TELANGANA STATE MINERAL DEVELOPMENT CORPORATION LIMITED

(A State Government Undertaking) An ISO 9001: 2015 Corporation



Devapur Limestone Mines P.O. Devapur Cement Works – 504 218, Dist. Mancherial (T.S) Phone: 91-08736 – 240661, Fax: 91-8736 – 240522 tsmdcltd.devapur@gmail.com

Date: 4th May 2024

TEMBO/BVP/

To,
DR. G. TRINADH KUMAR, IFS
Inspector General of Forests,
Ministry of Environment, Forest, and Climate Change,
Integrated Regional Office (IRO) - Hyderabad
6th Floor, Aranya Bhawan, Opp. RBI,
Saifabad – 500004, Hyderabad, Telangana.

Sub: Six monthly compliance status report of environmental clearance for Expansion of Devapur Limestone Mines (ML area 210 ha, enhancement of production from 3.0 to 5.3 MTPA) of Telangana State Mineral Development Corporation Limited at Devapur (V), Mancherial (Dist.,) Telangana State - Reg.

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

Dear Sir,

Reference with the environmental clearance cited above, we are herewith submitting six monthly compliance status report for the period of October 2023 to March 2024 for our Expansion of Devapur Limestone Mines (ML area 210 ha, enhancement of production from 3.0 to 5.3 MTPA) of Telangana State Mineral Development Corporation Limited at Devapur (V), Mancherial (Dist.,) Telangana State.

This is for your kind information & record please.

Yours faithfully,

For Devapur Limestone Mine of TSMDC Ltd.,

Mines Manager

Copy:

- The Regional Director, Central Pollution Control Board, Regional Directorate (South), Nisarga Bhawan, 1st Floor, 7th D Cross, Thimmaiah Road, Shivanagar, Bengaluru -560079, Karnataka.
- 2. Environmental Engineer, Telangana State Pollution Control Board, Regional Office, H. No. 6-2-166/A, 1st Floor, Subhash Nagar, Nizamabad -- 503002, Telangana.

| Your (Environment Clearance) application has been Submitted with following details | | | |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------|--|--|
| Proposal No | APMDC/OC/2000-01/1638 dated 13.08.2007 | | |
| Compliance ID | 69030631 | | |
| Compliance Number(For Tracking) | EC/M/COMPLIANCE/69030631/2024 | | |
| Reporting Year | 2024 | | |
| Reporting Period | 01 Jun(01 Oct - 31 Mar) | | |
| Submission Date | 18-05-2024 | | |
| IRO Name | V Geroge Jenner | | |
| IRO Email | tr025@ifs.nic.in | | |
| State | TELANGANA | | |
| IRO Office Address | Integrated Regional Offices, Hyderabad | | |
| Note:- SMS and E-Mail has been sent to V Geroge Jenner, TELANGANA with Notification to Project Proponent. | | | |

Half Yearly Compliance Report 2024 01 Jun(01 Oct - 31 Mar)

Acknowledgment

| Proposal Name | Expansion of Devapur Limestone Mines (ML area 210 ha, and enhancement of production from 3.0 MTPA to 5.3 MTPA) of Telangana State Mineral Development Corporation Limited at Village Devapur, Tehsil Kasipet in district Mancherial In Telangana State. | | | |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Name of Entity / Corporate Office | Telangana State Mineral Development Corporation Limited | | | |
| Village(s) | N/A | | | |
| District | MANCHERIAL | | | |

| Proposal No. | APMDC/OC/2000- 01/1638 dated 13.08.2007 |
|-------------------------------|-----------------------------------------------|
| Plot / Survey / Khasra No. | N/A |
| State | TELANGANA |
| MoEF File No. | J-11015/234/2007- IA.II(M) |

| Category | Non-Coal Mining |
|---------------------------|-----------------|
| Sub-District | N/A |
| Entity's PAN | NA |
| Entity name as per PAN | NA |

Compliance Reporting Details

Reporting Year 2024

Project: Limestone Mine.

Remarks (if any) Existing in nature,

Operational in status.

Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office

Telangana State Mineral Development Corporation Limited

| | Project Area as per EC Granted | Annual Project Area in Possession |
|--------------|--------------------------------|-----------------------------------|
| Private | 0 | 0 |
| Revenue Land | 0 | 0 |
| Forest | 210 | 210 |
| Others | 0 | 0 |
| Total | 210 | 210 |

Production Capacity

| Sr. no | Product Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|--------------|-------------------------------------|------------|----------|----------------------|---------------------|
| 1 | Limestone | Million Tons per Annum (MTPA) | 30/06/2027 | 5.3 | 3.609 | 5.3 |

Conditions

Specific Conditions

| Sr.No. | Condition Type | Condition Details |
|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | WASTE MANAGEMENT | Topsoil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area. |

PPs Submission: Complied
No Topsoil generated / handled during this compliance period.

Date:
18/05/2024

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 WATER OUALITY be constructed for both mine pit and for waste dump and sump 2 MONITORING AND capacity shall be designed keeping 50% safety margin over and above **PRESERVATION** 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.

PPs Submission: Complied

• Garland drains of requisite size were constructed along the dumps and other areas to arrest silt and sediments. • All garland drains are maintained properly, and de siltation is being carried out at regular intervals. Adequate size of sump is constructed in the lowermost benches with proper measures. • Details are attached as Annexure-1.

Date: 18/05/2024

3 MINING PLAN Drilling and blasting shall be by using dust extractors/ wet drilling.

PPs Submission: Complied

A wet drilling system with inbuilt water injection system is being adopted for drills to suppress dust generation at source. Dust extraction system is provided at crusher and water injectors are provided to arrest fly dust during unloading of limestone into hopper which is also covered with belt curtains. The drilling and blasting operation are carried out during daytime only.

Date: 18/05/2024

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.

PPs Submission: Complied

Complied. We have planted 47893 no's of plants in an area of 34.488 Ha hectares (Area approved in Modified RMP) within mining lease as on 31.03.2024 Native type of plant species selected for

Date: 18/05/2024

plantation in consultation of local DFO. Local Plant Species: •Kanuga (Pongamia pinnata),•Nidra Ganneru, Dirisena (Samanea saman),•Neem, Vepa (Azadirachta indica),•Gulmohar (Delonix regia),• Subabul (Leucaena leucocephala),•Mango (Mangifera indica),•Burugu (Bombax ceiba),•Chinduga (Albizia chinensis),•Neeruddi (Dolichandrone atrovirens), •Devakanchanam (Bauhinia variegate) Photographs are attached as Annexure-2.

5 WATER QUALITY 5 MONITORING AND PRESERVATION 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.

PPs Submission: Complied

• Implemented suitable conservation measures to augment ground water resources within the mining area by constructing check dams, rainwater harvesting pits and contour trenches. • Developed 1 no of sump with an extent of 26.700 Ha and having storage capacity of 43.28 Lakh Cubic Meters. • Photographs attached as Annexure-3.

Date: 18/05/2024

6 WATER QUALITY MONITORING AND PRESERVATION

The company shall undertake measures for rainwater harvesting to recharge the ground water.

PPs Submission: Complied

Developed a sump with capacity of 43.28 lakh m3 rainwater storage, 2 no's check dams and 1 no's contour trenches for rainwater harvesting and recharge.

Date: 18/05/2024

7 WATER QUALITY MONITORING AND PRESERVATION 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 – 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.

PPs Submission: Complied

• Ground water levels & quality are being monitored on a quarterly basis by engaging MOEF&CC certified third party laboratory. • Two nos of piezometers were constructed in the mine area core zone as per recommendations of Central Ground Water Board (CGWB). • Data of the same is being submitted to CGWA New Delhi, MOEF&CC IRO Hyderabad, CGWB RO Hyderabad and District Ground Officer Mancherial on regular intervals. • Monitoring data of ground water quality & levels for the period of October'23-March'24 is attached as Annexure-4.

Date: 18/05/2024

8 WATER QUALITY 8 MONITORING AND PRESERVATION

Prior permission from the competent authority shall be obtained for drawl of ground water if any.

PPs Submission: Agreed to Comply Presently, we are not drawing any ground water.

Date: 18/05/2024

9 MINING PLAN

Conceptual Mining Plan for every 5 years for the life of the mine shall be prepared and submitted to the Ministry within six months.

PPs Submission: Complied

Modification of Review of Mining Plan for the period of 2023-2025 including progressive mine closure is approved by Indian Bureau of Mines, Hyderabad. This document is prepared for the conceptual period up to 04-10-2029.

Date: 18/05/2024

10 LAND RECLAMATION

The existing water bodies and that to be created during the course of mining may be utilized to develop pisciculture by organizing

| | | managerial assistance so that the members themselves affairs of the society in due course. The project propon arrange marketing tie up so that the society gets fair pr product and the profits are equitably shared by the mer society as regular source of income. | ent shall ice of their |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| There water l | | ase as the mining area falls under reserve forest. The er for plantations, dust suppression and for the cement | Date: 18/05/2024 |
| 11 | Human Health Environment | Action plan for abatement and compensation for dam agricultural land/common property land (if any) due to activity shall be submitted to the Ministry within six m | mining |
| There | Submission: Complied is no agricultural land / common prope under reserve forest. | erty land under the mining lease. The entire mining lease | Date: 18/05/2024 |
| 12 | Human Health Environment | Occupational health surveillance program of the work undertaken periodically to observe any contractions due to dust and take corrective measures, if needed. Occupand safety measures for the workers including training eradication, HIV, and health effects on exposure to misshall be carried out. The company shall engage a full tidoctor who is trained in occupational health surveilland records of the workers shall be maintained. | te to exposure ational health on malaria neral dust etc ime qualified |
| Occumaintal mining and he recogn | ined properly. • We provide personnel g area. • Workers are provided with regalth aspects. • The company has engage | s being conducted periodically and health records are protective equipment (PPE) to workers working in the gular and adequate training and information on safety ged full time qualified doctors in the dispensary, and it is stension of their PHC at Kasipet (located at 16 kms | Date: 18/05/2024 |
| 13 | AIR QUALITY MONITORING AND PRESERVATION | Vehicular emissions shall be kept under control and a monitored. Measures shall be taken for maintenance of in mining operations and in transportation of mineral. shall be covered with a tarpaulin and shall not be overl | f vehicles use The vehicles |
| • Vehi | | egularly and complying with regulatory norms. • Phicles used in mining operations. • Overloading of the | Date: 18/05/2024 |
| | | A Final Mine Closure Plan, along with details of Corbe submitted to the Ministry of Environment & Forests | |
| | MINING PLAN | advance of final mine closure for approval. | |

| Sr.No. | Condition Type | Condition Details | |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 1 | MINING PLAN | No change in mining technology and scope of worki made without prior approval of the Ministry of Enviro Forests. | |
| | ubmission: Agreed to Comply proval will be taken form MOEF&CC | If there is any change in the scope and working. | Date: 18/05/2024 |
| 2 | AIR QUALITY MONITORING AND PRESERVATION | Fugitive dust emissions from all the sources shall be regularly. Water spraying arrangement on haul roads, unloading and at transfer points shall be provided and maintained. | loading and |
| Fugitive wet met | hod, water spraying on haul roads and | re being controlled. Blast hole drilling is practiced by on mineral heaps while loading and unloading at s etc. blasting is carried during non-windy times. | Date: 18/05/2024 |
| 3 | Noise Monitoring & Prevention | Measures shall be taken for control of noise levels be the work environment. Workers engaged in operations shall be provided with ear plugs/muffs. | |
| Noise le | | ned within the prescribed limits. Personnel protective all workers engaged in mining operations. | Date: 18/05/2024 |
| 4 | WATER QUALITY MONITORING AND PRESERVATION | Industrial wastewater (workshop and wastewater from should be properly collected, treated so as to conform prescribed under GSR 422 (E) dated 19th May, 1993 at December, 1993 or as amended from time to time. Oil trap shall be installed before discharge of workshop ef | to the standards and 31st and Grease |
| The wor | ubmission: Complied kshop wastewater is being collected is and clean water is utilizing for dust su | n Oil and Grease trap (3 chamber tank) and after ppression over haulage road. | Date: 18/05/2024 |
| 5 | Human Health Environment | Personnel working in dusty areas shall wear protection devices and they shall also be provided with adequate information on safety and health aspects. | |
| All perso | | with protective and safety equipment. They are also on on safety and health aspects. Health status also | Date: 18/05/2024 |
| 6 | Corporate Environmental Responsibility | A separate environmental management cell with suit personnel shall be set-up under the control of a Senior who will report directly to the Head of the Organization | Executive, |
| Separate direct re Mines. 1 Sr Mana | porting to the head of the organization I. Mr K Rajasekhar Reddy (Agent-Mi | stablished under the control of senior executive and a who is responsible for environmental management of nes) 2. Mr NP Sahare, HOD (Mines) 3. Mr V Prasad, Dy. Manager (Env) 5. Greenbelt & Horticulture team nitoring | Date: 18/05/2024 |
| 7 | MISCELLANEOUS | The project authorities shall inform to the Regional C at Bangalore regarding date of financial closures and f the project by the concerned authorities and the date of | inal approval of |

| | | development work. | |
|-----------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| | ubmission: Complied te information was submitted to th | he concern authorities and it an existing and ongoing | Date: 18/05/2024 |
| 8 | MINING PLAN | The funds earmarked for environmental protection me be kept in separate account and should not be diverted purpose. Year wise expenditure shall be reported to the its Regional Office located at Bangalore. | for other |
| Funds e purpose | | ection measures are not being diverted for any other rironmental protection measures for October 2023 to March | Date: 18/05/2024 |
| 9 | MINING PLAN | The project authority shall inform to the Regional Of Bangalore regarding date of financial closures and fina the project by the concerned authorities and the date of development work. | al approval of |
| | | Requisite information was provided to regional office of the | Date: 18/05/2024 |
| 10 | MINING PLAN | The Regional Office of this Ministry located at Bang monitor compliance of the stipulated conditions. The p authorities should extend full cooperation to the officer regional office by furnishing the requisite data/inform monitoring reports. | roject r (s) of the |
| Noted a | ubmission: Agreed to Comply nd full cooperation will be extended ata/ information / monitoring re | led to the officer (s) of the regional office by furnishing the eports. | Date: 18/05/2024 |
| 11 | MISCELLANEOUS | A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom suggestion/r has been received while processing the proposal. | |
| A copy | ubmission: Complied of clearance letter was submitted gestion / representation received. | concerned Panchayat, local bodies and relevant authorities. | Date: 18/05/2024 |
| 12 | MINING PLAN | No change in the calendar plan including excavation, mineral limestone ore and waste shall be made. | , quantum of |
| | ubmission: Agreed to Comply no change in the calendar plan to | o produce quantum of mineral limestone and waste. | Date: 18/05/2024 |
| 13 | GREENBELT | Conservation measures for protection of flora and far & buffer zone shall be drawn up in consultation with the and wildlife department. | |
| Conserv | ubmission: Complied vation measures are being taken up department. | p in core & buffer zone in consultation with local forest and | Date: 18/05/2024 |
| wiidille | T | | |

| | | Office/Tehsildar's office for 30 days. | 1 |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| PPs Noted | Submission: Complied | | Date: 18/05/2024 |
| 15 | Statutory compliance | The project authorities should advertise at least in two newspapers widely circulated, one of which shall be in language of the locality concerned, within 7 days of the clearance letter informing that the project has been accenvironmental clearance and a copy of the clearance lewith the State Pollution Control Board and also at web Ministry of Environment & Forest at http://envfor.nic.iof the same shall be forwarded to the regional office of at Bangalore. | the vernacular issue of the corded exter available site of in and a copy |
| Adver (Telug | | onicle (English) dated: 25-10-2007 and Eenadu copies were submitted to MOEF & CC, New Delhi and | Date: 18/05/2024 |
| 16 | AIR QUALITY MONITORING AND PRESERVATION | Four ambient air quality-monitoring stations shall be the core zone as well as in the buffer zone for RPM, SI NOx monitoring. Location of the stations should be de the meteorological data, topographical features and en and ecologically sensitive targets and frequency of mo be undertaken in consultation with the State Pollution (| PM, SO2 & cided based o vironmentally nitoring shoul |
| • Four Ambie | ent air quality monitoring (PM 10, PM | as, each in core and buffer zone have been established. 2.5, SO2 & NOx) of core zone and buffer zone is being are being submitted regularly to TSPCB Regional | Date: 18/05/2024 |
| Office | | a for the period October'23-March'24 is attached as | |
| Office | at Nizamabad. • AAQ monitoring data | | nal Office |
| Office Annex 17 PPs Data of | at Nizamabad. • AAQ monitoring data cure – 5. AIR QUALITY MONITORING AND PRESERVATION Submission: Being Complied | Data on ambient air quality (RPM,SPM, SO2 & NO2 regularly submitted to the Ministry including its Regio located at Bangalore and the State Pollution Control Be Pollution Control Board once in six months. | nal Office oard/Central |
| Office Annex 17 PPs Data of | AIR QUALITY MONITORING AND PRESERVATION Submission: Being Complied of AAQ (PM10, PM2.5, SO2 & NOX) | Data on ambient air quality (RPM,SPM, SO2 & NO2 regularly submitted to the Ministry including its Regio located at Bangalore and the State Pollution Control Be Pollution Control Board once in six months. | nal Office oard/Central |
| Office Annex 17 PPs Data of TSPC | AIR QUALITY MONITORING AND PRESERVATION Submission: Being Complied of AAQ (PM10, PM2.5, SO2 & NOX) | Data on ambient air quality (RPM,SPM, SO2 & NO2 regularly submitted to the Ministry including its Regio located at Bangalore and the State Pollution Control Be Pollution Control Board once in six months. is being submitted to the MOEFCC IRO Hyderabad and long with compliance report. | onal Office oard/Central |

of

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 2023 to March 2024

Annexure-1

Garland Drains & SMC Structures

| | List of Soil Moisture Structure in 100 Ha | | | | | | |
|----------|-------------------------------------------------------------------------|-------|---------------|--------------|----------|--|--|
| SI No | Location | ID | Length in mtr | Depth in mtr | Gradient | | |
| 1 | Garland Drain Below BFA-1 (Part I Waste Dump) | GD-1 | 977 | 1.5 | Gentle | | |
| 2 | Garland Drain Below BFA-2 (Part II Waste Dump) | GD-2 | 314 | 1.5 | Gentle | | |
| 2A | Garland Drain Below BFA-2 (in Between Part II Waste Dump & MR 2 Dump | GD-2A | 274 | 1.5 | Gentle | | |
| 3 | Garland Drain Below BFA-3 (Part I Face-3 Side) | GD-3 | 121 | 1.5 | Gentle | | |
| 4 | Garland Drain Part II Triangle Area | GD-4 | 467 | 1.5 | Gentle | | |
| | TOTAL LENGTH IN MTR | | | | | | |
| 5 | Check Dam (Part II Face 4 side) | CD-1 | 10 | 2 | Gentle | | |

| | List of Soil Moisture Structure in 110 Ha | | | | | | | | | |
|----------|-------------------------------------------|------|---------------|-----------------|----------|--|--|--|--|--|
| SI No | Location | ID | Length in mtr | Depth in mtr | Gradient | | | | | |
| 1 | Garland Drain External Dump (ED-1) | GD-5 | 165 | 1.5 | Gentle | | | | | |
| 2 | Garland Drain B Block face 4 Side | GD-6 | 246 | 1.5 | Gentle | | | | | |
| 3 | Contour Trench VT Centre Area | CT-1 | 128 | 1.5 | Gentle | | | | | |
| TOTA | L LENGTH IN MTR | 539 | | | | | | | | |
| 4 | Check Dam (Magazine Area) | CD-1 | 21 | 1 | Gentle | | | | | |





of

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 2023 to March 2024

Annexure-2

Greenbelt Development

We have planted 47893 no's of plants in an area of 34.488 hectares within mining lease as on **31.03.2024.** Native type of plant species selected for plantation in consultation of local DFO.







Greenbelt in Mine Lease Area

of

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 2023 to March 2024





Plantation under Telangana Ku Haritha Haram







of

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 2023 to March 2024

Annexure-3

Conservation Measures to Augment Ground Water Resources

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. Developed 1 no's of sump with an extent of 26.700 Ha and having storage capacity of 43.280 Lakh Cubic Meters.



Mine Sump





of

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 2023 to March 2024

Annexure-4

Ground Water Quality

Ground water levels & quality are being monitored on a quarterly basis by engaging MOEF&CC certified third party laboratory. Two nos of piezometers were constructed in the mine area core zone as per recommendations of Central Ground Water Board (CGWB). Data of the same is being submitted to CGWA New Delhi, MOEF&CC IRO Hyderabad.

October '23 to March '24 (Average)

| SI. | _ | Locations | | | | | | | | | |
|-----|------------------------------------------|-----------|-----------|-----------|-----------|--|--|--|--|--|--|
| No | Parameters | 1 | 2 | 3 | 4 | | | | | | |
| 1 | Colour (Hazen Units) | 5 | 2.5 | 6 | 5.0 | | | | | | |
| 2 | odour | Agreeable | Agreeable | Agreeable | Agreeable | | | | | | |
| 3 | Turbidity (NTU) | 7.4 | 3.3 | 3.0 | 2.7 | | | | | | |
| 4 | pH | 6.7 | 7.5 | 7.4 | 7.7 | | | | | | |
| 5 | E.C (micromhos/cm) | 1130.5 | 694.0 | 1011.0 | 936.5 | | | | | | |
| 6 | Total dissolved solids | 651.5 | 361.5 | 568.5 | 525.5 | | | | | | |
| 7 | Total alkalinity as CaCO3 | 282.7 | 85.5 | 229.0 | 216.5 | | | | | | |
| 8 | Phenolphthalein alkalinity as CaCO3 | Nil | Nil | Nil | Nil | | | | | | |
| 9 | Methylorange alkalinity as CaCO3 | 282.7 | 85.5 | 229.0 | 216.5 | | | | | | |
| 10 | Total hardness as CaCO3 | 439.0 | 246.5 | 297.4 | 263.0 | | | | | | |
| 11 | Calcium as Ca | 84.5 | 63.5 | 88.6 | 67.8 | | | | | | |
| 12 | Magnesium as Mg | 52.8 | 21.9 | 18.7 | 22.5 | | | | | | |
| 13 | Sodium as Na | 48.4 | 31.8 | 46.5 | 87.0 | | | | | | |
| 14 | Potassium as K | 6.1 | 1.4 | 1.8 | 2.9 | | | | | | |
| 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 | 0.0095 | <0.01 | 0.0 | 0.1 | | | | | | |
| 18 | Chlorides as Cl | 117.0 | 113.6 | 84.6 | 132.0 | | | | | | |
| 19 | Sulphates as SO4 | 82.5 | 105.5 | 41.5 | 47.5 | | | | | | |
| 20 | Nitrates as NO3 | 32.8 | 7.4 | 16.1 | 17.9 | | | | | | |
| 21 | Flourides as F | 1.0 | 0.7 | 0.8 | 0.6 | | | | | | |
| 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 | 0.2 | Nil | | | | | | |
| 31 | Pesticides | Absent | 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

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 2023 to March 2024

| SI. | Domentons | Locations | | | | | | | | | |
|-----|------------------------------------------|-----------|-----------|-----------|-----------|-----------|--|--|--|--|--|
| No | Parameters | 5 | 6 | 7 | 8 | 9 | | | | | |
| 1 | Colour (Hazen Units) | 6.5 | 3.0 | 5.5 | 5.5 | Clear | | | | | |
| 2 | odour | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | | | | | |
| 3 | Turbidity (NTU) | 3.1 | 2.5 | 4.7 | 3.5 | Nil | | | | | |
| 4 | pH | 7.6 | 7.6 | 7.5 | 7.5 | 7.7 | | | | | |
| 5 | E.C (micromhos/cm) | 1160.0 | 962.5 | 718.0 | 762.5 | 123.0 | | | | | |
| 6 | Total dissolved solids | 591.0 | 544.5 | 418.0 | 416.5 | 51.5 | | | | | |
| 7 | Total alkalinity as CaCO3 | 365.0 | 168.5 | 184.5 | 213.5 | 37.0 | | | | | |
| 8 | Phenolphthalein alkalinity as CaCO3 | Nil | Nil | Nil | Nil | 0.0 | | | | | |
| 9 | Methylorange alkalinity as CaCO3 | 365.0 | 168.5 | 184.5 | 213.5 | 37.0 | | | | | |
| 10 | Total hardness as CaCO3 | 407.4 | 376.6 | 284.0 | 118.0 | 36.0 | | | | | |
| 11 | Calcium as Ca | 112.2 | 87.1 | 56.1 | 28.5 | 5.8 | | | | | |
| 12 | Magnesium as Mg | 26.9 | 38.5 | 34.4 | 13.6 | 4.9 | | | | | |
| 13 | Sodium as Na | 42.4 | 50.3 | 31.2 | 31.7 | 4.1 | | | | | |
| 14 | Potassium as K | 1.2 | 1.7 | 3.8 | 1.1 | 1.1 | | | | | |
| 15 | Copper as Cu | 0.1 | 0.1 | 0.1 | 0.2 | <0.01 | | | | | |
| 16 | Iron as Fe | 0.2 | 0.2 | 0.2 | 0.2 | <0.10 | | | | | |
| 17 | Managanese as Mn | 0.1 | 0.1 | <0.01 | 0.1 | <0.001 | | | | | |
| 18 | Chlorides as Cl | 69.7 | 85.7 | 68.0 | 53.5 | 6.1 | | | | | |
| 19 | Sulphates as SO4 | 59.6 | 65.3 | 52.0 | 42.8 | 3.3 | | | | | |
| 20 | Nitrates as NO3 | 29.2 | 24.5 | 21.1 | 19.0 | 0.2 | | | | | |
| 21 | Flourides as F | 0.7 | 0.5 | 0.7 | 0.6 | 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 | 0.3 | <0.01 | | | | | |
| 29 | Anionic Detergents as MBAS | Absent | Absent | Absent | Absent | Absent | | | | | |
| 30 | Resifual chlorine | 0.1 | <0.04 | <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 | <0.01 | | | | | |
| 34 | Hexavalent chromium as Cr+6 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | | | | | |
| 35 | Polynuclear aromatic hydrocarbons as PAH | Absent | Absent | Absent | Absent | Absent | | | | | |

^{1.}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 Gatrapally), 8. Pit water (Mines), 9. Drinking water (Near Mines).

of

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 2023 to March 2024

Annexure-5

Ambient Air Quality Monitoring Data

Four ambient air quality-monitoring stations, each in core and buffer zone have been established. AAQ monitoring (PM 10, PM 2.5, SO2 & NOx) of core zone and buffer zone is being carried out every month.

Core Zone - October-2023 to March-2024

| Parameters | Loading Area | | | Unloading Area | | | Drilling Area | | | Haulage Road | | | |
|----------------------|--------------|-----|-----|----------------|-----|-----|---------------|-----|-----|--------------|-----|-----|--|
| Parameters | Min | Max | Avg | Min | Max | Avg | Min | Max | Avg | Min | Max | Avg | |
| PM 10 μg/m3 | 62 | 68 | 65 | 65 | 73 | 69 | 65 | 72 | 69 | 56 | 62 | 59 | |
| PM 2.5 μg/m3 | 23 | 26 | 25 | 23 | 30 | 27 | 24 | 29 | 27 | 17 | 23 | 20 | |
| SO2 µg/m3 | 6 | 13 | 10 | 7 | 13 | 10 | 6 | 11 | 9 | 7 | 13 | 11 | |
| NO2 µg/m3 | 16 | 26 | 21 | 17 | 26 | 22 | 16 | 23 | 19 | 19 | 26 | 23 | |
| Lead (Pb) | 0.06 | | | 0.11 | | | 0.05 | | | 0.03 | | | |
| Carbon monoxide (Co) | BDL | | | BDL | | | BDL | | | BDL | | | |
| Ammonia (NH3) | BDL | | | BDL | | | BDL | | | BDL | | | |
| Ozone (O3) | | 12 | | 8 | | | 10 | | | 5 | | | |
| Benzene (C6 H6) | <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-2023 to March-2024

| Parameters | Dev | apur Vill | lage | Forest Area | | | Gatlarapalli | | | Maddimadugu | | | |
|----------------------|------------------|-----------|------|-------------|-----|-----|--------------|-----|-----|-------------|-----|-----|--|
| Parameters | Min | Max | Avg | Min | Max | Avg | Min | Max | Avg | Min | Max | Avg | |
| PM 10 µg/m3 | 52 | 61 | 57 | 40 | 46 | 42 | 48 | 54 | 51 | 58 | 63 | 61 | |
| PM 2.5 µg/m3 | 20 | 24 | 22 | 15 | 18 | 17 | 17 | 22 | 20 | 23 | 25 | 24 | |
| SO2 µg/m3 | 8 | 10 | 9 | 5 | 7 | 6 | 5 | 9 | 7 | 9 | 13 | 11 | |
| NO2 µg/m3 | 17 | 21 | 19 | 14 | 17 | 16 | 16 | 20 | 18 | 18 | 25 | 22 | |
| Lead (Pb) | 0.09 | | | 0.02 | | | 0.04 | | | 0.12 | | | |
| Carbon monoxide (Co) | RIN | | | BDL | | BDL | | | BDL | | | | |
| Ammonia (NH3) | mmonia (NH3) BDL | | BDL | | | BDL | | | BDL | | | | |
| Ozone (O3) | | 7 | | 1 | | | | 3 | | | 6 | | |
| Benzene (C6 H6) | <0.02 | | | <0.02 | | | <0.02 | | | <0.02 | | | |
| Arsenic (As) ND | | | ND | | ND | | ND | | | | | | |
| Nickel (Ni) | Nickel (Ni) ND | | ND | | ND | | | ND | | | | | |
| Benzo pyrene (Bap) | | ND | | ND | | ND | | | ND | | | | |

of

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

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Fugitive Emission Control Measures

Fugitive dust emissions from all the sources are being controlled. Blast hole drilling is practiced by wet method, water spraying on haul roads and on mineral heaps while loading and unloading at crusher hopper and at conveyor transfer points etc. blasting is carried during non-windy times.









of

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 2023 to March 2024

Environmental Protection Expenditure

| SI. No | Nature of Expenditure | Amount in Rs |
|-----------|---------------------------------------------------------------|--------------|
| 1 | Water Tanker for dust suppression | 26,13,513 |
| 2 | Greenbelt Development Manpower | 6,67,474 |
| 3 | Civil and maintenance charges for Afforestation | 96,375 |
| 4 | Environmental monitoring expenses | 2,06,665 |
| 5 | Power Consumption for Pollution Control Equipment for crusher | 5,70,664 |
| 6 | Power Consumption for water pumps | 41,063 |
| | Total | 41,95,754 |
