining pit.
(xv)	The entire waste generated shall be backfilled and there shall be no external over burden dump left at the end of the mine life. The entire backfilled area shall be reclaimed by plantation. The backfilling should be carried out in such a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Nagpur on six monthly basis.	There is no generation of over burden in the lease area however small quantity of intercalated waste is generated. An area of 12.97 Ha has been reclaimed till date and rehabilitation has been done by plantation of 9018 trees over the reclaimed area. Monitoring and management of rehabilitated area shall continue until the vegetation becomes self-sustaining.
(xvi)	Catch drains and siltation ponds of appropriate size should be constructed for the working pit, temporary OB dumps, if any and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine areas, roads, greenbelt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly.	The drains are desilted regularly before the onset of monsoon and after monsoon. During pre-monsoon work preparation, water trench / catch drains are provided all around the working pits and mineral dumps in order to arrest the flow of silt and sediments. Along with drains, appropriate sized sedimentation / siltation ponds are developed for sedimentation. The water collected in the ponds are being utilized for watering the mine roads and developing greenbelt.
(xvii)	Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and temporary dumps and sump capacity should 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 should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	Garland drains are constructed along the temporary dumps and excess rainwater is channelized into mining pits by the means of water trench/drain into the sedimentation pond. Desilting of the same is being carried out before the onset of monsoon every year.
(xviii)	Dimensions of the retaining wall at the toe of temporary dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	Retaining wall has been constructed at mining lease. The total length of retaining wall is 131 m.
(xix)	Plantation shall be raised in the specific area including a 7.5 m wide green belt in the safety zone around the mining lease by planting the native species around ML area, backfilled and	Plantation is carried out in ML area and along the haulage road. OB dumps are maintained as per approved mining plan. Species for plantation are selected after discussion with


Sl. No	Condition	Compliance status
	reclaimed area, around water body, roads etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	Konkan Krishi Vidyapeet at Dapoli for expert guidance. In the year 2015-16, 1505 nos. of species have been planted within mining lease area and species planted are: Mango (<i>magnifera indica</i>), Cashew(<i>Anacardium-occidental</i>) Suru (Casurina eqisetifolia) Acacia- <i>Acacia-auriculiformes</i> .
(xx)	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading and unloading point and transfer points. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Proper sprinkling systems have been provided along the haul roads within the lease area. In order to reduce dust at loading / unloading and transfer points we have provided water sprinkling system at mobile crusher units. Also, mobile water tankers are deployed on haul road and on transport road to reduce the dust generation. Further, haul and transport roads are maintained on regular basis. Monthly ambient air monitoring is being done by MoEF approved lab and AAQ parameters are within the permissible limits as specified by CPCB.
(xxi)	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board	For recharging groundwater rain water is channelized into the mined out pits by the means of drains/ trenches.
(xxi1)	Regular monitoring of ground water level and quality should be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year i.e. January, April-May, August, November and the data thus collected may be sent regularly to Ministry of Environment and Forests, its Regional Office, Nagpur; Central Ground Water Authority and Central Ground Water Board.	Regular monitoring of water quality and level is being carried out. A comprehensive hydrogeological study is also carried out for the entire area by CGWB. Central ground water (CGWB) has carried out water exploration in district based on GEC-97 methodology. The report of study carried by CGWB is available at http://cgwb.gov.in/district_profile/maharashtra/ratnagiri.pdf
(xxiii)	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	Vehicles are maintained on regular basis to have emission under control. All the vehicles are made mandatory to carry PUC certificate. Transportation of ore is being done through tarpaulin covered trucks only. There will be no overloading of trucks. Weigh bridges are being maintained at the outlet of mine area.
(xxiv)	Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The Mitigative measures for control of ground vibrations and to arrest fly	Blasting is being done during day time only. Controlled blasting operations are carried out and blasting is done only to loosen the strata.

Sl. No	Condition	Compliance status
	rocks and boulders should be implemented.	
(xxv)	Drills shall either by operated with dust extractors or equipped with water injection system.	Drilling is being carried out using dust extractors along with wet drilling.
(xxvi)	A final mine closure plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Will be complied.
B: GENERAL CONDITIONS:		
(i)	No change in mining technology and scope of working shall be made without prior approval of Ministry of Environment and Forests.	There is no change in Mining technology.
(ii)	No change in calendar plan including excavation, quantum of mineral and waste shall be made.	Only calendar year plan as per approved Mining Plan is being followed for excavation quantum of mineral and waste.
(iii)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.	We are withdrawing maximum 80 KLD of water for dust suppression (60 KLD) and other uses i.e. domestic and gardening (20 KLD) which is well below the limit of 100 KLD as specified by CGWA in its guidelines for ground water abstraction dated 15.11.2012 and our project falls under safe category. Hence permission from CGWB / competent authority is not required.
(iv)	Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers.	Regular monitoring of water quality and level is being carried out. Central ground water (CGWB) has carried out water exploration in district based on GEC-97 methodology. The report of study carried by CGWB is available at http://cgwb.gov.in/district_profile/maharashtra/ratnagiri.pdf
(v)	Monitoring of ambient air quality to be carried out based on the 2009 Notification, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places i.e. loading and unloading points & transfer point to reduce fugitive emissions.	Ambient air quality monitoring is done in accordance with the notification issued by Central Pollution Control Board in 2009. Water sprinkling is done regularly at loading and unloading points and transfer point to reduce fugitive emission.
(vi)	The upliftment of scheduled caste/ scheduled tribe population, specific programmes have been taken into consideration especially with respect to education, health care, livelihood generation, infrastructure development and promotion of sports & culture for SC/ST population and that these will be intensified in future.	Under CSR, programmes have been undertaken for upliftment of weaker section, SC/ST. List of programs undertaken are: 1. Distribution of free text books, guide books & provision of Digital Classroom in Primary Schools, 2. Free medical camp in study area, 3. Donation for Construction of Community centers, water pipeline, compound wall

		etc in the study area, 4. Donation for the promotion of sports activities.
(vii)	Plantation shall be raised in a 7.5 m wide greenbelt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Plantation is carried out in ML area and along the haulage road. OB dumps are maintained as per approved mining plan. Species for plantation are selected after discussion with Konkan Krishi Vidyapeet at Dapoli for expert guidance. In the year 2015-16, 1505 nos. of species have been planted within mining lease area and species planted are: Mango (<i>magnifera indica</i>), Cashew(<i>Anacardium-occidental</i>) Suru (Casurina eqisetifolia) Acacia- <i>Acacia-auriculiformes</i> .
(viii)	Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Retaining wall has been constructed at mining lease. The total length of retaining wall is 131 m.
(ix)	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Water sprinkling system has been provided on haul road within the lease area. Permanent water sprinkling system has been provided on mobile crusher units to avoid dust generation. Water sprinkling with the help of mobile water tankers is being done on haul road and transport road to reduce dust. Ambient air quality monitoring is done in accordance with the notification issued by Central Pollution Control Board in 2009. Water sprinkling is done regularly at loading and unloading points and transfer point to reduce fugitive emission.
(x)	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest & Climate Change, its Regional Office, Nagpur, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	Noted and will be complied. Regular monitoring of water quality and level is being carried out and the report is submitted to MoEFCC, Regional Office and MPCB on regular basis.
(xi)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year - Pre Monsoon (April - May), Monsoon (August), post -	Regular monitoring of water quality and level is being carried out. A comprehensive hydrogeological study is also carried out for the entire area by CGWB. Central ground water (CGWB) has carried out water exploration in district based on GEC-97 methodology. The report of study carried by

	monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest & Climate Change and its regional office, Nagpur, Central Ground Water Authority and Regional Director, Central Ground Water Board.	CGWB is available at http://cgwb.gov.in/district_profile/maharashtra/ratnagiri.pdf
(xii)	The critical parameters such as PM ₁₀ (size less than 10 micro meter), PM _{2.5} (size less than 2.5 micro meter), NO _x in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [TDS, DO, PH and total suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the company in public domain. The circular No, J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment, Forests & Climate Change, which is available on the website of the Ministry www.emvfor.nic.in shall also be referred in this regard for its compliance.	Regular monitoring of PM10, PM2.5, SOX and NOX is carried out regularly with MoEFCC approved laboratory and the report of same is submitted to MoEFCC, Regional Office and MPCB regularly. No discharge of water takes places from mining lease. The monitored data is uploaded on company's website.
(xiii)	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 targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Nagpur and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Monitoring stations are selected as suggested in EIA/EMP and in consultation with State Pollution Control Board. Four ambient air quality monitoring stations are established in core zone as well as in the buffer zone.
(xiv)	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.	Proper sprinkling systems have been provided along the haul roads within the lease area. In order to reduce dust at loading / unloading and transfer points we have provided water sprinkling system at mobile crusher units. Also, mobile water tankers are deployed on haul road and on transport road to reduce the dust generation. Further, haul and transport roads are maintained on regular basis.
(xv)	Measures shall be taken for control of noise level below 85 dB (A) in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.	Adequate measures are taken to minimize the noise level by doing regular maintenance of all machineries. Workers engaged in operation of HEMM are provided with Ear Muffs.

(xvi)	Industrial Waste water (workshop & waste water from the mine) should be properly collected, treated so as to conform 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.	We have not established any workshop within the mining lease. Maintenance of all the vehicles and machineries are done at nearby town Dapoli in private garages. Waste water from the mine is not discharged into surface water and diverted to settling pond.	
(xvii)	Personnel 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.	Personnel working in dusty areas are provided with respiratory devices like masks and goggles. The information and training is provided to all on use of these devices.	
(xviii)	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.	No labourers are staying at site as all the labourers are from nearby villages. Transport facility is provided to them.	
(xix)	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.	A separate Environmental Management cell is opened. AGM - Environment is appointed and he is directly reporting to the head of the organization.	
(xx)	The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year wise expenditure shall be reported to the ministry and its Regional Office located at Nagpur.	The funds earmarked for Environmental protection work is kept separately. The expenditure occurred for above said job during last six month is Rs. 23,25,611/-	
		Particular of the job	Expenditure (Rs.)
		Afforestation & Aftercare	69,933
		Environmental Monitoring	1,35,000
		Water Sprinkling (Dust suppression)	20,20,678
		Others (Road maintenance)	1,00,000
		TOTAL	23,25,611/-
(xxi)	The project authorities should inform to the Regional office located at Nagpur regarding date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	We are using our own resources and this clause is not applicable.	
(xxii)	The Regional office of this Ministry located at Nagpur shall monitor compliance of the stipulated conditions. The project authorities should extend full co-operation to the officer (s) of the Regional office by furnishing the requisite data / information / monitoring reports.	The project authorities will extend co-operation to any of the concerned officer by furnishing the requisite data.	
(xxiii)	The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its regional Office, Nagpur, Central	Six monthly report on the status on the implementation of the stipulated environmental safeguards is submitted to MoEFCC, Regional Office and MPCB, Chiplun on regular basis.	

	Pollution Control Board and State Pollution Control Board.	
(xxiv)	The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Nagpur, Central Pollution Control Board and State Pollution Control Board.	Six monthly report on the status on the implementation of the stipulated environmental safeguards is submitted to MoEFCC, Regional Office and MPCB, Chiplun on regular basis.
(xxv)	A copy of Clearance letter will be marked to concern Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	Complied.
(xxvi)	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District industry Centre and collector's office / Tehsildars office for 30 days.	Not Applicable
(xxvii)	The project authorities shall 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 clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http:// envfor.nic.in and a copy of the same shall be forwarded to the Regional Office of this Ministry located at Nagpur.	Complied.
Date: 30.05.2016		For Ashapura Minechem Limited.
		
Place: Mumbai		Authorized Signatory

Annexure-1: Ambient Air quality Monitoring Results 2015- 2016

S.No.	Locations	October 2015				November 2015				December 2015				January 2016				February 2016				March 2016			
		Parameters ($\mu\text{g}/\text{m}^3$)				Parameters ($\mu\text{g}/\text{m}^3$)				Parameters ($\mu\text{g}/\text{m}^3$)				Parameters ($\mu\text{g}/\text{m}^3$)				Parameters ($\mu\text{g}/\text{m}^3$)				Parameters ($\mu\text{g}/\text{m}^3$)			
		PM ₁₀	PM _{2.5}	SO _x	NO _x	PM ₁₀	PM _{2.5}	SO _x	NO _x	PM ₁₀	PM _{2.5}	SO _x	NO _x	PM ₁₀	PM _{2.5}	SO _x	NO _x	PM ₁₀	PM _{2.5}	SO _x	NO _x	PM ₁₀	PM _{2.5}	SO _x	NO _x
1.	Crushing Plant	69.6	31.0	8.3	2.6	68.5	15.2	3.6	2.2	73.7	22.1	7.7	3.3	72.8	18.2	6.5	2.4	74.5	19.8	5.7	2.0	80.3	27.9	12.9	7.8
2.	Haulage Road	74.6	22.8	6.4	2.5	69.5	23.8	7.8	2.8	73.6	18.6	7.6	3.1	76.7	20.0	7.1	2.3	75.3	17.9	6.7	1.7	77.2	26.9	17.0	7.8
3.	Near Mining Pit	73.8	18.8	5.7	1.5	68.7	16.7	4.6	2.3	70.7	20.1	6.7	2.5	72.8	18.8	6.2	1.3	73.0	18.2	5.0	1.6	77.6	27.9	17.1	6.8
4.	Umbershet Village	67.9	18.8	7.2	3.9	67.4	20.6	4.6	2.1	73.6	17.3	7.9	3.1	70.9	17.0	8.0	3.5	72.5	18.2	7.2	2.9	78.7	32.7	15.2	4.9
5.	Rowale Village	71.2	15.3	5.2	1.8	64.5	15.6	6.2	10.7	72.7	20.2	7.9	3.8	74.6	15.7	7.4	2.6	76.3	19.2	6.5	2.4	81.7	30.2	17.3	4.9
6.	Kavadoli Village	66.1	16.3	5.3	1.7	72.7	16.1	5.2	2.6	73.5	18.9	7.5	2.9	71.0	18.2	6.9	2.2	74.0	18.5	7.2	2.6	79.0	26.6	14.3	5.2

Permissible limits as per NAAQS Standards

PM₁₀ 100 $\mu\text{g}/\text{m}^3$

PM_{2.5} 60 $\mu\text{g}/\text{m}^3$

SO_x 80 $\mu\text{g}/\text{m}^3$

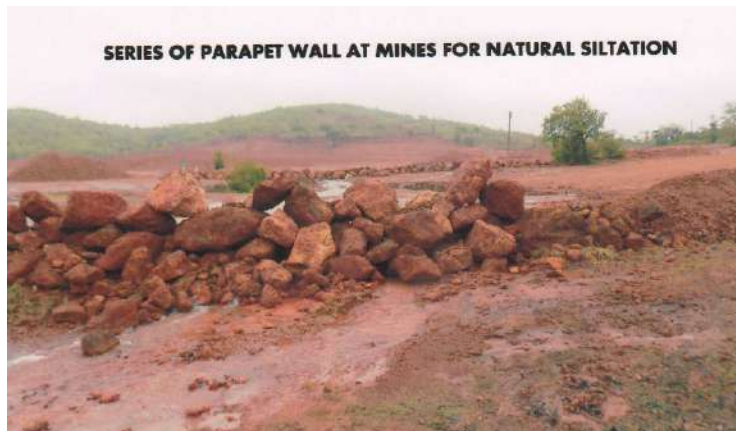
NO_x 80 $\mu\text{g}/\text{m}^3$

SUSTAINABLE MINING AT ASHAPURA MINECHEM LTD (ROWALE MINE).



Afforestation carried at Rowale Mines.

Parapet wall for natural siltation



Retaining wall made for control of erosion.



Dust suppression on haulage road at mines,

Tar road at mine site



Covering of truck to reduce fly dust while transporting final products on roads

CSR ACTIVITIES AT ASHAPURA MINECHEM LTD



Donation for Digital Class room in Zila Parishad School

Distribution of books to school children



Free Medical camp for general check-up of Villagers conducted on 20.03.2016

Free Medical camp for general check-up of Villagers conducted on 20.03.2016



Distribution of Street Lights for Kelshi Village