



File No.: J-11015-393-2008-IA-II-(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated **08/05/2025**



To,

Mr. A V S HARI KIRAN KUMAR
M/s. GEOMYSORE SERVICES (INDIA) PRIVATE LIMITED
#77, 16th Cross, Sector-IV, HSR Layout, Bangalore- 560102, Jonnagiri, Pagadrayi and Erragudi
Villages, KURNOOL, ANDHRA PRADESH, 518390
admin@geomysore.com

Subject: **Jonnagiri Gold Mine Project for mining and processing of Gold Ore ROM 0.4 MTPA, OB 3.45MTPA & Top Soil 0.227MTPA with total excavation 4.077 MTPA and Ore Processing Plant of 0.3 MTPA in the ML area of 597.82 ha by M/s Geomysore Services (India) Limited located at village Jonnagiri, Pagadrayi and Erragudi, Tehsil Tuggali Mandal, District Kurnool, Andhra Pradesh - For Environmental Clearance - reg.**

Sir/Madam,

This is in reference to online application No. IA/AP/MIN/527415/2025, dated 12/03/2025, submitted to this Ministry for obtaining prior Environmental Clearance (EC) under the provisions of the Environmental Impact Assessment (EIA) Notification, 2006, and its subsequent amendments. The application pertains to the Jonnagiri Gold Mine Project, which involves the mining and processing of Gold Ore with a ROM of 0.4 MTPA, Overburden (OB) of 3.45 MTPA, Top Soil of 0.227 MTPA, resulting in a total excavation of 4.077 MTPA, and an Ore Processing Plant with a capacity of 0.3 MTPA. The project is located in the ML area of 597.82 hectares at village Jonnagiri, Pagadrayi, and Erragudi, Tehsil Tuggali Mandal, District Kurnool, Andhra Pradesh, and is proposed by M/s Geomysore Services (India) Limited.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC25A0106AP5510503N
(ii) File No.	J-11015-393-2008-IA-II-(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals, 2(b) Mineral beneficiation
(vi) Sector	Non-Coal Mining
(vii) Name of Project	Fresh Environmental Clearance for the Gold Ore Processing Plant (0.3 MTPA) component out of the

(ix) Location of Project (District, State)
(x) Issuing Authority
(xii) Applicability of General Conditions

existing Environmental Clearance for Mining and Processing of Gold Ore (ROM 0.4 MTPA and Ore Processing Plant of 0.3 MTPA) of Jonnagiri Gold Mine Project (ML Area: 597.82 Ha)of M/s Geomysore Services (India) Limited
KURNOOL, ANDHRA PRADESH
MoEF&CC
No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2 (Part A, B and C)/ EIA & EMP Reports were submitted to the MoEF&CC for an appraisal by the EAC under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by EAC in the meeting held on 25/03/2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above.

5. Observation and Recommendation of the Committee:-

The instant proposal is for Environmental Clearance for Jonnagiri Gold Mine Project for Gold Ore Processing Plant of 0.3 MTPA in the ML area of 597.82 ha by M/s Geomysore Services (India) Limited located at village Jonnagiri, Pagadrayi and Erragudi, Tehsil Tuggali Mandal, District Kurnool, Andhra Pradesh.

The Project Proponent (PP) had earlier obtained Environmental Clearance (EC) for the project on 02nd August 2010 for a production capacity of 0.4 MTPA, along with an overburden (OB) of 3.45 MTPA and topsoil generation of 0.227 MTPA, amounting to a total excavation of 4.077 MTPA, and establishment of a 0.3 MTPA Gold Ore Processing Plant within the mine lease (ML) area of 597.82 ha. However, the PP could not complete the installation of the proposed processing plant within the validity period of the granted EC. Accordingly, the PP has submitted the instant proposal for Environmental Clearance for the installation of a 0.3 MTPA Gold Ore Processing Plant within the same ML area.

The Project Proponent and the Consultant made a presentation before the Committee, including the KML file, and elaborated on the key site features of the ML area and the surrounding study area. It was submitted that no forestland is involved in the ML area and there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, or Eco-sensitive Zones located within a 10 km radius of the project site.

The nearest water body, Ura Vanka, lies adjacent to the western side of the mine site, while Lingala Vanka is located approximately 4.12 km to the northwest. Additionally, two seasonal streams traverse the mine lease area from north to south, which are likely to play a vital ecological role during the monsoon season. The nearest major road, connecting Jonnagiri to Peapully, is approximately 0.72 km to the south, and the closest railway station, Pagidirayi RS, is located about 2.24 km to the north. A railway line also passes through the ML area near the proposed beneficiation plant.

The nearest Reserved Forest (RF) is Erragudi RF, located about 1.2 km to the East-North-East, and the Ashoka Inscription, a notified heritage site, is situated approximately 3 km to the south of the project site. Of the total 597.82 ha, approximately 526.66 ha is patta land and 72.16 ha is government land, of which 86.4 ha has reportedly been acquired by the PP.

The EAC noted the submissions and advised the PP to obtain a No Objection Certificate (NoC) from the Archaeological Survey of India (ASI) with reference to the proximity of the Ashoka Inscription, and a NoC from the Railway Department prior to initiating any construction activity for the beneficiation plant, particularly in areas adjacent to or involving the railway corridor.

Further, the PP submitted that the mining lease was granted for a period of 30 years vide G.O. Ms. No. 106 dated 08.10.2013 and was executed on 21.10.2013, making the lease valid until 20.10.2043. The proposed method of mining is

opencast, with a planned mining depth of 180 meters below ground level (bgl)—corresponding to 250 mRL in the eastern block and 350 mRL in the western block. It was submitted that the pre-monsoon water table lies at 14.3 m bgl, and intersection with groundwater is anticipated in the second year of mining operations.

The mining plan has been approved by the Indian Bureau of Mines (IBM) on 12.05.2023. The EAC noted the information and advised the PP to obtain prior clearance from the Central Ground Water Authority (CGWA) or the State Ground Water Authority (SGWA) before commencement of any mining activity that is likely to intersect the water table. This is critical to ensure sustainable groundwater management and to avoid potential hydrogeological impacts in the region.

The baseline environmental monitoring was carried out during the period October to December 2023. The ambient air quality was found to be within the National Ambient Air Quality (NAAQ) Standards applicable for residential areas. The predominant wind direction during the monitoring period was observed from the ESE–SE–SSE sector.

To strengthen the environmental baseline and enhance the robustness of the mitigation measures, additional ambient air quality monitoring was undertaken between 25.11.2024 and 28.11.2024 at critical locations including the mine lease boundary, proposed crusher area, Bollavanipalli village, Pagadroi, Jonnagiri villages, and Upparlapalli village (a downwind location). The data collected will support the formulation of a more site-specific air quality management plan.

In terms of water quality, eight groundwater samples collected within the study area were found to be in compliance with IS 10500 drinking water standards. Additionally, six surface water samples complied with the Central Pollution Control Board (CPCB) Class C standards.

Regarding wildlife conservation, the PP reported the presence of 11 Schedule-I species in the vicinity of the project site. The authenticated list of flora and fauna was obtained from the Divisional Forest Officer (DFO), Kurnool, Government of Andhra Pradesh, vide letter dated 27.02.2024. The draft Wildlife Conservation Plan was submitted to the Chief Wildlife Warden, Government of Andhra Pradesh on 05.02.2024, and acknowledgement was received vide letter dated 02.02.2024. A budgetary provision of 13.25 lakhs has been earmarked for the implementation of the Wildlife Conservation Plan over a period of five years.

The public hearing for the proposed project was conducted on 18.02.2025. The public notice was published in “The Indian Express” (English) and “Eenadu” (Telugu) newspapers on 17.01.2025. In response to the public hearing, the PP has earmarked 284 lakhs for the implementation of commitments made under the Public Hearing Action Plan. The EAC noted the submissions and advised the PP to diligently implement the action plan and submit a report on its implementation to the Ministry’s Regional Office as part of the half-yearly compliance reporting.

PP described in detail the beneficiation process and tailings management. The EAC noted the detailed submission of the beneficiation process and tailings management and emphasized the importance of ensuring strict adherence to environmental safeguards, particularly in the handling and detoxification of cyanide-bearing solutions and safe storage of tailings.

The EAC noted the submissions of the Project Proponent (PP) and enquired about the potential impacts on the water environment due to the proposed beneficiation and gold recovery process.

The PP explained that ore grinding will be carried out in wet conditions to prevent the generation and dispersion of dust. Following physical separation, the wet grinding process will involve mixing ore with water in a 1:1.5 ratio to form slurry. This slurry will pass over strake tables, where gold will be recovered by gravity separation, using woollen blankets as traps to capture fine gold particles.

To optimize gold recovery, a portion of the slurry will be recirculated within the physical separation unit. After this stage, the slurry will be subjected to a chemical leaching process for further gold extraction. The PP reported that the annual gold recovery from the plant is estimated to be approximately 0.441 tonnes, and nearly 0.3 million tonnes of processed waste will be generated annually. This waste will be detoxified and passed through a filter press, resulting in filter cake tailings. The filtrate (~1040 m³/day) from the filter press will be recycled back into the process, ensuring efficient water reuse.

The EAC acknowledged the submission and enquired further regarding tailings management. The PP stated that 1,000 tonnes of tailings will be generated daily, and the total tailings generation over the life of the mine is estimated at 8 million tonnes. A dedicated tailing storage facility (TSF) over an area of 30.38 ha has been proposed. The base of the tailing dump will be lined with an HDPE liner to prevent seepage/ percolation into groundwater.

The EAC advised the PP to carefully manage cyanide levels and ensure that the concentration in the tailings does not exceed 5 ppm. The Committee emphasized the importance of preventing any leakage or discharge of cyanide, particularly into groundwater, surface water bodies, or outside the mine lease (ML) area.

The PP further informed that a team is being sent to Tanzania for specialized training on cyanide handling. The EAC noted the initiative and requested submission of the report on the training programme to the Ministry's Regional Office. The Committee also reiterated the requirement for zero liquid discharge (ZLD) beyond the ML area.

With respect to plantation and greenbelt development, the PP submitted that they have developed green cover over 18.51 ha, with a total of 27,779 saplings, planted at a density of 1,500 saplings/ha. The EAC advised the PP to increase the planting density to at least 2,500 saplings/ha and ensure that the entire 7.5-meter-wide safety zone is fully planted during the upcoming monsoon season (2025) i.e. till October, 2025.

Regarding the Environmental Management Plan (EMP), the PP has earmarked a capital expenditure of 7.7825 crores and a recurring expenditure of 1.17 crores for its implementation. The EAC took note of the budget and stressed the importance of timely and effective execution of all EMP components.

6. Based on above discussions and presentation made by the Project Proponent and the Consultant, the EAC **recommended** the proposal in the 42nd EAC meeting held on 25.03.2025 for the grant of Environmental Clearance to Jonnagiri Gold Mine Project for Gold Ore Processing Plant of 0.3 MTPA capacity in the ML area of 597.82ha by M/s Geomysore Services (India) Limited located at village Jonnagiri, Pagadrayi and Erragudi, Tehsil Tuggali Mandal, District Kurnool, Andhra Pradesh subject to the certain specific conditions in addition to the existing standard condition applicable for Non-Coal mining and Mineral Beneficiation projects (Annexure - I).

7. The details of the project as per the information submitted by the Project Proponent are enclosed as Annexure (II)

8. The Ministry has reviewed the proposal in accordance with the provisions of the Environmental Impact Assessment (EIA) Notification, 2006, and its subsequent amendments. Based on the recommendations of the Expert Appraisal Committee (EAC), Environmental Clearance (EC) is hereby granted for the **Jonnagiri Gold Mine Project**, which involves the mining and processing of Gold Ore with a ROM of 0.4 MTPA, Overburden (OB) of 3.45 MTPA, Top Soil of 0.227 MTPA, resulting in a total excavation of 4.077 MTPA, and an Ore Processing Plant of 0.3 MTPA. The project, proposed by **M/s Geomysore Services (India) Limited**, is located in the ML area of 597.82 hectares at village Jonnagiri, Pagadrayi, and Erragudi, Tehsil Tuggali Mandal, District Kurnool, Andhra Pradesh. The Environmental Clearance is granted subject to strict compliance with the specific conditions prescribed for this project, in addition to the standard conditions applicable to non-coal mining and Mineral Beneficiation projects, as detailed in Annexure I.

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006, as amended. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

12. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

13. General Instructions:

- a. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/ SEIAA website where it is displayed.
 - b. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
 - c. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/ forest / wildlife norms / conditions.
 - d. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
 - e. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - f. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - g. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
 - h. PP needs to comply the OM dated 24.07.2024 of MoEFCC, where it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign " EK Ped Ma ke Naam" (एक पेड़ माँ के नाम (and the details of the same shall be uploaded in the MeriLife portal (<https://merilife.nic.in>)).
14. This issues with the approval of the Competent Authority.

Copy To

- i. **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- ii. **The Secretary**, Department of Environment, Government of Andhra Pradesh, 4th Block, 1st Floor, Room No:268, Andhra Pradesh Secretariat Office, Velagapudi.
- iii. **The Secretary**, Department of Forests, Government of Andhra Pradesh, Aranya Bhavan, K.M. Munshi Road, Nagarampalem, Guntur-522004, Andhra Pradesh.
- iv. **The Secretary**, Department of Mines and Geology, Government of Andhra Pradesh, Sri Anjaneya Towers, D.No. 7-104, B-Block, 5th & 6th Floors, Vijayawada, Ibrahimpatnam, Andhra Pradesh 521456.
- v. **The Secretary**, Department of Industries and Commerce (M-III), Government of Andhra Pradesh, Commissionerate of Industries, First Floor, Government Regional Printing Press Buildings, Mutyalampadu, Vijayawada-520011.
- vi. **The Inspector General of Forests**, Regional Office (RO), Vijayawada, Ministry of Environment, Forest and Climate Change, Green House Complex, Gopalreddy road, Vijayawada-520010, Andhra Pradesh.
- vii. **The Member Secretary**, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun

Nagar, New Delhi-110 032.

viii. **The Member Secretary**, Andhra Pradesh State Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada – 520 010.

ix. **The Member Secretary**, Central Ground Water Authority, A 2, W-3 Curzon Road Barracks, K.G Marg, New Delhi-110011.

x. **The Chief Wildlife Warden**, Govt. of Andhra Pradesh, AranyaBhawan, K.M. Munshi Road, Nagarampalem, Guntur-522004, Andhra Pradesh.

xi. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.

xii. Director General, Directorate General of Mines Safety, Hirapur, Dhanbad, Jharkhand, 826001

xiii. **The District Collector**, Kurnool District, Government of Andhra Pradesh.

xiv. Guard File.

xv. **PARIVESH Portal**.

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Specific Conditions

S. No	EC Conditions
1.1	International Cyanide Code shall be adopted and all necessary safeguard measures shall be taken to avoid any incidence of cyanide poisoning due to this project. Only Certified/trained professionals shall be involved in handling the cyanide.
1.2	PP shall ensure zero liquid discharge outside the ML area. PP should take all steps to prevent any leakage of cyanide from the mine lease area either to ground water or to outside rivers/streams/surfaces/soil etc.
1.3	The Project Proponent should take necessary occupational health and safety measures for the workers handling cyanide. 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. PP shall also maintain cyanide kit at the project site and provide necessary training for its usage to the workers involved in handling of cyanide. Regular surveillance shall be carried through regular occupational health check-up every year for mineworkers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity. An action taken report in this regard shall be submitted on half-yearly basis to Ministry's Regional Office
1.4	PP should also formulate a Disaster management plan and shall obtain approval from District Disaster Management Authority before starting the operation of the Gold Ore Processing Plant. Risk and Disaster management plan should be approved by Chief Inspector of Factories.
1.5	The Tailing dump floor and side area shall be covered with HDPE liner, tubes, bentonite, mud etc. PP shall ensure that the concentration shall not exceed more than 5 PPM in the tailings. PP should take permission/NoC from SPCB after establishing HDPE liner and before starting dumping of tailing in the tailing dam.
1.6	PP needs to obtain NoC/do consultation with the officials of ASI with regard to Ashoka Inscription and NoC from Railway Department before commencing any construction activity in the beneficiation plant.

S. No	EC Conditions
1.7	The natural water bodies and or streams which are flowing in and around the mine lease area should not be disturbed.
1.8	The Project Proponent shall monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Regional Office.
1.9	The Project Proponent should install Continuous Ambient Air Quality Monitoring Stations (CAAQMS) as per the scientific study and in consultation with CPCB/SPCB. The real time data so generated should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.
1.10	The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.
1.11	The Project Proponent shall take adequate measures to prevent the pilferage of mineral during transportation.
1.12	The Project Proponent should follow-up the implementation of the Wildlife Conservation Plan from the State Forest Officials and the status of the same shall be submitted to the Ministry's Regional Office in the six monthly compliance report. The approved Wildlife Conservation Plan shall be implemented in letter and spirit.
1.13	The Project Proponent needs to install the permanent water sprinklers in addition to mobile water tankers along the haul road and the approach road. Further, 8 nos. of fog/mist cannon sprayer of atleast 40 m throw shall be installed at various locations in the mine and beneficiation plant area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission.
1.14	The Project Proponent shall carryout the blasting in the mine in such a way that the direction of the blasting should be perpendicular to the village and guidelines of DGMS and provision of MMR 1961 should be followed.
1.15	The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years in the project.
1.16	The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions.
1.17	The Project Proponent should adopt the proper mitigation measures as proposed under EMP. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Regional Office.
1.18	The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground).

S. No	EC Conditions
	A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
1.19	The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to Ministry's Regional Office.
1.20	The Project Proponent shall ensure the survival rate of 95% for planting the gap plantation and new plantation (2500/ha). The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Regional Office. PP shall make provision for drip irrigation to conserve the water. PP should plant fruit bearing trees along with native and allied species within the ML area. PP shall complete the entire plantation in 7.5 m safety zone in the coming monsoon season of the current year i.e. 2025.
1.21	To address the concerns raised by the public in the public hearing, PP should complete its public hearing commitments within 3 years from the date of start of mining operations. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
1.22	The Project Proponent needs to provide good quality drinking water supply and also by laying network of pipelines to the nearby villages namely Jonnagiri, Pagadrayi and Erragudi, at free of cost.
1.23	The Project Proponent shall provide the rainwater harvesting structure at mine office and quarters to recharge the ground water.
1.24	PP needs to construct sedimentation ponds, check dams, retaining walls, gabions, garland drains, around dumps etc. to safeguard nearby streams/nallahs/ natural water bodies.
1.25	The Project Proponent shall organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly.
1.26	PP shall ensure that there will be no dust generation during transportation of ore. PP shall use tarpaulin to cover the trucks during transportation and ensure that there is no spillage on road.
1.27	The mobile water tankers should be used in the ML area for dust suppression and control mitigation. A logbook of water tankers should be maintained mentioning running hours, kilometer reading, maintenance hours of water tankers for each shift. PP may explore to use non-toxic chemicals for dust suppression in order to reduce the total water requirement.
1.28	The Project Proponent should take adequate measures to prevent the fly rock falling onto the nearby habitations and also the Project Proponent needs to set up a permanent monitoring in the nearby village to monitor the blast induced ground vibration and air over pressure.

S. No	EC Conditions
1.29	The Project Proponent needs to reduce the dependency on the ground water, surface water (water from rivers, etc.) and it shall construct water reservoirs within the lease area for meeting its day-to-day water needs. An implementation report in this regard needs to be submitted to Ministry's Regional Office.
1.30	The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Regional Office.
1.31	Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable.
1.32	PP needs to comply the OM dated 24.07.2024 of MoEFCC, wherein it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign "EK Ped Ma keNaam" (एकपेड़माँकेनाम) and the details of the same shall be uploaded in the MeriLife portal(https://merilife.nic.in).
1.33	PP shall ensure that all type of plastic waste generated from the mines shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016. In pursuant to Ministry's OM dated 18/07/2022 PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall be submitted to Ministry's Regional Office.
1.34	All other terms and conditions mentioned in the EC letter dated 02.08.2010 shall remain unchanged.
1.35	PP shall check the quality of surface water bodies, quality of ground water in and around the lease/project, tailing area through a Government/ National Institute of repute and submit its report to Regional Office/ Sub-Office of MoEF&CC.
1.36	PP needs to implement the following mitigation Measures to Prevent Contamination of Water (Surface/Groundwater) and Soil from Cyanide Handling: a. Tailings Pond needs to be covered with 3 mm HDPE liner. b. Leachette samples testing at regular intervals from Tailings through reputed institutes.
1.37	PP should consult with CGWA, SGWB and SPCB for any suggestions/ recommendations with respect to prevention of contamination of Ground water due to tailing dams, other project activities.
1.38	PP should explore the possibilities of alternative use of tailing bricks keeping in view the safety and Environment. Scientific study from National repute should be done for the same.
1.39	A SoP should be made for handling of caustic solution, cyanide in the project.
1.40	A team of Engineers, Supervisors/Managers of the project can be sent to Hutti Gold mines after a formal request to understand their handling of chemicals, Safety practices, SOPs, precautions, etc.
1.41	Regional office of Ministry would inspect the project within 2 years of the issuance of this EC to check the compliance of EC conditions and suggest any further conditions for conserving the

S. No	EC Conditions
	environment including air, water, soil, etc.

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
1.2	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
1.3	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.4	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.5	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.6	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
1.7	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
1.8	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
1.9	The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area."
1.10	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation)

S. No	EC Conditions
	Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.11	This Environmental Clearance (EC) is subject to orders/ judgment of Honble Supreme Court of India, Honble High Court, Honble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
1.12	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
1.13	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.
1.14	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors before commencing the mining operations.

2.

S. No	EC Conditions
2.1	The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
2.2	The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

3. Air Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.

S. No	EC Conditions
3.2	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.
3.3	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
3.4	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
3.5	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each).covering upwind and downwind directions.
3.6	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986. 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each). covering upwind and downwind directions.
3.7	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
3.8	The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
3.9	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3.10	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

4. Water Quality Monitoring And Preservation

S. No	EC Conditions
4.1	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
4.2	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
4.3	Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
4.4	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
4.5	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.
4.6	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
4.7	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.
4.8	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
4.9	The project proponent shall provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled.
4.10	Adhere to Zero Liquid Discharge

S. No	EC Conditions
4.11	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
4.12	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
4.13	The project proponent shall practice rainwater harvesting to maximum possible extent.
4.14	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
4.15	In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
4.16	The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

5. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
5.1	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.
5.2	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
5.3	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages

S. No	EC Conditions
	located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

6. Noise Monitoring And Prevention

S. No	EC Conditions
6.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
6.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

7. Mining Plan

S. No	EC Conditions
7.1	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.
7.2	The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

8. Energy Conservation Measures

S. No	EC Conditions
8.1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
8.2	Provide LED lights in their offices and residential areas.

9. Land Reclamation

S. No	EC Conditions
9.1	The Overburden (O.B.), waste and topsoil generated during the mining operations shall be stacked

S. No	EC Conditions
	at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.
9.2	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
9.3	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
9.4	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

10. Waste Management

S. No	EC Conditions
10.1	Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)
10.2	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

11. Transportation

S. No	EC Conditions
11.1	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic

S. No	EC Conditions
	load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].
11.2	The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

12. Green Belt And Emp

S. No	EC Conditions
12.1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
12.2	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant

13. Public Hearing And Human Health Issues

S. No	EC Conditions
13.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
13.2	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
13.3	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
13.4	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
13.5	Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with

S. No	EC Conditions
	STP in order to avoid contamination of underground water.

14. Green Belt

S. No	EC Conditions
14.1	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

15. Corporate Environment Responsibility

S. No	EC Conditions
15.1	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
15.2	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
15.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
15.4	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest I wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
15.5	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.
15.6	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

16. Miscellaneous

S. No	EC Conditions
16.1	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
16.2	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
16.3	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
16.4	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
16.5	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
16.6	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
16.7	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
16.8	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponents website permanently.
16.9	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
16.10	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
16.11	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
16.12	44) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

S. No	EC Conditions
16.13	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
16.14	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
16.15	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
16.16	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
16.17	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
16.18	Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
16.19	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
16.20	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
16.21	In pursuant to Ministrys O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Honble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
16.22	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

17. Corporate Environment Responsibility (Cer)

S. No	EC Conditions
17.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

Standard EC Conditions for (Mineral beneficiation)

1. Statutory Compliance

S. No	EC Conditions
1.1	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.
1.2	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
1.3	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.5	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.6	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.7	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
1.8	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04/06 Nos. Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous and their no's.)
2.2	The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
2.3	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2.4	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
2.5	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
2.6	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
2.7	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.
2.8	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986. 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to S02 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120'each). covering upwind and downwind directions.
2.9	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
2.10	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.

S. No	EC Conditions
2.11	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
2.12	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/agglomeration.
2.13	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2.14	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
2.15	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
2.16	The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
2.17	The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
2.18	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.19	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.20	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
2.21	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
2.22	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
2.23	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
2.24	Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.

S. No	EC Conditions
2.25	Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
2.26	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm ³ and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
2.27	Following additional arrangements to control fugitive dust shall be provided: a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. b. Proper covered vehicle shall be used while transport of materials. c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
3.2	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3.3	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3.4	The project proponent shall provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled.
3.5	Adhere to 'Zero Liquid Discharge'
3.6	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
3.7	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
3.8	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

S. No	EC Conditions
3.9	The project proponent shall practice rainwater harvesting to maximum possible extent.
3.10	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3.11	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
3.12	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
3.13	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
3.14	Tyre washing facilities shall be provided at the entrance of the plant gates.
3.15	Water meters shall be provided at the inlet to all unit processes in the steel plants.
3.16	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
3.17	The proposed project shall be designed as Zero Liquid Discharge Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.
3.18	All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
3.19	Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
4.3	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

S. No	EC Conditions
4.4	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
5.2	Provide LED lights in their offices and residential areas.
5.3	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
5.4	Restrict Gas flaring to < 1%.
5.5	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
5.6	Provide LED lights in their offices and residential areas.

6. Waste Management

S. No	EC Conditions
6.1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
6.2	Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)
6.3	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
6.4	Kitchen waste shall be composted or converted to biogas for further use.
6.5	Used refractories shall be recycled as far as possible.
6.6	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
6.7	The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-

S. No	EC Conditions
	3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
6.8	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
6.9	Solid waste utilization: a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making. b. PP shall recycle/reuse solid waste generated in the plant as far as possible. c. Used refractories shall be recycled as far as possible.

7. Green Belt And Emp

S. No	EC Conditions
7.1	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
7.2	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

8. Water Quality Monitoring And Preservation In Case Of Beneficiation Plant

S. No	EC Conditions
8.1	Tailing management plan shall be implemented as included in EIA report.
8.2	Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.2	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
9.3	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be

S. No	EC Conditions
	removed after the completion of the project.
9.4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
9.5	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.6	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
9.7	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
9.8	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
9.9	All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC. PP shall adopt nearby villages and prepare and implement a robust plan to develop them into model villages in next 10 years.

10. Corporate Environment Responsibility

S. No	EC Conditions
10.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.
10.2	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest I wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
10.3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

S. No	EC Conditions
10.4	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
10.5	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
10.6	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
11.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.3	44) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
11.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
11.5	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.6	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.7	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11.8	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

S. No	EC Conditions
11.9	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
11.10	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.11	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
11.12	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
11.13	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
11.14	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.15	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
11.16	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
11.17	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
11.18	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.19	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.20	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

S. No	EC Conditions
11.21	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
11.22	The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
11.23	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
11.24	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.25	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.26	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.27	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.28	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
11.29	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

12. Green Belt

S. No	EC Conditions
12.1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
12.2	Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

S. No	EC Conditions
12.3	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

13. Environment Management

S. No	EC Conditions
13.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
13.2	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
13.3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
13.4	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

Additional EC Conditions

The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.

Annexure-II

Jonnagiri Gold Mine Project for mining and processing of Gold Ore ROM 0.4 MTPA, OB 3.45MTPA & Top Soil 0.227MTPA with total excavation 4.077 MTPA and Ore Processing Plant of 0.3 MTPA in the ML area of 597.82 ha by M/s Geomysore Services (India) Limited located at village Jonnagiri, Pagadrayi and Erragudi, Tehsil Tuggali Mandal, District Kurnool, Andhra Pradesh.

The details of the project: -

The details of Project as ascertained from the document submitted by the Project Proponent are given as under:

i. Project details:

Name of the Proposal	Fresh Environmental Clearance for the Gold Ore Processing Plant (0.3 MTPA) component out of the existing Environmental Clearance for Mining and Processing of Gold Ore ROM 0.4 MTPA with Total Excavation 4.077 MTPA (ROM 0.4 MTPA + OB 3.45 MTPA + Top soil 0.227 MTPA) and Ore Processing Plant of 0.3 MTPA of Jonnagiri Gold Mine Project (Mine Lease area 597.82 Ha) of M/s Geomysore Services (India) Pvt. Ltd.	
Location	Village	Jonnagiri, Pagadrayi and Erragudi Villages,
	Tehsil/Taluka	Tuggali Mandal,
	District	Kurnool District,
	State / UT	Andhra Pradesh
	Latitudes	15°13'57.67" N - 15°15'14.90" N
	Longitudes	77°34'46.7" E - 77°36'27.2" E
	Sol Topo sheet No.	57 E/11 & E/12
Company's Name	M/s Geomysore Services (India) Pvt. Ltd.	
Accredited Consultant and certificate no. and Validity	B.S. Envi – Tech Pvt. Ltd #12-13-1270/71/73, Amity Ville, 4thFloor, Beside Spencer Super Market, St. Ann's Road, Tarnaka, Secunderabad-500017 certificate no: NABET/EIA/2326/RA 0302 (Rev.01) Valid up to: May 15, 2026	
KML file	Submitted on Parivesh	
Seismic zone	Seismic zone – II	

ii. Category details:

Category of the project	'A' Mineral beneficiation
Schedule No.	2(b)
Mining lease Area (MLA) (in ha.)	597.82
General Conditions (if any)	None

iii. ToR/EC Details:

Date of Application	Proposal No/ File No	Consideration by EAC	Details of ToR/EC	Date of accord
16.08.2024	IA/AP/MIN/492801/2024];	Recommended ToR	TOR letter No. J-11015-393-2008-IA-II-(M)	17 th December 2024
08 Mar 2010	IA/AP/MIN/8847/2008, J-11015/393/2008-IA.II (M)	-	EC- Jonnagiri Gold Ore Mine and Processing Plant	02 nd August 2010

iv. Details of Mine Lease in chronological manner:

S.no	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1	Memo No. 9609/M.I(1)2005-1	dated 23.01.2008	Gold Ore	of 30 years The lease is valid up to 20.10.2043.	Govt. of Andhra Pradesh	597.82

S. No	Details of grant of Mine Lease deed execution	Period of Grant		Name of the Mineral	Mine lease area in Ha
		From	To		
1	Mining Lease was executed by Asst. Director of Mines & Geology, Kurnool	21.10.2013	20.10.2043	Gold Ore	597.82

v. Land Use/Land Cover of the Mine Lease Area:

Private land	Patta Land – 525.66ha. (86.4 owned by GMSI)
Government land	Govt. Land – 72.16 ha.
Forest land	0
Total Mining lease area (MLA)	597.82

vi. Mining plan details:

Mining Plan including Progressive Mine Closure Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	Lr.No. AP/KNL/MP/GOLD-1 /Hyd
	Date	12.05.2023
	Mineral & (Major/Minor)	Gold Ore - Major Mineral
	Mine Lease Area, Ha	597.82
	Validity	2022 - 2023 to 2027 -2028.
Additional information (if any)	-	
Mining Parameters	Quantitative Description	
Method of Mining	Open cast and underground-mechanized method using Heavy earth moving machinery, deep hole drilling, blasting and deploying hydraulic excavators and tippers combination.	
Drilling/Blasting	Deep hole drilling and blasting, loading the broken material by heavy machinery like hydraulic excavators and dumpers for transporting the gold ore to Processing Plant.	
Geological Reserves	10043513 tonnes	
Mineable Reserves	10043513 tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	GMSI proposes to produce 0.30 million TPA gold ore production Total Excavation :4.077 MTPA (ROM: 0.4 MTPA + OB: 3.45 MTPA + Top soil: 0.227 MTPA) & 0.30 Million TPA Gold Ore Processing Plant	
Life of mine	25 years	
Mine Bench Height & Bench Width	Mine Bench Height: 7.5 m & Bench Width (working bench): 6m	
No. of Mine Benches	More than 6	
Existing Depth, m bgl	8m	
Ultimate Depth of Mining, m bgl	Opencast – 180m bgl (250 m RL) in eastern block, and Underground 350m bgl in western block	

Ground Water Table, m bgl	The water table occurs at 14.3 m below the ground level and ground water will be encountered during 2nd year of mining.
Details of ground water intersection	Yes
Individual bench slope	70°
Overall pit slope	35°
Details of existing/ proposed Crusher	The crusher plant is designed to operate with a throughput of 200tph for 15 hours per day
Mineral Beneficiation	Gold Ore Processing Plant (1000 TPD)
RoM output size	1m3
Transportation details including capacity of dumper/tipper, mode of transport and distance	The ore produced from the mine is transported to the stock yard from where it will be transported to ore processing plant
Generation of Topsoil/OB & its Management during plan period & conceptual period	<p>The soil is lateritic and at places black. The total top soil generation is estimated to be about 0.52 million tonnes. This top soil will be used for afforestation and blanketing of the overburden dump and tailing dump area.</p> <p>Overburden 30.0 million tonnes waste is generated from the mine and it is disposed to the identified dump site.</p>

vii. Water requirement

Total water requirement	1640m3/day. PP has submitted that, 1040m3/day is recycled from process and 600 m3/day of makeup water	Fresh water	600 m3/day
		Treated water	1040m3/day
Source	HNSS Canal		
Permission for withdrawal/ intersection along with details of grant and its validity	Project Proponent had obtained permissions for pumping water to the tune of 5,88000m3/Annum from the HNSS canal on 23.02.2022.		

viii. Nearest village/ town/ highway/ interstate boundary/ railway station/water bodies/monument/ forest

Particulars	Particular's Name	Distance & Directions
Village	Bollavanipalli Pagidirai Upparalla Palli	- Adjacent-E - 0.65 km – N - 1.43 km – SE

	Jonnagiri	- 0.71 km – SW
Town	Kurnool	- 78.66 km – NE.
Highway	SH-33- Pattikonda - Gooty	- 1.37 km – W
Interstate Boundary	Andhra Pradesh - Karnataka	- 44.81 km – W
Railway Station/Railway line	Railway Station: Nearest Railway Station - Pagidirai RS Railway line: Pendekallu Junction – Gooty Junction of South-Central Railway line	- 2.24 km – N. Railway Line is passing inside the mine site in the Eastern part
Water bodies	YT Cheruvu Ura Vanka Lingala Vanka	- 9.21 km – SW - Adjacent to the Mine Site – W - 4.12 km – NW
Forest	Tuggali RF Erragudi RF	- 4.86 km – N - 1.12 km – ENE

ix. Presence of Environmentally Sensitive areas in the study area

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	PP vide letter dated 07.04.2025 informed the following: - Nearest reserve forest from the proposed Gold mines is G. Yerragudi reserve forest at 1.12km. - No national park exists within 10km radius of Jonnagiri Gold Mines.
National Park	No	
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	No	
Coastal Regulation Zone (CRZ)	No	
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Yes	PP has submitted authenticated list of flora and fauna issued by DFO, Kurnool, Govt of Andhra Pradesh vide letter dated 27.02.2024.
Wildlife Conservation Plan	Yes	Project Proponent vide letter dated 02.02.2024 has submitted the draft Wild Life Conservation Plan on 05.02.2024 to Chief Wild Life Warden,

		Govt. of Andhra Pradesh for approval with a budget of Rs 13.25 lakhs.
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x. Green belt/ plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Existing: 18.51 Ha with 27,779 saplings @1500 saplings per Ha. Proposed: 68.4 Ha totaling to 75 Ha during the lease period i.e. 2043. Another 102600 saplings will be planted
Budget for green plant & plantation till the end of life of mine.	An amount of Rs.40 Lakhs has been spent Additional amount of Rs.4.0crores is earmarked.
Budget for nursery	None
Details of existing plantation and its survival rate	<ul style="list-style-type: none"> Existing Greenbelt: 18.51 Ha Number of saplings:27,779 Amount spent Rs Lakhs: 40 Survival rate:80%
No. of tree cuts in the mine lease area and compensatory afforestation	0
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	During the life of the mine, GMSI will develop an area of 75.0ha under greenbelt along the roads.

xi. Baseline detail

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	01.10.2023 to 31.12.2024
Season (Summer / Pre-monsoon / Post-monsoon / Winter)	Post Monsoon Season
Predominant Wind direction (From)	ESE-SE-SSE direction
Ambient Air Quality (no. of locations) and results	AAQ Parameters at 08Locations PM10 = 40.2 to 65.6 µg/m3 PM2.5 = 25.3 to 35.4 µg/m3 SO2 = 9.5 to 16.8 µg/m3 NO2 = 10.5 to 18.3 µg/m3 CO: less than 1 ppm

Noise level (no. of locations) and results	<p>Noise Levels At 10 Locations</p> <ul style="list-style-type: none"> Day time: Core zone: 63.2 dB (A); Buffer Zone: 58.5 dB (A) Night time: Core zone 51.8 – 54.7 dB (A); Buffer Zone: 42.4 – 44.6 dB (A)
Water Quality (no. of locations) and results	<p>Ground Water Quality At 08 Locations</p> <ul style="list-style-type: none"> pH = 7.28 – 7.48 Total Hardness = 270 - 580 mg/l. Chlorides = 75 - 285 mg/l. Fluoride = 0.90 – 1.4 mg/l. <p>Heavy Metals (Zinc) = <0.02</p> <p>Surface Water Quality At 06 Locations</p> <ul style="list-style-type: none"> pH: 8.26 – 8.40; DO: 5.1– 5.6 mg/l BOD: 2 - 3 mg/l; COD: 10 – 20mg/l
Soil Quality (no. of locations) and results	<p>Soil Quality 8 Locations</p> <p>Moderate fertility</p> <ul style="list-style-type: none"> pH Value of 1:2 aqueous extract Solution - 7.55 - 7.81 E.C, mS/cm of 1:2 aqueous extract Solution - 0.334 - 0.562 Mineralized Nitrogen (Available Nitrogen), kg/ha - 259 - 339 Available Phosphorous as P₂O₅, kg/Ha: 21 - 46 Available Potassium as K₂O, Kg/Ha - 194 – 292 Organic Carbon, % - 0.29 - 0.61
Hydro geological study and results	<p>The site falls within a semi-arid region, and receives most rainfall during both the South-West Monsoon (June – September) and also some rainfall during the North-East Monsoon (October – January). The region experiences negligible rainfall outside of these monsoon seasons.</p> <p>The Jonnagiri site falls within the catchment of the Pennar river which flows from west to east approximately 33km south of the site. The Pennar river basin totals 55 000km², accounting for 1.8% of the total area of India.</p>

	<p>A catchment divide between the Pennar and Krishna catchments runs approximately 14 km north of the site. The Krishna River flows from west to east approximately 50km north of the site and is one of the main river systems in India, with a total basin area of approximately 255000km², accounting for 8.5% of the total area of India.</p> <p>The ground water development computation at present is 46.1 % only and since, it is well below the 70 % hence, categorized as safe.</p>
Traffic study (no. of locations) and results	<p>The excavated ore from mine will be transported to the ore processing plant within the mining lease area. The overburden waste generated will be through dumpers to the identified dump yards within the mining lease area. The only product which comes out is the gold ore bar/Bullion gold.</p> <p>The impact of the project on the road network in terms of congestion to the traffic or vehicular emissions is not anticipated, as the traffic of dumpers is within the lease and less movement outside. Hence the impact due to transportation is marginal and confined to the mining lease area.</p>

xii. Public Hearing (PH) Details

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	Notice made through advertisement in the Newspapers "The Indian Express" (English News Paper) and "Eenadu" (Telugu News Paper) on 17.01.2025
Date of PH	18-02-2025
Venue	Project area, Jonnagiri (V), Tuggali (M), Kurnool District, Andhra Pradesh
Chaired by	Revenue Divisional Officer & Sub-Divisional Magistrate, Pattikonda Division, Kurnool District, A.P
Main issues raised during PH	<ul style="list-style-type: none"> • Enhancement of Land lease charges, • village development activities, • Medical facilities etc. • Skill development to be provided for local youth • To provide DMF funds for the villages

Budget proposed for addressing issues raised during PH over 3 years	Rs. 284 lakhs for 3 years
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xiii. Details of CTE/CTO, Certified Compliance Report, Certified Production Details from the inception of the mine:

Particulars	Details of Letter along with date of grant and validity
Consent to Establish	PP has submitted the CTE vide Order No. 163/PCB/CFE/RO-KNL/HO/2010-40 dated 30.03.2011 and Order No. 163/APPCB/CTE/RO-KNL/HO/2010, dated 15th May 2023
Consent to Operate	PP has submitted the CTO vide order No.449765/APPCB/KNL/KNL/CTO/HO/2024 dated 25.08.2024 valid up to 30.06.2025.
Certified Compliance Report and Inspection date	Certificate of existing compliance of EC conditions has been by RO, MoEFCC vide File No. SO/VIJ/EPA/EC-A/101/06-41/2024,dated 30.05.2024
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	PP has submitted year-wise authenticated past production details issued by the Assistant Director of Mines & Geology, Kurnool vide letter dated 18.01.2024.

xiv. Rehabilitation & Resettlement:

R & R details	PP submitted that R&R is not applicable in the project.
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xv. Court case details:

Court Case, No and its present Status	PP submitted that no case is pending against the instant project.
Undertaking by Project Proponent w.r.t court case	PP has submitted an undertaking regarding court cases/ litigation pending against the project proponent vide letter dated 22.03.2025.

xvi. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP has submitted an affidavit dated 20.05.2024 in accordance with the statutory requirement & judgment of Hon'ble Supreme Court dated 2 nd August 2017 in w.r.t. Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ores has been submitted with Final EIA/EMP Report.
Undertaking by Project Proponent in EIA/EMP report	PP has submitted an undertaking vide letter dated 06.03.2025 with Final EIA-EMP Report

Undertaking by Consultant in EIA/EMP report	Consultant has submitted an undertaking for preparation of EIA-EMP report vide letter dated 06.03.2025
Plagiarism Certificate	PP has submitted the certificate of plagiarism check using software and submitted in EIA-EMP report vide letter dated 11.03.2025

xvii. Details of the Environmental Management Plan (EMP)

Project Activity Based on Process Plant & Support Services							
Activity	Aspects	Impacts	Mitigation Measures	Budget (Rs. Lakhs)		Timeframe	Responsibility
				Capital Cost	Recurring Cost per annum		
Drilling, Blasting and Excavation	Dust, noise generation and Soil Removal	Air Pollution and hearing damage Soil Erosion and Landscape Alteration	Water Sprinkling Dry fog system (mist canon) Continuous Water sprinklers Blast during off-peak hours Controlled blasting Enclosure for processing plants Personal Protection	62	7.75	During Mine operation	Mining Engineer

			Equipment for Workers				
Transportation	Vehicular Emissions and Spillage	Air Pollution, Spillage into soil	To cover trucks with Tarpaulin Maintain Vehicles regularly Design proper haul roads	50	10	During Mine operation	Mining Engineer/ Environment Officer
Waste Dump Management	Soil Removal	Soil Erosion and	Retaining walls Safety Bunds Garland Drains	160	1.50	During Mine operation	Mining Engineer/ Environment Officer
Water Management	Water usage and Waste Water	Ground water intersection, contamination	No Ground water intersection Install sedimentation tank To monitor water quality Rainwater water Harvesting measures Check dams	65	7	During Mine operation	Mining Engineer/ Environment Officer

			Sewage treatment plant of 100KLD ETP				
Greenbelt Development	Afforestation and Plantation	Dust Suppression and Biodiversity Impacts	To develop a greenbelt in 7.5m buffer zones and other safety zone Maintain trees with native species Afforestation on mined-out area Reclamation, Safe zone for canal, railway line and for village, Tailing dump Waste dump (for Life of Mine)	300	50	Yearly	Horticulture Officer
Biological Environment – Flora & Fauna	Disturbance to Flora and fauna	Extinction of species disrupts ecosystems	To protect the Schedule – I Species and prepare a wildlife	13.25	-	5 Years	Forest Department

			conservation Plan				
Environmental Monitoring Plan	Dust Emissions, Noise, water pollution, soil pollution and waste generation	Non-compliance with regulations, environmental degradation	Establish a comprehensive monitoring system for air, water, and soil quality; conduct regular audits and report findings -			During Operation Phase	Environmental Manager (1no)
			Meteorological station	3	0.25		
			Continuous Monitoring Stations	90 (2 Nos)	2.0		
			Ambient Air Quality Monitoring	-	18.0		
			Fugitive Emission	-	2.0		
			Soil Quality	-	3.0		
			Water Quality (Both Ground & Surface)	-	6.0		
			Noise	-	1.0		
			Ground vibrations		3.0		

			Ground Water Level	-	0.5		
			Occupational Health – Pre and post medical Examination	35.00	5.00		
Grand Total				778.25	117.00		

xviii. Details of project cost and employment:

Particulars	(Rs. In Lakhs)
Total cost of EMP (Capital Cost of EMP + capital cost of Public hearing)	Capital Cost of EMP: Rs. 778.25 Lakhs Capital Cost of Public hearing: Rs.284 Lakhs =Rs1062.25
Project Cost	Rs. 32,000 Lakhs
Employment (No.s)	350 persons