

GOGTE MINERALS

146, TILAKWADI, BELGAUM-590 006. (INDIA)

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To,

Date:-25th March 2019

The Ministry of Environment, Forests and Climate Change,
Government of India,
Indira Paryavaran Bhavan,
JorBagh Road,
New Delhi- 110 003

Subject:- Request for Extension of Validity of Terms of Reference prescribed under the EIA Notification 2006 for undertaking EIA and EMP studies for the proposed Expansion of Redi Iron Ore Mine (Block I), of M/s Gogte Minerals, located at Village Redi, Taluka Vengurla, District Sindhudurg, Maharashtra from 0.368 to 1.0 MTPA

Reference:-Your letter no. J-11015/136/2016-IA.II (M), dated 29th April 2016

Respected Sir/Madam,

This refers to Terms of References (ToRs) issued by the Ministry of Environment, Forests and Climate Change (MoEFCC) for undertaking the EIA and EMP studies for the proposed expansion in production from 0.368 to 1.0 MTPA with respect to our 'Redi Iron Ore Mine (Block I)' of M/s Gogte Minerals, located at Village Redi, Taluka Vengurla, District Sindhudurg, Maharashtra, under File no J-11015/136/2016-IA-II(M) dated 29th April 2016.

As per the prescribed ToRs, the undersigned Lessee have undertaken the scientific studies for the detailed EIA study, viz, Hydrogeological Studies, Social Impact Assessment Studies, Biodiversity Study, along with the Baseline data collection with respect to various Environmental Parameters within the period of 3 years and the reports are finalised.

Clause no.8 of the above order says,

"Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided."

In this regard, it is mandatory to conduct scientific study to ascertain stability of benches of the pit and mine dumps. Subsequent to this and proposed deepening of mine workings, National Institute of Rock Mechanics, an autonomous research institute under the aegis of Ministry of Mines, Government of India was engaged for conduct of such study.

...contd page 2

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/2/

As part of such study, field investigations were carried out by NIRM Scientists at the said mines and soil samples were collected from different locations for determining physico-mechanical properties of the samples. Accordingly, analysis were carried out to determine the optimum bench parameters and ultimate pit slope angle.

Based on the field studies, NIRM submitted its interim report and recommended some immediate steps for the purpose of designing the stable steep slope geometry for the working benches and for the ultimate pit slope. As recommended by NIRM, we worked on the stability of bench slopes and this exercise took almost one year (from October 2017 to May 2018). Subsequently, at the end of Monsoon 2018, i.e. in October 2018 and February 2019, NIRM conducted further investigations. The Final Report is awaited and we expect the report within a months' time. As soon as we receive the report, we will submit the draft EIA report to Maharashtra State Pollution Control Board for the Public Hearing.

Considering the time period required to conduct the Public Hearing and final submission of EIA report to your office, we request you the validity of scoping and the terms of reference issued on 29th April 2016 for the proposed expansion of mining from 0.368MTPA to 1.0MTPA may be extended for one year. As per the requirement of office memorandum vide no. J-11013/41/2006-IA-II(I) (Part), dated 22nd August 2017, we are also appending updated Form 1 and copy of ToR issued by MoEFCC as I for your kind perusal. There are no any changes in the ToRs prescribed by you.

We also request you for a Personal hearing in order to explain our case, in more detail required for the extension of validity of scoping and ToRs for the proposed expansion Project.

Thanking you in anticipation

Yours Faithfully

For Gogte Minerals



Arvind Gogte

Partner

GOGTE MINERALS

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Date: 25th February 2016

To,
The Director (IA) Industry,
Ministry of Environment, forest and Climate Change,
Indira Paryavaran Bhavan,
Jorbagh Road,
New Delhi 110 003

Subject: Proposed expansion by way of increase in production of Iron Ore from 0.368 MTPA to 1.0 MTPA of our Redi Iron Ore Mine (Area 94.7060 Ha) – submission of Form-I and Pre-Feasibility report for grant of TOR – reg.

Reference:

1. Environmental Clearance granted to Redi Iron Ore Mine vide letter no. J-11015/1045/2007-IA-II(M) dated 22nd April 2010.

Dear sir,

With reference to the above, we are submitting herewith Form-I and Pre-Feasibility report for expansion by way of increase in of production of Iron Ore of our Redi Iron Ore Mine (Area 94.7060 Ha) from 0.368 MTPA to 1.0 MTPA. Also, as per the exploration carried out, the resource / reserves of the mine is about 19.283 MT of +45% Fe.

Sir, looking at the above, we request you to kindly consider our application for grant of TOR at the earliest.

Please do the needful.

Thanking you.
Yours truly,
Gogte Minerals


PARTNER



APPENDIX I**(See Paragraph-6)****FORM 1**

Note : If space provided against any parameter is inadequate, Kindly upload supporting document under 'Additional Attachments if any' at the last part of the Form1. Please note that all such Annexures must be part of single pdf document.

(I) Basic Informations

S.No.	Item	Details	
1.	Name of the Project	Redi Iron Ore Mine (Area 94.7060 Ha)	
2.	Project Sector	Non-Coal Mining	
3.	Location of the project	Village Redi; Taluka: Vengurla; District: Sindhudurg	
4.	Shape of the project land Uploaded GPS file Uploaded copy of survey of India Toposheet	Block (Polygon) <u>Annexure-GPS file</u> <u>Annexure-Survey of india toposheet</u>	
5.	Brief summary of project	<u>Annexure-Brief summary of project</u>	
6.	State of the project	Maharashtra	
Details of State of the project			
S.no	State Name	District Name	Tehsil Name
(1.)	Maharashtra	Sindhudurg	Vengurla
7.	Town / Village	Redi	
8.	Plot/Survey/Khasra No.	9, 24, 26, 28, 29, 32(new) (234 old), 33, 34, 46 to 48, 50 to 53, 57 to 60.	
9.	S. No. in the schedule	1(a) Mining of minerals	
10.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number or wells to be drilled	Expansion of Iron Ore Production from 0.368 MTPA to 1.0 MTPA ha.	
11.	New/Expansion/Modernization	Expansion under para 7(ii)	
12.	Category of project i.e. 'A' or 'B'	A	
13.	Does it attract the general condition? If yes, please specify	Yes	
	d)	Inter-State boundaries and international boundaries	
15.	Does it attract the specific condition?	No	
16.	Is there any litigation pending against the project?	No	
17.	Nearest railway station along with distance in kms.	Sawantwadi Road, 20 km	
18.	Nearest airport along with distance in kms	Goa, 95 km	



19.	Nearest Town/City/District Headquarters along with distance in kms	Vengurla , 20 km
20.	Details of alternative sites examined shown on a toposheet	No
21.	Whether part of interlinked projects?	No
22.	Whether the proposal involves approval/clearance under the Forest (Conservation)Act,1980?	No
23.	Whether the proposal involves approval/clearance under the wildlife (Protection)Act,1972?	No
24.	Whether the proposal involves approval/clearance under the C.R.Z notification,2011?	Yes
25.	Whether there is any Government Order/Policy relevent/relating to the site? Uploaded Order/Policy	Yes <u>Annexure-Uploaded order/policy</u>
26.	Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up?	No
27.	Project Cost(in lacs)	450

Activity

- 1 Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)**

S.No	Information/Checklist confirmation	Yes/No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	The land use of mining lease area will change due to mining operations. Out of the total ML area 94.7060 Ha, is is proposed to use 65.0267 Ha for various mining activities. The area falling in CRZ shall not be disturbed. Remaining 29.6793 Ha shall be used for future exploration and green belt development.
1.2	Clearance of existing land, vegetation and buildings?	No	No further clearance is required because the balance mining area is devoid of vegetation and



			public buildings.
1.3	Creation of new land uses?	No	The present land use pattern continues and shall not have any further changes in the land-use pattern.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	In the ML area about 19.6893 Ha still is unexplored. Further, in this area bore holes investigations will be undertaken.
1.5	Construction works?	No	NIL
1.6	Demolition works?	No	NIL
1.7	Temporary sites used for construction works or housing of construction workers?	No	NA
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations and fill or excavations	No	No new structures will be constructed.
1.9	Underground works including mining or tunneling?	No	NA
1.10	Reclamation works?	Yes	Reclamation of worked out pit is proposed by back filling with overburden and solid waste generated during mining operations. The backfilled area shall be afforested.
1.11	Dredging?	No	NA
1.12	Offshore structures?	No	NA
1.13	Production and manufacturing processes?	Yes	Mechanized open cast mining using eco-friendly methods of excavation without involving drilling and blasting. The excavated ore shall be subjected to crushing and screening and dispatch to the prospective buyers. The solid waste generated due to the removal of over burden shall be back filled as well as temporarily dumped at earmarked sites. Plantation will be carried out.
1.14	Facilities for storage of goods or materials?	Yes	Screened / Crushed material shall be stacked grade wise in the ear-marked area only.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	No liquid effluents are generated. The solid waste generated by removal of over-burden is non-toxic and does not contain any leach able heavy metals.
1.16	Facilities for long term housing of operational workers?	Yes	Some workers, contract workers and staff are provided accommodation with all



			facilities. Most of workers and staff are from the nearby village and do not require accommodation at the site.
1.17	New road, rail or sea traffic during construction or operation?	Yes	No new roads and rail operations envisaged. Whereas mined out ore will be transported to the buyers by road, rail and water (sea) ways.
1.18	New road, rail, air water borne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	The present infrastructure is capable of handling transportation of ore.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not envisaged.
1.20	New or diverted transmission lines or pipelines?	No	Not envisaged.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	The natural drains existing in the area will be protected and maintained.
1.22	Stream crossings?	No	No stream crossings.
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	Pit water is being pumped out to the adjacent non-working ML belonging to us, which in turn is being supplied to the water treatment plant owned by M/s. Infrastructure Logistics Private Limited, which after proper treatment is supplied to the entire Redi Village. Some part of pit water is also given to the nearby villages for cultivation purpose.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	The natural drainage system will not be disturbed.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Conveyance is provided to the staff and workmen residing in the nearby areas. Materials are transported by road.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	Will be addressed as per the final Mine Closure plan.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	Yes	Same as above.
1.28	Influx of people to an area in either temporarily or permanently?	No	This is an operating mine with sufficient operational capacity for expansion and no influx of people is envisaged.
1.29	Introduction of alien species?	No	NA
1.30	Loss of native species or genetic diversity?	No	NA
1.31	Any other actions?	No	NA

2 Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short



supply):

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	It is already broken.
2.2	Water (expected source & competing users) unit: KLD	Yes	Expected source: Pit water (major portion) and government supply for office, drinking purpose. Domestic: 8 KLD, Dust suppression: 200 KLD Gardening, etc.: 14 KLD Also, Nevis airborne dust suppression truck mounted system which sprays mist will be used. By this method we will be using less quantity of water.
2.3	Minerals (MT)	Yes	1.0 MTPA of Iron Ore.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	No	NA
2.5	Forests and timber (source – MT)	No	NA
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT),energy (MW)	Yes	Fuel: 2700 KLD/annum Energy: 1800 MWH/annum
2.7	Any other natural resources (use appropriate standard units)	No	NA

3 Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	No substances or materials, which are hazardous (as per MSIHC Rules) to human health or the environment are used.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	NA
3.3	Affect the welfare of people e.g. by changing living conditions?	No	NA
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	NA
3.5	Any other causes	No	NA



4 Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	It is envisaged, about 3.4 MTPA (average) of solid waste shall be generated and the the same shall be stacked and backfilled in the worked out pit. They will be reclaimed by afforestation and other engineering measures.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	No Municipal waste will be generated. Domestic waste generated from colony shall be properly treated before disposal. No commercial waste will be generated.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Wastes / residues containing oil and used / spent oil.
4.4	Other industrial process wastes	No	NA
4.5	Surplus product	No	NA
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Solid waste in the form of sludge
4.7	Construction or demolition wastes	No	NA
4.8	Redundant machinery or equipment	No	NA
4.9	Contaminated soils or other materials	No	NA
4.10	Agricultural wastes	No	NA
4.11	Other solid wastes	No	NA

5 Release of pollutants or any hazardous, toxic or noxious substances to air(Kg/hr)

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Diesel operated machines are used for mining operations and transportation. With regular maintenance as specified by the manufacturer, the emissions will be within limits. PUC shall be



			monitored regularly for all transport vehicles. It is ensured the emission of PM10, PM2.5, SO2 & NOX shall within the permissible limits. We are using EuroIII compliant machines.
5.2	Emissions from production processes	Yes	The average material generation shall be 4.4 MTPA i.e about 22,000 tonnes per day for 200 working days. With the provision of water spray on the transport roads and mine workings to reduce the dust emissions and provision of mulches and growth of vegetation over the dumps to reduce the wind erosions, the emissions of P.M10, P.M2.5 shall be well within the NAAQ standards. The roads will be always well maintained.
5.3	Emissions from materials handling including storage or transport	Yes	The maximum uncontrolled PM10 and PM 2.5 emission level projected at any one time due to the transport operation shall be within permissible limits.
5.4	Emissions from construction activities including plant and equipment	No	NA
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	No	Water spraying on solid waste generated to curtain the dust from spreading to nearby areas. The material is odourless.
5.6	Emissions from incineration of waste	No	NA
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	NA
5.8	Emissions from any other sources	No	NA

6 Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	The maximum noise produced from operation of earth moving m/c's & movement of dumpers at source shall not exceed 90 dB(A) without any attenuation measures. Noise level at boundary was found to be 42-45 dB (A), which is within the permissible limits as per CPCB



			standards. No negative impacts are anticipated at the nearest villages.
6.2	From industrial or similar processes	No	NA
6.3	From construction or demolition	No	NA
6.4	From blasting or piling	No	No blasting operations are done in the mine.
6.5	From construction or operational traffic	Yes	The maximum Noise level projected due to the operational traffic, without any attenuation measures, shall not exceed 75 dB(A).
6.6	From lighting or cooling systems	No	NA
6.7	From any other sources	No	NA

7 Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	No Explosives are used in the mine. Diesel oil stored in the tank shall be used as per requirement and there shall be no spillage.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	NA
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	During transportation of iron ore some dust may be deposited on the adjacent fields. To minimize dust deposition, roads will be graded and maintained regularly. All the loaded trucks will be covered with tarpaulin to avoid spillage enroute and speed limits shall be enforced. Dust suppression measures will be undertaken through regular water spray arrangements and airborne dust suppression system. Crusher shall be provided with enclosures. Wide green belts shall be developed surrounding the ML ar
7.4	From any other sources	No	NA
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	NIL



8 Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	No explosives are used in the mine. There is no bulk fuel storage facility in the working areas of the lease area. Risk of accidents due to spillage, use, storage & handling of HSD is fully minimized as only limited quantity is stored in the approved type of container and handled by approved type of pumps. Further the MMR 1961 rules and the circulars given by DGMS on prevention of fires are strictly followed.
8.2	From any other causes	Yes	Fires due to short circuiting in equipment, batteries for which MMR 1961 & Indian Electricity rules shall be strictly followed and firefighting equipment shall be provided at all conspicuous places with trained persons on fire fighting and on rescue works.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	The area receives over 3000 mm of rainfall/annum and therefore the mine production work is limited to only 8 months during the non-monsoon period. Therefore drainage channels at the toe end of the backfilled & mine benches are developed to divert the water to the bottom most sump and avoiding the risk of bench erosions. Creation of large sump below the bottom most bench and bailing out the water with heavy duty pumps as and when required reduces the inundation and slope failure problem. Check da

9 Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S.No	Information/Checklist confirmation	Yes/No	Details thereof (with
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			approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> o Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) o housing development o extractive industries o supply industries o Other 	No	Infrastructure could be converted as a tourist attraction.
9.2	Lead to after-use of the site, which could have an impact on the environment	Yes	Area will be either restored or will act as a very good reservoir for use to society.
9.3	Set a precedent for later developments	Yes	Avenue plantation will be developed and area will be developed to become community recreation centre.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	NA

(III) Environmental Sensitivity

S.No	Areas	Name/Identity	Aerial distance (within 15km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	CRZ clearance obtained from Maharashtra Coastal Zone Management Authority, Mumbai vide letter no, MCZMA 2009/ CR 73/TC-3 dated 06.01.2010 to carry out mining in Non-CRZ areas.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	The Sawantwadi reserve forest of fairly dense mixed jungle exist at 2.5 km NE of the ML area in the buffer zone. Shiroda creek which meets the sea. HTL of Shiroda creek is beyond 700m from the lease boundary. Redi port is located at about 1.6 km in NNW direction. Terekhol creek is located towards SE located at 1.6 km from ML area. A water reservoir is located at southeastern corner of Redi village, called Kanyal tank, at a distance of 1.6 km from the ML area.



3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	The area does not have any flora and fauna of any importance for breeding, nesting, foraging, resting, over wintering, migration. Further biodiversity study shall be conducted and necessary conservation plan shall be designed for mitigation purpose.
4	Inland, coastal, marine or underground waters	Yes	Shiroda creek which meets the sea. HTL of Shiroda creek is beyond 700m from the lease boundary. Redi port is located at about 1.6 km in NNW direction. Terekhol creek is located towards SE at 1.6 km from ML area.
5	State, National boundaries	No	Goa state boundary is at a distance of 0.5 kms.
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Yes	Redi Ganapati temple is at a distance of 0.66 kms. Shiroda beach is at a distance of 1.6 kms.
7	Defence installations	No	NA
8	Densely populated or built-up area	No	There are no settlements (or structure of any sort) on the plateau portion. Densely populated areas are Aravali 1290 Shiroda 1945 Ajgaon 2637 Tiroda 1204 Aronda 2465
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	In the above villages there are Govt. schools and Govt. medical facilities.
10	Areas containing important, high quality or scarce resources.(ground water resources,surface resources,forestry,agriculture,fisheries,tourism,minerals)	No	NA
11	Areas already subjected to pollution or environmental damage.(those where existing legal environmental standards are exceeded)	No	NA
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No	NA

(IV) PROPOSED TERMS OF REFERENCE FOR EIA STUDIES

1	Uploaded Terms of Reference(TOR) File	Annexure-TOR file
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2	Uploaded scanned copy of covering letter	Annexure-scanned copy of covering letter
3	Uploaded Pre-Feasibility report(PFR)	Annexure-PFR

Uploaded Approval of mining Plan	Annexure-Uploaded Approval of mining plan
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(V) Undertaking

The aforesaid application and documents furnished here with are true to my knowledge

V.(i)	Name of Applicant	Satyen
	Designation	Manager - Environment
	Name of Company(Applicant Name should not be given here)	GOGTE MINERALS
	Address	Redi Iron Ore Mine, A/o. Redi, Taluka Vengurla, District Sindhudurg, Maharashtra



SUMMARY FOR ENHANCEMENT OF PRODUCTION OF IRON ORE OF

REDI IRON ORE MINE OF M/S. GOGTE MINERALS

I. INTRODUCTION:

Redi Iron ore Mine of M/s. Gogte Minerals over a lease area of 94.7060 ha which is a private land located in the village Redi, Vengurla taluk, Sindhudurg district of Maharashtra State. Environmental Clearance (EC) was granted for a production of 0.368 MTPA of iron ore from the mine. Based on exploration data and subsequent analysis mineral resources upto 19.283 MT is estimated. It is now proposed to enhance the production to 1.0 MTPA by continuing with mechanized opencast mining without drilling & blasting. It is envisaged that a good demand both for export and for internal consumption for iron ore in near future, hence this enhancement.

II. PROJECT / BACKGROUND INFORMATION:

The project is located at 4.5 km by road from Redi port, which is an unique and peculiar characteristic of this project. Due to the location advantage, it is easy to transport iron ore to the prospective buyers by sea route with less load on the environment. This mine is the only major industry in the Redi village and having potential to employ about 140 people as direct employment and also support allied service industry, thereby reducing the migration of people to metros to seek employment.

III. ENVIRONMENTAL SETTING:

The ML area and its study area of 10 km do not fall in any wild life sanctuary, eco-sensitive areas. Fairly mixed jungle of Sawantwadi reserved forest is beyond 2.5 km in NE direction from ML. A small part of S. No. 234 (old) of ML comes under CRZ, however, approval from MCMZA for mining activity has been obtained vide their letter No. MCZMA 2009/CR 73/TC-3 dated 06.01.2010. Climate is humid tropical with annual rainfall of over 3000mm. Minimum and maximum temperatures are 17.2°C & 35.8°C respectively.

IV. TECHNICAL DETAILS

Location	Latitude : N 15° 43'59.7" to 15° 44'47.6" Longitude : E 73° 39' 49" to 73° 41'10.3"
Topo sheet No.	48 E/9, 10, 14
Survey / Gut Nos.	9, 24, 46 to 48, 50 to 53, 57 to 60, 26, 28, 29, & 32 (new) (234 old), 33 &34.
Reserves / Resources	19.283 MT + 45 % Fe with ore : waste = 1 : 3.4 (avg); 6 (maximum) and 2.8 (minimum)
Life of the mine	Life of resources shall be 19 years but as per MMDR Amendment Act, 2015 the balance lease period granted is only 4 years i.e., up to 31-3-2020
Depth of workings	112 m
Water Table	5.93 m depth in pre-monsoon & 4.72 m in post monsoon.
No. of pits	One pit operational



SUMMARY FOR ENHANCEMENT OF PRODUCTION OF IRON ORE OF

REDI IRON ORE MINE OF M/S. GOGTE MINERALS

Mining operations :	
Drilling	No drilling
Blasting	No blasting ripper dozers are used
Loading	Hydraulic excavators & wheel loaders
Haulage	10 tonne, 30 tonne & 35 tonne tipper and dumpers.
Size classification	Crushing & screening
Waste	Waste ratio 1 : 3.4 (avg); 6 (maximum) and 2.8 (minimum) temporary backfilling in Pit No. 203 & and afforestation with local shrubs and grasses.
Water Requirement	212 KLD of pit water & 8 KLD domestic from water treatment plant.

V. ENVIRONMENTAL CONSIDERATIONS :

Seasonal Baseline data for Ambient Air Quality, Noise Levels, Water Quality and Soil Quality are being continuously monitored and observed to be well within the limits. Measures for environmental management are also being implemented.

VI. SOCIAL IMPLICATIONS:

People in the 10 km radius mostly depend on money sent by the family members working major metros viz, Mumbai, Pune, etc. for their livelihood, as there are no major industries in the area. The operating mines in the area are closed down and also the income potential is gone down. By allowing this project to function the load of migration of people to the metro cities will be reduced.



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PRE-FEASIBILITY REPORT

(Prepared for Obtaining Environmental Clearance for enhancement of production)

1. Executive Summary

India possesses hematite resources of 14,630 million tonnes of which 7,004 million tonnes are reserves and 7,626 million tonnes are available resources. Major hematite resources are located mainly in Jharkhand-4036 million tonnes (28%), Orissa-4761 million tonnes (33%), Chattisgarh-2731 million tonnes (19%), Karnataka-1676 million tonnes (11%) and Goa-713 million tonnes (5%), Sindhudurg region ore being low grade ore, this iron ore is mostly export oriented and less demand in domestic market. It is mining of iron ore and hence no raw material is required for mining. Nature and occurrence of ROM ores at Redi Iron ore mine is such that, it is most suitable for producing Sinter making fines and sized lumps to go as burden materials for steel making. Therefore, ROM ores are suitably processed to produce sinter fines and sized lumps and will be sold to local buyers or exported to Japan, China and other prospective buyers with grades as desired by the buyers. Buyers have proposed specification in terms of grade and size. The processing is done through the Mobile dry Screening and Crushing Plant.

M/s. Gogte Minerals, 2nd Floor, Nascolshannya, 27/1, Khanapur Road, Tilakwadi, Belgaum, Karnataka 590 006 are Lessee of Redi Iron ore mine which is an operating Iron ore mining lease. This mine falls in the village Redi, Vengurlataluka, Sindhudurg district of Maharashtra State. The total extent of the lease area is 94.7060 Ha, which is a private land. Environmental Clearance (EC) was granted for a production of 0.368 MTPA of iron ore from the mine vide file no. J-11015/1045/2007-IA.II(M) dt 22nd April 2010 and the operations started. The mining lease was amalgamated and was valid up to 20/01/2016 and the mining plan under Rule 12 of MCDR, 1988, for a period of four years & 10 months, i.e. from 01/04/2012 to 20/01/2016 was approved by IBM, As per the provisions of MMDR Amendment Act, 2015 the lease period is extended upto 31.03.2020, and subsequently a Modified Mining Plan is approved by IBM upto 31.03.2020. We presently intend to increase the production of iron ore from 0.368 MTPA to 1.0 MTPA. Therefore, we are approaching MoEF&CC for augmentation of EC from 0.368 MTPA to 1.0 MTPA from the lease area.

We have drilled 77 nos. of exploratory bore holes, based on the exploration carried out till date and geological mapping undertaken, a geological plan depicting detailed litho-unit and the structural

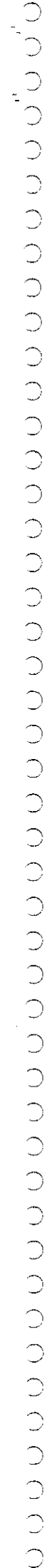


elements are prepared and the geological cross sections are prepared. The general strike of the ore body is NW-SE direction, but some places it has taken swing & the direction changes up to E-W. The general dip of the ore body is 42° to 55° towards NE. Dip direction is varying from N to NE. The total mineral resources estimated are of the order of 19.283 MT. With the proposed production of 1 MTPA, the life of the resources shall be 19 years. The ore to waste ratio is about 3.4 (avg).

It is proposed to continue mining operations in Pit No. 203 (present operating pit) by mechanized opencast method without drilling & blasting operations, with day time working. Screened/crushed material is stacked or transported to prospective buyers through road, rail or sea routes. Redi Port is at a distance of about 4.5 km by road. The ore produced from the mine is subjected to dry screening with the mobile screening plants at the mine site. Water tankers of capacity of 8000 liters are used for dust suppression, along with this, airborne dust suppression system with truck mounted (mobile) spraying of mist will also be used.

It is proposed to work with 6 m bench height and bench width of 8 to 12m. The pit slope angle will be maintained less than 30°. The ore to waste ratio is about 1: 3.4 (avg). The wastes as well as ore generated are non-toxic and no leachable heavy metals are present. During the ensuing modified plan period about 11.2 MT of wastes shall be generated till 31.03.2020. It is proposed to stack the waste generated in portion of the southern side and in Patni area in the North east side of Pit No. 203 respectively. The existing land use pattern, Excavation 27.0745 ha, mineral storage 4.0358 ha, waste dump 29.5817, infrastructure 2.509, road 1.8157, green belt 10 ha and to be explored 19.6893 ha. Level of the pit bottom of pit will be at -60 m RL. Number of benches will be around 22 from 51 mRL to -60 mRL i.e., 117m deep.

In Redi Village and surrounding areas, the main revenue generating sources are agriculture, mining and tourism. With this proposed expansion, there will be further increase in employment opportunities and other auxiliary service industries and indirectly there by increasing the financial status of villagers, improvement in literacy rate by improving the schooling facility, improvement in the health status by establishing health care units, & health camps in the villages improvement in infrastructure by repair & maintenance of village roads, establishment of business centre near to the project site are expected. About 4000 KLD of water is pumped out from this mine and out of this about 2000 KLD of water is supplied to the village after treatment at the Water Treatment Plant. The state will get revenue in terms of royalty and taxes and country in terms of income tax, export duty and other taxes.



The total material generation shall only be 3.8 MTPA and the maximum uncontrolled PM₁₀ emission level projected at any one time, shall be within the permissible limits. Thus the dust generation during mining, transport and crushing shall be meager owing to the proximity of the sea as the climate in general is moist and humid.

To minimize dust deposition, roads will be graded and maintained regularly. All the loaded trucks will be covered with tarpaulin to avoid spillage enroute and speed limits shall be enforced. Regular maintenance of equipment as per manufacturer specification shall be done to minimize the emission of noxious gases. PUC shall be undertaken for the transport vehicles. Besides, Avenue plantation will be developed wherever necessary.

Drilling & blasting operation generates excessive dust, noise and the blast induced ground vibrations are completely avoided. The maximum noise produced from operation of Heavy Earth Moving m/c's & movement of dumpers at source shall be within the permissible limits. Without any attenuation measures, noise level at boundary was observed to be 55-45 dB (A), which is within the limits. No negative impacts are anticipated at the nearest villages of Kanyalwadi village located 0.7 km SE with a sizable population and Redi village is located at 2 km NW with a sizable population. The area does not have any flora and fauna of significant importance for breeding, nesting, foraging, resting, over wintering, migration for breeding. The ML area is a private land and broken up land. Shrubs and bushes grow sparsely. The reserve forest of Sawantwadi forest division, which is fairly mixed jungle is beyond 2.5 km NE of the ML area and the surrounding areas are found to contain cashew, coconut, jackfruit plantations, etc., a typical characteristic landscape of coastal area. There are no endangered or endemic species of flora or fauna in the forest area and there shall be no negative impact over these forest areas. The temporarily backfilled areas within the pit which are mulched and afforested with only shrubs and grass variety of species to prevent erosions and wash off. However the existing external waste dumps outside the ultimate pit limits are fully stabilized and afforested. Further, regular environmental monitoring will be conducted during life of the mine in ML area and in surroundings to maintain the pollutants level within the permissible limits.

There are no perennial water streams or nallahs existing within the area HTL of Shiroda creek is beyond 700m from the lease boundary. Ground water level observed in the core zone is at 5.93 MSL deep during pre-monsoon season and 4.72 MSL deep in post monsoon. Maximum depth proposed is about 122m (upto -72 MSL) in the Pit No. 203 and minimum depth is about 30m in Mauli Pit. The total monsoon water is allowed to collect in the pit. About 4000 KLD of water is pumped out by deploying four pumps of capacities ranging from 198 to 295 hp. The water is stored in the adjoining



exhausted mine pit of the Lessee. It is then further treated for domestic consumption in a treatment plant and then supplied to the village free of cost through Gram Panchayat distribution system only. Out of the above pumped out water, about 222 KLD is used for mining operations such as dust suppression, afforestation and other auxiliary activities. Balance about 2000 KLD of water is supplied to the villager of surrounding areas for cultivation purposes.

There exists no human settlement within the core zone. Within the buffer zone of 10 km radius around this mining lease, there are 29 villages with a total population around 30038 (Census 2011). The main occupation is agriculture. Additionally, many people depend upon mining and related activities such as transportation activities, employment in mines, etc. A proactive role in enhancing the employability of the job seekers of the nearby area is encouraged. The company shall prepare a plan for human resource development required for the project.

This mine shall provide employment for about 200 people by both direct employment and indirect employment. The lessee shall continue to extend social benefits like drinking water, health care measure, HIV awareness programs, promotion of cultural & religious activities, sports and training in self-employment scheme, to the neighboring villagers in addition to his own employees. Repair & maintenance of the village roads, maintenance of school buildings, awarding scholarships for higher studies for meritorious students, supply of free books & uniforms to the students shall be taken up.

The economic viability assessed for this mine with a production target of 1.0 MTPA of iron ore is assessed to be highly remunerative with a net profit of Rs 111 millions/annum. There is going to be maximum demand for iron ore in Domestic as well as in foreign market. The project proponent wishes to contribute to socio economic up-liftment of the area. The Workers and surrounding villagers are not exposed to any extreme or hazardous environment. There will be no impact on noise, water & other such parameters because of mining activity. This project helps in contributing to the State Govt. by way of Royalty and taxes etc. and central Govt. with income tax and export duty, etc. Exporting of these low grades with limited consumption in India is an asset to the country.

The rapid expansion of the steel sector has resulted in the demand for iron ore in the country. Hence we have decided to contribute to the extent possible to meet this demand. This will add to the overall economic growth of the region and the country. Thus for reducing the demand & supply gap in the country. The increase in production of iron ore proposed is to a tune of 1.0 MTPA.

2. Introduction of the project/ Background information

(i) Identification of project and project proponent. In case of mining project, a copy of mining

lease/ letter of intent should be given.

M/s. Gogte Minerals, 2nd Floor, Nascolshannya, Khanapur Road, Tilakwadi, Belgaum, Karnataka 590 006 are Lessee of Redi Iron ore mine (94.7060 Ha) which is an operating Iron ore mining lease. This mine falls in the village Redi, Vengurlataluka, Sindhudurg district of Maharashtra State. The mine falls in the village Redi, Vengurlataluk, Sindhudurg district of Maharashtra State. The total extent of the lease area is 94.7060 Ha which is a private land. EC was granted for production of 0.368 MTPA of iron ore from the mine vide MoEF letter No J-11015/1045/2007-IA-II (M) dated 22nd April 2010. The mining lease was valid up to 20/01/2016 and the plan of mining under Rule 12 of MCDR, 1988 , for a period of three years & 10 months, i.e. from 01/04/2012 to 20/01/2016 was approved by IBM vide letter No MS/SIND/GOA(MAH)/Fe 82-SZ516 Dt 25/28-02-2013. As per the provisions of MMDR Amendment Act, 2015 the lease is extended upto 31.03.2020, copy of letter is enclosed under **Annexure -I**. The modified mining plan for four years from April 2016 to March 2020 was approved by IBM.

(ii) Brief description of nature of the project.

Exploration has been conducted by the Lessee by putting 77 core drilling bore holes and proved mineral resources of 19.283MT. It is now proposed to cover the unexplored area on northern and western side of the lease area at 200m grid spacing. Exploration will be carried out by in-house Geology Department.

Year	No. of boreholes (Core drilling)	Grid interval	Total meterage	No. of Pits, dimensions and volume	No. of Trenches, dimensions and volume
2016-17	5	200 m	375m	Nil	Nil
2017-18	5	200 m	375m	Nil	Nil
2018-19	7	200 m	525m	Nil	Nil
2019-20	Nil	Nil	Nil	Nil	Nil

The general strike of the ore body is NW-SE direction, but some places it has taken swing & the direction changes up to E-W. The general dip of the ore body is 42° to 55° towards NE. Dip direction is varying from N to NE. It appears that there has been certain igneous activity in the area, which has resulted in the formation of dykes and sills.

The general succession of lithology from top to bottom is as follows:

Laterite	10 – 20 m
Phyllitic Clay	20 – 25 m
Lumpy Iron Ore	5 – 7 m
Blue Dust	20 – 40 m
Limonitic / Magniferous Clay	25 – 55 m
Siliceous Clay / Quartzite	30 – 60 m (Footwall)
Schists	Basement

Summary of Mineral Reserves/Mineral Resources Estimated

UNFC - Classification		UNFC Code	(+55 Fe%)	(-55/+45 Fe%)	TOTAL
A. Mineral Reserve					
1	PROVED MINERAL RESERVE	111	4.653	0.446	5.099
2	PROBABLE MINERAL RESERVE	121 & 122	0.752	0.133	0.885
			5.405	0.579	5.984
B. Remaining Resources					
3	FEASIBILITY MINERAL RESOURCE	211	-	-	-
4	PRE-FEASIBILITY RESOURCE	221 & 222	6.240	0.719	6.959
5	MEASURED MINERAL RESOURCE	331	0.131	0.124	0.255
6	INDICATED MINERAL RESOURCE	332	0.325	0.148	0.473
7	INFERRED MINERAL RESOURCE	333	3.529	2.083	5.610
8	RECONNAISSANCE MINERAL RESOURCE	334	-	-	-
			10.225	3.074	13.299
Total Mineral Resources (A+B)			15.630	3.651	19.283

	At the Beginning (ha)	At Conceptual (ha)
Excavation	27.0745	30.153
Mineral storage	4.0358	3.9415
Waste dump	29.5817	38.2098
Infrastructure	2.509	2.4383
Road	1.8157	1.8157



Green belt	10	14.35
To be explored	19.6893	3.7977
Total	94.7060	

(iii) Need for the project and its importance to the country and or region.

India possesses hematite resources of 14,630 million tonnes of which 7,004 million tonnes are reserves and 7,626 million tonnes are remaining resources. Major hematite resources are located mainly in Jharkhand-4036 million tonnes (28%), Orissa-4761 million tonnes (33%), Chattisgarh-2731 million tonnes (19%), Karnataka-1676 million tonnes (11%) and Goa-713 million tonnes (5%), Sindhudurg region ore being low grade ore this iron ore is mostly export oriented. Presently the export demand for these ores are is slightly lowered it is only a temporary phenomena and the export is likely to pickup in immediate future. As per National Steel Policy 2005, in order to support steel production of 110 million tonnes by 2019-20, the requirement of iron ore is placed at 190 million tonnes. Thus the projected domestic demand of iron ore will be 190 million tonnes; similarly, exports have been estimated to be around 100 million tonnes by 2019-20. The total demand of iron ore will be around 290 million tonnes by 2019-20. It is expected that the additional demand will be met through capacity augmentation from mines in Goa & Maharashtra and in other places and by opening of new mines. For this area the main revenue generating resources are agriculture and iron ore mining. The state will get revenue interms of taxes and royalty and country in terms of income tax and export duty. Therefore continuation of this mine with increase in production is important to the country and or region.

People in this region are dependent on agriculture and mining operations. Many of them migrate to metros like Mumbai, Pune, etc. and their families are dependent on the money sent by them. By increase in production, there will be increase in the direct employment and also in the service sector of the region. This will reduce the migration to the metros and people can earn in their home village.

(iv) Demand-Supply Gap.

	2000		2010	2020 - 2040
Finished Steel consumption	28	61	120 – 150	400 – 530
FSC per capita (kg)	30	50	90 – 110	260 – 340



Iron Ore Requirement	43	100	200 – 250	700 – 900
Iron Ore Exports	33	120	??	??
Iron Ore Expansion Needed	--	--	20 – 70	480 – 680

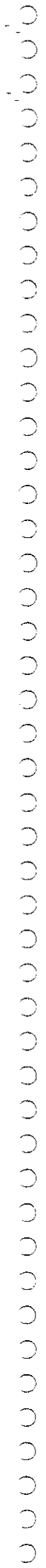
As per the National Steel Policy, 2005 the total demand of iron ore is placed at 290 million tonnes including 190 million tonnes for domestic consumption & 100 million tonnes for export by 2019-20. The current mining capacity of iron ore in the country is around 160 million tonnes. This capacity can be enhanced, through consolidation of leases, increase in mechanised mines in Maharashtra and other states and improvement in the operating capacity of existing mines in Maharashtra.

(v) Imports vs. Indigenous production

India has emerged as the fourth largest miner and the third largest exporter of iron ore. India has currently estimated iron ore resource of 25 billion tonnes. The Iron Ore & Steel Derivatives Association IOSDA expects India to definitely strengthen its position as a major ore producer. However, it foresees moderation in iron ore exports from India going forward. With a number of steel projects coming on stream in the next one year, IOSDA anticipates a steep increase in internal demand for iron ore. It also opines that India needs to invest in infrastructure in order to develop the industry from a long term perspective. This project has the unique advantage so far as transportation of ore production is considered. It is located at a distance of 4.5 km by road ways to Redi Port. The transportation by sea route will reduce the possible environmental pollution. This area is well connected by road, rails and sea route.

(vi) Export Possibility.

While Ministry of Steel is very much vocal against the export of iron ore in order to support the domestic steel industry, exporters have a strong case in defense. According to them, steel majors like Tata Steel and Sail have their own captive resources. Others are getting ore from domestic miners. Indian iron ore production has always been higher than the steel mill's capacity to consume. This iron ore which is of low grade has the necessity to export as it cannot be directly used in Indian steel industry. Treatment for up gradation is costly and also blending with high grades restricts the transport cost of high grades to this place.



(vii) Domestic / export Markets.

Following the very high export duty of 30% coupled with higher freight rates on iron ore meant for exports by the Railways, iron ore exports have come down sharply during the current year. According to Barclays Research, India's iron ore production is likely to fall at a Compound Annual Growth Rate CAGR of 3.8% over FY15-16 even as the demand is set to grow at 8% during the same period, positioning India as a net importer of iron ore from being the third-largest exporter in the global seaborne market.

3. Project Description

(i) Type of project including interlinked and interdependent projects, if any.

Project description is already furnished under item 2(ii) It is not an interlinked project. It is proposed to mine by opencast mechanized mining, without conventional drilling and blasting to produce 1.0 MTPA of iron ore with ore to waste ratio of 1:3.4 (avg). The waste generated consists of side burden clays. The ore produced is mostly consists of low grades. Occurrence of ore deposit in this mine is such that it is most suitable for producing Sinter making fines. Calibrated sized lumps can go as burden materials for steel-making to be marketed as it is and same can be dispatched to the buyers either directly the ROM or occasionally blending screened +45 – 55% Fe with higher grades. There exists ready market for local buyers and for export for all the grades produced. The end use of the ore produced is for export as well as internal market. All the ore produced is for sale to different local parties and for export to steel mills in Japan and China. The total excavation handled per annum is about 3.8 MT and accordingly the machinery requirement is worked out.

(ii) Location (map showing general location, specific location, and project boundary & project site layout) with coordinates.

The area falls under toposheet No 48 E/9, 10, 14 covering Latitude: N 150 43'59.7" to 150 44'47.6" Longitude: E 730 39' 49" to 730 41'10.3". Location of mine is furnished under item 2(ii) above. Map above details is enclosed as Fig – I (Key plan).

(iii) Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

This is an existing mining lease with a proven mineral reserve. As such consideration of

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alternate sites is not relevant.

(iv) Size or magnitude of operation.

Presently it is proposed to produce iron ore @ 1.0 MTPA with ore to waste ratio of 1:2.8 within the ML area of 94.7060 ha by opencast mechanized mining, working during day time only. Mine shall not work in the monsoon season. Conventional mechanized opencast mining shall be practiced without drilling and blasting.

Proposed production & development during the plan period:

Units : million tonnes

Period	ROM (t)	Total waste	Ore to waste Ratio
2016-17	1.0	2.8	1:2.8
2017-18	1.0	2.8	1:2.8
2018-19	1.0	2.8	1:2.8
2019-20	1.0	2.8	1:2.8
Total	4.0	11.2	1:2.8

The land use of mining lease area changes due to mining operations. No forest land is involved, it is a private land. The approximate land use at the beginning, & conceptual stage is given under item 2(ii) above.

(v) Project description with process details (a schematic diagram/ flow chart showing the project layout, components of the project etc. should be given)

Project description is furnished under item 2 (ii). Mining is done without drilling and blasting operations with heavy-duty ripper dozers and hydraulic excavators, which are eco-friendly. There are no sub grades generated. The low grades analysis +45% to 55% Fe. Since this ore is worked incidental to the mining of the higher-grade ores, this low grade ore will be size classified by crushing & screening and sold directly to buyer or will be blended with higher grade ore to make saleable product.

(vi) Environmental Protection

The expected air pollution (Mainly dust release), water pollution (only sediments), noise pollution including the ground vibrations due to this proposed mining activity are minimal as mitigation measures such as avoiding drilling & blasting operations, regular water spray along the transport roads, stack yards, waste disposal yards, providing enclosure to the mobile screening plant, development of wide green belts surrounding mining area and along the safety barriers, proper maintenance of roads and the mining machinery & equipment as per manufacturers' norms with regular PUC for transport vehicles erection of check dams, retaining walls, provision of garland drains with settling tank are already under taken up and further additions are proposed. As pollution control measures the lessee has already developed 13560 m of Garland Drains, 2 Nos. of Settling Pits and 1689.50 m of Laterite Wall. Therefore there shall be no adverse effect on human environment or the flora & fauna. The ore to waste ratio is 1: 2.8 and the wastes as well as ore generated are non-toxic and no leachable heavy metals are present. During the ensuing modified plan period about 11.2 MT of wastes shall be generated. The wastes generated are stacked. There are no perennial water sources within ML.

The total material generation shall only be 3.8 MTPA and the maximum uncontrolled PM₁₀ emission level projected at any one time due to the transport operation. Thus the dust generation during mining, transport and crushing shall be meager. During transportation of iron ore some dust may be deposited on the adjacent fields. To minimize dust deposition, roads will be graded and maintained regularly. All the loaded trucks will be covered with tarpaulin to avoid spillage enroute and speed limits shall be enforced. Regular maintenance of equipment as per manufacturer specification shall be done to minimize the emission of noxious gases. PUC shall be undertaken for the transport vehicles. Besides, Avenue plantation will be developed wherever necessary.

Drilling & blasting operation which generate excessive noise and the blast induced ground vibrations are completely avoided. As observed in similar operating mines, the maximum noise produced from operation of Heavy Earth Moving m/c's & movement of dumpers at source shall be within the permissible limits. Without any attenuation measures, noise level at boundary was observed to be 55-45 dB (A), which is within the CPCB standards. No negative impacts are anticipated at the nearest villages of Kanyalwadi village located 0.7 km SE with a sizable population and Redi village is located at 2 km NW with a sizable population.

The altitude of the ore bearing area is between 6 to 55 meters above MSL and the lowest elevation is the pit bottom at - 57 m below MSL. The area does not have any flora and fauna of

great importance for breeding, nesting, foraging, resting, over wintering, migration for breeding, nesting, foraging, resting, over wintering, migration. This being a private land there is no thick vegetation within the ML. Shrubs and bushes grow sparsely.

The ML area is a private land which is mostly broken up. Therefore, there exists no specific flora & fauna within the ML, excepting the green belt area developed by the lessee. The reserve forest of Sawantwadi forest division, which is fairly mixed jungle is beyond 2.5 km NE of the ML area and the fairly dense cashew jungle is beyond 2.0 km from the ML. There are no endangered or endemic species of flora or fauna in the forest area. At core area the dominant species were *Acacia auriculiformis*, *Casuarina equisetifolia* within buffer area dominant species were *Acacia auriculiformis*, *Casuarina equisetifolia*, *Anacardium occidentale* L. *Mangifera indica* L., and *Rhizophora mucronata*. Common to core & buffer the dominant species were *Ixora brachiata*, *Carissa carandas*, and *Vitex* sp., shrubs were *Sida acuta*, and Grass species were *Borreria* sp. These are followed by mango and coconut orchards, which have been significantly promoted by farmers on agricultural bunds and house backyards. Within the forest the fauna observed were Flying fox, Squirrel and Bonnet macaque and remaining were ground dwellers. Since the flora & fauna observed within the ML are all common varieties and the forest area is far-off separated by cultivated land, water courses and residential villages, there shall be no loss of native species or genetic diversity. The locally identified tree, grass & shrub species will be rehabilitated as far as possible. and there shall be no negative impact over these forest areas. .

The worked out pit shall be 30.153 ha. Since the ore shall not be exhausted completely within the pit, the wastes generated are stacked at earmarked site and might be re-handled in future and afforested with only shrubs and grass variety of species to prevent erosions and wash off. However the existing external waste dumps outside the ultimate pit limits are fully stabilized and afforested.

The wastes generated during the ensuing 4 years of plan period are proposed to be temporarily backfilled. The dumping will be done in stages with each stage not exceeding 10m, to a maximum height of about 50 m with intermittent berms of width about 15 m. The inactive slopes of the dump are concurrently mulched covered with grasses, shrubs and leguminous plants. Critical slopes are covered to avoid erosion.

Two toe wall / Rubble walls of dimension of length about 2500 m, Height 1.50 m and a width of 1.50 m, shall be constructed all along the toe end of the waste dumps. Garland drains of total



length 2500 m will be provided in between these two toe walls and also for proper drainage of runoff water into the settling pit.

Afforestation during the plan period upto 31.03.2020

Year	Area covered (waste dumps) ha & abandoned benches	No. of tree plants	Area covered in Pit (Ha)	No. of plants
2016-17	7.00	11200	3.00	4800
2017-18	8.30	13280	3.00	4800
2018-19	8.54	13664	3.00	4800
2019-20	7.55	12080	3.00	4800
Total	31.39	50224	12.00	19200

Green belt covering about 14.35 ha will be developed over the 7.5 m barrier around the ML and over virgin area. The afforestation work done shall leave a congenial environment for immigration of avi-fauna by including the fruit and flower bearing shady trees and also by provision of drinking water in the abandoned pit. It shall improve aesthetic beauty of the area. Further, regular environmental monitoring will be conducted during life of the mine in the project site and in the surroundings to maintain the pollutants level from the mining activity within the permissible limits.

(vii) Raw material required along with estimated quantity, likely source, marketing area of final product/s, Mode of transport of raw Material and Finished Product

It is mining of iron ore and no raw material is required for mining. Nature and occurrence of ROM ores at Redi Iron ore mine is such that, it is most suitable for producing Sinter making fines and sized lumps to go as burden materials for steel making. Therefore, ROM ores are suitably processed to produce sinter fines and sized lumps and will be sold to local buyers or exported to Japan, China and other prospective buyers with grades as desired by the buyers. Buyers have proposed specification in terms of grade and size. The processing is done through the Mobile dry Screening and Crushing Plant.

(viii) Resource optimization/ recycling and reuse envisaged in the project, if any, should be briefly outlined.



The entire ROM iron ore produced from the mine including the low grades are purchased by different buyers. The low grades analysis +45% to 55% Fe. Since this ore is worked incidental to the mining of the higher-grade ores, this low grade ore will be size classified by crushing & screening and sold directly to buyer or will be blended with higher grade ore to make saleable product Hence, no quantity of low grade is expected to be accumulated at the mine site. Thus 100% utilization of the products generated from the mine is achieved. No recycling and reuse of the product is involved.

(ix) Availability of water its source, Energy/ power requirement and source should be given.

There are no perennial water streams or nallahs existing within the area HTL of Shiroda creek is beyond 700m from the lease boundary. Ground water level observed in the core zone is 5.93 m deep during pre-monsoon season and 4.72 m deep in post monsoon. Maximum depth proposed is about 122m (upto -72m MSL) in Pit No. 203 and minimum depth is about 30m in Mauli Pit. The total monsoon water is allowed to collect in the pit. About 4000 KLD of water is pumped out by deploying four pumps of capacities ranging from 198 to 295 hp. The water is stored in the adjoining exhausted mine pit of the Lessee. It is then further treated for domestic consumption in a treatment plant and then supplied to the village through Gram Panchayat distribution system only. Out of the above pumped out water, about 222 KLD is used for mining operations such as dust suppression, afforestation and other auxiliary activities. Balance about 2000 KLD of water is supplied to the villager of surrounding areas for cultivation purposes. The machinery used in the mine is run by diesel. About 300 KLD of HSD per month is required. The power required for mining activity is only for the lighting supplied by from MSEB.

(x) Quantity of wastes to be generated (liquid and solid) and scheme for their Management/disposal.

Quantity of Wastes to be generated are furnished under item 3.0(iv) Further details on waste management is already furnished under items 2(ii) & 4(vi). The wastes generated stacked at earmarked site.

(xi) Schematic representations of the feasibility drawing which give information of EIA purpose.

The environmental plan is enclosed under Fig -2.

4. Site Analysis

(i) Connectivity.

Village Redi located at about 2km distance in NWW direction of Ajgaon - Terekhol Road The access routes to reach from mine at Redi to District – Sindhudurg/Oras – 60kms via MalewadTaluk.Further details given under Item 2(ii).

(ii) Land Form, Land use and Land ownership.

It is a private land further details is furnished under Items 2(ii) & 3(iv).

(iii) Topography (along with map).

The altitude of the ore bearing area is between 6 to 55 meters above mean sea level and the lowest elevation is the pit bottom at – 57 m below mean sea level. Village Redi is located at about 2km distance in NWW direction is at about 15m above MSL. The ML is non-forest private land covered only with scattered shrubs. About 65 ha of land is covered by mining and allied activity after clearing the existing vegetation,no further clearance is required because the balance mining area is devoid of vegetation and public buildings.Rain water during monsoon season, drains towards sea on the west and southwest and through agricultural fields towards north to Shiroda creek.

(iv) Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ)), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette notification should be given.

The area was originally non-agricultural waste land presently under mining operations. Further details furnished under item 2(ii) & 3(iv).A small part of S.No. 234 of ML comes under the provision of CRZ. However, approval from MCMZA has been obtained vide their letter No. MCZMA 2009/CR73/TC-3 dated 06.01.2010. The Sawantwadi reserve forest of fairly dense mixed jungle exist at 2.5 km NE of the ML area in the buffer zone. Shiroda creek which further meets the sea. HTL of Shiroda creek is beyond 700m from the lease boundary. Redi port is located at about 1.6 km in NNW direction. Terekhol creek is located towards SE located at 1.6

km from ML area. HTL of Arabian Sea coast is about 0.5 km from the ML boundary, further it is at higher elevation of 46 to 20 m above MSL. A water reservoir is located at southeastern corner of Redi village, called Kanyal tank, at a distance of 1.6 km from the ML area. There is no national park, wild life sanctuary, eco sensitive areas within the study area.

(v) Existing Infrastructure

The mine is an operating mine and all required infrastructural facilities are already existing and sufficient for expansion.

(vi) Soil classification

No top soil is generated from the ML area as most of the mineralized portion is already broken up.

(vii) Climatic data from secondary sources,

The district being a coastal area the variation of temperature during the day and through the seasons is not large. Owing to the proximity of the sea the climate in general is moist and humid. The average relative humidity varies between 64.5 – 92%. The temperature ranges from 17.2 to 35.8^o C. Major rainfall occurs by SW monsoon with maximum rainfall occurring in the month of July. The average annual rainfall in the area is 3000 mm and number of rainy days in a year is around 120 days. The mean wind speed of the area varies from 8.4 to 15.6 kmph with an annual average of 12.28 kmph. Calm period (wind speed <1/6 kmph) varies from 1.0 to 3.5% with an annual average of 2.1 %. The average relative humidity varies between 64.5 – 92%.

(viii) Social Infrastructure available.

There exists no human settlement within the core zone i.e., mining lease area. Within the buffer zone of 10 km radius around this mining lease, there are 20 villages with a total population around 30038 as per census of 2011. The distribution of male and female are almost same with slightly more percentage of females. Literacy is more than the national average literacy levels.

(ix) Cultivation

In and around the buffer zone there are a few other mining leases. The villagers depend upon agriculture of Paddy; the plantation consists of cashew, coconut & areca, etc. As these areas are adjacent to perennial water courses and also we are supplying the water for irrigation to the nearby villages, the productivity and their yield is reasonably good. The main occupation is agriculture. Additionally, many people depend upon mining and related activities such as transportation of ores and waste. The main workers are mine workers, cultivators, agricultural labourers, household industry and other workers.

Mainly the mine labour comes from the nearest villages of Kanyalwadi village located 0.7 km SE with a population of 642 and Redi village is located at 2 km NW with a population of 644. The lessee is playing a proactive role in enhancing the employability of the job seekers of the nearby area. We shall prepare a plan for human resource development required for the project in total, train the local people and provide employment to these trained local youth. We have taken up social infrastructural development projects in the vicinity of the mine and wherever possible the contract works shall be given to the local labour only. Mine Workers and surrounding villagers are not be exposed to any extreme or hazardous environment. There will be no impact on noise, water and other such parameters because of mining activity. Regular monitoring of the health of the workers shall be done.

Within the core zone and buffer zone of 10kms radius there are ancient temples namely Ganpati Temple, Mauli Temple, Navdurga Temple and Satpurush Temple whose locations are marked in the Key Plan. Terekhol Fort also situated at a distance of 4 kms which is visited by tourists.

5. Planning Brief

(i) Planning Concept (type of industries, facilities. transportation etc) Town and Country Planning/Development authority Classification

The lessee is granted for mining lease by the state government of Maharashtra for mining of iron ore. The iron ore deposits in this area were already explored by lessee.

The total mineral resources estimated are 19.283 MT. With the proposed production of 1 MTPA, the life of the resources shall be 19 years. The ore to waste ratio is about 2.8. The lease is extended only upto 31.03.2020, thus the balance period left is only 4 years and 4 MT of ore can only be exploited. Further the area is having transport facility by road and also having jetty

facility for export through sea.

(ii) Population Projection

Furnished under Item 4(viii) Since it is already a working mine, due to increase in production there will be marginal increase in employment and marginal increase of population from outside area into the nearby villages and thus there shall be increase in population especially in establishing business centers, workshops, garages etc.

(iii) Land use planning (breakup along with green belt etc).

The land use details are furnished under item 2(ii) & 3(iv)
Afforestation during the plan period upto 31.03.2020

Year	Area covered (waste dumps) ha & benches	No. of tree plants	Area covered in Pit (Ha)	No. of plants
2015-16	10.00	16000	2.35	3760
2016-17	7.00	11200	3.00	4800
2017-18	8.30	13280	3.00	4800
2018-19	8.54	13664	3.00	4800
2019-20	7.55	12080	3.00	4800
Total	41.39	66224	14.35	22960

(iv) Assessment of Infrastructure Demand (Physical & Social),

The road facility is already available which shall be used and maintained. The labour requirement is drawn from the nearby villages, who shall also be trained for the requirement in mines. Housing complex is not required as the staff and the labour stay at nearby villages. No additional housing complexes are required. Other infrastructure like office, rest room etc are already existing within the ML area.

(v) Amenities/Facilities.

Facilities for road transport and power supply is available. Communication facilities with Mobile telephone service are available at site and landline service is provided. Other amenities for workers and staff like canteen, dispensary, drinking water facility, toilets, First Aid Room are provided within the ML.

6. Proposed Infrastructure

(i) Industrial Area (Processing Area).

Proposed excavation under mining at conceptual stage is within about 30.153 ha and the waste dump area shall be 3.9415 ha.

(ii) Residential Area (Non Processing Area).

No additional residential area is proposed within ML area.

(iii) Green Belt.

Wide Green belt covering about 14.35 ha details of which are given under item 5(iii). The total afforestation within ML constitutes 55.74 ha. The afforestation work done shall leave a congenial environment for immigration of avi-fauna by including the fruit and flower bearing shady trees. It shall improve aesthetic beauty of the area. Further, regular environmental monitoring including soil quality and afforested area will be conducted during life of the mine in the project site and in the surroundings to maintain the pollutants level from the mining activity within the permissible limits.

(iv) Social Infrastructure.

This mine shall provide employment for about 140 people by both direct employment which include mine officials, skilled, semi-skilled and unskilled labour and indirect employment, in contractual works & transport. We shall continue to extend social benefits like drinking water, health care measure, HIV awareness programs, and educational benefits, promotion of cultural & religious activities, sports and training in self-employment scheme with initial investment to set up these schemes, to the neighboring villagers in addition to our own employees. Repair & maintenance of the village roads, maintenance of school buildings, awarding scholarships for higher studies to meritorious students, supply of free books & uniforms to the students shall be taken up.

Employment of local people – preference will be given to local people for employment.

(v) Connectivity (Traffic and Transportation Road/ Rail/Metro/Water ways etc) Road:

This being a working mine, it is well connected by road to mine, jetty and the railway station.

(vi) Drinking Water Management (Source & Supply of water)

Drinking water requirement is managed from own water treatment plant.

(vii) Sewerage System

No sewage is generated from the mine. The drainage water from workshop, canteen and toilet are deposited in the soak pit.

(viii) Industrial Waste Management

No industrial waste is generated from the mine.

(ix) Solid Waste Management

The intercalated waste generated are temporarily stacked at earmarked site and vegetated.

(x) Power Requirement & Supply / source.

Power requirement for the mine is only for lighting which drawn from nearest grid line and backup through DG sets.

7. Rehabilitation and Resettlement (R&R Plan).

Policy to be adopted (Central/State) in respect of project affected persons including home oustees, land oustees& landless labour (A brief outline to be given)

No Rehabilitation or Resettlement is involved.

8. Project Schedule and cost Estimates

(i) Likely date of start of construction and likely date of completion (Time schedule for the project to be given).

It is a working mine with EC clearance for production of 0.368 MTPA of iron ore and the increase in production to 1.0 MTPA as proposed shall start after obtaining the EC from MoEF&CC and permission from Maharashtra Pollution Control Board (MPCB).

(ii) Estimated project cost and along with analysis in terms of economic viability of the project

The total capital cost for the project is furnished below:

i. Building (office & statutory buildings & rents) Rs. 100 lakhs



ii. Plant & machinery including transport vehicles and Rs. 350 lakhs
Crushing & screening plant

iii. Total Rs. 450 lakhs

Economic Viability of Mining at

Redi Iron ore Mine in Maharashtra for iron ore mining by

M/s Gogte Minerals area: 94.7060 ha

Parameters:

- 1) Mineable resources : 19.283 million tonnes of iron ore reserves of proved & probable category
- 2) Nature of ore : Haematite (45 to 62 % Fe)
- 3) Production : 1.0 million tonnes/ annum
- 4) Ore to waste ratio average : 1 : 2.8

A. Direct costs of Mining:

Sl. No	Particulars	Expenditure	Cost / Tonne Rs.
1	Exploration	Future exploration Rs.2.5 million Rs 2.5 million for 5.0 million tonnes of ore	0.50
2	Development at 1: 2.8 ratio	Excavation – Rs. 25.00/t X 2.8 = 70.00 Loading - Rs.10.00/t X 2.8 = 28.00 Transportation - Rs.20.00/t X 2.8 = 56.00 Road Maintenance - Rs.5.00/t X 2.8=14.00	168.00
3	Production	Excavation Rs. 25.00/tonne Loading Rs. 10.00/tonne Screening Rs. 40.00/tonne Transportation Rs. 50.00/tonne Sub Total Rs. 125.00/tonne	125.00
4	Infrastructure		15.00
5	Overheads including salaries & wages		40.00
6	Royalty, DMF etc.		250.00
7	Head office expenses		30.00
		Sub Total	628.50

B. Environmental Cost:

Particulars	Expenditure (Rs. In lakhs)	Cost / tonne Rs.
(a) Reclamation & rehabilitation of mined out land/area	36.0	6.75
(b) Stabilization & rehabilitation of dumps	15.0	
(c) Rehabilitation of barren area within lease	01.5	
(d) Environmental monitoring for core zone & buffer zone	15.0	
Total	67.5	

C. Health & Safety :

Sl. No.	Particulars	Expenditure (Rs. In lakhs)	Cost Per Tonne (inRs.)
1	Ambulance	4.00	1.0
2	Doctor & staff	3.00	
3	Health Check up	1.00	
4	Medicines	2.00	
	Sub Total	10.00	

D. Socio Economics:

Sl. No.	Particulars	Expenditure (Rs. In lakhs)	Cost Per Tonne in Rs
1	Education		2.0
	i. School books, uniforms, conveyance to school children	5.00	
	ii. Scholarships	2.00	
	iii. Repairs & maintenance of school buildings	5.00	
2	Health camps	1.00	
3	Water supply & sanitation in villages	4.00	
4	Training of village women	1.00	
5	Plantation in villages	2.00	
	Sub Total	20.00	

E. Capital cost Rs. 45.0 million for 5.984million tonnesRs. 2.33/ tonne

F. R & D Cost Rs. 5 million for 19.283million tonnesRs. 0.26/tonne

Total pit head cost per tonne Rs. 640.84

Pit head realization for 55 to 62% Fe = Rs.900.00

Profit / tonne = Rs.259.16

Gross profit / annum for 1 million tonne= Rs. 259.16 million

Net profit after taxation @ 35% = **Rs. 168.45 million**

The above shows that the proposed mining activity of production of 1.0 MTPA of iron ore for this mine

is highly remunerative after meeting direct mining costs, environmental costs, cost on health & safety, socio economics, compensation for land, capital & R&D costs.

9. Analysis of proposals (Final recommendations)

Financial & social benefits with special emphasis on the benefits to the local people including tribal population if any in the area.

There is will be increase in demand for iron ore in domestic as well as in foreign market. The project proponent wishes to contribute to meet this requirement.

The mine shall provide employment to 140 people and also more than 100 persons shall be employed in transportation, security and afforestation works.

We shall contribute by helping to improve drinking water supply, sanitation, health and education in the nearby villages. Promotion of cultural & religious activities and training of village SHGs. Repairs of transport roads shall also be taken up.

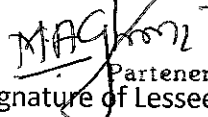
Thus this project will contribute to the positive improvement of social infrastructure and create employment opportunity to the villagers who solely depends on agricultural activities sofar in this area.

This project helps in contributing to the State Govt. by way of Royalty and taxes etc. and central Govt. with income tax and export duty. Exporting of these low grades is necessary as there is limited consumption in India. The rapid expansion of the steel sector has resulted in the demand for iron ore in the country. Hence we have decided to contribute to the extent possible to meet this demand. This will add to the overall economic growth of the region and the country. Thus for reducing the demand & supply gap in the country, the increase in production of iron ore as proposed by lessee to a tune of 1.0 MTPA of iron ore is fully justified.

Date

Place

For GOGTE MINERALS


Parteners
Signature of Lessee

MadhavGogte



GOVERNMENT OF MAHARASHTRA

By Registered Post

No. MLR-1879/2015/ 2824
Directorate of Geology and Mining,
Government of Maharashtra,
27, "Khanij Bhavan", Cement Road,
Shivaji Nagar, Nagpur - 440 001,

Dated:- **3 OCT 2015**

From

Directorate of Geology and Mining,
Government of Maharashtra,
27, "Khanij Bhavan", Cement Road,
Shivaji Nagar, Nagpur - 440 001,

To,

M/s. Gogte Minerals,
146, Tilakwadi,
Belgaum - 590 006.

Sub :- Grant of extension for the Mining lease of Iron Ore over an area of 94.70.60
Ha. of Village - Redi, Tah. Vengurla, Dist. Sindhudurg.

Ref :- Government of Maharashtra letter No. MNG 0415/C.R. 34/nd-9, dated 17/07/2015.

As per provision of Sec. 8A (5)/(6) of Mines and Minerals (Development and Regulation) Amendment Act - 2015, I am to enclose herewith Government order of even number dated **3 OCT 2015** for your information. You are requested to approach the District Mining Officer, Collectorate, Dist. Sindhudurg for execution of the extended period of the Mining lease within a period of six months from the date of enclosed order.

2. The extension of mining lease should be executed in the model form of mining lease appended to Mineral Concession Rules, 1960 with appropriate modifications excluding the clause 3 in part VIII therein relating to period of lease. (Renewal Provision is deleted as per newly promulgated Amendment Act - 2015)

Your's faithfully,

B. K. Kulkarni

Director,
Directorate of Geology & Mining,
Government of Maharashtra, Nagpur.

Copy with the copy of Government Order of even number, dated the- 3 OCT 2015 forwarded to the :

1. The Principal Secretary,(Ind-9), Industries, Energy and Labour Deptt. Mantralaya, Mumbai – 400 032.
2. The Deputy Director, Geology and Mining, Govt. of Maharashtra State, Kolhapur.
3. The District Mining Officer, Collectorate, Sindhudurg.
4. The Controller General, Indian Bureau of Mines, Nagpur.
5. The Finance Department. Industries, Energy and Labour Deptt. Mantralaya, Mumbai – 400 032.
6. The Chief Inspector of Mines, Dhanbad.
7. Select file (Ind-9), Industries, Energy and Labour Deptt. Mantralaya, Mumbai – 400-032.

1. The District Mining Officer, Collectorate Sindhudurg should ensure, that as soon as the extended mining lease is executed, the information in the prescribed proforma is furnished to the controller General, Indian Bureau of Mines, Nagpur – 1 as desired by him.

2. A copy of the extended mining Lease when executed should be sent by the District Mining Officer, Collectorate, Sindhudurg to the Controller General, Indian Bureau of Mines, Nagpur and Chief Inspector of Mines, Dhanbad as required by Rule 57 (1) of Mineral Concession Rules, 1960.

3. The District Mining Officer, Collectorate, Sindhudurg and the Director, Geology and Mining, Maharashtra State, Nagpur should ensure that the extended Mining Lease executed in the model form of Mining Lease with appropriate modifications but excluding the renewal clause.

4. The District Mining Officer, Collectorate, Sindhudurg will please confirm whether the rates of royalty in the enclosed order are correct.

5. The District Mining Officer, Collectorate, Sindhudurg may kindly ensure the compliance of the amended provisions of the Act and Rules and other applicable Acts and Rules.

Sd/-
Director,
Directorate of Geology & Mining,
Government of Maharashtra, Nagpur.

ORDER

Directorate of Geology and Mining,
Government of Maharashtra,
27, "Khanij Bhavan", Cement Road,
Shivaji Nagar, Nagpur - 440 001,

Dated the - **3 OCT 2015**

Read :- Government of Maharashtra letter No. MNG 0415/C.R. 34/Ind-9, dated 17/07/2015.

No. MLR-1879/2015. Where as the Government. of Maharashtra vide its letter No. MNG 0415/C.R. 34/Ind-9, dated 17/07/2015 has given concurrence for extension of Mining lease, exercising the powers by the Sub-section (5)/(6) of Section 8A of the Mines and Minerals (Development and Regulation) Amendment Act-2015, the Director, Directorate of Geology and Mining, Nagpur is pleased to issue the extension of Mining lease to M/s. Gogte Minerals, 146, Tilakwadi, Belgaum – 590 006. on behalf of the State Government for further period from 21/01/2016 to 31/03/2020 for Iron ore mineral in respect of the following area.

District	Tahsil	Village	Sr. No.	Area in Hect.
Sindhudurg	Vengurla	Redi	51	
			52	
			57	
			58	
			60	
			34	
			26	
			28	
			29	
			33	
			50	
			24	71.97.80
			32	
			59	09.48.00
			9	
48				
47				
46				
53	12.75.80			
234	0.49.00			
Total	94.70.60			

A) Royalty at the following rates or the dead rent at the following rate per hectares per annum whichever is greater shall be charged.

Royalty

Iron ore -

Applicable royalty rates as per Central Govt's notification dated 1st Sept. 2014.

CLO, Lumps, Fines and Concentrates all grades :- Fifteen per cent of average sale price on advalorem basis.

Dead Rent

1. Rates of dead rent applicable to the leases granted for low value minerals are as under :

RATES OF DEAD RENT IN RUPEES PER HECTARE PER ANNUM

Form 2 nd Year of lease	3 rd and 4 th year of lease	5 th Year onwards
400	1000	2000

2. Two times the rate specified at paragraph 1 above in case of lease granted for medium value minerals.

3. Three times the rate specified at paragraph 1 above in case of lease granted for high value minerals.

4. Four times the rate specified at paragraph 1 above in case of lease granted for precious metals and stone.

Note

For the purpose of this notifications

(a) "precious metals and stones" means gold, silver, diamond, ruby, sapphire,

(b) "high value minerals" means semiprecious stones (agate, garnet) corundum, copper, lead, zinc and asbestos (chrysolite variety)

(c) "medium value minerals" means chromite, manganese ore, kyanite sillmanite, vermiculite, magnesite, wollastonite, perlite, diaspore, apatite, rock phosphate, fluorite (fluorspar), barytes and iron ore.

(d) "low value minerals" means the minerals other than precious metal and stones, high value minerals and medium value minerals.

Provided that the aforesaid rates of royalty payable at the rate for time being specified in the second schedule to the Mines and Minerals (Development and Regulation) Act, 1957 shall be revised as and when revised by the Govt. of India and aforesaid rates of dead rent revised from to time as and when revised by the Govt. of India.

B) Charging of Royalty in case of minerals subjected to processing -

(1) In case processing of run-of-mine mineral is carried out within the leased area, then, royalty shall be chargeable on the processed minerals removed from the leased area.

(2) In case run-of-mine is removed from the leased area to a processing plant which is located outside the leased area, then royalty shall be chargeable on the unprocessed run-of-mine mineral and not on the processed product.

(3) Royalty on tailings or rejects - On removal of tailings or rejects from the leased area for dumping and not for sale or consumption, outside leased areas such tailings or rejects shall not be liable for payment of royalty.

Provided that in case so dumped tailings or rejects are used for sale or consumption on any later date after the date of such dumping, then, such tailings or rejects shall be liable for payment of royalty.

(4) Guidelines for computing royalty on minerals on ad valorem basis -- Every mine owner, his agent, manager, employee, contractor or sub-lessee shall follow the following Guidelines for computation of the amount of royalty on minerals where the royalty is charged on advalorem basis, namely :-

The Guidelines for calculation of royalty in typical cases are as follows, namely :-

Case 1 :- For minerals sold in the domestic market by the mine-owners :-

(a) Single stage transportation - In the case of single stage transportation, the minerals is loaded once at the mine site and is dispatched by road or railway or any other means of transportation straightaway to the destination and finally unloaded at the destination. In such cases, the sale price actually realised, less the cost of transportation and the cost of unloading at the destination as shown by the mine-owner in their sale vouchers or bills or invoices may be considered for computing ad valorem royalty. To avoid payment of taxes on royalty, the mine owners may in their own interest record the price and royalty separately in the sale vouchers or bills or invoices instead of indicating a composite price inclusive of royalty. In case price and royalty are not shown separately, it may be presumed that price indicated in the sale vouchers or bills or invoices is exclusive of royalty and royalty shall be charged accordingly.

In case of any doubt with regard to the sale price or deductions, certificate of a registered chartered accountant shall be accepted.

In case any transaction takes place on the basis of a provisional sale voucher or invoice or bill, then, computation of royalty may be provisional subject to final settlement based on final voucher or invoice or bill.

(b) Multi - stage transportation -- In case of multi - stage transportation, the sale price actually realised, less total cost of transportation, loading and unloading at different points outside the lease area, insurance charges, sampling and analysis charges, royalty, taxes, cess and plot charges at different

points as may be applicable, and as shown by the mine owners separately in their sale vouchers or bills or invoices shall be considered for computing ad valorem royalty. In case price and royalty are not shown separately, it shall be presumed that the price indicated in the sale vouchers or bills or invoices is exclusive of royalty and royalty shall be charged accordingly.

In case of any doubt with regard to the sale price or deductions, certificate of registered chartered accountant shall be accepted.

In case any transaction takes place on the basis of provisional sale voucher or invoice or bill, then computation of royalty may be provisional subject to final settlement based on final voucher or invoice or bill.

Case 2 :- For minerals which are exported :-

(a) Direct export :- In case of direct export by mine owners, the sale values for the purpose of royalty shall ordinarily be the free on board (f.o.b.) price realised, less transportation charges for, the mine to the port, loading and unloading charges outside the lease area, packing charges, port charges (including sampling and analysis and demurrage charges, if any), insurance charges, royalty, taxes and interest charges on loan for export. However, in case of cost insurance and freight (c.i.f.) sales, sea freight, insurance and cost of unloading at destination port shall also be deducted from such price. For such purpose, the mine owner may prepare invoices or bills indicating the free on board price or cost insurance freight price, as the case may be, and each of the other charges, separately.

In case of any doubt with regard to the sale price or deductions, certificate of a registered chartered accountant shall be accepted.

(b) Export after blending :- In the case of export by the mine owner after blending, the mine owner may have two or more mines either in one state or in different states and he may bring his run-of-mine ores from these mines to a single point, blended them according to his requirement and export the blended ore or mineral. In such case the total royalty on the blended material shall be computed in the manner as specified in the case 2 (a) above and the royalty shall be apportioned according to the ratio of the quantities of ores drawn from different mines for blending and payment shall be made to the respective States in which the mines are located.

In case of any doubt with regard to the sale price or deductions, certificate of a registered chartered accountant shall be accepted.

Case 3 :- For aluminium, primary gold, silver, copper, lead, zinc, nickel and tin

The total contained metal in the ore produced during the period for which the royalty is computed and reported in the statutory returns under Minerals Conservation and Development Rules,

1988 or recorded in the books of the mine owners shall be considered for the purposes of computing the royalty in the first place and then the royalty shall be computed as the percentage of the average metal price in the London Metal Exchange (hereinafter referred to as the LME) for copper, lead, zinc, nickel, silver and tin and London Bullion Market Association price (commonly known as London price) for gold during the period of computation of royalty. The foreign exchange rate for conversion of rupee shall be the selling rate on the last date of the period of computation as published in newspaper namely, The Economic Times. For the LME prices as well as for London price of the commodity, either of the following three sources shall be referred to, namely :-

- (i) Non-ferrous Report : Minerals and metals Review, 28/30, Anantwadi,
P.O. Box 2749, Mumbai-400 002.
- (ii) Metal Bulletin
16, Lower Marsh,
London, SE-17 RJ
- (iii) World Metal Statistics : (Monthly or Quarterly Summary),
by World Bureau of Metal Statistics,
27a high Street, Ware, Herts SG 12 9BA, United Kingdom.

Case 4 :- For by-product gold and silver :-

The guidelines for computation of ad valorem royalty shall be linked to the total quantity of metal produced and the LME price for silver and London Bullion, market Association price (commonly known as London price) for gold as in the case 3 above. However, in this case, the actual final production of the metal shall be considered instead of the of the metal content in the ore produced for the purposes of computing royalty.

Case 5 :- For minerals produced in captive mines (other than aluminium, copper, lead, zinc, tin, nickel, gold and silver) and which are not actually sold. For computation of ad valorem royalty on such minerals, a notional cost shall be arrived at on the basis of the cost of production. The cost of production shall be reported by the mine owners in the Annual Return of a year in the manner specified in the Mineral Conservation and Development Rules, 1988 after taking into account the items specified in the list annexed with this case and, than from these reported cost of production the elements of royalty, cess, taxes and dead rent, as may be applicable, shall be deducted. The net cost thus arrived at shall be the basis for computation of ad valorem royalty during the period following that year.

List :

The list of items to be take into account for computation of the gross cost of production are the following, namely :-


- (I) Direct cost :
 - (a) Exploration
 - (b) Mining
- (C) Beneficiation
- (ii) Over head cost
- (iii) Depreciation
- (iv) Interest
- (v) Royalty
- (vi) Taxes
- (vii) Dead rent
- (viii) Packing charges
- (IX) Research and Development expenditure.

Note :- The State Government may, if necessary, introduce systems of advance payment for the purpose or royalty collection and they may also impose any additional conditions in accordance with the law for the time being in force"

- C) The lessee shall pay the following charges for the surface area used for mining operations.
 - I) Surface rent equal to non-agricultural assessment.
 - II) Water rate at the rate not exceeding land revenue.
 - III) Ceases assessable on the land.
- D) If any ' Prescribed Substance' under Section 2 of the Atomic Energy Act of 1962 is found to occur in the property under the lease, the lessee shall take further action as required by the provisions of that Act.
- E) The lessee shall pay stamp duty as per prevalent provisions for the period for which time extension is granted. (The amount of Stamp Duty is Rs. 18,94, 120/- . The figure needs to be confirmed from the Registrar.)
- F) The lessee shall, in addition to the royalty pay to the District Mineral Foundation of the district. an amount as specified by the Central Govt. as per Section 9 B (6) of Act. (i.e. an amount equal to 30 % of the royalty payable by the lessee.)
- G) The lessee shall pay a sum equivalent to the two percent of the royalty paid in terms of the Second Schedule along with the periodical payment of royalty to the State Govt. for the National Mineral Exploration Trust as per provisions of Sec. 9 C (1) of the MMDR Amendment Act – 2015.
- H) The lease for the extended period shall be subject to the provisions of Mines and Minerals (Development and Regulation) Act - 1957, Mines and Minerals (Development and Regulation) Amendment Act- 2015, Mineral Concession Rules 1960 and the Mineral Conservation and Development Rules – 1988 as amended time to time.

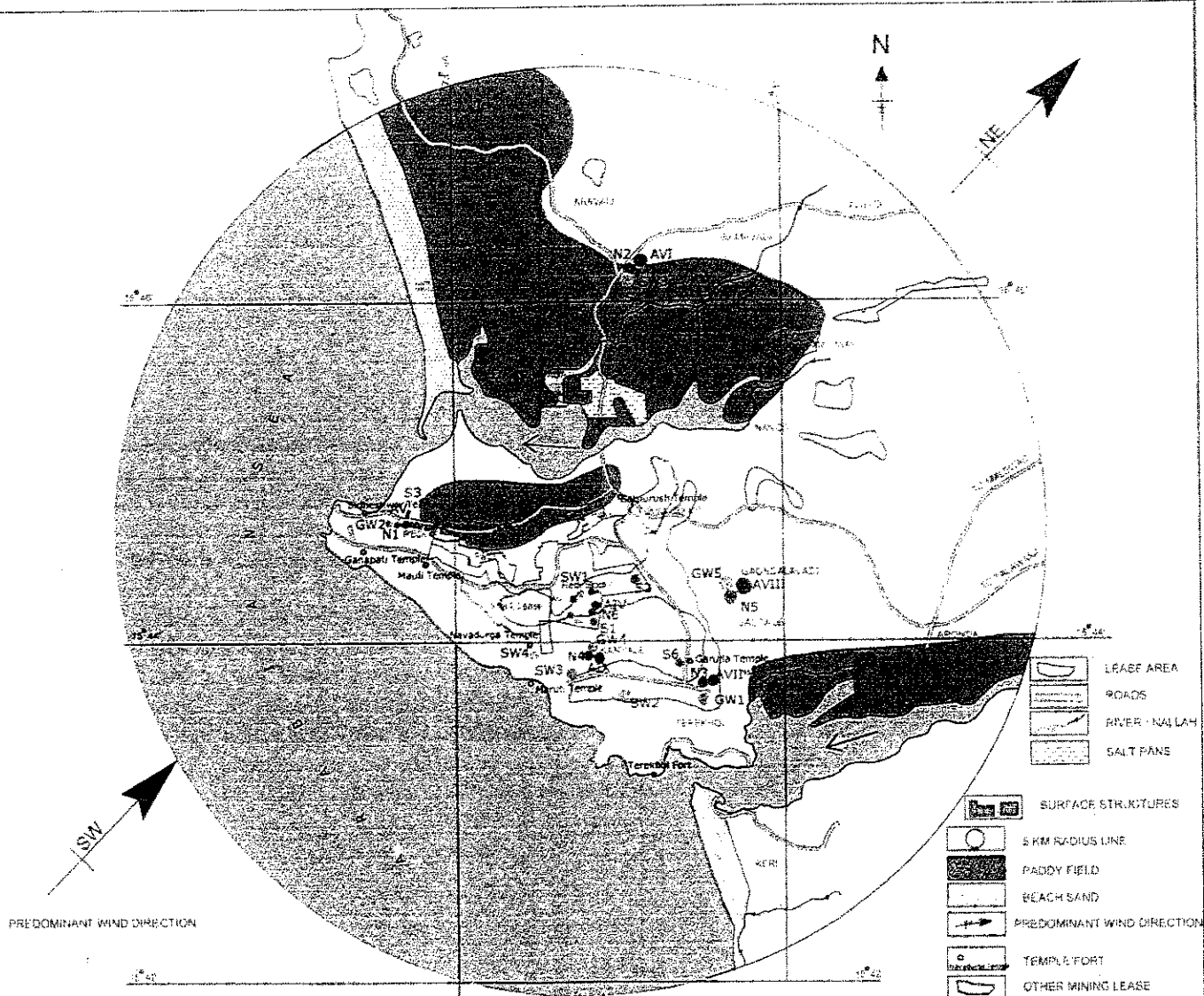
- I) The lessee shall submit time to time or when required progress report to the Director of Geology and Mining, Maharashtra State, Nagpur along with analysis of representative samples of ores collected during the mining operations.
- J) The lessee shall submit periodic returns timely.
- K) The lessee shall employ a qualified Geologist and Mining Engineer.
- L) The lessee should submit environment clearance certificate and also other relevant clearances as per applicable Act/Rules.
- M) The lessee shall follow the ILMS system adopted by the State Govt.
- N) Any breach of condition shall liable for determinations of lease with immediate effect.

By Order of the Government of Maharashtra.



Director,
Directorate of Geology & Mining,
Government of Maharashtra, Nagpur.





Toposheet No: 48 E 9, 48 E/10 & 48E/14
 Lat. N 15 43' 59.70" to 15 44' 47.60"
 Long. E 73 39' 49.00" to 73 41' 10.70"

Reference 2011 Census Data

Village	Total Population	Direction
Sonsure	779	N
Arawali	1290	N
Shiroda	1945	N
Redi	644	NW
Kanyale	642	S
Gavatale	773	E
Algaon	2637	NE
Tiroda	1204	NE
Nanos	493	NEE
Aronda	2465	SEE
Tiracol	205	S

Location of Air Monitoring Stations

- AI - Loading point
- AII - Dumping point
- AIII - Haulage Road
- AIV - Core zone
- AV - Redi village
- AVI - Shiroda village
- AVII - Thiracol village
- AVIII - Gaontala village
- AIX - Kanyalwadi village

Location of Noise Monitoring Stations

- N1 Redi village
- N2 Shiroda village
- N3 Thiracol village
- N4 Kanyalwadi village
- N5 Gaontala village
- N6 Near Mines office

Location of Water Sampling Stations

- SW1 - Survey No. 203 Lease No.1 Pit water
- SW2 - Kanyal tank water
- SW3 - Nallah water near Kanyalwadi village
- SW4 - Spring water near Hanuman temple Kanyalwadi

- GW1 - Thiracol village open well
- GW2 - Redi village open well
- GW3 - Shiroda village open well
- GW4 - Kanyalwadi village open well water
- GW5 - Gaontala village open well

Location of soil Sampling Stations

- S1- Top Soil
- S2- Old dump soil.
- S3- Redi village agricultural soil
- S4 - Shiroda village agricultural soil
- S5 - Terekhol village agricultural soil
- S6 - Kanyalwadi village agricultural soil

MINERAL ENGINEERING SERVICES

(Consulting Mining & Environmental Engineers)

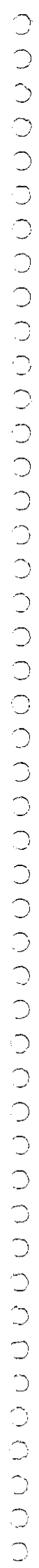
KEY PLAN

REDI IRON ORE MINE (BLOCK. I)
 OF
M/s. GOGTE MINERALS
 OVER AN AREA 94.7066 HA SITUATED IN
 REDI VILLAGE, YENGURLA TALUK,
 SINDHUDURGA DISTRICT, MAHARASHTRA STATE

SCALE :- 1 : 50,000 R.F. PLATE NO. 2

Certified that the above plan is prepared based on the lease map authenticated by the state government.

(M.S.RAJU)
 ROP/BNG/004/87/A





By Speed Post

No. J-11015/136/2016-IA.II(M)
Government of India
Ministry of Environment, Forests & Climate Change
Impact Assessment Division

3rd Floor, Vayu Wing,
Indira Paryavaran Bhawan,
Jorbagh Road, Aliganj,
New Delhi-110 003
E-mail: sridhar-mef@nic.in
Tele: 011-24695304

Dated: 29th April, 2016

To

M/s Gogte Minerals
Redi Iron Ore Mine,
A/o. Redi, Taluka Vengurla,
District Sindhudurg,
Maharashtra

Subject Redi Iron ore Mine of M/s. Gogte Minerals over a lease area of 94.7060 ha which is a private land located in the village Redi, Vengurlataluk, Sindhudurg district of Maharashtra State-regarding TOR.

The Proposal reference No. IA/MH/MIN/50374/2016 was received in the Ministry on 01.02.2016. The Proposal is to determine the Terms of Reference for which the proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility report.

2. The Redi Iron ore Mine of M/s. Gogte Minerals over a lease area of 94.7060 ha which is a private land located in the village Redi, Vengurlataluk, Sindhudurg district of Maharashtra State. The prior Environmental Clearance (EC) was granted for a production of 0.368 MTPA of iron ore from the mine. Based on exploration data and subsequent analysis mineral resources upto 19.283 MT is estimated. It is now proposed to enhance the production to 1.0 MTPA by continuing with mechanized opencast mining without drilling & blasting. The Latitudes and Longitudes of the mine site 94.7060 ha area: N 15^o 43'59.7" to 15^o 44'47.6" and E 73^o 39' 49" to 73^o 41'10.3", Topo sheet No. 48 E/9, 10, 14.

3. The project is located at 4.5 km by road from Redi port, which is a unique and peculiar characteristic of this project. Due to the location advantage, it is easy to transport iron ore to the prospective buyers by sea route with less load on the environment. This mine is the only major industry in the Redi village and having potential to employ about 140 people as direct employment and also support allied service industry, thereby reducing the migration of people to metros to seek employment.

4. The ML area and its study area of 10 km do not fall in any wild life sanctuary, eco-sensitive areas. A small part of S.No. 234 (old) of ML comes under CRZ, however, approval from MCMZA for mining activity has been obtained vide their letter No. MCZMA 2009/CR 73/TC-3 dated 06.01.2010. Water Requirement is 212 KLD of pit water & 8 KLD domestic from water treatment plant.

5. It is reported by the project proponent that there is no court case / litigation is pending against the project and no national park, wildlife sanctuaries, Tiger Reserves fall within the study area (10 km radius of the mine boundary). The estimated cost of the Project is 450 lacs.

6. The Project Proponent mentioned that they had started collection of base line data since March 2016 and requested to monitor the baseline data on pre-monsoon season i.e. March-May 2016. The Committee deliberated the issues and based on the request made by the Project Proponent w.r.t. collection of base line data, the Committee agreed for the same.

7. The proposal was placed before Expert Appraisal Committee in its 4th meeting held during, **March 21-22, 2016** the Committee prescribed the following TORs for undertaking detailed EIA study:

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues

- and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
 - 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
 - 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
 - 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
 - 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
 - 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
 - 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
 - 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
 - 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
 - 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
 - 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of

flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the

proposed remedial measures should be detailed along with budgetary allocations.

- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project,

should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

- i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

8. The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

9. The prescribed TORs would be valid for a period of three years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 07.11.2014.

10. After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.



(Dr. U. Sridharan)
Scientist 'F'

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
- (ii) The Secretary, Department of Mines & Geology, Govt. of Maharashtra, Mantralaya, Mumbai.
- (iii) The Secretary, Department of Environment, Govt. of Maharashtra, Mantralaya, Mumbai.
- (iv) The Secretary, Department of Forests, Govt. of Maharashtra, Mantralaya, Mumbai
- (v) The Additional Principal Chief Conservator of Forests, Regional Office (WCZ), Ministry of Environment, Forest and Climate Change, Nagpur
- (vi) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- (vii) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (viii) The Chairman, Maharashtra Pollution Control Board, Kalpatru Point, Sion Circle, Sion (East), Mumbai-400 022, Maharashtra.
- (ix) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (x) The District Collector, Sindhudurg District, of Maharashtra.
- (xi) Guard File.



(Dr. U. Sridharan)
Scientist 'F'