



# GEOMYSORE SERVICES (INDIA) PVT. LTD.

o/c

GMSI\_JML\_Six Monthly Report\_Let\_MoEF\_dt 30.11.2024

TO:

Ministry of Environment, Forest & Climate Change,  
Indira Paryavaran Bhavan,  
Government of India,  
Jor Bagh Road,  
New Delhi-110003.

Sub: Submission of Six Monthly Compliance Report for Environmental Clearance in respect  
of Jonnagiri Gold Mine of M/s Geomysore Services (India) Pvt. Ltd. in Tuggali Mandal,  
Kurnool District, Andhra Pradesh.

Dear sir,

We append herewith the Six Monthly Compliance report for the period April-2024 to September-2024 for the conditions stipulated in the Environmental Clearance Order vide letter no. F.No.J-11015/393/2008-IA.II(M) dated 02-08-2010. This is for your kind perusal and records.

Thanking you,

Yours truly,  
For Geomysore Services (India) Pvt. Ltd.

*Manas Ranjan Biswal*  
Manas Ranjan Biswal,  
Director-Operations.



Encl: Annexure-1: Environment Monitoring Reports (water, air, noise, soil)

Copy to:

1. The Joint Director, Ministry of Environment, Forest & Climate Change, Integrated Regional Office, Green House Complex, Gopalareddy Road, Vijayawada-520010.
2. The Chief Conservator of Forests, Regional Office(SZ), Kendriya Sadan 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, 1<sup>st</sup> Block Koramangala, Bangalore-560034.
3. The Environmental Engineer, Andhra Pradesh Pollution Control Board, Regional Office, 3<sup>rd</sup> floor, Paryavaran Bhavan, Labour Colony Road No.1, VR Colony Main Road, Kurnool, Andhra Pradesh-518006

## REGISTERED OFFICE

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(CIN : U74899KA1994PTC044275)

## CORRESPONDENCE ADDRESS

#187/1E, Pagidirai Village, Tuggali Mandal,  
Kurnool District, Andhra Pradesh - 518 390  
Email : [reception@geomysore.com](mailto:reception@geomysore.com)

Compliance status toward the stipulated EC conditions granted vide EC Identification No. -EC22B008MH126424, File No. - J-11015/393/2008-IA.II (M); Dated 02<sup>nd</sup> August 2010 for the production of 0.40 MTPA (ROM) and for setting up of Ore Processing Plant with a capacity of 0.30 Million Tonnes Per Annum (MTPA) throughput located at Jonnagiri, Pagadrayi & Erragudi Villages, Tuggali Mandal, Kurnool District, Andhra Pradesh by M/s. Geomysore Services (India) Private Limited.

(for the period April-2023 to September-2024)

| A. SPECIFIC CONDITIONS  | COMPLIANCE  |
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| i) The environmental clearance is subject to approval of the State Land use Department, Government of Andhra Pradesh for diversion of agricultural land for non-agricultural use.                   | We are in the process of purchasing land that are required for the project. We have acquired about 243.54 acre of land which are required for our project implementation and operations. Out of 243.54 acre of purchased land, 134.11 acre of land has been converted to non-agricultural use. We are in the process of acquiring the balance land which are required for our project and simultaneously land conversion also in process. |
| ii) The project proponent shall obtain Consent to Establish and Consent to Operate from the Andhra Pradesh Pollution Control Board and effectively implement all the conditions stipulated therein. | CFE: Consent for Establishment has been renewed by APPCB vide Order No.163 /APPCB/CTE/RO-KNL//HO/2010 dated 15/05/2023 for another 7 years which is valid up to 29.03.2028.<br><br>CFO: Consent for Operation for Mining of Gold Ore and Gold Ore processing plant (Pilot processing plant) has been renewed by APPCB vide Consent Order No: 449765 /APPCB/KNL/KNL/CTO/HO/2024 dated 25/08/2024 is valid up to 30.06.2025.                |
| iii) International cyanide code shall be adopted and all necessary safeguard measures shall be taken to avoid any incidence of cyanide poisoning of this project.                                   | Currently our process does not involve the usage of cyanide as we are processing the gold ore using gravity recovery method which does not require cyanide. However, we assure that international cyanide code and all necessary safeguard measures will be implemented once we use cyanide.  |
| iv) Necessary occupational health and safety measure for the workers against arsenic poisoning including fugitive dust, accidental arsenic poisoning and ground water contamination shall be        | Currently, we do not use any chemicals during the ore processing activities. However, we are periodically monitoring the occupational health of our employees by organizing on-site check-ups. We assure that we shall engage a full-time qualified doctor who is trained in occupational health once the proposed processing plant is built where related chemicals will be involved.  |

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| <p>undertaken. The Company shall engage a full-time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to chemicals (particularly cyanide) and respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. The proponent shall also maintain cyanide kit at the project site and provide necessary training for its usage to the workers involved in handling of cyanide. Review of impact of various health measures undertaken shall be conducted followed by follow up action wherever required.</p> |  <p><i>Photographs showing on-site health Checkups</i></p>   |
| <p>v) Necessary safeguard measures including provision of de-fluoridization shall be made in the project to ensure that fluoride content in the water is well below the prescribed standards.</p>   | <p>We are monitoring the water quality in core and buffer zones of project area periodically to ensure that fluoride content in the water is below the prescribed standards. Reports are being submitted regularly along with the half yearly compliance report to MOEF&amp;CC.<br/> <i>(Please Refer Annexure I – Copy of Water Quality Report)</i></p>   |
| <p>vi) The tailing storage area shall be lined with LDPE lining on all sides including bottom to ensure that there is no leaching into groundwater. Masonry wall all along the tailing dump site shall be made. Four leachate pits in the four corners of the tailing pit shall also be made.</p>   | <p>We are in the process of constructing the processing plant and tailing dam. We have planned to have 3mm HDPE lining on all sides including bottom to ensure that there will be no leaching into groundwater and this will be complied once the Tailing Storage facility is ready.</p>   |
| <p>vii) Monitoring groundwater shall be carried out regularly around the tailing storage area and records maintained. In case, any leaching is observed at any point of time necessary corrective measures shall be</p>   | <p>We are in the process of constructing the processing plant and tailing dam. Regular groundwater quality monitoring will be carried out around the tailing area and records will be maintained accordingly once the Tailing Storage facility is ready. In case any leaching is observed at any point of time necessary corrective measures will be taken immediately and matter will be reported to the concerned authority.</p> |

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| <p>taken immediately and matter shall be reported to the competent authority.</p>  |  |
| <p>viii) Necessary safeguard measures shall be taken to ensure that the resultant particulate level in the area is well within the prescribed limits.</p>  | <p>We are ensuring all the necessary safeguard measures to be taken to ensure that the resultant particulate level in the area is well within the prescribed limits. We are controlling the fugitive dust emissions by water sprinkling on the haul roads, unloading points. We have installed continuous ambient air quality-monitoring station on the project site.</p> <div style="display: flex; justify-content: space-around;">   </div> <p><i>Photograph showing water sprinkling on the haul road</i></p> <p><i>Photograph showing Continuous Air Quality Monitoring Station</i></p> |
| <p>ix) The project affected people shall be rehabilitated and compensated as per the National Rehabilitation and Resettlement Policy, 2007 in consultation with the State Government. Detailed Plan may be prepared in this regard within 3 months and a copy submitted to Regional Office of this Ministry at Bangalore.</p>                                  | <p>There are no project affected people within the ML area.</p>  |
| <p>x) Only Gold ore will be extracted from the Mine and processing of Gold only will be done in the processing plant. No other Mineral will be extracted/produced/generated by any way from this mine and processing plant project. If any mineral is to be extracted from mine and/or OB dumps then fresh reference shall be made to this Ministry as per</p> | <p>We are abided by the condition.</p>   |

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| procedure prescribed in the EIA Notification 2006.   |   |
| xi) Land use pattern of the nearby villages shall be studied, including common property resources available for conversion into productive land. Action plan for abatement and compensation for damage to agriculture land/ common property land (if any) in the nearby villages, due to mining activity shall be prepared and implemented.              | The detailed land use pattern of the nearby villages is made in EIA/EMP. We had engaged 2 Botanists (Agricultural Scientists) to study the agriculture land. We are also providing compensations wherever crops are damaged due to the mining related activities.   |
| xii) The top soil shall temporarily be stored at earmarked site (s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.   | <p>The top soil generated during the Mining activities has been stored at an earmarked site and being utilized for plantation.</p>  <p><i>Photograph showing the top soil dump</i></p>   |
| xiii) The over burden (OB) generated shall be concurrently backfilled. There shall be no external over burden dump. The entire backfilled area shall be progressively afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of | <p>As the mine is at its early production stage and the backfilling can be started only after the exhaustion of the ore reserves. Once the ore is exhausted, we shall start the backfilling and comply with this requirement. Currently, we are dumping the waste rock generated during the pit development activities in dedicated dump area which is located NE of the pit.</p> <p>We are submitting the six-monthly report on regularly basis.</p> |

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| <p>Environment &amp; Forests and its Regional Office located at Bangalore on six monthly bases.</p>   |   |
| <p>xiv) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, soil and mineral dumps to prevent run off of water and flow of sediments directly into the water bodies. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. the drains shall be regularly desilted, particularly after the monsoon, and maintained properly. Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed around the mine pit, topsoil dumps and the mineral dumps to prevent run off of water and flow of sediments directly into the water bodies and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and de-silted at regular intervals.</p> | <p>We have constructed catch drains and siltation ponds of appropriate size around the mine working, waste dump, soil storage area and ROM stocks to prevent run off of water and flow of sediments directly into the water bodies.</p>    <p><i>Photographs showing garland drain made along the mine workings and stock pile</i></p> |

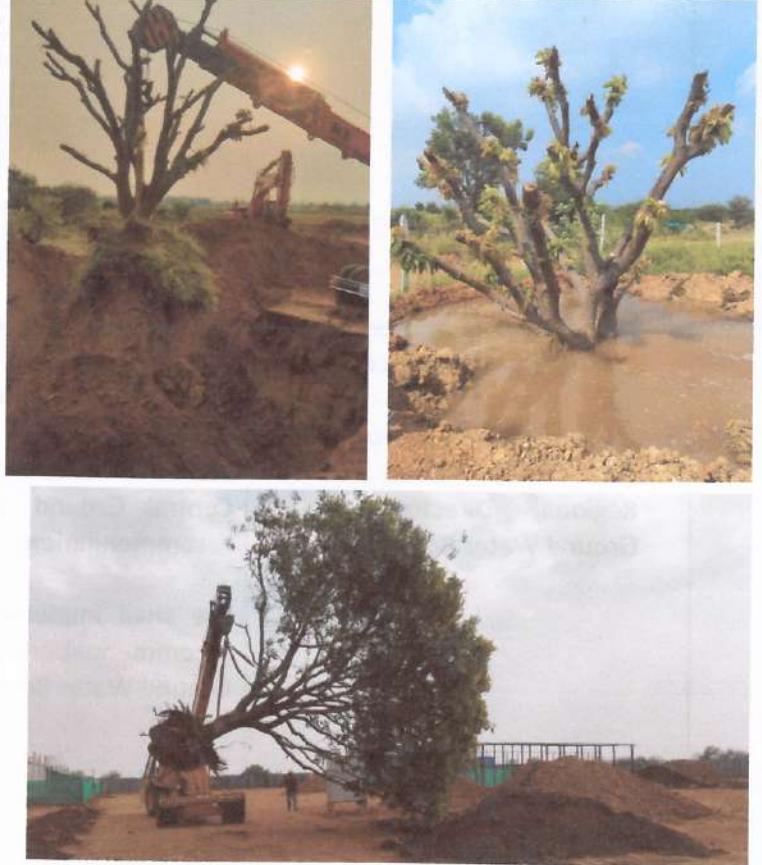
xv) The project proponent shall develop a 7.5m wide green belt in the safety zone all around the mining lease. In addition, plantation shall be raised in the backfilled and the reclaimed area, around void, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

Our land purchase is still in progress. We have planted more than 27,000 saplings in our purchased land within the ML area, which includes around 19,000 saplings during this reporting period. Further we are also developing green belt which covers lands belonging to Pagadrayi, Jonnagiri and Bollavanipalle villages.



*Photographs showing green belt development*

We are also relocating the trees from mine area to the green belt zone.

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|  |  <p><i>Photographs showing tree relocating</i></p>  |
| xvi) Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. | <p>We are ensuring all the necessary safeguard measures to be taken to ensure that the resultant particulate level in the area is well within the prescribed limits. We are controlling the fugitive dust emissions by water sprinkling on the haul roads, unloading points. We have installed continuous ambient air quality-monitoring station on the project site.</p>  |

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|  | <p><i>Photographs showing solar powered water sprinkling for dust suppression</i></p>  <p><i>Photograph showing CAAQMS at project site</i></p>   |
| xvii) 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  | <p>We have performed a comprehensive study and prepared report on ground water conditions in both core and buffer zones by the CGWA accredited ground water consultant.</p> <p>We have submitted the request letter to Regional Director, Central Ground Water Board, southern region for their recommendations.</p> <p>We shall implement the conservation measures once the recommendations received from the Regional Director, Central Ground Water Board.</p>  <p><i>Photographs showing the ground water recharge structures at the project site</i></p> |
| xviii) 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- | <p>We are monitoring the ground water level and ground water quality in core and buffer zones of project area periodically. Reports are being submitted regularly along with the half yearly compliance report to MOEF&amp;CC.<br/> <i>(Please Refer Annexure I – Copy of Water Quality Report)</i></p>  |

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| <p>monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office, Bangalore, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. In case adverse effect on ground water quality and quantity is observed mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.</p> |    |
| <p>xix) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water required for the project.</p>  | <p>We have obtained the NOC from Govt. of Andhra Pradesh, Ground Water and Water Audit Dept. for withdrawing ground water (180 KLD) vide letter no: 3927/Hg-II/2023-dt.14.09.2023. The NOC is valid for three years from the date of issues of the letter.</p> <p>In addition, the water requirement for the project will be drawn from HNSS canal located 18 km away to the project area. We have received the approval from Water Resources Department, Government of Andhra Pradesh on 23.2.2022 for lifetime.</p> |
| <p>xx) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.</p>   | <p>We have performed a comprehensive study and prepared report on ground water conditions in both core and buffer zones by the CGWA accredited ground water consultant.</p> <p>We have submitted the request letter to Regional Director, Central Ground Water Board, southern region for their recommendations.</p> <p>We shall implement the suitable rainwater harvesting measures once the recommendations received from the Regional Director, Central Ground Water Board.</p>                                   |

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| <p>xxi) Drills shall either be operated with dust extractors or equipped with water injection system.</p>  | <p>Currently we are operating the mine where drilling is not required as we are mining the debris material which is loose and soft in nature. Once we touch the hard rock drilling operation shall be functional and we shall use the dust extractors along with water injection system to suppress dust generation.</p>   |
| <p>xxii) Need based assessment for the nearby villages shall be conducted to study economic measures which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes under CSR. This will be in addition to vocational training for individuals imparted to take up self-employment and jobs.</p> | <p>As a part of CSR activities, we have spent as on date INR 4.5 crore towards the community development.</p> <ol style="list-style-type: none"> <li>1. Clean drinking water was supplied to approximately 3,000 people every day during the summers and 2 schools throughout the academic year.</li> <li>2. 40 water bore wells have been drilled by GMSI with 10 yielding water. Associated pipelines to connect into the existing distribution system have also been laid.</li> <li>3. GMSI has trained and provided employment to 50 local members of the community on the company DC and RC drilling rigs since 2014 during 2 separate drilling campaigns.</li> <li>4. GMSI has further employed another 150 members of the community for various activities within the organization such as community relations assistants, cooks, drivers, cleaners, security guards and green belt development. As well as developing initiatives and providing employment to clean up the villages, repair local roads and distribute the drinking and household water as supplied by GMSI.</li> </ol> <p>5. Education</p> <ol style="list-style-type: none"> <li>a) Transportation arrangements for the students to and from schools within the villages</li> <li>b) Providing free drinking water to the schools</li> <li>c) Providing the schools with the necessary educational staff volunteers - Employment of approximately 30 school teachers, aids and helpers in 7 different schools within the community</li> <li>d) We have set up free computer training centres to train the school children.</li> <li>e) Assisting the schools with the infrastructure developments</li> <li>f) We have been also involved in the Extra Curricular Activities with these schools</li> </ol> <p>6. Skill Development</p> <ol style="list-style-type: none"> <li>a) Rural Youth being trained in Green Belt Development, Modern Agricultural Practices and Soil Rejuvenation.</li> <li>b) Conducted spoken English classes and other skill development programs to the local unemployed</li> <li>c) Set up free computer training centres and provided training to local unemployed youth</li> <li>d) Imparted training in handling drill cores etc.,</li> </ol> |

- e) Imparted training in carrying out resistivity surveys
- f) Trained in collection of geochemical samples

7. Health

- a) Eye Camp and Health checkup camps have been conducted. 450 farmers underwent eye check up and 150 farmers underwent eye surgery.
- b) Free drinking water for the local hospital
- c) Setting up back-up battery power unit in the hospital that has helped to attend to emergency cases during the nights with power failure
- d) Set up and employed a local vet who assisted the community with livestock insemination and other medical requirements

8. Infrastructure & Sanitation

We have deployed permanent sanitary staffs in the surrounding villages and schools to maintain the sanitary conditions of these villages and schools. From time to time, we also deploy our additional staffs and machineries to make the process much more efficient. We have been involving in maintaining the local roads, drainage system, plantation and other village related infrastructures.

9. Plantation

Been actively involved in the plantation activities in and around the lease area.



*Distribution of Study materials for 2023 – 2024 10th Class batch students.*



*High School Students having lunch under Dinning sheds which has been constructed by GSMI to avoid the Crows and Dogs while having lunch for 285 Students*



*Provided free eye camp and eye surgeries in Pagadirai and Jonnagiri villages*



*Back-up battery power set-up at Pagadirai hospital*



*RO Water Purifier had been sponsored by GMSI at Primary Health Centre Pagidirai for patients & Staff who visit hospital by GMSI*



*Animal Health awareness through free veterinary services*



*Borewells in the villages*



*Continuous Drinking Water Supply to the Villages*



*1 km long drinking water pipeline to the village Pagirirai*



*Village Cleaning Activities*



Village Roads



Conducted Bull Race program in Jonnagiri village



Venu Gopala Swamy Charriot sheed has been constructed at Jonnagiri Village by GSMI



Plantation along the village roads



*Photographs showing the Medical camp organised for the villagers*

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|  |  <p><i>Photographs showing supply of drinking water to the villagers</i></p>   |
| xxiii) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.   | <p>We have installed the STP for the domestic waste water and the ETP for the workshop /mining operations.</p> <div style="display: flex; justify-content: space-around;">   </div> <p><i>Photograph showing STP &amp; ETP unit</i></p> |
| xxiv) Provision shall be made for the housing the labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | <p>We have setup the accommodation and necessary infrastructures like kitchen, toilets, water purification system, etc., for the labourers within the site.</p> <div style="display: flex; justify-content: space-around;">   </div>  |



*Photograph showing workmen accommodation*



*Photograph showing Kitchen & Dining hall*



*Photographs showing toilets*

xxv) The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e., PM10), NOx in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is close 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 and Forests, which is available on the website of the Ministry [www.envfor.nic.in](http://www.envfor.nic.in) shall also be referred in this regard for its compliance.

Ambient air quality in the core and buffer zones are being monitored periodically. Copies of such monitoring reports are being submitted to MoEF&CC on regular basis along with the half yearly compliance report.



*Photograph showing Continuous Air Quality Monitoring Station*



*Photograph showing air quality monitoring devices*

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| <p>xxvi) The project proponent shall take all precautionary measures during mining operations for conservation and protection of endangered flora and fauna found in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bangalore.</p> | <p>The mining area is devoid of endangered flora and fauna. The action plan for conservation of flora and fauna has been prepared submitted to the State Forest and Wildlife Department. Necessary allocation of funds has been considered in the project cost. We shall implement the measures prior to the project becoming completely functional.</p> |
| <p>xxvii) Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bangalore.</p>   | <p>We shall submit the digital data of the project area using remote sensing technique regularly once in three years for monitoring land use pattern to Ministry of Environment and Forests and to Regional Office on regular basis.</p>   |
| <p>xxviii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment &amp; Forests 5 years in advance of final mine closure for approval.</p>   | <p>We shall submit the Final Mine Closure Plan along with details of Corpus Fund to the Ministry of Environment &amp; Forests, 5 years in advance of final mine closure for approval.</p>  |

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| xxix) The environmental clearance is subject to the condition, if any, stipulated by the IBM on the mining scheme submitted by the project proponent for its approval.   | We are adhering to all the conditions stipulated by the IBM on the mining scheme.   |
| <b>B. GENERAL CONDITIONS</b>   | <b>COMPLIANCE</b>   |
| i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.  | We are adhering to the mining technology and scope of working as approved by the Ministry of Environment & Forests. Currently, we are carrying mining activities using shovel and trucks combination. In case, there is any change in the mining technology and scope of working, we shall approach the Ministry of Environment & Forests for the approval prior to the implementation.   |
| ii) No change in the calendar plan including excavation, quantum of mineral and waste shall be made.   | We are adhering to approved mining plan and the approved conditions approval of the Ministry of Environment & Forests.  |
| iii) 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. | <p>We are controlling the fugitive dust emissions from all the sources regularly by water spraying arrangement on haul roads, loading and unloading and at transfer points.</p>     <p><i>Water sprinkling using solar water tanker</i></p> |

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| <p>iv) At least four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO<sub>2</sub>, NO<sub>x</sub> 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</p> | <p>We have installed continuous ambient air quality-monitoring station.<br/> <i>Photograph showing Continuous Air Quality Monitoring Station</i></p>   |
| <p>v) Data on ambient air quality (PM10, PM2.5, SO<sub>2</sub>, NO<sub>x</sub>) 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.</p>   | <p>The quality of ambient air is being monitored regularly by GOI, MOEF&amp;CC recognized consultant. The reports are being sent regularly to the ministry and the state pollution control board along with six months compliance reports.</p>   |
| <p>vi) 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.</p>  | <p>We are following the necessary measures for maintaining the noise levels below the threshold limit. The noise levels are being maintained below 85 dBA. The personnel, who are engaged in the noisy workplaces and HEMM operation are provided with the corresponding PPE like Earlier plugs/Muffs.</p> |

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| <p>vii) Industrial waste water (workshop and 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.</p>  | <p>We have installed the Effluent Treatment Plant to collect and treat the workshop waste water.</p>  <p><i>Photograph showing ETP unit</i></p>  |
| <p>viii) Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects. 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.</p> | <p>We are taking necessary precautions to avoid the personnel against exposure to the dust. All the sources of dust generation are kept under special concentration and the dust suppression is happening effectively with the sprinklers and developed avenue plantation along the haul roads. All the personnel are provided with the necessary Personal Protective Equipment's like dust masks, safety goggles, ear plugs, safety shoes, reflective jackets etc. The workmen are provided with all necessary trainings on occupational health and safety. Proper traffic/safety sign boards are placed wherever required and rules are being followed strictly for enhancing the safety in the work place.</p>  |

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| ix) 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. | Currently we have engaged consultant with suitable qualification to maintain the environment related compliances. We shall depute a senior executive with the suitable qualification once the project is completely functional.                                  |

| x) The project authorities shall inform to the Regional Office of the Ministry 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. | With obtained all the statutory clearances, the mine lease deed got executed and Mines commenced operations from the year 24.02.2014. As far beneficiation / process plant part is concerned, the project execution has achieved over 60 % of work completion.  |                              |                              |                              |                                  |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
|---|---|------------------------------|------------------------------|------------------------------|----------------------------------|-------------------|----------------------------------|---|-------------------------------|-----------|-----------|-----------|-----------|---|------------------------------|---|----------|----------|----------|---|------------|----------|----------|----------|---|---|----------------------|----------|---|----------|---|---|-----------------|--------|---|--------|---|---|----------------|---|-----------|-----------|---|---|--------------|--------|----------|----------|----------|---|------------|---------|----------|-----------|----------|---|--------|--------|---|--------|---|--------------|--------------------|------------------|--------------------|------------------|--|
| xi) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bangalore.      | <p>We abide by the said condition and state of environment expenditure done till March-2024 is given in the table below.</p> <p style="text-align: right;">Values are in INR</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Particulars</th> <th>Expenditure for FY 2015-2023</th> <th>Expenditure for FY 2023-2024</th> <th>Total Expenditure</th> <th>Funds Earmarked for FY 2024-2025</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><b>Environment Monitoring</b></td> <td>75,50,000</td> <td>13,00,000</td> <td>88,50,000</td> <td>13,00,000</td> </tr> <tr> <td>2</td> <td>Wildlife Conservation report</td> <td>-</td> <td>3,78,000</td> <td>3,78,000</td> <td>3,78,000</td> </tr> <tr> <td>3</td> <td>EIA Report</td> <td>1,14,500</td> <td>5,25,000</td> <td>6,39,500</td> <td>0</td> </tr> <tr> <td>4</td> <td>Fauna &amp; Flora report</td> <td>4,58,000</td> <td>-</td> <td>4,58,000</td> <td>-</td> </tr> <tr> <td>5</td> <td>Sample Analysis</td> <td>90,000</td> <td>-</td> <td>90,000</td> <td>-</td> </tr> <tr> <td>6</td> <td>AQMS Equipment</td> <td>-</td> <td>15,00,000</td> <td>15,00,000</td> <td>-</td> </tr> <tr> <td>7</td> <td>Water Survey</td> <td>500000</td> <td>2,30,000</td> <td>7,30,000</td> <td>2,30,000</td> </tr> <tr> <td>8</td> <td>Green Belt</td> <td>3120022</td> <td>6,43,890</td> <td>34,00,022</td> <td>8,00,000</td> </tr> <tr> <td>9</td> <td>Others</td> <td>24,600</td> <td>-</td> <td>24,600</td> <td>-</td> </tr> <tr> <td><b>Total</b></td> <td><b>1,18,57,122</b></td> <td><b>45,76,890</b></td> <td><b>1,60,70,122</b></td> <td><b>27,08,000</b></td> <td></td> </tr> </tbody> </table> | Sl. No.                      | Particulars                  | Expenditure for FY 2015-2023 | Expenditure for FY 2023-2024     | Total Expenditure | Funds Earmarked for FY 2024-2025 | 1 | <b>Environment Monitoring</b> | 75,50,000 | 13,00,000 | 88,50,000 | 13,00,000 | 2 | Wildlife Conservation report | - | 3,78,000 | 3,78,000 | 3,78,000 | 3 | EIA Report | 1,14,500 | 5,25,000 | 6,39,500 | 0 | 4 | Fauna & Flora report | 4,58,000 | - | 4,58,000 | - | 5 | Sample Analysis | 90,000 | - | 90,000 | - | 6 | AQMS Equipment | - | 15,00,000 | 15,00,000 | - | 7 | Water Survey | 500000 | 2,30,000 | 7,30,000 | 2,30,000 | 8 | Green Belt | 3120022 | 6,43,890 | 34,00,022 | 8,00,000 | 9 | Others | 24,600 | - | 24,600 | - | <b>Total</b> | <b>1,18,57,122</b> | <b>45,76,890</b> | <b>1,60,70,122</b> | <b>27,08,000</b> |  |
| Sl. No.   | Particulars   | Expenditure for FY 2015-2023 | Expenditure for FY 2023-2024 | Total Expenditure            | Funds Earmarked for FY 2024-2025 |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 1   | <b>Environment Monitoring</b>   | 75,50,000                    | 13,00,000                    | 88,50,000                    | 13,00,000                        |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 2   | Wildlife Conservation report  | -                            | 3,78,000                     | 3,78,000                     | 3,78,000                         |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 3   | EIA Report  | 1,14,500                     | 5,25,000                     | 6,39,500                     | 0                                |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 4   | Fauna & Flora report  | 4,58,000                     | -                            | 4,58,000                     | -                                |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 5   | Sample Analysis   | 90,000                       | -                            | 90,000                       | -                                |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 6   | AQMS Equipment  | -                            | 15,00,000                    | 15,00,000                    | -                                |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 7   | Water Survey  | 500000                       | 2,30,000                     | 7,30,000                     | 2,30,000                         |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 8   | Green Belt  | 3120022                      | 6,43,890                     | 34,00,022                    | 8,00,000                         |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| 9   | Others  | 24,600                       | -                            | 24,600                       | -                                |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| <b>Total</b>  | <b>1,18,57,122</b>  | <b>45,76,890</b>             | <b>1,60,70,122</b>           | <b>27,08,000</b>             |                                  |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |
| xii) The project authorities shall inform 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.                  | With obtained all the statutory clearances, the mine lease deed got executed and Mines commenced operations from the year 24.02.2014. As far beneficiation / process plant part is concerned, the project execution has achieved over 60 % of work completion.  |                              |                              |                              |                                  |                   |                                  |   |                               |           |           |           |           |   |                              |   |          |          |          |   |            |          |          |          |   |   |                      |          |   |          |   |   |                 |        |   |        |   |   |                |   |           |           |   |   |              |        |          |          |          |   |            |         |          |           |          |   |        |        |   |        |   |              |                    |                  |                    |                  |  |

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| <p>xiii) The Regional Office of the Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.</p>   | <p>We shall adhere to all the conditions and will extend all our cooperation during any such inspections by the Authority.</p>   |
| <p>xiv) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests, Bangalore, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.</p> | <p>We are submitting the compliance reports regularly at every six-month interval.</p> <p>We have uploaded the compliance report on our company website (website link - <a href="https://geomysore.com/wp-content/Doc/MOEF Comploance.pdf">https://geomysore.com/wp-content/Doc/MOEF Comploance.pdf</a>)</p> |

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| xv) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, within seven days of the issue of this clearance letter informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board and also at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bangalore. | We have complied to the mentioned condition.  |
| xvi) A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Panchayat/ Municipal Corporation, Urban Local Bodies and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.  | We have put the Environmental Clearance letter of the project on the organization website. The link is as follows:<br><a href="https://geomysore.com/environmental-clearanceec/">https://geomysore.com/environmental-clearanceec/</a> |

|   |   |
|---|---|
| <p>xvii) The State pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and the Collector's Office/Tehsildar's Office for 30 days.</p>   | <p>Agreed, the copy of EC letter is available with the SPCB for necessary compliance.</p> <p><b>ANNEXURE - 6A</b><br/> <b>ANDHRA PRADESH POLLUTION CONTROL BOARD</b><br/>   Regional Office, 1<sup>st</sup> Floor, Shanka Shopping Complex, Krishna Nagar Main Road, Kurnool - 518 001<br/>   Environmental Engineer.<br/>   Phone No. 08618 - 230886;<br/>   Fax No. 08618 - 230819;<br/>   E-mail : re_andh@rediffmail.com<br/>   Dated: 15.04.2011</p> <p>To:<br/>   i) The District Collector &amp; Magistrate,<br/>   Kurnool District, Kurnool.<br/>   ii) The Chief Executive Officer,<br/>   AP Pollution Control Board.<br/>   iii) The District Industries Centre,<br/>   Kurnool.<br/>   iv) The Tehsildar,<br/>   Tuggudi (M), Kurnool Dist.<br/>   v) The Gram Panchayat Office,<br/>   Andhra EV, Tuggudi, Kurnool Dist.<br/>   vi) The Gram Panchayat Office,<br/>   Pappadividi, Tuggudi(M), Kurnool Dist.<br/>   vii) The Gram Panchayat Office,<br/>   Tengalur(E), Tuggudi(M), Kurnool Dist.</p> <p>Re: Subject: PCB - R.O. - KML - Application for prior Environmental Clearance of M/s Geomysore Services, India Pvt. Ltd. Unit No. 101, 1<sup>st</sup> Floor, Shanka Shopping Complex, Krishna Nagar Main Road, Tuggudi, Tengalur Village, Kurnool District for establishment of Gold Ore Production and Gold ore Processing unit - Proceedings of public hearing conducted on 09-12-2009 - Communicated for display - Required - Ring.</p> <p>Ref:<br/>   1. Serial dt: 06-07-2009 received from JCERCPB, Board Office, Hyderabad.<br/>   2. Serial dt: 07-07-2009 received from JCERCPB, Board Office, Hyderabad on 06-07-2009.<br/>   3. T.O.Lr No: 06-07-2009 received from JCERCPB, Board Office, Hyderabad.<br/>   4. Filled dt: 10-07-2009 received from JCERCPB, Board Office, Hyderabad.<br/>   5. Serial dt: 10-07-2009 received from JCERCPB, Board Office, Hyderabad on 10-07-2009.<br/>   6. T.O.Lr No: 10-07-2009 received from JCERCPB, Board Office, Hyderabad on 10-07-2009.<br/>   7. Serial dt: 10-07-2009 received from JCERCPB, Board Office, Hyderabad on 10-07-2009.<br/>   8. Serial dt: 10-07-2009 received from JCERCPB, Board Office, Hyderabad on 10-07-2009.<br/>   9. Public Hearing Notification issued on 08-11-2009<br/>   10. Public Hearing held on 09-12-2009</p> <p>With reference to the above, it is to submit that as per the directions given by MoEF, Govt. of India, New Delhi, the public hearing was conducted for establishment of Gold Ore Production and Gold ore Processing unit, M/s Geomysore Services, India Pvt. Ltd Chenchalapalli Block - 517 024, with a capacity of 0.30 MTPA Gold Ore. The Public Hearing was held on 09-12-2009 at 11:00 AM under the supervision of Joint Collector, Kurnool and Commissioner of EA, Kurnool, dated 09-12-2009.</p> <p>As per the notification, the proceedings of the public hearing shall be communicated to the concerned office of the concerned authority. Hence, I am herewith enclosing the proceedings of the public hearing for information of concerned authority. Communication of the same to the concerned authority may be done directly to MoEF, New Delhi for Mining authority &amp; SEIAA, A.P. Govt. of India, New Delhi, M/s Geomysore Services India Pvt. Ltd, Jaga Janta Building, No.99/1, 1<sup>st</sup> Floor, Opp. Mahadev, Marathahalli Outer Ring Road, Bengaluru - 560 032 for necessary action.</p> <p>Yours faithfully,<br/> <b>ENVIRONMENTAL ENGINEER</b></p> <p>Encl: Proceedings of the public hearing<br/>   • Copy submitted to the Joint Chief Environmental Engineer (JCE), A.P.Pollution Control Board, Secunderabad, intended for review of said information and taking necessary action.<br/>   • Copy submitted to the Joint Chief Environmental Engineer, K.P.Pollution Control Board, Secunderabad, intended for review of said information and taking necessary action.</p> |
| <p>xviii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of Ministry by e-mail.</p> | <p>Environmental Statement in Form-V is being regularly submitted and the same has been uploaded on the company's website.</p> <p><a href="https://geomysore.com/wp-content/Doc/Environmental_FormV28112024.pdf">https://geomysore.com/wp-content/Doc/Environmental_FormV28112024.pdf</a></p>   |

Geomysore Services (India) Pvt. Ltd

Place: Jonnagiri

Date: 30-11-2024

Signature: *Manas Ranjan Biswal*

Name in full: Manas Ranjan Biswal  
Designation: Director-Operations  
for Geomysore Services (India) Pvt. Ltd.

# **ENVIRONMENTAL MONITORING REPORT**

**April, 2024**

**Project : Jonnagiri Gold Mine  
Jonnagiri, Pagadrayi & Yerragudi Villages  
Tuggali Mandal, Kurnool District, Andhra Pradesh**

**Lessee**

**M/s. Geomysore Services (India) Pvt Ltd.,  
Bangalore, Karnataka**

**ENVIRONMENTAL LABORATORY  
(Unit of Mineral Engineering Services)  
(Accredited by NABL &, MOEF&CC Under E(P) 1986)  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post, Bangalore- 560 084, Karnataka,**

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory

Recognised by MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd |                                       |                                       |  |   |
|---|---|---------------------------------------|---------------------------------------|--|---|
| Name of the Project   | : Jonnagiri Gold Mine                     |                                       |                                       |  |   |
| Sample Collected by   | : Environmental Laboratory                |                                       |                                       |  |   |
| Station at & Code   | : A - I, Core Zone (ML Area)              |                                       |                                       |  |   |
| Duration  | : 24 Hrs                                  |                                       |                                       |  |   |
| Issue date  | : 02.05.2024                              |                                       |                                       |  |   |
| Reference   | IS 5182 & Lab SOP                         |                                       |                                       |  |   |
| Date of Sampling  | Lab Code                                  | Sulphur Dioxide                       | Nitrogen Dioxide                      | Particulate Matter                         |   |
|   |   | (SO <sub>2</sub> ), µg/m <sup>3</sup> | (NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 05.04.2024  | N/24/04/1-0163                            | 16                                    | 20                                    | 48   | 27  |
| 06.04.2024  | N/24/04/2-0003                            | 12                                    | 15                                    | 52   | 28  |
| 10.04.2024  | N/24/04/2-0123                            | 15                                    | 17                                    | 55   | 30  |
| 11.04.2024  | N/24/04/2-0212                            | 12                                    | 14                                    | 54   | 29  |
| 17.04.2024  | N/24/04/3-00166                           | 10                                    | 12                                    | 53   | 27  |
| 18.04.2024  | N/24/04/3-00216                           | 15                                    | 16                                    | 56   | 29  |
| 24.04.2024  | N/24/04/4-0127                            | 14                                    | 17                                    | 45   | 26  |
| 25.04.2024  | N/24/04/4-0184                            | 13                                    | 15                                    | 53   | 35  |
| Limits for Industrial ,<br>Residential, Rural and other Areas |   | 80<br>24 Hrs                          | 80<br>24 Hrs                          | 100<br>24 Hrs                              | 60<br>24 Hrs                                |

*Arshiya Kousar*  
ARSHIYA KOUSAR

Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

# 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in



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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd |  |   |  |   |
|---|---|--|---|--|---|
| Name of the Project   | : Jonnagiri Gold Mine                     |  |   |  |   |
| Sample Collected by   | : Environmental Laboratory                |  |   |  |   |
| Station at & Code   | : A - II, Bollavanipalli village          |  |   |  |   |
| Duration  | : 24 Hrs                                  |  |   |  |   |
| Issue date  | : 02.05.2024                              |  |   |  |   |
| Reference   | IS 5182 & Lab SOP                         |  |   |  |   |
| Date of Sampling  | Lab Code                                  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                         |   |
|   |   |  |   | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 05.04.2024  | N/24/04/1-0164                            | 9  | 12  | 46   | 29  |
| 06.04.2024  | N/24/04/2-0004                            | 12   | 16  | 58   | 29  |
| 10.04.2024  | N/24/04/2-0124                            | 10   | 14  | 55   | 28  |
| 11.04.2024  | N/24/04/2-0213                            | 9  | 13  | 47   | 25  |
| 17.04.2024  | N/24/04/3-00167                           | 13   | 16  | 51   | 29  |
| 18.04.2024  | N/24/04/3-00217                           | 11   | 16  | 53   | 25  |
| 24.04.2024  | N/24/04/4-0128                            | 10   | 14  | 49   | 26  |
| 25.04.2024  | N/24/04/4-0185                            | 9  | 13  | 55   | 27  |
| Limits for Industrial ,<br>Residential, Rural and other Areas |   | 80   | 80  | 100  | 60  |
|   |   | 24 Hrs   | 24 Hrs  | 24 Hrs                                     | 24 Hrs                                      |

*Arshiya Kousar*  
ARSHIYA KOUSAR  
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

# 948, 2nd Cross, St. Thomas Town Post, Kammanahalli, Bangalore - 560 084.  
Phone : 080-25432969 Tel/fax : 25432968. E-mail : mesbng@gmail.com, www.envtest.in



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## TEST REPORT

Table No. 3

### AMBIENT AIR QUALITY

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd |  |  |  |   |
|---|---|--|--|--|---|
| Name of the Project   | : Jonnagiri Gold Mine                     |  |  |  |   |
| Sample Collected by   | : Environmental Laboratory                |  |  |  |   |
| Station at & Code   | : A - III, Jonnagiri village              |  |  |  |   |
| Duration  | : 24 Hrs                                  |  |  |  |   |
| Issue date  | : 02.05.2024                              |  |  |  |   |
| Reference   | IS 5182 & Lab SOP                         |  |  |  |   |
| Date of Sampling  | Lab Code                                  | Sulphur  | Nitrogen   | Particulate Matter                         |   |
|   |   | Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 05.04.2024  | N/24/04/1-0165                            | 11   | 14   | 53   | 28  |
| 06.04.2024  | N/24/04/2-0005                            | 10   | 11   | 44   | 29  |
| 10.04.2024  | N/24/04/2-0125                            | 11   | 16   | 58   | 33  |
| 11.04.2024  | N/24/04/2-0214                            | 13   | 18   | 51   | 27  |
| 17.04.2024  | N/24/04/3-00168                           | 10   | 12   | 45   | 28  |
| 18.04.2024  | N/24/04/3-00218                           | 9  | 11   | 47   | 25  |
| 24.04.2024  | N/24/04/4-0129                            | 12   | 18   | 58   | 33  |
| 25.04.2024  | N/24/04/4-0186                            | 9  | 12   | 51   | 29  |
| Limits for Industrial ,<br>Residential, Rural and other Areas |   | 80<br>24 Hrs                                     | 80<br>24 Hrs                                     | 100<br>24 Hrs                              | 60<br>24 Hrs                                |

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory

Recognised by MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd |  |   |   |  |
|---|---|--|---|---|--|
| Name of the Project                                       | : Jonnagiri Gold Mine                     |  |   |   |  |
| Sample Collected by                                       | : Environmental Laboratory                |  |   |   |  |
| Station at & Code   | : A - IV, Upparlapalli village            |  |   |   |  |
| Duration  | : 24 Hrs                                  |  |   |   |  |
| Issue date  | : 02.05.2024                              |  |   |   |  |
| Reference   | IS 5182 & Lab SOP                         |  |   |   |  |
| Date of Sampling  | Lab Code                                  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                          |  |
|   |   |  |   | PM <sub>10</sub> , $\mu\text{g}/\text{m}^3$ | PM <sub>2.5</sub> , $\mu\text{g}/\text{m}^3$ |
| 05.04.2024  | N/24/04/1-0166                            | 12   | 14  | 46  | 27   |
| 06.04.2024  | N/24/04/2-0006                            | 11   | 14  | 38  | 20   |
| 10.04.2024  | N/24/04/2-0126                            | 10   | 12  | 51  | 29   |
| 11.04.2024  | N/24/04/2-0215                            | 11   | 14  | 49  | 27   |
| 17.04.2024  | N/24/04/3-00169                           | 9  | 13  | 54  | 29   |
| 18.04.2024  | N/24/04/3-00219                           | 11   | 12  | 43  | 25   |
| 24.04.2024  | N/24/04/4-0130                            | 13   | 18  | 55  | 31   |
| 25.04.2024  | N/24/04/4-0187                            | 11   | 12  | 50  | 27   |
| Limits for Industrial, Residential, Rural and other Areas |   | 80   | 80  | 100   | 60   |
|   |   | 24 Hrs   | 24 Hrs  | 24 Hrs                                      | 24 Hrs                                       |

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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine                     |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory                |  |   |   |  |
| Station at & Code  | : A - V, Pagadrayi village                |  |   |   |  |
| Duration   | : 24 Hrs                                  |  |   |   |  |
| Issue date   | : 02.05.2024                              |  |   |   |  |
| Reference  | IS 5182 & Lab SOP                         |  |   |   |  |
| Date of Sampling   | Lab Code                                  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                          |  |
|  |   |  |   | PM <sub>10</sub> , $\mu\text{g}/\text{m}^3$ | PM <sub>2.5</sub> , $\mu\text{g}/\text{m}^3$ |
| 05.04.2024   | N/24/04/1-0167                            | 9  | 11  | 53  | 29   |
| 06.04.2024   | N/24/04/2-0007                            | 10   | 12  | 48  | 25   |
| 10.04.2024   | N/24/04/2-0127                            | 11   | 15  | 40  | 26   |
| 11.04.2024   | N/24/04/2-0216                            | 9  | 12  | 52  | 28   |
| 17.04.2024   | N/24/04/3-00170                           | 10   | 14  | 41  | 25   |
| 18.04.2024   | N/24/04/3-00220                           | 8  | 12  | 46  | 27   |
| 24.04.2024   | N/24/04/4-0131                            | 9  | 13  | 57  | 33   |
| 25.04.2024   | N/24/04/4-0188                            | 11   | 16  | 53  | 28   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80   | 80  | 100   | 60   |
|  |   | 24 Hrs   | 24 Hrs  | 24 Hrs                                      | 24 Hrs                                       |

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## TEST REPORT

Table No. 6

### STATISTICAL AMBIENT AIR QUALITY DATA

Project : Jonnagiri Gold Mine

Client : M/s. Geomysore Services (india) Pvt Ltd

Month : April, 2024

| Station Code                                | A I - Core Zone (ML Area) |                 |                  |                   | A - II, Bollavanipalli village |                 |                  |                   | A - III, Jonnagiri village |                 |                  |                   |
|---|---------------------------|-----------------|------------------|-------------------|--------------------------------|-----------------|------------------|-------------------|----------------------------|-----------------|------------------|-------------------|
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>            | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.  | 10                        | 12              | 45               | 26                | 9                              | 12              | 46               | 25                | 9                          | 11              | 44               | 25                |
| 10%   | 11                        | 13              | 47               | 27                | 9                              | 13              | 47               | 25                | 9                          | 11              | 45               | 26                |
| 25%   | 12                        | 15              | 51               | 27                | 9                              | 13              | 49               | 26                | 10                         | 12              | 47               | 28                |
| 50%   | 14                        | 16              | 53               | 29                | 10                             | 14              | 52               | 28                | 11                         | 13              | 51               | 29                |
| 75%   | 15                        | 17              | 54               | 29                | 11                             | 16              | 55               | 29                | 11                         | 17              | 54               | 30                |
| 98%   | 16                        | 20              | 56               | 34                | 13                             | 16              | 58               | 29                | 13                         | 18              | 58               | 33                |
| Max.  | 16                        | 20              | 56               | 35                | 13                             | 16              | 58               | 29                | 13                         | 18              | 58               | 33                |
| Avg.  | 13                        | 16              | 52               | 29                | 10                             | 14              | 52               | 27                | 11                         | 14              | 51               | 29                |
| SD  | 2                         | 2               | 4                | 3                 | 2                              | 2               | 4                | 2                 | 1                          | 3               | 5                | 3                 |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   | 8                          |                 |                  |                   |
| Station Code : A - IV, Upparlapalli village |                           |                 |                  |                   | A - V, Pagadrayi village       |                 |                  |                   |                            |                 |                  |                   |
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |                            |                 |                  |                   |
| Min.  | 9                         | 12              | 38               | 20                | 8                              | 11              | 40               | 25                |                            |                 |                  |                   |
| 10%   | 10                        | 12              | 42               | 24                | 9                              | 12              | 41               | 25                |                            |                 |                  |                   |
| 25%   | 11                        | 12              | 45               | 27                | 9                              | 12              | 45               | 26                |                            |                 |                  |                   |
| 50%   | 11                        | 14              | 50               | 27                | 10                             | 13              | 50               | 28                |                            |                 |                  |                   |
| 75%   | 11                        | 14              | 52               | 29                | 10                             | 14              | 53               | 28                |                            |                 |                  |                   |
| 98%   | 13                        | 17              | 55               | 30                | 11                             | 16              | 56               | 32                |                            |                 |                  |                   |
| Max.  | 13                        | 18              | 55               | 31                | 11                             | 16              | 57               | 33                |                            |                 |                  |                   |
| Avg.  | 11                        | 14              | 48               | 27                | 10                             | 13              | 49               | 28                |                            |                 |                  |                   |
| SD  | 1                         | 2               | 6                | 3                 | 1                              | 2               | 6                | 3                 |                            |                 |                  |                   |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   |                            |                 |                  |                   |

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## TEST REPORT

### NOISE LEVEL DATA

Table No. 7

Report No : M001240406

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
|--|---|------------------|-----------------|------------------|------------------|------------------|------------------|-----|-------|------------------|----|----|-----------------|----|----|------------------|----|----|
| Name of the Project  | : Jonnagiri Gold Mine                     |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Particulars of sample collected  | : Sound Levels                            |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Sample Collected by  | : Environmental Laboratory                |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Date of sample collection  | : 25.04.2024                              |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Date of sample receipt   | : 27.04.2024                              |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Issue Date   | : 02.05.2024                              |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Sampling & Test Method   | : IS:9989                                 |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Code No.   | Monitoring stations                       | Day              |                 |                  | Night            |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
|  |   | L <sub>min</sub> | L <sub>eq</sub> | L <sub>max</sub> | L <sub>min</sub> | L <sub>eq</sub>  | L <sub>max</sub> |     |       |                  |    |    |                 |    |    |                  |    |    |
| <b>Bufferzone</b>  |   |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| N1   | Bollavanipalli village                    | 37.0             | 46.9            | 55.6             | 33.2             | 40.6             | 46.0             |     |       |                  |    |    |                 |    |    |                  |    |    |
| N2   | Jonnagiri village                         | 39.0             | 50.8            | 58.0             | 34.0             | 43.3             | 47.5             |     |       |                  |    |    |                 |    |    |                  |    |    |
| N3   | Upparlapalli village                      | 37.2             | 50.2            | 57.0             | 35.0             | 39.4             | 45.2             |     |       |                  |    |    |                 |    |    |                  |    |    |
| N4   | Pagadrayi village                         | 36.0             | 47.6            | 53.0             | 33.8             | 39.6             | 44.0             |     |       |                  |    |    |                 |    |    |                  |    |    |
| N5   | Yerragudi village                         | 42.0             | 48.2            | 55.1             | 34.0             | 39.6             | 45.0             |     |       |                  |    |    |                 |    |    |                  |    |    |
| <b>Corezone</b>  |   |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| N6   | Core zone ML Area                         | 38.0             | 52.2            | 59.2             | 34.0             | 44.3             | 49.0             |     |       |                  |    |    |                 |    |    |                  |    |    |
| <u>Permissible Limits of Ambient Noise Levels as per CPCB Guidelines</u>   |   |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| <table> <thead> <tr> <th colspan="2">Leq. Limit dB(A)</th> </tr> <tr> <th>Day</th> <th>Night</th> </tr> </thead> <tbody> <tr> <td>Industrial areas</td> <td>75</td> <td>70</td> </tr> <tr> <td>Commercial area</td> <td>65</td> <td>55</td> </tr> <tr> <td>Residential area</td> <td>55</td> <td>45</td> </tr> </tbody> </table> |   |                  |                 |                  |                  | Leq. Limit dB(A) |                  | Day | Night | Industrial areas | 75 | 70 | Commercial area | 65 | 55 | Residential area | 55 | 45 |
| Leq. Limit dB(A)   |   |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Day  | Night                                     |                  |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Industrial areas   | 75  | 70               |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Commercial area  | 65  | 55               |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |
| Residential area   | 55  | 45               |                 |                  |                  |                  |                  |     |       |                  |    |    |                 |    |    |                  |    |    |

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(UNIT OF MINERAL ENGINEERING SERVICES)

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MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

## TEST REPORT

Table No. 8

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd   |              |              |              |  |                       |                                 |
|--|---|--------------|--------------|--------------|--|-----------------------|---------------------------------|
| Name of the Project  | : Jonnagiri Gold Mine, Jonnagiri,<br>Pagadrayi & Yerragudi Villages, Tuggali Mandal, Kurnool District, Andhra Pradesh |              |              |              |  |                       |                                 |
| Particulars of sample collected                                    | : GW1 - Boolavanipalli Bore water, GW2 - Jonnagiri Bore water<br>GW3 - Bore water ML Area                             |              |              |              |  |                       |                                 |
| Sample Collected by  | : Environmental Laboratory  |              |              |              |  |                       |                                 |
| Date of sample collection  | : 26.04.2024  |              |              |              |  |                       |                                 |
| Date of sample receipt   | : 27.04.2024  |              |              |              |  |                       |                                 |
| Issue Date   | : 04.05.2024  |              |              |              |  |                       |                                 |
| Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards) |   |              |              |              |  |                       |                                 |
| Sl.<br>No.   | Lab Code<br>Parameters  | Results      |              |              | Desirable<br>Limits                            | Permissible<br>Limits | Method of Testing               |
|  |   | GW1          | GW2          | GW3          |  |                       |                                 |
| 1  | Colour (Hazen Units), Max   | <1           | <1           | <1           | 5  | 15                    | IS:3025 (P-4)02021              |
| 2  | Odour   | Agreeable    | Agreeable    | Agreeable    | Agreeable                                      | Agreeable             | IS:3025 (P-5) 2018              |
| 3  | pH Value  | 7.58         | 7.60         | 7.83         | 6.5 to 8.5                                     | 6.5 - 8.5             | IS:3025 (P-11)2022              |
| 4  | Taste   | Agreeable    | Agreeable    | Agreeable    | Agreeable                                      | Agreeable             | IS:3025 (P- 8)1984 RA 2017      |
| 5  | Turbidity,NTU, Max  | 1.2          | 1.2          | 0.8          | 1  | 5                     | IS:3025 (P-10)1984 RA2017       |
| 6  | Electrical Conductivity ( $\mu\text{mhos/cm}$ )   | 980.5        | 1906         | 1054         | --   | --                    | IS:3025 (P-14)                  |
| 7  | Total Dissolved Solids,mg/l, Max  | 680          | 1180         | 710          | 500  | 2000                  | IS:3025 (P-16)1984 RA2017       |
| 8  | Aluminium (as Al), Max  | <0.01        | <0.01        | <0.01        | 0.03   | 0.2                   | IS:3025(P-2)2019                |
| 9  | Ammonia (as total Ammonia - N),mg/l, Max  | <0.1         | <0.1         | <0.1         | 0.5  | 0.5                   | IS:3025 (P-34)Sec 1 2022        |
| 10   | Anionic Detergents (as MBAS),mg/l, Max  | <0.1         | <0.1         | <0.1         | 0.2  | 1.0                   | IS:3025(Part-68)                |
| 11   | Barium (as Ba), mg/l, Max   | 0.055        | 0.08         | 0.046        | 0.7  | 0.7                   | IS:3025(P-2)2019                |
| 12   | Boron (as B), mg/l, Max   | <0.1         | <0.1         | <0.1         | 0.5  | 2.4                   | IS:3025 (Part-57) 2021          |
| 13   | Calcium (as Ca),mg/l, Max   | 44.08        | 100.20       | 67.33        | 75   | 200                   | IS:3025 (P-40)1991 RA 2019      |
| 14   | Copper (as Cu),mg/l, Max  | 0.007        | 0.007        | 0.024        | 0.05   | 1.5                   | IS:3025 (P-2)2019               |
| 15   | Chloride as Cl (mg/l),mg/l, Max   | 136.45       | 261.41       | 181.44       | 250  | 1000                  | IS:3025 (P-32)1988 RA 2019      |
| 16   | Fluoride (as F),mg/l, Max   | 0.20         | 0.60         | 0.40         | 1  | 1.5                   | IS:3025 (P-60)2008 RA 2019      |
| 17   | Residual, Free Chlorine,mg/l, Max   | <0.1         | <0.1         | <0.1         | 0.2  | 1                     | IS:3025 (P-26)2021              |
| 18   | Chloramines as C12, Max   | <0.1         | <0.1         | <0.1         | 4  | 4                     | IS:3025(P-26)2021               |
| 19   | Iron (as Fe),mg/l, Max  | 0.019        | 0.007        | 0.007        | 1.0  | 1.0                   | IS:3025 (Part-2)2019            |
| 20   | Magnesium (as Mg)mg/l, Max  | 29.82        | 63.2         | 36.9         | 30   | 100                   | IS:3025 (P-46)1994 RA 2019      |
| 21   | Manganese (as Mn),mg/l, Max   | 0.005        | <0.001       | <0.001       | 0.1  | 0.3                   | IS:3025 (P-2)2019               |
| 22   | Mineral Oil,mg/l, Max   | <0.5         | <0.5         | <0.5         | 1.0  | 1.0                   | Clause 6 of IS 3025 (P-39) 2021 |
| 23   | Nitrates (as NO <sub>3</sub> ),mg/l, Max  | 20.50        | 37.74        | 8.63         | 45   | 45                    | IS:3025 (P-34)Sec 1 2022        |
| 24   | Phenolics (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max   | <0.001       | <0.001       | <0.001       | 0.001  | 0.002                 | IS:3025 (P-43)Sec 1 2022        |
| 25   | Selenium (as Se),mg/l, Max  | <0.005       | 0.01         | <0.005       | 0.01   | 0.01                  | IS:3025(P-2)2019                |
| 26   | Silver (as Ag), mg/l, Max   | <0.005       | <0.005       | <0.005       | 0.1  | 0.1                   | IS:3025(P-2)2019                |
| 27   | Molybdenum (as Mo), mg/l, Max   | <0.001       | <0.001       | 0.01         | 0.07   | 0.07                  | IS:3025 (P-2)2019               |
| 28   | Sulphates (as SO <sub>4</sub> ),mg/l, Max   | 46.00        | 217.20       | 109.40       | 200  | 400                   | IS:3025 (P-24) Sec 1 2022       |
| 29   | Sulphide (as H <sub>2</sub> S) , mg/l, Max  | <0.01        | <0.01        | <0.01        | 0.05   | 0.05                  | IS:3025 (P-29):1986 RA 2019     |
| 30   | Alkalinity (as CaCO <sub>3</sub> ) mg/l, Max  | 307          | 416          | 272          | 200  | 600                   | IS:3025 (P-23):1986 RA 2019     |
| 31   | Total Hardness (as CaCO <sub>3</sub> ),mg/l, Max  | 228.00       | 500.00       | 314.00       | 200  | 600                   | IS:3025 (P-21):2009 RA 2019     |
| 32   | Zinc (as Zn),mg/l, Max  | 0.006        | <0.005       | 0.087        | 5  | 15                    | IS:3025 (P-2) 2019              |
| 33   | Cadmium (as Cd),mg/l, Max   | <0.001       | <0.001       | <0.001       | 0.003  | 0.003                 | IS:3025 (P-2)2019               |
| 34   | Cyanide (as CN),mg/l, Max   | <0.01        | <0.01        | <0.01        | 0.05   | 0.05                  | IS:3025 (P-27)Sec 1 2021        |
| 35   | Lead (as Pb),mg/l, Max  | <0.005       | <0.005       | <0.005       | 0.01   | 0.01                  | IS:3025 (P-2)2019               |
| 36   | Mercury (as Hg),mg/l, Max   | <0.0005      | <0.0005      | <0.0005      | 0.001  | 0.001                 | USPEA 200.7 Rev 4.4             |
| 37   | Nickel (as Ni),mg/l,Max   | <0.001       | <0.001       | 0.014        | 0.02   | 0.02                  | IS:3025 (P-2) 2019              |
| 38   | Arsenic (as As),mg/l,Max  | <0.002       | <0.002       | <0.002       | 0.01   | 0.01                  | IS:3025 (P-2)2019               |
| 39   | Total Chromium (as Cr),mg/l, Max  | <0.001       | <0.001       | <0.001       | -  | -                     | IS:3025 (P-2)2019               |
| 40   | Escherichia coli/100ml  | Not Detected | Not Detected | Not Detected | Shall not be detectable<br>in any 100ml Sample |                       | IS:15185:2016 RA 2021           |
| 41   | Total Coliforms/100ml   | Not Detected | Not Detected | Not Detected |  |                       | IS:15185:2016 RA 2021           |

"END OF REPORT"

**BINUMANI**  
T.M. Microbiology  
Authorised Signatory

**M. SACHIN RAJU**  
T.M. - CHEMICAL  
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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES)

**MTIC**  
INTERCERT  
ISO 45001:2018

Accredited by NABL (TC-6172) Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory  
MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

## TEST REPORT

Table No. 9

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                                       |                 |                 |   |                   |                                |
|--|---|-----------------|-----------------|---|-------------------|--------------------------------|
| Name of the Project  | : Jonnagiri Gold Mine, Jonnagiri,   |                 |                 |   |                   |                                |
| Particulars of sample collected                                    | Pagadrav & Yerragudi Villages, Tuggali Mandal, Kurnool District, Andhra Pradesh |                 |                 |   |                   |                                |
| Sample Collected by  | : GW4 - Upparlapalli Bore water, GW5 - Pagadravi Bore water                     |                 |                 |   |                   |                                |
| Date of sample collection  | : Environmental Laboratory  |                 |                 |   |                   |                                |
| Date of sample receipt   | : 26.04.2024  |                 |                 |   |                   |                                |
| Issue Date   | : 27.04.2024  |                 |                 |   |                   |                                |
| Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards) |   |                 |                 |   |                   |                                |
| Sl. No.  | Lab Code  | ED/24/04/4-0031 | ED/24/04/4-0032 | Desirable Limts                             | Permissible Limts | Method of Testing              |
|  | Parameters  | GW4             | GW5             |   |                   |                                |
| 1  | Colour (Hazen Units), Max   | <1              | <1              | 5   | 15                | IS:3025 (P-4)2021              |
| 2  | Odour   | Agreeable       | Agreeable       | Agreeable                                   | Agreeable         | IS:3025 (P-5) 2018             |
| 3  | pH Value  | 7.70            | 8.00            | 6.5 to 8.5                                  | 6.5 - 8.5         | IS:3025 (P-11)2022             |
| 4  | Taste   | Agreeable       | Agreeable       | Agreeable                                   | Agreeable         | IS:3025 (P- 8)1984 RA 2017     |
| 5  | Turbidity,NTU, Max  | 1.5             | 1.2             | 1   | 5                 | IS:3025 (P-10)1984 RA2017      |
| 6  | Electrical Conductvity ( $\mu\text{mhos/cm}$ )                                  | 1408.0          | 1064.0          | --  | --                | IS 3025 (P-14)                 |
| 7  | Total Dissolved Solids,mg/l,Max   | 960             | 690             | 500   | 2000              | IS:3025 (P-16)1984 RA2017      |
| 8  | Aluminium (as Al), Max  | 0.010           | 0.011           | 0.03  | 0.2               | IS:3025(P-2)2019               |
| 9  | Ammonia (as total Ammonia - N),mg/l, Max  | <0.1            | <0.1            | 0.5   | 0.5               | IS:3025 (P-34)Sec 1 2022       |
| 10   | Anionic Detergents (as MBAS),mg/l, Max  | <0.1            | <0.1            | 0.2   | 1.0               | IS:3025(Part-68)               |
| 11   | Barium (as Ba), mg/l, Max   | 0.031           | 0.013           | 0.7   | 0.7               | IS:3025(P-2)2019               |
| 12   | Boron (as B), mg/l, Max   | <0.1            | <0.1            | 0.5   | 2.4               | IS:3025 (Part-57) 2021         |
| 13   | Calcium (as Ca),mg/l, Max   | 56.11           | 44.88           | 75  | 200               | IS:3025 (P-40)1991 RA 2019     |
| 14   | Copper (as Cu),mg/l, Max  | 0.01            | 0.009           | 0.05  | 1.5               | IS:3025 (P-2)2019              |
| 15   | Chloride as Cl (mg/l),mg/l, Max   | 186.44          | 171.44          | 250   | 1000              | IS:3025 (P-32)1988 RA 2019     |
| 16   | Fluoride (as F),mg/l, Max   | 0.90            | 0.60            | 1   | 1.5               | IS:3025 (P-60)2008 RA 2019     |
| 17   | Residual, Free Chlorine,mg/l, Max   | <0.1            | <0.1            | 0.2   | 1                 | IS:3025 (P-26)2021             |
| 18   | Chloramines as C12, Max   | <0.1            | <0.1            | 4   | 4                 | IS:3025(P-26)2021              |
| 19   | Iron (as Fe),mg/l, Max  | <0.005          | 0.006           | 1.0   | 1.0               | IS:3025 (Part-2)2019           |
| 20   | Magnesium (as Mg)mg/l, Max  | 32.86           | 32.56           | 30  | 100               | IS:3025 (P-46)1994 RA 2019     |
| 21   | Manganese (as Mn),mg/l, Max   | <0.001          | <0.001          | 0.1   | 0.3               | IS:3025 (P-2)2019              |
| 22   | Mineral Oil,mg/l, Max   | <0.5            | <0.5            | 1.0   | 1.0               | Clause 6 of IS 3025 (P-39) 202 |
| 23   | Nitrates (as $\text{NO}_3$ ),mg/l, Max  | 19.68           | 8.29            | 45  | 45                | IS:3025 (P-34)Sec 1 2022       |
| 24   | Phenolics (as $\text{C}_6\text{H}_5\text{OH}$ ),mg/l, Max                       | <0.001          | <0.001          | 0.001                                       | 0.002             | IS:3025 (P-43)Sec 1 2022       |
| 25   | Selenium (as Se),mg/l, Max  | <0.005          | <0.005          | 0.01  | 0.01              | IS:3025(P-2)2019               |
| 26   | Silver (as Ag), mg/l, Max   | <0.005          | <0.005          | 0.1   | 0.1               | IS:3025(P-2)2019               |
| 27   | Molybdenum (as Mo), mg/l, Max   | <0.001          | <0.001          | 0.07  | 0.07              | IS:3025 (P-2)2019              |
| 28   | Sulphates (as $\text{SO}_4$ ),mg/l, Max   | 142.60          | 75.40           | 200   | 400               | IS:3025 (P-24) Sec 1 2022      |
| 29   | Sulphide (as $\text{H}_2\text{S}$ ), mg/l, Max                                  | <0.01           | <0.01           | 0.05  | 0.05              | IS:3025 (P-29):1986 RA 2019    |
| 30   | Alkalinity (as $\text{CaCO}_3$ ) mg/l, Max                                      | 436             | 396             | 200   | 600               | IS:3025 (P-23):1986 RA 2019    |
| 31   | Total Hardness (as $\text{CaCO}_3$ ),mg/l, Max                                  | 270.00          | 246.00          | 200   | 600               | IS:3025 (P-21):2009 RA 2019    |
| 32   | Zinc (as Zn),mg/l, Max  | <0.005          | <0.005          | 5   | 15                | IS:3025 (P-2) 2019             |
| 33   | Cadmium (as Cd),mg/l, Max   | <0.001          | <0.001          | 0.003                                       | 0.003             | IS:3025 (P-2)2019              |
| 34   | Cyanide (as CN),mg/l, Max   | <0.01           | <0.01           | 0.05  | 0.05              | IS:3025 (P-27)Sec 1 2021       |
| 35   | Lead (as Pb),mg/l, Max  | <0.005          | <0.005          | 0.01  | 0.01              | IS:3025 (P-2)2019              |
| 36   | Mercury (as Hg),mg/l, Max   | <0.0005         | <0.0005         | 0.001                                       | 0.001             | USPEA 200.7 Rev 4.4            |
| 37   | Nickel (as Ni),mg/l,Max   | <0.001          | <0.001          | 0.02  | 0.02              | IS:3025 (P-2) 2019             |
| 38   | Arsenic (as As),mg/l,Max  | <0.002          | <0.002          | 0.01  | 0.01              | IS:3025 (P-2)2019              |
| 39   | Total Chromium (as Cr),mg/l, Max  | <0.001          | <0.001          | -   | -                 | IS:3025 (P-2)2019              |
| 40   | Escherichia coli/100ml  | Not Detected    | Not Detected    | Shall not be detectable in any 100ml Sample |                   | IS:15185:2016 RA 2021          |
| 41   | Total Coliforms/100ml   | Not Detected    | Not Detected    |   |                   | IS:15185:2016 RA 2021          |

"END OF REPORT"

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# **ENVIRONMENTAL MONITORING REPORT**

**May, 2024**

**Project : Jonnagiri Gold Mine**  
**Jonnagiri, Pagadrayi & Yerragudi Villages**  
**Tuggali Mandal, Kurnool District, Andhra Pradesh**

**Lessee**

**M/s. Geomysore Services (India) Pvt Ltd.,**  
**Bangalore, Karnataka**

**ENVIRONMENTAL LABORATORY**  
**(Unit of Mineral Engineering Services)**  
(Accredited by NABL &, MOEF&CC Under E(P) 1986)  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post, Bangalore- 560 084, Karnataka,

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |   |  |
|--|---|---|--|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |   |  |
| Station at & Code  | : A - I, Core Zone (ML Area)                                      |   |  |   |  |
| Duration   | : 24 Hrs  |   |  |   |  |
| Issue date   | : 01.06.2024  |   |  |   |  |
| Reference  | IS 5182 & Lab SOP   |   |  |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                      |  |
|  |   |   |  | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 08.05.2024   | N/24/05/2-0119  | 11  | 12   | 54                                      | 27                                       |
| 09.05.2024   | N/24/05/2-0182  | 9   | 11   | 48                                      | 25                                       |
| 17.05.2024.  | N/24/05/4-0175  | 12  | 17   | 38                                      | 17                                       |
| 18.05.2024   | N/24/05/4-0208  | 10  | 12   | 54                                      | 28                                       |
| 20.05.2024   | N/24/05/4-0278  | 11  | 14   | 40                                      | 26                                       |
| 21.05.2024   | N/24/05/4-0311  | 9   | 11   | 46                                      | 24                                       |
| 29.05.2024   | N/24/05/5-0179  | 10  | 14   | 37                                      | 22                                       |
| 30.05.2024   | N/24/05/5-0208  | 7   | 9  | 55                                      | 32                                       |
| Limits for Industrial , Residential, Rural and other Areas |   | 80  | 80   | 100                                     | 60                                       |
|  |   | 24 Hrs  | 24 Hrs   | 24 Hrs                                  | 24 Hrs                                   |

*Arshiya Kousar*  
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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - II, Bollavanipalli village                                  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.06.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 08.05.2024   | N/24/05/2-0120  | 12   | 14  | 48  | 24   |
| 09.05.2024   | N/24/05/2-0183  | 12   | 18  | 54  | 25   |
| 17.05.2024.  | N/24/05/4-0176  | 11   | 16  | 52  | 27   |
| 18.05.2024   | N/24/05/4-0209  | 10   | 14  | 40  | 22   |
| 20.05.2024   | N/24/05/4-0279  | 9  | 10  | 48  | 28   |
| 21.05.2024   | N/24/05/4-0312  | 10   | 14  | 53  | 27   |
| 29.05.2024   | N/24/05/5-0180  | 11   | 15  | 45  | 23   |
| 30.05.2024   | N/24/05/5-0209  | 12   | 14  | 48  | 25   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80   | 80  | 100   | 60   |
|  |   | 24 Hrs   | 24 Hrs  | 24 Hrs  | 24 Hrs   |

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## TEST REPORT

Table No. 3

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - III, Jonnagiri village                                      |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.06.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 08.05.2024   | N/24/05/2-0121  | 11   | 13  | 51  | 27   |
| 09.05.2024   | N/24/05/2-0184  | 7  | 11  | 56  | 29   |
| 17.05.2024.  | N/24/05/4-0177  | 11   | 12  | 40  | 25   |
| 18.05.2024   | N/24/05/4-0210  | 10   | 12  | 43  | 23   |
| 20.05.2024   | N/24/05/4-0280  | 9  | 10  | 38  | 18   |
| 21.05.2024   | N/24/05/4-0313  | 7  | 9   | 40  | 21   |
| 29.05.2024   | N/24/05/5-0181  | 11   | 13  | 58  | 35   |
| 30.05.2024   | N/24/05/5-0210  | 11   | 13  | 52  | 29   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80   | 80  | 100   | 60   |
|  |   | 24 Hrs   | 24 Hrs  | 24 Hrs  | 24 Hrs   |

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(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |   |  |
|--|---|---|--|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |   |  |
| Station at & Code  | : A - IV, Upparlapalli village                                    |   |  |   |  |
| Duration   | : 24 Hrs  |   |  |   |  |
| Issue date   | : 01.06.2024  |   |  |   |  |
| Reference  | IS 5182 & Lab SOP   |   |  |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                      |  |
|  |   |   |  | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 08.05.2024   | N/24/05/2-0122  | 12  | 18   | 50                                      | 27                                       |
| 09.05.2024   | N/24/05/2-0185  | 12  | 14   | 36                                      | 20                                       |
| 17.05.2024.  | N/24/05/4-0178  | 10  | 11   | 36                                      | 17                                       |
| 18.05.2024   | N/24/05/4-0211  | 7   | 9  | 57                                      | 31                                       |
| 20.05.2024   | N/24/05/4-0281  | 9   | 10   | 35                                      | 22                                       |
| 21.05.2024   | N/24/05/4-0314  | 10  | 12   | 50                                      | 25                                       |
| 29.05.2024   | N/24/05/5-0182  | 12  | 14   | 41                                      | 22                                       |
| 30.05.2024   | N/24/05/5-0211  | 9   | 11   | 39                                      | 18                                       |
| Limits for Industrial , Residential, Rural and other Areas |   | 80  | 80   | 100                                     | 60                                       |
|  |   | 24 Hrs  | 24 Hrs   | 24 Hrs                                  | 24 Hrs                                   |

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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - V, Pagadrayi village  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.06.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 08.05.2024   | N/24/05/2-0123  | 11   | 16  | 49  | 23   |
| 09.05.2024   | N/24/05/2-0186  | 13   | 13  | 50  | 26   |
| 17.05.2024.  | N/24/05/4-0179  | 11   | 14  | 30  | 20   |
| 18.05.2024   | N/24/05/4-0212  | 10   | 11  | 48  | 25   |
| 20.05.2024   | N/24/05/4-0282  | 9  | 10  | 39  | 23   |
| 21.05.2024   | N/24/05/4-0315  | 11   | 12  | 45  | 24   |
| 29.05.2024   | N/24/05/5-0183  | 10   | 13  | 55  | 28   |
| 30.05.2024   | N/24/05/5-0212  | 11   | 15  | 47  | 25   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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Recognised by MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

## TEST REPORT

Table No. 6

### STATISTICAL AMBIENT AIR QUALITY DATA

Project : Jonnagiri Gold Mine

Client : M/s. Geomysore Services (india) Pvt Ltd

Month : May, 2024

| Station Code                                | A I - Core Zone (ML Area) |                 |                  |                   | A - II, Bollavanipalli village |                 |                  |                   | A - III, Jonnagiri village |                 |                  |                   |
|---|---------------------------|-----------------|------------------|-------------------|--------------------------------|-----------------|------------------|-------------------|----------------------------|-----------------|------------------|-------------------|
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>            | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.  | 7                         | 9               | 37               | 17                | 9                              | 10              | 40               | 22                | 7                          | 9               | 38               | 18                |
| 10%   | 8                         | 10              | 38               | 21                | 10                             | 13              | 44               | 23                | 7                          | 10              | 39               | 20                |
| 25%   | 9                         | 11              | 40               | 24                | 10                             | 14              | 47               | 24                | 9                          | 11              | 40               | 23                |
| 50%   | 10                        | 12              | 47               | 26                | 11                             | 14              | 48               | 25                | 11                         | 12              | 47               | 26                |
| 75%   | 11                        | 14              | 54               | 27                | 12                             | 15              | 52               | 27                | 11                         | 13              | 53               | 29                |
| 98%   | 12                        | 17              | 55               | 31                | 12                             | 18              | 54               | 28                | 11                         | 13              | 58               | 34                |
| Max.  | 12                        | 17              | 55               | 32                | 12                             | 18              | 54               | 28                | 11                         | 13              | 58               | 35                |
| Avg.  | 10                        | 13              | 47               | 25                | 11                             | 14              | 49               | 25                | 10                         | 12              | 47               | 26                |
| SD  | 2                         | 2               | 7                | 4                 | 1                              | 2               | 5                | 2                 | 2                          | 2               | 8                | 5                 |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   | 8                          |                 |                  |                   |
| Station Code : A - IV, Upparlapalli village |                           |                 |                  |                   | A - V, Pagadrayi village       |                 |                  |                   |                            |                 |                  |                   |
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |                            |                 |                  |                   |
| Min.  | 7                         | 9               | 35               | 17                | 9                              | 10              | 30               | 20                |                            |                 |                  |                   |
| 10%   | 8                         | 10              | 36               | 18                | 10                             | 11              | 36               | 22                |                            |                 |                  |                   |
| 25%   | 9                         | 11              | 36               | 20                | 10                             | 12              | 44               | 23                |                            |                 |                  |                   |
| 50%   | 10                        | 12              | 40               | 22                | 11                             | 13              | 48               | 25                |                            |                 |                  |                   |
| 75%   | 12                        | 14              | 50               | 26                | 11                             | 14              | 49               | 25                |                            |                 |                  |                   |
| 98%   | 12                        | 17              | 56               | 30                | 13                             | 16              | 54               | 28                |                            |                 |                  |                   |
| Max.  | 12                        | 18              | 57               | 31                | 13                             | 16              | 55               | 28                |                            |                 |                  |                   |
| Avg.  | 10                        | 12              | 43               | 23                | 11                             | 13              | 45               | 24                |                            |                 |                  |                   |
| SD  | 2                         | 3               | 8                | 5                 | 1                              | 2               | 8                | 2                 |                            |                 |                  |                   |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   |                            |                 |                  |                   |

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# **ENVIRONMENTAL MONITORING REPORT**

**June, 2024**

**Project : Jonnagiri Gold Mine  
Jonnagiri, Pagadrayi & Yerragudi Villages  
Tuggali Mandal, Kurnool District, Andhra Pradesh**

**Lessee**

**M/s. Geomysore Services (India) Pvt Ltd.,  
Bangalore, Karnataka**

**ENVIRONMENTAL LABORATORY  
(Unit of Mineral Engineering Services)  
(Accredited by NABL & MOEF&CC Under E(P) 1986)  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post, Bangalore- 560 084, Karnataka,**

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |   |  |
|--|---|---|--|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |   |  |
| Station at & Code  | : A - I, Core Zone (ML Area)                                      |   |  |   |  |
| Duration   | : 24 Hrs  |   |  |   |  |
| Issue date   | : 03.07.2024  |   |  |   |  |
| Reference  | IS 5182 & Lab SOP   |   |  |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                      |  |
|  |   |   |  | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 05.06.2024   | N/24/06/2-0058  | 8   | 11   | 42                                      | 23                                       |
| 06.06.2024   | N/24/06/2-0080  | 10  | 16   | 36                                      | 19                                       |
| 14.06.2024   | N/24/06/4-0167  | 9   | 10   | 58                                      | 31                                       |
| 15.06.2024   | N/24/06/4-0204  | 6   | 9  | 56                                      | 29                                       |
| 17.06.2024   | N/24/06/5-0019  | 12  | 13   | 51                                      | 27                                       |
| 18.06.2024   | N/24/06/5-0060  | 10  | 12   | 52                                      | 26                                       |
| 26.06.2024   | N/24/06/5-0518  | 12  | 13   | 48                                      | 25                                       |
| 27.06.2024   | N/24/06/5-0558  | 11  | 14   | 45                                      | 26                                       |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs  | 80<br>24 Hrs   | 100<br>24 Hrs                           | 60<br>24 Hrs                             |

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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - II, Bollavanipalli village                                  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 03.07.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 05.06.2024   | N/24/06/2-0059  | 7  | 10  | 38  | 18   |
| 06.06.2024   | N/24/06/2-0081  | 11   | 13  | 42  | 27   |
| 14.06.2024   | N/24/06/4-0168  | 8  | 17  | 49  | 26   |
| 15.06.2024   | N/24/06/4-0205  | 11   | 15  | 53  | 27   |
| 17.06.2024   | N/24/06/5-0020  | 7  | 12  | 54  | 31   |
| 18.06.2024   | N/24/06/5-0061  | 10   | 14  | 37  | 26   |
| 26.06.2024   | N/24/06/5-0519  | 8  | 13  | 49  | 27   |
| 27.06.2024   | N/24/06/5-0559  | 11   | 14  | 33  | 18   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 3

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - III, Jonnagiri village                                      |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 03.07.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 05.06.2024   | N/24/06/2-0060  | 8  | 12  | 35  | 21   |
| 06.06.2024   | N/24/06/2-0082  | 12   | 13  | 46  | 24   |
| 14.06.2024   | N/24/06/4-0169  | 8  | 12  | 51  | 22   |
| 15.06.2024   | N/24/06/4-0206  | 11   | 14  | 34  | 20   |
| 17.06.2024   | N/24/06/5-0021  | 8  | 12  | 48  | 27   |
| 18.06.2024   | N/24/06/5-0062  | 11   | 13  | 58  | 33   |
| 26.06.2024   | N/24/06/5-0520  | 7  | 10  | 50  | 35   |
| 27.06.2024   | N/24/06/5-0560  | 10   | 14  | 54  | 27   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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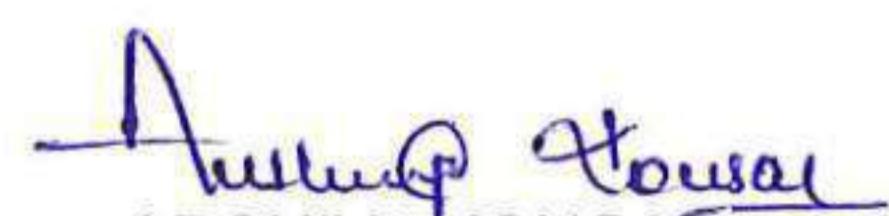
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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |   |  |
|--|---|---|--|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |   |  |
| Station at & Code  | : A - IV, Upparlapalli village                                    |   |  |   |  |
| Duration   | : 24 Hrs  |   |  |   |  |
| Issue date   | : 03.07.2024  |   |  |   |  |
| Reference  | IS 5182 & Lab SOP   |   |  |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                      |  |
|  |   |   |  | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 05.06.2024   | N/24/06/2-0061  | 10  | 15   | 40                                      | 22                                       |
| 06.06.2024   | N/24/06/2-0083  | 12  | 21   | 51                                      | 27                                       |
| 14.06.2024   | N/24/06/4-0170  | 8   | 17   | 53                                      | 26                                       |
| 15.06.2024   | N/24/06/4-0207  | 10  | 13   | 54                                      | 33                                       |
| 17.06.2024   | N/24/06/5-0022  | 9   | 15   | 35                                      | 27                                       |
| 18.06.2024   | N/24/06/5-0063  | 10  | 19   | 48                                      | 28                                       |
| 26.06.2024   | N/24/06/5-0521  | 7   | 11   | 53                                      | 26                                       |
| 27.06.2024   | N/24/06/5-0561  | 6   | 14   | 42                                      | 22                                       |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs  | 80<br>24 Hrs   | 100<br>24 Hrs                           | 60<br>24 Hrs                             |

  
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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - V, Pagadrayi village  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 03.07.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                          |  |
|  |   |  |   | PM <sub>10</sub> , $\mu\text{g}/\text{m}^3$ | PM <sub>2.5</sub> , $\mu\text{g}/\text{m}^3$ |
| 05.06.2024   | N/24/06/2-0062  | 8  | 11  | 38  | 20   |
| 06.06.2024   | N/24/06/2-0084  | 7  | 12  | 49  | 22   |
| 14.06.2024   | N/24/06/4-0171  | 9  | 16  | 45  | 25   |
| 15.06.2024   | N/24/06/4-0208  | 10   | 15  | 50  | 33   |
| 17.06.2024   | N/24/06/5-0023  | 8  | 14  | 50  | 27   |
| 18.06.2024   | N/24/06/5-0064  | 7  | 13  | 40  | 22   |
| 26.06.2024   | N/24/06/5-0522  | 9  | 10  | 37  | 26   |
| 27.06.2024   | N/24/06/5-0562  | 8  | 15  | 40  | 25   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                               | 60<br>24 Hrs                                 |

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## TEST REPORT

Table No. 6

### STATISTICAL AMBIENT AIR QUALITY DATA

Project : Jonnagiri Gold Mine

Client : M/s. Geomysore Services (india) Pvt Ltd

Month : June, 2024

| Station Code : A I - Core Zone (ML Area)    |                          |                 |                  | A - II, Bollavanipalli village |                 |                 |                  | A - III, Jonnagiri village |                 |                 |                  |                   |  |
|---|--------------------------|-----------------|------------------|--------------------------------|-----------------|-----------------|------------------|----------------------------|-----------------|-----------------|------------------|-------------------|--|
|   | SO <sub>2</sub>          | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub>              | SO <sub>2</sub> | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub>          | SO <sub>2</sub> | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |  |
| Min.  | 6                        | 9               | 36               | 19                             | 7               | 10              | 33               | 18                         | 7               | 10              | 34               | 20                |  |
| 10%   | 7                        | 10              | 40               | 22                             | 7               | 11              | 36               | 18                         | 8               | 11              | 35               | 21                |  |
| 25%   | 9                        | 11              | 44               | 25                             | 8               | 13              | 38               | 24                         | 8               | 12              | 43               | 22                |  |
| 50%   | 10                       | 13              | 50               | 26                             | 9               | 14              | 46               | 27                         | 9               | 13              | 49               | 26                |  |
| 75%   | 11                       | 13              | 53               | 28                             | 11              | 14              | 50               | 27                         | 11              | 13              | 52               | 29                |  |
| 98%   | 12                       | 16              | 58               | 31                             | 11              | 17              | 54               | 30                         | 12              | 14              | 57               | 35                |  |
| Max.  | 12                       | 16              | 58               | 31                             | 11              | 17              | 54               | 31                         | 12              | 14              | 58               | 35                |  |
| Avg.  | 10                       | 12              | 49               | 26                             | 9               | 14              | 44               | 25                         | 9               | 13              | 47               | 26                |  |
| SD  | 2                        | 2               | 7                | 4                              | 2               | 2               | 8                | 5                          | 2               | 1               | 9                | 6                 |  |
| No. of obs                                  | 8                        |                 |                  | 8                              |                 |                 | 8                |                            |                 |                 |                  |                   |  |
| Station Code : A - IV, Upparlapalli village | A - V, Pagadrayi village |                 |                  |                                |                 |                 |                  |                            |                 |                 |                  |                   |  |
|   | SO <sub>2</sub>          | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub>              | SO <sub>2</sub> | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub>          |                 |                 |                  |                   |  |
| Min.  | 6                        | 11              | 35               | 22                             | 7               | 10              | 37               | 20                         |                 |                 |                  |                   |  |
| 10%   | 7                        | 12              | 39               | 22                             | 7               | 11              | 38               | 21                         |                 |                 |                  |                   |  |
| 25%   | 8                        | 14              | 42               | 25                             | 8               | 12              | 40               | 22                         |                 |                 |                  |                   |  |
| 50%   | 10                       | 15              | 50               | 27                             | 8               | 14              | 43               | 25                         |                 |                 |                  |                   |  |
| 75%   | 10                       | 18              | 53               | 27                             | 9               | 15              | 49               | 26                         |                 |                 |                  |                   |  |
| 98%   | 12                       | 21              | 54               | 32                             | 10              | 16              | 50               | 32                         |                 |                 |                  |                   |  |
| Max.  | 12                       | 21              | 54               | 33                             | 10              | 16              | 50               | 33                         |                 |                 |                  |                   |  |
| Avg.  | 9                        | 16              | 47               | 26                             | 8               | 13              | 44               | 25                         |                 |                 |                  |                   |  |
| SD  | 2                        | 3               | 7                | 4                              | 1               | 2               | 6                | 4                          |                 |                 |                  |                   |  |
| No. of obs                                  | 8                        |                 |                  | 8                              |                 |                 |                  |                            |                 |                 |                  |                   |  |

  
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## TEST REPORT

Table No.7

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd                         |                |                                   |                              |
|---|---|----------------|-----------------------------------|------------------------------|
| Name of the Project   | : Jonnagiri Gold Mine   |                |                                   |                              |
| Sample Collected by   | : Environmental Laboratory (Unit of Mineral Engineering Services) |                |                                   |                              |
| Particulars of sample collected                                       | : SW1 - Jonnagiri Cherau water, SW2 - Pagadravi Cherau water      |                |                                   |                              |
| Date of sample collection   | : 18.06.2024  |                |                                   |                              |
| Issue Date  | : 26.06.2024  |                |                                   |                              |
| Ref:IS : 2296, 1982 Class C Norms (Stream Water Standards)            |   |                |                                   |                              |
| Lab Code  | N/24/06/4-0242  | N/24/06/4-0243 | Limits For Stream Water Standards | Method of Testing            |
| SI.No.  | Samples Code  | SW1            |                                   |                              |
| Parameters  | Results   |                |                                   |                              |
| 1 Colour (Hazen Units), Max   | <1  | <1             | 300                               | IS:3025(Part-4)2021          |
| 2 pH  | 6.94  | 7.12           | 6.5 to 8.5                        | IS:3025(Part-11)2022         |
| 3 Dissolved Oxygen (as O <sub>2</sub> ), mg/l, Max                    | 5.6   | 5.2            | Min 4                             | IS:3025(Part-38)1989RA 2019  |
| 4 Oil & Greease, mg/l   | <0.1  | <0.1           | 0.1                               | IS:3025(Part 39)2021         |
| 5 Total Dissolved Solids (mg/l), Max                                  | 850   | 760            | 1500                              | IS:3025(Part-16)2023         |
| 6 Nitrates (as NO <sub>3</sub> ),mg/l, Max                            | 11.41   | 9.54           | 50                                | IS:3025(Part-34)2024         |
| 7 Anionic detergents (as MBAS),mg/l, Max                              | <0.1  | <0.1           | 1.0                               | IS:3025(Part-68)             |
| 8 Copper (as Cu),mg/l, Max  | <0.005  | <0.005         | 1.5                               | IS:3025(Part-2) 2019         |
| 9 Chloride (as Cl),mg/l, Max  | 233.06  | 202.86         | 600                               | IS:3025(Part-32) ;1988RA2019 |
| 10 Fluoride (as F),mg/l, Max  | 0.2   | <0.1           | 1.5                               | APHA 23rd Edition 4500F      |
| 11 Iron (as Fe),mg/l, Max   | <0.005  | <0.005         | 50                                | IS:3025(P-2) 2019            |
| 12 Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max | <0.001  | <0.001         | 0.005                             | IS:3025(P-43)Sec 1 2022      |
| 13 Selenium (as Se), mg/l, Max  | <0.005  | <0.005         | 0.05                              | IS:3025(P-2) 2019            |
| 14 Sulphates as SO <sub>4</sub> (mg/l), Max                           | 92.5  | 72.64          | 400                               | IS:3025(P-24)Sec 1 2022      |
| 15 Zinc (as Zn),mg/l, Max   | <0.005  | <0.005         | 15                                | IS:3025(P-2) 2019            |
| 16 Cadmium (as Cd), mg/l, Max   | <0.001  | <0.001         | 0.01                              | IS:3025(P-2) 2019            |
| 17 Cyanides (as CN), mg/l, Max  | <0.01   | <0.01          | 0.05                              | IS:3025(P-27) Sec 1 2021     |
| 18 Lead (as Pb) mg/l, Max   | <0.005  | <0.005         | 0.1                               | IS:3025(P-2) 2019            |
| 19 Total Arsenic as As (mg/l), Max                                    | <<0.002   | <<0.002        | 0.2                               | IS:3025(P-2) 2019            |
| 20 Chromium (as Cr <sup>6+</sup> ), mg/l, Max                         | <0.03   | <0.03          | 0.05                              | IS:3025(P-52) 2014           |
| 21 Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l               | <3.0  | <3.0           | 3                                 | IS:3025(P-44) 2014           |
| 22 Total Coliform, MPN/100ml  | 6   | 11             | 5000                              | IS:1622:1981                 |

"END OF REPORT"

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# **ENVIRONMENTAL MONITORING REPORT**

**July, 2024**

**Project : Jonnagiri Gold Mine  
Jonnagiri, Pagadrayi & Yerragudi Villages  
Tuggali Mandal, Kurnool District, Andhra Pradesh**

**Lessee**

**M/s. Geomysore Services (India) Pvt Ltd.,  
Bangalore, Karnataka**

**ENVIRONMENTAL LABORATORY  
(Unit of Mineral Engineering Services)  
(Accredited by NABL &, MOEF&CC Under E(P) 1986)  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post, Bangalore- 560 084, Karnataka,**

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - I, Core Zone (ML Area)                                      |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.08.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 03.07.2024   | N/24/07/1-0132  | 9  | 13  | 36  | 19   |
| 04.07.2024   | N/24/07/1-0180  | 9  | 15  | 45  | 26   |
| 12.07.2024   | N/24/07/03-0149   | 9  | 11  | 53  | 26   |
| 13.07.2024   | N/24/07/03-0208   | 13   | 18  | 46  | 22   |
| 15.07.2024   | N/24/07/4-0017  | 10   | 11  | 43  | 26   |
| 16.07.2024   | N/24/07/4-0069  | 8  | 12  | 52  | 24   |
| 26.07.2024   | N/24/07/5-0171  | 9  | 12  | 47  | 23   |
| 27.07.2027   | N/24/07/5-0213  | 9  | 18  | 38  | 17   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80   | 80  | 100   | 60   |
|  |   | 24 Hrs   | 24 Hrs  | 24 Hrs  | 24 Hrs   |

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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - II, Bollavanipalli village                                  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.08.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 03.07.2024   | N/24/07/1-0133  | 7  | 15  | 56  | 27   |
| 04.07.2024   | N/24/07/1-0181  | 8  | 14  | 50  | 26   |
| 12.07.2024   | N/24/07/03-0150   | 8  | 11  | 41  | 24   |
| 13.07.2024   | N/24/07/03-0209   | 11   | 14  | 34  | 18   |
| 15.07.2024   | N/24/07/4-0018  | 10   | 13  | 50  | 24   |
| 16.07.2024   | N/24/07/4-0070  | 7  | 10  | 52  | 22   |
| 26.07.2024   | N/24/07/5-0172  | 14   | 15  | 49  | 26   |
| 27.07.2027   | N/24/07/5-0214  | 12   | 15  | 39  | 18   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 3

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - III, Jonnagiri village                                      |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.08.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 03.07.2024   | N/24/07/1-0134  | 10   | 13  | 45  | 25   |
| 04.07.2024   | N/24/07/1-0182  | 8  | 12  | 50  | 26   |
| 12.07.2024   | N/24/07/03-0151   | 13   | 18  | 43  | 21   |
| 13.07.2024   | N/24/07/03-0210   | 11   | 15  | 51  | 25   |
| 15.07.2024   | N/24/07/4-0019  | 11   | 14  | 46  | 25   |
| 16.07.2024   | N/24/07/4-0071  | 11   | 13  | 53  | 29   |
| 26.07.2024   | N/24/07/5-0173  | 12   | 13  | 55  | 27   |
| 27.07.2027   | N/24/07/5-0215  | 9  | 12  | 53  | 25   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - IV, Upparlapalli village                                    |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 01.08.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 03.07.2024   | N/24/07/1-0135  | 10   | 11  | 31  | 19   |
| 04.07.2024   | N/24/07/1-0183  | 6  | 9   | 45  | 24   |
| 12.07.2024   | N/24/07/03-0152   | 7  | 9   | 40  | 22   |
| 13.07.2024   | N/24/07/03-0211   | 10   | 16  | 36  | 22   |
| 15.07.2024   | N/24/07/4-0020  | 10   | 11  | 50  | 27   |
| 16.07.2024   | N/24/07/4-0072  | 13   | 15  | 36  | 18   |
| 26.07.2024   | N/24/07/5-0174  | 11   | 15  | 44  | 23   |
| 27.07.2027   | N/24/07/5-0216  | 12   | 16  | 30  | 19   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |   |  |
|--|---|---|--|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |   |  |
| Station at & Code  | : A - V, Pagadrayi village  |   |  |   |  |
| Duration   | : 24 Hrs  |   |  |   |  |
| Issue date   | : 01.08.2024  |   |  |   |  |
| Reference  | IS 5182 & Lab SOP   |   |  |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                      |  |
|  |   |   |  | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 03.07.2024   | N/24/07/1-0136  | 7   | 9  | 48                                      | 26                                       |
| 04.07.2024   | N/24/07/1-0184  | 11  | 15   | 44                                      | 25                                       |
| 12.07.2024   | N/24/07/03-0153   | 10  | 12   | 35                                      | 22                                       |
| 13.07.2024   | N/24/07/03-0212   | 10  | 16   | 44                                      | 25                                       |
| 15.07.2024   | N/24/07/4-0021  | 7   | 9  | 38                                      | 19                                       |
| 16.07.2024   | N/24/07/4-0073  | 9   | 9  | 50                                      | 27                                       |
| 26.07.2024   | N/24/07/5-0175  | 10  | 11   | 34                                      | 19                                       |
| 27.07.2027   | N/24/07/5-0217  | 7   | 11   | 50                                      | 26                                       |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs  | 80<br>24 Hrs   | 100<br>24 Hrs                           | 60<br>24 Hrs                             |

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## TEST REPORT

Table No. 6

### STATISTICAL AMBIENT AIR QUALITY DATA

Project : Jonnagiri Gold Mine

Client : M/s. Geomysore Services (india) Pvt Ltd

Month : July, 2024

| Station Code                                | A I - Core Zone (ML Area) |                 |                  |                   | A - II, Bollavanipalli village |                 |                  |                   | A - III, Jonnagiri village |                 |                  |                   |
|---|---------------------------|-----------------|------------------|-------------------|--------------------------------|-----------------|------------------|-------------------|----------------------------|-----------------|------------------|-------------------|
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>            | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.  | 8                         | 11              | 36               | 17                | 7                              | 10              | 34               | 18                | 8                          | 12              | 43               | 21                |
| 10%   | 9                         | 11              | 37               | 18                | 7                              | 11              | 38               | 18                | 9                          | 12              | 44               | 24                |
| 25%   | 9                         | 12              | 42               | 21                | 8                              | 13              | 41               | 21                | 10                         | 13              | 46               | 25                |
| 50%   | 9                         | 13              | 46               | 24                | 9                              | 14              | 50               | 24                | 11                         | 13              | 51               | 25                |
| 75%   | 9                         | 16              | 48               | 26                | 11                             | 15              | 51               | 26                | 11                         | 14              | 53               | 26                |
| 98%   | 13                        | 18              | 53               | 26                | 14                             | 15              | 55               | 27                | 13                         | 18              | 55               | 29                |
| Max.  | 13                        | 18              | 53               | 26                | 14                             | 15              | 56               | 27                | 13                         | 18              | 55               | 29                |
| Avg.  | 10                        | 14              | 45               | 23                | 10                             | 13              | 46               | 23                | 11                         | 14              | 50               | 25                |
| SD  | 2                         | 3               | 6                | 3                 | 3                              | 2               | 8                | 4                 | 2                          | 2               | 4                | 2                 |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   | 8                          |                 |                  |                   |
| Station Code : A - IV, Upparlapalli village | A - V, Pagadrayi village  |                 |                  |                   |                                |                 |                  |                   |                            |                 |                  |                   |
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |                            |                 |                  |                   |
| Min.  | 6                         | 9               | 30               | 18                | 7                              | 9               | 34               | 19                |                            |                 |                  |                   |
| 10%   | 7                         | 9               | 31               | 19                | 7                              | 9               | 35               | 19                |                            |                 |                  |                   |
| 25%   | 9                         | 11              | 35               | 19                | 7                              | 9               | 37               | 21                |                            |                 |                  |                   |
| 50%   | 10                        | 13              | 38               | 22                | 10                             | 11              | 44               | 25                |                            |                 |                  |                   |
| 75%   | 11                        | 15              | 44               | 23                | 10                             | 13              | 49               | 26                |                            |                 |                  |                   |
| 98%   | 13                        | 16              | 49               | 27                | 11                             | 16              | 50               | 27                |                            |                 |                  |                   |
| Max.  | 13                        | 16              | 50               | 27                | 11                             | 16              | 50               | 27                |                            |                 |                  |                   |
| Avg.  | 10                        | 13              | 39               | 22                | 9                              | 12              | 43               | 24                |                            |                 |                  |                   |
| SD  | 2                         | 3               | 7                | 3                 | 2                              | 3               | 6                | 3                 |                            |                 |                  |                   |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   |                            |                 |                  |                   |

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## TEST REPORT

### NOISE LEVEL DATA

Table No. 7

Report No : ELMES0142407

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |                  |                 |                  |                  |                 |                  |
|--|---|------------------|-----------------|------------------|------------------|-----------------|------------------|
| Name of the Project  | : Jonnagiri Gold Mine   |                  |                 |                  |                  |                 |                  |
| Particulars of sample collected  | : Sound Levels  |                  |                 |                  |                  |                 |                  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |                  |                 |                  |                  |                 |                  |
| Date of sample collection  | : 12.07.2024  |                  |                 |                  |                  |                 |                  |
| Date of sample receipt   | : 13.07.2024  |                  |                 |                  |                  |                 |                  |
| Issue Date   | : 01.08.2024  |                  |                 |                  |                  |                 |                  |
| Sampling & Test Method   | : IS:9989   |                  |                 |                  |                  |                 |                  |
| Code No.   | Monitoring stations   | Day              |                 |                  | Night            |                 |                  |
|  |   | L <sub>min</sub> | L <sub>eq</sub> | L <sub>max</sub> | L <sub>min</sub> | L <sub>eq</sub> | L <sub>max</sub> |
| <b>Bufferzone</b>  |   |                  |                 |                  |                  |                 |                  |
| N1   | Bollavanipalli village  | 36.0             | 45.3            | 53.2             | 33.2             | 39.0            | 42.5             |
| N2   | Jonnagiri village   | 37.0             | 48.7            | 54.0             | 34.0             | 41.4            | 45.0             |
| N3   | Upparlapalli village  | 36.8             | 46.5            | 52.8             | 35.0             | 38.5            | 43.0             |
| N4   | Pagadrayi village   | 35.0             | 45.3            | 51.0             | 34.0             | 39.9            | 45.0             |
| N5   | Yerragudi village   | 37.0             | 46.2            | 50.0             | 34.0             | 39.2            | 44.0             |
| <b>Corezone</b>  |   |                  |                 |                  |                  |                 |                  |
| N6   | Core zone ML Area   | 38.0             | 54.6            | 61.0             | 34.0             | 43.1            | 47.8             |
| <b>Permissible Limits of Ambient Noise Levels as per CPCB Guidelines</b> |   |                  |                 |                  |                  |                 |                  |
| <b>Leq. Limit dB(A)</b>  |   |                  |                 |                  |                  |                 |                  |
| Day      Night   |   |                  |                 |                  |                  |                 |                  |
| Industrial areas   | 75  | 70               |                 |                  |                  |                 |                  |
| Commercial area  | 65  | 55               |                 |                  |                  |                 |                  |
| Residential area   | 55  | 45               |                 |                  |                  |                 |                  |

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory

Recognised by MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

## TEST REPORT

Table No. 8

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd   |               |               |               |   |                    |                              |
|--|---|---------------|---------------|---------------|---|--------------------|------------------------------|
| Name of the Project  | : Jonnagiri Gold Mine, Jonnagiri,<br>Pagadrayi & Yerragudi Villages, Tuggali Mandal, Kurnool District, Andhra Pradesh |               |               |               |   |                    |                              |
| Particulars of sample collected                                    | : GW1 - Boolavanipalli Bore water, GW2 - Jonnagiri Bore water<br>GW3 - Bore water ML Area                             |               |               |               |   |                    |                              |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services)   |               |               |               |   |                    |                              |
| Date of sample collection  | : 12.07.2024  |               |               |               |   |                    |                              |
| Date of sample receipt   | : 13.07.2024  |               |               |               |   |                    |                              |
| Issue Date   | : 24.07.2024  |               |               |               |   |                    |                              |
| Ref : IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards) |   |               |               |               |   |                    |                              |
| Sl. No.  | Lab Code  | N24/07/2-0121 | N24/07/2-0122 | N24/07/2-0123 | Desirable Limits                            | Permissible Limits | Method of Testing            |
|  |   | Parameters    | Results       | GW1           |   |                    |                              |
| 1  | Colour (Hazen Units), Max   | <1            | <1            | <1            | 5   | 15                 | IS:3025 (P-4)02021           |
| 2  | Odour   | Agreeable     | Agreeable     | Agreeable     | Agreeable                                   | Agreeable          | IS:3025 (P-5) 2018           |
| 3  | pH Value  | 7.11          | 6.59          | 7.24          | 6.5 to 8.5                                  | 6.5 - 8.5          | IS:3025 (P-11)2022           |
| 4  | Taste   | Agreeable     | Agreeable     | Agreeable     | Agreeable                                   | Agreeable          | IS:3025 (P- 8)1984 RA 2017   |
| 5  | Turbidity,NTU, Max  | 0.8           | 2.1           | 1.1           | 1   | 5                  | IS:3025 (P-10)1984 RA2017    |
| 6  | Electrical Conductivity ( $\mu\text{mhos}/\text{cm}$ )  | 1000.0        | 1560          | 1100          | —   | —                  | IS 3025 (P-14)               |
| 7  | Total Dissolved Solids,mg/l,Max   | 680           | 950           | 680           | 500   | 2000               | IS:3025 (P-16)1984 RA2017    |
| 8  | Aluminium (as Al), Max  | <0.005        | <0.005        | <0.005        | 0.03  | 0.2                | IS:3025(P-2)2019             |
| 9  | Ammonia (as total Ammonia - N),mg/l, Max  | <0.1          | <0.1          | <0.1          | 0.5   | 0.5                | IS:3025(Part-34)1988 RA 2019 |
| 10   | Anionic Detergents (as MBAS),mg/l, Max  | <0.1          | <0.1          | <0.1          | 0.2   | 1.0                | IS:3025(Part-68)             |
| 11   | Barium (as Ba), mg/l, Max   | <0.005        | <0.005        | <0.005        | 0.7   | 0.7                | IS:3025(P-2)2019             |
| 12   | Boron (as B), mg/l, Max   | <0.1          | <0.1          | <0.1          | 0.5   | 2.4                | IS:3025 (Part-57) 2021       |
| 13   | Calcium (as Ca),mg/l, Max   | 134.90        | 152.30        | 96.19         | 75  | 200                | IS:3025 (P-40)1991 RA 2019   |
| 14   | Copper (as Cu),mg/l, Max  | <0.005        | <0.005        | <0.005        | 0.05  | 1.5                | IS:3025 (P-2)2019            |
| 15   | Chloride as Cl (mg/l),mg/l, Max   | 117.28        | 377.54        | 152.52        | 250   | 1000               | IS:3025 (P-32)1988 RA 2019   |
| 16   | Fluoride (as F),mg/l, Max   | 0.50          | 0.80          | 0.40          | 1   | 1.5                | APHA 4500F                   |
| 17   | Residual, Free Chlorine,mg/l, Max   | <0.1          | <0.1          | <0.1          | 0.2   | 1                  | IS:3025 (P-26)2021           |
| 18   | Chloramines as C12, Max   | <0.1          | <0.1          | <0.1          | 4   | 4                  | IS:3025(P-26)2021            |
| 19   | Iron (as Fe),mg/l, Max  | <0.005        | <0.005        | <0.005        | 1.0   | 1.0                | IS:3025 (Part-2)2019         |
| 20   | Magnesium (as Mg)mg/l, Max  | 10.90         | 36.88         | 29.16         | 30  | 100                | IS:3025 (P-46)1994 RA 2019   |
| 21   | Manganese (as Mn),mg/l, Max   | <0.001        | <0.001        | <0.001        | 0.1   | 0.3                | IS:3025 (P-2)2019            |
| 22   | Mineral Oil,mg/l, Max   | <0.5          | <0.5          | <0.5          | 1.0   | 1.0                | IS 3025 (P-39) 2021          |
| 23   | Nitrates (as $\text{NO}_3$ ),mg/l, Max  | 12.50         | 21.60         | 7.50          | 45  | 45                 | IS:3025(Part-34)1988 RA 2019 |
| 24   | Phenolics (as $\text{C}_6\text{H}_5\text{OH}$ ),mg/l, Max   | <0.001        | <0.001        | <0.001        | 0.001                                       | 0.002              | IS:3025 (P-43)Sec 1 2022     |
| 25   | Selenium (as Se),mg/l, Max  | <0.005        | <0.005        | <0.005        | 0.01  | 0.01               | IS:3025(P-2)2019             |
| 26   | Silver (as Ag), mg/l, Max   | <0.005        | <0.005        | <0.005        | 0.1   | 0.1                | IS:3025(P-2)2019             |
| 27   | Molybdenum (as Mo), mg/l, Max   | <0.001        | <0.001        | <0.001        | 0.07  | 0.07               | IS:3025 (P-2)2019            |
| 28   | Sulphates (as $\text{SO}_4$ ),mg/l, Max   | 128.00        | 142.50        | 59.30         | 200   | 400                | IS:3025 (P-24) Sec 1 2022    |
| 29   | Sulphide (as $\text{H}_2\text{S}$ ), mg/l, Max  | <0.01         | <0.01         | <0.01         | 0.05  | 0.05               | IS:3025 (P-29):1986 RA 2019  |
| 30   | Alkalinity (as $\text{CaCO}_3$ ), mg/l, Max   | 215           | 205           | 120           | 200   | 600                | IS:3025 (P-23):1986 RA 2019  |
| 31   | Total Hardness (as $\text{CaCO}_3$ ),mg/l, Max  | 381.48        | 540.00        | 360.00        | 200   | 600                | IS:3025 (P-21):2009 RA 2019  |
| 32   | Zinc (as Zn),mg/l, Max  | <0.005        | <0.005        | <0.005        | 5   | 15                 | IS:3025 (P-2) 2019           |
| 33   | Cadmium (as Cd),mg/l, Max   | <0.001        | <0.001        | <0.001        | 0.003                                       | 0.003              | IS:3025 (P-2)2019            |
| 34   | Cyanide (as CN),mg/l, Max   | <0.01         | <0.01         | <0.01         | 0.05  | 0.05               | IS:3025 (P-27)Sec 1 2021     |
| 35   | Lead (as Pb),mg/l, Max  | <0.005        | <0.005        | <0.005        | 0.01  | 0.01               | IS:3025 (P-2)2019            |
| 36   | Mercury (as Hg),mg/l, Max   | <0.0005       | <0.0005       | <0.0005       | 0.001                                       | 0.001              | USPEA 200.7 Rev 4.4          |
| 37   | Nickel (as Ni),mg/l, Max  | <0.001        | <0.001        | <0.001        | 0.02  | 0.02               | IS:3025 (P-2) 2019           |
| 38   | Arsenic (as As),mg/l,Max  | <0.002        | <0.002        | <0.002        | 0.01  | 0.01               | IS:3025 (P-2)2019            |
| 39   | Total Chromium (as Cr),mg/l, Max  | <0.001        | <0.001        | <0.001        | -   | -                  | IS:3025 (P-2)2019            |
| 40   | Escherichia coli/100ml  | Not Detected  | Not Detected  | Not Detected  | Shall not be detectable in any 100ml Sample |                    | IS:15185:2016 RA 2021        |
| 41   | Total Coliforms/100ml   | Not Detected  | Not Detected  | Not Detected  |   |                    | IS:15185:2016 RA 2021        |

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## TEST REPORT

Table No. 9

| Name of the Client              | M/s. Geomysore Services (india) Pvt Ltd   |               |               |   |                   |                              |
|---------------------------------|---|---------------|---------------|---|-------------------|------------------------------|
| Name of the Project             | Jonnagiri Gold Mine, Jonnagiri,<br>Pagadrayi & Yerragudi Villages, Tuggali Mandal, Kurnool District, Andhra Pradesh |               |               |   |                   |                              |
| Particulars of sample collected | GW4 - Upparlapalli Bore water, GW5 - Pagadravi Bore water   |               |               |   |                   |                              |
| Sample Collected by             | Environmental Laboratory (Unit of Mineral Engineering Services)   |               |               |   |                   |                              |
| Date of sample collection       | 12.07.2024  |               |               |   |                   |                              |
| Date of sample receipt          | 13.07.2024  |               |               |   |                   |                              |
| Issue Date                      | 24.07.2024  |               |               |   |                   |                              |
| Ref :                           | IS:10500-2012 Norms Amendment - 4 (Drinking Water Standards)  |               |               |   |                   |                              |
|                                 | Lab Code  | N24/07/2-0124 | N24/07/2-0125 | Desirable Limts                             | Permissible Limts |                              |
| Sl. No.                         | Parameters  | Results       |               | Method of Testing                           |                   |                              |
|                                 |   | GW4           | GW5           |   |                   |                              |
| 1                               | Colour (Hazen Units), Max   | <1            | <1            | 5   | 15                | IS:3025 (P-4)2021            |
| 2                               | Odour   | Agreeable     | Agreeable     | Agreeable                                   | Agreeable         | IS:3025 (P-5) 2018           |
| 3                               | pH Value  | 7.34          | 8.05          | 6.5 to 8.5                                  | 6.5 - 8.5         | IS:3025 (P-11)2022           |
| 4                               | Taste   | Agreeable     | Agreeable     | Agreeable                                   | Agreeable         | IS:3025 (P- 8)1984 RA 2017   |
| 5                               | Turbidity, NTU, Max   | 2.4           | 1.8           | 1   | 5                 | IS:3025 (P-10)1984 RA2017    |
| 6                               | Electrical Conductvity ( $\mu\text{mhos/cm}$ )  | 1900.0        | 1150.0        | —   | —                 | IS 3025 (P-14)               |
| 7                               | Total Dissolved Solids,mg/l,Max   | 1100          | 710           | 500   | 2000              | IS:3025 (P-16)1984 RA2017    |
| 8                               | Aluminium (as Al), Max  | <0.005        | <0.005        | 0.03  | 0.2               | IS:3025(P-2)2019             |
| 9                               | Ammonia (as total Ammonia -N),mg/l, Max   | <0.1          | <0.1          | 0.5   | 0.5               | IS:3025(Part-34)1988 RA 2019 |
| 10                              | Anionic Detergents (as MBAS),mg/l, Max  | <0.1          | <0.1          | 0.2   | 1.0               | IS:3025(Part-68)             |
| 11                              | Barium (as Ba), mg/l, Max   | <0.005        | <0.005        | 0.7   | 0.7               | IS:3025(P-2)2019             |
| 12                              | Boron (as B), mg/l, Max   | <0.1          | <0.1          | 0.5   | 2.4               | IS:3025 (Part-57) 2021       |
| 13                              | Calcium (as Ca),mg/l, Max   | 125.91        | 92.98         | 75  | 200               | IS:3025 (P-40)1991 RA 2019   |
| 14                              | Copper (as Cu),mg/l, Max  | <0.005        | <0.005        | 0.05  | 1.5               | IS:3025 (P-2)2019            |
| 15                              | Chloride as Cl (mg/l),mg/l, Max   | 381.72        | 197.43        | 250   | 1000              | IS:3025 (P-32)1988 RA 2019   |
| 16                              | Fluoride (as F),mg/l, Max   | 0.60          | 0.40          | 1   | 1.5               | APHA 4500F                   |
| 17                              | Residual, Free Chlorine,mg/l, Max   | <0.1          | <0.1          | 0.2   | 1                 | IS:3025 (P-26)2021           |
| 18                              | Chloramines as C12, Max   | <0.1          | <0.1          | 4   | 4                 | IS:3025(P-26)2021            |
| 19                              | Iron (as Fe),mg/l, Max  | <0.005        | <0.005        | 1.0   | 1.0               | IS:3025 (Part-2)2019         |
| 20                              | Magnesium (as Mg)mg/l, Max  | 50.07         | 17.98         | 30  | 100               | IS:3025 (P-46)1994 RA 2019   |
| 21                              | Manganese (as Mn),mg/l, Max   | <0.001        | <0.001        | 0.1   | 0.3               | IS:3025 (P-2)2019            |
| 22                              | Mineral Oil,mg/l, Max   | <0.5          | <0.5          | 1.0   | 1.0               | IS 3025 (P-39) 2021          |
| 23                              | Nitrates (as $\text{NO}_3$ ),mg/l, Max  | 24.60         | 4.80          | 45  | 45                | IS:3025(Part-34)1988 RA 2019 |
| 24                              | Phenolics (as $\text{C}_6\text{H}_5\text{OH}$ ),mg/l, Max   | <0.001        | <0.001        | 0.001                                       | 0.002             | IS:3025 (P-43)Sec 1 2022     |
| 25                              | Selenium (as Se),mg/l, Max  | <0.005        | <0.005        | 0.01  | 0.01              | IS:3025(P-2)2019             |
| 26                              | Silver (as Ag), mg/l, Max   | <0.005        | <0.005        | 0.1   | 0.1               | IS:3025(P-2)2019             |
| 27                              | Molybdenum (as Mo), mg/l, Max   | <0.001        | <0.001        | 0.07  | 0.07              | IS:3025 (P-2)2019            |
| 28                              | Sulphates (as $\text{SO}_4$ ),mg/l, Max   | 118.90        | 64.80         | 200   | 400               | IS:3025 (P-24) Sec 1 2022    |
| 29                              | Sulphide (as $\text{H}_2\text{S}$ ), mg/l, Max  | <0.01         | <0.01         | 0.05  | 0.05              | IS:3025 (P-29):1986 RA 2019  |
| 30                              | Alkalinity (as $\text{CaCO}_3$ ),mg/l, Max  | 315           | 285           | 200   | 600               | IS:3025 (P-23):1986 RA 2019  |
| 31                              | Total Hardness (as $\text{CaCO}_3$ ),mg/l, Max  | 520.00        | 306.00        | 200   | 600               | IS:3025 (P-21):2009 RA 2019  |
| 32                              | Zinc (as Zn),mg/l, Max  | <0.005        | <0.005        | 5   | 15                | IS:3025 (P-2) 2019           |
| 33                              | Cadmium (as Cd),mg/l, Max   | <0.001        | <0.001        | 0.003                                       | 0.003             | IS:3025 (P-2)2019            |
| 34                              | Cyanide (as CN),mg/l, Max   | <0.01         | <0.01         | 0.05  | 0.05              | IS:3025 (P-27)Sec 1 2021     |
| 35                              | Lead (as Pb),mg/l, Max  | <0.005        | <0.005        | 0.01  | 0.01              | IS:3025 (P-2)2019            |
| 36                              | Mercury (as Hg),mg/l, Max   | <0.0005       | <0.0005       | 0.001                                       | 0.001             | USPEA 200.7 Rev 4.4          |
| 37                              | Nickel (as Ni),mg/l,Max   | <0.001        | <0.001        | 0.02  | 0.02              | IS:3025 (P-2) 2019           |
| 38                              | Arsenic (as As),mg/l,Max  | <0.002        | <0.002        | 0.01  | 0.01              | IS:3025 (P-2)2019            |
| 39                              | Total Chromium (as Cr),mg/l, Max  | <0.001        | <0.001        | -   | -                 | IS:3025 (P-2)2019            |
| 40                              | Escherichia coli/100ml  | Not Detected  | Not Detected  | Shall not be detectable in any 100ml Sample |                   | IS:15185:2016 RA 2021        |
| 41                              | Total Coliforms/100ml   | Not Detected  | Not Detected  |   |                   | IS:15185:2016 RA 2021        |

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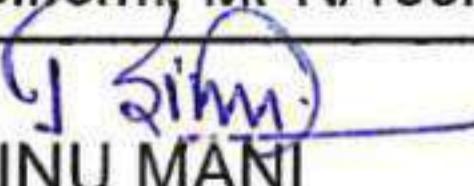
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## TEST REPORT

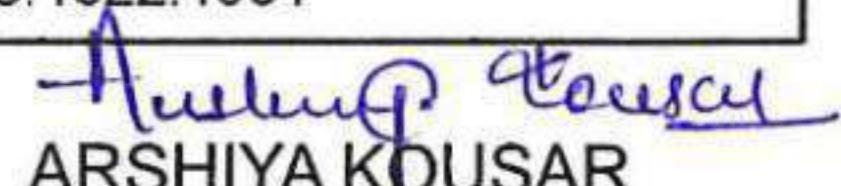
Table No. 10

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                          |               |               |                                   |                              |
|--|--|---------------|---------------|-----------------------------------|------------------------------|
| Name of the Project  | : Jonnagiri Gold Mine  |               |               |                                   |                              |
| Particulars of sample collected                            | : SW1 - Jonnagiri Cherau water<br>SW2 - Pagadravi Cherau water     |               |               |                                   |                              |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services)  |               |               |                                   |                              |
| Date of sample collection                                  | : 12.07.2024   |               |               |                                   |                              |
| Issue Date   | : 24.07.2024   |               |               |                                   |                              |
| Ref:IS : 2296, 1982 Class C Norms (Stream Water Standards) |  |               |               |                                   |                              |
| Sl.No  | Lab Code   | N24/07/2-0119 | N24/07/2-0120 | Limits For Stream Water Standards | Method of Testing            |
|  | Samples Code   | SW1           | SW2           |                                   |                              |
|  | Parameters   | Results       |               |                                   |                              |
| 1  | Colour (Hazen Units), Max  | <1            | <1            | 300                               | IS:3025(Part-4)2021          |
| 2  | pH   | 7.05          | 7.24          | 6.5 to 8.5                        | IS:3025(Part-11)2022         |
| 3  | Dissolved Oxygen (as O <sub>2</sub> ), mg/l, Max                   | 5.4           | 5.1           | Min 4                             | IS:3025(Part-38)1989RA 2019  |
| 4  | Oil & Greease, mg/l  | <0.1          | <0.1          | 0.1                               | IS:3025(Part 39)2021         |
| 5  | Total Dissolved Solids (mg/l), Max                                 | 810           | 645           | 1500                              | IS:3025(Part-16)2023         |
| 6  | Nitrates (as NO <sub>3</sub> ),mg/l, Max                           | 13.50         | 5.60          | 50                                | IS:3025(Part-34)1988 RA 2019 |
| 7  | Anionic detergents (as MBAS),mg/l, Max                             | <0.1          | <0.1          | 1.0                               | IS:3025(Part-68)             |
| 8  | Copper (as Cu),mg/l, Max   | <0.005        | <0.005        | 1.5                               | IS:3025(Part-2) 2019         |
| 9  | Chloride (as Cl),mg/l, Max   | 238.1         | 303.5         | 600                               | IS:3025(Part-32) ;1988RA2019 |
| 10   | Fluoride (as F),mg/l, Max  | 0.3           | 0.2           | 1.5                               | APHA 23rd Edition 4500F      |
| 11   | Iron (as Fe),mg/l, Max   | <0.005        | <0.005        | 50                                | IS:3025(P-2) 2019            |
| 12   | Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max | <0.001        | <0.001        | 0.005                             | IS:3025(P-43)Sec 1 2022      |
| 13   | Selenium (as Se), mg/l, Max  | <0.005        | <0.005        | 0.05                              | IS:3025(P-2) 2019            |
| 14   | Sulphates as SO <sub>4</sub> (mg/l), Max                           | 105           | 64.8          | 400                               | IS:3025(P-24)Sec 1 2022      |
| 15   | Zinc (as Zn),mg/l, Max   | <0.005        | <0.005        | 15                                | IS:3025(P-2) 2019            |
| 16   | Cadmium (as Cd), mg/l, Max   | <0.001        | <0.001        | 0.01                              | IS:3025(P-2) 2019            |
| 17   | Cyanides (as CN), mg/l, Max  | <0.01         | <0.01         | 0.05                              | IS:3025(P-27) Sec 1 2021     |
| 18   | Lead (as Pb) mg/l, Max   | <0.005        | <0.005        | 0.1                               | IS:3025(P-2) 2019            |
| 19   | Total Arsenic as As (mg/l), Max                                    | <0.002        | <0.002        | 0.2                               | IS:3025(P-2) 2019            |
| 20   | Chromium (as Cr <sup>6+</sup> ), mg/l, Max                         | <0.03         | <0.03         | 0.05                              | IS:3025(P-52) 2014           |
| 21   | Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l               | <3            | <3            | 3                                 | IS:3025(P-44) 2014           |
| 22   | Total Coliform, MPN/100ml  | 17            | 32            | 5000                              | IS:1622:1981                 |

  
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## TEST REPORT

Table No. 11

### GROUND WATER LEVEL

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd                                |          |    |      |           |    |      |  |
|---------------------|--|----------|----|------|-----------|----|------|--|
| Name of the Project | : Jonnagiri Gold Mine  |          |    |      |           |    |      |  |
| Sample Collected by | : Environmental Laboratory<br><br>(Unit of Mineral Engineering Services) |          |    |      |           |    |      |  |
| Month : July, 2024  |  |          |    |      |           |    |      |  |
| Code No.            | Location   | Latitude |    |      | Longitude |    |      | Water Level Below Ground Level BGL (m) |
|                     |  | D        | M  | S    | D         | M  | S    |  |
| GW1                 | Balavanpalli Bore well   | 15       | 14 | 29.3 | 77        | 36 | 32.1 | 7.40                                   |
| GW2                 | Jonnagiri Bore well  | 15       | 13 | 59   | 77        | 34 | 27   | 11.20                                  |
| GW3                 | Bore well Near within ML Area  | 15       | 14 | 40.6 | 77        | 35 | 37.3 | 12.00                                  |
| GW4                 | Upparlapalli Bore well   | 15       | 13 | 19.5 | 77        | 37 | 13.3 | 3.50                                   |
| GW5                 | Pagadravi Bore well  | 15       | 15 | 42.5 | 77        | 35 | 21.4 | 7.70                                   |

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# **ENVIRONMENTAL MONITORING REPORT**

**August, 2024**

**Project : Jonnagiri Gold Mine**  
**Jonnagiri, Pagadrayi & Yerragudi Villages**  
**Tuggali Mandal, Kurnool District, Andhra Pradesh**

**Lessee**

**M/s. Geomysore Services (India) Pvt Ltd.,**  
**Bangalore, Karnataka**

**ENVIRONMENTAL LABORATORY**  
**(Unit of Mineral Engineering Services)**  
(Accredited by NABL &, MOEF&CC Under E(P) 1986)  
#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post, Bangalore- 560 084, Karnataka,

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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |   |  |
|--|---|---|--|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |   |  |
| Station at & Code  | : A - I, Core Zone (ML Area)                                      |   |  |   |  |
| Duration   | : 24 Hrs  |   |  |   |  |
| Issue date   | : 05.09.2024  |   |  |   |  |
| Reference  | IS 5182 & Lab SOP   |   |  |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                      |  |
|  |   |   |  | PM <sub>10</sub> , (µg/m <sup>3</sup> ) | PM <sub>2.5</sub> , (µg/m <sup>3</sup> ) |
| 05.08.2024   | N/24/08/3-0009  | 9   | 11   | 48                                      | 24                                       |
| 06.08.2024   | N/24/08/3-0029  | 10  | 12   | 52                                      | 28                                       |
| 09.08.2024   | N/24/08/3-0135  | 6   | 9  | 35                                      | 18                                       |
| 13.08.2024   | N/24/08/4-0084  | 5   | 9  | 36                                      | 22                                       |
| 23.08.2024   | N/24/08/4-0419  | 7   | 10   | 40                                      | 27                                       |
| 24.08.2024   | N/24/08/5-0042  | 10  | 11   | 58                                      | 32                                       |
| 26.08.2024   | N/24/08/5-0106  | 11  | 12   | 53                                      | 27                                       |
| 27.08.2024   | N/24/08/5-0151  | 9   | 10   | 43                                      | 23                                       |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs  | 80<br>24 Hrs   | 100<br>24 Hrs                           | 60<br>24 Hrs                             |

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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - II, Bollavanipalli village                                  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 05.09.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 05.08.2024   | N/24/08/3-0010  | 6  | 9   | 49  | 28   |
| 06.08.2024   | N/24/08/3-0030  | 5  | 11  | 37  | 23   |
| 12.08.2024   | N/24/08/4-0030  | 9  | 10  | 45  | 26   |
| 13.08.2024   | N/24/08/4-0085  | 11   | 13  | 43  | 24   |
| 23.08.2024   | N/24/08/4-0420  | 7  | 9   | 50  | 27   |
| 24.08.2024   | N/24/08/5-0043  | 10   | 12  | 42  | 24   |
| 26.08.2024   | N/24/08/5-0107  | 11   | 13  | 38  | 22   |
| 27.08.2024   | N/24/08/5-0152  | 6  | 10  | 44  | 26   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 3

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - III, Jonnagiri village                                      |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 05.09.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 05.08.2024   | N/24/08/3-0011  | 10   | 11  | 35  | 19   |
| 06.08.2024   | N/24/08/3-0031  | 9  | 12  | 40  | 22   |
| 12.08.2024   | N/24/08/4-0031  | 10   | 13  | 48  | 29   |
| 13.08.2024   | N/24/08/4-0086  | 11   | 10  | 33  | 21   |
| 23.08.2024   | N/24/08/4-0421  | 7  | 11  | 42  | 28   |
| 24.08.2024   | N/24/08/5-0044  | 9  | 10  | 50  | 28   |
| 26.08.2024   | N/24/08/5-0108  | 6  | 11  | 30  | 18   |
| 27.08.2024   | N/24/08/5-0153  | 9  | 13  | 45  | 27   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - IV, Upparlapalli village                                    |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 05.09.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 09.08.2024   | N/24/08/3-0136  | 5  | 9   | 38  | 25   |
| 10.08.2024   | N/24/08/3-0219  | 10   | 11  | 41  | 28   |
| 12.08.2024   | N/24/08/4-0032  | 6  | 10  | 53  | 28   |
| 13.08.2024   | N/24/08/4-0087  | 8  | 13  | 52  | 27   |
| 23.08.2024   | N/24/08/4-0422  | 9  | 9   | 40  | 22   |
| 24.08.2024   | N/24/08/5-0045  | 10   | 11  | 36  | 20   |
| 26.08.2024   | N/24/08/5-0109  | 7  | 10  | 33  | 22   |
| 27.08.2024   | N/24/08/5-0154  | 10   | 12  | 27  | 21   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|--|---|--|---|---|--|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code  | : A - V, Pagadrayi village  |  |   |   |  |
| Duration   | : 24 Hrs  |  |   |   |  |
| Issue date   | : 05.09.2024  |  |   |   |  |
| Reference  | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling   | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|  |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 05.08.2024   | N/24/08/3-0012  | 9  | 9   | 30  | 20   |
| 06.08.2024   | N/24/08/3-0032  | 8  | 10  | 42  | 25   |
| 12.08.2024   | N/24/08/4-0033  | 10   | 13  | 36  | 23   |
| 13.08.2024   | N/24/08/4-0088  | 7  | 9   | 40  | 26   |
| 23.08.2024   | N/24/08/4-0423  | 9  | 11  | 38  | 19   |
| 24.08.2024   | N/24/08/5-0046  | 6  | 10  | 33  | 20   |
| 26.08.2024   | N/24/08/5-0110  | 8  | 9   | 41  | 22   |
| 27.08.2024   | N/24/08/5-0155  | 10   | 11  | 50  | 29   |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

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## TEST REPORT

Table No. 6

### STATISTICAL AMBIENT AIR QUALITY DATA

Project : Jonnagiri Gold Mine

Client : M/s. Geomysore Services (india) Pvt Ltd

Month : August, 2024

| Station Code                                | A I - Core Zone (ML Area) |                 |                  |                   | A - II, Bollavanipalli village |                 |                  |                   | A - III, Jonnagiri village |                 |                  |                   |
|---|---------------------------|-----------------|------------------|-------------------|--------------------------------|-----------------|------------------|-------------------|----------------------------|-----------------|------------------|-------------------|
|   | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>            | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.  | 5                         | 9               | 35               | 18                | 5                              | 9               | 37               | 22                | 6                          | 10              | 30               | 18                |
| 10%   | 6                         | 9               | 36               | 21                | 6                              | 9               | 38               | 23                | 7                          | 10              | 32               | 19                |
| 25%   | 7                         | 10              | 39               | 23                | 6                              | 10              | 41               | 24                | 9                          | 11              | 35               | 21                |
| 50%   | 9                         | 11              | 46               | 26                | 8                              | 11              | 44               | 25                | 9                          | 11              | 41               | 25                |
| 75%   | 10                        | 11              | 52               | 27                | 10                             | 12              | 46               | 26                | 10                         | 12              | 46               | 28                |
| 98%   | 11                        | 12              | 57               | 31                | 11                             | 13              | 50               | 28                | 11                         | 13              | 50               | 29                |
| Max.  | 11                        | 12              | 58               | 32                | 11                             | 13              | 50               | 28                | 11                         | 13              | 50               | 29                |
| Avg.  | 8                         | 11              | 46               | 25                | 8                              | 11              | 44               | 25                | 9                          | 11              | 40               | 24                |
| SD  | 2                         | 1               | 8                | 4                 | 2                              | 2               | 5                | 2                 | 2                          | 1               | 7                | 4                 |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   | 8                          |                 |                  |                   |
| Station Code : A - IV, Upparlapalli village | A - V, Pagadrayi village  |                 |                  |                   |                                |                 |                  |                   |                            |                 |                  |                   |
| Min.  | 5                         | 9               | 27               | 20                | 6                              | 9               | 30               | 19                |                            |                 |                  |                   |
| 10%   | 6                         | 9               | 31               | 21                | 7                              | 9               | 32               | 20                |                            |                 |                  |                   |
| 25%   | 7                         | 10              | 35               | 22                | 8                              | 9               | 35               | 20                |                            |                 |                  |                   |
| 50%   | 9                         | 11              | 39               | 24                | 9                              | 10              | 39               | 23                |                            |                 |                  |                   |
| 75%   | 10                        | 11              | 44               | 27                | 9                              | 11              | 41               | 25                |                            |                 |                  |                   |
| 98%   | 10                        | 13              | 53               | 28                | 10                             | 13              | 49               | 29                |                            |                 |                  |                   |
| Max.  | 10                        | 13              | 53               | 28                | 10                             | 13              | 50               | 29                |                            |                 |                  |                   |
| Avg.  | 8                         | 11              | 40               | 24                | 8                              | 10              | 39               | 23                |                            |                 |                  |                   |
| SD  | 2                         | 1               | 9                | 3                 | 1                              | 1               | 6                | 3                 |                            |                 |                  |                   |
| No. of obs                                  | 8                         |                 |                  |                   | 8                              |                 |                  |                   |                            |                 |                  |                   |

  
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# ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES)

Accredited by NABL (TC-6172) Recognised by BIS, FSSAI & CPCB:MoEFCC under E(P) A 1986 Vide Gazette Notification No. legal 42(3)/2022 dated 22.07.2022 Recognition valid upto 23.05.2023

ISO 45001:2018 Certified Laboratory



TC-6172

## TEST REPORT

Table No. 7

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                          |                 |                                   |                                   |
|--|--|-----------------|-----------------------------------|-----------------------------------|
| Name of the Project  | : Jonnagiri Gold Mine  |                 |                                   |                                   |
| Particulars of sample collected                            | : SW1 - Jonnagiri Cherau water<br>SW2 - Pagadravi Cherau water     |                 |                                   |                                   |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services)  |                 |                                   |                                   |
| Date of sample collection                                  | : 06.08.2024   |                 |                                   |                                   |
| Issue Date   | : 19.08.2024   |                 |                                   |                                   |
| Ref:IS : 2296, 1982 Class C Norms (Stream Water Standards) |  |                 |                                   |                                   |
| Lab Code   | N/24/08/02-0055  | N/24/08/02-0056 | Limits For Stream Water Standards | Method of Testing                 |
| Sl.No  | Samples Code   | SW1             |                                   |                                   |
|  | Parameters   | Results         |                                   |                                   |
| 1  | Colour (Hazen Units), Max  | 10              | 20                                | 300 IS:3025(Part-4)2021           |
| 2  | pH   | 8.20            | 8.38                              | 6.5 to 8.5 IS:3025(Part-11)2022   |
| 3  | Dissolved Oxygen (as O <sub>2</sub> ), mg/l, Max                   | 5.3             | 5.5                               | Min 4 IS:3025(Part-38)1989RA 2019 |
| 4  | Oil & Greease, mg/l  | <0.1            | <0.1                              | 0.1 IS:3025(Part 39)2021          |
| 5  | Total Dissolved Solids (mg/l), Max                                 | 140             | 84                                | 1500 IS:3025(Part-16)2023         |
| 6  | Nitrates (as NO <sub>3</sub> ),mg/l, Max                           | 8.50            | 4.20                              | 50 IS:3025(Part-34)1988 RA 2019   |
| 7  | Anionic detergents (as MBAS),mg/l, Max                             | <0.1            | <0.1                              | 1.0 IS:3025(Part-68)              |
| 8  | Copper (as Cu),mg/l, Max   | <0.005          | <0.005                            | 1.5 IS:3025(Part-2) 2019          |
| 9  | Chloride (as Cl),mg/l, Max   | 10              | 10                                | 600 IS:3025(Part-32) ;1988RA2019  |
| 10   | Fluoride (as F),mg/l, Max  | 0.48            | 0.38                              | 1.5 APHA 23rd Edition 4500F       |
| 11   | Iron (as Fe),mg/l, Max   | <0.005          | <0.005                            | 50 IS:3025(P-2) 2019              |
| 12   | Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),mg/l, Max | <0.001          | <0.001                            | 0.005 IS:3025(P-43)Sec 1 2022     |
| 13   | Selenium (as Se), mg/l, Max  | <0.005          | <0.005                            | 0.05 IS:3025(P-2) 2019            |
| 14   | Sulphates as SO <sub>4</sub> (mg/l), Max                           | 20              | 18                                | 400 IS:3025(P-24)Sec 1 2022       |
| 15   | Zinc (as Zn),mg/l, Max   | <0.005          | <0.005                            | 15 IS:3025(P-2) 2019              |
| 16   | Cadmium (as Cd), mg/l, Max   | <0.001          | <0.001                            | 0.01 IS:3025(P-2) 2019            |
| 17   | Cyanides (as CN), mg/l, Max  | <0.01           | <0.01                             | 0.05 IS:3025(P-27) Sec 1 2021     |
| 18   | Lead (as Pb) mg/l, Max   | <0.005          | <0.005                            | 0.1 IS:3025(P-2) 2019             |
| 19   | Total Arsenic as As (mg/l), Max                                    | <0.002          | <0.002                            | 0.2 IS:3025(P-2) 2019             |
| 20   | Chromium (as Cr <sup>6+</sup> ), mg/l, Max                         | <0.03           | <0.03                             | 0.05 IS:3025(P-52) 2014           |
| 21   | Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l               | <3              | <3                                | 3 IS:3025(P-44) 2014              |
| 22   | Total Coliform, MPN/100ml  | 80              | 94                                | 5000 IS:1622:1981                 |

*G. Limi*

BINU MANI  
Technical Manager

Govt. Analyst / Authorised Signatory

*Ausung Kousar*  
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# **ENVIRONMENTAL MONITORING REPORT**

**September, 2024**

**Project : Jonnagiri Gold Mine**

**Jonnagiri, Pagadrayi & Yerragudi Villages  
Tuggali Mandal, Kurnool District, Andhra Pradesh**

**Lessee**

**M/s. Geomysore Services (India) Pvt Ltd.,  
Bangalore, Karnataka**

**ENVIRONMENTAL LABORATORY**

**(Unit of Mineral Engineering Services)**

**(Accredited by NABL &, MOEF&CC Under E(P) 1986)**

**#948, 2<sup>nd</sup> Cross, Kammanahalli Main Road,  
St Thomas Town Post, Bangalore- 560 084, Karnataka,**

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(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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## TEST REPORT

Table No. 1

### AMBIENT AIR QUALITY

| Name of the Client  | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |   |  |
|---|---|--|---|---|--|
| Name of the Project                                       | : Jonnagiri Gold Mine   |  |   |   |  |
| Sample Collected by                                       | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |   |  |
| Station at & Code   | : A - I, Core Zone (ML Area)                                      |  |   |   |  |
| Duration  | : 24 Hrs  |  |   |   |  |
| Issue date  | : 03.10.2024  |  |   |   |  |
| Reference   | IS 5182 & Lab SOP   |  |   |   |  |
| Date of Sampling  | Lab Code  | Sulphur Dioxide (SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide (NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                            |  |
|   |   |  |   | PM <sub>10</sub> , $(\mu\text{g}/\text{m}^3)$ | PM <sub>2.5</sub> , $(\mu\text{g}/\text{m}^3)$ |
| 04.09.2024  | N/24/09/3-0106  | 7  | 11  | 54  | 32   |
| 05.09.2024  | N/24/09/3-0196  | 8  | 10  | 48  | 25   |
| 13.09.2024  | N/24/09/4-0177  | 11   | 15  | 58  | 30   |
| 14.09.2024  | N/24/09/4-0276  | 13   | 14  | 45  | 26   |
| 16.09.2024  | N/24/09/5-0032  | 6  | 11  | 38  | 22   |
| 17.09.2024  | N/24/09/5-0092  | 10   | 13  | 48  | 30   |
| 23.09.2024  | N/24/09/6-0026  | 11   | 13  | 53  | 30   |
| 24.09.2024  | N/24/09/6-0078  | 6  | 10  | 38  | 18   |
| Limits for Industrial, Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                                 | 60<br>24 Hrs                                   |

  
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## TEST REPORT

Table No. 2

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |  |   |
|--|---|---|--|--|---|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |  |   |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |  |   |
| Station at & Code  | : A - II, Bollavanipalli village                                  |   |  |  |   |
| Duration   | : 24 Hrs  |   |  |  |   |
| Issue date   | : 03.10.2024  |   |  |  |   |
| Reference  | IS 5182 & Lab SOP   |   |  |  |   |
| Date of Sampling   | Lab Code  | Sulphur Dioxide<br>(SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide<br>(NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                                 |   |
|  |   |   |  | PM <sub>10</sub> ,<br>( $\mu\text{g}/\text{m}^3$ ) | PM <sub>2.5</sub> ,<br>( $\mu\text{g}/\text{m}^3$ ) |
| 04.09.2024   | N/24/09/3-0107  | 10  | 14   | 48   | 25  |
| 05.09.2024   | N/24/09/3-0197  | 10  | 11   | 53   | 27  |
| 13.09.2024   | N/24/09/4-0178  | 6   | 12   | 35   | 18  |
| 14.09.2024   | N/24/09/4-0277  | 5   | 10   | 50   | 28  |
| 16.09.2024   | N/24/09/5-0033  | 8   | 10   | 45   | 25  |
| 17.09.2024   | N/24/09/5-0093  | 11  | 12   | 55   | 27  |
| 23.09.2024   | N/24/09/6-0027  | 8   | 10   | 56   | 29  |
| 24.09.2024   | N/24/09/6-0079  | 11  | 13   | 45   | 26  |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs  | 80<br>24 Hrs   | 100<br>24 Hrs                                      | 60<br>24 Hrs  |

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## TEST REPORT

Table No. 3

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |  |   |
|--|---|--|---|--|---|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |  |   |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |  |   |
| Station at & Code  | : A - III, Jonnagiri village                                      |  |   |  |   |
| Duration   | : 24 Hrs  |  |   |  |   |
| Issue date   | : 03.10.2024  |  |   |  |   |
| Reference  | IS 5182 & Lab SOP   |  |   |  |   |
| Date of Sampling   | Lab Code  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                         |   |
|  |   |  |   | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 04.09.2024   | N/24/09/3-0108  | 8  | 10  | 45   | 22  |
| 05.09.2024   | N/24/09/3-0198  | 7  | 9   | 44   | 24  |
| 13.09.2024   | N/24/09/4-0179  | 6  | 8   | 47   | 26  |
| 14.09.2024   | N/24/09/4-0278  | 6  | 9   | 55   | 30  |
| 16.09.2024   | N/24/09/5-0034  | 8  | 13  | 47   | 26  |
| 17.09.2024   | N/24/09/5-0094  | 8  | 10  | 54   | 27  |
| 23.09.2024   | N/24/09/6-0028  | 8  | 13  | 50   | 27  |
| 24.09.2024   | N/24/09/6-0080  | 10   | 14  | 48   | 25  |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                              | 60<br>24 Hrs                                |

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## TEST REPORT

Table No. 4

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |   |  |  |   |
|--|---|---|--|--|---|
| Name of the Project  | : Jonnagiri Gold Mine   |   |  |  |   |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |   |  |  |   |
| Station at & Code  | : A - IV, Upparlapalli village                                    |   |  |  |   |
| Duration   | : 24 Hrs  |   |  |  |   |
| Issue date   | : 03.10.2024  |   |  |  |   |
| Reference  | IS 5182 & Lab SOP   |   |  |  |   |
| Date of Sampling   | Lab Code  | Sulphur Dioxide<br>(SO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Nitrogen Dioxide<br>(NO <sub>2</sub> ), $\mu\text{g}/\text{m}^3$ | Particulate Matter                                 |   |
|  |   |   |  | PM <sub>10</sub> ,<br>( $\mu\text{g}/\text{m}^3$ ) | PM <sub>2.5</sub> ,<br>( $\mu\text{g}/\text{m}^3$ ) |
| 04.09.2024   | N/24/09/3-0109  | 12  | 14   | 50   | 27  |
| 05.09.2024   | N/24/09/3-0199  | 4   | 9  | 50   | 27  |
| 13.09.2024   | N/24/09/4-0180  | 7   | 12   | 37   | 25  |
| 14.09.2024   | N/24/09/4-0279  | 5   | 11   | 45   | 27  |
| 16.09.2024   | N/24/09/5-0035  | 10  | 11   | 56   | 29  |
| 17.09.2024   | N/24/09/5-0095  | 5   | 11   | 45   | 24  |
| 23.09.2024   | N/24/09/6-0029  | 9   | 10   | 40   | 22  |
| 24.09.2024   | N/24/09/6-0081  | 8   | 10   | 45   | 24  |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs  | 80<br>24 Hrs   | 100<br>24 Hrs                                      | 60<br>24 Hrs  |

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## TEST REPORT

Table No. 5

### AMBIENT AIR QUALITY

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |  |   |  |   |
|--|---|--|---|--|---|
| Name of the Project  | : Jonnagiri Gold Mine   |  |   |  |   |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |  |   |  |   |
| Station at & Code  | : A - V, Pagadrayi village  |  |   |  |   |
| Duration   | : 24 Hrs  |  |   |  |   |
| Issue date   | : 03.10.2024  |  |   |  |   |
| Reference  | IS 5182 & Lab SOP   |  |   |  |   |
| Date of Sampling   | Lab Code  | Sulphur Dioxide<br>(SO <sub>2</sub> ), µg/m <sup>3</sup> | Nitrogen Dioxide<br>(NO <sub>2</sub> ), µg/m <sup>3</sup> | Particulate Matter                         |   |
|  |   |  |   | PM <sub>10</sub> ,<br>(µg/m <sup>3</sup> ) | PM <sub>2.5</sub> ,<br>(µg/m <sup>3</sup> ) |
| 04.09.2024   | N/24/09/3-0110  | 6  | 12  | 51   | 25  |
| 05.09.2024   | N/24/09/3-0200  | 6  | 11  | 37   | 21  |
| 13.09.2024   | N/24/09/4-0181  | 7  | 12  | 32   | 20  |
| 14.09.2024   | N/24/09/4-0280  | 10   | 10  | 48   | 29  |
| 16.09.2024   | N/24/09/5-0036  | 11   | 12  | 53   | 30  |
| 17.09.2024   | N/24/09/5-0096  | 10   | 12  | 43   | 22  |
| 23.09.2024   | N/24/09/6-0030  | 7  | 11  | 47   | 25  |
| 24.09.2024   | N/24/09/6-0082  | 9  | 13  | 50   | 28  |
| Limits for Industrial , Residential, Rural and other Areas |   | 80<br>24 Hrs   | 80<br>24 Hrs  | 100<br>24 Hrs                              | 60<br>24 Hrs                                |

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### TEST REPORT

Table No. 6

#### STATISTICAL AMBIENT AIR QUALITY DATA

Project : Jonnagiri Gold Mine

Client : M/s. Geomysore Services (india) Pvt Ltd

Month : September, 2024

| Station Code | A I - Core Zone (ML Area) |                 |                  |                   | A - II, Bollavanipalli village |                 |                  |                   | A - III, Jonnagiri village |                 |                  |                   |
|--------------|---------------------------|-----------------|------------------|-------------------|--------------------------------|-----------------|------------------|-------------------|----------------------------|-----------------|------------------|-------------------|
|              | SO <sub>2</sub>           | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>                | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub>            | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Min.         | 6                         | 10              | 38               | 18                | 5                              | 10              | 35               | 18                | 6                          | 8               | 44               | 22                |
| 10%          | 6                         | 10              | 38               | 21                | 6                              | 10              | 42               | 23                | 6                          | 9               | 45               | 23                |
| 25%          | 7                         | 11              | 43               | 24                | 8                              | 10              | 45               | 25                | 7                          | 9               | 47               | 25                |
| 50%          | 9                         | 12              | 48               | 28                | 9                              | 12              | 49               | 27                | 8                          | 10              | 48               | 26                |
| 75%          | 11                        | 13              | 53               | 30                | 10                             | 12              | 54               | 27                | 8                          | 13              | 51               | 27                |
| 98%          | 13                        | 15              | 57               | 32                | 11                             | 14              | 56               | 29                | 10                         | 14              | 55               | 30                |
| Max.         | 13                        | 15              | 58               | 32                | 11                             | 14              | 56               | 29                | 10                         | 14              | 55               | 30                |
| Avg.         | 9                         | 12              | 48               | 27                | 9                              | 12              | 48               | 26                | 8                          | 11              | 49               | 26                |
| SD           | 3                         | 2               | 7                | 5                 | 2                              | 2               | 7                | 3                 | 1                          | 2               | 4                | 2                 |
| No. of obs   | 8                         |                 |                  |                   | 8                              |                 |                  |                   | 8                          |                 |                  |                   |

Station Code : A - IV, Upparlapalli village

A - V, Pagadrayi village

|            | SO <sub>2</sub> | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | NO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|------------|-----------------|-----------------|------------------|-------------------|-----------------|-----------------|------------------|-------------------|
| Min.       | 4               | 9               | 37               | 22                | 6               | 10              | 32               | 20                |
| 10%        | 5               | 10              | 39               | 23                | 6               | 11              | 36               | 21                |
| 25%        | 5               | 10              | 44               | 24                | 7               | 11              | 42               | 22                |
| 50%        | 8               | 11              | 45               | 26                | 8               | 12              | 48               | 25                |
| 75%        | 9               | 11              | 50               | 27                | 10              | 12              | 50               | 28                |
| 98%        | 12              | 14              | 55               | 29                | 11              | 13              | 53               | 30                |
| Max.       | 12              | 14              | 56               | 29                | 11              | 13              | 53               | 30                |
| Avg.       | 8               | 11              | 46               | 26                | 8               | 12              | 45               | 25                |
| SD         | 3               | 2               | 6                | 2                 | 2               | 1               | 7                | 4                 |
| No. of obs | 8               |                 |                  |                   | 8               |                 |                  |                   |

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INTERCERT  
ISO 45001:2018

## TEST REPORT

Table No. 7

| Name of the Client   | : M/s. Geomysore Services (india) Pvt Ltd                         |                |                                   |                              |
|--|---|----------------|-----------------------------------|------------------------------|
| Name of the Project  | : Jonnagiri Gold Mine   |                |                                   |                              |
| Particulars of sample collected  | : SW1 - Jonnagiri Cherau water<br>SW2 - Pagadravi Cherau water    |                |                                   |                              |
| Sample Collected by  | : Environmental Laboratory (Unit of Mineral Engineering Services) |                |                                   |                              |
| Date of sample collection  | : 10.09.2024  |                |                                   |                              |
| Issue Date   | : 30.09.2024  |                |                                   |                              |
| Ref:IS : 2296, 1982 Class C Norms (Stream Water Standards)             |   |                |                                   |                              |
| Lab Code   | N/24/09/3-0247  | N/24/09/3-0248 | Limits For Stream Water Standards | Method of Testing            |
| Sl.No  | Samples Code  | SW1            |                                   |                              |
| Parameters   | Results   |                |                                   |                              |
| 1 Colour (Hazen Units), Max  | 10  | 10             | 300                               | IS:3025(Part-4)2021          |
| 2 pH   | 7.51  | 8.42           | 6.5 to 8.5                        | IS:3025(Part-11)2022         |
| 3 Dissolved Oxygen (as O <sub>2</sub> ), mg/l, Max                     | 5.2   | 5.3            | Min 4                             | IS:3025(Part-38)1989RA 2019  |
| 4 Oil & Grease, mg/l   | <0.1  | <0.1           | 0.1                               | IS:3025(Part 39)2021         |
| 5 Total Dissolved Solids (mg/l), Max                                   | 124   | 220            | 1500                              | IS:3025(Part-16)2023         |
| 6 Nitrates (as NO <sub>3</sub> ), mg/l, Max                            | 7.24  | 12.50          | 50                                | IS:3025(Part-34)1988 RA 2019 |
| 7 Anionic detergents (as MBAS), mg/l, Max                              | <0.1  | <0.1           | 1.0                               | IS:3025(Part-68)             |
| 8 Copper (as Cu), mg/l, Max  | <0.005  | <0.005         | 1.5                               | IS:3025(Part-2) 2019         |
| 9 Chloride (as Cl), mg/l, Max  | 14  | 20             | 600                               | IS:3025(Part-32) ;1988RA2019 |
| 10 Fluoride (as F), mg/l, Max  | 0.7   | 0.84           | 1.5                               | APHA 23rd Edition 4500F      |
| 11 Iron (as Fe), mg/l, Max   | <0.005  | <0.005         | 50                                | IS:3025(P-2) 2019            |
| 12 Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max | <0.001  | <0.001         | 0.005                             | IS:3025(P-43)Sec 1 2022      |
| 13 Selenium (as Se), mg/l, Max   | <0.005  | <0.005         | 0.05                              | IS:3025(P-2) 2019            |
| 14 Sulphates as SO <sub>4</sub> (mg/l), Max                            | 28  | 40             | 400                               | IS:3025(P-24)Sec 1 2022      |
| 15 Zinc (as Zn), mg/l, Max   | <0.005  | <0.005         | 15                                | IS:3025(P-2) 2019            |
| 16 Cadmium (as Cd), mg/l, Max  | <0.001  | <0.001         | 0.01                              | IS:3025(P-2) 2019            |
| 17 Cyanides (as CN), mg/l, Max   | <0.01   | <0.01          | 0.05                              | IS:3025(P-27) Sec 1 2021     |
| 18 Lead (as Pb) mg/l, Max  | <0.005  | <0.005         | 0.1                               | IS:3025(P-2) 2019            |
| 19 Total Arsenic as As (mg/l), Max                                     | <0.002  | <0.002         | 0.2                               | IS:3025(P-2) 2019            |
| 20 Chromium (as Cr <sup>6+</sup> ), mg/l, Max                          | <0.03   | <0.03          | 0.05                              | IS:3025(P-52) 2014           |
| 21 Biochemical Oxygen Demand (as O <sub>2</sub> ), mg/l                | <3  | <3             | 3                                 | IS:3025(P-44) 2014           |
| 22 Total Coliform, MPN/100ml   | 92  | 110            | 5000                              | IS:1622:1981                 |

  
**BINUMANI**  
T.M.- Microbiology  
Authorised Signatory

  
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