

Compliance Status of Environmental Clearance Conditions – “Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.” located near village Deojahr (Thakurani RF) of Keonjhar Dist, Orissa.

Sl. No	SPECIFIC CONDITIONS	PRESENT STATUS
i	The applicant (Project Proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, water pollution, noise pollution and land pollution including solid waste management as mentioned by him in form-I, final EIA reports and Environment management Plan (EMP) in compliance with prescribed statutory norms and standards.	Preventive mitigative measures have been taken for control of fugitive dust suppression by engaging no. of water tankers on the haulage roads. Other necessary measures have also been under taken for noise, water, land and solid waste management, etc. The enclosed photos are witnessing the above. The photo copy of the same is enclosed as photo # 1 & 6.
ii	The applicant will take necessary steps for socio economic development after a detailed Primary Socio-economic Survey of the people of Core area on need based assessment for providing employment, education, health, drinking water and sanitation, road and communication facilities etc. A report is to be submitted by the proponent to SEIAA regularly on 1 st June and 1 st December of each calendar year.	Different projects has undertaken in consultation with “JANASADHANA” for the socio-economic development of the local people belongs to adjoining villages. A detailed copy of the same is enclosed as annexure-1.
iii	The applicant will comply with the points. Concerns and issues raised by the people during public hearing on 4 th February, 2009 in accordance with the commitments made by him thereon.	A detailed compliance report in this regard is enclosed as annexure # 2.
iv.	The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.	The site has already got necessary statutory clearances / approval / permissions from the concerned authorities like say; Consent to operate from SPCB, Water permission from CGWA, GoI, Hazardous waste authorization for used oil, IBM approved mining plan, Forest clearance, etc. The photo copies of the same are enclosed as annexure # 3.
v.	For post environmental clearance monitoring, the applicant will submit half yearly compliance report in respect of the stipulated terms and conditions of this Environmental Clearance to the State Environmental Impact Assessment Authority (SEIAA), Orissa on 1 st June and 1 st December of each calendar year.	The half yearly compliance report is being submitted for the same.

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vi.	The core zone should be monitored intensively with no. of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ of CPCB, Delhi. The detail methodology adopted for analysis of samples shall be cleared indicated.	Regular monitoring of the AAQ samples is being carried out as prescribed by CPCB, Delhi. Copy of the monitoring station is enclosed as annexure-4 .
vii.	The proponent shall submit ground tooting baseline data on flora and fauna and CSR activities already carried out within three months to the SEIAA, Orissa.	The detailed CSR activity carried and authenticated flora and fauna report of the same is already submitted, which enclosed as annexure # 5 .
viii	No two pits shall be simultaneously worked. After exhausting the first mine pit and before starting mining operations in the next pit, reclamation and plantation works in the exhausted pit shall be completed so as to ensure that reclamation, forest cover and vegetation should be visible during the first year of mining operations in the next pit. This process will follow till the last pit is exhausted. Adequate rehabilitation of mined pit shall be completed before any new ore body is worked.	We will follow as per the approved mining plan including PMCP.
ix	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	A safety zone of 7.5 m width around the ML boundary being maintained.
x	Zero waste mining concept shall be implemented either by putting up pelletisation plant or disposal of low grade ores/fines to prospective buyers.	Steps has been initiated to work out in this context.
xi	The following shall be implemented viz. (a) dump run off should be diverted into settling ponds until it is clear (b) adequate rain water harvesting and ground water recharging facilities should be developed in the core zone, (c) attempt should be made to achieve zero water balance.	<ul style="list-style-type: none"> a- Dump run off are being diverted to settling pits with proper checks before disposal b- In this regard KRG Rain Water foundation, Chennai got engaged in consultation with Regional Director, CGWB, Bhubaneswar and work is under execution. c- Steps have been taken to achieve zero water balance.
xii	Maintenance of roads through which transportation of ores are undertaken shall be carried by the project regularly at its own cost.	Regular maintenance of haul road is being carried out by engaging the grader periodically.
xiii	Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amentias located nearest to sources of dust generation as applicable) and records shall be submitted to the SEIAA. Orissa.	Regular monitoring AAQ is being carried out in different locations of nearest human habitation in consultation with SPCB, Orissa. The location map is enclosed as annexure-4-A .
xiv	Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable	The steps are being followed by proper care towards public roads to ensure that

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	mechanism so that no spillage of ore /dust takes place.	the trucks should not be overloaded during transportation; besides this trucks are being covered with tarpaulins.
xv	Rain water harvesting shall be undertaken to recharge the ground water source.	In this regard KRG Rain Water foundation, Chennai got engaged in consultation with Regional Director, CGWB, and Bhubaneswar. The report got prepared in consultation with CGWB and same got submitted. The work is under execution for recharge of ground water resources.
xvi	Monitoring of ground and surface water quality shall be regularly conducted and records should be maintained and data shall be submitted regularly to SEIAA, Orissa.	The monitoring of ground and surface water quality being carried out and records submitted to SEIAA, Orissa bi-annually. The data is enclosed as annexure # 6 & 7.
xvii	The proponent shall ensure that no silt originating due to mining activity is transported in the surface water course. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo-textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.	We ensure that no natural watercourse will be obstructed due to our mining operations. As such necessary precautionary measures were well taken to avoid any sort of interference like providing guard wall at bank of Mahadev Nallah. The photo copy of the same is enclosed as photo # 2.
xviii	Trenches garland drains shall be constructed at foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams shall be constructed across seasonal or perennial nallahs (if any) flowing through the ML area be arrested. De-silting at regular intervals shall be carried out.	To arrest silt from mines run off, a no. of catch drains and sedimentation pits have been constructed around the mines working areas and nallah protection guard walls has been constructed across the length. Time to time de-silting is followed.
xix	Provisions shall be made for the housing the labourers within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structures to be removed after the completion of the project.	As such we did not have any such provision of having the labourers, they are being engaged from the adjoining villages.
xx	Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria dust eradication, HIV, and health effects on exposure to respirable mineral dust etc. shall be carried out. The proponent shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to respirable mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness program for workers	Workers are provided with protective respiratory devices & time to time training on safety & health aspects is being provided. Occupational Health Surveillance Program of the workers is being undertaken periodically (annually once) along with the pre-medical examination of persons employed, who are engaged in the process of mining & are likely exposed to

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	on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required. Occupational Health centre shall be established near the mine itself.	dust to observe any contractions due to exposure to dust and take corrective measures, if needed. This is being carried as per in compliance to Mines Act 1952 & rules 1956 and amendments there to.
xxi	Shelter belt i.e. wind break of 15m width and consisting of at least around the lease facing the human habitation, school/agricultural fields etc) if any in the vicinity. In the safety zone/backfilled and reclaimed areas, around voids and roads shall be raised. Green belt development and selection of plant species shall be as per SPCB guidelines. Density of trees has to be around 2500 plants per hectre, herbs and shrubs shall also form a part of afforestation program besides tree plantation. Help and guidance of local DFO may be sought in the matter. Details of year wise afforestation program including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.	Green belt development in the safety zone is being carried out by plantation of @ 2500 numbers per Ha. Herbs and shrubs plantation will be included in the coming mon-soon plantation. The details of year wise afforestation program including the rehabilitation of mined out area is being submitted herewith as annexure # 8.
xxii	This environmental clearance is subject to forest clearance under the Forest (Conservation) Act, 1980.	Mines have obtained the forest clearance over an area of 34.365 ha vide MoEF letter no: F No.8-216/1992-FC dated 31 st march 1993. Copy of the same is enclosed as annexure # 9.
xxiii	The mining operation shall be restricted to above ground water table and it should not intersect the groundwater table.	The mining activity will not intersect the ground water table.
xxiv	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years). The topsoil shall be used for land reclamation and plantation.	The soil quality in the area is gritty and less fertile in nature, there is no significant soil in the mine working areas, but whatever quantity generated is being utilized for dump slope plantation/stabilization.
xxv	The over burden (OB) generated during the mining operation shall be temporarily stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. Proper terracing of OB dump shall be carried out so that the overall slope shall not exceed 28 ^o . Back filling shall be done as per approved mining plan; back filling to start from 3 rd year onwards of the mining operation and the entire quantity of waste shall be backfilled and liquidated within five years. There shall be no external OB dumps after the 6 th year of the mining operation. The	Presently OB is being stacked in an identified area inside ML Area by maintaining proper slope. It has also developed with garlanding drain and retaining wall along with 8000 Sq. Meter Coir Geo-textiles towards the vegetation & stabilization for critical area's of dump. And the plantation of native species of 2050 no. of different varieties of plant species has been planted over OB dumps as well as mixed grass seeds of about 500 Kgs along with vermin-compost with different varieties of native species was

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	backfilled area shall be afforested. Backfilling has to be done in a manner that it is restored to the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self generating compliance status to be reported to the appropriate authorities.	carried on the dumps, safety zone & peripheral area of ML in the year 2010-2011. Proper care and survival of vegetation is being carried out by engaging specified water tanker. Photos of the same are enclosed as Photo # 3.
xxvi	The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes. Year wise expenditure for these funds should be reported to the SEIAA, Orissa.	The funds earmarked for environmental protection are being utilized for the same. The year wise expenditure is enclosed as annexure # 10.
xxvii	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the provisions of Environmental Protection (EP) Act, 1986.	As per back filling, monitoring and management of rehabilitees area is concern, we will abide by the conditions.

Additional information about achievements in MEMC WEEK observation year 2009-10 are enclosed as photo and certificates

COMPLIANCE STATUS REPORT OF THE CONDITIONS STIPULATED UNDER CONSENT ORDER TO OPERATE FOR DEOJHAR IRON ORE MINES, OF M/s TARINI MINERALS (P) LTD., JODA, and DIST: KEONJHAR, ORISSA.

F - Special Conditions:

Sl. No.	Conditions stipulated in the Consent Conditions.	Compliances
01	The annual production of ore shall not exceed the consented quantity. Any increase in production beyond the consented quantity shall be in accordance with approved mining plan and with prior environmental clearance.	We will abide by the condition.
02	A copy of the annual return (annual return submitted to IBM) shall be submitted every year.	A copy of the annual return (annual return submitted to IBM) will be submitted every year after submission at IBM.
03	The environmental statement report shall be submitted to the Board in proper format every year.	The environmental statement report is being submitted to the Board in proper format; for the year 2009-10 on dated 27 th September 2010.
04	No change in mining technology and scope of working shall be made without prior approval of the competent authority.	We will take the prior approval of the competent authority before any change in Mining Technology.
05	No change in the calendar plan including excavation, quantum of mineral iron ore and waste shall be made	We will abide by the condition.
06	Grant of consent to operate order is subject to grant of forestry clearance. Necessary forestry clearance under the forest (conservation) Act, 1980 shall be obtained if any before starting mining operation. No mining shall be undertaken in the forest area without obtaining requisite prior forestry clearance	The total Forest clearance has been obtained for over an area of 34.365 Ha. Vide MoEF letter no: F No.8-216/1992-FC, dated. 31 st March, 1993. Same is enclosed in annexure # 09
07	The mining operation shall be restricted to above ground water table and it shall not intersect the ground water table. In case of working below the ground table, prior approval of ministry environment and forest and the Central Ground water authority shall be obtained for which a detailed hydro-geological study shall be carried out.	The mining operations shall not intersect ground water table.
08	The project proponent shall ensure that no natural waster course and /or water resources are obstructed due to any mining operation.	We ensure that no natural watercourse will be obstructed due to our Mining Operations. As such necessary precautionary measures were well taken to avoid any sort of interference like providing guard wall at both sides of Mahadev nala. Photo of same is enclosed in photo no#2

09	The project authority shall implement suitable conservation measure to augment ground water resources in the area in consultation with regional director, Central Ground water Board.	Project is working with the KRG RAIN WATER FOUNDATION, CHENNAI team for rain water harvesting. Soon after completion the details will be submitted.
10	The top soil, if any shall temporarily be stored at earmarked site(s) only and it shall not be kept unutilized for long. The top soil shall be used for land reclamation and plantation.	The soil quality in the area is gritty and less fertile in nature; there is no significant top soil in the mine working areas, whatever the limited top soil got generated is being utilized for plantation as well as dump slope stabilization.
11	The existing overburden (OB) generated over during the course of mining shall be temporarily stacked at earmarked dump site(s) and re-handled. The entire quantity if the waste to be generated shall be backfilled. The back filled area shall be reclaimed by plantation.	Presently OB is being stacked in an identified location of ML area and the dump having no. of terraces with proper slopping and still active. It has also developed with garlanding drain and retaining wall along with 8000 Square meter Coir Geo-textile applications over OB dumps for stabilization with grass vegetation. Plantation of native species of 2050 no. of different varieties was carried on the dumps and peripheral area of ML area for the year 2010. Photocopies of the same is enclosed as Photo no-3
12	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and temporary OB dumps to prevent run off of water and flow of sediment directly into nearby water bodies. The water so collected shall be utilized for watering the mine area, roads, green belts development etc. The drains shall be regularly de-silted, particularly after the monsoon, and maintained properly.	No. of catch drains and sedimentation pits have been constructed around the mine working area. Time to time de-silting activity is followed after the monsoon and maintained properly. Photocopies of the same is enclosed as Photo # 4
13	Retention wall, Garland drain and sedimentation pit of appropriate length, gradient and size shall be constructed around mines pit, topsoil dumps, temporary overburden dumps and mineral dumps to prevent runoff of water and flow of sediments directly into nearby. Water bodies. Sedimentation pit shall be constructed at the corners of the garland drains and de-silted at regular intervals.	To prevent the silt carry over from the OB/Waste dumps being washed off during rains, retaining wall with garland drains, all around the dump has been made. Further it will be de-silted at pits/check dams, provided at the corners of garland drains, which are being de-silted on regular intervals to avoid the silt entry into near by water bodies with no. of terraces on dumps. Photocopies of the same is enclosed as Photo # 5
14	Dimension of the retaining wall at the toe of temporary OB Dumps to check run-off and siltation shall be based on the rain fall data.	The retaining walls got provided at the toe of dumps along with garland drains by considering rain fall data. The Photo of the same is enclosed as

		Photo# 5
15	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It shall be ensured that the ambient air quality parameters conform to the norms prescribed for industrial area.	No. of water tankers are being used for sprinkling purposes on haul roads. Crusher and screen plants are equipped with Dry fog systems as well as encapsulated with hoods for dust suppression. The Photo of the same is enclosed as Photo # 6
16	Regular monitoring of the water quality upstream and downstream of the nearby water bodies shall be carried out and record of monitored data shall be maintained and submitted to the state pollution control board once in every year.	Regular monitoring of water quality both upstream and downstream of different water bodies are being carried out and record of monitored data is being submitted to SPCB regularly. The analysis report is enclosed as Annexure-6.
17	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year- Pre-monsoon (April-May), monsoon (August), post-monsoon (November), winter (January) and the data thus collected shall be sent regularly to the state pollution control board.	Regular monitoring of ground water level and quality of different places of core and buffer zone is being carried out four times in a year: Pre-monsoon (April-May), monsoon (August), post-monsoon (November), winter (January) and the data thus collected is being sent regularly to the state pollution control board.
18	Appropriate mitigate measures shall be taken to prevent pollution of the nearby water bodies.	The mine drainage water is adequately treated in sedimentation tanks before disposal to nearby water bodies.
19	The mine shall obtain necessary prior permission of the competent authorities for withdrawal of requisite quantity of water (surface water and ground water, if any) required for mining.	We have got the NOC from CGWA, Govt of India for ground water withdrawal. Photocopy of the same is enclosed as annexure-10.
20	Vehicular emission shall be kept under control and regularly monitored.	Preventive and regular maintenance measures of vehicles used in mining operations and transportation of mineral is being carried out to keep the emissions under control.
21	The mineral transport shall be carried out through the covered trucks only and the vehicles carrying the mineral within the mine lease shall not be overloaded.	The vehicles are being covered with tarpaulin and steps are initiated to ensure that the trucks will not be overloaded.
22	No transportation of ore outside the mine lease area shall be carried out after the sunset.	Transportation is being restricted after the sunset.
23	No blasting shall be carried out after sunset. Blasting operation shall be carried out only during the day time. Controlled blasting shall be practiced. The mitigate measures for control of ground vibration and to arrest fly rocks and boulders shall	Presently the Blasting is being carried out during day time. Controlled blasting by using Nonel-technology is being practiced under strict supervision. Regular monitoring is being carried out by using

	be implemented	the Minimate and results reveal vibration is well within the permissible Limit.
24	Drills shall either be operated with dust extractors or equipped with water injection system.	We are using environmental friendly drilling machines with inbuilt dust suppression systems. The photo of the same is enclosed as photo no # 7
25	Mineral handling area shall be provided with adequate no. of high efficiency dust extraction/suppression system preferably dry fog system. Loading & unloading areas including all the transfer points shall also have efficient dust control arrangements. These shall be properly maintained and operated	Mineral handling areas are provided with mobile water sprinklers as well as loading and unloading points also. It is being maintained and operated properly towards effective function.
26	The mine shall provide hoods at transfer points, chutes shall be properly designed and vulcanizing of conveyor belt joints to control fugitive emission	Encapsulated hood system is provided at transfer point, chute and also conveyor belts to control the fugitive dust emissions. The photo of the same is enclosed as photo # 8
27	The ore right from primary crusher to the screening plant. OB dump to screening plant and for further processing shall be carried out through a system of closed conveyor belts in order to control the dust generation during transportation of iron ore from one place to another.	We have provided hoods to the conveyor belts in order to carry ore from primary crusher to screening plant in closed systems. The photo of the same is enclosed as photo # 8
28	Sewage treatment plant shall be installed for the colony if any. Other domestic waste water shall be discharged to soak pit through septic tank constructed as per BIS specification.	Not applicable, as we do not have any colony or township. At the same time we have provided STP for site specific domestic effluents. The photo copy of the same is enclosed as photo # 9.
29	ETP shall also be provided for the work shop and waste water generated during the mining operation. Oil and grease trap shall be installed for the treatment of workshop effluents	Service centre, waste water is being treated at ETP and the treated water is re-used for gardening purposes. Photo copy of the same is enclosed as Photo # 10.
30	Adequate ambient air quality monitoring station shall be established in the core zone as well as in the buffer zone for RSPM, SPM,SO ₂ , NO ₂ monitoring . Location of the station shall be decided based on meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring shall be undertaken in consultation with the regional officer, State pollution control Board.	Regular monitoring of the ambient air quality of the mine for SPM, RPM, SO ₂ and NO _x are being carried out on regular basis. The permanent monitoring stations got installed in consultation with the Regional Officer of the Board, State Pollution Control Board.
31	Data on ambient air quality (RSPM, SPM, SO ₂ , and NO ₂) submitted to the state pollution control board, once in six months.	The said data is being communicated bi-annually to State Pollution Control Board as mentioned. Copy of the same is enclosed as

		Annexure-4.
32	Fugitive dust emissions from all the sources shall be controlled regularly water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	Effective Water Spraying is carried out regularly in all areas with no. of water tankers to control the fugitive dust emissions.
33	Measures shall be taken for control of noise levels below 85dBA in the work environment.	It is being monitored by Noise Level Meter regularly; the results are well within norms. Copy of the same is enclosed as Annexure- 12.
34	Workers engaged in operation of HEMM, etc shall be provided with ear plugs/muffs	Earplugs are already provided to Workers engaged in Noise prone operations. Besides this we have provided the acoustic enclosures at all Machine operating cabins. All the workers engaged in high noise – prone areas have been provided with approved type of earplugs. The photo of the same is enclosed as photo # 7.
35	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	All the workers working in dusty areas have been provided with approved type of preventive masks and timely training regarding safety rules, is being carried out.
36	Mine shall abide-by the environment (protection) Act, 1986 and rules framed there under.	We will abide by the rules,
37	The mine shall abide by the conditions as laid down in the Environmental Clearance order issued by SEIAA, Orissa	We will abide the laid down conditions as per EC order issued by SEIAA, Orissa.
38	Plantation shall be raised around the mining lease, backfilled and reclaimed area, around crusher, roads etc, by planting the native species in consultation with the local DFO/Agriculture department. The density of plant shall be around 2500 plants per Ha.	About 2050 no. of native species sapling were planted across the dumps, roads, safety zones and ML area during the last monsoon. And also have another 5000 no. of saplings plan for coming monsoon. The photo copy of the same is enclosed as photo # 11.
39	The mine shall submit a declaration by 30 th April every year that all pollution control system are in good condition. Operated and ambient air quality and waste water quality conform to the prescribed standards	We are hereby confirming that with the above compliance all the pollution control equipments provided are in good condition and effective operations.
40	Failure to comply with any of the conditions mentioned above may result in withdrawal of clearance and attract action under the provisions of the different environmental Acts.	We will abide by the said conditions.

Regarding compliances to the conditions stipulated in Section A, B, C, D & E we will abide by the rules and regulations

Introduction to the project:

The Socio-economic part of environment deals with Social and economic dimensions of people, human interests, aesthetic and cultural attribute and these need careful examination for achieving desired social targets related to any project because after all people are the major stakeholders which is likely to enhance the economic activities in the area surrounding the Mines. The project is likely to create substantial impact on the social and economic conditions of the people of the region in terms of direct and indirect employment, skill diversification, infrastructure development, business development etc. Nevertheless, the possibility of some adverse effects of the present project cannot be ruled out. Therefore, it is essential to carry out a thorough socio-economic impact assessment of the present project. On this backdrop, the present study is directed towards the following objectives:

- A) To assess the impact of the project on agricultural situation.
- B) To assess the impact of the project on pattern of demand.
- C) To examine the impact of the project on consumption pattern.
- D) To examine the employment and income effects of the project.
- E) To assess the impact of the project on education.
- F) To judge people's perception regarding the project.

The **Thrivani Earthmovers Private Limited** company has assigned the work of **Socio economic survey** for Deojhar Iron Ore Mines to **JANASADHANA**, a registered non-govt. organization who is involved in such type of studies since ten years.

Socio-Economic Development Activities:

- **Infrastructure**

- Provided materials for Street Light Connections in nearby villages. – **Rs 2.5 lakhs** capital cost incurred .
- Repairing and black topping of Village Road connecting Road from Deojhar to Murgabeda. – **Rs. 59.00Lakhs incurred.**
- Repairing of interior village roads – **Rs 2.5 Lakhs.**

- **Education**

- The school at village Murgabeda got improved by providing the teaching facility with the appointment of teachers during 2009-10.
- Renovation of school building & compound wall,etc incurred cost of **Rs 1.25 lakhs.**
- Additional teachers have been posted in the adjoining villages at Cost of **Rs 0.54 Lakhs.**
- Distribution of Uniforms, Books, slates, pencil, etc to the school students Cost of **Rs 0.50 lakhs.**
- Mid day meal is being provided at free of cost for class IX & X at Deojhar High School, at **Rs 0.75 lakhs.**
- Facilitating the Independence & Republic Day functions at adjoining schools by funding the entire celebration by extending various tournaments among school children cost **Rs 1.00 lakhs.**
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- **Health**

- Health-Check-up camp covering adjoining villages and free supply of medicines

Rs 1.5 lakhs incurred in the year 2009-10

- Extending the Dispensary along with the ambulance facility to local villages with the availability Doctor & Staff and free medicine **Rs 7.5 lakhs towards the capital expenditure and further Rs 7.5 lakhs were spent towards the recurring expenditure.**

- **Drinking Water Facility & Sanitation**

- 2.No's of deep bore wells got provided at village Murgabeda – **Rs 1.75 lakhs** capital cost incurred .

- Regular & periodical supply of drinking water to the adjoining villages with the water tankers – **Rs 5.00 Lakhs recurring expenditure incurred**

- **Other peripheral activities**

- Murga Mahadev Temple renovation work (Bathing area has been tiled & guard bars, Cloth changing room, Glazed tiled Bench, etc) already completed and other jobs in progress costs **Rs 15.00 lakhs** (Projected)
- Regular maintenance of temple house keeping, etc costs **Rs 6.1 Lakhs**
- Guard wall at the bank of Mahadev –nalla towards its protection **Rs 2.5 lakhs**

- **Employment Opportunities**

- Locals from adjoining villages are engaged in various activities of mines.
- Besides the above Temple maintenance staff comprises 3.No. of Lady employees are from Local villages.
- Posting of additional teachers in schools from locality.
- Development of self-help groups for villagers are under planning.

Sports & Cultural Programmes under Deojhar Iron Ore Mine




Expenses Already Made towards Socio-economic / peripheral developmental activities under Deojhar Iron Ore Mines

Sl. No	Description	Already Done till date (Rs. In Lacs)
01	Infrastructure / Communication Facilities	59.00
02	Education	4.04
03	Health	16.5
04	Drinking water facility	6.75
05	Other peripheral activities	23.6
06	Total	109.89

Sl. No.	Public Hearing consents by the Project Proponent	Compliance Status
1	The Project Proponent assured with consultation with Govt. department and as per their advice they will adopt all the measures to keep the sound pollution under control especially during blasting.	As such there is no blasting due to availability of soft material and the excavation work is carried out by engaging excavators only.
2	To construct Check dam for Mahadevnasa nalla and for this the project proponent invited the village committee to come with a proposal for the same.	We ensure that natural watercourse of Mahadev nalla will not be obstructed due to our mining operations. As such necessary precautionary measures were well taken in consultation with Govt. bodies to avoid any sort of interference like providing guard wall at bank of Mahadev Nallah. The photo copy of the same is enclosed as photo # 1 .
3	Suitable dump management system to minimize the pollution and all wastes are being dumped inside the lease area	Presently OB is being stacked in an identified area inside ML Area by maintaining proper slope. It has also developed with garlanding drain and retaining wall along with 8000 Sq. Meter Coir Geo-textiles towards the vegetation & stabilization for critical area's of dump. The photo copy of the same is enclosed as annexure # 2 .
4	Company has formed an Environment cell and they are monitoring this on regular basis to keep this under control.	A separate environmental management cell is being in operation under the control of Project-HEAD Mines, which is looking after all environmental activities including Environmental Monitoring.
5	The Project proponent will give priority in employing skilled local people such as drivers, drillers, operators, etc. according to their qualification.	Local peoples are being given priority in employing skilled local people such as drivers, drillers, operators, etc. according to their qualification.
6	The Project proponent assured that they will re-open all the schools in Murgabeda Village those are not running at present and will appoint 4 teachers in those Schools on permanent basis.	The School is running effectively with engagement of teaching facilities with appointment of teachers. Study materials like books, slates, pencils etc are being provided. Mid day meal is provided at free of cost for class IX & X at Deojhar High School.

7	The project proponent is already supplying drinking water to Murgabeda villages through water tanker and will continue this facility.	2 no. of bore wells with drinking water facilities are provided for the villagers of the Muragbeda, about a population of around 1000 no.s. De-silting of the ponds are being carried out on regular basis. The photo of the same is enclosed as photo # 3 .
8	The Project proponent is ready to construct inter village connecting roads in Murgabeda village and they invited proposal from the village committee for the same.	Inter connecting village roads are provided with black top road of 1.5 Km, completed towards dust suppression. The photo of the same is enclosed as photo # 4.
9	The project proponent has already opened a dispensary here for locals for availing medical facility free of cost where a doctor is available. One Ambulance is always available there at service.	Medical facilities like dispensary and ambulances are being provided. Medical health camp is being organized at regular intervals for the local villagers. The photo of the same is enclosed as photo # 5.
10	Regarding electrification in village, the we requested the concerned Village committee along with the Surpuncha to come with the latest status and the proposal so that they can support and assist the village committee in electrification in the villages.	It is being carried out with the village committee members by providing materials for Street Light Connections to nearby villages.
11	The Project Proponent assured that they are following all the Govt. rules regarding employment and statutory payments.	It is being followed.
12	The project proponent requested the Murgabeda Temple committee to come with a proposal so that they can consider for it's renovation.	Temple renovation work is under progress with the proposals of Temple Committee members. The bathing area has been developed with anti slippery tiles and guard bars and a cloth changing room has been provided. Two no's of maintenance staff and 3 no's of female labourers have been provided for proper up- keep of the temple.

BY REGD. POST



FAX : 2562922/2562865
Tel : 2564033/2562724
TPAAX : 2561909/2562847
E-mail: paribesh@ospcb.org.in
Website: www.ospcb.org

STATE POLLUTION CONTROL BOARD, ORISSA
[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ORISSA]
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII
Bhubaneswar – 751 012, INDIA

FORM 2
[See rules 5(4)]

GRANT OF AUTHORIZATION FOR GENERATION, HANDLING, COLLECTION, STORAGE, AND DISPOSAL OF HAZARDOUS WASTE

1. Number of authorization IND-IV-HW-845 - 20915 and date of issue 2009.
2. **DEOJHAR IRON ORE MINES OF M/S TARINI MINERALS (P) LIMITED** is hereby granted an authorization to operate a facility for generation, handling, collection, storage and disposal of hazardous waste on the premises situated at/ **PO-DEOJHAR, JODA, TEHSIL-BARBIL, DIST-KEONJHAR.**
3. The authorization shall be in force for a period up to **31.03.2014**.
4. The authorization is subject to the conditions stated below and the such conditions as may be specified in the Rules for the time being in force under the Environment (Protection) Act, 1986.
5. The applicant shall handle hazardous waste as specified below:

Sl.No.	Stream	Schedule	Waste Description	Quantity	Disposal
1.	5.	1	Used Oil	6.0KL/A	To registered recycler.
2.	5.	1	Waste containing oil	500 kg/A	To an impervious pit



GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
MOCM CENTRAL ZONE

REGISTERED

No. 3143 (MOCM-MO.CMZ) 2008-09

Nagpur, Dated: 25 October, 2008

To,

M/s Tarmi Minerals (P) Ltd.,
Boudkela, Joda,
District - Keonjhar, Orissa.

Sub :

Approval of Modifications in approved Scheme of Mining of Deogarh Iron Mines of M/s Tarmi Minerals (P) Ltd. over an area of 34.368 hectares, near village Deogarh in Keonjhar District of Orissa, submitted under rule 10 of MCR, 1988.

Ref :

1. Your RQP's letter no. NH, dated 24.08.2008.
2. This office letter of even no. dated 18.09.2008.
3. Your RQP's letter no. NH, dated 12.10.2008.
4. This office letter of even no. dated 20.10.2008.
5. Your RQP's letter no. NH, dated 24.10.2008.

Sr,

In exercise of the powers delegated to me under rule 10(1) of Mineral Conservation & Development Rules, 1988 with Govt. Notification No.T 43010/CL/MS/88 dated 27-4-1988, I hereby approve the modifications in the approved Scheme of Mining in respect of Deogarh Iron Mine of M/s Tarmi Minerals (P) Ltd. over an area of 34.368 hectares in Keonjhar District of Orissa submitted under rule 10 of MCR, 1988. This approval is subject to the following conditions in addition to the conditions imposed while approving the Scheme of Mining vide letter No. MS-OTF-MS/CL/27-OR/10/2007-08 dated 17.10.2008.

- (i) This modification in the approved Scheme of Mining is approved without prejudice to any other laws applicable to the mine from time to time whether made by the Central Government, State Government or any other authority.
- (ii) It is clarified that this approval of modification in the approved Scheme of Mining does not, in any way, imply the approval of the Government in terms of any other provision of the Mines & Minerals (Development & Regulation) Act, 1957 or the rules framed there under or any other laws.
- (iii) It is further clarified that this approval of modification in the approved Scheme of Mining is subject to the provisions of Forest (Conservation) Act, 1980, Forest Conservation Rule 1983 and other relevant statutes, orders and guidelines as and so applicable to the mine from time to time.
- (iv) It is further clarified that this approval of modification in the approved Scheme of Mining is subject to the provision of the Mines Act 1952 and the regulations made thereunder including submission of names of opening, appointment of manager and other statutory officials.
- (v) The execution of modification in the approved Scheme of Mining shall be subject to violation of prohibitory orders/orders, if any.
- (vi) The approval of mining plan and proposed scheme shall be valid to the mining lease area only.
- (vii) If anything is found to be conceded as required by the Mines Act in the context of the mining plan and the proposals for modification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

cc: File, D. Area, India House, Col. Lt. W. Nagar - 44102.
Email: dmz_cz@ibm.gov.in Fax: 0712/2425643 Telex: 10712/2505803

Details of Ambient Air Quality Monitoring Stations fixed under core & buffer zone of Deojhar Iron ore Mining Project of M/s.TARINI MINERALS PVT.LTD District: Keonjhar, Orissa.

Identification/ Abbreviation of air Quality Sampling Stations.

Station No.	Identification	Location
1	A1	Mines-site-office.
2	A2	Village -Murgabeda
3	A3	Village - Mahadev Nasa
4	A4	Village - Boneikela
5	A5	Village - Bhadrasahi

**Summarised Ambient Air Quality Monitoring Report : Deojhar Iron Ore Mining Project
of M/s. Tarini Minerals (P) Ltd., District; Keonjhar, Orissa.**

Sampling location	Month	Quality Parameter, Results,micro.gm/CUM				
		Range	SPM	RPM	SO2	NOx
A1, Mines Office-Site (Industrial)	Apr-10	Max	302.3	94.6	11.3	16.9
		Min	214.2	82.5	4.6	7.0
		Avg.	267.5	89.4	8.2	13.5
	May-10	Max	332.5	96.8	10.0	15.3
		Min	226.6	74.3	4.2	8.6
		Avg.	283.5	88.3	5.0	11.0
	Jun-10	Max	367.8	91.4	14.3	18.4
		Min	292.4	82.3	4.2	9.0
		Avg.	332.2	86.7	7.0	13.4
A2, Village Murgabeda (Residential)	Apr-10	Max	132.5	77.5	7	14.2
		Min	78.4	44.32	4.2	8.2
		Avg.	112.6	56.2	5	11
	May-10	Max	141.2	58.9	9.0	14.2
		Min	88.3	44.3	5.4	9.2
		Avg.	114.5	49.8	7.1	11.0
	Jun-10	Max	160.4	62.0	10.0	16.2
		Min	142.3	44.2	3.2	5.6
		Avg.	151.6	54.0	5.1	8.0
A3,Village Mahadev-Nasa (residential)	Apr-10	Max	131.2	82.2	8	14
		Min	79.2	52.3	5.3	9.8
		Avg.	102.3	59.3	6.2	10.3
	May-10	Max	149.8	74.3	11.4	15.1
		Min	89.6	51.6	3.9	6.2
		Avg.	111.5	56.9	5.6	9.4
	Jun-10	Max	145.2	72.6	7.0	11.3
		Min	122.3	47.8	4.1	8.1
		Avg.	135.0	55.4	5.7	6.3
A4, Village Boneikela (Residential)	Apr-10	Max	136.5	91.5	16.2	21.5
		Min	113.6	64.1	7.1	14.2
		Avg.	120.6	68.9	11.6	17.2
	May-10	Max	140.4	89.1	11.2	23.2
		Min	125.3	66.3	7.5	13.8
		Avg.	136.2	71.4	9.1	16.1
	Jun-10	Max	131.2	84.2	11.2	17.8
		Min	119.6	62.1	4.2	7.2
		Avg.	127.8	77.4	6.3	12.2
A5, Village Bhadrasahi (Residential)	Apr-10	Max	140.7	82.2	14.1	19.4
		Min	123.7	46.0	4.1	9.7
		Avg.	134.5	55.2	9.5	13.6
	May-10	Max	151.23	86.3	11.2	18.4
		Min	132.2	51.3	5.2	9.1
		Avg.	141.8	56.9	8.1	14.2
	Jun-10	Max	132.4	74.1	12.3	14.2
		Min	92.5	42.1	4.1	8.4
		Avg.	116.2	56.9	9	12.5

OFFICE OF THE DIVISIONAL FOREST OFFICER, KEONJHAR DIVISION.

No 2050 Mining
Dated Keonjhar The 9th April 2009

To
M/s Tarini Minerals Pvt. Ltd.
At/Po - Joda,
Dist. - Keonjhar

Sub- Authentication of Flora, Fauna available in core zone & buffer zone and location map in respect of Deojhar Iron Ore Mines of M/s Tarini Minerals Pvt. Ltd. in Keonjhar District.

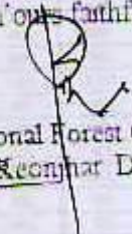
Ref Your letter No. ml dt. 01.02.2009

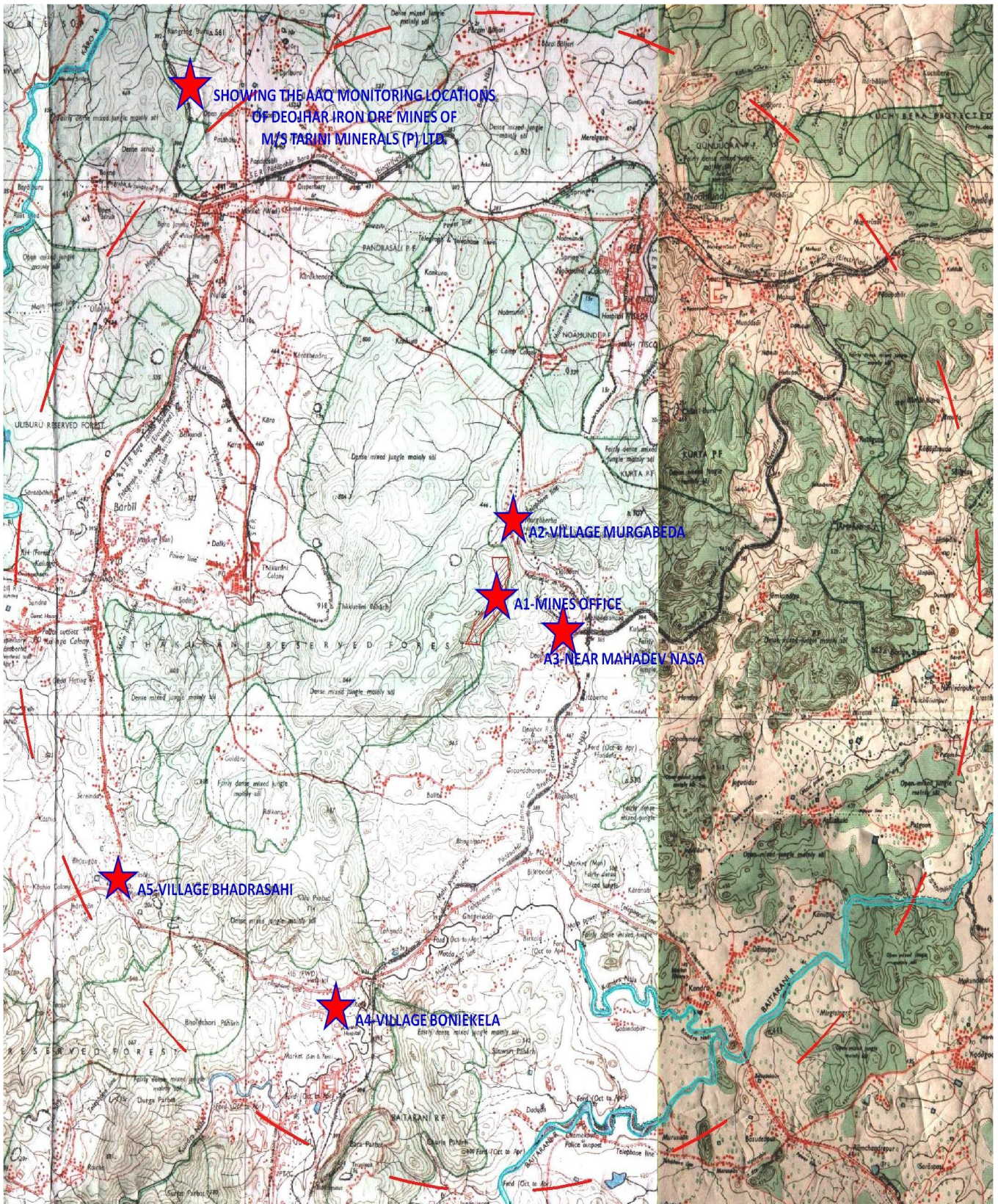
Sir,

With reference to your above cited letter, the lists of Flora & Fauna available in Core zone & Buffer zone and location map showing the distance from National Park, Sanctuary, Wildlife corridors, Biosphere reserve, Tiger elephant reserves etc. within 10 Kms. of the above Mining Lease area of 34.365 Ha. are authenticated. The said list of Flora, Fauna and location map are enclosed herewith for necessary action at your end.

Enclosure - As above

Yours faithfully,


Divisional Forest Officer,
Keonjhar Division



**Summarised Surface Water Quality Monitoring Report : Deojhar Iron Ore Mining Project of
M/s Tarini Minerals (P) Ltd. District; Keonjhar, Orissa.**

For the Period: Monsoon

A. PHYSICAL			SW1	SW2	SW3
1	Colour (apparent)	Hazen	4.00	4.60	4.90
2	Odour	--	Odourless	Odourless	Odourless
3	Taste		Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	34.0	32.8	5.2
5	pH	--	6.92	6.96	6.74
6	Electrical Conductivity (EC)	$\mu\text{S/cm}$	209	209	108
7	Total Suspended Solids (TSS)	mg/l	15.0	17.0	20.0
8	Total Dissolved Solids (TDS)	mg/l	102.0	104.0	54.4
9	Total Solids (TS)	mg/l	117.0	121.0	74.4
B. CHEMICAL					
10	Calcium Hardness as CaCO_3	mg/l	32.00	32.00	22.00
11	Magnesium Hardness as CaCO_3	mg/l	18.00	20.00	8.00
12	Total Alkalinity	mg/l	42.0	42.0	30.0
13	Total hardness	mg/l	50.0	52.0	30.0
14	Silicate as SiO_4	mg/l	1.69	1.21	0.90
15	Chloride as Cl^-	mg/l	10.0	9.0	6.0
16	Residual Chlorine	mg/l	BDL	BDL	BDL
17	Phenolic compound as $\text{C}_6\text{H}_5\text{OH}$	mg/l	BDL	BDL	BDL
18	Sulphate as SO_4	mg/l	15.00	16.00	16.00
19	Nitrite-Nitrogen ($\text{NO}_2\text{-N}$)	mg/l	0.011	0.010	0.012
20	Nitrate-Nitrogen ($\text{NO}_3\text{-N}$)	mg/l	2.230	2.180	1.130
21	Phosphate-P ($\text{PO}_4\text{-P}$)	mg/l	0.040	0.090	0.150
22	Ammonical Nitrogen ($\text{NH}_4\text{-N}$)	mg/l	0.019	0.017	0.022
23	Free Ammonia (NH_3)	mg/l	BDL	BDL	BDL
24	Chemical Oxygen Demand (COD)	mg/l	6.80	7.40	4.40
25	Dissolved Oxygen (DO)	mg/l	5.98	6.93	3.78
26	Biochemical Oxygen Demand (BOD) at 20°C for 5days	mg/l	4.45	5.08	2.08
27	Oil and grease	mg/l	0.0	0.0	0.0
28	Fluoride F^-	mg/l	BDL	BDL	BDL
29	Sodium (Na)	mg/l	4.86	4.22	2.57
30	Potassium (K)	mg/l	6.53	7.06	1.41
31	Calcium as Ca^{2+}	mg/l	12.80	12.80	8.80
32	Magnesium as Mg^{2+}	mg/l	4.40	4.90	1.90
33	Iron (Fe)	mg/l	1.83	1.91	2.07
34	Copper (Cu)	mg/l	BDL	BDL	BDL
35	Manganese (Mn)	mg/l	0.018	0.022	0.033
36	Arsenic (As)	mg/l	BDL	BDL	BDL
37	Lead (Pb)	mg/l	BDL	BDL	BDL

38	Zinc (Zn)	mg/l	0.029	0.033	0.039
39	Hexavalent Chromium (Cr ⁺⁶)	mg/l	BDL	BDL	BDL
40	Chromium (Cr)	mg/l	BDL	BDL	BDL
41	Mercury (Hg)	mg/l	BDL	BDL	BDL
42	Cadmium (Cd)	mg/l	BDL	BDL	BDL
43	Selenium (Se)	mg/l	BDL	BDL	BDL
44	Aluminium (Al)	mg/l	BDL	BDL	BDL
45	Boron (B)	mg/l	BDL	BDL	BDL
C. BACTERIOLOGICAL					
46	Total Coliform at 37 ⁰ C	MPN index / 100ml	10.3	10.2	10.1

BDL Below Detection Limit

Station Code	Location
SW-1	U/S SUNA NADI
SW-2	D/S SUNA NADI
SW-3	BAITARINI RIVER

Summarized Ground water Quality Monitoring Report: Deojhar Iron Ore Mining Project of M/s Tarini Minerals (P) Ltd, District; Keonjhar, Orissa

A. PHYSICAL			GW1	GW2	GW3	GW4	GW5	GW6	GW7
1	Colour (apparent)	Hazen	1.90	2.20	2.50	2.20	2.50	2.30	2.50
2	Odour	--	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless
3	Taste		Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	0.7	1.2	2.8	0.2	0.4	0.4	1.2
5	pH	--	6.6	6.7	6.44	6.65	6.43	6.68	6.52
6	Electrical Conductivity (EC)	µS/cm	76.2	1250	438	678	760	676	543
7	Total Suspended Solids (TSS)	mg/l	1.0	2.0	3.0	1.0	1.0	1.0	3.0
8	Total Dissolved Solids (TDS)	mg/l	37.8	600	2180	336	381	341	270
9	Total Solids (TS)	mg/l	38.8	602.0	221.0	337.0	382.0	342.0	273.0
B. CHEMICAL									
10	Calcium Hardness as CaCO ₃	mg/l	12.00	214.00	66.00	98.00	110.00	84.00	80.00
11	Magnesium Hardness as CaCO ₃	mg/l	2.00	180.00	57.00	110.00	62.00	120.00	94.00
12	Total Alkalinity	mg/l	8.0	176	112	154	62	136	132
13	Total hardness	mg/l	14.0	394	132	208	172	204	174
14	Silicate as SiO ₄	mg/l	0.87	5.41	2.43	1.79	3.10	12.46	7.30
15	Chloride as Cl ⁻	mg/l	9.0	37.8	15.0	19.0	31.9	28.9	14.0
16	Residual Chlorine	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
17	Phenolic compound as C ₆ H ₅ OH	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
18	Sulphate as SO ₄	mg/l	0.60	54.00	2.20	8.60	2.10	11.00	2.60
19	Nitrite-Nitrogen (NO ₂ -N)	mg/l	0.023	0.011	0.013	0.040	0.026	0.011	0.008

20	Nitrate-Nitrogen (NO ₃ -N)	mg/l	2.800	5.320	2.450	2.160	2.050	3.000	5.070
21	Phosphate-P (PO ₄ -P)	mg/l	0.060	0.170	0.120	0.110	0.140	0.160	0.110
22	Ammonical Nitrogen (NH ₄ -N)	mg/l	0.036	0.019	0.022	0.074	0.048	0.019	0.011
23	Free Ammonia (NH ₃)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
24	Chemical Oxygen Demand (COD)	mg/l	2.20	3.10	2.60	2.80	3.10	3.00	3.20
25	Dissolved Oxygen (DO)	mg/l	---	---	---	---	---	---	---
26	Biochemical Oxygen Demand (BOD) at 20°C for 5days	mg/l	---	---	---	---	---	---	---
27	Oil and grease	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
28	Fluoride F ⁻	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
29	Sodium (Na)	mg/l	2.45	12.60	10.71	11.20	12.08	11.32	11.44
30	Potassium (K)	mg/l	2.57	0.85	0.73	0.52	10.74	0.71	0.46
31	Calcium as Ca ²⁺	mg/l	4.80	85.60	26.40	39.20	44.00	33.60	32.00
32	Magnesium as Mg ²⁺	mg/l	0.50	43.70	13.90	26.70	15.10	29.20	22.80
33	Iron (Fe)	mg/l	0.55	0.46	0.48	0.78	0.69	0.91	0.68
34	Copper (Cu)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
35	Manganese (Mn)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
36	Arsenic (As)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
37	Lead (Pb)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
38	Zinc (Zn)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
39	Hexavalent Chromium (Cr ⁺⁶)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
40	Chromium (Cr)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
41	Mercury (Hg)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
42	Cadmium (Cd)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
43	Selenium (Se)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
44	Aluminium (Al)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL

45	Boron (B)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C. BACT ERIOLOGIC AL									
46	Total Coliform at 37°C	MPN index / 100ml	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL Below Detection Limit

Station Code

Location

GW-1	BOREWELL INSIDE ML AREA
GW-2	BOREWELL, BILEIPADA
GW-3	BOREWELL, DEOJHAR
GW-4	BOREWELL, MAHADEV NASA
GW-5	BOREWELL, DALDIR
GW-6	BOREWELL, MURGABEDA
GW-7	BOREWELL, NUAMUNDI

DEOJHAR IRON ORE MINES
M/S TARINI MINERALS (P) LTD.
PLANTATION DETIALS

Plantation details		
Deojhar Iron Ore Mines of M/s Tarini Minerals (P) Ltd.		
Sl. No.	Year	No. of tress
1	2004-05	1900
2	2005-06	1200
3	2006-07	2000
4	2007-08	2400
5	2008-09	3100
6	2009-2010	3623
7	2010-2011	2050
8	Cumulative	16273

ANNEXURE - VII

F. No. 8-216/1952-FC
 Government of India
 Ministry of Environment & Forests
 (E.C. Division)

Pradywan Bhasin,
 CGO Complex, Lodhi Road,
 New Delhi - 110 003,
 Dated: 10th March, 2004.

To
 The Principal Secretary (Forests),
 Government of Orissa,
 Bhubaneswar

Sub: Diversion of 36.42 ha of Reserved forest land (Thakurani RF) in Keonjhar district for mining of iron ore by Sri Niranjan Patraik (now M/s Tarini Minerals (P) Ltd.) - Making the forest clearance co-terminus with Mining Lease period regarding.

Sir,

I am directed to refer to your letter No. 10F (Coast)-2007/1287 dated 17.07.2007 on the above cited subject, wherein the Ministry of Environment & Forests has been requested to make the forest clearance co-terminus with the revised Mining Lease period in respect of the above said proposal, under Section 2 of the Forest (Conservation) Act, 1980. The State Government of Orissa has also informed that the said Mining Lease has been transferred by the State Government from Sri Niranjan Patraik to M/s Tarini Minerals P. Ltd. with prior approval of the Ministry of Mines, Government of India.

Ministry of Environment and Forests had accorded approval under Section 2 of the Forest (Conservation) Act, 1980 for diversion of 34.265 ha of forest land in Keonjhar district, Orissa, for mining lease in favour of Sri Niranjan Patraik for a period of ten years, subject to certain conditions, vide letter dated 31.03.1993.

The request of the State Government of Orissa has been examined in the Ministry of Environment and Forests. After considering the above request of the State Government of Orissa and careful examination of all the aspects in detail, the Central Government hereby grants approval to extend the period of diversion of forest land, earlier granted by the Ministry of Environment & Forests under the said Act, in make the forest clearance co-terminus with the period of Mining Lease granted by the State Government of Orissa i.e. upto 04.09.2014. However, it has been observed that prior permission of the Ministry of Environment & Forests has not been obtained while transferring the lease from Sri Niranjan Patraik to M/s Tarini Minerals P. Ltd. and, therefore, this has been treated as a violation of the Forest (Conservation) Act, 1980 and, it has been decided that the User Agency shall be liable to pay Penal Compensatory Afforestation over an equal amount of non-forest land.

Accordingly the above approval by the Ministry of Environment & Forests shall be subject to the following conditions:-

1. The non-forest land to the extent of 36.42 ha identified for the purpose of Compensatory Afforestation shall be transferred and mutated in favour of the State Forest Deptt followed by its notification as Reserved Forest / Protected Forest.
2. Penal Compensatory Afforestation shall be raised and maintained over an equal amount of non-forest land at the project cost. For this purpose, the User Agency shall identify / make available suitable non-forest land in consultation with the State Government. The non-forest land so identified and made available shall be considered and mutated in the name of the State Forest Department and shall be declared as Reserved Forest / Protected Forest.

[Handwritten signature]
 10/3/04

Annexure-10: Environmental Expenditure

Environmental Expenditure of Deojhar Iron ore Mining Project of M/s.Tarini Minerals Pvt Ltd, District: Keonjhar, Orissa.			
		Cost, Rs.in lacs	
Sl.No.	Activity	Year 2009-10	Year 2010-11
1.0	Dust Suppression		
1.1	Dry-fog system installed	6.00	2.45
1.2	Arrangement of wetting provision at drilling machine.	0.60	0.65
1.3	Purchasing of water tankers. two.no.s for water sprinkling.	17.00	3.0
2	Green Belt and a forestation.	0.6	0.82
3	Purchasing of monitoring equipments	4.00	1.24
4	Occupational Health & Hygiene	2.5	1.4
5	Rain water harvesting structures	4.2	1.25
6	Check dams, retaining wall etc	6.00	2.4
7	Site specific sewage treatment plant.	7.5	0.61
8	Dump stabilization with Coir-Geo textiles and vegetation	6.00	2.3
9	Service centre cum ETP for vehicle wash out water	1.00	0.21
Total amount incurred		55.4	16.33

Annexure-11

No. 21-4(94)/SER/CGWA/2008-1790
Government of India
Ministry of Water Resources
Central Ground Water Authority
A 2, W 3, Curzon Road Barracks
Kasturba Gandhi Marg
New Delhi 110001

Dated:

31 DEC 2008

To,

M/s Tarini Minerals (P) Limited
Deojhar Iron Ore Mines
Boncikela, Joda,
District Keonjhar-758034, Orissa

Sub: No Objection for withdrawal of ground water by M/s Tarini Minerals (P) Limited, for the expansion programme of Deojhar Iron Ore mines located at Village Deojhar, Block Joda, Tehsil Barbil, District Keonjhar, Orissa -reg.


Sir,

Kindly refer to your letter dated 29.10.2008 on the above-cited subject. As the above mentioned site falls in 'Safe Category' area on ground water resource considerations, Central Ground Water Authority has no objection for the proposed additional withdrawal of 2000 m³/day of ground water in respect of M/s Tarini Minerals (P) Limited, for the expansion programme of Deojhar Iron Ore mines located at Village Deojhar, Block Joda, Tehsil Barbil, District Keonjhar, Orissa.

However, taking into consideration the adverse effect of the ground water withdrawal that may arise on long term basis, the firm/industry is advised to implement Rain Water Harvesting and Conservation measures, Recycling and Re-use of water and Monitoring of the ground water levels in and around the area as per the hydrogeological investigation. The data may be submitted to this office for perusal.

The NOC is valid till the area remains under Safe Category on ground water resource consideration, or, for a period of five years from the date of issue of this letter, whichever is earlier.

Yours faithfully,


(S Bhattacharya)
Scientist 'D'
for Member Secretary

Copy for information to:

- 1) The Regional Director, CGWB, SER, Bhubaneswar.
- 2) The TS to Chairman, CGWB, NII -IV, Fariabad.

(S Bhattacharya)
Scientist 'D'
for Member Secretary

DEOJHAR IRON ORE MINES
M/S TARINI MINERALS (P) LTD.
WORK-ZONE NOISE LEVEL MONITORING

QF/DIOM/EMP/WZN/03

Date of Monitoring	WORK-ZONE	NOISE LEVEL, dB (A) from data log of monitor.		
		Min	Max	Leq.
08-09-2010	Screening Plant area	66.3	74.3	69.2
08-09-2010	Loading Point	60.6	67.32	63.4
09-09-2010	Weigh Bridge	54.5	62.2	58.4
09-09-2010	Site-Office	43.62	60.1	54.5
10-09-2010	Village-Murgabeda (Res)	28.3	49.4	36.4
11-09-2010	Village-Mahadev Nasa (Res)	29.3	42.7	36.4
12-09-2010	Village-Boneikela (Res)	42.42	53.4	48.56
13-09-2010	Village-Bhadrasahi (Res)	30.2	57.3	37.2
14-09-2010	Village-Deojhar (Res)	32.3	51.4	45.7
Norm	Residential. Leq	Day Time : 55 dB (A) , Night Time : 45 dB (A)		
	Industrial, Leq	Day Time : 75 dB (A) , Night Time : 70 dB (A)		
	Work-zone during 8 Hr exposure: 85 db (A) – Leq.			

Remarks: The Noise Level is very well within Norms.