TELANGANA STATE MINERAL DEVELOPMENT CORPORATION LIMITED (A State Government Undertaking)



P.O. Devapur Cement Works – 504 218,

Dist. Mancherial (T.S) Phone: 91-08736 – 240661, Fax: 91-8736 – 240522

#### REGISTERED POST

ORCEM / ENV/2021-22/ 89

Date: 19/05/2022

To

Deputy Director General of Forests (C)
Ministry of Environment, Forests and Climate Change,
Integrated Regional Office,
3<sup>rd</sup> Floor, Room No. 309, Aranya Bhawan, Opp. RBI,
Saifabad – 500004, Hyderabad, Telangana.

Sub: Submission of Half Yearly Environment Clearance Compliance Report for the period October 2021 to March 2022 for Devapur Limestone Mines of Telangana State Mineral Development Corporation Limited - Reg.

Ref: EC Order no. F.No. J-11015/234/2007-IA II(M), Dated 16.10.2007,

Dear Sir,

We are herewith submitting Half-Yearly Environment Clearance condition wise compliance status report of our Devapur Limestone Mines of Telangana State Mineral Development Corporation Limited for the period of October 2021 to March 2022.

This is for your kind information & record please.

Yours faithfully,

For Devapur Limestone Mine of M/s TSMDC Limited.

MINES MANAGER

Encl : As above.

#### Cc tó:

- 1. Member Secretary, Telangana State Pollution Control Board, Paryavarana Bhavan, A-3, Industrial Estate, Sanath Nagar, HYDERABAD 500 038.
- 2. Environmental Engineer, Telangana State Pollution Control Board, Regional Office, H. No. 6-2-166/A, 1st Floor, Subhash Nagar, Nizamabad 503002, Telangana.
- 3. The Regional Director, Central Pollution Control Board, Regional Directorate (South), Nisarga Bhawan, 1<sup>st</sup> Floor, 7<sup>th</sup> D Cross, Thimmaiah Road, Shivanagar, Bengaluru 560079, Karnataka.

Regd. & Corpt office: Rear Block, 4<sup>th</sup> floor, HMWSSB Premises, Khairatabad, Hyderabad – 500 004. Phone: +91-040 – 23393814, 23323153; Fax: +91-40-23393152; E-Mail: tsmdcltd@yahoo.com

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI. No.	Conditions	Compliance Status						
	-	Conditions						
i.	Topsoil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area.  Garland drains shall be constructed to arrest silt and sediments 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 desilted particularly after monsoon and maintained properly.  Garland drain (size, gradient and length) shall be constructed for both mine pit and	<ul> <li>Complied.</li> <li>Topsoil of 1157 Tons is handled and directly utilized for green belt development and spread over mined out area for reclamation and afforestation.</li> <li>Complied.</li> <li>The Garland drains of requisite size were constructed along the dumps and other areas to arrest silt and sediments.</li> <li>All garland drains are maintained properly and de siltation is being carried out with regular intervals. Adequate size of sump is constructed in the lowermost benches with proper measures.</li> <li>The details of garland drains constructed till the</li> </ul>						
for was designe and ab on 50 y in the a capacit retention silt ma constru	for waste dump and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Dump 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 desilted at regular intervals.	compliance period are given below:    SI						
		garland drain in southern side of ML boundary & Foot of reclaimed dump extension TOTAL 3370						

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI. No.	Conditions	Compliance Status
iii.	Drilling and blasting shall be by using dust extractors/ wet drilling.	Complied.  We are using wet drilling system by inbuilt water injection system for drills to suppress dust generation at source. Dust extractor system is provided in crusher and water injectors are provided to arrest fly of dust during unloading of limestone into hopper which is also covered with belt curtains. The drilling and blasting operation is carried out during daytime only.
iv.	Plantation shall be raised in an area of 40.6ha including a green belt of adequate width by planting the native species around the ML area, roads, OB dumpsites etc. in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. The company shall avoid plantation of monoculture species. Herbs and shrubs shall also form a part of afforestation program besides tree plantation. Fencing of mine pit shall be by chain link.	<ul> <li>Till date we have planted 41486 no's of plants in an area of 38.985 hectares within mining lease.</li> <li>Native type of plant species selected for plantation in consultation of local DFO.</li> <li>Photographs are attached as Annexure-I.</li> </ul>
V.	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	<ul> <li>We have implemented suitable conservation measures to augment ground water resources within the mining area by constructing check dams, rainwater harvesting pits and contour trenches.</li> <li>Developed 1 no's of sump with an extent of 18.747 Ha and having storage capacity of 32.00 Lakh Cubic Meters.</li> <li>So for we have constructed 3 no's of contour trenches (total length of 460 mts length and 4mts height) and 3 no's of check dams (25m, 20mts &amp; 20 mts lengths) in mining lease area.</li> <li>Photographs attached as Annexure-II.</li> </ul>

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI. No.	Conditions	Compliance Status
vi.	The company shall undertake measures for rainwater harvesting to recharge the ground water.	Complied. We have developed a sump with capacity of 32 lakh m³ rain water storage, 3 no's check dams and 3 no's contour trenches for rainwater harvesting and recharge.
vii.	Regular monitoring of ground water level and quality shall be carried out 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 – premonsoon (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.	<ul> <li>Complied.</li> <li>Ground water levels &amp; quality are being monitored on quarterly basis by engaging MOEF&amp;CC certified third party laboratory.</li> <li>Two no's of piezometers were constructed in the mine area core zone as per recommendations of Central Ground Water Board (CGWB).</li> <li>Data of the same is being submitted to CGWA New Delhi, MOEF&amp;CC IRO Hyderabad, CGWB RO Hyderabad and District Ground Officer Mancherial on regular intervals.</li> <li>Monitoring data of ground water quality &amp; levels for the period of Oct'21-Mar'22 is attached as Annexure-III.</li> </ul>
viii.	Prior permission from the competent authority shall be obtained for drawl of ground water if any.	Presently, no groundwater is drawl, all the water quantity required for mines for dust suppression, etc is being met from mines rainwater harvesting sump and necessary permission will be obtained from competent authority as and when required.
ix.	Conceptual Mining Plan for every 5 years for the life of the mine shall be prepared and submitted to the Ministry within six months.	Review of Mining Plan for the period of 2020-2025 including progressive mine closure is approved by Indian Bureau of Mines, Hyderabad. This document is prepared for conceptual period up to 04-10-2029.

of

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Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI. No.	Conditions	Compliance Status
X.	The existing water bodies and that to be created during the course of mining may be utilized to develop pisciculture by organizing fishermen cooperative society with the land losers, if any and specially the poorer section of the people as members of such society with initial financial assistance in the form of share money and managerial assistance so that the members themselves can run the affairs of the society in due course. The project proponent shall arrange marketing tie up so that the society gets fair price of their product and the profits are equitably shared by the members of the society as regular source of income.	There are no land losers under the mining lease as the mining area fall under reserve forest. The water bodies shall be used for supplying water for plantations, dust suppression and for the cement plant operations.
xi.	Action plan for abatement and compensation for damage to agricultural land/common property land (if any) due to mining activity shall be submitted to the Ministry within six months.	There is no agricultural land / common property land under the mining lease. The entire mining lease area is fall under reserve forest.
xii.	Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Occupational health and safety measures for the workers including training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health surveillance and health records of the workers shall be maintained.	<ul> <li>Occupational health surveillance program is being conducted periodically and health records are maintained properly.</li> <li>We are providing personnel protective equipment (PPE) to workers working at mining area.</li> <li>Workers are provided with regular and adequate trainings and information on safety and health aspects.</li> <li>The company has engaged full time qualified doctors in the dispensary, and it is recognized by the State Government as an extension of their PHC at Kasipet (located at 16 kms distance from dispensary).</li> <li>The Company provides fully equipped Ambulance services for bringing patients from villages to the dispensary every day.</li> </ul>

of

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Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI.	Conditions	Compliance Status					
No.	Vehicular emissions shall 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 shall be covered with a tarpaulin and shall not be overloaded.	<ul> <li>Vehicular emissions are being monitored regularly and complying regulatory norms.</li> <li>Regular maintenance is carried out for the vehicles used in the mining operations.</li> <li>Overloading of the vehicles is not being practiced.</li> </ul>					
xiv.	A Final Mine Closure Plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	to IBM and MOEF&CC as per prevailing rules for necessary approval. As our Mining Lease is valid up					
		Conditions					
i	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	Noted. Prior approval will be taken form MOEF&CC if there is any change in the scope and working.					
ii	No change in the calendar plan including excavation, quantum of mineral limestone ore and waste shall be made.	There is no change in the calendar plan for the production of quantum of mineral limestone and waste.					
iii	Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wildlife department.	Conservation measures are being taken up in core & buffer zone in consultation with local forest and wildlife department.					
iv	Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO2 & NOx 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.	<ul> <li>Four ambient air quality-monitoring stations each in core and buffer zone have been established. Ambient air quality monitoring (PM 10, PM 2.5, SO2 &amp; NOx) of core zone and buffer zone is being carried out every month. Monitoring reports are being submitted regularly to TSPCB Regional Office at Nizamabad.</li> <li>Ambient air quality monitoring data for the period Oct'21-Mar'22 is attached as Annexure – IV.</li> </ul>					

of

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Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI.	Conditions	Compliance Status					
No.	Data and anti-set air modific (DDM ODM	·					
V	Data on ambient air quality (RPM,SPM, SO2 & NOX) should be regularly submitted to the Ministry including its Regional Office located at Bangalore and the State Pollution Control Board/Central Pollution Control Board once in six months.	It is being Complied.  Data of ambient air quality (PM10, PM2.5, SO2 & NOX) is being submitted to the MOEFCC IRO Hyderabad and TSPCB RO Nizamabad once in six months along with compliance report.					
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 controlled. Blast hole drilling is practiced be wet method, water spraying on haul roads and o					
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.	Noise levels are being monitored and maintained within the prescribed limits. Personnel protective equipment like ear plugs/muffs is provided to all workers engaged in mining operations. Data of the noise levels is presented as <b>Annexure-V</b> .					
viii	Industrial wastewater (workshop and wastewater 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.	The workshop wastewater is being collected in Oil and Grease trap (3 chamber tank) and after settling and clean water is utilizing for dust suppression over haulage road.					
ix	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.	All personnel working in mines are provided with protective and safety equipment. They are also provided adequate training and information on safety and health aspects. Health status also periodically monitored as per Mines Rules.					
X	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.	Separate Environmental Management cell is established under the control of senior executive and direct reporting to the head of the organization who is responsible for environmental management of Mines.					

of

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Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

SI. No.	Conditions	Compliance Status
xi	The project authorities shall inform to the Regional Office 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.	This is an existing and ongoing project.
xii	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 Bangalore.	Funds earmarked for environmental protection measures are not being diverted for any other purposes. Expenses incurred towards environmental protection measures for Oct'21-Mar'22 is Rs 4604512 / -
xiii.	The project authority shall inform to the Regional Office 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.	This is an existing and ongoing project.
xiv.	The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the regional office by furnishing the requisite data/ information / monitoring reports.	Noted and full cooperation will be extended to the officer (s) of the regional office by furnishing the requisite data/ information / monitoring reports.
XV.	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.	Complied.  No suggestion / representation received.
xvi.	State pollution control board should display a copy of the clearance letter at the Regional office. District Industry Centre and Collector's Office/Tehsildar's office for 30 days.	Complied.

of

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SI. No.	Conditions	Compliance Status							
xvii.	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 clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter available with the State Pollution Control Board and also at web site of Ministry of	Advertisement was published in Deccan Chronicle (English) dated: 25-10-2007 and Eenadu (Telugu) dated: 25-10-2007 newspapers and copies were submitted to MOEF & CC, New Delhi and their regional office at Bangalore.							
	Environment & Forest at http://envfor.nic.in and a copy of the same shall be forwarded to the regional office of this Ministry at Bangalore.								

of

### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022

#### ANNEXURE-I Greenbelt Development



Greenbelt in Mine Lease Area

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022





Plantation under Telangana Ku Haritha Haram





Plantation under TKHH

Plantation on Dumps

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022

# ANNEXURE-II Conservation Measures to Augment Ground Water Resources





Contour Trenches & Check dams in the mine lease

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022

# ANNEXURE-III Ground Water Quality Data - Oct'21 to Mar'22 (Average)

SI.	Dougrandons	Locations							
No	Parameters	1	2	3	4				
1	Color (Hazen Units)	4.0	2.0	3.5	<01				
2	odour	Agreeable	Agreeable	Agreeable	Agreeable				
3	Turbidity (NTU)	8.4	2.1	4.7	1.5				
4	рН	7.6	7.6	7.4	7.4				
5	E.C (micromhos/cm)	637.5	1092.5	1002.0	1117.0				
6	Total dissolved solids	412.5	587.0	581.0	638.0				
7	Total alkalinity as CaCO3	159.5	139.5	285.5	258.5				
8	Phenolpthalene alkalinity as CaCO3	Nil	Nil	Nil	Nil				
9	Methylorange alkalinity as CaCO3	159.5	139.5	285.5	258.5				
10	Total hardness as CaCO3	247.0	401.5	371.5	320.0				
11	Calcium as Ca	49.0	103.0	110.6	83.3				
12	Magnesium as Mg	30.1	35.7	23.4	27.4				
13	Sodium as Na	27.3	52.2	58.1	105.8				
14	Potassium as K	3.4	2.3	2.3	3.5				
15	Copper as Cu	<0.01	0.0	0.1	0.1				
16	Iron as Fe	0.3	0.2	0.3	0.2				
17	Managanese as Mn	0.0	<0.01	0.0	0.1				
18	Chlorides as Cl	66.0	184.9	106.6	158.7				
19	Sulphates as SO4	47.0	176.1	52.3	57.8				
20	Nitrates as NO3	18.5	12.3	20.3	21.5				
21	Flourides as F	1.0	0.8	0.7	0.7				
22	Phenolic compounds as c6h5OH	<0.001	<0.001	<0.001	<0.001				
23	Mercury as Hg	<0.001	<0.001	<0.001	<0.001				
24	Cadmium as Cd	<0.001	<0.001	<0.001	<0.001				
25	Selenium as Se	<0.001	<0.001	<0.001	<0.001				
26	Cyanide as CN	<0.001	<0.001	<0.001	< 0.001				
27	Lead as Pb	<0.001	<0.001	<0.001	<0.001				
28	Zine as Zn	<0.001	<0.001	<0.001	<0.001				
29	Anionic Detergents as MBAS	Absent	Absent	Absent	Absent				
30	Resifual chlorine	0.1	Nil	0.3	Nil				
31	Pesticides	Absent	Absent		Absent				
32	Silver as Ag	<0.001	<0.001	<0.001	<0.001				
33	Mineral Oil	<0.001	<0.001	<0.001	<0.001				
34	Hexavalent chromium as Cr+6	<0.001	<0.001	<0.001	<0.001				
35	Polynuclear aromatic hydrocarbons as PAH	Absent	Absent	Absent	Absent				

of

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Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022

SI.	Donomotono	Locations								
No	Parameters	5	6	7	8	9				
1	Color (Hazen Units)	3.5	<01	<01	3.0	Clear				
2	odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable				
3	Turbidity (NTU)	3.4	2.3	5.4	7.4	Nil				
4	pH	7.6	7.4	8.0	7.4	7.6				
5	E.C (micromhos/cm)	994.0	841.5	548.0	506.0	131.5				
6	Total dissolved solids	512.0	486.5	328.5	281.5	51.0				
7	Total alkalinity as CaCO3	316.5	149.0	144.0	144.0	38.5				
8	Phenolpthalene alkalinity as CaCO3	Nil	Nil	Nil	Nil	Nil				
9	Methylorange alkalinity as CaCO3	316.5	149.0	144.0	144.0	38.5				
10	Total hardness as CaCO3	353.6	336.9	223.5	80.5	37.5				
11	Calcium as Ca	97.4	77.9	44.2	18.5	6.3				
12	Magnesium as Mg	22.5	34.5	27.1	9.1	5.3				
13	Sodium as Na	36.8	45.1	24.6	21.3	4.4				
14	Potassium as K	1.1	1.6	3.1	0.8	1.2				
15	Copper as Cu	0.1	0.1	0.0	0.2	<0.01				
16	Iron as Fe	0.2	0.3	0.2	0.3	0.1				
17	Managanese as Mn	0.1	0.0	<0.01	0.0	<0.001				
18	Chlorides as Cl	60.5	76.7	59.5	35.5	6.6				
19	Sulphates as SO4	51.8	58.5	41.5	28.4	3.5				
20	Nitrates as NO3	25.4	21.9	16.7	12.7	0.3				
21	Flourides as F	0.6	0.9	0.6	0.8	0.1				
22	Phenolic compounds as c6h5OH	<0.001	<0.001	<0.001	0.0	<0.01				
23	Mercury as Hg	<0.001	<0.001	<0.001	< 0.001	<0.01				
24	Cadmium as Cd	<0.001	< 0.001	<0.001	< 0.001	<0.01				
25	Selenium as Se	<0.001	< 0.001	<0.001	< 0.001	<0.01				
26	Cyanide as CN	<0.001	<0.001	<0.001	< 0.001	<0.01				
27	Lead as Pb	<0.001	<0.001	<0.001	< 0.001	<0.01				
28	Zine as Zn	<0.001	< 0.001	<0.001	0.2	<0.01				
29	Anionic Detergents as MBAS	Absent	Absent	Absent	Absent	Absent				
30	Resifual chlorine	Nil	Nil	<0.04	Nil	<0.04				
31	Pesticides	Absent	Absent	Absent	Absent	Absent				
32	Silver as Ag	<0.001	<0.001	<0.001	<0.001	<0.01				
33	Mineral Oil	<0.001	<0.001	<0.001	< 0.001	<0.001				
34	Hexavalent chromium as Cr+6	<0.001	<0.001	<0.001	<0.001	<0.001				
35	Polynuclear aromatic hydrocarbons as PAH Open Well (Near Devanur Va	Absent	Absent	Absent	Absent	Absent				

1.Open Well (Near Devapur Vagu), 2. Bore well (Near Magazine), 3. Open well (Devapur village), 4. Bore well Water (Maddimadugu Village), 5. Bore Well (Devapur Village), 6. Borewell Water (Near Colony), 7. Borewell Water (Near Gatralapally), 8. Pit water (Mines), 9. Drinking water (Near Mines).

of

#### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022

# ANNEXURE- IV Ambient Air Quality Monitoring Data

Core Zone - October-2021 to March-2022

Parameters	Loading Area		Unloading Area			Haulage Road			Drilling Area			
	Min	Max	Avg	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG
PM 10 µg/m3	65	73	69.5	66.0	77.0	73.3	62	71	66.3	57	66	61.8
PM 2.5 μg/m3	25	28	26.5	25	33	28.8	24	27	25.2	21	25	23.0
SO2 µg/m3	8	10	9	11	13	12.0	7	12	9.0	6	14	11.0
NO2 µg/m3	17	23	20.8	20	26	24.2	17	189	48.7	19	27	22.8
Lead (Pb)	0.1	0.1	0.1	0.05	0.12	0.1	0.03	0.11	0.1	0.03	0.09	0.1
Carbon monoxide (Co)	BDL		BDL			BDL			BDL			
Ammonia (NH3)		BDL		BDL		BDL			BDL			
Ozone (O3)	4	10	6.2	3	9	6.3	3	8	5.7	2	7.0	5
Benzene (C6 H6)	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Arsenic (As)		ND		ND			ND			ND		
Nickel (Ni)	ND			ND		ND			ND			
Benzo pyrene (Bap)	ND		ND			ND			ND			

#### Buffer Zone - October-2021 to March-2022

Parameters	Devapur Village		Forest Area			Gatlarapalli			Maddimadugu				
	Min	Max	Avg	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	
PM 10 μg/m3	53	64	58.2	42	52	45.8	45	52	48.7	56	68	61.7	
PM 2.5 μg/m3	20	24	22.0	16	20	17.3	18	21	19.0	21	27	23.7	
SO2 µg/m3	9	12	10.2	6	8	7.0	6	8	7.3	9	11	10.0	
NO2 µg/m3	20	23	21.5	15	19	16.5	15	21	17.3	18	23	21.0	
Lead (Pb)	0.0	0.1	0.1	0.01	0.04	0.02	0.02	0.05	0.03	0.05	0.10	0.07	
Carbon monoxide (Co)		BDL			BDL			BDL		BDL			
Ammonia (NH3)		BDL		BDL			BDL			BDL			
Ozone (O3)	4	8	5.8	1	3	2.0	1	3	2.3	5	9	6.3	
Benzene (C6 H6)	< 0.02	<0.02	< 0.03	<0.02	< 0.02	< 0.02	<0.02	<0.02	<0.02	< 0.02	<0.02	< 0.02	
Arsenic (As)		ND		ND				ND			ND		
Nickel (Ni)	ND			ND			ND			ND			
Benzo pyrene (Bap)	ND		ND		ND			ND					

of

### M/s Telangana State Mineral Development Corporation Limited

Devapur Village, Kasipet Mandal, Mancherial District, Telangana – 504218

Environmental Clearance F. No. J -11015/234/2007-IA II (M) Dt: 16.10.2007

Compliance Report for the Period October 2021 to March 2022

# ANNEXURE-V Ambient Noise Monitoring Data

	DEVAPUR (Gramapanchay athi)		MADDIMADU GU (Near Check Post)		CORE ZONE (Near Temple)		TOWNSHIP (Om Store)		GATLARAPA LLI (Near Govt School)		FOREST LAND (Salphalavag u hanuman Temple)	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Min	64.9	59.5	65.1	60.4	60.3	55.6	62.1	57.6	53.7	48.3	48.6	43.3
Max	66.2	61.4	67.6	62.5	65.7	60.2	63.4	58.2	55.2	50.4	50.8	45.1
Avg (dB)	65.6	60.5	66.4	61.5	63.0	57.9	62.8	57.9	54.5	49.4	49.7	44.2

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